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VALLEY FORGE HISTORICAL RESEARCH REPORT

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May, 1980

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THE VALLEY FORGE REPORT

VOLUME II

THIS FATAL CRISIS:

Logistics, Supply, and the Continental Army at Valley Forge, 1777-1778

Jacqueline Thibaut
Research Historian

Valley Forge National Historical Park

1979

"The occasional deficiencies in the Article of Provisions, which we have often severely felt, seem now on the point of resolving themselves into this fatal Crisis, total want and dis-olution of the Army."

George Washington
Valley Forge
February 7, 1777

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Courtesy of Independence National Historical Park

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PREFACE

The support services which permit an army to operate in the field are subjects not often enthusiastically embraced, even by military historians. The works which deal in depth with this aspect of warfare in the modern English-speaking world, can probably be counted upon two hands. Quartermasters and commissaries may not lend themselves naturally to scintillating prose, but as historians are seldom deterred by material which proves enervating to other mortals, one must seek elsewhere for an explanation for the neglect.

The correspondence and returns laboriously inked by support service menials are not particularly difficult to interpret, once the material culture terminology of the period has been mastered. The problem seems to be that the subject falls between the interests of traditional military historians on one hand and the growing host of what are generally termed social historians on the other. For the early Revolutionary period, too, sources are widely scattered, and maddeningly incomplete. The mazelike

proliferation of offices and sub-officials presents, at first, a dauntingly confusing spectacle. Personalities, financial interests, local politics and rampant factionalism further cloud an already perilously obfuscated scene. The analyst who seeks to make the organizational structures of the "public services" conform, during this early period, to neatly pyramiding levels of authority, will labor in vain. Lines of authority crossed, responsibilities were shared in a none-too-logical fashion, and orders often conflicted. Yet operating within this chaos, in a manner not readily apparent to denizens of 20th century corporate culture, was an internal system of values, finance and personal interrelationships which if not supremely functional, at least allowed necessary tasks to get done in a fashion which was sometimes remarkably direct. The system was thrown out of gear as often by unavoidable obstacles, particluarly bad weather and impassable roads, as it was by administrative inefficiency.

Part of the purpose of this study had been to hold a magnifier to the ordinary dealings of support service personnel, in order to discern in the clearest manner possible, how the various branches operated, or failed to operate during the Valley Forge winter. In so doing it has become evident, as common sense would dictate, that the lives of many of the under officials, sub deputies, artisans and laborers were spun out in unrelenting drudgery. The loudly extolled glories of the battlefield, the comings and goings of exotic foreign officers, the machinations

of diplomats in far-flung rococo drawing rooms, were distant things to a sailmaker manufacturing tents at Reading. The army, to hazard the obvious, depended for its existence upon the sailmakers, blacksmiths, coopers, harnessmakers, carpenters, wheelwrights and the whole shadowy host of manufactures, craftsmen and laborers, who fashioned raw materials into the clothing the men wore, the camp equipage they used, and the arms with which they fought. A few of these personages, as Philadelphia committeemen and associators, had briefly basked in the sunlight of great events and modest public acclaim, but most lived and worked in unmitigated obscurity. Thus the reader will perhaps be mildly startled to discover that with the exception of such obvious and central actors as Washington, Nathanael Greene, Henry Knox and a handful of others, this work delves into the activities of men with whom even the most assiduous student of the Revolution may be entirely unfamiliar. In some instances this obscurity was wholly deserved; in others it was not. The unsung drudge and the avaricious charlatan, both conspicuously absent from our more hagiographic historical literature, were at the center of the revolutionary effort. Without reference to their mundane occupations, analyses of the Revolution as a military event and as a social paroxysm, are incomplete.

Acknowledgements

The Valley Forge Historical Research Project and Report is the product of many minds. It was conceived in 1976 by the late Charles Funnell, historian for the Mid-Atlantic Region of the National Park Service, together with John Bond, Regional Historian, amd Dr. S. Sydney Bradford, Associate Director for Planning and Resource Preservation. The burden of sustaining the project through to completion during the ensuing three years was assumed with grace and forbearance by H. Gilbert Lusk, Superintendent of Valley Forge National Historical Park, and Valley Forge Chief of Interpretation W. Eugene Cox.

The project was launched in August of 1977, employing five research historians to gather photocopies of period documents from over two hundred archives in the United States, England, and France. The success of the project was in large part attributable to the thoroughness of their investigations. The three historians engaged in the project for this collection phase, and whose efforts were so essential to the project, were Michael Lawson, David Rich, and Harry Roach.

At a stage when the first draft of the report was nearing completion, in the summer of 1979, Dr. John Shy of the University of Michigan at Ann Arbor was engaged to review the manuscript and provide editorial comment and advice prior to the completion of the report. His extensive suggestions have as far as possible been incorporated in the report. The authors owe a professional as well as personal debt of gratitude to Dr. Shy one that extends

beyond their obvious admiration for his scholarship.

Dr. Michael Zuckerman of the University of Pennsylvania read and offered a critique of Volume I of the work, and was unstinting of his generous assistance.

During the course of the project, hundreds of personnel from public and private archives and historical societies gave unstintingly of their time and professional expertise. The highest encomiums were earned by the staff of the Historical Society of Pennsylvania and the special courtesy extended by Dr. James Mooney, Director, and Peter Parker, Director of Manuscripts, and his staff. The many hours expended in the interest of the Valley Forge project by Mr. Parker and his assistant are gratefully acknowledged.

To the directors and staffs of the following archives and repositories the authors offer their profound thanks:

Allentown (PA) Public Library, American Antiquarian Society, American Museum of Jewish History, American Philosophical Society, Archives de l'Armée de la Terre (Paris), Berks County (PA) Historical Society, Bibliotheque Nationale (Paris), Bishop Mills (PA) Historical Institute, Boston Public Library, British Library, Brown University Libraries, Bucks County (PA) Historical Society, Claremont College (Honnold Library), William L. Clements Library of Americana, College of Physicians of Philadelphia, Connecticut Historical Society, Connecticut State Library, Delaware County (PA) Historical Society, Delaware Department of Vital Statistics, Delaware Hall of Archives and History, Detroit Public Library, Dickinson College (Spahr Library), Duke University Library, Duke University Medical Center Library, Eleutherian Mills Historical Library, Essex Institute (Salem, MA), Franklin Institute, Free Library of Philadelphia, Friends Historical Society (Swarthmore College), Georgia Department of Archives and History, Georgia Historical Society, Greene County (PA) Historical Society, Harvard University Library, Historical Society of Delaware, Historical Society of Wisconsin, Hopewell Village National Historical Site, Huntington Library (San Marino, CA), Independence National Historical Park Library, Illinois Historical Survey, Jefferson Medical Library (Philadelphia), Kent County (England) Archives, Lafayette College Library, Lancaster County (PA) Historical Society,

Lehigh County (PA) Historical Society, Library Company of Philadelphia, Library of Congress of the United States, Library of South Caroliniana, Litchfield (CN) Historical Society, Long Island Historical Society, Maryland Historical Society, Massachusetts Historical Society, Massachusetts State Archives, Mills College Library, Ministère des Affaires Étrangerès (Paris), Montgomery County (PA) Court House, Montgomery County (PA) Historical Society, Moravian Archives (Bethlehem, PA) Morristown National Historical Park Library, Muhlenberg College Library, National Archives of the United States, National Army Museum (London), New Hampshire Historical Society, New Haven Colony (CN) Historical Society, New Jersey Bureau of Archives and History, New Jersey Historical Society, New York Historical Society, New York Public Library, New York State Historical Association, New York State Library, North Carolina Department of Archives, Northampton County (PA) Historical Society, Nottingham (England) University Library, Ohio Historical Society, Pennsylvania Historical and Museum Commission, Pennsylvania Hospital Medical Library, Pennsylvania State Archives, Philadelphia City Archives, Philadelphia City Hall, Pierpont Morgan Library, Presbyterian Historical Society, Princeton University Library, Public Records Office (England), Reed Collections, Rhode Island Historical Society, Rosenbach Foundation (Philadelphia), Royal Artillery Institution (England), Royal Maritime Museum (England), Rutgers University Library, St. John's Seminary (Doheny Library), Schuylkill County (PA) Historical Society, Schwenkfelder Library (Pennsburg, PA), Sheffield (England) Public Library, Shippensburg (PA) Public Library, Shippensburg (PA) State College (Lehman Library), Staten Island Historical Society, South Carolina Archives, South Carolina Historical Society, Sussex County (DE) Court House, Sussex County (DE) Historical Society, Tioga Point Museum (Athens, PA), Union College Library, United States Military Academy at West Point Library, University of California at Berkeley Library, University of California at Los Angeles Research Library, University of Chicago Library, University of Georgia at Athens Library, University of North Carolina at Chapel Hill Library and Southern Historical Collection, University of Pennsylvania Libraries, University of Virginia Library, Valley Forge Historical Society, Vermont Public Records Commission, Villanova University Library, Virginia Historical Society, Virginia State Library and Archives, Vermont Historical Society, Washington and Jefferson College Library, Washington's Headquarters at Newburg (NY), Wayne State University Library, West Chester (PA) State College, Western Reserve Historical Society, Wyoming (PA) Historical and Geologic Society, Yale University (Sterling Library and Beinecke Rare Book and Manuscript Library).

Mr. John F. Reed graciously opened his private manuscript collection to the project for research, and has also provided

important information on various occasions. The staff of the Steuben Papers Project under the direction of Dr. Edith von Zemenzsky very kindly advised the Valley Forge project staff in the early stages of the undertaking.

Aside from the archives visited by staff research historians, a further 446 were queried by mail. One hundred and seven replied, adding to the harvest of documents and data.

Stephen Kucheruk, cartographer, Mid-Atlantic Regional Office, was kind enough to produce maps 1 and 2 for the Report.

Particular thanks are accorded to the project secretaries, Christine Leone and Carmel Pompilii, heirs to the multifarious typing and record-keeping tasks necessary to the completion of research and writing.

Jacqueline Thibaut
Wayne K. Bodle
Valley Forge
May, 1980

I INTRODUCTION

The pivotal civil support groups serving the Continental Army during the winter of 1777-1778 were the Commissary and Quarter Master's Departments, organizations which stood between the Army and the very real threat of dispersal.

The troops proved that it was possible to survive without regular issuances of clothing, despite the fearful toll in sickness and death. Yet no army, however profound its patriotic motivation, could withstand a week without food. If all Commissary supplies had given way simultaneously during the winter, the Revolutionary army would have been compelled, in Washington's words, to "Starve, dissolve, or disperse...,"[1] the least consequence of which would have been the squandering of the advantage achieved at Saratoga, the worst, the collapse of the American revolutionary effort and the triumph of Sir William Howe's conciliatory policy.

It is commonly known that the Main Army under Washington was nearly obliterated by sickness, hunger, desertion, and death

during the Valley Forge winter. So impressed have historians been, however, by the achievement of survival and the resources of energy and patriotic devotion exhibited by the army that they have never dealt squarely with the questions of why and how the supply breakdown occurred. Was it necessary that the troops endure such a trial of misery, or was it a consequence of gross mismanagement? The army, almost to a man, would have singled out the commissaries as the agents of their distress. They apparently were not getting the job done, they were convenient to blame, and they were almost universally reviled. Yet behind the commissaries' inability to hand the soldier his daily ration of beef, bread, and liquor in an uninterrupted fashion lay a panoply of complex organizational, political, and financial difficulties which defied remedy and worked together to bring the army to the point of near collapse, rendering its survival at the best of times no certain thing. The extreme fragility of the commissary system, compounded by severe shortages in clothing, camp and military equipage, and logistical means, provoked the prescient anxiety evident throughout Washington's correspondence in the fall and winter of 1777-1778. To the reader exposed only to his written pronouncements together with the standard printed references for the period, Washington's relentless enumeration of harrowing eventualities becomes wearisome, appearing at length to be patently rhetorical. The missives he penned to Congress, governors, assemblies, and officials were nonetheless eminently accurate and effective, but because he did not consider it

his task to assign blame or to seek detailed causes for the army's difficulties, Washington's correspondence does not provide the best index to the roots of those difficulties. Causal dynamics simply do not emerge from the official correspondence emanating from Head Quarters, and it is because of this that the history of the mechanics behind the prosecution of the war is so unrelievedly shallow. We know in a vague sense what happened at Valley Forge, but we have not hitherto known how or why it happened.

Washington, harried by a plenitude of military and political problems, was aware of but probably not privy to the details of mismanagement, intrigue, and internal dissention afflicting the Commissary and Quarter Master's departments. It is likely that no single person, until the arrival of Nathanael Greene as Quarter Master General, fully grasped the extent of the problems. They must be reconstructed from a variety of documentary sources, written by scores of obsure yet colorful individuals who peopled the support services, and who almost to a man have passed into historical oblivion.

The task of the Commissary Department was to purchase, pack, transport, and distribute rations to the army. The Quarter Master's sphere was defined rather vaguely in comparison to the same office in the British Army. Regimental Quarter Masters in the British service were responsible for the quarters, clothing, food, fuel, and ammunition allocated their regiments. The Quarter Master General supervised the encampments of the army, including

the selection of locations along the proposed route of march. The Quarter Master General also conducted foraging and generally ordered transport. In the American service, the Quarter Master's Department dealt principally with transport. In May, 1777, Congress created Forage and Wagon Departments under the direction of the Quarter Master General. The Commissaries of Forage were responsible for purchasing and storing forage as directed by him or his subordinates. The Wagon Master General received horses, cattle, and wagons, but could not purchase without an order from the Commander of the Army, the Quarter Master General, or one of his deputies. In May, 1777, Washington appointed Joseph Thornbury Wagon Master General under Quarter Master General Thomas Mifflin, and on July 1, Clement Biddle of Philadelphia assumed the office of Forage Master General. Mifflin's Deputy Quarter Master with the army, who would assume much of the responsibility for rendering the Main Army mobile, was Henry Lutterloh.[2]

The organization of the Commissary department during the war was an evolutionary one, and the officials involved from the beginning were essentially inexperienced. At no time in the recent past had the colonials been required to provide entirely for an army of their own creation, for a succession of years. Throughout the first two years of the war, the answer to increased demand was proliferation within the organizational structure, as more purchasers, issuers, and sub-officials were appointed. The organization was informal but essentially successful when in June of 1777 Congress, irritated by what they considered to be inordinate

expenditure, reconstituted the Commissary. The Department had been managed by Commissary General Joseph Trumbull, in a fashion which had apparently been agreeable to the army. Trumbull, Commissary General to the Continental Army since July of 1775,[3] had brought to his task certain material advantages. In 1775 he had unabashedly informed Congress that he was the man best equipped to fill the office of Commissary General, and they obligingly offered him the post. Trumbull had, to be sure, important connections. His father was the Governor of the State of Connecticut, a powerful merchant who before the war had bluffed his way out of profound financial embarassment at home and abroad through an effective amalgam of cajolery and threat directed toward his creditors. His early espousal of the American cause had saved him, and helped to consolidate his political position. His son-in-law, Jedediah Huntington, was a Brigadier in the Continental Army, and by 1777 the Trumbulls were at the nexus of a powerful political faction. Connecticut produced considerable quantities of beef cattle, and Joseph Trumbull, an established merchant in his own right, was in a position to take advantage of this. He was able, through influence and recourse to local abundance, to fill the maw of the Army, while it remained in New England, with a sufficiency of fresh and barrelled meat.[4]

Commissary General Trumbull had, however, one failing which he shared with many merchants in the public service. He was not above using his office for his own personal financial advancement.

This was generally condoned, or winked at, when an official performed his assigned tasks to satisfaction. Joseph Trumbull had certainly done this, but the Trumbulls were not without their enemies in Congress. There grew, moreover, a suspicion through early 1777 that more money than necessary was flowing through the hands of the Commissary General.[5]

Because of the rapidly escalating expenses incurred by the Commissary Department, Congress reacted vehemently to rumors of peculation and designed a lengthy series of minutely detailed regulations which not only curtailed Trumbull's authority within his own department, but also created some severe administrative bottlenecks.[6] The office of Commissary General was split into the two co-equal posts of Commissary General of Issues and Commissary General of Purchases, the latter being the crucial function and the one which Trumbull retained. Article III of the new regulations, if read by a rigid constructionist, stipulated that the subordinates appointed by the Commissaries General would no longer be responsible to their masters but instead would report directly to the Board of War, the bureau of specialists appointed by Congress to investigate and expedite military affairs. Although it was not read in this fashion by subsequent occupants of the office, Trumbull found this stipulation intolerable, and by August of 1777 he offered his resignation to Congress.[7]

Article XXXV of the regulations was another serious source of difficulty, and in this case suffered from being less than

specific. It authorized the Commissary to call upon the Quarter Master's Department for wagons and teams with which to transport food to the army and to storage magazines. It also stated that the Commissaries might hire their own transport, yet in no sense was the Quarter Master's Department compelled to comply, nor were funds provided for wagon hire within the Commissary. In dealing so perfunctorily with the essential issue of logistics, Congress made an error which would cost the army dearly. Many of the other articles of the document simply fell into abeyance from being tacitly acknowledged impracticable. When Trumbull resigned in high dudgeon over the new regulations imposed upon his department, he preemptively washed his hands of Commissary affairs. It was at this point that things began to come apart. The confusion was compounded by the resignation of Thomas Mifflin as Quarter Master General in October, an office which Congress would be unconscionably long in filling. The breakdown in supplying the army during the winter may be laid directly before the door of the organizational deficit of the summer and autumn of 1777.[8]

In the interest of efficiency, Congress had committed an unwitting blunder in its reorganization of the Commissary, but no error was to have such catastrophic consequences as its choice of the man who would fill Trumbull's vacant seat. Almost all of the high ranking officials within the department were short on experience, a failing which particularly beset the new Commissary General of Purchases, William Buchanan. Congress selected Buchanan almost

immediately, upon the strong recommendations of the Pennsylvania delegates.[9] It was reasoned that a merchant familiar with commerce and commodities in the Middle Department would allow Washington's army to subsist therein at an advantage, and it was Congress' intention that the army would remain in the department operating against the British invasion of late August. Inept, lethargic, and suggestible, Buchanan was quickly engulfed in political preoccupations at York, the seat of Congress in exile, leaving the essential details of his department's operation to some of his more energetic subordinates. The fact that he was reported to be resolutely honest appears to have been of little aid to him. Congress, dealing regularly with Buchanan, perceived too late the shocking results of their misplacement of a crucial trust. As the winter set in, stricken references to his inadequacy began to percolate through the correspondence of his subordinates and the delegates to Congress.

Lest the weight of opprobrium fall too heavily upon Buchanan, it should be noted that he inherited an embattled department bereft of adequate logistical means. It required a man of singular energy and toughness to offset this peculiar organizational omission. The Commissary Department did not, and would not, have a logistical system of its own. It would remain, in effect, reliant upon the Quarter Master General and his subordinate Deputies for the wagons and teams and drivers necessary to carry commodities to the army. The resignation of Mifflin in October, and the vacancy of his office

until late February, allowed the regional deputies appointed by Mifflin to create during the subsequent interregnum small empires within their territories. Here some of them jealously hoarded whatever forage, wagons, and teams they could muster and applied them to priorities which they themselves set. There were of course exceptions of this mode of behavior. Mark Bird, Quarter Master at Reading, was unstinting in his aid to the distressed army. But Robert Lettis Hooper, Quarter Master for Northampton County, was a freewheeling local baron and an unremitting trial to the Commissaries. As Quarter Masters they heavily favored their own departmental priorities, transporting camp and military equippage as the first matter of business and sometimes ignoring entirely applications from the Commissary to transport food. Buchanan, instead of demanding that Congress press the Quarter Master's Department to fullfil its obligations as stated in the June regulations, wasted weeks and months in fruitless applications to Mifflin and his subordinates. When he did secure wagons, he did so on the pretext of schemes that were of little effective service to his failing department.

Buchanan's disadvantage was compounded by his inexperience. He seems to have had very little grasp of just how much food it took to feed an army. He very likely never took the time to calculate accurately how many rations would be consumed per day in providing for the officers, soldiers, support services, and camp followers, in addition to a certain predictable occurrence of

pilferage and wastage. Trumbull, who retired to Connecticut, does not seem to have briefed Buchanan at all beyond handing over a rough accounting of available stores. As late as October, 10,000 barrels of flour seemed to Buchanan to be a vast and bottomless reserve,[10] whereas at the December rate of consumption it would only have served for about a week's rations, providing it could be transported to the army. Buchanan was further hindered by the matter of the ration, which was continually revised in the face of shortages in most of its principle elements. In effect, it was reduced by a deficit of vegetables to three essential elements by autumn of 1777 - beef, flour, and liquor. This meant that more of each of these than originally anticipated had to be procured, and would only occasionally be augmented by barrelled pork and fish.

The turgid political waters in Pennsylvania were of particular importance to the supply problem, and in some cases promoted stress between the Army's support service officials and Pennsylvania political figures and appointees. During the Valley Forge winter, and indeed through the entire war, the Pennsylvania Constitution of 1776 was a matter of recriminatory debate. It was a rather simple, but radical document, establishing a unicameral legislature headed by a Supreme Executive Council of revolving membership. The President of the Supreme Executive Council was chosen annually, and had limited executive powers. Members of the Assembly were elected by taxpayers and their sons who were of age.

Perhaps the most controversial issue relating to the government was the "test oath," an instrument to insure loyalty to the Constitution. This oath of allegiance was required of all voters and state appointees, and in effect it disenfranchised the Quaker constituency, as their doctrine forbade them to swear any oath. The unicameral legislature was considered by its critics to constitute a tyranny of the masses, as it lacked the check which they claimed would have been provided by an upper house. Those supporting the Constitution claimed that an upper house would become, in effect, an "aristocracy," smothering the Assembly. Prominent revolutionaries, such as Thomas Mifflin, and Quakers alike decried the levelling spirit which they believed to be instilled in the Pennsylvania government. Occasionally, anti-constitutionalists such as Robert Lettis Hooper, Deputy Quarter Master at Easton, refused to submit to the test oath, and were openly inimical to the state government and its functionaries. To its chargin, the Supreme Executive Council could do little about this, as Hooper was a Continental appointee.

It is rather tempting to suggest that a number of the more abrasive encounters between Congress' officials and those who served the State were eruptions of this political animosity. If one examines the list of charter members of the Republican Society, formed in Philadelphia in March of 1779 to combat the Constitution of 1776, there appears an impressive number of men who peopled the Continental support services in 1777-1778. The Society, besides including such Philadelphia notables as John Cadwalader,

George Clymer, Jacob Hiltzheimer, Robert Morris, Sharpe Delaney, and Benjamin Rush, numbered also the following: General Thomas Mifflin, Deputy Quarter Masters Jonathan Mifflin, Mark Bird, and George Ross; Deputy Commissary General Ephraim Blaine, Assistant Deputy Commissaries General John Chaloner, James White, and John Patton; Barrack Master General Isaac Melcher, and ex-Clothier General James Mease and his business associate Samuel Caldwell. The pro-Constitution forces apparently did not include any such array of of support service personnel. In fact it appears that the politically conservative anti-constitutionalists, while very much in eclipse in the government of their own state, were powerful indeed in the councils of Congress and the Board of War, of which Thomas Mifflin was a member in 1777-1778. This cleavage would be very much in evidence in the less than amicable relationship which developed between the Quarter Master's Department and Commissary, and the officials appointed by the State to help supply the Continental Army. The Supreme Executive Council hinted darkly on numerous occasions that there were individuals at work in Congress who were actively attempting to discredit the government of Pennsylvania. Almost every contended issue between Congress and the State gave rise to such apprehensions. Whatever the truth of the situation may have been, the inherent factiousness of the relationship boded ill for the Continental Army at Valley Forge.[11]

To these hazards were added the fortunes of war, which despite encouraging events at Saratoga were not entirely favorable

to the Main Army in the south. Washington could not check Howe's advance on Philadelphia, and the British seized the American capital on September 26. Congress and the governing bodies of Pennsylvania fled inland to York and Lancaster. All of the administrative branches of the civil government which had been operating in Philadelphia were temporarily disrupted. Papers were lost, funds required transferring, and correspondence was interrupted. Although civil and military bodies recovered rapidly in the face of incipient chaos, there nevertheless accrued delays and misunderstandings which were unfavorable to the already weakened Commissary. The circuitous movements of Washington's army in attempting to counter Howe's advance and the long marches and counter-marches were a devastating drain on the army's logistical train. Wagons broke down and were abandoned along the routes of march. New wagons were always at a premium and had to be pressed from unwilling inhabitants.

The most severe single problem, other than transport, affecting Buchanan's management was the depletion of forage and food resources within the Middle Department, occasioned by nearly two years of war which had drawn heavily upon the rich country of New Jersey, Pennsylvania, and Delaware. The forage shortage would cause further logistical havoc, as horses at camp starved, foundered and died by the hundreds for lack of sustenence.

During mid-winter, when the fortunes of the Commissary reached their lowest point, a proliferation of purchasing agencies that

were inherently competitive provoked bitter recriminations among officials. The Board of War, attempting to foster its own influence under the chairmanship of Horatio Gates, engaged in head-on combat with the Supreme Executive Council of Pennsylvania over commissary affairs, and at the same time superseded the official Commissary Department appointees with its own set of purchasing "Superintendents." For a time, three separate purchasing bodies existed concurrently in the state of Pennsylvania, excluding those smaller agencies which purchased for the Hospital and Prisoner of War departments. This created tremendous pressure on the already severely inflated currency and caused confusion when all energies should have been bent on providing for the ill-supplied army. Rapidly escalating inflation cut deeply into the purchasing power of the commissaries. Attempts at price setting, while probably successful to some extent in holding prices down, were bitterly resented by the farmers upon whom the commissaries depended for commodities and who often, as a result, would contrive to sell their produce to the British.

The new organization of the Commissary Department, while apparently highly structured, was in fact much less formal than it appeared on paper. The two Commissaries General of Issues and Purchases appointed deputies for each of the military departments. (For the purposes of military administration, the states had been divided into four districts, or departments. These included the Eastern [New England], the Northern [New York], the Middle [New Jersey, Pennsylvania, Delaware, and Maryland], and the Southern, including the remaining southern states.) Each Deputy would hire

assistant purchasers (Assistant Deputy Commissaries) as needed to purchase or issue stores within smaller districts. Both Deputies and Assistant Deputies could hire clerks, packers, coopers, scalemen, and millers to barrel and ship the meat, grains, and items purchased. While the roles appear strictly defined, frequently purchasers issued and issuers purchased, particularly in the immediate vicinity of the army and when shortage threatened. All officers expedited transport as best they could. Assistant Deputy Commissaries of Purchases were the men who most often actually effected the exchange of cash for produce; Assistant Deputy Commissaries of Issues allocated stockpiled rations to brigade and regimental commissaries at the various military posts, who in turn distributed directly to the troops.[12]

The system appears eminently simple, but was in fact far from flawless. Too often the crucial determinents as to whether food did or did not appear each day for the soldiers were the personalities of one or more officials in the supply chain, or whether they had the fortitude to adopt the extra-legal measures often necessary to feed the army. In effect responsibilities overlapped, and whoever could garner together the necessary supplies, teams, wagons and drivers simply took control of all aspects of the operation of getting the supplies through. All too often officials who had succeeded thus far were inconvenienced by impassably bad roads and swollen, ice-choked rivers and streams.

Considering the disadvantages under which it labored, the Commissary appears to have been doomed from the onset to a winter of awesome disarray. Yet not all of the difficulties which beset it were inevitable, nor were they unbrookable. A firm helmsman at the head of the service and a cooperative Quarter Master General would have had far-reaching salutary effects, but there was neither to aid the beleaguered department.

Any consideration of the cause of the food failure at Valley Forge must address the question of whether or not there was enough food within a reasonable distance of the army in its winter quarters to feed it properly, and if so, what prevented its distribution. What hopes could the Commissary reasonably entertain of obtaining food in the Middle Department, and how much food was actually needed? The question incurs at the onset complications arising from two circumstances: the Commissaries themselves appear to have had a very vague, sometimes wholly inaccurate perception of available resources, and records for production of basic commodities in southeastern Pennsylvania are impressionistic at best for the early years of the Revolution. There also appears to have been little effort to calculate, at the Commissary distribution level, the quantities of food required to feed the army during the autumn of 1777. Nevertheless, some general observations can be made.

During the Seven Years' War, the British Army in North America was never provisioned solely from colonial resources. On the contrary, the vast preponderance of barrelled meat and vegetable

stores issued to the troops came from Great Britain. Barrelled pork, beef, butter, and peas were shipped across the Atlantic by British provisioning contractors, who were paid for their provisions on a per ration basis. Barrelled beef and pork supplied for the use of the Army in the Colonies prior to March, 1757, amounted to 3 million rations, of which 2.7 million came from Britain. Fresh beef, issued to the British troops twice a week when it was available, was purchased from colonial merchants. British purchasers generally did not purchase barrelled meat from American sources, however, in order to prevent the colonials from slaughtering animals too young and thus reducing livestock supplies for the future. It is clear that the North American Colonies had never been required to provide anywhere near the total provisions necessary to an army prior to the Revolution, and that few, if any, merchants available to the American military establishment were experienced in so substantial an undertaking.[13]

During the last decade of colonial rule, the Port of Philadelphia exported more wheat and flour than any other city in North America, amounting in some years to fully one half of the total North American colonial exportation of flour. Because of this, Pennsylvania earned a reputation as an almost bottomless sea of wheat, and Lord Sheffield referred to it as "...the capital of the corn [wheat] country...."[14] The 1770s were particularly fulsome years. In 1771, 500,000 hundredweight, (or 56 million pounds) of flour sailed from the Port of Philadelphia; in 1772 the figure was

56,902 tons, or 60,318 million pounds. This 1772 export total followed a season of poor crops which induced high prices, but which did not reduce export capacity.[15] The prodigious output supported the observation that Pennsylvania was the preeminent wheat producing colony in North America. The year 1772 was a peak financial year for commodity exports from Pennsylvania. Total exports were valued at 800,000 pounds, or 1.2 million pounds Pennsylvania currency, and included flour, wheat, Indian corn, flaxseed, barrelled meat, lumber, iron, and a variety of other products.[16] During the early part of the decade, meat exports equalled 7,000 barrels per year (or about 1.4 million pounds) salted and packed for ships' provisions. Of the surplus produce sent by a farmer to market, which amounted to perhaps a sixth or seventh of the total farm production of an average farm in southeastern Pennsylvania, one fourth of the marketed amount ended as export commodities. Thus it has been suggested that if an average farmer sold at market 200 pounds of meat, 50 pounds were exported through the Port of Philadelphia. Such a farm had advanced far beyond a subsistence economy, and was producing a significant percentage per year in basic foodstuffs for sale and export.[17]

From the middle of the decade, however, things began to go badly awry, and it becomes much more difficult to discern with any precision the quantities of grain and meat which were produced as surplus for market and export. The convening of the First Continental Congress, and the widespread discussion of a nonimportation agreement in the autumn of 1774, produced an upheaval

in the wheat market. Merchants subsequently feared that the convening of the Second Continental Congress would result in the closing of the Port of Philadelphia. Millers processed and marketed their flour as rapidly as possible and then many, fearing an unmarketable surplus, stopped grinding. Purchasing of wheat from farmers was thereby reduced, and many growers in turn would not thresh or bring wheat to market.[18] It is likely that the prolonged period of commerical uncertainty, dating from 1774, had the result of diminishing substantially Pennsylvania's overall wheat production. Wheat remained unthreshed, and some fields may have lain fallow, yet it is difficult to gauge the extent of the dislocation.

There appears to have been no serious shortage of wheat in Pennsylvania through the summer of 1776. That year, however, produced a much reduced wheat crop, and prices began to advance rapidly in the month of September. There occurred serious crop failure, only to some extent related to wartime uncertainty. It was thought that the grain itself was fifteen to twenty pounds lighter per bushel than that produced the year before. In December, British forces approached Philadelphia for the first time, and Congress moved to Baltimore. Robert Morris remained in the city in order to get off a shipment of indigo and flour, and in February he wrote to William Bingham, in Martinique, "Flour is very scarce and dear here and will continue so, as the last crops were the worst ever known and the consumption and destruction of two armies is immense."[19]

Although it is impossible here to be very precise, it is reasonable to assert that commerical uncertainty, crop inadequacy, and the removal of some farmers to military service resulted in a decline in wheat production, to the detriment of the total production of surplus wheat in southeastern Pennsylvania. The evidence, however, does not support the conclusion that the inhabitants were reduced to subsistence farming; rather it indicates that they continued to produce quantities beyond what were required for their own survival. This is suggested by the fact that wheat prices remained stable in Philadelphia through much of 1777, at about ten shillings per bushel, until the British occupation of the city.[20]

How much surplus produce was siphoned off by the British and American armies operating in New Jersey and Pennsylvania in 1776 and 1777? The consumption, as Morris noted, must have been considerable, but it is very difficult to calculate accurately. Some areas were particularly hard hit, and locustlike effect of an army's progress through an agricultural community must have been profoundly demoralizing to the inhabitants. Chester County, Pennsylvania, for instance, bore the unblunted impact of both armies during the late summer and autumn of 1777.

Claims for damage to crops and supplies submitted to the Pennsylvania government by Chester County inhabitants, as a result of British depredations, totalled 318 horses, 546 horned cattle, 1,480 sheep, 580 hogs, 9,062 bushels of buckwheat, 4,287

bushels of oats, and 550 tons of hay. This doubtless reflects but a small percentage of the actual consumption of British troops in this area. Daniel Wier, the Commissary General serving the Army under Sir William Howe, related to the Commissioners of the Treasury that between the British debarkation at Head of Elk, Maryland and the occupation of Philadelphia at the end of September, he had been able to subsist the troops largely from the land. A substantial part of the garnerings must have come from Chester County. Through purchases made from friendly inhabitants and goods seized from the more reluctant, Wier had provided twenty-nine days' rations of bread and flour, thirty-two days of meal, and sixteen days' rations of rum. During the period of August 25 through September 9, Wier bought and seized 2,661 head of cattle, 3,393 sheep, 3,230 barrels of flour (about 646,000 pounds), and 129 hogsheads of rum.[21] As the American Army maneuvered about their British foes in Chester and Philadelphia Counties, they too subsisted in part from the agricultural bounty, no doubt with a ruinous effect on local supplies of wheat, flour, and meat.

Where did all of this leave the American Commissaries General in the summer and autumn of 1777? William Buchanan received from Joseph Trumbull a list of provisions remaining in the latter's hands as of August 8, 1777, to be turned over as per the instructions of Congress to the new Commissary General of Issues or his subordinates. Trumbull reported that as of that time there was a total of about 38,070 barrels (or 7,614,000 pounds)

of flour scattered at the various posts throughout the Middle Department (in an area roughly bounded by Head of Elk, Maryland, Carlisle, Pennsylvania, and Morristown and Trenton, New Jersey).[22] Presuming that it required, as Commissary General of Issues Charles Stewart later estimated, 168 barrels (33,600 pounds) of flour per day to feed the Main Army, Trumbull's flour supply, as disclosed on paper, could have been expected to last the Army at peak strength 226 days from the beginning of August. Barring mishap, the quantity of flour as represented by Trumbull would have been sufficient to supply the army until at least mid-March. It was probably this supposition which lulled William Buchanan into disastrous complacency during the autumn of 1777. Indeed, he probably did not calculate a consumption rate anywhere near that noted by Stewart in December, 1777, and may well have thought that there was sufficient flour in the stores of the Middle Department to see the army comfortably through the winter and allow a leisurely preparation for the campaign of 1778.

In actuality, however, matters were far less promising. Stewart received only 4,053,996 pounds of flour and bread from Trumbull's deputies in the Middle Department, or about 20,270 barrels, a little more than half of Trumbull's estimate of the stores in that region. Stewart later calculated that what he had received would have been sufficient to supply the army for 120 days, <u>if</u> it were all good (which it was not), and provided it could be transported from the various magazines to camp.[23]

Stewart later claimed that a good part of the flour was "...damaged and condemned as Musty & Sour, not fit to issue nor to bake into hard bread."[24] It appears that probably less than half of the flour that Trumbull had reported to be stored in the Middle Department was actually at hand and issuable, and it was so scattered as to represent a severe logistical problem. To make matters worse, Stewart was required to feed the garrisons at twenty-six different posts and the various hospitals serving the Main Army. (This would, he calculated, have raised the consumption level to 252 barrels per day in the Middle Department, reducing the period for which Trumbull's supplies would last to about 80 days.)[25]

To add to Stewart's distress, the Main Army consumed, with its adjunctive militia, 34,577.5 pounds of meat (beef, pork, fish, and mutton) per day during the month of December.[26] This meant that the Main Army consumed, in December, about 23,000 rations of meat per day, and that increased amounts of meat were being issued to offset the lack of vegetables in the ration. At this rate of consumption, Stewart calculated that the 296,842 pounds of meat turned over to him by Trumbull, which included barrelled bacon, pork, and beef, 233 head of cattle, codfish, and shad, had been sufficient to last the army exactly eight and one-half days. Some of these supplies, however, had been found to be unfit to issue.[27] The Purchasing Commissaries, far from being able to preserve and store supplies, would have to work very hard just to keep even.

For reasons not altogether clear, the Main Army consumed, according to Stewart's returns, enormous quantities of food during the months of December, 1777, and January, 1778; far more on a per month basis than in any succeeding month of the encampment, including the build-up period of May and June, 1778. In December alone, the Main Army, together with the Pennsylvania and Maryland Militia, managed to do away with over a million pounds of bread and flour, in addition to a million pounds of fresh and preserved meat. Part of this consumption was due to the presence of a substantial body of militia with the army, but this could hardly have been the sole cause of so vast an expenditure of provisions.[28] Doubtless increased calorie intake necessitated by cold weather, the arduous task of building the encampment, perhaps overly generous issuances by Thomas Jones, Deputy Commissary General of Issues with the Army, and the inability of the soldiers to garner much subsistance from the land combined to produce this insatiable mass apperite. What is certain, in retrospect, is that at this rate the supplies provided by Joseph Trumbull would not last through the winter. The amount of meat in his stores in the Middle Department was so negligable that it should have figured hardly at all in Buchanan's and Stewart's planning. The only way to thwart a looming catastrophe would have been for Buchanan, upon taking office, to set about vigorously to purchase and grind wheat, purchase and fatten livestock, and to begin energetic efforts to secure adequate wagon transport throughout the Middle Department and

New England. Apparently because of a complete misapprehension of the situation, Buchanan and Stewart failed to perceive the oncoming shortages until it was too late to take adequate ameliorative steps. From the late autumn on, it was apparently impossible to stockpile Commissary supplies. All that could be done was to provide enough food for a few days' time. As this reality developed, the principal problem confronting the Commissary became one of logistics.

The halcyon days of the early 1770s, when Philadelphia had shipped from its teeming docks 56,000,000 pounds of flour and 1.4 million pounds of meat during a single year, were long gone. Four years of commerical disruption, political turmoil, and finally the arrival of the war itself in the heart of this rich country had taken a heavy toll. Yet, at least in terms of wheat, the production capability had been such that, despite the percentage of inhabitants who for their religious scruples refused to feed the armies, the collection of wheat in the Middle Department should not have been an insurmountable difficulty. Surpluses were still available in late 1777, particularly as it became difficult for farmers to market their supplies in British-held Philadelphia. The matter of meat, however, was quite a different problem. If Philadelphia had exported 1.4 million pounds of barrelled meat per year in the best years of the early 1770s, the region was clearly not in a position to provide over a million pounds per month to the American Army,[29] even if the inhabitants had

been stripped of their breeding stock. Meat, either barrelled or on the hoof, would have to arrive from New England, New York, New Jersey, Virginia, Maryland, Delaware, and interior Pennsylvania, or the army simply would not get it.

II QUALIFYING SUPPLY

The comparative ease of modern transportation and production of agricultural commodities renders it difficult to grasp the struggle which attended both of these functions in colonial America. In setting the scene for the Valley Forge winter it is useful to examine several of the qualifiers which impeded the functioning of the Commissary Department in 1777, including the quality of transportation in the autumn, the damage wreaked by inflation, the competency of the key officials, and the process required in producing a few standard commodities such as salt, flour, and tallow. There were also culturally derived impediments, as in the attitude espoused by some Pennsylvania Germans toward warfare and that of disaffected inhabitants, both producing local but persistently obstrusive problems for the purchasing commissaries.

Autumnal Logistics

In devising ways in which to look at the problem of feeding the Continental Army and in supplying it with all necessities,

it is useful to pose the question of whether the supply problem was principally one of production or of distribution. The complexity of the material wants of the army was such that a universally applicable answer is impossible, yet the question is instructive when applied to individual commodities and types of equipage. The logistical problem was, without doubt, pervasive. There was hardly a public official who did not complain, often repeatedly, of a shortage of transport facilities during the 1777-1778 winter. The logistical dearth is central to the near-catastrophe at Valley Forge, although it was certainly not the only serious difficulty effecting the support services.

If the Commissaries were blamed for shortages, several logisitcal determinants were beyond their control. Wagons had terminal life expectancies, and they were costly and time-consuming to repair. Transport wagons supplied to the army were drawn typically by four horses, and were probably less capacious than the rugged, six-horse Conestoga wagon that flourished later in the century in Pennsylvania.

The Wagon Master General, Joseph Thornbury, resigned in the autumn of 1777, and through most of December his office was filled by Henry Lutterloh, who was also the Deputy Quarter Master serving with the Main Army. Lutterloh inherited too many tasks to perform them all adequately, and apparently he was not well liked at Headquarters. A veteran German officer from the Brunswick service, Lutterloh wrote faltering English and was over his head in the administration of his multiple offices.[1]

The Artificers and Quarter Masters had not been remarkably successful in keeping the army's wagons in repair during the arduous campaigning of the autumn. It was principably the task of the Quarter Master's Department to provide wagons, teams, harness, wagoners, and forage, with the assistance of the Wagon Master General and Forage Master General. Wagons were used to haul officers' baggage and all manner of Quarter Master's equipage, including axes, shovels, picks, carpenters' and blacksmiths' tools, ammunition, spare firearms, and all the detritus required by an army in the field. When there were wagons to spare, they might be loaned to the Commissary to augment the small train permanently assigned to that department.

There was no new appointee to fill the office of Wagon Master General until late December, 1777. The Forage Master General, Clement Biddle, was a man of evident ability, but he could not have been expected to operate efficiently without the direction of an energetic Quarter Master General. Biddle was an anomalous figure in the Continental service, in that he was openly a friend to the Pennsylvania government. A Philadelphia shipping and importing merchant of Quaker lineage, Biddle and his older brother Owen had shown no reluctance to take up arms against the British at the outbreak of hostilities. Clement Biddle however, retained his Quaker equanimity to the extent that he appears to have been one of the few support service figures to remain above faction. His appointment as Commissary General of Forage dated from July, 1777, but his abilities were not fully engaged until the arrival

of Nathanael Greene as Quarter Master General in the spring of 1778.[2]

The reluctance or inability of the Commissary Department to hire its own teams pursuant to Article 35 of June, 1777, is even less explicable in the light of a Congressional Resolve of 6 October 1777, forwarded to Charles Stewart by John Hancock. It empowered the Commissaries General of Issues and Purchases and their deputies and assistants to impress wagons and storehouses within a seventy-mile radius of the encampment of the army until January of 1778. While this appears to be a wide-ranging power its potential may have been illusory. Southeastern Pennsylvania and Delaware had long been subjected to the Quarter Master's demand for wagon transport. No provisions were made for securing teams or hiring wagoners, and it would have been difficult to force the impressment of all three without the aid of the county lieutenants or other armed guards. Now even state and local officials were beginning to have trouble calling out wagons and teams.[3]

Increasingly through the autumn the army came to depend upon civilian transport resources. Assistant Quarter Masters such as Mark Bird at Reading, Ross at Lancaster, and Hooper at Easton found their once substantial trains dwindling under the attrition of wear and tear, as each move of the army or large scale transfer of supplies left broken-down vehicles by the roadsides. The insecurity of the eastern magazines in New Jersey and eastern Pennsylvania placed a costly strain on the wagon

service as supplies were transferred into the interior of Pennsylvania. One of the more important storage depots was at Easton, where Deputy Quarter Master Robert Lettis Hooper held sway, controlling the means of transportation and a vast array of storage facilities there and at Sussex Court House, New Jersey. Washington, while the army was at Whitemarsh, became increasingly concerned about the huge Continental stores located at Easton, particularly as the army might well winter in the vicinity of York, Lancaster, and Reading. He directed that most of the stores at Easton be transferred westward to Carlisle during the latter part of November, and this was, of course, a major logistical undertaking.[4] The move took place during the latter two weeks of November, and its magnitude astonished British intelligence agents. One reported to General Clinton:

> Great part of the Stores have been Removed from Easton to Carlisle upward of a thousand Waggons have been Employ'd for that purpose last Week & part of the preceeding. 5

This would mean that when the army was later in need of stores during the Valley Forge encampment, some would be forwarded eastward again from Carlisle, York, Reading, and Lancaster.

Difficulties encountered raising replacements for wagons which fell by the wayside during late November were myriad, as from early autumn Commissaries and Quarter Masters had experienced problems in drawing wagons from state agencies. In September the Deputy Quarter Masters were well stocked with wagons and teams. When the Board of War needed 100 wagons

from Mark Bird at Reading, his subordinates seemed to find no difficulty in procuring them, as they queried President Wharton to clarify his instructions as to whether he needed 100 additional vehicles.[6] Bird had plenty of cash to dispense for the procurement of wagons and horses and charged his assistant John Davis with buying them, together with mounts for the Light Horse during September.[7] Yet although the Quarter Masters appeared to be thriving, the Commissaries fared poorly in having their stores moved across the Delaware to safety. (It was at this juncture that Chaloner took Stewart to task for not having sufficient teams under hire.) Early in October Gustavus Risberg, Assistant Commissary General of Issues at Trenton, was compelled to apply to Colonel Jonathan Mifflin for assistance in sending supplies from his station to camp. Colonel Mifflin, displaying a generosity rare in his department, agreeded to turn over the first brigade to arrive for Risberg's use.[8] The Congressional resolve of October 6 empowering the Commissary to impress wagons appears to have had little effect in relieving this dependence of the Commissary upon the Quarter Master's Department.

Whatever success the Quarter Masters in interior Pennsylvania may have enjoyed during this period in obtaining wagons, the Commissary Department clearly was not benefitting from it. Unwilling or unable to supply wagons for themselves, and more often than not cut off from the resources of the Quarter Master's Department, the Commissary faced a desperate logistical stagnation as the late summer turned to autumn.

The situation of Thomas Jones, Deputy Commissary of Issues with the Army, was one of extreme fluctuation. Although he might accumulate several brigades of wagons at a time, he had to dispatch them to magazines at which he had no clear assurance of there being supplies, and frequently his surmises went wrong. He also was at the mercy of the weather, and when several days of relentless and torrential rains beset the army at the end of October, Jones had a difficult time getting his brigades through to the magazines.

The most ominous note struck during the two months prior to Valley Forge was the deterioration of forage availability. Purchasing power, winnowed away by inflation and ill-advised price-fixing, was drastically reduced. British consumption of forage in the Philadelphia vicinity reduced the availability of hay, timothy and forage grains. Proper nourishment for the teams was requisite to moving anything anywhere, and when fissures began to appear in the forage supply system it presaged an evil time for the army. Forage Master General Clement Biddle was at this time an independent operator, consulting most often with President Wharton in the absence of Quarter Master General Mifflin. The army had just arrived at Whitemarsh when Biddle wrote to Wharton on November 3, informing him that the incessant motion of the army had prevented him from feeding the army's horses from established magazines, and that the forage masters had been compelled to seize feed from farms in exchange for receipts for quantities taken. Prices offered by the army at this time were

7/10 per ton for hay (less for inferior quality), forage wheat at 8/6 per bushel, oats (which were scarce) at 7/6 per bushel, rye at 7/6, hay for a horse for twenty-four hours at 1/6, and buckwheat at 4/6 per bushel. No spelts were to be had.[9] These prices, Biddle found, were considered so low by the farmers with whom he dealt that they had begun to refuse to sell, even to thresh. Biddle strongly urged Wharton to press the state to take measures to improve his purchasing power, presumably price-regulating to counteract the farmers' reluctance to sell to the army.[10]

The State of Pennsylvania, however, was reluctant to acknowledge any of the shortages plaguing the army, even when Thomas Jones' pleas were delivered up to the Pennsylvania Assembly by John Magee at the end of November.[11] Jones' case was, however, reinforced by the circumstance that Mark Bird was also now encountering difficulties procuring teams. He had, around November 27, received orders from the Quarter Master at camp to send on twenty teams, but he could get none in the immediate environs of Reading, as most were engaged in the transfer of stores from Easton and in hauling flour and whiskey to camp.[12]

These omens were sufficient to alarm Congress at the prospect of a general breakdown in the supply system, and they in turn placed pressure on Pennsylvania's Supreme Executive Council. In this Congress had formidable leverage, and the Council was soon under duress, realizing that the Continental army might well choose to winter in a locale other than southeastern Pennsylvania,

leaving the state vulnerable to British depredations. The Council was probably extremely loath to admit that there could be a real shortage of resources which would produce an insufficiency for the oncoming winter. They consequently reported to Congress, perhaps ingenuously, that the "...very Neighborhood of the Camp is at the moment full of Wheat."[13] The Council nevertheless assured Congress that they were working to procure press warrants for wagons and other measures from an understandably reluctant Assembly, but they reminded Congress that the latter was empowered to procure wheat and that the Council had not discouraged Congress in the application of those powers.[14]

Orders for impressment sounded efficacious on paper but they entailed a rather ugly procedure. County and township authorities had to cajole or force farmers into leaving home and driving their teams for the army for what was all too often an indefinite period of time. The result was alarm among the people of Pennsylvania when these measures were instituted and when the Council and Assembly of the state assumed extraordinary powers. The General Assembly's resolution of December 6 proclaimed that due to the presence of the enemy "...the ordinary forms of Law and civil Government cannot now be observed...."[15] The resolution empowered Washington to appoint persons to buy whatever provisions and forage the army required, or any that he perceived to be in danger from the enemy. It empowered him also to seize provisions from those who refused to sell, leaving enough for the families' subsistence, in exchange for signed certificates stating kind,

quality, and quantity of the articles seized. The President and Vice-President of the Council were also authorized to seize barrel staves and hoops, to relieve coopers from militia duty, and to impress wagons and teams.[16]

Local officials in the state, badgered by calls for wagons, had anticipated these legal sanctions on impressment and were already at work. The scene in Berks County may have been typical. Here Henry Christ ordered Constable Daniel Deturck of Alsace Township to press one team and driver from the town and send him to camp via Reading. Deturck was admonished to "...fail not at your Perril..."[17] Presumably this procedure was repeated throughout eastern Pennsylvania.

The Quarter Master's Department, apparently attempting to hire teams through the ministration of the Deputies, was running up against state militia regulations, as reported by George Ross to Thomas Jones on December 6. Ross, Deputy Quarter Master at Lancaster, was attempting to respond to Jones' call for vehicles and drivers at camp, and he complained that he could not procure the requested number of horses from his quarter "...notwithstanding every exertion..."[18] Orders had gone out to move all the flour at York across the Susquehanna to the Lancaster vicinity, and this was employing all teams west of the river. Teams for the use of Jones' department therefore had to come from the immediate environs of Lancaster, and Ross had run into difficulty there with the state militia. The County Lieutenant was rigorously

enforcing a regulation prohibiting any persons belonging to the militia to hire out their teams or to hire as drivers, on pain of heavy fine. Ross had managed to secure a dozen teams, but had no drivers, and he claimed that the locals were willing to hire out if they could be exempted from militia duty. He firmly informed Jones that unless some measure for exemption were taken, it would be impossible to secure the needed transport.[19] The clash between militia regulations and the transportation requirements of the Continental Army was to erupt in numerous subsequent instances. Congress and the state of Pennsylvania were slow in resolving the issue, and fell back increasingly on the heavy-handed measure of impressment.

By mid-December Thomas Jones was convinced that the root of his difficulties lay in the faltering transport system rather than in actual shortages. On the day of the army's march from the encampment at the Gulph to Valley Forge he forwarded a copy of Ross' complaints to President Wharton warning of the "approaching calamity"[20] which would stem from inadequate transport. It was a timely missive, for each move of the army succeeded in dislocating the system still further. Jones claimed that the issuing commissaries at Lancaster, York, and Reading had all responded to his calls for supplies with assertions that they could not procure sufficient wagons. Jones was here writing directly to Wharton for the first time, perhaps at the urging of Washington. Yet he did not go so far as to suggest measures to Wharton, but simply requested that something be done.[21]

Pressured by the Quarter Masters and Commissaries, the Government of Pennsylvania was compelled to institute extraordinary measures to procure transport, but the burden these measures placed upon the citizens of Pennsylvania was not lost upon the Supreme Executive Council. Congress had earlier imposed a price ceiling on the day hire of wagons, teams, and drivers for the use of the army and in this inflationary period it was no longer sufficient to provide for feed, replacement, and repair, adding to the inhabitants' reluctance to hire out. Wharton wrote to the Pennsylvania delegates to Congress urging them to prepare changes in the rates of hire, as wagon owners were out of pocket for repairs under the rates fixed by Congress. The rate at the end of December was thirty shillings per day for wagon, four horses, and driver, and Wharton warned that severe shortages of available wagons would develop in eastern Pennsylvania if the rate was not elevated to forty, fifty or more shillings per day.[22] Congress did not act on this issue, and it remained under discussion for many weeks.

The logistical dislocation of the autumn fed upon itself, particularly in the instance of forage shortages in the region of operations. It was exacerbated by the unredressed attrition occasioned by the autumn campaign, the long-haul supply transfers and inflation. Thomas Jones, struggling at the eye of the hurricane, could no longer rely upon uninterrupted trains bearing food and forage to the army.

Inflation

Rapidly escalating inflation was another pernicious influence on the military supply system. Increased demand for every article and service due to the presence of the Army in Pennsylvania encouraged rapidly spiraling costs. Grains, forage, livestock, leather, tallow, cooperage, whiskey, and fresh produce all soared. Salt, as Jones' letters attest, was almost unheard of. The presence of the army encouraged farmers and merchants, especially those who specialized in whiskey, rum, and spirits, to experiment freely with prices, nor were they discouraged when they discovered that soldiers would quite literally sell their clothing for something to chase the autumnal chill. Sutlers swarmed about camp, defying every regulation to prohibit their presence, and the occasional seizure of their stocks did not inhibit them for long. The production of alcoholic distillates for private sale to the army in addition to that which was purchased by the commissaries for the ration is particularly important in the inflation problem, as it directly influenced the price of grains in parts of Pennsylvania and neighboring states.

The alarming elevation of grain prices produced the first serious attempt to regulate prices of grains and livestock in Pennsylvania early in November of 1777. The price ceilings were but sporadically and locally successful, as they were seen as enforcable only in government purchasing. The result of this was that the prices offered by Continental Army purchasers were drastically

lower than those offered by private purchasers such as liquor distillers and, incidentally, the British Army. Price escalation continued despite fervent appeals to patriotism. There also developed, as the season wore on, local scarcities in southeastern Pennsylvania, extending into parts of New Jersey, Delaware, and Maryland, and this served only to inflame the inflationary problem.

Prices of readily consumable foodstuffs and forage were the first to rise on the inflationary ground swell. The army's calls for food were taken with sufficient seriousness so that Buchanan, early in his tenure, had little difficulty in securing funds for his department so long as he promised to produce the proper returns. He nevertheless was appalled by the expenditure occasioned by his purchasing commissaries.[23] The price of wheat rocketed in October of 1777. It brought, according to General Huntington, a low five shillings per bushel about camp in mid-October, and "...the Farmers glad to get this Price...."[24] Yet by the end of the month, President Wharton was corresponding with Washington on the adverse effect the price of liquor in camp was exerting on the price of grains. The price of liquor at the sutlers' booths was frustrating the Council's attempts to lower the prices of grains. "The Distillors stick at no Price for Grain whilst these prices for Whiskey are paid."[25] He urged Washington to forbid the price of whiskey to rise above ten shillings per gallon, which, Wharton hoped, would discourage the sutlers who employed too many wagons and encouraged intemperance. He warned that unless stringent measures were imposed that it would

be impossible to procure grain at a reasonable rate.[26] The problem, however, was rooted more deeply than Wharton realized, as he failed to appreciate just how ingrained an institution the sutlers had become. Washington, intimately acquainted with the hardships attendant on service in the Continental Army, may have been reluctant to do away entirely with the sutlers' solace. He did, from time to time, approve the seizure of their stores when the Commissary was without liquor to issue, and he tried, later in the Valley Forge encampment, to limit the number of sutlers to one to a brigade, but all of these measures appear to have been but half-heartedly enforced. The price of alcohol would continue to force up the cost of grains which were necessary for food and forage.

This is illustrated by the high prices the Commissaries themselves were forced to pay for liquor. Thomas Jones was paying 52 shillings, 8 pence per gallon for rum and 3 dollars per gallon for whiskey during the first week in November, considerably higher that Wharton's suggested retail price for the sutlers of 10 shillings per gallon.[27] Wharton soon discovered that the price of liquor was effecting an entirely different area of supply, as the soldiers were found to be selling articles of clothing for money to buy whiskey, which at such exorbitant prices was "...alone sufficient in a few weeks to strip a soldier to the skin."[28]

Clement Biddle, as seen earlier, strongly urged Wharton to impose price ceilings on animal forage, warning that in their absence it would be impossible to purchase sufficient forage for animals.

The prices he suggested formed the basis for a price-fixing regulation later adopted by the Council. Even these prices were not paid in cash but were offered in receipts; the actual money was frequently not forthcoming until months later.[29]

The Supreme Executive Council, staggered by the prospect of enforcing price regulations throughout the state, required that their price ceilings be applicable only to state and Continental purchasers. In responding to Biddle's plea for regulations, the Council declared grandiloquently that rising prices required the "....exertions of every virtuous man, whether in or out of Office, to reduce, otherwise our Money, on the credit of which we hope to keep an Army together, will be no better than waste paper..."[30] The Council charged that some Deputy Quarter Masters and Commissaries had endangered the provisioning system by belaboring good Whigs and letting the disaffected escape the burden of supplying provisions, and they suggested that Biddle concentrate his seizure of forage on the farmers who had demonstrated little sympathy to the cause.[31]

Although the Council accepted Biddle's price recommendations, they found that William Buchanan, who naturally was consulted on the matter, stood doggedly by prices which were unrealistically low, and the Council tried to gently discourage him from a stubborn adherence to a low price for pork. The Council was disposed to encourage its production on the grounds that hogs took one year to grow to maturity, whereas cattle took seven. The Council was already cognizant of the disappearance of beef in eastern portions

of the state, and was wary of pressing loyal inhabitants to give over their cattle, and they therefore suggested to Buchanan that the price rest at seven dollars per hundred weight for good pork, whereas he was inclined to offer six dollars.[32]

A number of instances demonstrate that purchasers attempted to hold the line on prices, even if the state chose to leave the matter up to "every virtuous man" rather than vigorously control prices. It is also clear, however, that as the autumn wore on demand and competition rendered suggested prices increasingly difficult to adhere to. Whiskey continued at a premium, as Thomas Jones paid $3.10 per gallon for Mordecai Gist's Maryland militia brigade on November 7.[33] Yet Chaloner sternly directed a purchasing assistant in Northampton County not to exceed eight shillings six pence per bushel of wheat.[34] The same man was to offer twenty-five shillings per hundred weight for flour, and ten pounds per hundred weight for beef. Mark Bird still admonished John Davis at about the same time to pay no more than 8/6 for wheat in his department, brushing aside Davis' complaints with the declaration, "If the Farmers does not like the prices alawed them for there produce let them chuse men of more Learning & Understanding the next Election."[35]

Some inhabitants became concerned by the rapid elevation of prices, particularly in Lancaster County, wherein pressure on grain prices was unrelenting. A group of petitioners presented their case to the Council in favor of price-fixing and their account illustrates how dramatically things had gotten out of hand as a

result of increased distilling. Rye was selling from between twenty and twenty-five shillings per bushel. Sutlers were consistently over-bidding army commissaries for grain, which, the petitioners warned, could only result in debasement of the currency.[36] In the face of such incredible prices the army commissaries, held to fixed prices by informal regulation, suffered at an increasing disadvantage.

That these conditions, however, were regional is suggested by a private missive dated December 2 from Robert L. Hooper at Easton to a crony of his named Leinback, either a farmer or miller in his district. Leinback was distressed by the rumor that Washington was going to impose and enforce price controls. Hooper, assuring him that this was not so, informed him that prices could only be fixed by the state governments. He then advised him to sell his flour at Mackensy, where it would fetch 26 shillings per hundred weight, as it was only getting 20 at Easton.[37] If Hooper was correctly relating the prices, they present two important implications: first that the price pressure on grains was considerably more relaxed in Northampton and Sussex Counties than it was in Lancaster and York, and secondly that the shortage of flour in camp at this time was indeed a result of logistical breakdown rather than a reflection of universal want throughout Pennsylvania and New Jersey. Rich in wheat, Hooper's domain soon attracted the interest of Ephraim Blaine, Deputy Commissary of Purchases for the Middle Department, who began to contract for flour in that locale. Hooper was also

able to send Jones 30 wagon loads of flour during the first week of December.[38]

Following hard upon the increase of commodity prices were parallel increases in the cost of necessary services, particularly wagon hire and cooperage. In October Ephraim Blaine, with an eye to the future and doubtless anticipating that quantities of salted beef and pork would be laid down during November, directed John Patton, his Assistant Deputy at Reading, to work out terms with coopers at Lancaster, Reading and Lebanon for "...all the beef and pork barrells you can contract for...,"[39] the price not to exceed fifteen shillings per barrel, or twelve shillings, six pence if the cooper took a ration for each barrel made. In telling Patton to hold the price down as best he could, Blaine implied that this might not be possible.[40] An unparalleled demand for barrels, perishable because they served excellently as firewood, would send the cost of cooperage soaring and eventually compelled the army to engage its own coopers during the spring of 1778.

The inflationary spiral cut deeply into the army's ability to purchase and procure services during the two months prior to the Valley Forge encampment. While commodities became drastically more costly in the vicinity of the army, logistical failure rendered more difficult their regular importation from distant locales in which the commissaries' purchasing shilling would have stretched further. Thomas Jones was locked in the center of a progressively tightening vise of want, and no one assumed the

authority to alleviate the organizational and economic imbalances which beset the army's supply system.

Commissaries

History is replete with those moments when disaster threatens a sorely tried people or organization at every quarter, and at precisely the time when a brillant administrator or leader is desperately needed, no one emerges. Before late February of 1778 the civil support groups of the army foundered in the absence of just such a personage. The Commissary Department very nearly collapsed not through any spectacular incompetence of Buchanan's subordinates, but in partial response to the lack of stellar performances throughout. The disastrous scenario was drafted by those who found it unimportant to appoint a new Quarter Master General, and was marred further by the ill-considered choice of Buchanan. With the sole exception of Ephraim Blaine, who was inhibited by the limitations of his post, the Commissary Department had not attracted a particularly outstanding lot. None of them attained lasting national prominence, and it is difficult to obtain an adequate biographical grasp on the personalities involved. Their correspondence, however, can be singularly illuminating, and from their letters, generally penned in haste and frequently in moments of acute anxiety, it is possible to piece together some evaluative profiles.

Congress discovered that they had made a particulary unfortunate choice in William Buchanan. Whatever Trumbull's faults

may have been, he was certainly more energetic and astute than his successor. Yet Buchanan labored under daunting difficulties, not the least of which being that no one knew precisely where the army would winter until December, rendering it impossible to locate and fill magazines properly. He was paralyzed by his adversities, distracted by detail, and dangerously impressionable. By November 13, Buchanan was in a serious muddle, writing a curious, windy letter to Stewart, between the lines of which lurk presentiments of looming failure. He was inclined to treat Stewart as a subordinate, but now addressed him as a co-equal:

> I am of your Oppinion that from whatever cause unavoidable or otherwise, or by either of our Department's both will be at Random charged with Neglect. I would wish it to be understood, as it may tend to make each Render to each other all the assistance they can conveniently but neither ought to depend upon the other in any capital business nor sho'd either be too Ready to undertake for the other lest it may too much interfer with the Prosecution of their own Business for if it sho'd come to a serious enquiry each will answer only for his own Department in the Present case a difficult question is phaps involv'd to steer clear of which I have really done everything in my Power. that is on may Arival here I apply'd to the Qr Master for all the wags they could Procure to load with flour & whisky at this place and Lancaster, for the Camp. thence to proceed to New England for salt & Rum. nor do I see from what other quarter Bread for the Army could be look'd for whilst the Farmers refuse thrashing and before this can be exhausted I expect to be able to procure a supply from Virginia & Maryland - Now whether the Propper steps for removing these Stores to the camp has been taken is the question I Refer to. 41

For its rambling style and bravura disdain for punctuation, the letter knows no parallel in the extant records of the Department. Buchanan displayed an absence of decisiveness which must have been

instantly evident to those who received such missives. He appears to have washed his hands entirely of the matter of logistics, and it is apparent that he simply did not know what to do next. Too timid to demand services and measures which would have aided in alleviating Jones' problems at camp, Buchanan became wholly sedentary at York. His advice, it is true, was solicited and his presence demanded by Congress, yet it appears that he could have used their ear to greater advantage. Most importantly, he failed to observe for himself the creaking supply system, as during the three months prior to the Valley Forge encampment, he only visited camp once.[42]

Charles Stewart, the Commissary General of Purchases, was a Scots-Irish imigrant who had come to America in 1750 and engaged in farming in New Jersey. He had prospered at his establishment in Kingswood, New Jersey, and was of sufficient reputation to be appointed a colonel in the Jersey militia in 1776. Despite the volumes of correspondence incoming to his office which have been preserved, little from his own hand has survived and he remains a rather shadowy figure. Those of his letters which have emerged are not particularly revealing of character. Stewart did not wait upon Congress as did Buchanan, but stayed close to his home in Kingswood or worked from Trenton or Bristol where he repeatedly asserted that his attentions were required. Although severely criticised in political circles, he retained the respect of his own subordinates, which clearly cannot be said of Buchanan.

Only John Chaloner, gadfly of the Commissary Department, saw fit to chastise Stewart to his face. Yet Stewart shared one salient characteristic with Buchanan - a propensity for leaving the management of his department to subordinates. Jones' endless entreaties with Stewart to come to camp to "regulate matters" fell on stonily deaf ears.[43]

Stewart's laggard attendance to his correspondence was a habit which caused his subordinates to despair and occasionally goaded them to furious outbursts. Upon taking office he had appointed Robert Dill to be his assistant while he still confidently expected to run the Issuing Department from York, and he sent Dill ahead to set up offices and to receive provisions as stipulated in the regulations of June, 1777. Dill passed through camp on his way to York at the beginning of October, but could not find out where Stewart had sequestered himself and had to continue his journey without consulting with his superior. This difficulty in locating Stewart was a problem which confounded many. Dill first wrote to Stewart announcing that things were made ready for his arrival on October 4.[44] By the twentieth, Dill was becomming irked with Stewart's puzzling silence and with his nonappearance. Stewart had also neglected to appoint assistant issuing commissaries at York and Carlisle, and Dill was compelled to deal with temporary stand-ins to receive Trumbull's stores. Dill requested Stewart to appoint permanent officials immediately so that he might set out for camp.

He concluded, "I assure you my anxiety has been as great as your fatigue which I know has been very great. I Know you have had a hundred oppertunities of Writing to me & I think you could have embraced some of them."[45] For whatever reason, possibly the determination to encamp the army nearer to Philadelphia than initially anticipated, Stewart did not travel to York for several months, and he appears to have discarded early on any notion of running his department from the interior of Pennsylvania. He also omitted, for several months, to inform Dill that he was not coming. Dill was not the only subordinate Stewart neglected in this way. As a matter of course he ignored those of his appointees who were posted on the edges of the vortex of the Middle Department, particularly William Green Munford, Deputy Commissary of Issues for the Southern Department and Ebenezer Winship at Albany who held the same office for the Northern Department. As late as mid-December, Stewart had not informed Munford of the details of the congressional resolves of the previous June, and early in 1778 Winship was to write repeatedly for instructions.[46]

It is easier to discern what Stewart was not doing than it is to define the nature of those tasks he in fact attended to. His office, or person, was a clearing house for information pertaining to the locations of various supplies throughout the Middle Department. Purchasing and issuing commissaries often wrote to him specifying provisions they had on hand which could be of use to the army. In October, for instance, Michael Harvey, Assistant Commissary of Issues at Burlington, informed Stewart that he had on hand 300

bushels of salt, which he had packed in pork barrels. A shallop which was originally destined for Billingsport, now fallen to the British, lay at the wharf, and Harvey suggested that he could send the salt on in the vessel, which was already loaded with 80 barrels of flour. It is not certain how Stewart treated this information, but it is reasonable to assume that the provisions at length reached the army.[47] Similarly through James Johnston, Assistant Commissary of Issues at Pittstown, Stewart learned that Moore Furman of New Jersey could supply 100 barrels of pork, if he was provided with the necessary salt.[48] Thomas Jones frequently inquired of Stewart as to whereabouts of provisions so that he might send conveyances to haul them to camp.

Stewart was also the recipient of a barrage of letters requesting preferments, and in the earlier part of the autumn became involved in an assortment of insignificant controversies. The requests for office range from the pathetic to the grasping, reaching prodigal heights of sycophancy, and reflect the generally held perception of Stewart as a man of influence. The requests, bluntly brief or elaborately discursive, betray the fact that service in the Commissary was not the most lucrative or appealing of professions. John Dickson, an assistant loading wagons at the Trenton wharf, applied tersely for "...a more agreeable place...,[48] as did Charles Christie, posted at Fishkill, who claimed that all of his wages could not keep him in horses, so ceaselessly did he travel in pursuit of his duties as Assistant Deputy Commissary of Issues. He would prefer, he asserted, the post of Deputy Commissary of Hides.[50]

Voluminous, by comparison, were the complaints of Charles Mehelm, who sought Stewart's influence in obtaining the office of Deputy Quarter Master for the State of New Jersey. In November Stewart had elicited from Governor Livingston of New Jersey a recommendation for Mehelm directed to Quarter Master General Mifflin. At the time, however, that Mehelm sought to further his chances, the Quarter Master's Department was in upheaval due to Mifflin's resignation. Mehelm presented himself at camp and was brusquely rebuffed by Colonel Jonathan Mifflin, the General's kinsman, who was under the strong apprehension that the current organization of the department needed no further augmenting in the Jersey sector. Mehelm inadvertantly enraged Mifflin with a stinging reference to alleged abuses in New Jersey, and the Colonel hotly replied that Mehelm had best support his allegations or hold his peace. The vignette, at this point, becomes rather comic, as the cowed Mehelm was all the while under the impression that he was speaking with General, not Colonel Mifflin. Mehelm, suddenly not so certain at all that he wanted a post related to the Quarter Master's Department, forwarded a meandering epistle to Stewart running on about pilferage and unattended wagons wandering the streets of New Jersey towns, finally hinting that he would be pleased if Stewart could further his cause elsewhere.[51] He does not seem to have been the stuff of which a Continental Quarter Master was fashioned.

The Quarter Master's Department afforded Stewart, as it did Buchanan, considerable difficulty. Stewart, because of his post in northern New Jersey, came into contact frequently with the formidable Deputy Quarter Master at Easton, Robert Lettis Hooper. This long-entrenched subordinate of Mifflin and cohort of Trumbull was particularly protective of his own administrative family, and when Stewart criticized Richard Backhouse, one of Hooper's men, he ran directly into the teeth of a fight. This did not improve the already rickety relations between Commissary and Quarter Master's Departments. Stewart, still something of a novice at the end of September, suspected that Backhouse had been responsible for irregularities involving storage facilities at Easton, and that as a result Commissary stores were lost through the lack of proper storage space. He may also have cast aspersions on the manner in which Backhouse had secured his appointment. Hooper wasted no time in showing Stewart's accusations to Backhouse, who shot back a reply followed shortly by an even more forcibly worded letter of support from Hooper.[52] The Deputy's reputation for obstreperous behavior is indicated by the manner in which he addressed Stewart: "Sir, My Deputies don't make any pretence to excuse themselves from doing their duty, they have my orders for what they do and are punctual in executing them."[53] Hooper abruptly claimed that a subordinate of Stewart's who reported the alleged irregularity, the precise nature of which was unspecified, had lied, and that Backhouse had pointed out to him sufficient stores for his use at Easton.[54] Later, in another skirmish between the Commissary and Quarter Master's Departments, Stewart had to judge

whether one Joseph Beavers, of his own organization, was being justly or ill accused by Moore Furman of accepting extra pay under dubious circumstances.[55]

Stewart soon had to face more resounding controversy in the form of informal charges pertaining to his management of the Issuing Department. He was subject to frequent criticism, which appears to have been justified, for not attending readily enough to making appointments within his own branch of the Commissary. Robert Hooper, in a caustic note appended to the one above mentioned, advised him that he had best visit Easton and regulate matters, in that there were no issuing commissaries in that locale and that he himself had been acting in the capacity. There was also no one at Pittstown, where Moore Furman had stepped in, and Hooper sternly admonished Stewart that he had already complained to Congress and would do so again in the absence of any sign of action.[56] The prospect of Hooper encroaching on the Commissary Department was doubtless enough to send Stewart hurtling towards Easton, and it is certain that during the first week of October he visited Pittstown.[57]

Problems involving Samuel Gray, Deputy Commissary of Purchases in the Eastern Department, appear to have been further snarled by Stewart's recalcitrance in acting in that quarter, to the extreme irritation of Congress. This was a particularly dangerous sort of situation, as Gray was not the sort of man to seize the initiative; he was content to lurch along pending Stewart's instructions on a division of duties in his department. Even Buchanan chastised Stewart for not attending to matters and compelling Gray to make appointments of

assistant issuing commissaries to receive Trumbull's provisions.[58] Then followed some confusion, in mid-October, about whether Stewart or Buchanan was to go to New England to regulate Commissary affairs. Stewart excused himself for not seeing to the Gray issue because of Congress' removal to York and matters requiring his personal attention at Bristol and Trenton.[59] Unfortunately all of his explanations appear just a bit feeble. Stewart apparently had lied to Gray in telling him that he had taken the matter up with Congress and was awaiting a reply. Matters at Trenton, doubtless involving the transfer of supplies and the arrival of provisions from down the river, required his attention, but the organization of the department under his direction would seem to have assumed some importance also. Contrary to Stewart's assertions, Gray appears not to have been in the least mollified concerning his situation. One can only conclude that Stewart, for the time being, shook off this aspect of his responsibility, and he may have labored under the misapprehension that a district so far removed as New England was of no real consequence to the sustenance of the Main Army. At length Congress, having heard alarming reports from General Heath in Boston as well as from Governor Trumbull of Connecticut, lost patience and ordered Stewart to appoint issuing commissaries for New England, the appointments to be communicated to the governor and Council of Connecticut forthwith.[60]

When in early December it appeared that the offices in New England still remained vacant, the dissatisfaction in Congress burst

into the open, as is evident in a letter from Eliphalet Dyer to the not entirely blameless ex-Commissary Trumbull. Dyer was a far from dispassionate source. He stated that Trumbull's difficulties in getting rid of the old stores were being blamed generally on Stewart, in "...not taking care of his Department..."[61], an assessment with which even the loyal Thomas Jones might in future agree. Dyer reported that Buchanan had been called upon to answer for difficulties in his department, but that Stewart, subject to a similar summons, was nowhere to be found. The last they had heard from him he had set out for New England, where he had obviously not appeared.[62] In fact Stewart had proceeded no further than his home territory of northern New Jersey, where he was to remain throughout the winter.

At this juncture in his not undistinguished career, Stewart is a perplexing protagonist. Secure in the loyalty of his own associates, he nevertheless remained stubbornly remote from the scenes of mayhem where his subordinates labored. To an extent a victim of the organizational rigidity imposed by the regulations of Congress, he was also beyond argument a master of the art of procrastination. Although Stewart apparently performed well for the duration of the war, his first winter as Commissary General of Issues was strikingly inauspicious. These early falterings were uncensured by Congress perhaps because the tasks of the Issuing Commissaries generally were not so central to the success of the department as were those of the Purchasing Commissaries.

When Buchanan and Stewart faltered, the burden upon their various subordinates increased accordingly. Fortunately for the army

some of these were men of goodwill and capability. Thomas Jones throughout the Valley Forge period dealt with the plummeting fortunes of the Commissary at camp. He was much less of a free agent than any of his brethren at the middle echelon, as his responsibilities required his constant attendance on the army. All he could do was send out his wagons and hope, yet when the opportunity arose, he would make purchases from suppliers who crossed his path. As a new tenant of his office during early autumn he may have been guilty of being rather too open-handed with his provisions,[63] yet this early zealousness appears to have been brought under control, if by no other circumstance but the shortage of virtually every item Jones was required to furnish.

Jones' mood was as mercurial as his supply flow. If he had sufficient rations he was in high spirits; if famine reared its many-mouthed head he was plunged in gloom. He must have wearied of his total dependence on Blaine, Chaloner, and the rest of the purchasing agents, but he never seems to have harbored bitter or judgmental thoughts against any of the department, even when the goods did not arrive as he expected. His pleas simply took on a rather more frantic tone, and he soon exhausted his meagre rhetorical repertoire in attempts to prod laggard associates to more vigorous efforts. Jones' correspondence, as a result, assumed a certain monotony. This may have undermined the effectiveness of his voice and raised some suspicion in his less credulous correspondents, but in truth he did not exaggerate. The situation was, often, as evil as he portrayed it.

Ephraim Blaine was a blunt, business-like man whose correspondence bristled with authority. As Commissary General of Purchases for the Middle Department, he assumed his place to be with the Main Army as long as it remained within his territory. He was, however, sufficiently energetic to make long, grueling forays to various points within his department to organize his purchasing realm, and he seems to have had a particular appreciation for the role of logistics. Blaine gave detailed instructions to his subordinates concerning rates of hire and purchase, and he was ruthless with them if they failed to meet his expectations.[64] If he seems to have had a blithe disregard for the limited purchasing power of his agents or for the specific difficulties his subordinates experienced when it came to actually making transactions with farmers and millers, it was a failing he shared with others of his calling. Blaine was, however, quick to seek out the roots of such difficulties and to demand a legislative response. He may have expected too much from certain quarters within his region, as he insisted that John Patton at Reading supply a rather hefty proportion of the flour consumed by the army, but he later distributed his demands more evenly throughout his domain. Far from mild in temperament, Blaine could work himself into a prodigious rage, but he also tended to be rather cool under stress. He savored railing at the British, but he was generous in distributing his invective, as the following passage written on the fall of Fort Mifflin suggests:

> ...Those Dam'd robbers has at length oblig'd our people to evacuate Fort Mifflin, suppose their next attempt will be red bank, our people leaves much to Much in their Power - by which Means they put almost every attempt into execution, our Vilinous Fleet its said give no opposition by Which Means the East india Man took the Garison....65

Later Blaine's steadiness and forthright style would come to be appreciated by both military and civil authorities.

Of the remaining commissaries who would be attached to the Main Army in subsequent months, John Chaloner is the most enigmatic. He had been selected, apparently, by Blaine as an Assistant Deputy with whom he could work closely, perhaps because as a Philadelphia merchant Chaloner knew the territory of southeast Pennsylvania rather well. He was not, however, a native American, but a British emigrant. A Philadelphia merchant prior to his appointment, Chaloner tired quickly of the Commissary Department and by the spring of 1778 was anxious to turn once again to private affairs. He was, before the war, one of scores of merchants of lesser magnitude who were attracted to Philadelphia's burgeoning economy. Doubtless his experience aided Jones considerably, but his caustic humor, while entertaining, must have seemed a scourge to his associates. Chaloner appears to have remained resolutely detached from the anxieties attendant on his office, although it is difficult to assess from this historical distance and from the paucity of his remaining letters what degree of involvement his cynicism may have disguised. Chaloner's prodigious sangfroid is displayed in a letter to Blaine in which he referred to the furious struggle for the

Delaware river defenses as diverting "sport."[66] Yet for all of his banter Chaloner was to prove a durable and hard-working colleague upon whom Blaine and Jones could depend. He had a good head for managing detail, disclosed in his lengthy and explicit instructions to purchasing agents, and he was not squeamish in advocating the application of force in persuading farmers who balked at set prices to give over their produce.[67] In addition, Chaloner was gifted with that irrepressible swagger ingrained in the attitude of so many of the Continentals during the autumn of 1777. Just before Germantown he wrote to Stewart, "I hope in a very few days we shall give the Lads a dressing & have ample satisfaction for their impudence."[68] His wish was not to receive immediate gratification, but it expressed a widespread ebullience which the events of the autumn, even the daunting winter ahead, did not suppress in the ranks of the Continental rmy.

The informal partnership of Blaine, Jones, and Chaloner[69] was to be of considerable importance to the army in the winter ahead. The cast would expand dramatically from mid-winter on, but together these three would weather the storm at camp, and would be thrown back upon every resource at their command to help prevent the dispersal of Washington's army, battling not only failure in their own departments but the violent attacks of enraged officers whose men were clamoring for food.

Salt, Flour, and Tallow

Three commodities upon which supply difficulty centered in the autumn were salt, flour, and tallow. Salt was important for preserving

meat, supplying needed minerals in the diet and rendering the ration and its supplements palatable. Flour would be issued by the pound, or would be baked into bread and a biscuit rather like hardtack, and was a mainstay of the army, particularly when other elements of the ration fell by the wayside. Tallow was an essential ingredient in soap, both hard and soft, and candles, the latter being important in the maintenance of the guard on the periphery of the army's encampment after nightfall during the long autumn evenings. It is worthwhile to delve a little into these three in order to discern the difficulties attendant upon their production and storage.

Flour held rather a different significance on the American continent than it did in parts of Europe. In France it was the one great staple supporting the populace before 1789, and the price of bread was a key index to the economy.[70] In the American colonies wheat was but one of many available grains and foodstuffs in an agriculturally rich environment, yet it assumed greater import in the maintenance of an army, where by virtue of transportability and resistance to spoilage it formed a key ingredient in the ration. Its route, however, from the wheatfields to the soldier's knapsack teemed with perils, and along the way it was subject to several possible "diversions." Wheat was, of course, reaped by hand and threshed by hand on a threshing floor by means of flails, in a process which was unrelievedly time-consuming and uneconomical but for which there was no commonly known alternative. The resulting bushels of a farmer's surplus, after he had sequestered enough to plant the subsequent season and for the support of his family, would

be sold as grain or ground and sold as flour. An average-sized 125 acre farm in Chester and Lancaster Counties after 1760 would typically have 8 acres in wheat (other grains were grown quantity), which would produce about 80 bushels a year, 10 of which would have to be resown the following season.[71] The miller to which the wheat was taken could grind it in varying degrees of fineness; fine for baking or coarse for animal feed. Flour was chiefly transported, particularly for the use of the army, in barrels, the most weatherproof storage containers in use. Nevertheless, if stored or transported under damp or wet conditions, it could easily "sour" irreparably, rendering it unfit for consumption. The barrelling process engaged a set of cottage industries, involving the cutting of sapplings for use in making hoops, the manufacture of staves, and the other tasks of cooperage. When the army was near a functioning set of ovens, bread or hard biscuit could be produced, one and one-quarter pounds of which were included in the soldier's daily ration. If baking apparatus was not convenient, the soldier got flour and had to be his own baker.

Spoilage and the threat of spoilage were recurrent concerns in the Continental Commissary. One of the earliest pre-encampment mentions of Valley Forge in 1777 comes from a directive of Congress to President Wharton, calling upon him to free six militia bakers from duty so that they might bake flour that was reported to be spoiling at the Valley Forge.[72] Damaged flour might, if dealt with in time, be baked into hard biscuit or even distilled into whiskey,

or so reported Thomas Jones, who sent some flour from camp to Lancaster during October to be distilled for five shillings per gallon.[73] Flour on shipboard was particularly vulnerable to dampness. The Continental Navy Board discovered a quantity in October in a ship at Bordentown which had originally been destined for France, and reported that the lot, 360 barrels, would spoil if not immediately baked for the army.[74] (That as late as the previous summer the United States was exporting flour is, in the light of subsequent shortages, particularly interesting.) Later in the winter a criminal event would occur in Maryland, where spoiled flour was mixed with a large quantity of fresh flour, by which subterfuge an agent hoped to disguise it, resulting in the contamination of the entire lot.

The shortage of barrels for storage and transport would pose a continual problem to the commissaries. Hoops were, at the time, made more often from sapplings rather than iron, and barrels had a certain fragility. They were also particularly awkward to store when empty, consuming an inordinate amount of space. If they were stored anywhere near the army they would, despite contrary orders, quickly be converted into kindling. Barrels were most often contracted for with individual coopers, although occasionally millers supervised enterprises in which they hired and maintained their own coopers. Beef and pork barrels earned the cooper 15 shillings apiece in October 1777, less if he took a daily ration for each barrel produced.[75] If the cooper worked under a miller, staves and hoop poles would be provided and the cooper would shape and assemble the barrels, earning considerably less.

Robert L. Hooper was, despite being something of a renegade, a consumately accomplished provider of milled flour. As Deputy Quarter Master he not only managed to provide forage for his teams, but, while Trumbull was Commissary General, he also channeled a substantial amount of flour to the Commissary. It was then common in wheat-rich areas to use coarse-ground wheat as horse feed, and Hooper described the arrangement he had worked out with Trumbull with the object of supplying both forage and flour. When at the beginning of December Jones appealed to him for flour for the army, Hooper reported that 15,000 bushels of wheat recently on hand had been consumed entirely as forage during the fall campaign. Under Trumbull's regime he had ordered wheat in his department to be "ground high, boulted rich,"[76] resulting in forage for Hooper and flour for Trumbull. Because of the increasing scarcity of horse provender, however, Hooper had recently been forced to adopt other methods, implying that all of his wheat was now being consumed as feed.

Wheat, expended with a profligacy which would have astonished Europeans, served, when spoiled, to provide whiskey for the Commissary as well as fuel for the horses of the Quarter Master's Department during the autumn proceeding Valley Forge.

Salt, if less perishable than flour, was produced under circumstances which rendered it a scarce article in 1777. Either imported or extracted from salt water in coastal areas, the former source was terminated with the appearance of Lord Howe's squadron in the Delaware and Chesapeake bays, and the laborious seaside manufacture

became the principal source for the Continental Army. Thomas Jones' repeated demands for salt in the autumn suggest that he was not only issuing it, but putting up salted meat, although this is not specifically attested to in his surviving papers. Jones, in demanding from Gustavus Risberg at Trenton either "Country Salt" or "the other kind"[77] (presumably distinguishing between mined salt and sea salt), added "...for Gods Sake Send this article or we shall all be undone..."[78] with a vehemence which suggests he may have been trying to put up provisions for the months ahead. By November, Congress was attempting to offset the shortage by importation from New England and by setting up manufacturing operations in nearby coastal areas. Pennsylvania had a State Salt Works, at Toms River in New Jersey, which had been supplying salt to cure provisions for the Continental Navy Board, and supplies from this source were channelled to the Navy in November.[79] There was also, later, a salt work at Squan, on the Jersey Coast. Imported salt brought into Egg Harbor by private merchants was seized and paid for by Commissary authorities, and some eventually reached camp in mid-November, yet occasional bounty from such sources could not be relied upon to provide the enormous quantities required by the army. By early December, British intelligence reports indicate that, although it was too late for the curing season just past, Congress was paying particular attention to the manufacture of salt, and operations were gaining momentum. A British spy reported that a work called the Pennsylvania Works (perhaps the one at Toms River), was producing 100 bushels a day, and that a number of lesser operations were

supplying 10 bushels per day.[80] Even allowing for exaggeration this suggests a fairly substantial output, but it is certain that not a great deal of this was reaching the army in December, when but 207 bushels were issued during the entire month.[81] General Huntington, who was perennially intrigued by matters of supply, wrote to his brother Andrew that about the time the army reached Valley Forge, salt cost ten shillings per quart in the vicinity of camp, and that the locals had devised a clever substitute. Salt was mixed with lye made from walnut ashes, then boiled to produce a pickling solution, which, Huntington claimed, was free from taste. With the resulting brine, the people were able to cure a thousand-weight of beef using only a bushel of salt. He does not comment on the palatability of the result.[82]

Jones' complaints of shortages in candles and soap reflect a wholly inexcusable squandering of tallow-producing materials within the army. The uninterrupted supply of soap and candles required an efficient recycling system so that the offal and hides from which it was rendered would be collected and dealt with before they spoiled. It appears that during the autumn large quantities of hides and offal were being discarded or sold by the Commissary Department. Not only, of course, did this refuse produce tallow, but also the hides were essential to produce the leather from which shoes and military equipage could be manufactured. In October Mr. Ewing, the recently appointed Commissary General of Hides, complained to the Board of War that the commissaries with the army, particularly one

from Wayne's division, refused to give over their hides.[83] At the same time the Board inquired of Stewart the quantity of tallow which was being rendered from cattle slaughtered by his department, and what he intended to do to prohibit wastage.[84] Congress then decided that all hides, tallow, hoofs (used for rendering oil), and offal from cattle killed for the use of the army should be delivered upon demand to the Commissary General of Hides or one of his appointees.[85] This, however, did not alleviate the immediate shortage, and Ephraim Blaine ordered John Patton to contract with tallow chandlers in the York vicinity to make soap and candles for the army.[86] From these measures it becomes clear that no circular processing system was at work within the organization during October, 1777, nor is there any clear indication of subsequent improvement.

The results of these multitudinous logistical and organizational difficulties are clearly displayed in the state of the army as it approached Valley Forge. Systems of supply were either not working well, or failed to function at all. It is nevertheless an incontrovertible fact that the army still functioned, albeit under increasingly constrictive limitations. The future survival of the army in the face of the inadequacies alluded to above would mean the imposition of harsh and even repressive measures designed to extract the life-sustaining commodities from already burdened agricultural and transportation systems. Legislative bodies would be compelled to condone and give sanction to the seizure of private property in a paradoxical inversion of some of the fundamental rights for which the Americans were fighting. Interestingly this did not result in a counter-revolution,

nor even in a particularly precipitous reversion to loyalism. Many of the farmers of southeastern Pennsylvania were certainly ambivalent, even hostile, to the Continental cause, but there was no wholesale uprising, such as Sir William Howe hoped to incite, on behalf of the Crown. The populace would display immense tolerance and resiliency in the face of stringent, even financially ruinous measures, in support of the Continental Army.

III THE EASTERN DEPARTMENT

After the battle of Germantown, Sir William Howe, whose army had been in possession of Philadelphia from September 26, was preoccupied with reducing the American works on the Delaware and thereby securing his supply lines to England. Washington was determined to contend with Howe for the Delaware passage and to block the supply line which Howe was striving to open. At the same time, the first ominous effects of the Congressional reorganization of the Commissary Department were surfacing in New England, or as it was then termed in the military parlance, the Eastern Department.[1]

The transitional period between the commissary generalships of Joseph Trumbull and William Buchanan was at best rocky, in part rendered so by the new regulations. It was required, for instance, that the old Commissary General and his subordinates could only unburden themselves of goods remaining in their hands to the new Commissary General of Issues, Thomas Stewart, or his subordinates. The difficulty this engendered is illustrated in the following sequence of events.

At the time General Gates and the Northern Army were pressing the campaign against Burgoyne near Saratoga, Gates complained of being dangerously short of provisions. Jacob Cuyler, recently appointed by Stewart as Deputy for the Northern Department, was bereft of stores, and applied to Samuel Bassett & Company of Boston, who in turn wrote to Joseph Trumbull, now ex-Commissary General, for the release of provisions. Trumbull replied, somewhat testily and perhaps in a fit of pique over his recent encounter with Congress, that he could not, in strict obeyance of the new regulations, release his stores without doing so to the Commissary General of Issues or one of his deputies.[2] Thomas Stewart had appointed Samuel Gray as Deputy Commissary General of Issues for the Eastern Department, but Gray had stationed himself on the Hudson and it would be months before he would himself appoint an assistant for the eastern districts of his department. Because Trumbull in this instance chose to abide by the letter of the congressional regulations, Cuyler did not receive assistance from Boston. Gates, as it turned out, managed quite well, yet if his situation had been genuinely critical, the incident would have had far more serious consequences.

Now all of this might seem rather trivial were it not for the fact that during the oncoming winter General Heath's army at Boston, the entirety of Burgoyne's army that surrendered in October at Saratoga, and Washington's Main Army in Pennsylvania, would depend for meat upon cattle from New England. Cattle from

this vicinity would also be siphoned off by the troops stationed in and about the Hudson Highlands, who found droves proceeding from Connecticut toward Pennsylvania to be a convenient and inexpensive source of fresh meat.[3] Trumbull's negative reply to the Bassetts only hints at the inertia which was spreading throughout the commissarial offices in the Eastern Department. Deputy Commissary General of Purchases Peter Colt, stationed chiefly at New Haven, was burdened with much of the responsibility for sending cattle to the westward. Buchanan left him chiefly to his own devices, without sufficient funds and with less than explicit instructions from Congress. Colt was a man of superior ability and would eventually achieve prominence in the service, but in October of 1777 he was in open rebellion, threatening, along with assistant purchaser Henry Champion, to resign his new appointment unless the conditions under which they both labored were altered.

When Colt had been appointed Deputy Commissary General of Purchases on August 9, Buchanan had assigned him the territory of Massachusetts, Connecticut, Rhode Island, and Providence Plantation. At the end of the month Ephraim Blaine, Deputy Commissary General for Purchases for the Middle Department, had requested Colt to supply cattle for the Main Army in Pennsylvania. Colt, new to the job, quickly found that he could not purchase cattle on the terms specified by Congress. He also began to suspect that his district was far too large if he were to be directly responsible for the actions of each of his subordinates. Hard

on the heels of Blaine's request followed one from Buchanan, who needed beef for the militia called out in the Middle Department in response to the presence of the Lord Howe's fleet sighted off Head of Elk, Maryland. Colt was entirely unable to comply with either request. In the hope of locating some cattle which had been purchased earlier by Trumbull, he consulted with his purchasers and particularly with Henry Champion, who raised a multitude of objections to the practicability of the new regulations. On September 2 Colt met with Champion, who with his assistants refused to continue in the service unless the purchasing regulations were altered immediately. The central objection was that they were expected to purchase on credit, either advancing their own funds or giving vouchers until the first returns could be made to Congress, upon which they would be reimbursed. Unable or unwilling to supply their own money, Colt's purchasers quickly found that the Connecticut farmers were not prepared to sell their cattle for receipts.[4]

Colt wrote to Buchanan on the ninth of September, informing him that all offices were vacant, and that no one was employed to supply the troops at Boston. On the seventeenth he sent a still more urgently worded missive, to the effect that all purchasing in the Eastern Department had come staggering to a halt, that he expected to hear that a successor to his office had been appointed, and that the new appointee should be equipped immediately with cash, for no new purchases could be made without it. Buchanan replied to neither of Colt's letters.[5]

By the 4th of October, Colt, mystified by Buchanan's unaccountable silence, wrote to John Hancock, then President of Congress. Colt summarized his one-way correspondence with Buchanan, adding, "I have now to inform you Sir, that the C. Gen.[1] has never taken the least notice of my letters, or paid any attention to my requests."[6]

Colt noted that Gates' army urgently required salted provisions, and that he had sent all that he had on to Jacob Cuyler at Albany for use of the militia called out to support the Northern Army in the face of Burgoyne's invasion from Canada. Colt closed with the vivid warning that the season was perilously far advanced:

> ...the cold dreary season fast approaching, when we shall have everything to do in great hurry & confusion... I must conjure you, therefore, as you would save your country from ruin, to appoint some person in this Department immediately. 7

Implicit in his image of the "cold dreary season" was a warning that did not have to be spelled out to an eighteenth-century husbandman. Approaching fast was the time of year when cattle and hogs were slaughtered and barrelled for salt provisions, one of the mainstays of the American army. It could not have been done in the late summer, when the weather was far too warm and the meat would spoil before the salting process could take effect. Later in the season bad weather rendered transportation uncertain and consistantly low temperatures would make curing difficult. The traditional time for all of this activity was

late October and November, and Colt had not as yet been able to begin his purchases.

Buchanan, possibly unaware of the series of letters from Colt and certainly ignorant of his scathing diatribe addressed to the President of Congress, had at length arrived at York, which he had selected for his base of operations. He was struggling along in one room, without books or assistants, and was airily directing Charles Stewart to send flour to Hartford in return for salt, if necessary applying to Peter Colt for assistance in raising 5,000 bushels for curing meat.[8] Neither Buchanan nor Congress, however, was entirely unaware of the stalled purchasing in New England, as Congress sought to allocate funds to set things moving again in that department.

Even at this juncture Buchanan's comprehension of the realities of his task seems to have been none too sure. He told Stewart, "I am however mortified with the Expenditure in the Middle Department owing to the amazing Consumption and Prices."[9] The continuing inflation seems to have astonished everyone, but it is apparent that Buchanan was ill-prepared for the vast quantities of food that would be consumed by an army on active campaign. In an inexplicably obtuse comment to Stewart, Buchanan announced that he had not received returns from the north, but that he expected no expenditure.[10] With Gates at that very moment in contact with Burgoyne and engaged in bringing down the curtain on Whitehall's grandiose campaign strategem for the year 1777,

it is difficult to perceive how Buchanan could have anticipated "no expenditure," unless he expected the Northern Army to support itself wholly from the land. At this time Buchanan was chiefly concerned with seeing to it that his subordinates knew that they were responsible for presenting returns in February for the bi-annual accounting of the department, which Buchanan confidently expected to take place in Philadelphia.

Colt's frantic correspondence did at length catch up with the Commissary General, eliciting from him a curious missive to Stewart.[11] Buchanan summarized Colt's complaints and then admonished Stewart to pay closer attention to the Eastern Department, quickly moving on to new difficulties centering about Samuel Gray, Stewart's appointee as Deputy Commissary General of Issues for that region.[12] Gray had lodged himself at Peekskill on the Hudson, from which he surveyed a vast territorial responsibility including Massachusetts, Connecticut, Rhode Island, and New Hampshire. His occasional duties involving the Highland posts required, he reasoned, his situation in the western part of his domain, near the crucial strongholds, passes, and ferrying points whereby communications were maintained between the Middle and Eastern Departments. He, like Colt, commenced to argue for the reduction of his territory almost upon taking office, directing his requests to his immediate superior Thomas Stewart beginning in late September.[13] Stewart replied that he had applied immediately to Congress on Gray's behalf. While Gray awaited definite word,

he delayed appointing subordinates in the eastern districts of his territory. There were no issuing commissaries in the eastern districts to whom Trumbull, as earlier noted, could turn over his provisions, if he close to follow Congress' instructions to the letter. Buchanan chastised Stewart and Gray for the tie-up, yet seems to have had no compunction about letting his own man, Peter Colt, suffer without instructions for weeks at a time. Despite these instances of organizational paralysis, it nevertheless appears that some cattle were trickling westward from New England towards Washington's army, although it was rumored that General Putnam, in command in the Highlands, was depleting the droves for the use of his own troops.[14]

Gray, seeking clarification of his position, set out to find Stewart, and caught up with him near Trenton, where the Commissary General of Issues chose to post himself. Stewart reported the meeting to Buchanan, stating rather ingenuously that Gray had evinced no overwhelming dissatisfaction with the situation, and excusing himself for not taking up that matter of Gray's territory with Congress because of their precipitous removal to York. Yet despite Stewart's assessment, Gray was clearly disturbed, and waited expectantly for Stewart to announce the division of his department and the appointment of another deputy for the Boston vicinity. He was still reiterating his complaints on November 16, and he had not as late as the nineteenth appointed issuing commissaries to receive Trumbull's old stores in Boston.[15]

Colt, however, had been somehow mollified into retaining his post, and was appointing a set of new assistants by mid-November. After a lengthy period of inactivity he set about energetically reorganizing his staff and commencing to purchase. One letter to a new assistant instructed him specifically to purchase cattle for the use of the Grand Army in Pennsylvania. The assistant's territory was extensive, including Bradford, New Haven, Milford, Derby, Stratford, Ripton, and Newton. The cattle were to be pooled at New Haven and Danbury, where droves would be made up and sent on to Washington's army.[16]

It was well that Colt, Champion, and a few others were, even if belatedly, going about regulating commissary affairs in this crucial Eastern Department, for by mid-November Buchanan had, astonishingly, washed his hands of that quarter. In a cryptic missive to Stewart, a letter which hints at his defeat even before the real tests of the winter had set in, he announced:

> I am strictly caution'd against going to or intermeddling. /otherwise than by writing/ with the Eastern Department - Congress have it much at heart to serve us from that quarter & flatter themselves that they now have it in a fair way. 17

It also appears that in order to regulate matters in New England either Buchanan or Stewart were to journey there. Due to a misunderstanding, neither of them went.[18]

August to mid-November 1777 was for the Commissary a period of critical loss of time and dalliance with chance. Both Buchanan and Stewart were guilty of side-stepping organizational problems

within the Eastern Department, probably because neither had adequate appreciation of the crucial nature supplies from that region would assume once meat resources in the Middle Department were found to be genuinely and irremediably insufficient. The army would look to huge supplies of salted meat which traditionally were laid down in November, yet purchasing was only beginning at mid-month.

This delay substantially altered the system of supplying meat to the army for the late winter and spring of 1778. Instead of shipping barrelled meat from New England, the purchasers in that quarter would be compelled to supply droves of beef cattle on the hoof for the army in Pennsylvania. Purchasing would barely keep up with demand, as the delay at the end of 1777 dashed any hopes of stockpiling meat, underlying the "hand-to-mouth" character of meat supply which was universally decried by the army at Valley Forge. One benefit, however, accrued from this, in that supplies of barrelled meat would have required wagon transport of a magnitude that the army was in no condition to provide. Livestock, on the other hand, moved itself, with the assistance of a few drovers. Droves consumed sizable quantities of forage along the routes employed, and as these supplies were reduced through the winter, the cattle had diminished resources on which to subsist on their way south from New England. The result was emaciated herds, requiring Ephraim Blaine to fatten them briefly in the Morristown vicinity before sending them on to the army. Many herds, driven hard to relieve the army, had no such opportunity. In the

late colonial period a dressed beef averaged 450 pounds, but those which arrived from New England at Valley Forge doubtless weighed considerably less.

Both Trumbull and Congress played shadowy but perceptibly disruptive roles in the Eastern Department, Congress apparently going so far as to caution Buchanan against pursuing supply in that region. The New England functionaries doubtless wished to maintain a certain degree of autonomy in commissary affairs, and may have resented the meddling of a Pennsylvanian. Trumbull was suspected of having been actively recalcitrant, and of conspiring to stall commissary affairs in New England because of his resentment of Congress' handling of his former department, but there is no documentary evidence to support the contention adequately. He certainly chose to be rigidly constructionist in his reading of the new regulations, and this did indeed place stores in limbo for some time. Yet that he actively conspired with his former assistants to disrupt the department in New England seems unlikely.

There was in all of this a plethora of mitigating circumstances. First, as always, the line of communications between Pennsylvania and southern New England was a constant problem. Letters might take as long as ten days to traverse the distance, and then might wait on the desk of the intended recipient while he rode about the countryside in pursuit of his duties. Urgent organizational questions were at the mercy of the vagaries of travel, consequently the problems swirling about Colt and Gray could hardly receive immediate attention from Buchanan and Stewart.[19]

Lord Cornwallis made his formal entry into Philadelphia on September 26, sending Congress scurrying to York and causing subsequent delay in business. It was unfortunate but true that the intricate workings of the Commissary Department had, in the light of the recent dramatic events, something of a prosaic character, and it was perhaps predictable that Congress might brush them off while attending to more momentous matters. As events would soon disclose, they were central to the future of the Continental Army.

William Buchanan's most severe administrative difficulties stemmed from his inability to deal concurrently with the supply crisis of the autumn and his mandate to plan for the future supply of the army. In choosing to concentrate on the latter and to disbelieve clear signs that an immediate crisis was at hand, he committed a critical error. His constant presence at York meant that he had little contact with the purchasers and sellers in terms of practical experience, and he stubbornly refused to believe the warnings of his subordinates, choosing instead to accept without question the assurances of Congress and state political figures that there were no real shortages in the vicinity of the army. He apparently did not see that it was very much in the interest of the state governing bodies of Pennsylvania to continue to make these assertions long after the most casual observations would have proved them false. The Continental Army, consuming over 20,000 rations daily in December, 1777, could not have subsisted indefinitely on the bounty of their immediate environs.

Influenced by Congress, Buchanan became entangled in a grandiose scheme of interstate commerce which preoccupied him throughout the period when Jones, Blaine, and Chaloner urgently required his undivided attention to the immediate needs of the army. The plan was occasioned by a massive commercial imbalance between New England and the Middle Department. Connecticut, Massachusetts, and Rhode Island were rich in salt, whereas supplies in New York and Pennsylvania were nearly exhausted. Conversely, New York, New Jersey, and Pennsylvania were reputed to be rich in wheat, but the New England states were suffering, by late 1777, from severe shortages. New York was so needful of salt and the inhabitants were so loud in their complaints that the Assembly at Kingston ruled it a legal offense to trade wheat out of the state unless it was bartered specifically for salt, or a special permit was procured. This regulation had the ancillary effect of sequestering supplies of wheat within the state which subsequently would have been of use to Washington's army.[20]

The salt/wheat imbalance became a matter of discussion at York, where Buchanan based his office at the behest of Congress. Members of Congress and the Commissary General of Purchases between them hatched a scheme for a massive importation of salt from New England in exchange for some of the bounty of Pennsylvania's presumably bulging graineries. Unfortunately for Buchanan, the lumbering mechanics of the plan and his highly unrealistic perception of the actual reserves of wheat in Eastern Pennsylvania

combined to be his undoing, and diverted his energies from the pressing supply dearths of the autumn.

Jones' repeated calls for salt at camp during October and November illustrate its irregular presence in the ration of the army, but its primary application was in the curing and stockpiling of salt beef and pork for the opening of the next campaign. November was the month for putting up such provisions for the following spring and summer, and long-term planning was an essential part of the task of the Commissary General. Beginning in the winter, salt would be produced in seaside works along the Maryland and Jersey shores, but at this juncture New England was the only substantial source aside from importation. Moreover, New England's scarcity of wheat was common knowledge, and General Huntington cited its exorbitant cost (reported to be three dollars a bushel), as a reason for the acute anxiety suffered by New England officers occasioned by their inability to supply their families on their monthly pay.[21]

The idea of interstate transport of wheat and salt was afoot on an informal basis by October 4, when Buchanan wrote Stewart, grandly announcing the presence of 11,000 barrels of flour at York and Lancaster awaiting deliverence to the army. He had applied optimistically to the Quarter Master's Department for trains of wagons to carry it forward and deposit it as directed by Stewart. (It is curious that a letter written by Stewart's assistant at York on the same day described a general dearth of

flour in the vicinity, with the exception of some at mills about the countryside.)[22] Buchanan directed, without recourse to sound logistical thinking, that the wagons conveying this flour to camp were then to proceed to Hartford, pick up 5,000 bushels of salt, and return it to Pennsylvania. He blithely told Stewart that if there was insufficient salt at Hartford, that it should be forwarded from magazines further east, despite the fact that their reserves were needed to supply the troops at Boston. Peter Colt of Hartford was to lend assistance.[23] This appears to be the germ of the salt/wheat exchange, but as yet it was a rather lopsided affair as there was to be no reciprocal supply of flour offered from the Middle Department. Jones at camp, however, was aware that flour was to be diverted from the use of the army by October 10. If Buchanan indeed had 11,000 barrels of flour at York and Lancaster, it would have been sufficient to serve the army for better than seventy days, at a rate of 150 barrels per day. Jones, however, was not receiving the flour on a regular basis, probably because of the problems in transporting it which Buchanan had encountered. In the midst of his first grave shortage of flour, Jones was adamant with Stewart: "...I have thousands after me Every moment, therefore must close writing you would send as much flour Etc Etc. as Possible always to Camp & not have it sent away from the Army or I will not stay a week longer."[24]

The plan, as finally promulgated by Congressional resolve, was predictably elaborate. Buchanan was authorized to apply to

the governing bodies of Connecticut and Massachusetts Bay to import salt for the use of the army in the Middle Department, to be delivered by ship to the Middle and Southern Departments in exchange for flour to be returned to New England. To supply the immediate demand, the Connecticut and Massachusetts governing bodies were requested to assist Buchanan in the procurement of wagons to haul 12,000 bushels of salt from New England westward, to be exchanged along the Hudson river for flour collected by the Commissary General in the Middle Department, the wagons returning to their own districts with the needed commodities.[25] Despite Jones' threat not to tolerate the removal of flour from Pennsylvania, he was inclined to relinquish his stand once supplies seemed reasonably plentiful in camp. Jones casually observed on October 22 that wagons had come through with flour, some of which was destined for New England. He did, however, wish to raise his objections to the plan with Washington, but was not disposed to press the issue when the Commander in Chief was occupied in council.[26]

By early November Ephraim Blaine was involved in the undertaking, at least in a peripheral fashion. He wrote to Stewart telling him that Peter Colt had at last taken office officially as Deputy Commissary of Purchases at Hartford, and that the salt/wheat switch was definitely in progress. By now, however, the quantity of flour had shrunk in relation to the amount of salt expected from New England. Samuel Gray, who was now permanently posted at Peekskill on the Hudson and the immediate environs,

was to order salt from Hartford sufficient to load 250 wagons from the Middle Department. Stewart was to see that 100 of those wagons were loaded with flour for New England. Blaine, at the time, seemed rather more concerned with passing on the war news, particularly the fall of Fort Mifflin, than with the salt/flour enterprise. Clearly the needs of the army were cutting into the flour designated for the switch.[27] William Buchanan, by now beginning to feel at sea in his new appointment, at length realized by November 13 that he could not allow flour to pass camp for New England when Jones was running out of the substance almost weekly. He then informed Stewart that flour for the exchange would have to be procured in New Jersey and in Ulster County, New York, one of the traditional bread-basket regions, and deposited at Kings Ferry or New Windsor to await the shipment of salt from the eastward.[28]

Blaine, a man whose practical good judgement rarely failed, was by now out of patience with Buchanan's arcane schemes, and he and Stewart had begun to find fault with the Commissary General of Purchases. On November 16 Blaine informed Stewart of a new wrinkle in Buchanan's obsessive attention to the salt issue, which mercifully he appears to have but fleetingly considered. Blaine, normally quite forgiving of Buchanan, explained:

> [Buchanan is] ...fully Determined to guard Congress and let the consequences be as it may is resolv'd not to leave York Town, - his two last leters to me would Astonish you, in his first he recommends the supplying the Army from the Eastward with salt fetchd upon Pack Horses, and requests to me to return to those persons who imported salt which Colonel Hugg seized at Egg harbour all their salt as he looks upon their demand's unreasonable - therefore we shall not have a single Bushell for salting Pork.... 29

Yet some of the salt from Hugg, one of Blaine's assistants, eventually reached camp and Jones described it as "...the finest you ever saw...."[30]

Plans for the salt switch were in the meantime proceeding, and Gray had selected New Windsor as the location where the two convoys were to meet. Stewart wrote to Gray on the 28th that 50 wagons were proceeding from his station at Kingswood, New Jersey. Each carried six or seven barrels (a light load), and were to travel via Pittstown, Hackettstown, and Sussex Court House to New Windsor, then pick up the salt and return without delay. Stewart would send more wagons, when they could be spared from camp, to haul a total of 10,000 to 12,000 bushels of salt back to the Middle Department. He was worried about the safety of New Windsor as an exchange point, and wanted Gray to think about appointing another location less vulnerable to British forays.[31]

Then a cluster of unpropitious events converged upon the scheme and it began to disintegrate. There was a delay in procuring the necessary quantities of flour, quite understandable considering the current want in the army at camp. Nevertheless by early December Gray had requested Colt to have teams make ready at Hartford to convey 2,000 bushels of salt westward to New Windsor.[32] Yet General Heath at Boston reported on December 7 that the 12,000 bushels of salt ordered by Congress were still in stores in New England. Colonel Trumbull, as if determined to discredit the June regulations, still asserted that

only a Commissary of Issues could free it, and as yet no one held that office in the Boston vicinity. Gray had not made an appointment, and very likely delayed in the hope that the Eastern Department would be subdivided. The Massachusetts Assembly had requested Trumbull to turn the salt over to Peter Colt along with 5,000 additional bushels for the Northern Department, and Colt traveled to Boston with the purpose of receiving it. The Assembly was also attempting to procure teams, but Trumbull continued to grumble on the grounds of strict legality. Heath observed, however, that the season for curing was past.[33]

By mid-December the event had not taken place, and Buchanan felt his position to be severely compromised. Gray had already started shipments from Hartford, but flour was not forthcoming. When Buchanan at length arrived at White Marsh he fired off a stinging reprimand to Stewart for lagging in his procurement of flour, and ordered Blaine to see to the business. Stewart had told Blaine that there were 2,000 bushels waiting at Easton for transfer, but when Blaine investigated he found nothing at that location. Buchanan then blamed Stewart for the failure, and warned him of "dreadful consequences" if he did not set matters straight.[34]

It is difficult to discern precisely what was going on here. Buchanan was plainly passing the responsibility for his enterprise off on Stewart, who had taken something less than intense interest in the plan. There is no confirmation that Stewart ever sent the

fifty wagons to Gray, as his letter describing their route and contents may have been anticipatory. Both Blaine's and Stewart's lack of enthusiasm for the salt and wheat exchange may well have dictated their recalcitrance in doing anything to further it, particularly in the light of the army's immediate predicament. It appears that Buchanan's scheme had quietly dissolved. Although salt did make its way west from New England, and wheat may have been exchanged for it in small quantities, no vast wagon convoys ever met along the blustery heights or narrow defiles of the Hudson Highlands to exchange 12,000 bushels of salt for a like quantity of flour.

The episode is nonetheless important in that it illustrates Buchanan's docility in being pressured by Congress into a fundamentally unworkable enterprise, which involved drawing flour from the army when it needed it acutely, and the degree to which the entire department could be diverted from the immediate task before it. Jedediah Huntington was not being entirely unfair when he wrote to his brother Andrew on December 20,

> ...we have lived upon lean Beef till we are tired of the Sight of it -- and should you think it, we live from Hand to Mouth for Flour even in this fine Wheat Country. We lay the Fault at the Door of our Providers- 35

IV TOWARD VALLEY FORGE

The circuitous motions of the Continental Army, as it stalked and was in turn stalked by Sir William Howe between his debarkation on August 26 and the Whitemarsh brush of December 4-8, expended the resources of the Commissary and Quarter Master's Departments in so prodigal a manner that the survival of the army over the winter was dangerously jeopardized. Washington, intent on remaining in readiness to deal a blow to Howe, may not have been fully aware of the perilous nature of the looming supply crisis. Dire signs were in evidence, but they were obscured by the consistantly tenuous nature of army supply, and the record illustrating that there had always been, in the final reckoning, enough to keep the army in one piece. Nevertheless, as the campaign progressed through Pennsylvania, vital resources were expended and lost, and insufficient provision was made by the newly reorganized Commissary for their replenishment. A number of small, comparatively insignificant narrow escapes heralded the supply crisis occurring later at Valley Forge. They stemmed principally from deteriorating relations between the Commissary and Quarter Master's

branches. Washington, almost entirely preoccupied by his principal military functions, was compelled to leave long-range commissary planning to those who were unable to perform the task.

With the Main Army was a Deputy Commissary of Issues, Thomas Jones, who superintended the issuance of all food provisions to the Main Army. A key but obscure figure (so obscure in fact that he is mentioned in none of the standard histories of Valley Forge), Jones emerges from his correspondence as a rather unexceptional but conscientious man, duty-bound to remain at his post throughout excrutiatingly humiliating episodes, before which the tenacity of lesser men would likely have withered. He resigned repeatedly, regularly, and monotonously, but always seems to have been in camp to receive the next shipment of cattle or flour. His letters, through periods of extreme shortage, are littered with semi-hysterical outbursts which must have proven irksome to his correspondants, yet there is no indication that he ever represented matters at camp in any way that was deliberately untruthful or exaggerative. When he was distressed there was always good reason.

Jones saw that provisions were delivered from central stockyards and magazines to the brigade Commissaries of the army. Generally there was a single Commissary for each brigade - for the Artillery, the Light Dragoons, for each of the militia brigades, and for the "Staff Department," which was Washington's military family. In all there were 22 brigade-level Commissaries with the army in December of 1777. These men would collect the components of the ration from Jones and then distribute the food

to the regiments. All transactions were accompanied by receipts, which were compiled in monthly returns supplied by Jones' office to his immediate superior, Charles Stewart.[1]

Several of the higher ranking Commissary Department figures were attached rather permanently to the army. Ephraim Blaine,[2] the tough-minded, astute Deputy Commissary General of Purchasers for the Middle Department, spent most of his time in the immediate environs of camp, where he was sorely needed by virtue of his competence. One of his several assistant purchasers, Philadelphia merchant John Chaloner, was also frequently about camp, helping where needed. Chaloner's correspondence exudes sardonic wit, and from time to time displays rather cold-blooded detachment. Attached to Jones and his associates were assorted clerks and messengers who aided with the substantial amount of paperwork generated by the office.

Although higher echelon figures like Blaine, Jones, and Chaloner were generally sequestered from the army, having little contact with the soldiery, the brigade-level issuing commissaries bore the brunt of the criticism leveled against the department. This could be a problem when the food did not suit, but it could become downright dangerous when it failed to arrive at all. The case of Joseph Chambers, a commissary in Greene's division, illustrates the point well. Chambers was given a public flogging by Colonel Josiah Parker of the 5th Virginia Regiment for serving the division poorly, and he immediately demanded a court of inquiry.

He recounted the result to Charles Stewart, in a letter wherein he begged for a less rigorous post:

> I repeatedly suffered the most intolerable Abuses what is still more chagrinning Justice is not to be had. In the Affair of Col. Parker His Excellency was pleased to appoint a Court of Inquiry by which I only received greater Insults & more extensively published my disgrace, Coll. Parker before the Court acknowledged that he had given the Damn'd Rascal a flogging and brought witnesses to prove that before he had flogg'd him the Division had been badly served but after that the Commissary had been more attentive to his Duty. 3

The court of inquiry let Parker off with an admonition, even though the hot-headed Colonel had once before sent his quarter master for Chambers and threatened to hang him. What Chambers had done to provoke such treatment does not emerge from his account, but he implied that he was taking the blame for provision shortages for which he was not responsible.[4] (Occasionally, a brigade commissary would be genuinely culpable in failing to supply his unit.)

It was apparently the custom to hold the Commissaries individually responsible for food shortages, and they were characterized by army officers as grasping, profiteering parasites making fortunes at the expense of the soldiers. This opinion seems to have been shared by the men, who found a common target in the lowly Commissary. Suspicions of peculation were bolstered by the pay regulations for the department, which specified that the high ranking officials were paid on a commission basis, ranging according to office held from two percent to .5 percent of all funds which passed through the office holders' hands. Lower

ranking Commissaries were paid a regular wage. It is not possible at this juncture to speculate on what sort of man the post attracted, but its remuneration, which put the office-holder roughly on the same footing with a lower-ranking officer, can scarcely have compensated for the abuse occasioned by the job. This is reflected in the high rate of attrition among the brigade Commissaries over the course of the 1777-1778 winter. Of the fifteen who served sixteen brigades wintering at Valley Forge, eight were gone by the end of June, 1778.[5]

Thomas Jones, writing regularly from camp, wherever it might be, to Stewart, who was nearly always absent, provided a fairly regular record of the faltering state of the Commissary leading toward the fearful months at Valley Forge. One of his letters to Stewart, written from the camp at Skippack, typifies the situation throughout the autumn. He informed Stewart that Washington had become anxious about the safety of the Quarter Master's and Commissary stores, and wanted them transported to a secure magazine, whence they could be sent daily to camp. Jones had just received 51 wagons hauling 262 barrels of flour, 179 barrels of bread, and three hogsheads rum, and had sent out 27 wagons to Stewart to collect more rum, salt, soap, and candles, of which he had none to issue at camp. The troops had been without salt for four days, and the supply of cattle issued at camp was always exhausted before new droves arrived. He sent off damaged flour to Lancaster to be distilled for five shillings

per gallon.[6] Jones, a recent appointee, was striving to give a good accounting of himself. He may have had a proclivity for overissuing the articles he had in store, if one may ascribe credit to John Chaloner's rather critical letter to Stewart:

> Mr. Jones has done exceedingly well here, I see but one fault in him, perhaps you will not think it such, he makes himself too great a slave to the Issuing Comyss[ys], in fact he provides for them without giving them the least trouble to collect it, he is now much in want of salt, rum, soap & candles, of all which if with you send him a seasonable supply of each, rum in particular - Twenty hhd is nearly consumed p week. 7

Washington's army had not as yet begun to expand, as it would in November, with troops arriving from Gates' command, so Jones' shortages during this period may have stemmed from an overzealousness in the new office-holder to dispense the largesse.

At the end of September, Washington removed sizable stores of equipage, food, and forage away to the west, ferrying them from the Jersey side of the Delaware out of reach of British raiding. The commissaries suspected, to their chagrin, that the Quarter Master's Department, in control of the vast majority of wagons, teams, and drivers attached to the army, placed the commissary supplies last on their list of priorities when it came to moving the articles to safety. Commissary stores thus lingered behind, courting danger. When Stewart complained of this to Jones, Chaloner could not resist bearding him for his naivete:

> During your absence from Camp have seen several of your letters to Mr. Jones the last is truly diverting, I thought you had been long enough in the department to arm you with fortitude sufficient to see without murmuring the most contemptable articles belonging to the Q[r] MG removed whilst your Rum Salt & flour is sufferd to remain in danger; this will ever be the case; untill you make use of the power given you in the 35th Article for regulating the department - and hire teams sufficient for your use - for it sounds well on one side of the Question, Wee saved every thing even all the Wheel barrows & shovels and the Commissaries lost their all- 8

And indeed, why was Mr. Stewart not hiring wagons? The problem devolved from the vaguely worded Article XXXV of the June regulations. Congress doubtless counted on the support of the Quarter Master's Department, but it was now headless and no one was compelling the Deputy Quarter Masters to conform to the duties implicit in the article. Stewart and Buchanan may not have been provided with sufficient funds to cover the hiring of wagons and drivers, and they were in any case increasingly scarce. Unfortunately we have not Stewart's reply to Chaloner's jibe, nor does he later give any indication of why he would or could not enact the powers supplied in Article XXXV. For whatever reason, the logistical dependence of the Commissary on the Quarter Master's Department would continue to shackle the former to inadequate means of transportation until the following spring, when the new Quarter Master General, Nathanael Greene, keenly aware of the Quarter Master's logistical centrality to all branches of the service, began to work more closely with the Commissary Department.[9]

From early in October, shortage developed in a commodity more basic even than candles and soap; specifically, flour, one of the staples of the army. Chaloner covertly alerted Stewart when a shortage first erupted at the garrison at Billingsport, letting him know that word of the problem had not yet reached Head Quarters. As Chaloner was himself in camp, then near Wentz's Tavern, when he dashed off the warning missive late at night, he was clearly acting to shield his associate.[10] But as shortages began to effect the Main Army itself, there was no possibility of concealing them.

The months of October, November, and early December brought recurring dearths in salt, whiskey, and most importantly, flour. In at least six separate instances Jones was without bread or flour to issue to the troops, the only contrivance standing between the army and real famine being the reasonably regular arrival of beef cattle throughout the autumn from Blaine's purchasers and from New England. Jones' correspondence during this period reflects his vacillation between mild concern and genuine alarm. He wrote liberally whenever his stores dwindled. He may, to a certain extent, have calcuated his utterances in order to elicit the desired response from his correspondants, but there is no doubt that the Army was frequently without bread, flour, and whiskey prior to its arrival at Valley Forge, and that magazines of any size could not be accumulated.

The first of these ominous breakdowns struck about October 10, while the army was licking its wounds after Germantown.

The troops had lost three days' provisions in the course of the engagement, and Jones was so busy setting things in order from his station at Pawlings Mill on the day of the battle that he was unaware of its outcome.[11] By the tenth his situation was sufficiently grave for him to proffer the first of his recurring resignations to Stewart: "I have sent several Brigades[12] to all Quarters & not one of them returnd some is run of & Cannot tell what came of the rest."[13] He had heard that there were 1,000 barrels of flour to be had at Crooked Billet,[14] but when he sent Chaloner to fetch it he found that there were only 23. In addition to Jones' burgeoning difficulties, units from Gates' Northern Army were arriving to reinforce Washington, "...our Army is now Encreasd almost without Number, & would eat the Devil himself if it was Bread Beef and Rum-"[15] Jones found himself on a regular pendulum of fortunes; by October 22 he reported to Stewart that things had improved markedly, and that he had been saved by the arrival of 300 barrels of flour, 198 head of cattle, and the near prospect of 200 more coming in a drove from New Jersey, evidently from Blaine's assistants. The harried Commissary at camp had, however, been obliged to seize seven wagonloads of whiskey from the sutlers who plied their wares to the army, for immediate distribution to the troops. Chaloner went out scouting for vinegar, required in the care of the sick, near Germantown. Jones, his peace of mind disintegrating rapidly under the burden of repeated crisis, tried to have a private parley with Washington, but the Commander in Chief was too occupied in council to receive him.[16]

The army then regained its supply equilibrium for a few days, while posted at Whitpain awaiting the results of the contest for the fortifications on the Delaware. Beef and cattle flowed in, and a welcome train of sixty wagons arrived bearing flour from Lancaster. Chaloner managed to locate twenty hogsheads of vinegar at Germantown, with better than 3,000 bushels of wheat, and, at Chestnut Hill, Clement Biddle, the Forage Master General, had discovered a supply of fish and wheat that he was forwarding on to camp.[17] Blaine was out scouting for provisions south along the Delaware and in the vicinity of Trenton. In his best sardonic fashion, Chaloner wrote to him, "You are now in veiw of the Actions that have happend between the Ships, Galleys, forts and the enemy troops.-therefore don't expect your return speedily if sport continues, but must demand the news."[18] He closed with a reminder to Blaine that salt was still in short supply at camp.

Then, on about October 29, the supply system was unhinged by a lengthy spate of bad weather. Torrential autumnal rains battered and lashed the army, rendering supply a day-by-day affair. Salt, soap, and biscuit, or hard bread, were out. No wagons arrived due to the impassability of the roads. Said Jones,

> We are in poor Quarters here, up to our Knees in mud and has been so for four Days past... if this weather should continue much longer Our Army will be ruined.... 19

He dispatched twenty-four wagons to Mayberry's Mile for 200 barrels of flour believed stored there, but placed little hope in the

expedition.[20] He also sent out seven wagons to Gustavus Risberg at Trenton for any kind of salt he could provide, requesting also flour, bread, and spirits, with three barrels of the best bread for Washington's personal use and one for himself.[21] (Perhaps he thought he might elicit some attention from Head Quarters in this manner, all other tactics having failed.) Flour and liquor were once again, he told Risberg, dangerously low.[22]

By November 2, when Jones issued rum to Sullivan's division, some quantities of liquor had appeared. He was apparently bartering for whiskey himself, a task which was, strictly speaking, that of the purchasing commissaries. Jones himself paid Thomas Welch 105 pounds 3/9 for three barrels of liquor. This probably occurred in the absence of Blaine and Chaloner from camp, and illustrates the informal functioning within the department, in spite of the strictly delineated roles assigned by Congress.[23]

The blame for the shortages, which erupted once again in early November, ultimately fell upon the purchasing commissaries. Ephraim Blaine had returned to the army by November 3, while Washington was awaiting the result of the British naval assault on Mud Island, but a more immediate problem to the army resulted from there being no flour whatsoever to issue. Whiskey was again being seized from the omnipresent sutlers. Ephraim Blaine, bearing the heaviest responsibility for purchasing for the army, was sharp with John Patton, his assistant posted at Reading:

> There is not one barrel of flour in Camp, nor any Whiskey but what was seized from the sutlers. When I wrote you last I was in the greatest distress for want of both those articles, which never could have happened had timely attention been paid to my advices. 24

Blaine ordered Patton to forward no fewer than 200 barrels of flour and 60 hogsheads of whiskey per week. As the sutlers were, for the moment, out of business, Patton was told that he should have no competition from those incorrigible private entrepreneurs, and that consequently he should be able to reduce the cost. Blaine authorized him to seize whiskey if sellers refused to settle for his price. Although Blaine proposed to establish a magazine at the Trapp, Patton was to forward his first shipment directly to the army. By way of emphasis, Chaloner tagged a postscript onto the letter asserting that no supplies had been arriving at camp save a few gallons of whiskey.[25]

It may seem from the above orders that Blaine was placing an undue burden on Patton, who was after all but one of Blaine's assistant purchasers. In effect Blaine was asking him to supply about one-sixth of the whiskey and flour consumed by the army in a week. Yet Reading's prominence as a major transportation center in a rich area dictated Patton's importance as a crucially situated supplier. As Reading was being seriously proposed as a winter encampment site for the army at roughly this time, Blaine knew that in the future considerable importance might be placed on Patton's office.

By November 6 supplies appear to have begun to flow once again. At least one brigade, the North Carolina, was on that day issued flour. The next day the Maryland militia was issued whiskey, suggesting that the supply was fairly good, as militia troops, often forbidden liquor rations by Washington, were usually the last served.[26]

These repeated shortages, however, resulted in Washington's direct intervention on November 11. It had become clear to him, even by this early date, that the arrival of supplies from New England in a regular fashion was of particular importance, and he ordered the New England commissaries to forward wine and spirits immediately to his army. General Putnam, in command of the troops in the lower Hudson valley, had pledged his assistance in seeing that supply was expedited through his command area.[27]

Meanwhile John Patton, spurred to action by Blaine's stinging missive of the third, was beginning to respond. His territory as Assistant Commissary of Purchases included Berks, Lancaster, and Northampton counties, a rather substantial expanse of terrain. Regulations permitted him to appoint assistants as needed, and he enrolled John Jennings as purchaser in Northampton County. John Chaloner, adept at the intricate workings of the purchasing system, forwarded detailed instructions to Jennings.[28] His first duty was to supply the garrisons and posts within his district with the best quality produce he could provide. Because, however, his district was reputed to be plentiful, Chaloner expected him to send his surplus to the Main Army, and Chaloner therefore

directed that all the cattle and flour that Jennings could collect be forwarded immediately to Headquarters. The prices he was to pay were not to exceed twenty-five shillings per hundredweight of flour, ten pounds per hundredweight of beef, and four pounds ten shillings per hundredweight for hide and tallow. Wheat was not to exceed 8/6 per bushel, and Chaloner wanted information on the price pork was bringing locally. He gave strict instructions that if anyone attempted to establish a monopoly in any commodity, their goods were to be seized, in return for a receipt stating quality and quantity, a price to be settled upon later by the state of Pennsylvania. To illustrate the point Chaloner noted that there was one Jacob Stroud in Northampton County who was reported to have fifty head of cattle and a good deal of flour, which he was refusing to sell for Continental currency. If Stroud refused to deal with Jennings, he was to seize all of Stroud's produce with the exception of that needed to feed his family. "In this," Chaloner cautioned, "be liberal."[29] Jennings might apply to the County Lieutenant for a guard, if necessary, and he was to report in eight to ten days on his success in collecting beef and flour.[30]

Chaloner's instructions demonstrate an attitude and set of procedures which were to become commonplace during the winter. The burden would now be placed chiefly upon lower-echelon Commissary appointees, the Assistant Deputies, to wring from the counties of Pennsylvania a substantial proportion of the grain and forage

KNOWN CONSUMPTION OF MAJOR STAPLES OF THE RATION BY THE MAIN ARMY*

	Bread	Flour	Biscuit	Total lbs. breadstuffs	Meat & Fish in lbs.	No. of rations	Total lbs.
Dec., 1777 (inc. Militia)	unknown	unknown		1,041,979.8	1,071,282.5	23,061	2,113,261
January, 1778	185,505	715,859		901,364	1,053,222	unknown	1,954,586
February	235,686.5	506,234.5		741,921	616,634.25	19,749	1,354,555
March	unknown						
April	unknown						
May	189,908.5	694,021.5		965,396.5	546,154	unknown	1,511,550.5
June	283,703.75	694,021.5	1,357	979,082.25	641,105**	21,697***	1,620,187.5

* Figures based on the monthly returns (incomplete) of Charles Stewart, New York State Historical Association, and those in reel 1999, Papers of the Continental Congress, National Archives. Stewart frequently changes his units of volume, and the above figures should be viewed as only approximate, based as they are on the following conversions:

barrel bread	= 150 lbs.
barrel flour	= 200 lbs.
barrel meat	= 200 lbs.
keg meat	= 50 lbs.
hogshead bread	= 200 lbs.
steer or cow	= 450 lbs.
sheep	= 50 lbs.

** plus 14, 178 tongues, weighing approximately 42,534 lbs.

*** This is below verbal estimates by Blaine and Chaloner for the same period.

upon which the army depended. (Chaloner's letter was also, perhaps, deliberately equivocal. He appears to have paid lip-service to Jennings' official duty of feeding the soldiers posted in his region, while at the same time he hinted strongly that Jennings' principal responsibility related to the Main Army. If Jennings was confused by Chaloner's letter, he certainly had good reason to be.) With increased frequency impressment and seizure, in exchange for receipt, were employed against disaffected and loyal citizens alike. The resultant attitude among the civilian population of the state was, predictably, extreme resentment, encouraging the sequestering of goods and an increased willingness to sell to the British for specie when the opportunity presented itself. Required to accept payment, when it was offered at all, at set prices during a season of rampant inflation, the farmers naturally accepted the highest prices they could get, thus encouraging the various competing purchasing agents of the state, Congress, and the army to exceed prices set by the Assembly of Pennsylvania, and undermining attempts to hold the inflation of commodity prices in check. Seizure at set prices was the only way the Commissary Department could stay within its financial means.

One of Blaine's purchasers, operating near Warminster in Bucks County, claimed to have run up against another purchasing problem. On December 2, he reported with evident satisfaction that he had been successful in purchasing 1,700 bushels of wheat in the environs. He was having difficulty, however, extracting

anything from persons who objected to selling, and even threshing, in support to the contending armies. Pleading religious scruples, many inhabitants refused to supply "...Bloody Minded People Who fight."[31] Blaine's informant complained, "When I talk to them of Threshing they immediately preach to me About the Heinousness of Supplying Armies to Enable them to Cut one anothers throats."[32] Out of patience with these gentle remonstrances, he advised Blaine to send out a party of horse to thresh their grain for them. There was, he thought, a substantial quantity of grain at Bibury (now Byberry, in Northeast Philadelphia), where some farmers had accumulated three unthreshed crops.[33]

After the defeat of Burgoyne at Saratoga, units from Gates' army including the brigades of Huntington, Glover, Paterson and Poor, arrived to augment Washington's forces in Pennsylvania, compounding, as Jones noted, the pressure on supplies. By December the army was requiring upwards of 23,000 rations per day. For this, although great hopes were placed in New England, the principal supplier was the state of Pennsylvania, with substantial amounts of flour arriving from New Jersey, and some from Delaware and Maryland. These states, however, were no longer capable of sustaining the staggering demands upon their agricultural resources without occasioning real hardship among the inhabitants, despite the reputation held by certain areas of New Jersey and Pennsylvania for being bottomless seas of wheat.[34] Yet it took rather a long time for the reality of diminished resources to

percolate through the consciousness of the suppliers, and even longer for Congress to discover that peculation and sequestering of goods were not the sole reasons why food and forage came harder and cost more as the autumn progressed. There were no longer lavish, easily garnered surpluses in these fought-over areas sufficient to feed the army with any degree of ease. The result was a manifold increase in the difficulty encountered in obtaining provisions, placing further emphasis on the energies and abilities of the Commissaries. While there was enough food to serve the army by pooling the resources of adjacent states and New England, it would be far from an easy task to purchase and transport it.

Before his next severe crisis set in, Thomas Jones enjoyed several days of spectacularly good fortune at camp beginning November 16, due to improved weather conditions and rewarded exertions by the purchasers. He was luxuriating with 200 barrels of flour on hand, with at least 324 more coming in from Strouds Mill (perhaps Jennings had succeeded in squeezing Stroud), and from York, whence 1,322 gallons of whiskey were also enroute. Jones also had procured a decent quantity of cattle and salt (Captain Moore arrived from Egg Harbor with 458 bushels of "...the finest you ever saw..."). [35] Soap and candles had arrived, probably from Risberg at Trenton, and six brigades had just gone off to Lancaster and York to collect more flour and whiskey. Jones, who had been pressed almost beyond endurance by a hungry and implacable

army, exulted "...thank god at last I had as much so as to Enable me to Cram their Gut full... I think myself now as Rich as a Jew... how long I shall continue so God knows."[36]

And indeed, falling hard upon his momentary euphoria and the transient illusion of plenty, Jones was again in desperate straits. Washington became personally involved once more, and ordered Blaine out to New Jersey on November 21 to purchase flour at a "just and generous price" for the army. If he could not agree with sellers on a fair price, Blaine was to seize the grain and wheat in return for receipts, to be paid off at prices agreed upon by the New Jersey Assembly.[37] By the twenty-fifth Jones was nearly frantic. Even making allowances for his melodramatic prose, there can be no doubt that the army was once more out of flour, and this time with no immediate expectation of replenishment. In a distracted note to John Magee, Assistant Commissary of Issues at Lancaster, Jones predicted imminent disaster for the army. He desired Magee to represent the situation to Thomas Wharton, President of the Assembly and Chairman of the Supreme Executive Council of Pennsylvania, and to inform him that the 4,000 troops which had arrived from the northward had increased the food demand drastically. He added, "...I need not point out to you the distress I labour under for Gods sake exert yourself in this affair, or alls over-"[38] Of the Deputy Quarter Masters stationed within range to assist, only Mark Bird at Reading reported that his wagons were responding to the crisis by hauling whiskey and flour to camp.[39]

Yet when Magee represented the situation to the Supreme Executive Council, its members were incredulous. The Council forwarded Magee's letter to Congress, asserting that they were laboring to gather wagons by press warrants and other measures, adding "...But we cannot forbear expressing our Astonishment that the Army should be in Danger of starving for Want of Flour, when the very Neighborhood of the Camp is at this moment full of Wheat."[40] It is difficult to say how the Council came by this intelligence. The Council's comment, which they did not elaborate upon further, could have been a pointed reference to the Quaker holdings in Bucks County, and was perhaps even designed as a spur to instigate seizures of wheat from neutrals. In any case it is interesting to note that the Council specified "wheat" rather than flour, ignoring the fact that it could not have been instantly converted into flour. Their reticence in dealing squarely with the problem lulled Congress into complacent disbelief. Congress and the Pennsylvania government, far from the distressed army, might well credit whom they chose, but certainly the general want of provisions at camp was no secret in the army. General Jedediah Huntington speculated to his brother that he thought the want of supplies was due to the numerous forced marches, and he hoped that things would improve when the new Commissary General was settled in his job.[41]

If the Supreme Executive Council remained stubbornly aloof in the above instance, their callous response to Jones' predicament points to one truth of early December - that at the heart of

the cluster of shortages punctuating this period was a scarcity not so much of supplies as of means of transportation. It is far from coincidental that during the first week of December the army and support systems was in the grip of a full fledged logistical breakdown, one from which it never fully recovered until late the following spring. Wagons and teams were consumed at a vicious rate, rendering transportation of forage to enable the surviving teams to subsist increasingly difficult. The Quarter Master's Deputies, always chary of their resources, began to hoard wagons and teams. Yet at this juncture, Jones' pleas for assistance were not entirely unheeded. In addition to Bird's response, Robert L. Hooper, Deputy Quarter Master at Easton, promised Jones 30 teams hauling flour within the week. Of more wide-ranging effect was the decision of the Pennsylvania Assembly on December 6 to grant Washington extensive powers to seize provisions, and its simultaneous resolve to authorize the Supreme Executive Council to seize wagons and teams.[42]

While in the absence of a Quarter Master General the Pennsylvania government began to act to stem the logistical breakdown, William Buchanan at length arrived at camp on or about December 9. It was to be the last time he would visit the army for the remainder of his tenure as Commissary General. He came to White Marsh, where Washington had encamped the troops on three strongly fortified hills north of Philadelphia. The Continentals had just parried for four days with Howe's army, which had come out of the

city to probe around the vicinity of the American defenses and had engaged in some sharp skirmishing. Buchanan was wholely preoccupied with his elaborate plan for an exchange of flour for salt from New England, and at this time he chastised Charles Stewart for not being so diligent as he might have been in arranging for it. Buchanan, striving to concentrate his attention to have ignored fatally the immediate danger, and was leaving it all to his subordinates.[43]

After the skirmishing at Whitemarsh, no letters survive which illustrate Jones' activities during the army's passage to the west bank of the Schuylkill and the brief encampment at the Gulph. On December 19, frought with anxieties about the future of the army and dismayed by the lack of available transport, he himself wrote President Wharton on the subject of the "approaching calamity." He assured Wharton that there was not one barrel of flour with which to serve the troops, and that a pitifully small brigade of seven wagons was enroute bearing provisions from Lancaster, no more expected. He had written daily to the issuing Commissaries at Reading, York, and Lancaster, pleading with them to forward supplies, and they had replied that they could not procure wagons. To keep abreast of the demand, he needed between 200 and 230 barrels of flour per day, or, he predicted, the army would not be able to withstand another week. Jones wrote Wharton on December 19, 1777, the day the Main Army marched to Valley Forge.[44]

V "THE SAYINS OF SOLOMON"

Upon arrival at Valley Forge, all of the sins of omission and bedevilments of the autumn settled down heavily upon Washington's army. The bleak scene, devoid of resources, was poignantly sketched by Jedediah Huntington: "...our men, our Horses and Carraiges are almost worn out with the constant Marches and Fatigues of the Campaign, and there is scarcely a single Convenience about us but Wood and Water."[1]

The facilities of the Issuing Commissaries set up by Stewart and Jones at Valley Forge were necessarily extensive. They stored their provisions and collected livestock at at least two, and perhaps three, separate locations. Jones wrote a good deal of his early correspondence from the "Commissary's Office", and although the precise location of this is unknown, the traditional location is the Mordecai Moore farmhouse. At his principal magazine, presumably located at or near his office, Jones stocked flour, bread, beef, pork, fish, mutton, soap, candles, rice, salt, vinegar, liquor, tongues, indian meal (corn meal), molasses, hams, and livestock when these items arrived at camp from the

purchasing commissaries. Most of the commodities and staples, with the exception of beef, pork, fish, bread, flour, soap, and candles were normally quite scarce. The Bakehouse at camp[2] was used principally to store flour and barrelled pork, and for the manufacture of a portion of the bread issued to the army. The facilities at this location evidently became fairly extensive, as indicated by one of the weekly accounts signed by Jones dated February 9, 1778. He declared that he had 123 (200 pound) barrels of flour stored at the Bakehouse.[3] A third location of particular importance was the Henry Pawling house, located across the Schuylkill from camp and slightly up river. Before the completion of the bridge spanning the Schuylkill in late February, 1778, Henry Pawling's establishment became the magazine for supplies coming in from directions east of the Schuylkill. These supplies were, in times of high water, detained on the east bank until the completion of the bridge. During the army's worst sustained period of poor supply, which occurred in early to mid-February, Thomas Jones transferred his office to Pawling's house, at a safer distance from the ravenous and increasingly intractable soldiery. Live cattle arrived here in droves from the eastward in February, when at one time he had collected 135 head. The total number of cattle at this location probably rose to 300 or 400 during the late winter. Jones also kept barrelled flour and rice at Pawling's, storing in February as many as 242 barrels of flour and 18 tierces of rice. Pawling's was a

principal Commissary magazine for several months, and it was the scene of Jones' severest trials as Deputy Commissary of Issues to the army at Valley Forge.[4]

Now, for the first time, the army faced the prospect of being completely without meat. For several months the ration had been reduced to the three essentials; bread or flour, beef, and liquor. Dearths of flour had been tolerated because even if supplies of fresh and salted beef had run perilously low, they had never actually run out. Beef was considered to be the key ingredient of the ration, a notion the Americans inherited with their British military tradition. Flour, of itself, would not satisfy indefinitely.

The newly installed commissaries at Valley Forge were dismayed to find themselves quite literally scraping the bottom of the barrel. Supplies of barrelled meat were found to be tainted. Under the supervision of the Baron de Kalb, three captains inspected the beef issued to Learned's Brigade on December 20. They reported to Head Quarters, "We have examined the Beef and judge it not fit for the use of human Beings, unwholesome and destructive to nature for any person to make Use of such food..."[5] The disgusted Baron noted that the same complaint was true of that meat issued to other units, and that quantities of flour were sour and useless,[6] nor were prospects for immediate relief very encouraging. Huntington dejectedly wrote to his friend Colonel Jeremiah Wadsworth, later to assume the office of Commissary General, that the army was doomed to settle for the winter in a "starved country."[7]

In spite of this, in almost unbelievable defiance of it, Washington placed the army on marching orders pending what he hoped to be a surprise stroke against Howe while a portion of his command remained in New Jersey. Huntington, who was not privy to the inner councils at Head Quarters and who viewed even the most startling developments with a certain stolid fatalism, wrote on December 22:

> I rec.[d] the order to hold my Brigade [in] readiness to march. Fighting will be far pref to starving. My Brigade are out of provisions nor can the Brigade Commissary obtain any meat. It has several times been the Case before, though the failure has generally been in Flour. 8

When Huntington's men had been issued beef, it had a "...proportion of Bone so great that it does not suffice."[9] James Mitchell Varnum, flamboyant and verbally defiant, wasted no time in putting his case to Washington:

> According to the Sayins of Solomon, hunger will break thro' a Stone Wall; it is therefore a very pleasing Circumstance to the Division under my Command, that there is a probability of their marching. Three Days successively, we have been without Bread. Two Days we have been intirely without Meat. - Whenever we procure Beef, it is of such a vile Quality, as to render it a poor [substitute] for Food. The Men must be supplied, or they cannot be commanded...I know it will make your Excellency unhappy: But, if you expect the Exertions of virtuous Principles, while your Troops are deprived of the essential Necessaries of Life, your final Disappointment will be great, in Proportion to the Patience which now astonishes every Man of human Feeling. 10

Under the weight of such incontrovertible evidence, Washington was compelled to abandon his immediate plan and turn his attentions to securing enough food to prevent the dispersal of the army.

There are two possible explanations for his actions during this Christmas week. Washington may have been so imbued with the desire to repeat his Trenton exploits of the previous year that he ignored the mounting evidence of supply dislocation, perhaps not being wholly aware of the seriousness of the failure. Or, what is more likely, he may have pursued plans for the attack in the wan hope that a complete supply deficit could be averted. In any case he was disappointed, as the Commissary could not supply the customary three-days rations that were issued before any action of consequence, and Howe soon consolidated his forces within the beetling defenses of Philadelphia.

The Commander in Chief immediately bent his attention on the pending calamity, the foiling of which required extraordinary measures. As it happened, Charles Stewart was making one of his rare appearances at camp when the furor broke, and emergency foraging expeditions were immediately organized. Stewart sent Captain Greenleaf of Patterson's Brigade with a body of men "over the hill beyond Howell's Tavern" to collect all he could find of wheat, flour, beef, hogs, and pork. The Captain was accompanied by a Commissary of Issues who would give receipts to the citizens thus raided, assure them of a generous price, and return the goods to Jones' magazine at camp.[11] He doubtless sent out the other parties as well. The Pennsylvania Militia, encamped at various locations beyond the periphery of camp, was enjoined to give assistance, but the reply of General Armstrong, posted

near Bartholomew's, was less than salving. He reported, "...I have found the utmost Difficulty to procure sufficient for the troops I have,"[12] and he added that the area between the old camp (probably meaning Whitemarsh), and Philadelphia had been picked clean by British and American troops. Armstrong advised Washington not to rely upon provisions from that quarter.[13]

As the foraging expeditions launched by the army became more elaborate, Washington found a particularly adroit use for the Pennsylvania Militia. By the twenty-fourth Washington was ordering out one officer and twenty men from each brigade to scour the countryside, but Jones commented dismally, "...this country is drained and affords a very trifle."[14] More men were to go out on Christmas day to greater distances. The destination was Chester County, and Washington wanted to be sure that the British were sufficiently occupied in Philadelphia so as not to disrupt the proceedings in Chester. He consequently ordered the 2nd Brigade of Pennsylvania Militia, commanded by John Bull since the capture of General Erwin at Whitemarsh, to create a colorful diversion at the British fortified lines north of the city. Bull, who appears to have been quite as stalwart as his name suggests, happily complied.[15] Since the army had crossed the Schuylkill, Bull's troops had been compelled to subsist wholly on what they could glean from the countryside. He frequently sent foraging expeditions toward the enemy lines, driving off beef cattle and leaving milk cows for the populace, and intercepting

cartloads of pork and flour which enterprising farmers contrived to sell to the enemy. Bull's hardships were compounded, he found, by the threat of price controls, which discouraged farmers from producing more than was absolutely necessary for their families' consumption. He commented ruefully, "I think the taking the grain at ye Late stated prices seems like the Fable of Killing the goose for the Benefit of Her Eggs-" [16] Bull, inured to operating within a perilous proximity to the enemy, relished his chance to create a commotion while the Continentals foraged in Chester County. On the day before Christmas he separated his brigade into three columns and barrelled noisily down the Germantown, Ridge, and Frankford roads, drawing up within musket-shot of the British defenses, where he discharged his artillery pieces as the British beat to arms. The militia created the illusion of a great flurry of activity, then retired, mission accomplished, with no losses. Bull gleefully noted, "I rather streched my orders by sending them 8 well directed Cannon Ball..." [17] The British wondered what all the stir was about, but did not hinder the foraging in Chester.

While these measures were underway, the commissaries at camp were sending out pleading missives to outlying officials of the department. Blaine wrote to John Patton at Reading demanding that he exert himself in sending pork, beef, and flour to camp, reminding him also that 200 bushels of oats had to be sent forthwith to Fort Pitt.[18] On the twenty-fourth, 700 head of cattle arrived in the

vicinity of camp and the immediate crisis was over. Two hundred had been collected when General Armstrong and his militia brigade scoured the territory between the Schuylkill and Delaware rivers, seizing everything that moved. Armstrong announced to Washington that his gleanings were the last to be had from the vicinity. Massive measures were required, however, to regulate the flow of supply. Jones appealed to the Supreme Executive Council to help order the logistical flow, failure of which he perceived as the basis of the flour shortage. He wrote to Wharton affirming that there was much flour at Lancaster, York, and Wright's Ferry, but that it was not coming to camp because the Quarter Masters failed to produce transportation. Jones requested Wharton to aid the Quarter Masters in engaging sufficient wagons to transport 100 barrels of flour daily from the Lancaster area to the army, upon which he clearly pinned his hopes for supply for the winter season. He expected that fifty additional barrels would arrive daily from New Jersey, thereby disclosing his estimated daily consumption rate of 150 barrels.[19] Although Christmas dinner was by no means lavish, the threat of famine had been narrowly averted. Surgeon Jonathan Todd of the Connecticut Line reported "...we drew 1/2 gill of Rice pr man which with Beef & Flour were the dainties of our Feast-" [20] The beef, he added with some regional pride, was from Connecticut.[21]

Foraging, directed from camp by Stewart, continued as detachments of eight men from each brigade went out to collect flour and

grain, and cattle and hogs on the hoof. Out of patience with farmers who refused to thresh, Washington ordered that foragers be selected who knew how to perform the task.[22] Washington meanwhile had been pursuing measures of his own, raising his voice in a stentorian letter to Congress. Unnerved by the recently disclosed fragility of the supply system, he penned his famous "starve dissolve or disperse" ultimatim, designed to cut through any incredulity they might still harbor concerning the seriousness of the army's plight. Should the shortage continue or worsen, he implied, the army would scatter to the remote corners of the continent from which it sprang, and Pennsylvania would be open to the unchecked advances of Sir William Howe.[23]

At length, as expresses rode back and forth along muddy and frozen roads, the severity of the army's predicament was brought home to those who wielded the power to alleviate it. Yet the problems were not instantly dispelled at the first appearance of a solution. As word of the supply failure began to circulate, the Commissary Department was in for some very rough sailing. Washington was inclined to blame the snarl on the new regulations, and for the first time was waxing openly critical, doubtless suffering acute disappointment from the army's inability to attack Howe's force while it was divided.[24] Benjamin Talmadge bluntly informed Jeremiah Wadsworth that the Army had been in a state of serious deprivation since Trumbull left the Commissary, and that Congress was principally to blame.[25] Eventually the

Supreme Executive Council and Congress became embroiled in hectic remedial measures, frequently at cross or counter-purposes, wherein lack of rapid communications complicated matters substantially.

One fundamental problem, which received only sporadic attention, stemmed from the ineffectual efforts of Congress and the Council to hold down the prices of grains. Quarter Master Mark Bird, purchasing forage grain in Berks County, found that in some instances his purchasers were compelled to offer ten shillings a bushel in order to procure wheat, whereas the set price remained at eight shillings and sixpence. John Bull, who it will be remembered cited the fable of killing the providential egg-laying goose, rigidly adhered to price controls but found that in New Jersey the price of wheat had risen to twelve shillings per bushel, and he went so far as to suggest to President Wharton that the Assembly raise the approved rates.[27] These price increases, fostered by increased demand in southeastern Pennsylvania and northern New Jersey and by the distillation of alcohol, placed the purchasers of food and forage in an agonizing quandry - either they could not purchase at the prescribed rates, or they exceeded the rates and had difficulty meeting their obligations and accounting to their superiors.

The use of wheat as animal forage placed further stress on the stipulated rates. Clement Biddle, Forage Master General, claimed that the quantity of grain consumed as forage was more than double that required by the army for food, yet he gave over some of his supply to the Commissary Department at the end of December.[28] Mark Bird was contracting in Berks county for 50,000

bushels for the Quarter Master's Department, and not surprisingly found that he sometimes was forced to exceed the rate.[29] Suddenly, everyone found themselves to be short of cash at the end of December, chiefly because of rising purchasing costs, and the result was the abundant purchase of goods and services on credit, or the seizure of produce in return for receipts. Harried purchasers, spurred on by the clamor at camp, exceeded price ceilings in order to compete with private entrepreneurs in the purchase of grain, and emergency foragers gave receipts which had, eventually, to be honored to avoid a total breach of faith with the civil populace. Congress had to print more money.

Jones' repeated requests for adequate transport were not lost upon the Supreme Executive Council, and it appears that the state was well aware of its obligations in this quarter. The Council drafted a circular letter to state-appointed wagon masters, giving instructions for their public service. The scheme was to appoint a wagon master for each county, who in turn would appoint deputies in each township. The deputies were responsible for furnishing returns of the number of wagons, with their owners, for each town. All state wagon masters were subject to the orders of the Continental Wagon Master General, furnishing wagons and drivers upon his demand, and calling them out from the townships in rotation. The state wagon masters were also to furnish aid to the Quarter Master General, his deputies, the Forage Master General, and his assistants. It is easy to discern how, with urgent demands

coming from every quarter, this system would become difficult to regulate equitably. The state, however, engendered a substantial undertaking to provide transport for the army, for which it assumed the principal responsibility.[30] It is doubtful that the Supreme Executive Council realized at the onset precisely how burdensome that responsibility would become.

At the depths of the pre-Christmas provisions crisis, Thomas Jones alerted President Wharton to the rather alarming magnitude of his department's logistical requirements. He demanded conveyances for 100 barrels of flour per day from the Lancaster and York vicinity to camp.[31] As a normal barrel load per wagon in bad weather might be six or eight, this meant that between thirteen and sixteen wagons had to arrive per day from that quarter. In order to keep the transport force revolving properly, somewhere in the neighborhood of 80 to 100 wagons had to be dredged up from the Pennsylvania countryside to provide for this service alone, excluding those employed bringing provisions, forage, camp equipage, and military stores from this and other areas. This sort of demand resulted in the impressment of wagons, drivers, and teams at the rate earlier stipulated by the Assembly of 30 shillings per day. The Council pressed for an increase of from forty-five to fifty shillings, so as not to alienate farmers well disposed to the cause,[32] but they were slow to take up the issue. The question of who, ultimately, would pay for all of this, occasioned considerable controversy. The Council informed the Pennsylvania

delegation to Congress at the end of December that many of the owners who had hired out their wagons and services to the state had not been paid, and that this made it increasingly difficult for local wagon masters to call them out even for short periods of service. The Council recommended that Congress appoint special commissioners for each County to liquidate the debts.[33]

It is clear from these measures that at this point in the war the ownership of a wagon and team in Pennsylvania committed the farmer to a sort of compulsory military service, from which militia duty did not exempt him. As the pay, due to inflation, became insufficient to properly maintain the conveyances, this doubtless served to reduce the pool of available wagons, particularly in the hard-pressed York and Lancaster vicinity. The onerousness of this service elicted increasing resistance in interior Pennsylvania as the winter wore on, particularly as responsibility for payment was passed from one government agency to another and back again while the wagon owners awaited their cash. The Supreme Executive Council had been called upon to honor the debts accrued for wagon hire by the Quarter Master's Department, which they referred to the Quarter Master's office, refusing to deal with them on the grounds that the Quarter Master (the office was vacant at this juncture) should have been aware of a currency deficiency within the state.[34]

While auxiliary sources for wagons and teams were being sought out, attention at camp was focusing on abuses within the Wagon

Master General's organization whereby horses were being wasted through maltreatment. Henry Lutterloh, the Deputy Quarter Master General serving with the army, reported to Washington at the end of December on problems involving the hire of drivers and teams, including in his observations several suggestions for regulating hire within the Wagon Department. His report implied abuses such as poor maintenance of wagons, insufficient inspections, the absence of wagoners without leave, and the inadequate care of horses. Lutterloh advanced his opinion that waggoners were engaged for too brief periods, saying "...it cannot be expected that a common fellow who engages for a short Time should with Care and proper love see his Team in order..." [35] The teams, he said, were in a shocking condition, and horse hospitals jammed. [36] Certainly the army was now reaping the results of the prodigal expenditure of limited resources occasioned by the campaigning of the previous three months. Normally, too, the Wagon Master General was responsible to the Quarter Master General. Both had resigned, and the vacancy of these posts produced compounding logistical disarray.

The transport system upon which the Commissary depended was without doubt weak and growing weaker at the end of December, 1777, and the ability of the state of Pennsylvania working alone to counterbalance the deficiency was indeed questionable. Impressment and nonpayment of financial obligations did not encourage public support. Abuses within the army's own transport organizations

resulted in wastage of teams and equipment, nor were there any clear channels through which the financial obligations incurred by the Quarter Master's Department would be promptly met.

On December 30, Congress, goaded by the continuing reports that the army was upon the brink of starvation, swung ponderously into action. A committee with wide-ranging powers was appointed to investigate the advisability of sanctioning extensive impressment of cattle, hogs, pork, grains, and flour upon given receipts, for geographical areas far more extensive than the seventy-mile radius surrounding camp, as stipulated in previous resolves. Prices would be set by a convention of state representatives meeting at New Haven on January 15, 1778. Francis Lightfoot Lee wrote from the War Office at York informing President Wharton of the measure, adding a warning designed to raise the spectre of the army's dispersal before the Pennsylvania Council and Assembly. Lee said that the consequence of the embarrassment of the Commissary in Pennsylvania might well be the removal of the army from the state, at least until proper provisions could be secured from other quarters.[37] It would have been difficult to devise a statement which could have chilled more effectively the reflections of President Wharton and his fellow Pennsylvanians.

VI CROSS PURPOSES

The December rupture of the supply flow seems to have anesthetized the abhorrence most military and governmental officials had felt concerning the issue of impressment. It now became a commonplace measure for procuring food and forage, as a state of emergency was generally acknowledged within army and government circles. The date for the meeting of the state committees at New Haven was frequently pointed to as the means whereby matters would be settled to the satisfaction of the civilian population who bore the burden of the extraordinary measures, and it was commonly said that those who suffered the impressment of their produce would receive a just compensation. It is difficult to discern, however, the degree to which real faith was placed in this measure, as there remains the possibility that it was frequently evoked to cajole an increasingly restive populace. Rather than ameliorating, however, the supply situation showed no sign of improvement after stabilizing at a low rate of efficiency following the pre-Christmas rupture, as from

one tenuous week to the next the army was fed, in the commissaries' favorite phrase, from hand to mouth. It was openly acknowledged in the Commissary Department that conditions were worsening, as the countryside about camp was drained of provisions. Supplies had to be conveyed from further and further afield, placing even greater stress on a logistical system which was very much a patchwork affair. For Thomas Jones, the worst was yet to come.

January was hardly the best month of the year in which to try to effect improvements. Roads ranged from bad to impassable, water was high and fording uncertain, statesmen and officials inclined to cleave, whenever possible, to the fireside. Nevertheless a good deal of correspondence was coursing through the countryside as attempts were initiated to resuscitate the flagging Commissary. Emergency measures, however, took time to enact, and meanwhile the army went on as before, seizing supplies from farmers for receipts that they thought to be of dubious value. The soldiery about camp engaged in a little private foraging, but the pickings were indeed slim at neighboring farms. Farmers with an eye for sterling rather than receipts continued unabated their commerce with the British whenever they could circumvent the dragoon patrols which moved between camp and British-held Philadelphia.

Empowered by Congress, Washington had with some reluctance published an order on December 20 requiring all farmers

within a radius of seventy miles of camp to thresh half of their grain by February 1, and the remaining by March 1, failing which the unthreshed sheaves would be seized by the Commissaries and Quarter Masters of the army and paid for as straw. The order was published in the Pennsylvania Evening Post on January 24, appearing also in other journals. It was a direct response to the threat by the farmers that if seizures at low prices continued they would not thresh their grain.[1] The wide extent of seizures and the harsh methods employed continued to irritate the population through January and February, but most suffered in silence rather than make official complaint. Yet there were some like Berks County forge owner John Lesher, whose complaints would be heard due to their prominence in the state. Lesher wrote directly to President Wharton on January 9, cataloguing his misfortunes. He had suffered extensive damages from the seizure of his produce and supplies, resulting in the shutting down of his forge. The American army had, he claimed, taken eight tons of hay, apples sufficient for ten hogsheads of cider, forage, fourteen head of cattle, and four swine. They burned his fences, and gave receipts for his provender at what he considered to be a very low estimate. Lesher had intended to feed his family and workmen, numbering in all thirty, with the provisions, but discovered that "...all must be delivered to a Number of Armed Men at the point of the Bayonet."[2] He added that the soldiers wantonly wasted and destroyed his property, and that some farmers were saying that they would neither plow nor sow.[3]

Judging from the universal cries pertaining to emptied granaries and a bled countryside, the areas near camp where both British and Americans foraged, and where dragoons from both armies roamed at large, must have been increasingly difficult for civilians to subsist in during the 1777-1778 winter. The inhabitants, however, became rather adept at sequestering provisions for their own use, and for market. Nathanael Greene, foraging for provisions in February in Chester County, concluded that the inhabitants were concealing their cattle in woods and marshlands.[4] The recalcitrance of local farmers, however, resulted in Washington's rather black opinion of them in general, especially when he found evidence of profiting from commerce with the enemy and with Continental purchasers. During January the state of New Jersey instituted price ceilings, and Washington wrote gratefully to Governor Livingston, thanking him for supporting the measure, which would go far towards "...circumscribing the avarice of your Farmers, who like their neighbors are endeavoring to take advantage of the necessities of the Army."[5] This, of course, was rather an extreme statement. There were avaricious farmers, but there were also those who were exploited by foraging parties. The Committee of Conference from Congress which sat at camp from late January attempted to discern ways in which to more efficiently organize and supply the army, and found that the failure of supply had induced the soldiers to "...disperse in the Neighborhood & take indescriminately the Privisions laid in by the Inhabitants for the Winter Support of themselves & Families."[6]

It seems that this was something of an understatement. Lacey's Pennsylvania militia battalion, operating between Valley Forge and the Philadelphia defenses, and charged with interrupting commerce between the countryside and the city, was so short of provisions at the beginning of February that the troops spent two-thirds of their time scavenging for enough food to enable them to maintain their post.[7]

At camp, the pre-Christmas crisis was not repeated for several weeks. Rations, although monotonous, were generally plentiful. The soldiers were themselves responsible for introducing what variety they could into the beef, pork, bread, and none-too-regular whiskey ration. John Buss, an enlisted man or NCO in the Connecticut Line, wrote to his family on January 2 reporting that supplies of provisions had been poor since December 28, when four inches of snow fell.

> ...but it is better than we have had time back the Cattle that they kill hear is poorer then the working oxen at New England that make our lowance cheafly boon but is hope we shall fair better this winter then we have done time back the Regulars has bin over these parts before we came hear and they plundered the inhabitance of all their provision which makes our provision much short... 8

An enlisted man had to go to considerable expense to augment his allowance that was "chiefly boon." Ichabod Ward, also a soldier from Connecticut, smarted under the stinging aspersions that were cast by those comfortably ensconced at home upon the presumed extravagance of the soldier's pay. His letter to a friend provides a rare glimpse of the sort of provender the

soldier might buy, if he had the cash, from sutlers and hawkers at camp:

> I am Sorry to her of the unesyness thare Sems to Be att hum Consorning the Soldiers it Semes by What I cant understand that Some are very unesy becaus that We have Not Kil.[d] all the Enemy thay wonder what We are about forty Shillings a munth and Nothing to Do I Wish that Sume men wase to under go half so much as one of us have this Winter in long marches and Lying on our arms in the open field undergoing Cold and hard Lodgings. 9

Ward claimed that they had been half-starved for want of food, that most expenses were high, and there was not a drop of spirits to be had. A gill of liquor, when it could be found, cost two shillings, a half quart of cider half a crown, a pound of butter one dollar, "...and 2 for a Small py made of brad and so Evrything answerable Now What becums of our forty Shillings[?]"[10] Ward's spelling invented a new language, but his description is as poignant as anyone's.

At the end of December a Board of General Officers had decided upon new, and as it turned out rather fanciful, regulations for the ration, acquiescing to the shortage of nearly all vegetables. It was to be one and one-quarter pounds of beef, one pound of pork, or one and one-quarter pounds of salt fish per man per day; one and one-quarter pounds of soft bread or flour, or one pound hard bread per man per day; 1/2 gill whiskey or rum per man per day, three pounds of candles per hundred men per week for guards; and twenty-four pounds of soft soap or eight pounds of hard soap per hundred men per week.[11] Liquor, because of short supply, was only to be issued on general or special orders. That an unvarying diet of this nature was

not only monotonous but also detrimental to health was not lost upon those in command. Predictably an underground market in food and especially liquor sprang up and flourished. Soldiers, line officers, and even general officers were actively involved in smuggling liquor into camp and selling it, at handsome profits, to the soldiers. Sutlers had been excluded from camp by General Orders, encouraging the covert trade. One of the principal perpetrators was Commissary Meade of Weedon's Brigade, who brought liquor into camp, watered it by about a third, and sold it for the extortionate price of twenty-five shillings a gallon. General Greene found out about the price and ordered it lowered, and Meade retaliated by refusing to sell any more. Washington, faced with such flagrant abuse, was compelled to relax his restrictions upon sutlers.[12] Apparently in an attempt to quell black market activity, he also issued a general order for the opening of a public market at three locations near the perimeter of camp at the end of January, and advertised in Pennsylvania newspapers prices fixed on a variety of meats, poultry, grains, vegetables, and beverages. He doubtless hoped not only to reduce illicit traffic in camp, but also to improve the soldiers' diet, and augment the Commissary rations and siphoning off some of the flood of produce which was still flowing into Philadelphia. He published his promise that the wagons of the traders would not be seized or impressed.[13] At first the pickings may have been scant at these markets, but there is proof that they were

later heavily trafficked. In the late winter general orders required the removal of one of them from the north to the south bank of the Schuylkill, as it had occasioned much traffic on Sullivan's bridge and thereby provided an easy avenue for desertion.[14]

It is a fairly universal, although not very remarkable truth, that despite the growling innards of the common soldier, generals seldom go hungry. This was unquestionably the case at Valley Forge. Issued to Henry Knox, during the month of February, presumbably for the use of his military family, were 531 pounds of bread and flour, 387 pounds of beef, 50 pounds of pork, 56 pounds of rice, 30 pounds of soap, and 3 gallons rum.[15] Between January 22 and February 11 General Greene was issued 207 pounds of flour, 124 pounds of beef, 16 gills salt, 13 pounds candles, 160 gills spirits, 8 gills vinegar, and 33 pounds of fish.[16] This rather unexceptional fare was doubtless supplemented when possible with vegetables and game purchased or otherwise procured.

A general dearth of liquor during January was a particular hardship for soldier and officer alike, as it was considered effectual in dispelling the winter chill. Although on January 1 Washington ordered a gill of spirits to be issued to every man to properly commemorate the new year, supplies were so short that he ordered no further issuance without specific instructions from Head Quarters.[17] Supplies had been dwindling for some time, causing General Greene to write to Washington relating that the

officers were grumbling about the lack of spirits. Lord Stirling, he claimed, had discovered the location of a sizable cache, and Greene suggested seizing it and dividing it among the regiments, giving thirty or forty gallons to each in order to provide temporary relief. Sixteen hogsheads of liquor were also reported to be at Bethlehem, belonging to the Commissary, and apparently waylaid for lack of transportation.[18] At length, Ephraim Blaine, who was purchasing everything he could get his hands on while Chaloner remained at camp keeping accounts, managed to procure on January 10 1,630 gallons of whiskey barrelled in fifteen hogsheads. Blaine's brother Alexander had been working as an assistant purchaser in the Carlisle vicinity, and had put together the shipment. Blaine also would buy modest quantities when they were offered, paying, for instance, one John Hoofman thirty-nine pounds, seven shillings, six pence for thirty-five gallons of whiskey in January. This transaction attests that by mid-January the price of whiskey had risen to over one pound per gallon.[19]

Liquor, wine, cider, corn or "indian" meal, vinegar and molasses were considered necessary to the treatment of most camp ailments and in convalescent care. Benjamin Rush, the irrepressibly critical ex-director of the Hospital Department, was at this time engaged in writing invective-laden epistles to Congress from self-imposed exile at Princeton, cataloguing abuses affecting the Department. He claimed that the wine received at the hospitals was diluted to the point of inefficacy, and that it had been the

practice of the Commissary General to deduct one third or more from the orders for wine, sugar, and molasses submitted by the surgeons for the care of the sick.[20] Rush was a chronic complainer and his information apparently referred to an earlier period, yet there is no doubt that the sick suffered along with the rest of the army for lack of provisions. Brigade Hospitals were not completed at camp until well into January, and many of the sick were scattered about in makeshift facilities. The sick of the 13th Virginia regiment, one of the very few units for which specific victual receipts exist, were billeted in the "Valley Meeting House." It may have been that these men were given provisions purchased by their regiment; in any case a number of receipts exist for small quantities of cider, whiskey, brandy, butter, and sugar purchased for the sick of the 13th Virginia in mid-January, presumably to offset Commissary shortages.[21]

Indian, or corn meal, was reputed to be a particularly effective restorative, and the Hospital department demanded its purchase to aid in the recuperation of soldiers undergoing innoculations for small pox, a program which was underway at camp by the end of the month. John Chaloner wrote to his associate James White on January 26 requesting that he forward indian meal to camp, as it was urgently required by the surgeons. Four thousand men were scheduled to undergo the grueling procedure, and some had already come down with the disease. Chaloner asserted that the want of meal was all that prevented mass inoculations from beginning.[22] An accounting of Thomas Jones

specifying goods received at camp during February includes 72 barrels of indian meal and 6,544 pints of molassas, so it appears that White or perhaps other purchasers succeeded eventually in putting together a quantity.[23]

Provisions at camp were relatively plentiful, and the frightening rupture before Christmas was not repeated in January or early February. The issuance of flour dropped from the December total of over 1 million pounds to just over 900,000 pounds in January. (The militia contingent at camp was considerably reduced.) The number of pounds of meat and fish issued remained very close to the December level of well over 1 million pounds.

Letters pertaining to forage, however, reveal the ominous reappearance of fissures within the supply system. In logistical matters the system became the serpent which fed upon itself. Reduced transportation combined with the utter depletion of beef within the Middle Department would precipitate the Army's most severe food crisis of the winter, occurring in mid-February. Some of the worst inflation besetting the supply system involved forage. At the end of January officers at camp found that they could not board their horses in the country about camp for less than ten dollars per week.[24] They were forbidden to keep their mounts in the immediate vicinity of camp without special leave, as there was nothing at all available for feed. Horses at camp sickened and died, a situation exacerbated by some of the abuses

implied in Quarter Master Lutterloh's report to Washington mentioned above. The rapidly deteriorating transport system required Washington's intervention, but he chose the rather circuitous approach of having Lutterloh request President Wharton to supply 150 wagons with teams of four for the specific use of the forage Master General's Department, and 130 for the Quarter Master's. The wagons were not to proceed from their respective regions empty, but Lutterloh stipulated they were to apply to their local Quarter Masters for loads of forage to haul to camp. Forage Master General Biddle would, Lutterloh claimed, be responsible for expenses incurred. Washington stressed to Lutterloh that should the British seize the opportunity to attack, he would have insufficient horses to move his army and equipage out of danger.[25]

Lutterloh's missive must have proceeded to Lancaster by express, for the following day the Supreme Executive Council set the machinery in motion, ordering the County Wagon Masters to call out their quotas, which were to proceed loaded to camp. The wagon owners were to be assured that their services would only be required for a brief period of duty.[26] Unfortunately, there was little prospect of rapidly producing the quantities of wagons which Washington hoped would appear. Jones, it will be remembered, had previously asked Wharton to call out wagons for the use of the Commissary, a demand which apparently failed in part to be met. Also, the services of these auxilliary conveyances could be employed only for brief stints. The owners would

reluctantly discharge their tasks, then evaporate into the back-country from which they had come.

Washington's indirect request to the Supreme Executive Council had been provoked by an urgent plea from Clement Biddle, who warned the Commander in Chief that the diminishing pool of horses would seriously jeopardize regular supply, and would certainly be insufficient for mounting the spring campaign. It was he who initially suggested that the state wagons come to camp loaded, adding that they should then be employed in intensive foraging, but it is clear from the Council's orders to the state Wagon Masters that those conveyances which appeared would not be required to remain about camp for long.[27] It is doubtful that the state was able to provide the number of wagons requested by Lutterloh, and it is also doubtful that those which did arrive at camp remained sufficiently long to form a dependable cadre of forage conveyors. As the forage shortage worsened in early February, all available forces at camp were brought to bear on the problem. General Greene was alerted that his services might be required on a foraging expedition. Tench Tilghman, writing for Washington from Head Quarters, ordered Biddle to assess the forage potential of the upper Brandywine Valley and the area between that quarter and camp. Tilghman lashed him on, saying "... if some is not got in soon, it will come too late as I fear we shall not have a Horse left alive to eat it."[28]

The demand made by the army and directed to the state of Pennsylvania concerning wagon transport is incontrovertible

evidence that the Quarter Master's Department, long moribund, had now completely collapsed. No one was directing the Deputy Quarter Masters to send wagons, teams, and forage to the army, and no one, outside of Washington's diminutive staff, was exerting themselves to preserve what was left of the transport system. For transportation of food and forage, the army was now dependent almost entirely upon the state.

While the Commissary limped along in their "hand to mouth" fashion and logistical disarray loomed, Congress and the State of Pennsylvania were experimenting with ways to relieve the army's distresses. Congress was hindered by a paucity of reliable information, until the Committee on Conference which would sit at camp in the end of Janaury could report. They were in the meanwhile deluged with a surfeit of rumor and speculation, as anyone who had any ideas on the condition of the army cast off the least inhibition in expressing them. As a result it was not until the February fiasco was on in earnest that the majority of Congress could bring themselves to believe that there were actual shortages of meat and forage in the Middle Department. Until the arrival of reports of the Committee on Conference they were inclined to ascribe the alleged shortages entirely to mismanagement or peculation. Once Congress and the Supreme Executive Council had begun to recognize the complexity of the problem, they began to behave in a notably discordant fashion.

By the end of January, Commissary General Buchanan had done all but throw up his hands in resignation. Pennsylvania delegate to Congress Daniel Roberdeau, who was in frequent communication with Wharton, railed at the mismanagement within the Commissary Department: "The Commissary General warmly recommended by our State has just found out that he is incompetant to the business."[29] Nor was the baker commissioned by the army and now at work at camp free from Roberdeau's exasperated aspersions: "Ludowick I fear is incompetant. The use of flour instead of hard bread has been I believe the death of thousands."[30] Christopher Ludwig, who had set up baking operations at camp, tardily in Roberdeau's view, may or may not have deserved the criticism. It points up, however, the tendency among members of Congress to blame the problems of the army on the personal capabilities of the suppliers. They were doubtless encouraged in this by their proximity to Buchanan. This rather unsophisticated approach resulted in a flood of new appointments to offset what was thought to be a deficiency in the quality of personnel. The result of this development was administrative confusion at precisely the time when decisive cooperative action with the state government was most urgently required.

The medium through which Congress chose to deal with the supply crisis was the Board of War. This body had been established to expedite action on military issues, and was at the beginning of 1778 engaged in re-establishing its arm of authority and

garnering administrative power under the chairmanship of Horatio Gates. Congress was disposed to act by means of the Board in a number of instances, granting its chairman and members, who included ex-Quarter Master General Mifflin, considerable authority. Considering the involvement of Mifflin and Gates in the recent Conway affair, it is understandable that the Board of War found few friends at camp. Mifflin and Gates, actively hostile to Washington and his coterie of advisors, were not the men to act in a manner selflessly salutary to the army at this time, yet Congress thrust them into a prominent role in the supply embroglio. This was accomplished in an extraordinary resolution passed on January 15.

Congress, in one sweeping resolve, effectively placed the Board in control of provisioning the army. The Board was directed to write to President Wharton to discern what measures had been enacted by Pennsylvania to procure provisions for the magazines which Buchanan had been attempting unsuccessfully to establish. Congress authorized the Board to appoint purchasing agents to acquire 30,000 barrels of flour for the army. These agents, or Superintendents as they came to be known, were empowered to direct and impress wagons at the same rate paid by the Quarter Master's Department. The Board was further empowered to regulate the price of wheat, provided it did not interfere with the price ceilings established by the Pennsylvania Assembly or the committees to meet at New Haven for the regulation of purchasing prices. Furthermore, the magazines supplied by



Thomas Mifflin - C. W. Peale 1784

Governor of Independence National Historical Park

the Superintendents were not to be interfered with by the Commissary General, although the Board could order them opened to the issuing commissaries of the army. Finally, the Board was empowered to suspend whatever measures taken by the Pennsylvania Assembly it considered to be counter-productive.[31]

Not only did this broadly disarm the entire Commissary Department, but it was an effective abridgement of the powers of the Pennsylvania government. The resolution was bound to have resounding repercussions in virtually every administrative corner concerned with supply, and would create compounding difficulties among the army, the state, and Congress. The measure was clearly designed to impose ruthlessly an entirely new system for the supply of the army, to do so quickly, and to cut through the myriad difficulties forseen and unforseen. In almost all of these objectives it failed, but not without first causing severe dissention. If Congress had been disposed instead to elevate competent officials within the existing Commissary structure to positions of greater authority, and to place the Quarter Master's Department under vigorous leadership, as it later did in both instances, the trials of February might have been lessened considerably.

The Board of War, through its Secretary Joseph Nourse, transmitted on January 17 the Congressional resolve to President Wharton, together with a series of minute and flagrantly insulting queries concerning the measures Pennsylvania had taken to provide for the army within its borders. The Board wished

to know what persons were employed, what magazines were laid up, what assurances the Council could give of sufficient quantities being procured, and what means of transport had been arranged for. Clearly on all questions the Board felt certain that they had the Supreme Executive Council over a barrel.[32] The Council elected to respond in a fashion which was inscrutably indirect, and chose to ignore entirely the challenge of authority laid down by Congress, answering the queries very properly through the Pennsylvania delegation to Congress. They treated the Board's overbearing interrogation as simple questions pertaining to the state's ability to sustain the army. Perhaps they viewed the measures undertaken by Congress as threats rather than actualities, and the power invested in the Board of War as a figurative bludgeon to be employed only if their questions failed to evoke the proper response. In any case the Council directed the delegation to represent that with the proper supply of cash:

> ...the army can be fully supplied and the proposed magazines filled expeditiously and certainly - as there is undoubted intelligence from several counties which make it evident that the Mills are employed and large quantities of wheat in the hands of men ready & willing to deliver it into the hands of the Commissaries, some of which is in danger of falling into the hands of the enemy. Of this we desire you will give to Congress and the Board of War the strongest assurances. 33

Either Wharton and the Council were sadly, almost unbelievably deluded, or they were prepared to go to any lengths, even overt subterfuge, to persuade Congress of their ability to

maintain the army in Pennsylvania. There are several odd things about their answer to Congress. It is first of all curious that the Council, in view of the press of events, waited longer than a week to communicate their assurances, indicating that they were very likely engaged in a turmoil of debate and activity. It appears that the Council may have used the interval between Congress' ultimatum and their response to rapidly restructure their own system for supplying the army, perhaps even appointing state purchasing "commissioners" in furious haste in order to assure the board that they had matters under control.

The Board of War, however, was not inclined to take its mandate lightly, and on January 31 announced the appointment of its new purchasing superintendents, as directed by Congress. They were James Ewing, John Byers, Robert Lettis Hooper, Jonathan Mifflin, Richard Bache, John Patton, James Read, Nathanial Falconer, and Henry Hollingsworth, almost all men with substantial connections with Congress and the Quarter Master General's department. Yet they were also mostly men who were powers in their local environs. Especially in the cases of Hooper, Mifflin, and Hollingsworth, they were rather tough, effectual, and direct. Hooper's methods were so direct, some alleged illegal, that he had been charged before the Assembly with a number of serious accusations. The instructions provided for the new superintendents left no doubt that the Board of War was aware that Pennsylvania had appointed its own purchasing commissioners,

as the Board's appointees were instructed to proceed with the purchase of flour and they could command the commissioners appointed by Pennsylvania. They were also authorized to purchase fat cattle, pork, and salted meat within their stipulated districts, to be delivered to the Commissary General of Issues or his deputies. They were to seek out and impress mills to be used as magazines, hire persons to make or purchase barrels, replace unacceptable state commissioners, employ additional assistants as needed, and impress teams. The superintendents were required to report to the Board of War once a week, and their salary was to be 2.2 percent of the cash doled out through them by Congress. The Quarter Master's Department was instructed to provide guards for magazines. Prices given for commodities were to be those fixed upon by the Assemblies of Pennsylvania and New Jersey. The Superintendents were also empowered to seize all that the farmers refused to sell at the approved rates. The appointees were further instructed to fill another magazine of 10,000 barrels outside of the state of Pennsylvania, to hire necessary clerks and storekeepers, to establish offices, and to keep in frequent correspondence with each other. When they were ready to receive money, Congress would provide funds for purchasing and incidentals. Hooper, Falconer, and Mifflin were assigned Sussex County, New Jersey, Northampton, Berks, Bucks, and Philadelphia counties. Bache (who later resigned), Patton, Hollingsworth, and Read were given Lancaster and Chester Counties, the northwestern

shore of Maryland, the eastern shore of Maryland, and the State of Delaware. Ewing and Byers were to operate west of the Susquehanna.[34] It is clear from these assignments that the Board of War and Congress discerned that there were sufficient supplies within the Middle Department to collect the amounts required by the army, and that they anticipated little difficulty in readily securing 40,000 barrels of flour to support the army over the winter and see it through a subsequent campaign.[34]

If, as is remotely possible, these measures had been conceived as a ruse to enliven the flagging supply initiatives of the State of Pennsylvania, it appears to have been one which was taken very seriously by all parties involved, particularly the new appointees. Congress and the Board of War appear to have been entirely in earnest. The Supreme Executive Council, apparently judging that it was to their advantage to swallow their rancour at the measures, only responded with more assurances that the state-appointed commissioners were doing quite well without the interference of the Board of War. Again addressing Congress through the Pennsylvania delegation, the Council averred in terms warmly sanguine that the state commissioners were virtually beseiged with persons wishing to sell their produce. The Commissioner for Lancaster County alone, they informed Congress, had been able to procure immediately 100 head of cattle and quantities of wheat, but his progress was impeded, they hinted broadly, by lack of cash.

They added, "...we are well assured from Northampton County that the people of that county are offering their Wheat to the Commissioners and earnestly pressing to have it received into the Public stores."[35] The Council solicited funds, urging haste on the grounds that the season was excellent for milling. Millstones were now grinding which would stand still when waters lowered in the spring. The Council concluded by exhorting their delegates to represent firmly to Congress that if they chose to appoint other men to collect provisions, that no blame for the lack of them should be placed at the door of the State of Pennsylvania.[36] The Council indicated in its public statements that it viewed the measures undertaken by the Board of War and Congress as little more than a threat.

Pennsylvanians loyal to the Constitution began, however, to retaliate by enveloping the reputation of one of the Board's most highly touted superintendents, the Deputy Quarter Master at Easton, Robert Lettis Hooper, in clouds of controversy. It can hardly have been lost upon the Supreme Executive Council that the appointment of Hooper and his fellows constituted a flagrant political affront. Hooper, Falconer, and Mifflin were staunch opponents of the Constitution of 1776, and they were openly scornful towards its supporters. Hooper in particular was a vociferous, even violent, critic of the government and its elected officers. The appointments of the Superintendents could not have failed to produce outrage at Lancaster. The appointment provided Hooper with still more independence of

action, and this was not to everyone's liking. He had also been a thorn in the side of Charles Stewart and other Commissary officials, and he was without doubt a man of fearsome temperament. To those who cast a jaundiced eye upon his methods, Hooper appeared to be running his department with all the gentility of a Byzantine tyrant. He gathered about him a coterie of men whom he judiciously protected, and they assured his efficacy. For Hooper had one supremely valuable talent - the ability to move men and material with whip-cracking efficiency. It was a reputation earned at considerable expense. He made a raft of enemies who thought him to be a dangerous martinet, and there is strong evidence that some of his actions were decidedly questionable. Charges had been lodged against him before the old Pennsylvania Council of Safety, the predecessor of the Supreme Executive Council, relating to his refusal to take the oath, and he had not been cleared of these at the time he was appointed purchasing Superintendent. The Council, in a move which may have been designed to embarrass the Board of War, resuscitated these and dutifully related them to Congress. The allegations were to their minds serious, but some of them were certainly politically motivated. The Council claimed that there were "...People of the County of Northampton who have been loud in their complaints against Mr. Hooper...."[37] Hooper was said to have granted travelling passes to persons for interstate travel, in direct opposition to the laws of Pennsylvania.

He stood accused of having refused to take the oath of allegiance, and of encouraging others to reject it also. It was also said (and this even the Council doubted), that he had pressed wagons from good Whigs, leaving known Tories alone. The Council did not speculate on any reasons Hooper could have had for refusing to take the generally ascribed-to oath of allegiance,[38] but implied that his loyalty to Pennsylvania, and implicitly to the American cause, was not above question.

Thus far the accusations leveled at Hooper might, if viewed tolerantly, appear to have resulted from the extra license claimed by a staunch individualist who had a knack for rubbing some of his neighbors the wrong way. In retrospect, his loyalty to the cause cannot be doubted, although he expressed his dissatisfaction with the ruling faction in Pennsylvania in a fashion which many found disquieting. His reported reaction to the accusations supports the contention that he was a less than savory character. Hooper appears to have eluded trial for the charges pressed in the autumn because of the reluctance of witnesses to testify against him. Mr. Sargeant, Attorney General at the Court of Quarter Sessions at Reading, had raised the charges before the old Council of Safety. Hooper, harboring a formidable grudge and perhaps aware that the charges were being looked into once more in answer to his new appointment, caught up to Sargeant at Reading in early February and gave him a severe public beating. Hooper had apparently

insulted and threatened another member of the Council, Jacob Arndt (now appointed one of the state purchasing Commissioners), and he had earlier told Sargeant that if he appeared at the December court at Easton he would be thrashed. A vivid account of all of this was presented by Thomas Wharton, who was not an eye witness, to Thomas McKean, Justice of the Supreme Court of Pennsylvania, in which Wharton alleged that Sargeant had been so intimidated that he refused to testify against Hooper. He further asserted that "Mr. Sargeant was the smallest, Mr. Arndt the oldest & most infirm of the late Council of Safety they were very unequal to him in power of Body & His advantage over them was great."[39] All that can be gleaned from this is that Hooper, as supported by the evidence of his own correspondence, was at best a diamond of rather rough cut. In the burgeoning war between the Supreme Executive Council and the Board of War, his alleged misdemeanors became just one more issue of contention in an already rancorous relationship.

Hooper, Mifflin, and Falconer, working in concert, tackled their new tasks vigorously and outlined elaborate procedures for the management of their department. Hooper apparently had a masterful knowledge of the milling business and its auxilliary requirements. The procedures evolved by the three were expertly planned and explicitly detailed. Hooper, Falconer, and Mifflin met at Reading in early February (where Hooper had his brush with Sargeant), in order to frame instructions for the millers of

their districts. These are of some interest because they provide a vivid and accurate portrayal of milling during the Revolutionary period.

In their first report to the Board of War the three superintendents announced that they would base themselves at Reading and that Hooper would operate between Easton and Allentown. He had already set four capital mills to work in Northampton and Sussex Counties, and was putting more in motion. The Superintendents had been urgently requested to aid Clement Biddle in the procurement of forage, but they claimed to be unable to purchase any spelts or oats at the rates specified by the state. They had already requested the Quarter Master's Department to fix more viable rates. (They did not specify to whom they had directed this request or by what authority individuals within the department had acted.) The Superintendents were apparently ignoring the prices imposed by the state much earlier on Biddle's suggested scale. The new rates they announced were: rye at twelve shillings per bushel, spelts and oats at seven shillings and six pence, indian corn at nine shillings. A quantity of salt had recently arrived from New Windsor (possibly as a result of Buchanan's salt importation program), and this was judged to be sufficient to cure all the pork and beef they could purchase. The purchase of meat, they warned, would nevertheless be difficult as it had been too long delayed. The three assured the Board that they would be able to secure a great deal of flour and animal forage. They

announced that they were ready to receive cash, and were about to dispatch a messenger for 100,000 pounds for the use of their collective districts.[40]

The principal subordinates of the new Superintendents were to be the master millers working under their employ. The system they devised ordered all of the necessary auxiliary tasks under the roofs of the millers. The instructions to the millers specified that all wheat they received was to be weighed, sixty pounds to the bushel, and they were to pay no more than twelve shillings per bushel. (This represents a price increase of nearly one third since the late autumn.) Millers were empowered under the Superintendents' instructions to seize all grain farmers would not part with at the given rate, deducting expenses for threshing and hauling, and leaving the owner only sufficient for the subsistence of his family. Millers were to keep proper account books recording all transactions, and were to produce them upon demand for the Superintendent's inspection. Meal was to be "boulted rich," producing 26 gross bushels of good flour from every 100 bushels of wheat, and the flour was then to be packed in nailed barrels. The surplus produced was to be similarly packed and designated as forage. The instructions indicate that the flour would be very finely sifted, producing a considerable quantity of coarse or cracked wheat to use as forage.[41]

The Superintendents were quite particular in their instructions pertaining to cooperage. All materials were to be kiln-dried,

apparently to avoid shrinkage and splitting which would jeopardize the contents. Lining hoops were to be affixed within the barrel heads, it would appear to provide extra strength. Millers would be allowed fourpence per barrel; all barrels were to be tarred, then weighed before being packed, and marked with a brand displaying the gross weight, the customary brand identifying the miller, and sequential numerical brands beginning with "1."[42]

The millers were forbidden to deliver out any flour without the specific order of one of the Superintendents, the Board of War, or General Washington. For their pains they would receive three pounds, ten shillings per hundred bushels of wheat ground and issued. In addition, they were required to make weekly returns of all wheat and flour at their mills, forwarding them to the Superintendents. Each of the millers was directed to employ a substantial household, including two other millers, three coopers, and two men to cut hoop poles, all of whom would be exempted from militia duty. Although the pay of the pole cutters was not stipulated, they were to be paid for units of 1,000 barrel staves (1,100 to the thousand), and bundles of 25 hoop poles. Coopers were to be paid eighteen pence per barrel. For boarding and feeding his workmen, the miller was made an allowance, but he had to board the two millers at his own expense. Since this would provide the miller with a double set of hands, the mills were to grind day and night. The Superintendents would inspect each

milling operation once a week, guards would be provided if necessary, and the millers under contract were enjoined to maintain harmony among themselves. Hooper, Mifflin and Falconer, working very rapidly, expected to make all of their appointments, including millers, purchasers, and clerks, by February 26.[43]

While the Board of War and the Supreme Executive Council were pursuing their divergent courses of action, the Commissary staff at Valley Forge were experiencing some old difficulties. Washington, in the interest of planning for the spring campaign, began to take personal interest in the procurement of salt which was still, despite the shipment received by the purchasing Superintendents, in short supply for curing meat. David Forman, charged with the management of a new Continental salt works, had reported to Washington in January that his new operation, when completed, would produce 200 bushels per day, which he claimed would supply abundantly all the requirements of the army for provisioning and the ration. Forman estimated that by April he would be producing sufficient for issuance at camp, later enough to start salting meats.[44] This did not, however, serve to alleviate the immediate wants of the army. Towards mid-January a sizable quantity of salt turned up at the port of Baltimore. Congress moved rapidly to secure it for the army, for which, they said, "...it is wanted in the extremest degree..."[45] Recognizing that it would take some time for the Governor and Council of Maryland to act and that the Salt might disappear in the interim, Henry Laurens penned a personal request to the

Purviance Brothers, merchants, begging them to use whatever means at their disposal to prevent the sale or removal of the salt until it could be purchased.[46] The army had still to rely upon chance windfalls for salt until the new salt works could be brought up to full capacity production.

Accelerated by the severely diminished supply of forage, the logistical failure grew more acute. Not the least of the problems was the difficulty experienced in hiring sufficient wagoners, a job which was nethermost on the hierarchy of the civil support services of the army. Pay was low, periods of enlistment short, and the men were ununiformed, ill-disciplined, and often uncaring of the beasts in their charge. Deputy Quarter Master Lutterloh, who had served as Wagon Master at camp before the arrival of James Thompson in December, attempted to sweeten the inducements to enlist with a twenty dollar bounty, trying generally to spruce up this branch of the service. Ozias Bingham, charged with hiring wagoners in New England, was authorized to offer the bounty, plus pay of sixteen dollars per month and a uniform, although it is possible that he had difficulty persuading the Deputy Quarter Masters in New England to honor the bounty.[47] Lutterloh also advertized for wagoners in the Pennsylvania Packet offering the bounty, six pounds Pennsylvania currency per month, clothes, boots, and a daily ration.[48] Clement Biddle, aside from appealing to Pennsylvania for wagons, was attempting to hire some auxiliary help. In early February he was still using the rate

of hire adopted much earlier by the state and long since thought too low, thirty shillings per day plus a ration and forage. He nevertheless appears to have been able to hire some wagons in the Muchland vicinity, but on February 2 he reported that the Schuylkill was so high that they could not proceed to camp.[49]

In New England an ominous note was struck in late January, where in the eastern-most sections flour and beef were being consumed in astonishing proportions by Burgoyne's interned army, then hanging about the neck of General Heath like a millstone. The British alone, he claimed, were consuming $20,000 per week in food and fuel.[50] This placed a particularly heavy burden upon Peter Colt and Henry Champion, who operating from Hartford and New Haven, were subject to demands of Heath at one extremity and Washington at the other. There can be little doubt that they began to feel overextended. Since Colt had accepted his position in late autumn, he had been responsible for maintaining a regular flow of cattle to camp. Considering the enormous distances traversed and the always attendant threat of British raiding, the flow had been remarkably consistant. The arrival of those New England droves, along with periodic influxes from other quarters, permitted the army to survive the flour shortage of late autumn.

During this period Peter Colt bore the principal responsibility for purchasing and forwarding provisions to the Continental Army in Pennsylvania from Connecticut. Champion had

been principally employed putting up salt pork for the state of Connecticut, some of which may or may not have found its way to Pennsylvania. As early as mid-January, the Connecticut General Assembly was aware that things were not as they should be in the Purchasing Department in New England, and had taken an active hand in helping Colt set matters in motion. Peter Colt came personally before the Assembly representing his fears that insufficient cattle were being purchased for the army. The Assembly countered by recommending Henry Champion as special purchasing agent for cattle so that Colt could devote himself almost wholly to purchasing grain. The Assembly feared that the purchase of cattle for the army in Connecticut would fall short of the quantity purchased the previous year, and noted that Champion was "...considered a gentleman of great judgement, capacity, and experience in said business especially beyond any other person in this State..."[51] Champion, however, would have none of the appointment. He had been, apparently, one of Trumbull's men, and he liked the Congressional regulations pertaining to the Commissary no more than did the ex-Commissary General. At length, however, Champion reluctantly agreed to take on the task. Colt appointed him "...sole purchaser of live beef cattle within the eastern department, for the use of the Continental Army..."[52] pending approval by Congress. A number of officers at Valley Forge and interested parties would remark that this was a step in the right direction. The salutary

effects, however, of this appointment would not be evident for some weeks, as Champion was directed to begin his collection of cattle by February 1. Connecticut seems to have been serious in support of Colt and Champion, as the State loan office provided $50,000 to Colt and $150,000 to Champion to forward their work.[53]

Now Peter Colt began to hear, towards the end of January, reports that cattle were being siphoned off, or "stopped out," as they passed through Samuel Gray's immediate district to cross the Hudson at King's Ferry. Allegations of this sort had been leveled before, implicating General Putnam, but had been generally discounted. Now at the end of January, Colt heard that fifty head had been stopped out of one of his droves, and in a white heat he wrote in protest to Samuel Gray. Colt commenced by saying that he did not know how many men Gray had to feed, but that surely cattle from his immediate area would suffice, adding, "But I suppose your assistants find it much easier to stop 50 head of Fat-Cattle out of a Drove that may happen in their way, than give themselves the trouble to make regular returns to the purchasing Com. in the Neighborhood."[54] While Washington's army was, with the depletion of the Middle Department, becoming increasingly dependent on a perilously long supply line to New England, the precious droves of cattle which moved along that line were continually subject, as the winter progressed and provisions became more scarce, to depredations en route. The supply network for the Main Army had by now

stretched to formidable lengths. Cornelius Harnett, delegate to Congress from North Carolina, advised Governor Caswell at the beginning of February that he should set about procuring all the salt pork in the state for the use of the army, as a shortage of that article was anticipated.[55]

The British knew about the activity along the route from New England to the Middle States but they may have failed to appreciate its significance. Their intelligence reports informed General Clinton of the existence of sizable magazines at Sharon, Connecticut and Fredericksburg in Dutchess County, New York, from which proceeded daily shipments of provisions towards Pennsylvania.[56] Other rendezvous points were Danbury and Milford. Despite the essential life-giving role assumed by New England, this region was experiencing shortages also. Massachusetts, always low in flour, was attempting to contract with a supplier at Fishkill for 1,000 barrels, provided the State of New York would permit the supplier to export the scarce commodity out of the state.[57] New York, chary of its resources, required Massachusetts to wait until July for a reply.

Nowhere were things more scarce during this month than at camp. The Committee on Conference, which had sat at Valley Forge since the end of January, made a report to the parent body on February 6 which was designed to shake Congress from its misconceptions. The committee called the immediate prospects for provisions "truly alarming,"[58] after having consulted with every available officer in the Commissary. They found that

the army had been fed daily from provisions gleaned from an ever more restive populace. The commissaries had not been able to provide any rations beyond beef and flour, the issuance of which had been increased to compensate for the dearth of vegetables. The committee soberly averred that the entire area between the Potomac and North (Hudson) rivers was exhausted of meat.[59]

The Committee of Conference had arrived at camp convinced that it would discover evidence of gross fraud and mismanagement in the Commissary. To the contrary, they now believed that accounts were accurately and satisfactorily kept. The Committee was instead awed by the food consumption of the troops, increased by the "...long Train of Waggon Masters, Drivers, Artificers, Clerks & other Retainers of the Army."[60] They concluded that Ephraim Blaine had been as efficient as circumstances permitted in the collection of flour, and that the shortage of meat was due to actual insufficiency rather than mismanagement. The recommendations offered by the Committee disclose that they had achieved an adequate grasp of the geographical vectors of the Commissary supply system, noting that the troops around Boston, in Rhode Island, and upper New York in the Mohawk and Hudson valleys were also dependent upon meat from the states east of the Hudson. The Committee urged the dispersal of Burgoyne's army with all prisoners of war into some unpopulated area of the country, which would require fewer guards and remove some pressure from Heath. Reiterating that the army depended for its

subsistence on the eastern states, they concluded: "We think every Nerve should be strained to collect such a supply of Meat as will feed an Army to 30,000 Men early next Spring..."[61] adding that the success of the next campaign depended entirely upon Congress' diligence. Should that body prove dilatory, "General Howe will ravage the middle states with Impunity..."[62]

Washington recognized that the importance of supplies from New England was increasing daily. On the same day the Committee reported to Congress, Washington penned a personal request to Governor Trumbull of Connecticut. Addressing the alarming state of provisions, he reminded the Governor that the army had already once been on the point of dispersal, and that matters since then had hardly improved. Blaine had testified that the Middle Department was devoid of meat provisions, and that there would not be enough to see the army through the month remaining. Washington pressed Trumbull to urge speed on those employed as purchasers in Connecticut. Apologizing for requesting Trumbull to step into matters which were, strictly speaking, not his responsibility, he pleaded the exceptional nature of the army's plight.[63]

Blaine, who propounded his observations strongly to both the Committee of Conference and to Washington, was beset as usual with logistical insufficiency. He wrote to the Supreme Executive Council on February 12, once more reporting that the Quarter Master's Department had been negligent in supplying wagons to the

Commissary. Only one brigade had come in from Lancaster and the "back counties" in the past three weeks, the Quarter Masters having claimed that they had no power to press. Blaine requested the Council to adopt immediately measures to provide him with wagons, as "...there is Flour and Whiskey in every County sufficient to load such Waggons as may be demanded - the badness of the Roads have deprived a single Waggon from coming to Camp this several days-"[64] By this date the commissaries' problem amounted simply to this; the Middle Department, increasingly devoid of meat, still harbored reserves of flour and liquor, but at distances sufficiently remote from camp to be useless when logistical breakdown occurred. Because of organizational confusion and poor weather, New England's normally adequate meat supplies were not arriving regularly at camp. For nearly a month Congress and the government of Pennsylvania had pursued discordant measures in dealing with the army's supply crisis. Neither had proceeded very far in producing effective solutions, as is starkly evident in the subsequent trials of the army. Then all the weaknesses in an inherently rickety system seemed to converge malevolently to produce the worst supply crisis of the winter.

VII "A PICTURE OF DISTRESS"

The two weeks of mid-February 1778 were ones of unmitigated misery for Washington's troops. They were almost equally appalling for the Commissaries at camp upon whom the ill-fed army vented its fury, as they were easily blamed for the foibles of their superiors, the failure of Congress and the state, and even the capriciousness of the weather. From consultations with Blaine and the Committee of Conference, Washington was well aware of the proximity of another food shortage. This may have spurred him to act vigorously when intelligence reports suggested the possibility of a British foraging raid west of the Delaware. Washington immediately ordered a large detachment under Nathanael Greene to seize what lay in the suspected path of the enemy, saying "...it is the utmost Consequence that the Horses Cattle Sheep and Provender within Fifteen or Twenty Miles west of the River Delaware between the Schuylkill and the Brandywine be immediately removed...".[1] Greene was also ordered to seize draft horses, mounts suitable for the Cavalry, and every sort of forage, giving receipts for all. Washington

strengthened the order by requiring all civil and military personnel to obey and assist Greene in his grand forage.[2] The order is of particular interest in that it used the pretext of a British foraging expedition to justify an all-out raid on the farms west of the Delaware. This was an amply ruthless measure and now there was no mention of leaving sufficient supplies for the use of families. The order simply meant that all provender, without exception, was to be secured for the use of the army, employing the justification that if it was not so seized it would fall into the hands of the enemy. Washington was not declaring war on the inhabitants, but this order and employment of the brisk efficency of Greene must have produced hardships more severe than the populace of this already combed-over region had yet endured. This raid, along with a later one in New Jersey assigned to General Wayne, may well have saved the army from mass mutiny.

The most strident written complaint lodged with Washington by a general officer came, as in December, from James M. Varnum. The general from Rhode Island had been disgusted from the onset with the choice of Valley Forge for winter quarters. He had raised his voice in the most bitterly sarcastic terms when his ill-fed and ragged troops had been placed under marching orders late in December. On February 12, Varnum unlimbered his formidable rhetorical artillery once more, this time addressing his comments to Nathanael Greene:

> I must add that the situation of the Camp is such that in all human probability the army must soon dissolve. Many of the Troops are destitute of Meat & are several days in Arrear. The Horses are dying for want of forage. The Country in the Vicinity of the Camp is exhausted. There can not be a moral Certainty of bettering our Circumstance while we continue here... It is unparalleled in the History of Mankind, to establish Winter Quarters in a Country wasted, and without a single magazine - We now only feel some of the Effects which reason from the beginning, tought us to expect as inevitable. 3

Varnum suggested that the army move at once to more hospitable environs. His suggestion were passed along by Greene to Washington, who was doubtless far from pleased by Varnum's lecturing remonstrance. Washington could ill afford the luxury of such reflections now. He knew that the army was now virtually immobile, due to the death of horses which Varnum himself mentioned. There was no reasonable alternative but to remain at Valley Forge and press as forcibly as possible for more ample supplies.

From February 12, portions of the army were out of beef. The food shortage did not become universal until a few days later. Lengthy letters from such officers as Captain-Lieutenant George Fleming of the Artillery and Major Gustavus Wallace of the 15th Virginia, both penned on the thirteenth, make no mention of food shortages at camp. Yet Washington had apparently been monitoring developments carefully, and was bracing for the worst.[4] On the fourteenth he wrote to Governor Livingston of New Jersey sending his letter along with a deputation to represent the critical situation. He wrote:

> We are supplied from hand to mouth, and frequently not at all, from the day Mr. Trumbull left the Commissary department. This is the second time, in the course of the present year, that we have been on the point of dissolution, and I know not whether the melancholy event may not take place. 5

If anything, Washington understated the severity of his situation, which he no doubt expected his deputation to represent verbally. Yet Trumbull, much praised in his absence and no doubt more efficacious than Buchanan, had not been faced with the problem of severe and widespread depletion of logistical resources and provisions. Even Lancaster County, the granaries of which had once seemed almost bottomless, was feeling the shortages. Jasper Yeates wrote on the fifteenth that reports had at length reached Lancaster that the army had been without meat for several days: "Is this not shocking? Nine or ten files of men have just been marched off to impress Waggons in Order to carry them Provisions. They want 150 Teams: - The Country about us suffers greatly."[6]

The trials of Thomas Jones, now called upon to produce an explanation for the failure of his department, were extreme. The full brunt of blame was leveled at the issuing commissaries, and the chicanery of one or more of the brigade commissaries did not render Jones' lot any easier to bear. On the fifteenth he recorded his woes in a letter to Stewart, who was staying safely out of the line of fire in New Jersey. Jones reported that a second "Rupture" had occurred at camp and that at least one

brigade was even out of bread due to the negligence of its commissary, one Steenbergen (who served Scott's and Woodford's brigades).[7] The brigadiers had complained loudly at Head Quarters and Jones was summoned like an errant schoolboy for questioning. It is not difficult to envision him, calfskin ledgers under his arm and bent against the wind, entering a steamy, crowded chamber where strident-voiced officers hurled accusations at him. Jones, in a paroxysm of embarrassment, described the scene himself:

> Brought all my Books to Head Quarters had to stand the Charge of several gen.l officers & their Com.^{ys} however all the Brigade Comm^{ys}. except Steenbergen on being askd how their troops were serv.d with flour and Bread answered they did not want for that article, Steenbergen suffer.d his men to go 3 Days without flour & never made Application as he had no Waggons & when he got them afterw.^{ds} the flour this side of the river was all gone we had 242 barrels over at Pawlings But there was no getting it accross their Waggons could not cross. no boats to take Mr. Steenbergen on seeing there was no flour never mention.d his People wanting or Else would serve them with Biscuit. But can assure you after all my Efforts Etc to do every that could be done its by the greatest Chance that I have Escaped being made an Example off owing to the Neglect of the Com.^{y} & the Purchasing Department who will one day or other & very soon Bring a total Destruction on every Person Concern.^{d} 8

Jones doubted that the army could be held together for another week, and announced his intention to resign his post at the end of the month. "...my Dear Sir I am almost Distracted. to be left here & tore to Pieces by a starved army Etc Etc that I scarce know what I say or write for gods sake Come to Camp Immd^{y}."[9] Stewart remained unmoved, and would not come.[10]

From this crisis Ephraim Blaine emerged as the principal on-the-scene official in the Commissary system, having inherited by default the duties of Buchanan, who was far removed from the harrowing events. Blaine, in effect, took supervision of supplying the army, although he still tended to concentrate his own purchasing efforts toward securing wheat and flour, leaving the purchasing of meat in the Middle Department more to John Chaloner and others of his assistants. Blaine informed Stewart on the sixteenth that he had just received pork, fish, and thirty head of cattle sufficient for two days' provisions, and that 100 more cattle were due in shortly from one of his agents in New Jersey, Mr. Dunham.[11] He was exhausted and tried beyond endurance when he penned the following rancorous lines to Stewart:

> ...poor Jones and self have been twice a day at Head Quarters this three days, and has had a regular tryal with some of the Gen.[1] and Field Officers, by which it appear'd they were very troublesome, and that us poor Commissaries had done Every thing in our power, nothing but a picture of Distress in Camp, in particular with the Eastern troops, the Pennsylvanians & Jersey Blue Veterans have hardly been heard to complain by G. the best soldiers in camp, wish to see you on Many Accts. but before you leave Jersey use every Method to forward without loss of time every salt, cow, Bull, steer, ox calf, Pork, Beef, Fish, Etc. Etc. and let us have it once in Our power to stuff their Dam'd Yanky Gutts, till the Close of the Month,- 12

Blaine, it should be remembered, was a native Pennsylvanian and Stewart had long been a resident of New Jersey. From the onset of the war, New Englanders and men from the Middle States had harbored a cordial mutual dislike. Blaine, Stewart, and even

Washington were not above regional bias. Although the antipathy had ameliorated since the days at Cambridge, it was still in evidence at Valley Forge. Their sectional biases aside, both Jones' and Blaine's letters to Stewart point toward the interesting conclusion that the supply crisis affected units according to the constancy of their commissaries, and even then, units reacted to the shortage in varying fashions. Not all of the army was wholly without food, although the meat shortage was well-nigh universal, and not all of the troops were on the verge of mutiny.

Thomas Jones was able to demonstrate on February 14 that during the past five days he issued 142,200 pounds (about 142 barrels per day) of flour and bread to the brigade Commissaries from the magazines at the Bakehouse at Pawling's. During the same five days (February 9-13 inclusive), he issued 6,890 pounds of salted provision and 137 head of cattle, estimated at 68,500 pounds (or about 15,078 pounds per day, about half the daily average for January). From this Jones could have argued that while the army may have been hungry, it should not have been starving unless the brigade commissaries were not doing their work in calling for the provisions at his two magazines and hauling it to the Brigade encampments. Whether through negligence or logistical failure, this seems indeed to have been the case. Jones' discomfiture was not over on the fourteenth. For the next three days matters failed to improve materially.[13]

With the crescendo of complaint swelling at Head Quarters, the Committee of Conference which had but two weeks before arrived at Moore Hall was doubtless hard put to discern the severity and cause of the supply problem. Francis Dana appears to have been particularly concerned and he actively set about investigating for himself. The committee now found itself in the embarrassing position of having to report to Congress that the army was suffering from a dearth of flour, after they had but shortly before reported that there was a sufficiency of that article. Ephraim Blaine had informed the Committee that there was quite enough flour to feed the army. When complaints came in that some brigades had been without it for two to four days, the Committee once again examined Blaine, who did not hestitate to place the blame squarely on the brigade Commissaries and Quarter Masters. There was, he continued to maintain sufficient flour in the magazines at camp.

With conflicting accusations hurtling about, Dana decided to investigate personally. He called for his horse and took a tour through camp, stopping at various brigades where there were officers he was acquainted with. Dana felt that as a result of his inquiries he had obtained a fairly accurate overview of what was happening in camp, which he explained thus:

> For flour they had not suffered, but upon an average every brigade had been destitute of fish or flesh four days. On Saturday evening they receiv'd some 3/4 and others 1/2 pound of salted pork per man; not one days allowance nor have they assurance of regular supplies in future. We do not see from whence the supplies of meat are to come. The want of it will infallibly bring

> on a mutiny in the army. Sunday morning Col Brewers regimt. rose in a body and proceeded to Gen Patterson's Quarters in whose Brigade they are, laid before him their complaints & threatened to quit the army. By a prudent conduct he quieted them, but was under necessity of permitting them to go out of camp to purchase meat as far as their money would answer and to give their certificates for the other, and he would pay for it. The same spirit has risen in other regiments... 14

From Jones' assertions together with Dana's, it appears that the problem in the army caused by the food shortage was principally one of fear and uncertainty. Certainly between February 9 and 17 the army, if not actually starving, was suffering from a much reduced diet, one nearly bereft of meat.

During the depths of the February crisis, the storm initiated by the Board of War broke over the heads of the Commissaries at camp, and Blaine in particular suspected that less than laudable motives were at work in York. He accused unspecified members of the Board, certainly either Mifflin, Gates, or both, of being deliberately obstructionist, complaining bitterly to Stewart about:

> ...a Certain Gen.[1] now a member of the Board of War studying our fall in the purchasing Department this matter he in great Measure has Accomplish'd, the contracted and unactionable method my Master has pursued his business, is the Means of thronging Censure upon the whole Department & in some Measure answerable for the wants of the Army - 15

For lack of evidence it is very difficult to say what the motives of the Board were in their involvement in Commissary affairs, but Blaine may have been correct in suspecting less than pure intentions. It is not unlikely that the Board of War,

its members smarting over their recent skirmish with Washington in the Conway affair, may have thought to rectify the inadequacies of the Commissary as a means of garnering a reputation for administrative efficiency. As Blaine observed, Buchanan had by dint of incompetence played neatly into their hands. Blaine felt keenly the insult implied in the Board's appointment of special purchasing superintendents, and he seems to have had no particular liking for Robert L. Hooper. (Blaine had been contracting in Hooper's region for wheat, using a Mr. Wilson as an agent, and Hooper retaliated for what he may have considered invasion of his private domain by doing his best to discredit Wilson before Congress.) Of the Board's appointment Blaine told Stewart, "...Mr. Hooper shines in front of the list his District in Sussex County & Northampton... his great friend is Determined to support him let him be just or,_____...".[16] (This last is apparently a reference to Hooper's friendship with Mifflin.)

Jones shared Blaine's dark suspicions about machinations at York, as well as with his assessment of the "Damn.[d] Yankys." Jones' distress during the week, compounded by the acute embarrassment of being called before Washington and subjected to the imprecations of the general officers, broke down what little reserve he had left.

> ...let a person slave, toil & Drive about & do what he Can its all in vain he is liable to suffer, as the fury of the Starved Soldiery may fall [upon] him, tho, the Blame does not rest upon me, as to my Part I shall not stay one hour longer than the 1st next month & desire you will Immediately appoint another man in my Room, I shall fall to settle my Aud.^{ts} & see if I Cannot leave the Departm^{t} with the same Credit as when I Came in, Co. Stewart I am serious in this matter & pray you will not hesitate one moment in Coming to Camp... I Expect nothing else but every moment a whole Brigade of the Starv.^{d} soldiers will come to our Quarters & without Examining who is or who tis not to Blame will lay violent hands on the whole of us. 17

Jones agreed with Blaine that sufficient provisions had arrived to get them through two more days, and added that troops had been ordered to the vicinity of Head of Elk to press teams and bring stores from that quarter. He was about to issue whiskey and rum to the Jersey and Pennsylvania troops, "...who I have not heard say a word all this time."[18]

Washington occupied himself with sending out the alarm to the governors of New Jersey, Maryland, and New York, enclosing graphic assessments of the distress at camp penned by the Committee of Conference. Maryland had by this time been identified as a source of temporary relief, but difficulties in purchasing meat in the state had been encountered in the past. Washington wrote to Governor Johnson that Henry Hollingsworth at Head of Elk had been identified as a man capable of expediting supply from that vicinity, adding that future prospects of the army were "extremely precarious."[19] (Hollingsworth was one of the superintendents appointed by the Board of War.) The General

in Chief explained that "...some of the Brigades have not tasted Flesh in four Days and the Evil great as it is seems more to increase than diminish."[20] A similar letter was dispatched to Governor Clinton of New York, begging for cattle, and another to Livingston of New Jersey, to whom Washington also sent one of his secretaries, Tench Tilghman, as a personal supplicant.[21] Washington had special instructions for Hollingsworth at Elk, in whom he placed high hopes for immediate relief. He sent Captain Lee of the dragoons with his troop to help Hollingsworth forward everything he could lay hands on, and enjoined him to silence in communicating any information bearing on the army's excessively weakened condition, lest the British should learn of it.[22]

The shortage of meat had meanwhile brought the soldiers to the brink of mass mutiny, and Jones' worry about being beseiged in his quarters may not have been far from the mark. John Laurens, working as Secretary to Washington at Head Quarters, described the scene to his father, the President of Congress, in terms more restrained but no less vivid than Jones':

> The Soldiers were scarcely restrained from mutiny by the eloquence and management of our Officers - those who are employed to feed us, either for want of knowledge or for want of activity or both, never furnish supplies adequate to our wants - I have more than once mentioned to you that we have been obliged to renounce the most important enterprises, delay the most critical marches by the delinquency of Commissaries.... 23

Laurens blamed Buchanan, whom he called "almost useless," and charged that the problem stemmed from the removal of Trumbull, who had extensive business connections in cattle country. This echoed the rather facile reaction of most of the officers reporting on Commissary deficiencies. The gaping maw of the army was never sated and it is unlikely that in this winter even Trumbull could have served to universal satisfaction.

Greene's foraging expedition, in which he had led out 2,000 men, meanwhile brought in temporary relief. Greene was finding his task to be a study in frustration, but he pushed down into Chester, gleaning everything in his path and sending the livestock and forage on to camp. His soldiers beat the woods and swamps where the inhabitants had concealed their livestock and on the seventeenth he had been able to send fifty head of cattle to camp. Greene ordered Anthony Wayne to cross the river at Wilmington to the Jerseys, and other detachments were split off to gather whatever they could find. Writing Washington from Providence Meeting, Greene had found that transportation for forage was a particularly galling problem. He characterized forage as more plentiful than teams.[24]

Greene's forage expedition was only expected to last until the eighteenth, but he had such difficulty obtaining transportation that he requested Washington's permission to stay out longer. Greene continued at Providence Meeting, always short of wagons, the only obstacle keeping him from making a "grand forage" into hay growing country below Marcus Hook. People were resisting

taking certificates for horses and cattle, which measurably slowed his progress. Meanwhile Wayne had begun his sweep across the Delaware, in the Tory-thick counties of southern Jersey.[25]

Washington did not rely solely on his communications with the state governments and on Greene's and Wayne's foraging. He despatched a trusted officer, Captain R. H. Lee, to Delaware to hunt for cattle and barrelled meat. Lee passed through Smallwood's command at Wilmington, then proceeded south toward Dover. He was ordered to set about escorting meat and cattle at Dover (where there was reported to be a vast quantity of barrelled pork) at Head of Elk to the army.[26]

Tench Tilghman, who went personally to confer with Governor Livingston at Trenton, had trouble getting across the ice-choked Delaware. He was disgusted with the inefficiency of the local commissaries and scouted about himself for food which could be shipped to Valley Forge. Tilghman seized control of the operation, and he found at Trenton and in neighboring magazines 671 barrels of fish, 450 barrels of pork, and 190 barrels of bread. One hundred and twenty barrels of pork were at Trenton, and he loaded them in wagons and had horses shod to haul them. At the same time he collected the supplies from the other magazines for forwarding as soon as he could get conveyances. Tilghman was shocked by the proliferation of what he deemed to be parasitical commissaries and Quarter Master's Department officials in Jersey, and he was convinced that both departments were

ill managed. He urged the governor to appoint state purchasers with powers to seize provisions from recalcitrant farmers.[27]

Food for horses at camp, however remained in painfully short supply, and the younger Laurens decried the carcasses of beasts which littered the vicinity of camp and "...the deplorable leanness of those which still crawl in existence...."[28] In seeking more deeply for reasons for the shortages, Laurens pointed out the dual drain of the Convention troops at Boston and the sequestering of provisions for a Canadian expedition to be led northward from Albany under the leadership of de Kalb and Lafayette. Laurens complained, "The disaffected Inhabitants find means to conceal their Teams and Cattle so that the Country appears more naked than it really is."[29] Certainly Greene's and Lee's reports bore him out.

Even with Greene and Wayne out on grand forages, Jones saw no relief from his personal predicament, and he remained squarely in the crossfire. Some of the troops, he reported on the eighteenth, had been without meat for five days. Jones fled across the Schuylkill to the house of Henry Pawling, but could not escape the opprobrium levelled upon him from Head Quarters. "...we are not ten Minutes in the Day that there is not Expresses on Expresses comeing from head Quarters as there is Complaints comeing in to his Excellency from all the Gen.l & field Officers in Camp."[30] Despite the aspersions cast upon his conduct at Head Quarters, Jones empathized with Washington:

"...I pity him from my heart & soul, there is no man more Distress[d], - three fourths of our army has attemp.[d] several times to leave Camp, and as to my Part I did not think it would stand together until now."[31]

Although seventy head of cattle arrived from the southward (probably from Greene), Jones was not immediately persuaded from his intention to leave his post the moment his office was in order. Suffering acutely from anxiety, he feared that even at Pawling's he might be in personal danger,

> ...as my life is not safe without the army is Better supplied, which I see no prospect of at present I would not undergo again the tryals and Sufferings of Body & mind this 5 or 6 Days past for all the Pay I would get in the service those 12 months to Come; tho. I am not in fault, in any Respect for the wants of the army, yet the generallity of the officers & starved soldiery first Exclaims against me, we have been for those four days Past afraid that any officers or soldiers would come in when we were at Dinner.... 32

At least, one observes, there was sufficient food in the vicinity of camp for the Commissaries to dine, although Jones does not describe the quality of his fare.

Jones harbored the suspicion that "...there is every obstacle thrown in our way by a Certain Party in order to break up our Departm[ts]," [33] an unmistakable reference to Mifflin and the Board of War. Because of the upset at camp he could not have his master accounts completed in time for the semi-annual accounting scheduled for mid-February. With some justification, he imagined that the Board might employ this as further evidence

of incompetency within the Department. Just how interested the Board was in unhinging the system, however, is not at all clear.[34]

Blaine was being ordered by Washington and the Committee of Conference to travel to Head of Elk, Dover, and Baltimore to scour the southern-most extremities of the Middle Department for provisions, and was poised to leave as soon as his presence was required less urgently at camp. Washington realized that a regular flow of cattle from New England was not to be counted upon due to the distance which the droves had to traverse and the requirements of the troops at Boston. In an open circular letter to the inhabitants of New Jersey, Pennsylvania, Maryland, and Virginia he called upon their patriotic instincts to help supply the army and to put up and fatten cattle, for which he promised a "bountiful price."[35] Blaine had abandoned hope of rescue by Buchanan and was apparently considered, in effect if not in name, to be running the Purchasing Department. Of his dilatory superior he told Stewart that he could make "...no sound in his Ear sufficient to allarm him to action, (what Plan can he be on), the Board of War Making new regulations taking I believe not the least Notice of him ordering at Pleasure new Magazines of Flour, and appoint^{g}. People to the Superintendancy."[36]

Wagon brigades coming in from New Jersey, to make matters worse, were inconvenienced by bad weather, high water, and

untimely British raiding. James Paxton, working in New Jersey to send barrelled pork, had sent off three brigades and was completing a fourth. One narrowly escaped being taken at Newtown, in Bucks County. The wagon master was warned in time, and hastened back across the river and north to cross at Coryell's Ferry. Paxton sent an express to Bucks County for wagons to haul fish to camp, but the messenger was nearly captured at Newtown, escaping by means of the rather dramatic expedient of jumping from a second story window.[37] Despite such hazards, the worst of the food crisis was extinguished by February 20, even if Henry Lutterloh continued to have difficulty supplying sufficient flour to bakers at camp.[38] The immediate threat of mutiny and dispersal had been averted, but by a margin narrower than most cared to contemplate. The men had, on the testimony of Jones and Laurens, been on the verge of walking out of camp en masse. They were dissuaded from this desperate decision, yet desertions occurred in prodigious numbers. Jedediah Huntington wrote to Governor Trumbull on the twentieth that although the troops had been on half-allowance for some days, the situation had improved.[39] To his brother he remarked more candidly that "...there are Daily Desertions from the two Armies, I don't know whether we or the Enemy have most to brag of-"[40]

Joseph Trumbull's adamance was at length shaken by the February trials of the army, and despite failing health he assented to lend his talents once again to the cause, but in an

advisory capacity. He accepted an appointment on the Board of War. Many, including Timothy Pickering, considered him to be little less than an deus ex machina capable of rectifying the supply deficiencies by engaging vast meat resources upon command. "For the sake of our bleeding country," Pickering pleaded, "let us have your aid as soon as possible."[41] He had excelled in his task with prodigious success, particularly in comparison to Buchanan. Certainly his father's prestige and influence with the New England delegates to Congress was also influencial in the rising clamor for his return to office. Congress had apparently forgiven him. For the moment, however, the army's hopes for supply had come to rest on the rocks of the February shortages. Ephraim Blaine, with a letter in hand from Francis Dana to the governor of Maryland,[42] headed south from camp to adjust the machinery of his department. Droves from Colt and Champion were still sporadically wending their ways south from New England, but Blaine was expanding alternative sources and spurring on adjunctive suppliers within the confines of his own Middle Department.

One of the reasons why beef supplies from New England had faltered came to Washington's hand about the end of the month. Peter Colt wrote him a lengthy exposition of the difficulties he had encountered in the autumn. Colt recounted the problems which had stemmed from the reorganization of the Commissary, and which resulted in his resignation and eventual return to his commissary duties. From his letter it is clear that no one had been running

the purchasing department in New England for almost the whole of the month of October, 1777. He blamed his own disenchantment and that of his subordinates squarely on the apathy induced by the June, 1777, regulations and Trumbull's resignation. Further complications resulted from the necessity of feeding Burgoyne's army near Boston and from shipments which went to Albany and east to Rhode Island. Moreover, the supplies of salted meat were one-fourth of last year's. Champion was now, as Colt alerted Washington, sole beef-purchaser for New England and his office was independent from Colt's. He expressed every confidence in Champion's ability to supply the army adequately with meat.[43]

Champion had received a letter from Washington dated February 17 detailing the plight of the army for meat. He replied by stating that since taking office he had forwarded 160 heavy oxen per week to the southward, and that Burgoyne's troops were consuming about 190 per week. (Colt thought that much of the cattle sent southward by Champion was stopped by troops on the Hudson.) Champion reported that he expected his meat purchases to be curtailed abruptly by the New Haven convention price regulations, due to go into effect March 20. Connecticut, he thought, was willing to suspend them for two or three months, but they were reluctant to risk disunion. He blamed the impassable condition of the Hudson for slowing the progress of his droves, but he thought he could supply enough meat to last four to five weeks, until grass-fed livestock could be obtained. Champion's principal complaint was the timing of the price regulating act, which if deferred but briefly would allow him to lay in a good quantity of meat.[44]

In the midst of the recent perturbations at camp, a rather astonishing series of exchanges had taken place between the Board of War and the Supreme Executive Council. Congress was by now firmly committed to a policy of holding their new purchasing Superintendents over the heads of the Pennsylvania government. The maneuverings between the Board and the Council continued in curious isolation from the distress unfolding at camp, behind a veil which even the detailed and bluntly worded communications from the Committee of Conference at camp failed to dispel.

Once Congress observed that the Supreme Executive Council was making the proper assurance that it had appointed state commissioners who were actively engaged in purchasing for the Army, they did not hestitate to file specific instructions with the Council. Congress wanted the commissioners to be instructed as to which of several magazines they would direct their purchases, apparently the same ones designated at Reading, Lancaster, Pottsgrove, and elsewhere over which the Congress-appointed Superintendents exercised their control. The Council was advised to appoint storekeepers at each magazine who would provide for the Board of War weekly returns of provisions on hand. Congress further ordered that the state commissioners were to purchase every necessary article, not simply flour. The Board of War was empowered to open new magazines and appoint additional storekeepers, and the state purchasers were to receive similar commissions as the Board-appointed Superintendents, 2.5 percent of all funds disbursed for purchases.[45]

Meanwhile, Hooper, Falconer, and Mifflin were proceeding according to the plans they had outlined to the Board of War. By the time they wrote reiterating their need for cash, they had set seven capital mills in motion, which had already ground sufficient wheat to load eighty wagons to send to camp. The barrels now waited for the Wagon Master of Pennsylvania to collect them.[46] James Young, who held that office, was the same day writing to Timothy Matlack, Secretary to the Supreme Executive Council, imploring assistance. He seems not to have been aware of the quantities of flour and forage already produced by the mills. By February 19, however, there were indications that all was not well with the new Board of War appointees. Congress, placated by the Supreme Executive Council's assurances and vexed at reports that the Superintendents had exceeded the fixed price of salt, had two days before moved to suspend the operations of the new appointees.[47] News of this got around rather quickly. Gates reported it to William Duer, who in turn wrote Colonel Lee. Gates asserted that this had brought the operations engaged in by Hooper, Falconer, and Mifflin to a standstill and forage on its way to camp had actually been halted enroute. The army, according to Duer, was bereft of provisions and on the point of dispersal, an obvious reference to the recent crisis. He reported ominous news of increased desertions and a possible mutiny.[48] Duer was lodged at Reading, away from both Congress and camp, yet it is clear from his letter that the maneuverings of Congress, the Board of War, and the Supreme

Executive Council had resulted in a chaotic administrative tangle which was to resist efforts to unsnarl it for some time.

Although Duer reported hearsay to Lee, the discomfiture of James Young at this time confirms that the activities of the Superintendents had been brought to a grinding halt. From Young's correspondence, it is clear that Gates had ordered an instant cessation of the purchasers' work as soon as Congress let their will be known, perhaps in an effort to demonstrate the essential work of the Superintendents. All of this occurred, unfortunately, when supplies of food and forage were most desperately needed at camp. Young, as Wagon Master General for the state, was charged with increasing the supply flow to the army. He had to secure wagons and teams at the county and township levels, and the difficulties he faced were numerous and daunting. He discovered, for instance, that during the second week of February the Wagon Master for the Reading vicinity, Leonard Reed, had found his job too demanding, and had resigned. The man, it must be acknowledged, was functioning at something of a disadvantage on account of his inability to read and write. At this juncture Young received an express from Lutterloh pleading for supplies at camp, but logistical matters in and about Reading were in considerable confusion because of Reed's resignation.[49]

Now, on February 23, Young reported even graver disruptions to Secretary Matlack of the Supreme Executive Council. Jonathan Mifflin at Reading, in his new guise of purchasing superintendent, had applied to Young on the eighteenth for fifty wagons to haul supplies

to camp. (These doubtless were for the eighty wagon loads which Hooper had referred to in his correspondence with the Board of War.)[50] Young immediately applied for a press warrant for twenty wagons from the Reading area. The following day, as a few began to arrive, Young received a note from Mifflin asserting that the night before a letter from Gates had arrived stating that Congress had revoked the commissions of the Superintendents. Mifflin informed Young that he could take no further direction of the teams and wagons. Young, distressed that critically important provisions would therefore not reach the army, sent two of his associates to Mifflin to find out the location of the supplies so that he could assume responsibility for getting them to camp. Mifflin, in high dudgeon over the fits and starts of Congress, had washed his hands of the matter and brusquely evaded the queries of Young's two emissaries. Young then had no recourse but to dismiss the wagons he had gathered until the state purchasing commissioners received further instructions from the council. Young was further disturbed by reports from his deputies that wagons ordered out in Heidelberg Township were refusing to comply. He was increasingly dependent upon force in compelling owners to submit to orders from the Council.[51] (Mifflin was sufficiently concerned over the tie-up to send a copy of Gates' cease-work order to Washington.)

The Supreme Executive Council, apparently unaware of the recent decision by Congress, was dismayed by Young's communication.

Among Congress, the Board, and the Council there was some prodigious dissembling in progress. Gates' motives were not at all clear, and Jonathan Mifflin's actions, even if rooted in pique, were hardly blameless. The depths of what can most charitably be called a misunderstanding are suggested in Gates' letter to the President of Congress on February 26. Without mentioning Congress' recent suspension of the purchasers, Gates acknowledged to Laurens that there had been some confusion between the Board's appointees and the State's purchasing commissioners because of conflicting tasks. He informed Laurens that his appointees had ceased to purchase in protest against the intelligence that the state purchasers had been buying wheat in areas west of the Susquehanna. The Superintendents, Gates stated, were unwilling to make any further purchases until competition in the purchase of like commodities was removed.[52]

It is difficult to arrive at a satisfactory explanation for Gates' actions and correspondence. He had abruptly halted the supply of forage to camp when the Superintendents rigidly adhered to his orders to stop their work. He then asserted to Congress that the Superintendents refused to purchase because of competition. The Council, in the dark as to the specific actions of Congress and the recipient of Young's distressing communication, hardly knew what was afoot.[53] Gates' letter to Laurens indicates that he suspected that the suspension of his purchasers was only temporary. There is little by way of correspondence to elucidate the causes of the confusion that

erupted during the second and third weeks of February. The only certainty is that the army suffered as a result. Was someone, as the Supreme Executive Council suspected, out to embarrass the state government by demonstrating the absolute neccessity of maintaining the Board's appointees?[54] Was Gates too heavy handed in transmitting Congress' suspension to the Superintendents, causing them to cease their efforts when the army was in need? Jonathan Mifflin, if his actions were accurately reported by Young, was at best callous in halting his supply shipments.

Congress appears to have displayed dubious judgement in the entire issue. It had been successful in spurring the Pennsylvania government to pump new life into its supply program and to honor its implicit commitment to bolster the supply services of the army while it remained within the state. Yet in allowing two entirely independent supply organisms to develop simultaneously, where competition could not help but inflate prices, they set two potentially efficient organizations at cross purposes. These two organizations were, it should be remembered, supernumerary to the existing purchasing department operating within the army's Commissary, so that briefly in late Febraury three independent purchasing departments were competing within the State of Pennsylvania. Although the argument could be made that the state purchasers were adjunctive to the army's Commissary Department, the Board of War's appointees were authorized to operate free from "interference" from the Commissary Department upon specific orders from Congress. There were also

smaller independent purchasing agencies for the supply of prisoners of war and the often neglected Hospital Department, which only augmented the pressure on prices and supplies. Congress' solution to Buchanan's inefficiency was to permit and encourage the proliferation of conflicting organizations, possibly in the naive hope that in sanctioning such an appalling entanglement of interests, all corners of the Middle Department would be scoured for the supplies required for the maintenance of Washington's army.

At camp during the latter week of February, the Commissaries began to sense only a slight upturn in their fortunes. The date for the accounting had arrived and passed amid the confusion of the supply crisis. Charles Stewart, appealing to Samuel Gray at Fishkill for his laggard returns, received instead a raft of excuses. Gray, however, also forwarded the encouraging news that Colonel Henry Champion at Hartford had at last undertaken to supply the army regularly with beef cattle, and that work was progressing in setting up provisions magazines in western Connecticut. A source of concern, however, was news from Cuyler at Albany, who was demanding 1,000 barrels of salt provision from Peter Colt to provide for the Canadian expedition. Gray had seen to it that 600 barrels were sent from Hartford, which might better have proceeded to the beleaguered army in Pennsylvania, had the abortive fate of the Canadian expedition been anticipated.[55]

The coercive measures now employed to wring wagons, teams, and drivers from the back country of Pennsylvania were bound to bear some ill fruit, and at length a disaster occured at camp

that illustrated the hardships imposed on farmers required to leave their homes in the dead of winter to haul supplies for the army. The vignette demonstrates what happened when the impersonal directives handed down by the governing bodies came to bear on individuals. Its poignancy is not reduced by the reflection that is was doubtless but one of many such incidents.

Two brigades of wagons (probably numbering twenty-four wagons and ninety-six horses), were ordered out by the Wagon Master of Northampton County to provide transportation for forage to camp. The Wagon Master, anxious to hasten the wagons to camp, assured the drivers that they would only be in service for eight days. They arrived at camp on the evening of February 25, and were immediately loaned out by Clement Biddle to the Purchasing Commissary to go to Head of Elk to haul more supplies. The brigades were directed to Biddle's forage yard to receive further instructions. It is not difficult to imagine how this news struck the teamsters, who had been on the road for several days in bitter weather. They were told that instead of going home to Northampton they would be starting out on a lengthy treck southward. Apparently upon impulse, the entire two brigades decided to desert. They made a dash for the Schuylkill, lashing their teams into the freezing, swollen river. It was dark, and possibly mistaking the Fatland Ford they were soon out of their depth in the head-long current. Confusion ensued, and in the darkness thrashing teams drowned, wagons were swept away, and four drivers perished.

Michael Snyder, one of the wagon masters, was unseated from his horse mid-river and managed to swim back to the west bank, where he was immediately seized and placed under guard. Eventually Snyder was remanded to the custody of James Young, who held him at Reading until evidence for his trial arrived from camp. The Supreme Executive Council, sensitive to their many embarrassments before Congress, were implacable. They ordered Young to make an example of Snyder if so much as a shred of evidence indicated that he had encouraged his fellows to desert. The implication was that if he was found guilty, he would hang. Snyder, however, was a man highly regarded by his fellow wagoners, so much so that three drivers absented themselves without leave from camp to plead his case before Young at Reading. They testified that the Northampton Wagon Master had intentionally deceived them, and that Snyder was a loyal man who had served the cause well. Young heard them out, and it spoke greatly for his humanity that even in the face of possible censure from the Council he released Snyder and let him return home.[56]

Nathanael Greene's assessment of matters at camp at the end of February was not encouraging. His foraging expedition together with the one led by Anthony Wayne had provided the extra measure needed to sustain the army during the late difficulties. He too spoke of a near mutiny at camp, which had occured while he was out foraging. Its tone, however, was somber rather than riotous, even when meat had been lacking for a week:

> The Seventh day they came before their superior officers and told their sufferings in as respectful terms as if they had been humble petitioners for special favors. they added that it would be impossible to continue in camp any longer without support - Happily relief arrived from the little collections I had made and some others and prevented the Army from disbanding - We are still in danger of starving - the Commissary's department is in a most wretched condition - the Quarter Masters in a worse - Hundreds and Hundreds of our Horses have actually starved to death The Committee of Congress have seen all these things with their own eyes - 57

Washington had already made overtures to Greene about taking charge of the Quarter Master's Department, an appointment which he viewed with considerable distaste: "I hate the place, but hardly know what to do...."[58] Greene would finally accede, and from his appointment beginning in March, the Quarter Master's Department would begin to reassume its obligations for the procurement of adequate transport for the army.

The February food crisis resulted from a confluence of political dissention and organizational ineptitude. The proliferation of purchasing agencies was counter-productive, and failed to meet the challenge of reduced commodities in the Middle Department when sources from New England were whittled down by military requirements and administrative disarray in that sector.



Jeremiah Wadsworth, naval officer, c. 1795-1800

Courtesy of Independence National Historical Park

VIII A NEW REGIME

As the prospect of spring began to enliven the hopes of the Main Army, forces were at work which during the months of March and April would produce important changes in the offices dealing with supply. Within a six-week period, Nathanael Greene took command of the Quarter Master's Department, and Jeremiah Wadsworth replaced Buchanan as Commissary General of Purchases. James Thompson had earlier relieved Henry Lutterloh of his unlooked-for task as acting Wagon Master General, and his appointment was confirmed by Greene. Several individuals of proven worth, and more who performed adequately, were retained. Ephraim Blaine, who was doubtless disappointed in not being appointed Commissary General, retained his post of Commissary General of Purchases for the Middle Department under Wadsworth. Stewart and Chaloner both remained in office, and Clement Biddle retained his post as Commissary General of Forage. Thomas Jones, ever threatening to resign, lingered on at camp. Other figures made their way to the forefront as Blaine opened up supply sources to the south, including Henry Hollingsworth at Head of Elk and John

Ladd Howell who also operated in Maryland. Despite the displacement at the heads of departments, organizational structures remained substantially unchanged. This was doubtless a wise decision, as another tumultuous rearrangement of the support services at this time would doubtless have produced more evil than good. Although problems similar to those which assailed the army earlier in the winter continued, departmental correspondence from March and April reveals burgeoning activity and a quickening pace stemming from the energy of the new appointees. As the time approached for the launching of the spring campaign, these men and their assistants ranged abroad attempting to extract more wagons, food, and forage from a withered countryside. Congress showed better judgement in choosing its new appointees than they had the previous summer, and the effect could not help but be beneficial.

The beginning of March initiated a period of relatively steady supply for the army, permitting concentration of the procurement of new horses and closer attention to logistical organization. Beef began to appear more regularly from Champion in Connecticut, and supplies arrived from Howell and Hollingsworth to the south. The purchasing Superintendents appointed by the Board of War may still have been active, despite the fact that Hooper, Falconer, and Mifflin had been suspended. They continued to distress the purchasing agents appointed by the state of Pennsylvania, but it is likely that their spheres of activities

were diminished due to insufficient funds. March was a period of relative calm before the frantic, last-minute preparations for the spring campaign which began to enliven the scene at camp during late April and May.

Henry Champion, busy purchasing beef in central Connecticut, had responded to the cry for provisions in mid-February, and was now forwarding 160 head of fat beef per week to Valley Forge. He continued to worry, however, that the commissioners who had at last assembled at New Haven from the various states to set prices for goods purchased and pressed would hold them too low, thereby impeding further purchasing. With the new price regulations due to go into effect on March 20, Champion wrote to Blaine about his concern for the unhappy results they would produce. (Blaine had also established a receiving magazine for cattle at Morristown, which Champion suspected would hinder the regular flow of cattle from New England to camp.)[1] Blaine took Champion's admonition on the New Haven conference seriously enough to forward a copy of the letter to Washington, who in turn sent it on to Congress.[2] Chaloner brought the problem to the attention of the Committee of Conference still meeting at camp, and they promised to see that something was done.[3]

Chaloner, who seems to have informally supervised the matter of the purchase of cattle in the Middle Department during most of the winter, was not satisfied with the weekly number that Champion was forwarding. He suspected that Washington's earlier appeal to

the inhabitants of the Middle Department would not produce much meat, and he wanted Champion to increase his droves to the number of 200 head per week, sending all of his cattle to the Main Army and to no other posts.[4] As regular as his efforts were, however, Champion could do little after the droves left his rendezvous points to ensure their safety as they headed southwest. It was reported that the British seized and drove off 133 fat cattle enroute from Connecticut to camp in early March.[5]

Blaine's excursion to Maryland at the behest of Congress produced signs of success, renewing the southern geographical dimension of the Commissary system. Soon John Ladd Howell, one of Blaine's picked men, was corresponding with Chaloner from the vicinity of Charleston, Maryland, reporting on stores he was gathering. During the first week in March, General Smallwood seized 450 barrels of flour and 1,000 bushels of wheat stored near the head of the Sassafras River and belonging to a Philadelphia merchant. Blaine had ordered Howell to see that the supplies were forwarded from Georgetown to Charleston by water. Howell had apparently tapped into some substantial sources of wheat, for he requested Chaloner to send enough wagons to haul another 1,000 to 1,200 barrels of flour to camp from Middleton. Stores were also waiting at Cantwell's Bridge on the Appoquinimink Creek. Howell claimed that wagons in this vicinity were all employed hauling wheat collected by Henry Hollingsworth. Another agent by the name of Higgins was also unable to help Howell, as he was engaged in the formidable task of garnering wagons to haul 26,800 codfish,

80 barrels of beef, 150 barrels of bread, 532 pounds of bacon, and 20 hogsheads of rum from the Baltimore vicinity to camp. Howell also had rum and molasses in smaller quantities to send on.[6]

As the call for wagons was the most resounding complaint from the southern quarter, Chaloner alerted Washington, who wrote to Governor Johnson of Maryland suggesting that the state law for the procurement of wagons was ineffectual. For a model, Washington advised the governor to look to the law recently passed in New Jersey which permitted the governor to order the impressment of wagons in time of emergency. The Commander in Chief strongly urged Johnston to press the Maryland governing bodies to follow suit, reminding him that to date Pennsylvania had borne almost alone the burden of supplying wagons to the army.[7] Washington's missive was indeed needed, for at precisely the same time Howell was complaining that he was entirely bereft of teams. Stores accumulating in Middletown were in "utmost danger" from the British operating in the Bay. He had applied to Colonel Henry at Georgetown, but Maryland law only permitted the impressment of wagons for the use of militia and the transport of baggage. General Smallwood's troops were also in need of wagons for transport. Howell went so far as to suggest to a Captain Patton operating in the vicinity, that a party of horsemen could be employed to impress wagons at the upper extremity of Duck Creek, perhaps implying that this could be done under

the guise of military necessity.[8] Shortly thereafter Howell received a copy of Washington's letter to the Governor, with the orders to deliver it to the executive himself. He was also to take with him a list of stores at Middleton which required transfer.[9] Enroute to see Johnson, Howell stopped on March 26 at Head of Elk to estimate the number of wagons necessary to move stores from that vicinity to safety, but he found that sufficient wagons had already been engaged. He also discovered a devilish bit of chicanery which shocked him deeply. Robert Haughy, an entrepreneur from that locale, had contracted with Charles Wharton to provide 1,000 barrels of flour for American soldiers imprisoned in Philadelphia. Some of it had spoiled during the winter while still in his hands, and Haughy attempted to disguise the spoilage by mixing it with a large quantity of good flour, which Howell and Blaine had but recently inspected. The entire lot was now irretrievably contaminated. Still, Howell and his associates thought that it might be baked into hard biscuit. He wanted Elias Boudinot, Commissary General of Prisoners, alerted to Haughy's attempted subterfuge.[10]

The rather unsavory incident is illustrative of two important points. It is one of the few examples of documented malfeasance to emerge from a department reputed to have been riddled with corruption. This suggests that too many analysts have followed the contempory, but apparently unfounded, allegations of Congress to this effect. The incident

also demonstrates that Howell was a man of some principle who typified the appointees emerging in the Commissary department in the spring of 1778. Yet for all his good intentions, aided even by the specific solicitude of Washington, Howell was continually plagued by logistical deficiency. Washington's requests to the Governor of Maryland met with no immediate response. Hollingsworth's pleas for logistical aid, which he directed to General Smallwood, were futile. Chaloner seems almost to have forgotten about Howell, perhaps considering him to be in something of a backwater. Judging by his correspondence, Howell was perpetually short of cash. His only logistical resource in late April appears to have been one skeletal brigade of four to six wagons.[11]

While the army was tolerably well supplied in March,[12] this was in large part attributable to the attention that Washington, the Commissaries, and Nathanael Greene devoted to logistical means, now identified as the root of their difficulties. The laborious process of reconstructing the wagon and horse pools destroyed during the disastrous month of February was now underway. James Young held the office of Wagon Master General of Pennsylvania, and although at first his efforts were hardly an unqualified success, he aided considerably in opening the supply lines from central Pennsylvania to camp. Pennsylvania would continue to bear the preponderant burden of providing wagons so long as the army remained within the borders of the state. Early in March

Young reported to Secretary Matlack that the roads in his vicinity were choked with laden wagons, demonstrating that there were at least sufficient wagons in that part of the state to aid the Quarter Master's and Forage Departments.[13] Yet the problem of reluctant wagon owners, dramatized by the disastrous escape attempt at camp in late February, was still a serious threat to regular supply pending the resurrection of the Quarter Master's wagon and horse pools at camp. Chaloner appealed to Young during the first week in March to provide wagons promised by the state to haul provisions to the army, and also requested help in transferring stockpiled provisions out of dangerous areas. (This was doubtless a reference to Howell's appeals from Maryland.) Chaloner added that he had received intelligence that a number of drivers coming from Lancaster bearing flour to camp had abandoned their loads along the Horse Shoe Road and had simply gone home. None of the 180 wagons he had earlier requested from the state had arrived to date.[14]

Although the army was faring a bit better for the regular arrival of beef from New England, in early March the Continental Horse Yard near camp was a scene of unparalleled desolation, moving Washington to turn his attention to securing forage. On the fifth Tench Tilghman warned that "...the few Horses which remain must perish in a few days...."[15] for want of supply. The obvious inability of the state to supply sufficient wagons and teams prompted Washington to write Wharton a searching letter

suggesting possible sources of the difficulty. He stated his preference in relying entirely upon civil authorities in the procurement of wagons, as he appreciated that the impressment of wagons "...done with circumstances of terror and Hardship..."[16] could hardly have enhanced the standing of the army with the citizenry of Pennsylvania. Yet the law the state had enacted for the procurement of wagons was clearly not working, and Washington desired Wharton to investigate and determine whether the problem had at its root military or civil officials. Washington's subtle but pointed implication was that blame lay with the latter.[17]

Young, meanwhile, was struggling against adamantine local resistance to the employment of privately owned wagons and teams. Through Lutterloh, Washington informed him that Philadelphia, Bucks, and Chester Counties were entirely bereft of vehicles. In response Young directed that their quota be made up from Lancaster, Berks and Northampton Counties. He also requested the Council to order out wagons temporarily from York and Cumberland Counties, as Lancaster, Berks, and Northampton would be exceedingly hard-pressed to supply the entire number required by the army. He directed that those coming from York and Lancaster be loaded with supplies from the west side of the Susquehannah before returning to camp.[18] To their credit, the Council acted promptly, writing to Joseph Jeffries, Wagon Master of York County. He was advised of the serious shortage of wagons at camp and directed to

send fifty wagons loaded with forage to the army. For the forage his trains were to call upon the state purchasing commissioners, and failing supply from that source he was directed to apply to George Ross, Deputy Quarter Master at Lancaster. The Council empowered Jeffries to hire assistants and enjoined him to report within a few days, when the wagons were enroute.[19] It is difficult to determine whether the Council made a concerted effort to supply all of the 180 wagons demanded by the Forage and Commissary departments, as the orders which went out to York only accounted for fifty.

At the beginning of March Henry Lutterloh was expected to represent the army's logistical needs to the Council, in person. Claiming an indisposition, he failed to appear in Lancaster. Wharton informed him by letter that he had called out the wagons of York County, and assured him that the Council was doing everything in its power to assist the army. This letter of March 10, however, marks an important shift of tone in the Council's correspondence with the various officers of the army support services who applied to Wharton for assistance. Wharton cautioned Lutterloh, as he was later to warn others, that the people of the state might fail entirely to cooperate unless some control was exerted over those Deputy Quarter Masters who pressed wagons and teams and seized forage as a matter of practice.[20] To Washington, Wharton put the matter more strongly:

> There is not any state on this Continent which has been so oppressed with Continental business as this has been from the beginning of the present controversy to this hour. Its exertions have been so zealous and unremitting that no time has been lost in enquiries after groundless charges of neglect which have been generally calculated to excuse indolent and improvident officers, or to disgrace the government appointed in it. 21

Wharton made it clear that he appreciated the enormous burden shouldered by Washington, as well as the "unparallelled patience" of the army in the face of an "uncommonly severe" winter, yet he continued to hammer at his central point:

> ...this Council must acknowledge that they are not equal to the task imposed on them, if it is understood to be their duty to furnish every Deputy Q. M. with four or five Waggons whenever they are wanted, and to give equal attention to every other department of the state and Army. 22

Wharton's objection, judging from the requests that had poured in upon the Council and the redoubled demands for vehicles for the spring campaign, appears to have been justified in part. He and the Council had in effect been saddled with tasks normally assumed by the Quarter Master General, and had been forced into doing so by the strength of their desire to maintain the army in Pennsylvania. Wharton may have suspected that his fortunes were about to take a turn for the better, as Nathanael Greene had undertaken the management of the Quarter Master's Department at the beginning of March. Wharton had been suffering the slights of the Deputy Quarter Master since the previous autumn, and he may have judged that this was the time to make his objections known to the new Quarter Master General.

Nathanael Greene, when he accepted the office of Quarter Master General effective March 1, requested of Congress the appointment of two Assistant Quarter Masters General, Charles Pettit and John Cox. His acceptance of the appointment was contingent upon their acquiescence to adding Cox and Pettit as his principal assistants.

Cox and Pettit proved invaluable to the resuscitation of the Quarter Master's office, and shouldered massive amounts of correspondence and responsibility for the myriad administrative details of the office. Greene had made a preliminary assessment of the army's requirements for wagons by mid-March, and Charles Pettit struck up a correspondence with James Young. Greene and Pettit were looking ahead towards the inevitability of a British movement in the spring, and were planning for the transport services which would be required then by the Continental troops. Considering the destruction wrought by lack of forage at the Continental Horse Yard, the temporary procurement of new beasts was of particular importance, and Pettit explained to Young that the Commissary required 150 more teams immediately, to serve with the army for longer than the usual brief period. They were to come loaded to camp, and remain with the army until it might move into New Jersey, where teams and wagons from that state would be employed.[23]

Despite reiterated requests, however, a shortage of teams remained a serious problem well into April, in terms of both

those purchased and hired in temporary service. John B. Smith discovered a $50,000 warrant in the Pennsylvania Loan Office on April 8, which he sent along to Wharton to be applied to the purchase of horses for the army, but this may have been specifically applied to the purchase of mounts for the dragoons.[24] Pennsylvania's law for regulating the hire of civil wagons and teams had long been faltering, prompting Greene to travel to Lancaster to confer with Wharton on amendments which would serve to improve it.[25] Greene, on leaving camp, found roads to the west of Valley Forge to be in terrible condition, slowing his progress and causing him to write Pettit from Red Lion, giving a vivid description of yet another logistical problem:

> The road from Camp to this place is exceeding bad and as it is the great communication between Camp and Lancaster and between Camp and the Yellow Springs where our principle Hospitals are - It is our interest to set about mending it as soon as possible - Apply to His Excellency for fifty men to work upon the road and fifty upon the Reading road - I met and overtook several Waggons that were stall'd yesterday - the sick that were removing in distress and the Cattle almost ruined by repeated strains in attempting to get through the most difficult part of the Road - More attention must be paid to the Roads than has been heretofore to favor our Cattle and our Waggon Line. 26

During April the construction of numerous field fortifications at camp imposed a further drain on the wagon pool, as vehicles were required to haul earth and sod. One reason frequently offered for the increased attention to fortifications was the dearth of horses in the Horse Yard, severely compromising the army's mobility in the event of a British attack. Even for

this task wagons were scarce, and officers supervising the construction of works were nettled by time wasted waiting for conveyances to arrive at the work site. This situation continued into May.[27]

Extant returns of the Wagon Master General (see figure for the month of April) demonstrate a moderate increase in the numbers of horses and wagons available at camp. The low number of Commissary and Quarter Master's vehicles bear out the widespread complaint of logistical insufficiency during the month, and it would be May before substantial increases appeared in the pools of wagons and horses. If Thompson's return of April 14 was correct, there were only sufficient horses in camp to make up 120 teams of 4, hardly enough to move the now growing army. Only 22 artillery horses, generally chosen for their strength, were available to move guns and artillery equipage. Thompson was working to weed out unfit horses, and most derelicts were gone by March 31. The figures, however, do reflect some improvement over late February and the first week in March, when the horse pool was effectively reduced to zero.[28]

Greene toiled over the miserable roads and arrived in Lancaster to appear before the Supreme Executive Council to appeal for special powers and discuss with the members problems relating to the wagon service. Pleading that the army was anticipating an extraordinary demand for vehicles for the opening of the spring campaign, Greene asserted that the state law was not adequate to

the task. He proposed that the state formally invest him and his deputies with authority to press, in cases of extreme necessity. The Council, weary to the point of distraction with reports that the Deputy Quarter Masters had been doing just that all along, hedged by saying that although in time of gravest need impressment could not be avoided, they could not grant Greene such powers under law. Greene also objected to wagoners under hire to the Continental service being held liable for militia duty, if they could not pay the substantial substitute fee. The Council agreed to exempt those residents of the state who were properly enlisted in the wagon service.[29]

Inevitably Greene's demand for conveyances drove up the prices of horses and wagons to stratospheric levels. In late April, Major John Clark was so embarrassed by the price he was forced to pay for a team of horses bought for Elbridge Gerry that he offered to pay a portion of the price himself. The team, probably of four, cost 1,200 pounds at York, and he wrote to Gerry saying "...these articles have risen beyond all bounds owing to the great immediate demand in the QMG's Department - that which sold for 500 on my app.[t] now sells for 1000 pounds."[30] These astronomical prices, however, appear to have affected only the most hard-pressed geographical areas. Theodorick Bland, out purchasing horses for the dragons at Petersburg, Virginia, reported paying between 60 and 85 pounds for mounts during the first part of April, only one costing above 100 pounds.[31]

The Supreme Executive Council had appointed commissioners to purchase horses for the Quarter Master General's department by April 30, and requested Greene's directions for herding them together in horse yards.[32] Not only draft horses but riding horses became rapidly more scarce, as the army strove to provide suitable mounts for the dragoons. Tench Tilghman wrote to Major Moylan to the effect that horses purchased for the purpose in New Jersey should be sent on immediately to the recipient units, but lamented that scarcity in Pennsylvania "...will oblige us to bring them into the field very raw...."[33] Brief consideration was given to engaging the horses of the Connecticut Militia. As a result of the shortage of all types of horses, Greene was obliged to search as far afield as Virginia for wagon horses for the Commissary and Quarter Master's Department. He sent an agent south at the end of March to purchase in Hampshire, Berkeley, Frederick, Dunmore, Augusta, Loudon, and Fauquier counties. Virginia.[34]

During late April, the Forage Master General was compelled to divide his time between attending to matters at camp and supplying the horse yard to prevent another spate of starvation, and in planning ahead in anticipation of the inevitable movement of the army. Washington, harboring a strong suspicion based on intelligence that the British might move towards New York using an overland route, wanted to be able to move his troops as rapidly as possible in response. He therefore ordered Clement Biddle to begin to accumulate forage in several magazines in New

Jersey along a probable route of march. The guiding principle required that magazines be formed along the Delaware up-river and out of the immediate danger of attack, yet close enough to the river to allow an army operating on either side to draw provisions from them by water. On the Jersey side, the magazines were to extend north from Coryell's Ferry, and were to be distanced eight, ten, or fifteen miles from the river. Biddle was instructed to collect 40,000 bushels of grain, including oats, rye, spelts, barley, buckwheat, and whole wheat. Washington entreated him to avoid interfering with Commissary Department purchasers so far as possible. Great quantities of hay and straw were to be collected, and screw presses erected at suitable places to bundle it, with persons employed to operate them.[35]

Biddle was also directed to establish magazines at various places between the Delaware and North, or Hudson's River, including locations at Sussex Court House, Hacksettstown, Pompton, the Clove, and Morristown. Hay and small caches of between 3,000 and 4,000 bushels of grain were to be put up at Princeton and Allentown. Biddle placed Moore Furman of New Jersey in charge of purchasing for the magazines. Recognizing that there were still many inhabitants of New Jersey to whom money was owed for previous purchases, he told Furman that an agent had been assigned to disburse money for vouchers representing outstanding debts. He apologetically noted that this was the only means at his disposal for discharging old debts, and that new funds could not be applied

to them. Rather needlessly Biddle cautioned Furman to be wary of interfering with the purchasing of Robert Lettis Hooper, who was still busily working in Sussex County.[36]

Despite growing scarcity and astronomical prices, Greene was determined to provide sufficient conveyances for the use of the army, including the Commissary and Hospital Departments. His influence curbed the tendency shared among the deputy Quarter Masters to treat the Commissary as a competitive body. Greene implicitly acknowledged the needs of the army to be too important to be subject to competitiveness between departments of the support services, as vying for commodities only encouraged inflation. The Quarter Master General was responsible for directing the efforts of the Forage Master General and Wagon Master General, and in Clement Biddle and James Thompson, Greene found worthy subordinates.

During the months of March and April the various purchasing agencies were successful in supplying an uninterrupted flow of food to camp, yet not without further increases in costs. While Greene was beginning to exert control over the coordination of the army support services, competition was still rife between army purchasers and the state purchasing commissioners. The injunction made by the Board of War to its purchasing Superintendents to abide by the price ceilings imposed by the state went unheeded. Hooper, although suspended as purchasing Superintendent, was still Quarter Master at Easton, and continued his activities in Northampton and Sussex Counties. Earlier he had clashed violently

with John Arndt, who as fortune would have it had been appointed state purchasing commissioner for Northampton County. At the beginning of March, Arndt, now bitterly inimical to Hooper, complained to the Supreme Executive Council claiming that he was unable to purchase forage in his assigned county because Hooper was buying it at rates which exceeded those permitted by the state. Arndt disclosed that he had made some progress in purchasing wheat and flour and in engaging of mills in his county, but he was having a difficult time purchasing cattle, barrelled beef, pork and swine. This was attributable, he thought, to the quantities consumed by the inmates of the hospitals at Bethlehem and Easton.[37]

It was at about this time that the Council at last found its voice to formally protest the liberties assumed by the Board of War in their instructions to the Board-appointed purchasing Superintendents. As Falconer, Hooper, and Mifflin had long since been suspended by order of Congress, the Council's elaborate display of pique was rather hollow, although they may have felt that some word of remonstrance, however late, was in order. It is unclear why they chose not to reply to the Board's instructions at an earlier date, but the March 6 remonstrance is entirely in keeping with the firmer tone evident in President Wharton's correspondence from the beginning of March. In a sternly phrased missive to Congress, Wharton charged that the Board of War, in their instructions to the purchasing Superintendents, had treated

the laws of the state with "contempt." The appointees had not only been authorized to meddle with the state-appointed commissioners in being ordered to judge their competence and discharge them if they did not suit, but they had also been empowered to exempt millers from militia duty in what Wharton judged to be a direct abrogation of the laws of the state. How, Wharton argued, could the representatives of the Assembly face their constituents when Congress chose to ignore or annul the laws of Pennsylvania? To give weight to this complaint, Wharton cited recent intelligence that the Superintendents had ordered state commissioners to cease purchasing wheat and flour, which had stopped that very necessary business instantly. Furthermore, the Deputy Quarter Masters were reported to be purchasing at prices exceeding those allowed by the state, and millers had been authorized to seize wheat and straw. Punctuating his objections by referring to the angry mood of the inhabitants, Wharton added that whole townships had refused to let their wagons be called out by the state. (He was employing the letters of Young and Arndt to good advantage.)[38] Despite the strong terms in which his letter was couched, there really was little that the Council could do to force Congress to desist in their incursions into the state's domain, as Congress might with reason argue that the late disastrous shortages experienced by the army entirely supported the use of extraordinary measures to insure its existence. It certainly seems more than reasonable to

exempt millers from militia duty, as the members of the Council must have realized. Their objections, however, centered upon the high-handed fashion in which Congress had overridden the state laws rather than on the propriety or needfulness of the measures taken.

The state commissioners functioned at an overwhelming disadvantage in having to cleave to the prices authorized by the state, whereas the purchasers for the army had little compunction in exceeding them as they deemed necessary. Problems experienced by the state purchasers were typified by those encountered by John Lesher in early March. Writing to the Council, he acknowledged receipt of their urgent directive to supply food and forage to the army, but he was not about to act until he had certain matters clarified. Quoting prices that he had been ordered by General Mifflin to pay for rye, oats, and spelts, he noted that they were higher than those stipulated by the Assembly. He noted that Colonel Bird was paying the higher prices at Reading (twelve shillings per bushel for rye and seven shillings, sixpence for oats and spelts), and that unless he could offer the same he could not purchase with any justice to the farmers. Those people who had supplied forage to the Assistant Forage Master to be shipped down the Schuylkill to camp had not been paid, nor had local millers, and this produced considerable ill-will. There was some flour available which, Lesher claimed, would soon spoil if not consumed. Lesher also announced that there was some salt, dried beef, and

bacon about which could be purchased, but he did not know the correct price to offer.[39]

Of a more rapacious disposition was David Deshler, state purchasing commissioner at Allentown who worked with John Arndt. He brooked no interference with his operations, sweeping aside even those who were supplying arms to the Continental troops. Ebenezer Cowell, who employed sixteen armorers to grind bayonets at Allentown in a shop he had constructed specifically for the purpose, found himself ordered out of home and work place when Deshler commandeered the space to store his purchases. Cowell cried for justice to the Council. Deshler, by his own account appears to have succeeded on forwarding substantial amounts of provisions directly to the army, and with Arndt expended $18,000 in the purchase of wheat, flour, cattle, and forage. He sent at least one drove of forty-one head to Valley Forge, and made the intelligent suggestion that cattle be purchased in his locale over a period of time and fattened in stalls, as the inhabitants were ill-disposed to fatten the beasts that they sold to the state purchasers. (Doubtless the grain thus expended reaped insufficient reward for stock producers at the current rate for beef.)[40]

When Jeremiah Wadsworth replaced Buchanan as Commissary General of Purchases, the activities of the state-appointed commissioners were curtailed, perhaps in an effort to reduce competition and reassert the preeminence of the official army Commissary organization. On April 17, a Resolve of Congress

ordered the Council to forbid the state purchasing agents to purchase any more wheat or flour, and required that returns of all purchases previously made be offered up to Jeremiah Wadsworth and the Board of War.[41] The Council submitted readily to the injunction and several days later passed an order on to the Purchasing Commissaries[42] that essentially relegated the task of purchasing for the army once more to the Commissary Department and those Quarter Masters authorized to purchase forage. Presumably the state commissioners were still involved in purchasing livestock, but henceforth their role was diminished and one source of inflation in Pennsylvania was reduced. This abrupt measure by Congress had the effect of suspending some substantial quantities of flour and wheat in an administrative limbo. One of the state commissioners, Thomas Edwards, reported from Lebanon at the end of the month that large amounts of wheat and flour lay about the countryside in various mills, uncollected for lack of conveyances. He requested the Council to see that someone take charge of it.[43] Although the army at this time was not seriously wanting, soon its ranks would swell with new recruits and the purchases of the state commissioners, scattered about the hinterlands of the state, would be sorely needed.

Charles Stewart had managed, while the recent controversies had swirled about the Commissary Department, to remain aloof and absent from camp and the scenes of administrative carnage. In adhering to this stratagem he contrived to stay in office throughout the remainder of the war. This almost unparalleled feat of

endurance speaks for his political acumen. Stewart was perhaps aided in this by the inherent imbalance between the Purchasing and Issuing wings, in which the former was certainly the more demanding service. Stewart remained in shadow as the spotlight of political inquiry was relentlessly trained on the occupants of the purchasing branch. So long as he gave evidence of performing his tasks with reasonable application, he was left to his own devices, and it seems he may have become more efficient as the war progressed.

During March and April of 1778, however, Stewart was embarrassed along with the entire Commissary Department in not being able to produce master returns for Congress on the appointed date in February for the semi-annual accounting. The distresses of the department in February contributed to this, but Stewart was chagrined to find that his deputies in outlying areas were less than assiduous in forwarding their returns to him. A flagrant offender was Samuel Gray, Deputy for the Eastern Department. He had forwarded some provision returns at the end of February, but Stewart discovered that they were incomplete and unsigned. Without a complete set for all of his departments, he could not apply to Congress for more funds, as such applications had to be based on previous expenses. Gray's tardiness was disrupting the entire financial management of the Issuing Department. This proved particularly important as Gray's organization was extensive. Only the Issuing Department of the Middle District compared with

it in number of employees. Gray had nineteen assistants throughout Massachusetts and Connecticut in April, 1778, reduced from a total of twenty-two in December.[44] All of these maintained offices and employed clerks, packers, coopers, scalemen, and a host of retainers, which rendered Gray's administrative domain substantial indeed. Not only was Gray late with his returns, but he continued to grumble about the size of his department. Congress, aware that the state of Rhode Island was receiving no attention from Gray, gave their approval when the state took matters into their own hands and appointed Solomon Southwick as Deputy Commissary General of Issues. Stewart, unaware of this development, had at length made his own appointment, installing Asa Waterman as Deputy Commissary General of Issues at Providence. Gray soon found that the two appointments conflicted. Waterman, a friend of Trumbull, refused to act as subordinate to Southwick, and Gray requested Stewart to arbitrate in the matter. He continued to assert that his department was still too large, even after Congress had lopped off Rhode Island.[45] Southwick, either oblivious to or ignoring Waterman's discomfort, began corresponding with Stewart over the minutiae of his business and making returns for assistants hired, who numbered six.[46] Southwick was feeling his way in his new office and was reluctant to act in the least matter without Stewart's approval, and his letters therefore offer considerable detail concerning the process of meat packing. He revealed, among other things, the somewhat dubious practice of

FIGURE III

Partial List of Employees of Samuel Gray,
Deputy Commissary of Issues for the Eastern Department*

Frederick Tracy, Deputy Commissary of Issues, Fredericksburg, NY
Eleazar Conants, clerk, issuing store at Fredericksburg, NY

Jeremiah Child, Assistant Commissary of Issues, Tiverton, RI

Steven Dayton, scaleman at Tiverton, RI
John Ross, cooper, Tiverton, RI

John Grant, Assistant Commissary of Issues, Boston
One clerk, Boston
Two Assistants, Boston

John White, Assistant Commissary of Issues (where?)
Abraham Martling, Deputy Commissary of Issues (where?)
John Else, Deputy Commissary of Issues (where?)
John Richardson, Deputy Commissary of Issues (where?)
Nathaniel Stevens, Deputy Commissary of Issues (where?)

* see footnote 48, p. 550. Derived from various receipts, Charles Stewart Collection, NYSHA.

separating out the good and bad meat in condemned casks so that the former might be repacked in fresh salt. He was also reusing salt, that is, washing it and packing fresh meat in it. Both practices were hardly calculated to reduce spoilage.[47]

The miscellaneous papers of Charles Stewart covering the spring of 1778 combine to produce an excellent index to the nature, extent, and cost of services relating to the Commissary in the Eastern Department. From them can be discerned the effect of inflation upon wages and the extent of Gray's sizable administrative family. Receipts and returns for the Eastern Department divulge the data summarized in figure III. These data, it should be remembered, pertain only to the Issuing Department in New England. The Purchasing Commissary supported an even more extensive administrative network and commanded a greater variety of services with a more extensive list of personnel.[48]

The end of April brought yet another significant upheaval within the ranks of the Commissary Department, as Congress at last determined to retire William Buchanan and replace him with Jeremiah Wadsworth, of Connecticut. Wadsworth was something of an unknown quantity, although the previous year he had been appointed one of Buchanan's deputies. Colt and Champion's names recur much more frequently in the records of supply for the winter, as Wadsworth seems to have confined his attentions chiefly to Heath's army in Boston. There were those in the army who clamored for the return of Trumbull, but he could only be induced to serve on the Board of War, and Congress strongly preferred Wadsworth.

Ephraim Blaine was doubtless disgruntled when not offered the post after his strenuous efforts of the winter, especially as he seems to have developed a raport with the Committee of Conference. Buchanan slipped quietly away into oblivion, writing a perfunctory note to Stewart announcing his resignation as of May 13. Blaine acquiesced to remaining in his post as the Deputy Commissary of Issues for the Middle Department, wishing Stewart a "good Tourney" as the latter went off to joust with Congress over his departmental accounts at the beginning of May.[49]

IX FROM HAND TO MOUTH

The arrival of Greene and Wadsworth in the Commissary and Quarter Master's Departments caused rather less confusion than it might have. Both men, recognizing that the spring campaign was perilously imminent, chose to work with subordinates experienced in the service, and there was little turn-over of personnel. Stewart, Jones, Gray, Colt, Champion, Blaine, and Chaloner all retained their posts, as did the Deputy Quarter Masters. With Greene and Wadsworth firmly in control, the contest between Congress and the State of Pennsylvania became a moribund issue, as the support services began to coordinate efforts to prepare the army for its next encounter with the British.

As fresh recruits treked toward camp in late April, May, and June, the size of the army swelled to close to 20,000 men, including all the retainers who of necessity followed in its path. This occurred so rapidly that in late May the population at camp outstripped the capacity of the recuperating Commissary to feed

them, resulting in a third serious food crisis at the time the army was about to set out after Sir Henry Clinton. While the December crisis was the immediate result of insufficient droves, and the February crisis combined meat shortages with the lack of flour caused by logistical breakdown, the immediate cause of the meatless days in May stemmed from the unprecedented increase in the army. Wadsworth, only a few weeks in office, did not have sufficient time to provide magazines to see the army through what should have been a predictable period of sharply increased consumption.

Ephraim Blaine appears to have swallowed his disappointment, and he struck up a good raport with Wadsworth on the latter's first visit to camp in early May. Wadsworth was convinced that New England was the best single source for the regular supply of cattle and beef, and after his visit to camp he departed for Connecticut, leaving Blaine in charge with the army. Wadsworth made a timely move, for at the beginning of May Blaine's sources of supply from the south temporarily dried up, and he was compelled to lean more heavily upon New England. By May 10 he was alarmed at the scarcity of supplies at camp. Blaine reported to Wadsworth, who was enroute or had already arrived at Hartford, that barrelled meat shipments from Virginia were reduced to a trickle. These provisions would normally have been shipped by sea from Virginia to Head of Elk or Charlestown, Maryland, but the British naval forces in Chesapeake Bay had increased to the

point that only one sloop had succeeded in getting through in recent days. Blaine urgently requested that Wadsworth turn his attention to purchasing any cattle and salt provision which could be spared from that quarter. He employed once more a tired but apt metaphor in saying "I am kept from hand to Mouth, respecting Beef Cattle..."[1]

The immediate needs of the army were but one of Wadsworth's pressing concerns. Washington, anticipating a British move at any time, by now suspected that Clinton might march his army overland in the direction of New York. He pressed the Commissary officers, as he had previously done the Forage Master General, to provide magazines convenient to a proposed route of march through New Jersey. Blaine was absent from camp briefly in mid-May, touring the western part of the state. Chaloner was standing in for him, and forwarded Washington's directions to Wadsworth on May 17. The Commander in Chief ordered magazines to be established at or near the road from Coryell's Ferry to Morristown, Bound Brook, and Westfield, and Chaloner added that provisions would have to be ample enough to feed 30,000 men each day. This staggering ration strength figure may not have been an exaggeration, when one reflects that the army would be augmented by a host of militia, support service personnel, and camp followers. Chaloner rather brusquely announced that he had already seen to the provision of flour, but that Wadsworth would have to see to procuring meat, adding the stern admonition that a "... disappointment will to his Excellency be exceedingly mortifying...!"[2] Chaloner was

soon alarmed to find the department slipping into the same condition which presaged the February food breakdown, and he wrote wearily to Stewart on May 23, saying that they had issued the last meat and fish in camp and had only been saved from another meatless period by ninety head of cattle which had just arrived from Champion. Chaloner wrote to Champion demanding sufficient beef to furnish the daunting sum of 30,000 rations daily. He attempted to discuss the matter with Washington but found headquarters "crowded with company."[3]

At this time Wadsworth was in Hartford struggling to plan ahead and lay in sufficient magazines for the campaign that was about to open. He was certain, as he had anticipated, that the act of Congress regulating prices was curtailing severely his ability to purchase cattle and beef, and that the citizens of Connecticut were refusing to fatten their stock to sell to the Continental purchasing agents. In addressing a memorial to the Connecticut General Assembly, Wadsworth pointed to the need for 60,000 rations a day for the Main Army during the spring campaign, adding the observation that the troops were again beginning to suffer for lack of food.[4] Attention given over to disposing of the regulating act so that purchasing might move forward occupied Wadsworth throughout the period of the ensuing failure at camp. (The act he referred to was the Congressional sanction given to the prices decided upon by the state representatives who had met in New Haven.)

Chaloner, bound to the mast at Valley Forge without the presence of his friend and superior Ephraim Blaine, became steadily more despondent. By May 26, the trickle of supplies from the south had dried up entirely, and the army's dependency upon New England for beef was almost complete, as no merchant vessel dared brave the Chesapeake. He was once again out of meat and fish, and the army was now consuming 26,000 rations daily, soon to be 30,000.[5] Yet Wadsworth was unable to supply immediate relief. He found purchasing to be completely stalled in New England as the populace stubbornly refused to relinquish their stock at the stipulated prices. When Wadsworth had accepted his post at York, he had been assured that the act would be suspended in New England, as it had been by certain of the southern states. Connecticut had not, Wadsworth discovered, repealed the act, and now there were indications that they had no intention of doing so. Apparently Roger Sherman had failed to write to the Governor and Assembly of Connecticut to inform them that Congress had authorized the suspension of the act. Wadsworth wrote to Henry Laurens, begging him to take the matter up with Connecticut at once.[6] To support Wadsworth's dire predictions, cattle from Champion failed to appear at camp during the last three days of May, and the army was without beef. Chaloner went so far as to complain to Wadsworth that the army had been prevented from marching for lack of meat, although there is no other indication that Washington intended his troops to move at this time. Chaloner by now was

heartily sick of his job; he wanted to resign and return to his occupation as a Philadelphia merchant as soon as the evacuation of the city permitted him to do so.[7]

By June 4, Congress had received and acted upon Wadsworth's appeal to recommend the repeal of the regulating act in Connecticut, and recognizing that the army needed the provisions being withheld by the New England stock producers. Wadsworth was cautioned to discourage inflationary prices, but Congress now relinquished its efforts to check inflation by legislation.[8] The Connecticut Assembly, to Wadsworth's distress, did not take up the issue immediately upon sitting in June, and the Commissary General was compelled to write apologetically to Washington, reiterating that he would never have accepted the post had he known that regulating act would not be suspended. He felt that he could not leave New England for camp until this object was accomplished.[9]

The purchasing problems decried by Wadsworth pressed down heavily upon Henry Champion, who was staggered by the demands of the various purchasing commissaries. He replied to a request of Jacob Cuyler at Albany by saying he could not half fulfill the demands of the Main Army, let alone those from the Northern Department. He urged Cuyler to do some purchasing of his own, and to hire assistants, saying "I fear the good old farmers of ye state of New Hampshire & other parts in ye Northern Department will not exert themselves to make Meat Especially fresh beef...."[10] (This may well have been yet another reference to the havoc wreaked by the regulating act.)

By June 8, Wadsworth was still lingering at Hartford, hoping for a happy issuance from the strictures imposed by the act. By now he was restless beyond endurance, and he had determined to set out for the Main Army. Champion had been struggling to send on cattle. The three day famine seems not to have threatened the army's existence in any way comparable to the events of the previous February, yet Wadsworth plainly thought that his place was with the army. Wadsworth ordered Champion to send on 150 head of cattle daily to camp, "... fatt & lean, they must come...."[11] He went on to scourge the "Cunning and Designing Men" in the Connecticut government who were supporting the regulating act. Wadsworth was in a difficult situation, yet upon examining his New England conscience he found he could exonerate hemself from blame. His embarrassing inability to adequately redress the army's wants at the very onset of his appointment rankled, and he declared to Champion that:

> I fear nothing but the Army's wanting Food, for God's sake let that be prevented, my own Estate I wou'd freely sacrifice rather than let the Army want Food, I wish I cou'd rid myself of the un-christian Feelings I have towards those Gentlemen who have urged me into this distressing Situation, but I will forgive them, may Heaven do so too, but their own Consciences will Acquit or Condemn them - farewell and believe me Superior to every Misfortune this World can Afflict, but the loss of my reputation which I wish not to outlive - 12

With these sententious but apparently sincere sentiments, which disclose his almost overwhelming sense of personal inadequacy, Wadsworth prepared to set out to join Washington.

The new Commissary General, however, was made of sterner stuff than his downcast reflections suggest. He seems to have been constitutionally incapable of wandering off to Pennsylvania

leaving legislative affairs in Connecticut in disarray. Wadsworth had one last crack at the Assembly, and this time he minced no words. Hauling out his heavy artillery in the form of arguments which stressed the extremely precarious future of the commissary support system, he described in detail the ill-prepared state of the army. In trumpeting those needs so loudly, he risked encouraging inflationary prices, but he accomplished his purpose. Wadsworth wrote Champion on June 9, only one day following his aggrieved letter, triumphantly announcing that in the light of his disclosures the regulating act would be repealed, and ordering Champion to lay in all the fat cattle he could before demand produced a scarcity.

Wadsworth succeeded not a moment too soon. Returning to Valley Forge by June 10, he discovered a shortage of beef produced by the army's daily increase.[13] If supplies were scarce, however, there was a man now occupying the office of Commissary General who could draw upon the substantial sources of beef in New England in order to feed the army during the late spring and summer. As the tone of his correspondence discloses, Wadsworth was as different a man from William Buchanan as Congress could have chosen. While he strove to reduce the hazards to which the Commissary Department might fall prey, Nathanael Greene and his assistants were regulating the army's logistical support, attempting to supply an ample pool of wagons, teams, drivers, and equipage for the support services and to apportion them fairly. Since the

WAGONS AND HORSES WITH THE MAIN ARMY*

21 April 1778 and 30 May 1778

	21 April 1778	30 May 1778
	Wagons	Wagons
Baggage	82	192
Ammunition	49	40
Commissary	30	39
Foraging	4	29
Quarter Masters	11	0
Artificers	0	5
Total	176	305

	Horses	Horses
Wagon	551	1,223
Artillery	22	112
Riding	16	37
Total	589	1,372

* Derived from returns of wagons and horses with the main army, signed by James Thompson, 21 April 1778 and 30 May 1778, Chaloner and White Papers, HSP.

reorganization of the Quarter Master's Department began to orchestrate the activities of James Thompson, Clement Biddle, and other officials to bring about an issuance from the logistical deficit which had repeatedly and disastrously afflicted the army over the winter. Greene's most important undertaking during May and early June was an all-out campaign to assure the mobility of the army in order to be ready for the time when Washington would place it under marching orders.

With the unceasing efforts of Greene, Cox, and Pettit thousands of wrought iron traces, harness parts, wagons, and teams began to accumulate at the Quarter Master's magazine at Moore Hall, west of camp. Each shortage was addressed with evident energy, and Congress aided with substantial financial support. With this compounding demand, continuing inflation could not be avoided.

Greene had to address himself instantly to completely re-building the pool of horses to be drawn upon by all services of support. In early March there had been scarcely a beast left alive in the Continental Horse Yard. Some progress was made in April, but by the end of the month the number of horses and conveyances near camp was still inadequate. Greene's chief sources for new draft animals was the state of Pennsylvania, long wearied by constant demand, and New Jersey, where he employed Moore Furman as Deputy. Furman was sending on teams early in May, but Charles Pettit encountered difficulties in the proper matching

of teams and drivers from different regions. Furman was sending on the teams in droves, without hiring drivers to accompany them, and Pettit's complaint concerning this practice pointed up a recurring difficulty in the wagon service, involving the important relationship between team and driver.

> I was in hopes you would have sent us some good Team Drivers, at least that you would Man your own Teams; as Drivers being used to the same Team, or even coming from the same Part of the Country will understand the Horses, & they him better than a perfect Stranger, or one from a Distance where the Manner of driving & treating Horses may be widely different. And besides we really want some good Drivers...14

Pettit subsequently reiterated to Furman the need for drivers, telling him that he might let it be known that they would be exempt from militia duty if properly enlisted.[15]

Aware that his ability to purchase depended directly upon the credit of the department, Greene forwarded $36,000 to Furman in mid-May to expend in engaging teams by hire or purchase, with the understanding that those teams and drivers hired would be compelled to follow the movements of the army wherever it might go. Pettit wrote, "I hope to keep you supplied & to revive the drooping credit of the Department to full vigour."[16] James Abeel, Deputy Quarter Master for Military Stores at Reading, was also having wagons constructed, and received cash from Pettit.

As the anticipated campaign drew nearer, demands of the Quarter Master's Department upon Furman grew more urgent. In an bantering mood, Pettit alerted Furman to the imminence of a British advance through his state:

> It still remains doubtful at what Hour the Army will [move] as it depends on the Movements of a Set of People whom we have not yet entirely subjected to our Government tho' they remain within the Circle of our Jurisdiction; but we may move on very short Notice. 17

The army would require 1,000 sheaves of straw for each brigade at each bivouac area for use as bedding, as well as great quantities of wagons. If Furman were unable to secure straw sufficient for each night, he was to provide it at the posts designated for halting. These included Coryell's Ferry and a location four miles beyond Morristown. An alternative route of march included halting posts at Sherrard's Ferry and Sussex Court House.[18] Hooper now found that he served under a master who would brook no malfeasance and who was capable of taking the formidable Deputy at Easton to task:

> I am sorry to inform you there are a great many [horses] that is barely fit for service and make but very indifferent appearances....19

Hooper was told bluntly to be more careful in his purchases and in the supervision of his subordinates. No doubt recognizing that his powerful friends were unable to protect him, Hooper appears to have become less irascible and strident in his correspondence. He even managed to be polite to Furman, who informed him that a smith was illegally employed by one of his assistants. Thus transformed, at least superficially, from a lion to a lamb, Hooper bent his attentions during the late spring on the purchase of horseshoes, trace chains, and military equipage.[20]

By mid-June Greene, who was straining every nerve to set the army upon its feet, began to lose patience with even his more efficient subordinates. He pressed relentlessly for the recruitment of horses, and burst out angrily when Furman informed him that it was the custom in New Jersey for teamsters to allow themselves and their beasts five days rest per month with pay:

> If there ever was such a custom, I do not know it, neither do I approve of it - - To pay for five days actual service while a team is laying still, is neither just nor politick. I therefore abolish every such custom; leaving it with you to grant such indulgencies from time to time, as reason and justice may require. 21

Although Furman had suggested increasing the pay of the wagon masters, Greene refused on the grounds that "...it would fly all the Continent over in a few days..."[22] creating heavier demands for cash. He sent to Furman at this time $24,000 "...which I hope will quench your thirst..."[23] but old accounts could not be settled with the cash, as Congress must provide specifically for that purpose. Greene noted at the end of his missive that intelligence had just arrived that the British had crossed into New Jersey. The weeks of waiting and frenzied preparation were nearly at an end.

While Greene depended heavily upon Furman to provide horses, he continued to procure them through the assistance of other Deputy Quarter Masters. George Ross, Deputy Quarter Master at Lancaster, was busy securing beasts. He forwarded a drove of forty-nine to camp, which arrived minus six on May 11. All were branded CA in the

left rear thigh, as was required.[24] On the same day horses came in for the use of the artillery and other services, and another drove arrived from Ross on May 16.[25] Hooper sent at least one drove, probably more, and some were suitable for use as artillery horses. An assortment of very scraggly beasts came in from the back country, west of the Susquehanna and John Davis pooled them at Carlisle before sending them on to Valley Forge. He had in all 300, but a shortage of drovers compelled him to send them on in droves of 50 and 60.[26]

In hiring teams, wagons, and drivers in Pennsylvania Greene operated at a disadvantage wrought by the poor record achieved earlier by the Quarter Master's Department in paying tardily and badly for hire, compounded by the ruthless impressment of wagons during the previous winter. This was a serious problem, as Greene still depended on auxiliary augmentation of his wagon service by hiring civilians. The Supreme Executive Council clearly expected Greene to see to it that such extraordinary measures did not recur, pressing him and his assistants very hard on the point. Apparently the practice of purchase, hire, and even impressment in exchange for certificates rather than cash had continued sporadically into April. The Council informed Greene that these harsh procedures were making it very difficult to procure wagons, and that they continued to anger the inhabitants.[27] Pettit, while Greene was absent, made an adroit reply, emphasizing the goodwill of the department and

asserting that lapses into the deplorable practices of the past had only occurred through a temporary shortage of funds.[28]

In his characteristically energetic fashion, Charles Pettit concerned himself with a variety of logistical matters, and he now worried about the uncertain navigation of the Schuylkill between Reading and Valley Forge. Shallow draft boats had been carrying forage, military equipage, and other supplies downstream since the break up of the ice, but by mid-May the river was so low that even new craft of exceedingly shallow draft were having difficulty at a number of passages. Pettit wished the state to undertake to clear certain stretches of the river, which he claimed could be accomplished at a cost of no more than 2,000 pounds and which would be of lasting benefit to the people living along its banks. Wharton, however, was skeptical of the low figure named by Pettit, and although the matter was presented to the Assembly, Wharton had little hope for it. The Assembly never resolved favorably on the issue.[29]

Despite Greene's honorable intentions, and the undoubted improvements he instituted in rendering the demands of the Quarter Master's Department less onerous to the inhabitants of Pennsylvania, harsh measures employed by his subordinates may never have ceased altogether. A petition made by John Hammon, Colonel of the first battalion of Chester County militia, on behalf of the residents of his county, recounts grievances which continued into the spring. The practices he decried included

nonpayment for goods and services. The Council, nevertheless, appears to have been satisfied with regard to Greene's good intentions, and made no more remonstrances during the remainder of the spring.[30]

While Greene was collecting wagons and teams, he appears to have been rather chary in supplying them to the brigades at camp. While they were beginning to arrive in quantity at Valley Forge, individual brigades were undersupplied with wagons for fatigue duty. Peter Muhlenberg complained of there being but two in his entire division in early May, and he had to apply for some to haul materials to build new huts.[31] At the same time Learned's brigade had not a single wagon, and James Thompson had to refit a team for the brigade's use.[32] By early June, Learned's brigade had two wagons with four-horse teams, and several more with pairs, doubtless sufficient for fatigue duties about camp.[33] It is likely that other brigades had similar complements. All baggage wagons were under the direct supervision of the Wagon Master General. Daniel Morgan, whose elite rifle detachment required superior mobility, augmented the wagons supplied to his unit with vehicles of his own. In May his detachment had three wagons and twelve horses which belonged to the Commissary Department, one wagon and a team of four being U. S. property, and four more wagons and fourteen horses belonging to Morgan.[34] Apparently Greene wished to keep as many teams, wagons, and sets of harness in as good order as possible, and restricted their allotment for fatigue use during the late spring.

Wagon shortages persisted on the periphery of the army's supply network. In mid-May, John Ladd Howell was having difficulty moving stores at Head of Elk toward camp, and necessity forced him to call upon the military commander in his region to supply wagons by whatever means were at his disposal, which usually implied pressing. He was hard put to keep track of wagons meandering about the countryside in his vicinity, doubtless due to a predictable lack of enthusiasm on the part of drivers forced to leave their homes to haul sundries for the Continental Army.[35]

Greene encouraged the recruitment of wagoners, along lines similar to those suggested by Lutterloh the previous January. He offered specific terms of enlistment, a bounty, and warm clothing. Wagoners enlisted by James Thompson signed up for one year, agreeing to follow wherever the army marched. These practices were not standardized throughout the Continental service, as wagoners enlisted in McDougall's division in New York were at the same time signing up for three years.[36]

Through unstinted purchase and hire together with an adroit husbanding of wagons and teams, Greene succeeded in completely rebuilding the Army's logistical services within a period of three months. As mentioned earlier, the increase of the number of available teams and wagons was far from spectacular during the month of April and even May. June, by contrast, was the time when the army's conveyance system was substantially augmented. (Figure II illustrates the contrast in the numbers of horses available to the Main Army on April 21 and May 30, 1778.)[37]

In a month Greene and his assistants had more than doubled the wagon train of the army, although it appears that, as usual, the Commissary Department may have received short shrift. The numbers of forage wagons increased seven times, as capability was needed to supply food for the 1,227 horses and assorted draft animals. Both wagons and horses appear to have been inducted directly into the United States pools by means of purchase, as the increase in Pennsylvania-owned wagons and horses is relatively insignificant. These may have been under temporary hire, or perhaps were destined for militia use.[38] Greene appears to have succeeded spectacularly where others had achieved indifferent results, and Washington's confidence in his abilities was confirmed. The purchase of wagons and teams, however, was but part of the battle to put the army back on its logistical feet, and there remained the complicated matter of harness, requiring the skilled and time-consuming services of blacksmiths and harness makers. Each team of four horses required four collars, traces, four bridles, brickbands, four backbands, four belly-bands, and brest chains, plus assorted hamstrings, feed bags, water buckets, curry combs, whips, lead lines, and feeding troughs. Maintenance and repair of the wagon wheels and axels required hand-screws (jacks) and tar pots.[39] There was a universal clamor for traces, the manufacture of which had to be farmed out to independent blacksmiths and was, due to the hand operations necessary, exceedingly time-consuming. Greene found himself to be far short of the required number as late as early June, and placed

the problem chiefly in the hands of James Abeel, Commissary of Military Stores at Reading. John Cox wrote in an uncharacteristically anxious fashion, "We are in the greatest distress imaginable for want of Iron Traces & Blind Bridles, but most particularly for the former...."[40] Cox told Abeel to order all of the blacksmiths in Reading, Lancaster, and throughout the neighboring countryside to stop other work and "...bend their whole forces to traces...."[41] Then he added, to spur Abeel on, "General Greene desires you'd hurry & Drive as if the Devil was in you. These are his very words."[42] It was rather difficult for Abeel to respond in precisely the manner suggested, as he happened to be out of cash. He immediately requested some from Cox, only to find that the office at camp was bereft of money also. He was advised to purchase on credit a variety of military equipage, together with traces, bridles, and other harness, and he was assured by Cox that money would be sent as soon as it was available. Greene also instructed some of his Deputy Quarter Masters to contract for harness and horseshoes.[43]

As Quarter Master's supplies poured into the magazines at Moore Hall, Blaine and Biddle were striving to set things in readiness along proposed routes of march through New Jersey. The pace at camp quickened as new recruits flowed in and the Army prepared to uproot itself after six months of sedentary habitation on the banks of the Schuylkill. On June 10, the entire force moved from the fetid huts and bivouacked in tents a short distance

from the old encampment site. Smallwood's division and Maryland troops were among the late arrivals, and Chaloner informed Stewart on the ninth that "Beef eaters amounted to 20,000 & upward last week. This will be considerably more as the 2.[d] Maryland Brigade has just joined us."[44] By this it is reasonable to assume that between the army, militia, camp followers, and support personnel there were now 20,000 mouths to feed. Blaine, who had just returned to camp from York, wrote Stewart urging him to extend every effort to secure salt beef in New Jersey to provide for the anticipated march. "Without them we shall die."[45] As for the British, Blaine commented, "I wish the Devil had blown them to California rather than to Jersey."[46]

On June 18, the British at last completed their move across the Delaware and commenced marching through New Jersey. On the same day the Americans began the first leg of their pursuit, in the direction of Coryell's Ferry. Charles Pettit had left for York and Greene had dispatched Cox immediately to Philadelphia. "...I am without the least aid...."[47] Greene wrote to Moore Furman, alerting him to the immediate requirements for wagons, forage, and straw in New Jersey. On such a note, so deeply characteristic of the revolutionary supply effort despite the new-found efficiency of the providers, and with supplies still hourly hurtling towards the old encampment, the army shook the dust of Valley Forge from its feet and began the march in pursuit of Sir Henry Clinton.

When the troops marched, they were accompanied by the sounds of hundreds of creaking wagons, rattling harness, the shouts of drivers, and the crack of whips. The soldiers were reasonably well shod, clothed, and fed, and occasionally had straw to lie upon within the shelter of their tents on the mild June nights. Without the redoubled efforts of Nathanael Greene, Pettit, Cox, Blaine, Chaloner, Jones, Stewart, and their assistants none of this would have been possible, and the army months before would have melted away in the depths of winter. Yet with the exception of Greene, Cox, and Pettit, none of these men, who were admittedly of varying capacities, have niches in the published histories of the war. Relegated to the occasional footnote, if they are mentioned at all, the prosaic but essential labors of the Commissaries are seldom noted even in passing. The drudgeries of the service have been of little interest to military historians, and the paucity of published works dealing even cursorily with the commissaries' activities bespeaks their astonishingly complete disappearance from the stage of the history of the Revolution.

The undertakings of the commissaries, however, as they proceeded from crisis to crisis, skirting and sometimes colliding abruptly with multitudinous hazards, are important in understanding how the revolution was prosecuted. Within their range of experience, an amplitude of supplies was a rare exception to a rule which inured them to scarcity. The army survived and functioned despite this, and it was only when the system threatened to disintegrate entirely that the army faced the prospect of dispersal.

The task of the commissary was to function in spite of shortages and the logistical inadequacy which resulted in uneven supply, and to apportion what was immediately available so as to carry the army through periods when supply lines were temporarily severed. To do this required prodigious energy, a reasonably good reputation, and a skin of alligator thickness in order to resist unceasing criticism. The pressures and responsibilities of the service reduced William Buchanan to a paragon of ineptitude within a matter of weeks. They seem to have come close to unbalancing Thomas Jones, they disgusted the normally impervious John Chaloner, and they plunged Jeremiah Wadsworth into fits of gloom. Charles Stewart and the irrepressible Ephraim Blaine managed to occupy their posts for the duration of the war. In doing so, they achieved noteworthy records of longevity in a service frought with tension and promising uncertain material rewards.

The upper echelon commissaries were not, as a rule, the conniving and dishonest men that the officers of the army so often believed them to be. There was at this time no real concept of conflict of interest, and there were certainly some who enhanced their own purses through their dealings with Continental funds in contracting for goods and services. The investigations of the Committee of Conference, however, disclosed no misconduct, and the correspondence within the department suggests only an occasional breach of the public trust. The commissaries were expected to use their own credit and influence to advance the public credit,

and this would have been difficult for dishonest men to accomplish with any consistency. According to Blaine, Buchanan's one sterling quality was his honesty. Most of the high-ranking commissaries held their honor very dear, and bridled at charges of peculation. Of the principal commissaries operating during the Valley Forge period, it appears that only Jeremiah Wadsworth emerged from the war with substantial financial profits, and he apparently sustained these while serving the French Army under Rochambeau from funds provided by the French crown.

The entanglement of administrative difficulties under which the commissaries labored was further ensnarled by the congressional legislation of the summer of 1777. Yet it is far too easy to simply accuse Congress of "meddling," as have John Fiske and other historians who follow his lead. Their worst errors were often those of omission. The disastrous delay in appointing a new Quarter Master General, attenuated from October through February, caused untold hardship and was to a significant degree responsible for the logistical failure which made the February food crisis the most severe of the winter. In permitting three independent purchasing organizations to co-exist during January and February, Congress implicitly sanctioned dissention, which distracted purchasers from their essential tasks and encouraged inflation. The overbearing actions of the Board of War, tacitly encouraged by Congress, may have bludgeoned the government of Pennsylvania into redoubled actions to aid the army, but did

nothing to improve relations between the state and the military. The rampant inflation encouraged by the enormous purchasing demands of the army eventually unseated Wadsworth, and would reach heights undreamed of during the Valley Forge winter, when price ceilings, although often breached, were somewhat effective.

There was without doubt a dearth of beef in Pennsylvania during the autumn and winter of 1777-1778. Grain supplies and forage, although much more plentiful, were hindered from reaching their destinations because of logistical failure. In the repeated impressment of wagons and in hiring by certificate, the support services risked the disaffection of thousands of inhabitants, who by spring were balking at the coercive practices. The arrival of Greene as Quarter Master General, and Congress' willingness to supply him with cash, saved the situation from reaching epidemic dimensions. As the Committee of Conference discovered in February, there was no sufficient meat for a daily supply of the army in the Middle Department, and a shortage of meat could demoralize the army more rapidly than any other single food-related problem. As a result, the supply routes to Delaware and Maryland, and particularly to New England, assumed critical importance. The droves which arrived daily from Colonel Champion were absolutely essential to the army. In this light the strategic necessity of holding the Hudson Valley and its ferrying points looms in importance. If King's Ferry and its environs had for any substantial length of time fallen into

British hands, the Main Army would not have been able to exist as a cohesive entity in Pennsylvania, nor anywhere else in the Middle Department. It would have scattered as it had the previous winter, and would indeed have been the "rag-tag," ill-disciplined band of revolutionaries that later historians incorrectly imputed it to be.

It would be easy to point to the Commissary Departments as the one essential service, or to call upon the Napoleonic adage relating to an army and its stomach, and there rest the case. Yet what has been demonstrated here is the essential interdependence of the Commissary and Quarter Master's departments, including the Forage Master's and Wagon Master's branches. The fortunes of the Continental Army rose and fell upon the abilities of individuals to manage these offices while maintaining reasonably good relations with Congress and state governing bodies. The principal failure in the supply mechanism during the Valley Forge winter was logistical, involving both the destruction and nonreplacement of wagons and teams and the arduousness of overland winter travel. Shortages, particularly spot shortages, did exist, but with adequate logistical preparations they would have been in some measure surmountable.

Despite the highly structured appearance of the Commissary and the division between the Issuing and Purchasing branches, the enterprising official found that there were instances in which necessity required him to assume the duties of his associates and

superiors. Those who were successful in their offices, like Ephraim Blaine, hired wagons, pressed teams, purchased, issued, and assumed authority for operations which were technically outside their assigned spheres of endeavor. It was not a service in which timid men succeeded. The fundamental ill-preparedness of the new country for war demanded innovative, forceful personages in the public services.

The army existed in 1777-1778, and would continue to exist, on the basis of an economy of scarcity. There was seldom, for any sustained period of time, a surplus of any comestible. One commissary after another found it impossible to lay in magazines of any dependable size, as the armies at Boston, in the Highlands, at Valley Forge, and throughout the unoccupied areas consumed food almost as it was produced. Far-sighted individuals like Gouverneur Morris might attempt to plan a year or two in advance, but food and forage reserves of the quantities he envisioned never materialized. Shortages were deplored, but they were also recognized as facts of existence. Washington worried when there were only twenty head of cattle in camp, but he did not go out of his way to chastise the Commissary until there had been none for several days. Despite ceaseless grumbling, the army was inured to a scarcity which would have been intolerable in any long-established military service. Such scarcity did not produce overwhelming anxiety until rations delivered to the men were substantially reduced, and they had begun to decide that it would

perhaps be preferable to go home rather than starve. Some left the army on furlough, or simply deserted. There is no record that anyone starved, although the reduced diet combined with poor quarters and worse clothing was certainly conducive to disease.

The encouraging events of the spring of 1778 did not mark a turning point in the fortunes of the Commissary and the Revolutionary army. Crises continued to occur in the army's supply system, and officials rose and fell according to their abilities to deal with them. Greene and Wadsworth would be brought down in their turn, with Blaine and Stewart emerging as rare survivors at the end of the war. Blaine's abilities eventually earned him the post of Commissary General. He was sufficiently highly thought of by the end of the war to be admitted to the ranks of the Society of the Cincinnati. The Commissary in general, however, was a service which entailed few rewards, and in which one's reputation would almost certainly be compromised.

The Commissary was but one of the public services attending the Continental Army during the fall and winter of 1777-1778. The army had to be clothed and equipped as well as fed, and the supply of these items faced impediments no less formidable than the Commissary.

PART II - THE CLOTHIER'S DEPARTMENT

I "VERY LIGHT & EASY"

The dysfunction evident in the ill-coordinated efforts to provide food for the army in the winter of 1777-1778 is paralleled by the failure of Congress and the state governments to make proper provision for clothing the troops. Early in the war, Congress had attempted some substantial purchases and imports of clothing, and the states frequently assumed the responsibility for clothing their own units. Lack of uniformity and uneven supply then induced Congress to appoint a Clothier General in December of 1776.

Their selection was James Mease, Philadelphia merchant and partner in the firm of Mease and Caldwell. Like the appointment of William Buchanan as Commissary General of Purchases, it was a decision which would have particularly unfortunate consequences. Mease's credentials as a leading Philadelphia revolutionary, however, were impeccable, and his nomination was apparently pressed by the Pennsylvania delegates to Congress. Mease appointed deputies at Boston and Albany, and employed a few assistants, including

Daniel Kemper, who kept the clothing store with the army. Compared with the other support services, his operation was diminutive.

In 1775 Washington had purchased two riding horses from Mease, and it became common knowledge during the late summer of 1776 that the Philadelphia storehouses of Mease & Caldwell were filled with clothing urgently needed by the army. The Committee of Safety of the City and Liberties of Philadelphia had appointed him one of the superintendents for a saltpeter manufactory they resolved upon in July of 1775. Mease, because of his prominence in the political scene, must have appeared to be an excellent candidate for the office of Clothier General. One suspects, however, that the strength of his credit and the extent of his mercantile connections, both of transcendent importance in the task which lay before him, may have been predominently local rather than inter-colonial. The difficulties which he was about to encounter were for all concerned unexpectedly complex, and Mease demonstrated that he lacked the necessary drive and resilience to surmount them. It would be entirely unwarranted to blame the clothing distresses of the winter of 1777-1778 on him alone, but his unremittingly lackluster performance is highly vulnerable to criticism.[1]

In fairness to Mease, clothing the troops from the resources available proved to be a task of considerable arduousness. The domestic production of the requisite fabrics, particularly woolens and linen, was in its infancy. The colonies had been

substantially reliant upon imports for better quality woolens, such as broadcloth. Although a flourishing flax culture in the Merrimack, Connecticut, Hudson (near Albany), and Delaware valleys enabled the colonists to produce their own coarse linen, factory production, as such, was nonexistant. There was no power machinery in use to manufacture textiles in the United States until 1778, nor was there any appreciable inter-colonial commerce in woolens. Great Britain had exported substantial quantities of woolens to the North American colonies in the years prior to the war, at reasonable prices, thus discouraging the development of any significant home industry. Despite the fact that there were substantial sheep herds in New England and elsewhere, these supplied chiefly homespun manufactures and knitted goods such as stockings, not affecting the colonial dependence upon Britain for finer materials. In 1774, the last full year before the disruption of trade, New England imported 168,815 pounds worth of woolens, New York and Pennsylvania 346,752 pounds. Maryland, Virginia, Carolina, and Georgia combined bespoke 239,900 pounds of woolen goods from Britain. Because of their extensive inland waterways, Pennsylvania and New York were, by 1775, sending their imported fabrics far into the interior.[2]

Woolens manufacture, even in homespuns, was nevertheless manifesting itself to such an extent that fulling mills sprang up throughout the colonies. Philadelphia County, for instance, alone supported twelve fulling mills by 1760. Some specialty

weaving had developed near urban centers. There were twenty stocking-weavers in Germantown, Pennsylvania in 1773, as well as a thriving tanyard producing leather for such articles as leather breeches.[3]

James Mease made a firm assertion in January of 1777 that he would be able to provide clothing for the whole of the Continental Army, and he informed the Supreme Executive Council of Pennsylvania that they should halt further purchases for the Pennsylvania line, as the competition engendered would only inflate prices. Pennsylvania, and most other states, dutifully desisted. Precisely how he had determined to accomplish this awesome supply task is unclear. Although the clothing department sought to import cloth and made-up uniforms from France and Holland, apparently no substantial quantities arrived before the late winter or spring of 1778. Clothing contractors providing goods for the army were constrained to rely upon supplies already in the states, together with the few materials brought past the Royal Naval Squadron by enterprising merchant seamen sailing from the French and Dutch West Indies. In purchasing such supplies Mease was repeatedly thwarted by the high cost these imported materials quickly attained on the open market. One of his principal hindrances may also have been an inability to wring the necessary funds from a financially strapped Congress.

Mease, astounded by the increasing, and in his eyes prodigal, consumption of clothing during the autumn campaign of 1777, gradually slipped behind the demand as his clothing stores were exhausted. As the army approached Valley Forge, Mease was reduced to confining his efforts to provide for the Continental units without state affiliations (i.e., dragoons, artillery, and the "additional" infantry regiments), and Congress had to appeal once more to the states to purchase clothing for the now chronically ragged troops. The months of October, November, and December of 1777 witnessed a precipitous decline in clothing supplies from scant adequacy to a dearth which combined with the food shortage to cripple Washington's military designs.[4]

During the weeks following the battle of Germantown, Washington set for his officers an example of material frugality which he wished them to emulate in order to reduce pressure on the flagging wagon department and curb the tendency of the officers to encumber the army with a variety of unnecessary possessions. General Jedediah Huntington wrote enthusiastically to his friend Joseph Trumbull that Washington had lately been observed breakfasting with his staff and using only three drinking cups.

> ...he has sent away all his Bagage except what a Horse can carry - his Example is copied throu' all inferior orders & the Soldier who has had two coats has parted with One of them - there are but two Waggons to a Regiment - this Reformation you are sensible will render our Marches very light & easy as well as make a great Saving to the Publick.[5]

However this tactic may have served the military necessity for mobility and pleased Huntington's frugal mind, sending clothing away from the army incurred an almost certain incidence of loss by accident or mischief, as happened later during the Whitemarsh encampment. The soldier who sent his spare coat away ran a particularly high risk of never seeing it again. In any case, not all of the spartan deprivation that Huntington observed was due to Washington's injunction. The Commander in Chief was already worried because certain of his troops were ill clothed at a time of year when his ability to keep the army in the field depended directly upon a supply of warm and sturdy clothing. On October 13, the day following Huntington's letter to Trumbull, Washington wrote to Congress disclosing his suspicion that Mease had not enough stores to adequately supply the troops, and suggesting that the Clothier General was entirely out of certain basic articles.[6]

Washington's observations were well taken, for Mease was unprepared for the increasing demand in the Main Army, growing daily with troops coming south from Gates' northern command. When queried by the Supreme Executive Council on insufficient issuances to the Pennsylvania line, Mease informed them that the soldiers were reported to be selling their clothes to buy whiskey.[7] Yet in early November the shortages, while increasingly insistent, in no sense approached the staggering proportions they were to assume at Valley Forge. A return of replacement clothing needed

for the 2nd Pennsylvania Regiment, dated 5 November 1777, discloses that a good proportion of the regiment was equipped with adequate clothing.[8]

When the officers and soldiers shed some of their baggage, clothing was sent in some quantity to Bethlehem for storage. What had survived the journey and a predictable incidence of pilferage was retrieved in early November, once the army had reached Whitemarsh.[9]

Washington's repeated assertions disclose that the worst clothing wants of the army during the period of the Whitemarsh encampment centered on shoes, stockings, and blankets. During this period he entertained hopes of forcing Howe from Philadelphia, and wrote to General Thomas Nelson that since the encouraging victory at Saratoga he was considering new plans, including a

> ...Winter Campaign, if we can get our ragged and half naked Soldiers clothed, indespensibly necessary, as I think General Howe may be forced out of Philadelphia, or greatly distressed in his Quarters there, if we could draw a large body of Troops round the City.[10]

By mid-November the clothing dearths had ceased to be a niggling irritant and has assumed the character of a looming menace to the army, equalling and in the minds of many exceeding the threat imposed by recurrent shortages of flour. General Huntington wondered, "...how it is possible to clothe our men - they have worn out their Blankets & other clothing and I see no Prospect of renewing them especially in the Southern States where they have no Manufactures and (except South Carolina) no Trade."[11]

Even if this assessment displays a rather sweeping dismissal of the economy of the southern states, his fears were close to the mark. Huntington believed that the only recourse left open to the army was the launching of an offensive to end the war, in January when the Schuylkill would be frozen, and with the concerted help of the militia attack Howe in the city of Philadelphia.[12]

Washington appealed to the Clothier General for supplies, only to receive the unsettling reply that Mease had sent on to the army all that was available, including clothing already made up and that in cut pieces still unsewn. Washington wrote Mease once more, saying, "If this is so, our prospects are Melancholy indeed, except some quantities are expected from abroad, or are in some other part of the Continent."[13] In this latter possibility Washington placed little hope, as he had recently discovered that General Putman, commanding the Continental troops in the lower Hudson, had removed a cask of shoes and 400 blankets from a shipment proceeding from New England to the Main Army. Washington was by this time out of patience with Mease, and he viewed with increased solicitousness the plight of the nine Virginia regiments, now in rags. General Woodford had written Mease requesting necessaries for his brigade of Virginia troops, but the Clothier General, Washington charged, had "...only returned him a rough verbal answer, without complying with his demand even in part."[14] Washington firmly instructed Mease to settle the matter to Woodford's satisfaction, doubtless knowing that



Thomas McKean - C. W. Peale

Courtesy of Independence National Historical Park

there was little he could do to force Mease to comply. Dismayed by reports that entrepreneurs were buying up stocks of leather breeches, shoes, and other items of clothing in order to monopolize the market, Washington also ordered Mease to seize such caches wherever they might be found. He concluded, "In short, it lays with you to set every Engine at work to procure such articles of Clothing as are of our own produce, and to have Agents ready to purchase all that is imported."[15] Mease, however, apparently did not feel compelled to heed Washington's sternly phrased directive.

When clothing shortages erupted in October, Congress delegated much of its responsibility for dealing with the problem to the Board of War. Early in the month the Board had interested itself in the matter of hides drawn from the army's butchering operations. The hides were of course of great use in the production of shoes and other leather goods, but the recently appointed Commissary General of Hides had complained that the Assistant Commissaries with the army had been selling the hides rather than turning them over for tanning. The Commissary for Wayne's division was reported to be a particular offender. Richard Peters, Secretary to the Board of War, alerted Wayne to the disputed practice.[16] The Board, moreover, was soon playing a much more prominent role, as Congress had resolved on September 26 to order the Board to cooperate with Washington in devising and enacting measures which would effectively supply

the troops with arms, shoes, stockings, provisions, and other necessities of all descriptions. That Congress was entirely in earnest was clear from their pronouncement that collections of such items should be taken up among the civilian populace, and that the collections were to be confined to the disaffected and what were termed "equivocal Characters."[17] An auxiliary resolution of October 13 directed the Board to apply to the Supreme Executive Council of Pennsylvania for cooperative measures to supply shoes, stockings, and other items.[18] If Congress and the Board were in earnest about employing these soon to be controversial measures, they had no recourse but to engage the coercive powers of the various states in the effort. There may have been justifiable suspicion that the State of Pennsylvania would prove recalcitrant, for the Board's instructions to President Wharton and the Council were flagrantly overbearing.

Richard Peters, again writing for the Board of War, delivered his first heavy salvo to President Wharton on October 18, prefacing the wishes of the Board with the admission that the needs of the army were becoming so desperate that, unless they were palliated, the troops would be forced to retire from the field. This in itself was enough to make Wharton blanch, as it must certainly have been apparent to him that the Board was intent on inducing the Council to commit themselves to some unusually stringent measures. Charging rather unfairly that the British would not have been able to seize Philadelphia without the aid

of the disaffected inhabitants of Chester County, Peters suggested that the most effective way to disarm them would be to seize their clothing, shoes, provisions, and blankets - in short, all that could be useful to the enemy and which was absolutely necessary to the Continentals. The Board desired that,

> ...the Council will with the utmost dispatch call forth & send to the County of Chester spirited & determined Militia under the Command of discreet & active Officers for the Purpose of collecting Blanketts Shoes & Stockings for the use of the American Army from such of the Inhabitants of the said County as have not yet taken their Oath or Affirmation of Allegiance to the State of Pennsylvania & have shown their Attachment to the Cause of the Enemy.[19]

The Council was also to supervise the conveyance of seized articles to places of safety, and to provide receipts for reimbursement to those who seemed entitled to them. The Board recommended that the collection program be extended into any area where the people were thought to be disaffected, and that Washington be informed of the measures to be undertaken.[20]

The Board of War's directive to the Council is in more ways than one an extraordinary document. First it instructed them to enact measures which were as harsh on the civilian populace as any engaged in by the British colonial officials prior to the Revolution. It did so (and this must have been particularly galling to the Council) using as a pretext Pennsylvania's own highly controversial test oath. Secondly, it clearly defined the collections as deliberately punitive

measures directed against the loyal or suspect portions of the populace. Finally the directive seemed to be hinting that such collections were not to be confined only to the disaffected, as provision for reimbursement was suggested for those who were in some way entitled to it. The Board was clearly seeking a solution for two problems; the clothing crisis facing the army and the flagrant commerce between disaffected portions of the civilian community and the British occupying army. The punitive character of the measure discloses a willingness to go to war against a civilian populace whose affection for the specie of the enemy was becoming an increasingly thorny problem. Despite the high-handed tone of the communication, the Board had devised the measure so that the Council could hardly object to a procedure directed against the abjurers of its own adamantly preserved test oath.

The alacrity with which the Council complied with the wishes of the Board refutes the sweeping generalizations often made about the powerlessness of the Second Continental Congress in relation to the individual states. The Council wasted no time in enacting resolutions in accordance with the directive of the Board. On October 21 the Council appointed seven militia officers to command units of the state militia in making collections in Chester County. They were instructed to move immediately to collect from the inhabitants who had evaded the oath of allegiance or who had aided the enemy, all arms,

accoutrements, blankets, shoes, and stockings. These were to be delivered up to the Clothier General or his assistants. The measure was also extended into Lancaster County, with further provisions made to pursue it in other locations. The speed with which the Council moved to comply with the Board's directive, and the fact that they extended it into the very environs of the seat of government at Lancaster, suggests that they embraced the plan as a suitable method for dealing with an upsurge of loyalism in southeastern Pennsylvania.[21]

Despite these measures undertaken by the Council, the Board of War sensed some unbrookable equivocation on the part of the Pennsylvania government. Congratulating them in a rather hollow tone on the appointments, the Board went on to censure the language employed by the Council, who had written that they would confiscate items from "...such of the disaffected as could possibly spare them..."[22] This was insufficiently tough-minded to satisfy the Board, who stated plainly that they wanted the disaffected to be compelled to give over the necessary goods, whatever their distress or want. The Board had also heard that the disaffected were given to harboring deserters, and demanded that those who were suspect of this be captured and sent along to the army.[23]

In pressing these radical measures, the Board was taking advantage of Pennsylvania's internal political turmoil, which had recently engulfed the group of Philadelphians soon to be

known as the "Quaker Exiles." In early September, the Council, with the approval of Congress, had issued warrants for the arrest of forty leading Philadelphia Quakers with known connections to the Crown and who were suspected of loyalism. Their scruples had, as was customary, forbidden them to take the test oath. Some had immediately appealed to the recently appointed Chief Justice of the State of Pennsylvania, Thomas McKean, for writs of habeus corpus. McKean, new to his post and anxious to deal fairly in the matter, complied. With the British marching on Philadelphia and Congress and the state government in disruption, the Assembly then voted to suspend the Habeus Corpus Act, on the recommendation of the Supreme Executive Council, only four days before the state and Continental governments fled the city. In suspending the Act until the end of the next sitting of the Assembly, the state effectively disarmed McKean in any issue regarding the disaffected elements by stating:

> ...that no Judge or Officer of the Supreme Court, or any inferior Court within this Commonwealth, shall issue or allow of any Writ of Habeus Corpus, or other Remedial Writ, to obstruct the Proceedings of the said Executive Council against suspected persons, in this time of imminent danger of the State.[24]

This provision, judged by loyalists and non-radical elements as tyrannical, allowed the extraordinary and punitive measures demanded by the Board of War and enacted by the State but a month later. The suggestion that the accused offenders be sent along to the army suggests that in effect the Board was invoking martial law.

When Washington heard what was taking place he was uneasy with the implacable tone and rigorous measures adopted by the Board with the ostensible object of relieving his shortages. As demonstrated later, Washington had no fondness for farmers who traded with the enemy, but he was distressed now to find that the only method promulgated by the Board to obtain clothing was to impress it from the inhabitants. Such high-handed measures, he feared, would turn them against the cause. Washington may have believed, although he did not state it openly, that distinctions between the patriotic and the disaffected might not be strictly drawn.[25] He had already employed several officers in Pennsylvania to make collections, presumably of a voluntary nature, but the results had been disappointing. As an alternative, Washington proposed to the Board and Congress that agents should be appointed in each state to supply clothing, and that they be appointed by their respective legislative bodies.[26]

In fact Washington and members of Congress had been soliciting the state governments for some time to take matters in hand. John Hancock had written to the state Assembly of Virginia in mid-October, reporting that the troops were in distress and would suffer acutely in the oncoming cold season if not supplied. Congress desired that all articles Virginia could collect be forwarded immediately to headquarters.[27] As was frequently the case when Washington found Congress and its appointees unresponsive to critical needs of the army, he appealed directly

to the state governors. Early in November, Washington ordered Lieutenant Colonel Peter Adams of the 7th Maryland Regiment to act as special envoy to Governor Thomas Johnson of Maryland. Adams was to carry letters disclosing the acute shortage of blankets and clothing in Maryland regiments, and was to verbally solicit Johnson's assistance. He was further authorized to make purchases from the inhabitants, for which he received $2,000 from the Paymaster General. Washington instructed Adams to pay particular attention to the supply of shoes, stockings, and to blankets.[28] On November 8 he wrote to the President of Delaware, informing him of the scant clothing in the public store and urging the Delaware government to initiate collections in the state. The wants included "...every species of Clothing and Blankets, but to the latter, and to Shoes and Stockings, in a peculiar manner."[29] Washington pointedly remarked that Delaware, as a manufacturing state, should be able to provide quantities exceeding those necessary to supply her own troops, in order to help the army at large. He added that the disaffected should be compelled to give over materials.[30] The governor of New Jersey also received a missive reminding him of his responsibilities,[31] as did Governor Patrick Henry of Virginia. To the governor of his native state, Washington complained of foreign imports being effectively terminated by the presence of British naval vessels which "...infest our Coasts...,"[32] adding that the only solution he could perceive was the collection of clothing by the various

states. He informed Henry that he had sent emissaries to Delaware, New Jersey, and Maryland to plead support of the plan, who if successful would enable the army to engage in a winter campaign.[33] To Congress, Washington reiterated his concern about the dwindling and uncertain state of imports, and pressed the body to recommend that the individual states see to the needs of their own soldiery.[34]

Congress at length responded to the pressure to place the task of clothing the army directly into the hands of the states. On August 26 Congress had "earnestly recommended" that the states exert themselves to procure blankets, shoes, stockings, shirts, and other items of clothing in addition to those allowances made by Congress. The men and officers were to pay for these additional clothing items, and the states were to guard particularly against competition between the Clothier General and their appointees.[35] At the end of November, Congress at last charged the states more forcefully with supplying their own troops by means of their own purchasing agents, instructing them to apply to Congress for reimbursement of expenditures. It should be noted, however, that Congress was still referring to this clothing as extra clothing, and that the officers and soldiers were still required to pay for the additional items, at cost. Congress therefore did not officially relieve the Clothier General of his responsibilities, although as conditions worsened, clothing coming in from the states was later doled out to the soldiers as if it had come from the Clothier General, that is, as regular issuances at no cost to the soldier.[36]

It is possible that much of the confusion which enveloped the Clothing Department during the 1777-1778 winter ensued from the manner in which these two resolutions were formulated. They do not specifically define the spheres in which the Clothier General and the state clothing agents were to operate, nor how they were to relate to each other. This meant that if the states were to respond adequately to the increasingly urgent calls for clothing directed to them by Washington and his officers during the winter, their response would have to far exceed that originally elicited by Congress at the end of November. This accounts for the circumstance that the states were taken almost universally by surprise by the reports of the scarcity of clothing at Valley Forge.

Despite recurrent shortages of nearly every necessity during the autumn, by the beginning of December the most pressing need of the army was observed to be proper clothing. Elbridge Gerry, visiting the army at Whitemarsh as part of a deputation from Congress to confer on the propriety of a winter campaign, informed John Adams that although the army seemed stronger than during the autumn campaign, the states were being pressed to supply clothing to their troops.[37] Jedediah Huntington put it more sententiously: "...the Soldiers almost naked, yet contented - any thing to save our Country -"[38] Huntington's choice of words in describing the soldiers as "almost naked" is of particular interest in that the term would be employed to and beyond the point

of monotony throughout the ensuing winter. Officers apparently spoke of their men as being "naked" when their clothes were so ragged or scant that their bare flesh was exposed to the elements. The term implied that the soldiers did not have sufficient raiment to cover themselves and move from their quarters. As early as the first week in December some of the soldiers were approaching this condition.

During the autumn it appears that many units were receiving clothing supplies garnered through a variety of novel expedients. The measures of the Supreme Executive Council were not entirely approved of, even within the ranks of the army. Pennsylvania's General Arthur St. Clair, exiled from his command while his conduct at Ticonderoga pended investigation, entirely disapproved of seizing clothing from the inhabitants. "I cannot bring myself to think that any effectual Supply for the Army can possibly be procured in this Manner,"[39] he wrote Robert Morris. St. Clair worried, quite reasonably, that there was no satisfactory way in which to distinguish between the disaffected citizen and the patriot. At the same time he railed against what he perceived to be dilatory conduct on the parts of the New England states:

> The New England States have never contributed a single Blanket towards the general supply of the Army, and I believe, generally, their own Troops have been furnished with those that were imported - their Country provides a great Quantity of Wool and the inhabitants make many Blankets..."[40]

In terms of providing generally for the Army, St. Clair may have been correct in his analysis of New England's contribution. There is no doubt, however, that Connecticut managed to provide more for her troops in the way of clothing, and do it more consistantly during the following winter, than any of the other states. The system employed was unique. Collections were authorized by the state government and quotas assigned to individual townships, whence shipments were forwarded to the army. The clothing arriving at camp was identified by township and was distributed to the various regiments. The clothing may not have been uniform, but it was generally warm, sturdy, and sufficient, with the result that the Connecticut line were beyond doubt the best clothed of the Continental troops at Whitemarsh and Valley Forge.[41] Jedediah Huntington wrote to his father on December 20, the day following the march to Valley Forge, reporting that Congress had promised clothing, "...but it is as yet upon Paper only - I wish the Army could see something real - the Connecticut Troops are the best clothed of any, but they are more indebted to their state than the Continent-"[42]

While the Connecticut men fared reasonably well, the troops of the Pennsylvania line were ensnared in a less than pleasant predicament. General Anthony Wayne, commanding the two Pennsylvania brigades in the absence of Arthur St. Clair, was particularly sensitive to the issue of clothing. He wanted his troops clothed, but not simply in any motley raiment. He believed firmly, even

obsessively, in the value of neat and uniform clothing to morale, and he did not spare resounding rhetoric in impressing the necessity on the Supreme Executive Council. Wayne was also keenly aware of the matter of sectional competition. He wished to command the smartest looking units in the Continental Army, and went to considerable lengths to provide his men with what he deemed to be proper attire. To President Wharton he wrote,

> ...for however triffling the article of a neat Uniform may appear in the Eyes of some Gentlemen - yet I am confident that it was the chief Engredient in the forming of the British army- 43

He claimed that during the previous year's campaign in Canada the Pennsylvania troops were held in high esteem on the basis of their neat uniforms, but now the New England troops threatened to take the lead. Uniforms in which the soldiers could take pride, he asserted, were necessary to the maintenance of high morale and good discipline.

Confident that he could induce the Congress or the Pennsylvania government to assume the financial responsibility for clothing the Pennsylvania line, Wayne contracted privately with Paul Zantzinger, a prominent dry-goods merchant at Lancaster, for coats, hats, shoes, blankets, and other items. Between November 9 and 27 January 1778 Zantzinger managed to provide 248 hats, 565 coats, 111 jackets, 279 pairs of buckskin breeches, 555 hose, 302 shoes, and 14 shirts for the Pennsylvania troops under Wayne's command.[44] Writing to Wayne on November 9, Zantzinger reported making good progress purchasing and making up materials, and that

he had bought fine linen for making shirts for Wayne's officers. He was also attending to such sartorial niceties as stock buckles. Both Wayne and Zantzinger were aware that the prices they were paying for materials were scandalously steep. On the ninth, Zantzinger requested $2,000 with which to pay his tradesmen, but he dared not apply to James Mease as he feared Mease might object to the prices he was paying. Zantzinger insisted, however, that lower prices could not be found in his vicinity. He was apparently getting his blue and brown uniform cloth from Virginia, and the cost was particularly high.[45] Zantzinger had not the least compunction in paying high prices, and he wrote Wayne,

> ...the prices are prodigious high, but the army can not suffer on that Acct. shall therefore continue to purchase untill you think proper to stop me, shoes I can get as yet at 35/, stockings 35/ hatts @26- 46

He added that "Blankets are not to be had for Love nor Money...."[47]

Not until November 22 did Wayne inform Thomas Wharton of his extra-curricular purchasing activities, prefacing his request for cash to pay Zantzinger with a lengthy exposition of the disciplinary value of neat uniforms. He pressed Wharton to appoint Zantzinger as a special state purchasing agent, fearing that:

> If the Clothing which is now providing gets into the Hands of the Clothier General our proportion will be very small - and our troops Deprived of these Articles, which they have some claim to Preference to others as they are provided by my Order. 48

Wayne concluded his missive with a request for 4,500 pounds to pay for cloth and goods already provided for "...our poor worthy, naked fellows-"[49] Colonel Adam Hubley gave directions for the manner in which the uniforms were to be made up, ordering 100 brown coats faced white, 100 blue coats faced white, 300 blue coats faced red, and 50 brown coats faced green.[50] Apparently on Wayne's advice, Zantizinger had applied to Wharton for cash, but the Council represented itself as unable to comply. Zantzinger then learned that Congress might be able to provide him with $12,000, although this might mean that the army at large would be issued the uniforms, a procedure which Wayne wished to avoid.[51]

Zantzinger was at length compelled to apply to Congress, which he did through Joseph Donaldson. When consulted in the matter, Wharton advised Donaldson that Zantzinger had to channel such requests through James Mease, adding that he thought Mease would pay upon the order of General Washington. Zantzinger was now sufficiently embarrassed with his creditors to have to forego purchase of cloth for lack of cash and he announced to Wayne that, "...Nothing less than sixteen thousand Dollars will do."[52]

The Supreme Executive Council was now disposed to investigate the veracity of Wayne's allegation that the Pennsylvania troops were in worse raiment than the rest of the army, and they sent James Young and Colonel Stephen Bayard to Whitemarsh to inspect the men. Wayne paraded his troops and Young reported that they seemed no worse off than the rest of the army, although Wayne had

expostulated that this was because his colonels had taken it upon themselves to supply the troops from their personal funds. (Wayne and his officers may indeed have defrayed some clothing costs, but he also may have been reluctant to discuss his extra-legal purchasing activities while the matter of payment was being bandied about by Congress and the Pennsylvania Council.) As a response to the assertion that the Pennsylvania troops had not been receiving issuances from the Clothier General, Young and Bayard suggested that the collections then underway in Pennsylvania be applied first to the Pennsylvania line.[53]

On December 12 the Council made a formal denial to Wayne's request for funds to pay Zantzinger, at least until the Assembly might act positively on Congress' recommendation to the states to provide for their own troops. Although the Council, pleading an exhausted treasury, refused to authorize payment to Zantzinger, they offered some rather hollow praise to Wayne, commending him for his assiduous attention to the distresses of his men.[54]

How badly off were the Pennsylvania troops? James Mease's returns for clothing issued to the Pennsylvania regiments in 1777 and early 1778 have survived (although there is no way of adequately testing their veracity). They nevertheless indicate that while the regiments were well served during the summer, during the period from September through January the official issuances of the Clothier General to the Pennsylvania troops slackened markedly. During the whole of the period of the fall campaign, that is, October through December, the Pennsylvania

Division under Wayne's command was only issued 281 coats, 130 vests, 282 pairs of breeches, 1,023 shirts, 1,542 pairs of shoes, 1,788 hose, 202 hats, and 60 blankets.[55] This might not seem to be particularly stinting, yet it was hardly adequate to compensate for the wear and tear of a rigorous campaign of three months duration and including marches totalling hundreds of miles. Mease, thwarted by price inflation and scarcity of materials, was evidently not providing sufficient clothing for Wayne's division, which numbered about 2,012 rank and file at the end of December. In any case, Mease's assertions that he had provided a sufficiency, but that the clothing was sold off for whiskey, seems less than valid in the light of the scant issuances reflected in his returns. Mease seems to have been curiously oblivious to the necessity for replacement. A single coat, a pair of breeches, and two shirts can hardly have been expected to last a soldier for a year, under the best of circumstances.

It is not difficult to discern why Washington lost confidence in the Clothier General's office during the autumn. As soon as he learned of Pennsylvania's measures to seize clothing, he joined with the President of Congress in recommending to the Supreme Executive Council that Mease forward all clothing collected directly to camp, to be distributed by the Deputy Clothier with the army.[56] Apparently Washington had dispatched some officers to work with the state clothing collectors, for he recalled them on November 18, ordering them to return with whatever they had

gleaned. This appears to have been a method devised to circumvent the Clothier General's Office, which was to receive all stores collected.[57] By the end of November, Mease's extended absence from camp had goaded Washington into writing a sharp letter, laced with the distinctive, icy sarcasm he summoned up when particularly irritated:

> Dear Sir: There are such variety of applications constantly, for matters that concern your Department, that I find it absolutely necessary you should be with the Army. This you may now do without any public inconvenience, as you have no store of goods by you to draw your attention. I therefore desire you may repair immediately to Head Quarters, and endeavor to form and fall upon some plan, in concert with the Officers from the different States, for the more effectual supply of their Troops. 58

Neither Washington or the Committee of Conference from Congress later to sit at Valley Forge could cajole or threaten Mease into coming to camp, yet Washington's urgent desire to have him confer with the generals demonstrates that he was aware that confusion surrounded the definition of the roles of the Clothier General and those of the states in the matter of providing clothing, and that he had identified it already as a source of administrative disorder.

It is possible that Washington wanted Mease in camp not so much because he thought that the office could be better served by Mease from that location, but because he wished to impress upon him the ill-clad condition of the men and employ his personal persuasiveness, which was nearly always effective, in driving Mease on to redress the army's needs.

Collections of clothing in the state of Pennsylvania meanwhile proceeded at a pace which was at best sluggish. Although they may have been underway in some locales, collections did not begin in Berks County until at least December 1. The commissioners appointed by the state to make collections met in late November and agreed to appoint men to go from house to house in each township to gather items. They were not al all confident of receiving a cordial reception, and requested the assistance of military personnel.[59] James Young reported to President Wharton that by December 8, Robert Lettis Hooper, the ubiquitous Deputy Quarter Master at Easton, had gathered some clothing together in Northampton County, but that other persons appointed in the November 8 resolve had not made much progress. It was also rumored that Pennsylvania merchants were trading leather breeches out of the state and shipping them through Easton to New England. They were being offered in the Easton vicinity at the rather astronomical price of six pounds, ten shillings a pair. Small quantities of the breeches, which were of particular value to the dragoons, were reported to be still available for purchase at Lancaster.[60]

As the senior officer from the state of Virginia, Washington took particular interest in the clothing necessities of the Virginia line. Little is known of specific issuances made to them during the autumn, but one receipt indicates that in mid-November they received some clothing, blankets, and shoes.[61] Washington's

appeal to Patrick Henry was advertised to the inhabitants of Williamsburg, who took up a collection. The local Quarter Master announced in the Virginia Gazette that the inhabitants, "...moved by the sufferings of our soldiers under the command of his Excellency General Washington, at this inclement season..."[62] had sent stockings, blankets, and shoes to his headquarters to be forwarded to the army. The Deputy Quarter Master hoped that others would follow the example.

Virginia had appointed clothing agents to purchase for the troops, but Washington was compelled to call frequently upon Henry to urge the purchasers on. At about the beginning of December, a ship from France arrived at Virginia bearing cloth suitable for uniforms. Washington urged Henry to send on whatever could be spared to the army at once, where the materials could be made up more readily by the army tailors than facilities permitted in Virginia. Washington inveighed particularly against doling out clothing to officers comfortably ensconced in Virginia, "...who under various pretences will find means to winter at home."[63] He warned that the state purchasing agents should not slacken their exertions, as imports from abroad, due to British naval activity could no longer be relied upon.[64] Henry assured Washington that everything possible was being done to clothe the troops, but Washington never permitted an opportunity to pass whereby he could reiterate his needs, and drafted a letter which appealed to the Governor's fiscal sensibilities:

> It will be a happy circumstance, and a great savings, if we should be able in future to Cloath our Army comfortably. Their sufferings hitherto have been great, and from our deficiencies in this instance we have lost many men and have generally been deprived of a large porportion of our force. 65

In mid-December the state of New Jersey approved a wide-ranging resolution for the seizure of clothing similar to the plan embarked upon by Pennsylvania, but far better organized. The act, which appeared in the New Jersey Gazette on December 17, stated in its preamble that the measure was necessary to offset the dwindling of foreign imports caused by British naval activity. Two commissioners were appointed in each county to collect and purchase waistcoats, coats, breeches, shirts, blankets, shoes, stockings, and hats, and they were empowered to contract within their assigned counties for such articles. Families would be called upon in rotation to provide what articles of clothing they could spare, and the commissioners were directed to give them receipts specifying the kind and quality of the articles taken, to be presented at a future date for payment. The Commissioners were placed under the direct supervision of the legislature and the Commander in Chief, and would be provided with a militia guard when operating in proximity to the enemy. Quotas to be drawn from each county were specified, and the act was to remain in effect for the period of a year.[66] Under the energetic leadership of Governor William Livingston, New Jersey produced the most comprehensive law to date to provide clothing as desired by Congress.

If Connecticut and New Jersey were assiduous in this matter, the troops from several of the other states were not served nearly so well. The New Hampshiremen of Poor's Brigade were, even in a ragged army, conspicuous for their destitution. Although the state had apparently taken some measures to provide clothing, little or none was finding its way south to Pennsylvania. Brigadier General Enoch Poor wrote from the camp at the Gulph to Thomas Odiorne in phrases designed to galvanize his attention:

> Did you know how much your men suffered from want of shirts, breeches, blankets, stockins & shoes, your heart would ache for them. Sure I am that one third are now suffering for want of those articles, which gives the soldiers great reasons to complain... 67

It would later appear that the troops from North Carolina, Massachusetts, and particularly Rhode Island were in a comparably deplorable condition.

The officers of the line were, in some instances, little better off than the men. General officers wrote home for warm winter attire, but even their wardrobe may have been rather subdued by the standards of the time. General Huntington wrote to his brother Joshua, "...I have almost wore my Hat out, I understand they are to be had in Boston & no where else...."[68] He desired his brother to bespeak one for him, but the instructions he gave regarding size were perilously imprecise: "...by comparing your Hat with the Hats I have left at Home you will be able to come pretty near the Size..."[69] Later he wrote to his brother Jabez to send him his blue cloth waistcoat and two pairs of white worsted stockings.[70]

Officers of the line could purchase articles of clothing from the Continental clothing store, should there actually be any items on hand. More frequently they would send a shopping list to their wives, relatives, or friends. In a typical instance John Eccleston, a Captain in the 2nd Maryland Regiment, wrote his friend Joseph Richardson in mid-November requesting a pair of thick breeches and some stockings. He particularly wanted a pair of silk hose (and thus it appears that not everyone at Valley Forge was a Spartan).[71]

Judging from the difficulties encountered in clothing the troops during the autumn campaign, Congress' attempt to relieve clothing shortages by reassigning the purchase of clothing principally to the states set the scene for uneven and sporadic supply during the late autumn and winter. The condition of the troops from each state would now depend directly upon the assiduity of the state legislatures in applying the recommendations of Congress, as well as upon the conscientiousness and ingenuity of Washington and his generals in directing the attention of state authorities to the shortages. Some activity, in varying degrees salutary, had been engendered in Pennsylvania, New Jersey, Connecticut, and Virginia. The troops from New Hampshire, Massachusetts, and Rhode Island, however, were condemned to deprivation by legislatures that were either insensitive or too preoccupied with incidents of war in their quarters.

Men working, marching, and fighting throughout the autumn were naturally going to wear out their clothes. The charge that soldiers were selling clothing for whiskey, which gained some credence in Lancaster, may have resulted from a few actual incidents, but the fact that such charges do not appear in the records of courts martial in any quantity suggests that it was not a serious disciplinary problem, and that it was at most a minor drain on supply.

When the army crossed the Schuylkill River on December 12 to make camp at the Gulph, a British spy who was looking on reported, "...they are destitute of Shoes, Stockings and Shirts - the men tear the leather off their cartridge Boxes to wrap about their feet..."[72] Constant exposure to the elements could not have helped preserve the soldiers' raiment. Jedediah Huntington evoked the rigors of campaigning in this inclement season in his description of the Schuylkill crossing: "...[we] were all night about it - scorching one side at the Fire whilst the other was freezing in the Wind Rain & Mud..."[73] When the army marched from the Gulph to Valley Forge six days later, the troops were a multi-hued lot, clothed in a disparate array of uniforms, civilian clothing, and hunting shirts, and some were every bit as ragged as tradition has depicted them.

II "CRY ALOUND AND SPARE NOT"

The troops of the Continental line to whom new clothing issuances were unavailable soon found that the exertions of building an encampment of log huts with primitive tools caused what was left of their garments to fall from their backs in rage. What had been a deplorable situation in December became a desperate one in January, as Washington found that a daunting proportion of his army was unfit for service for lack of clothing.

Not only were they unfit, they were quite literally confined to their huts. In the days before Christmas, some members of Congress were still pressing Washington to undertake a winter campaign. On December 23, he penned a letter designed to pierce the hitherto impenetrable callousness reflected in such demands, apprising Henry Laurens of the realities which faced him:

> I can assure those Gentlemen that it is a much easier and less distressing thing to draw remonstrances in a comfortable room by a fire side than to occupy a cold bleak hill and sleep under frost and Snow without Cloathes or Blankets; however, although they seem to have little feelings for the naked, and distressed Soldier, I feel superabundantly for them, and from my Soul pity those miseries, wch. it is neither in my power to relieve or prevent. 1

By the end of the month the returns for the army had been submitted to Washington, and the shocking condition of the army was thenceforth no secret in government circles. Pennsylvania's delegate to Congress Daniel Roberdeau wrote President Wharton on December 26, informing him that 2,800 men were unable to report for duty because of their naked condition. Roberdeau had heard a rumor that Washington was about to start seizing clothing, but that he had desisted when informed that the state of Pennsylvania was adopting like measures.[2] Washington himself gave out the official figure in a letter to Patrick Henry, relating that 2,898 men were confined to huts, hospitals, and farm dwellings because they were ill-clothed and unshod.[3] He then apprised all of the state governments of the calamitous situation by means of a circular letter which called again for unrelenting remedial efforts to obtain clothing.[4] As the condition of the troops deteriorated precipitously from the exertions of constructing the encampment, things may have looked even worse to the casual observer than they actually were. Commissary General of Prisoners Elias Boudinot, a man not commonly given to exaggeration, wrote to his wife on January 1, "Our army is so bare of clothing that in this severe season, above half are without cloaths - few have shoes sufficient to enable them to be out so as to build their hutts."[5] Judging from the returns, his estimate of half is rather high, but his statement clearly discloses that the time expended in building the huts and auxilisry structures was

prolonged by not only the shortage of tools but the condition of the men. This of course meant that the troops had to bivouac in tents for a longer period than would otherwise have been the case. By the end of January, Boudinot's estimate of half was entirely accurate.

As January progressed, the system of supply under the direction of the Clothier General completely broke down. Mease was able to obtain only small quantities of material, and had but a few tailors at Lancaster to make it up. By mid-month he had accumulated enough fabric to make 463 coats, but because he could locate only five tailors, he was having them cut the pieces and was then forwarding them to camp where he supposed Washington could assign the work to the estimated 50 to 100 qualified tailors among the ranks of regiments. Mease placed a strong bid to have the tailors who had enlisted as regular soldiers sent on to Lancaster, where he averred that they could work faster than at camp, but it was a suggestion which Washington never seriously considered. With the army diminishing every day, he was not about to reduce it voluntarily by 100 men. Mease reported also that a great quantity of materials, including 2,000 shoes, had arrived at Fishkill from Boston, but that it was stranded on the east bank of the Hudson. Similarly, shipments from Virginia had arrived on the west shore of the Susquehanna, but the ice was blocking transport across.[6]

Washington had several reasons to be profoundly distressed with Mease's communication. Instructions had been

given to cut no more coats until a new design his officers had been working out could be sent to Lancaster. The new pattern was designed to save time and cloth, and at the same time provide more warmth. (Washington later described it to Governor Jonathan Trumbull of Connecticut as a pattern based on sailors' sea jackets, being short, close fitting, and double-breasted for extra warmth.) Washington instructed Mease to have the goods from Virginia sent on to camp as soon as they could be transported across the Susquehanna. He was particularly irritated over the delay in transporting the goods from Boston, and further evinced his displeasure with the suggestion that tailors from the ranks be sent on to Lancaster. By calling the materials to camp rather than sending the tailors out, Washington effectively brought much of the clothing-making operation, such as it was, under his own aegis at camp. It appears that a good deal of tailoring went on at Valley Forge as a result of this maneuver.[7]

As the number of army effectives dwindled through January because of clothing shortages, Washington found incidents such as the stalled shipment at Fishkill to be insupportably irritating. It is possible that he was especially concerned because the shipment was abandoned within the purview of General Israel Putnam, who was known to have no compunction about dipping into the stores enroute to Washington. The officer deputed to bring the shipment on from New England was from Glover's Brigade, and

he had dropped the twelve wagonloads of material at Fishkill and proceeded on alone. When the officer arrived at camp Washington moved immediately to see that the Deputy Quarter Master at Fishkill protected the materials. He then wrote to Putnam, ordering him to dispatch the shipment with a small escort. Washington observed pointedly that he hoped that none of the bales had been broken into. He also informed Putnam that nearly 4,000 men were listed as unfit for want of clothing, the highest figure he had divulged to date, but one not inconsistent with the monthly returns.[8]

With so vast a number shackled to their quarters for lack of clothes, it might appear that destitution was universal within the army. This was not the case. With enviable efficiency the state of Connecticut took the matter of clothing their men conscientiously in hand. Throughout the autumn clothing collections had been in progress in the Connecticut townships, and the gleanings had been shipped to Pennsylvania. In January General Huntington wrote in thanks to Governor Trumbull. He had heard that families, towns, and parishes across the state had participated generously in the collections, and he announced to Trumbull that the troops were now comfortably clad, almost entirely through the efforts of the state. Only blankets were in short supply. So well furnished were the Connecticut line that Huntington advised Trumbull to hold up further shipments, save blankets, to conserve them for the spring campaign. He reported

that the troops were in comfortable quarters and in a fair state of health.[9]

This private communication which turned back clothing was counter to Washington's determination to persuade the states to provide as much clothing as they could gather or manufacture, as the needs of the army were ongoing and required the accumulation of reserve supplies. In response to an earlier circular letter, Governor Trumbull assured Washington that the efforts of Connecticut would not slacken. He noted however that Joseph Trumbull had been making some purchases in the eastern part of the state, but that he had desisted to avoid interferring with Continental purchasers operating in the vicinity. (Joseph Trumbull, a deputy Commissary of Purchases for food, was perhaps making clothing purchases to aid Heath's army at Boston.) In any case, Trumbull promised to have the materials that were at hand made up and sent along. He suggested employing tailors who had enlisted in the army, a step Washington had already taken.[10]

Huntington's assessment of the condition of his own troops, which runs so contrary to the traditional images of suffering at Valley Forge, is affirmed by other references to the well-clad condition of the Connecticut line. Surgeon Jonathan Todd wrote, at a time when many of the officers and staff of the regiments were little better off than the men, that they had a "comfortable competency" of clothing, including shoes, breeches, woolen stockings, and coarse shirts.[11] Huntington later wrote his

brother commending a generous donation of clothing which had arrived from the town of Norwich.[12] At the end of January, Colonel Charles Webb's 2nd Connecticut Regiment received 126 shirts, 7 frocks (probably hunting shirts), 106 pairs of overalls, 75 pairs of shoes, 98 pairs of stockings, and thread, valued at 243 pounds, 4 shillings, nine pence and all from the town of Fairfield.[13] The Connecticut line may not have looked very military, but they were beyond doubt the most comfortable troops in camp.

The troops of the state of Connecticut represented one extreme of the clothing supply spectrum, contrasting vividly with those who may have been the most destitute soldiers in camp, the Rhode Island line. Governor Nicholas Cooke's response to Washington's circular letter of late December was far from encouraging. He represented that although he found the condition of the Rhode Island regiments painful to contemplate, he was nevertheless unable to come to their relief. The enemy, occupying Providence, held one-third of his state, and since December of 1776 all efforts had been bent toward defending the remainder against the British threat. Cooke blamed the diminutive manufacturing capacity of the state, together with the closure of his ports, for the almost total inability of the state to comply with Washington's urgent demand. Despite this he claimed that he had managed to locate and send 1,000 pairs of breeches, 423 pairs of shoes, and 72 hats.[14] By January 24, however, none of this had arrived. Joshua Babcock wrote to

Governor Cooke pleading the intolerable condition of the Rhode Islanders. A resident of Westerly, Rhode Island, Babcock had received an arresting account from an officer in whose judgement he expressed confidence. The unidentified Rhode Islander wrote from Valley Forge in words which Babcock paraphrased, complaining of the "...Nakedness and Misery our distressed Troops and Countrymen undergo at Forge-Valley, whilst those of other states are much better provided for."[15] Babcock claimed that the Rhode Island troops "...are known and characterized by the forlorn "... Epithet of the 'ragged Regiments.'"[16]

To all appearances, the troops from New Hampshire and Massachusetts hardly fared better. Returns of the 1st New Hampshire dated January 19 disclose that of the 191 men otherwise fit for duty, 100 "...cannot perform their duty for want of shoes."[17] The figure renders General Enoch Poor's complaint to Mesech Weare of January 21 entirely credible. Charging that half of the New Hampshire line were without shoes and stockings and that some lacked breeches, shirts and blankets as well, Poor wrote:

> Paint to yourself this their ragged suffering condition, conceive yourself in their places and your humanity must shudder. I am everyday beholding their sufferings and very morning waked with the lamentable tale of their distresses, they look up to me for relief, and it is not in my power to afford them any... If any of them desert how can I punish them when they plead in their justification that on your part the contract is broken.... 18

The army, Poor admonished, could not be keep together much longer burdened down by such intolerable conditions.

Poor's lament was echoed by Lieutenant Colonel Samuel Carlton to the 12th Massachusetts, who informed General Heath at Boston that so many men were absent from the Regiment that it was nearly impossible to provide an accurate return. He warned bluntly that "the most fatal consequences" would ensue from the state's neglect of their regiments.

> ...we have near Ninety men in the Regiment that have not a Shooe to their foot and near as many who have no feet to their Stockings It gives me pain to see our men turn[d] out upon the parade to mount Guard or to go on Fatigue with their Naked feet on the Snow and Ice it would grieve the heart Even of that cruel Tyrant of Britain to se[e] it - many of them destitute of Blankets and other comfortable Cloathing. 19

Carlton was not alone in his urgent appeal to the Governor and Council. Lieutenant Archelaus Lewis of the 1st Massachusetts added his appraisal, one weighed down with despondency, at the end of January:

> America is in a deplorable condition. The United States has but a handful of Men engaged in the service in these parts, and they are naked, barefooted and destitute of Money to help themselves....20

The Pennsylvania line, despite having received some of the coats Wayne had contracted for, were in a bad way in January for stockings, breeches, and shoes. Timothy Pickering signed a return of the thirteen Pennsylvania regiments on January 5, which revealed that of a total of 2,743 men, 1,384 were present at camp and listed as fit. Of the latter figure, many were described as "...barefooted and half Naked...."[21]

William Gifford, Captain in the 3rd New Jersey Regiment, was not nearly so apprehensive as the Massachusetts officers, describing the army as large and fit for action. Nevertheless the measures adopted by New Jersey to seize and purchase clothing had little visible effect during the first month of 1778. Gifford wrote:

> I wish with all my heart our state would make better provision for our Brigade, respecting clothing and other necessities than they do, if they had any idea the hardships we have and do undergo, they certainly would do more than they do. 22

The fate of the two New York regiments at Valley Forge is not known, but one of them appears to have been in a bad way. A communication directed to Joseph Reed and dated January 7 speaks of:

> ...our lads perishing for clothing - 26 in one York regiment have been three weeks without a shirt 74 of our men barefoot without blankets or breeches now lying uncovered in the field believe me this is real. my eyes witness the dreadful truth....23

Washington's persistent badgering of the government of Virginia had begun to achieve results by January, and Governor Henry reported that substantial quantities of clothing were being collected. Washington continued to remind him of the preeminent necessity for shoes, stockings, and blankets. At the beginning of the year the rumor circulated that Virginia was providing $200,000 worth of clothing to be distributed to the men at prices in keeping with their wages.[24]

It was reported to General Nathanael Greene on January 10 that a brigade of wagons hauling blankets and clothing from Williamsburg had arrived at York, but that the shipment was stalled on the west bank of the ice-laden Susquehanna. (This was doubtless the same lot of clothing mentioned by Mease to Washington.)

Washington impatiently queried Mease about the delay of the Virginia shipment, but the Clothier General replied that for the moment it could not be gotten across. No more was heard of it until January 24, by which time disaster had intervened. Mease was taken ill with a serious fever at the end of January, and the state Wagon Master General James Young wrote to Washington reporting that the goods had arrived at Lancaster, but in a near-useless state. In an ill-judged effort to haul the materials across the ice filled river on sledges, a number of the bales of linen and woolens had fallen through the treacherous surface. Once retrieved, they froze solid, and any attempt to open the bales cracked and tore the materials. Young was now frantically preparing a large building heated with a stove to thaw out and dry the goods. Mease was still pressing feebly to have the materials made up in Lancaster rather than at camp, and Young requested instructions on how to proceed. Shoes, blankets, and hosiery which had come with the materials were undamaged, and Young promised to send them to camp as soon as teams could be procured. These were to be available the following Monday, but Wagon Master James Young, as everyone else,

claimed to be dependent on the flagging Quarter Master's office to provide wagons.[25]

Upon receipt of this disappointing missive, Washington immediately consulted with his brigadiers. They recommended that the clothing and materials suitable for officers should be dried and sent to camp immediately, to be made up. Washington directed that the coarse linen and cloth remain at Lancaster, where it was to be made up according to previous orders from General Scott. Lieutenant Gamble was to receive the finished articles at Lancaster and forward them to the army, while hats and ready-made shirts were to come on immediately.[26] Presumably a good deal of material was salvaged from this mishap, but there was doubtless some loss from the shipment, which had been gathered together diligently by the state of Virginia. The troops, meanwhile, waited for the waterlogged materials to dry out and for them to be made up, and the delays and loss resulting from the catastrophe contributed to the general destitution of clothing in January.

As in supplying the Commissary and Wagon Departments, Pennsylvania bore a substantial part of the burden for clothing the army. Hindrances were encountered as a result of portions of the population being disaffected. An almost comically convoluted muddle developed in January when Pennsylvania was actively seizing materials for the army, and it illustrates the confusion which could attend these irregular practices.

When Congress had recommended that the state shoulder the burden of clothing their troops, word went out from the Supreme Executive Council to state officials to be on the lookout for goods which could be applied to the needs of the Pennsylvania line. At the end of December, the Lieutenant of Bucks County seized a huge cache of materials belonging to a merchant named Joseph Carson. The materials which he had concealed at Great Swamp, included hundreds of yards of broadcloth, brown coating, gray frise, and "shalloons," a woolen twill fabric used frequently for coat and uniform linings.[27] In protesting the seizure, Carson informed the Council that the Continental Forage Master General Clement Biddle had arranged previously to purchase the shipment for the army, and at the same time Carson presented the Council with a bill which they judged to be exorbitant. The Council wrote to Biddle to have him clarify the matter, and candidly asserted that they did not want to pay Carson unless Biddle had indeed committed himself to an arrangement with him.[28] The shipment was hauled to Lancaster, and on January 15 the Council informed Washington that it was rapidly being made up into uniforms. The materials were expected to produce 1,000 coats and waistcoats for privates, plus some breeches, and Washington was to advise on the matter of fair distribution.[29] The goods were apparently coarse, as Wharton described them as "...not fit for officers...."[30]

Clement Biddle wrote promptly to the Council explaining his position. It is clear that he had yawed wide from his sphere of authority as Forage Master General as well as from his trodden paths of experience in engaging in dealings with Carson, although he appears to have done so with the best of motives. Biddle had received an order from Washington directing him to collect cloth for the army, and to pay for it at "reasonable rates." Learning somehow that Carson had a quantity of leather breeches at Easton (perhaps the ones earlier reported to be enroute to New England), Biddle hastened there and purchased 1,100 pairs. Carson then told Biddle about ten or eleven bales of cloth which he had offered to Mease and Caldwell, but they had refused because "...they thought the prices too high or the Cloths too good for the Army-"[31] Knowing the army to be at the extremity of privation for clothing, Biddle did not want to loose so valuable a cache. Carson directed him to the place where the materials could be found, and ordered his assistant to release them from the store at Great Swamp. Biddle explained to the Council that he was unacquainted with current prices, but he was persuaded to make the arrangement because of the acute distress of the army and assurances from Carson that the prices were just. Biddle further claimed, rather lamely, that Carson's willingness to deliver the materials to the army entitled him to the prices he stipulated. Because Biddle could not readily procure wagons, he sent an express to Colonel Hooper at Easton

requesting vehicles to haul the bales to Lancaster, but before the wagons arrived the County Lieutenant seized the goods. Biddle, who was pressed by other matters, lost interest in the affair, observing that the materials had arrived at their proper destination.[32]

At the end of January, Carson appealed to the Council for full payment, assuming that by that time they would have heard from Biddle. He claimed that he could have sold the cloth in Pennsylvania for twenty pence more per yard, but that he wanted the army to benefit from the materials. Admitting that the shaloons were priced too high because they had been shipped on consignment by a Mr. Graham in St. Eustasia, Carson asserted that he had already paid Graham and needed to receive 100 pence per yard to retrieve his investment. Carson had connections with merchant seamen who were successfully evading the British naval squadron, and he informed the Council that a shipment was due into Egg Harbor, bearing more materials which had come from Amsterdam via St. Eustasia. He offered these to the Council, but it is not known if the Pennsylvania government entered into any further dealings with Carson.[33] He was eventually paid the rather hefty price he asked for the Great Swamp materials, 16,042 pounds, 10 shillings. (Carson had earlier been paid 7,000 pounds by an order on the state Treasurer dated January 7, and he received the balance in April.)[34]

This incident, which involved materials sufficient for a substantial amount of clothing, illustrates several points concerning the clothing supply system in 1778. At the time of the army's greatest need Washington had alerted all army functionaries to gather up what they could. Mease, either from financial strictures or other reasons which remain unclear, did not engage materials which he considered to be highly priced. Thus the clothing shortage was not so much a function of actual shortages of materials as it was attributable to financial and administrative inadequacy, combined with difficulties in transportation.

James Mease, however, was not wholly inactive during this period. At length he extricated Anthony Wayne from his embarassments with Paul Zantzinger, and he was prevailed upon to settle the account. Wayne's situation was somewhat irregular, as he had contracted with Zantzinger before Pennsylvania had formally reassumed the initiative in clothing the Pennsylvania troops. President Wharton wrote Washington on January 22 to the effect that Mease had been persuaded to settle part of Wayne's account, and would doubtless settle the remainder shortly.[35] It appears that rather than applying to Congress for settlement of clothing accounts, Pennsylvania managed to tap directly into the financial resources of the Clothier General's office. Mease's presence in Lancaster and his political connections with the Pennsylvania's governing bodies may have been at the root of this administrative shortcut.

Relations between the Pennsylvania Council and the army were temporarily strained by an incident which must have been embarrassing to Washington, and which possibly hurt the drive for clothing in mid-January. The officers of the 8th Pennsylvania Regiment learned that the state was collecting clothing, and a few of the junior officers of the line sent a shopping list to President Wharton, which included white silk stockings, gold laced hats, beaver hats, fine ruffled shirts, and scarlet cloth.[36] The reaction of the Council was predictably apoplectic. Wharton penned a stiffly indignant remonstance to Washington, saying,

> The call to the state was thought to be for covering for the naked part of the army; and as no idea that fine ruffled shirts, laced hats, or even fine ones of beaver [document torn] or fine scarlet cloth came under the description, no provision for these has been made, none can be expected. 37

The Council did not let the matter drop at once. Fearing that the requests might also be directed to the commissioners appointed to collect clothing, Wharton alerted them by means of a circular letter. Speaking of themselves in the third person, the Council went to some lengths to demonstrate their response to the request:

> With Concern they observe, that articles of superfluity, & in the present distress, quite beyond the finances of any prudent man are expected to be furnished under extraordinary powers, which nothing but the naked condition of soldiers in the inclement season, could warrant, powers which if continued would overbear Commerce & Manufacture, & prevent future supplies. Fine beaver Hats, Gold Laced Hats, silken stockings, fine cambrick, and other expensive articles of Dress, cannot be supposed to be goods within the means of Congress...38

The commissioners were instructed to disregard all such requests, and to concentrate their efforts on gathering clothing made for decency and warmth. As the Council was at this time attempting to persuade Washington that clothing seizures could not go on indefinitely within the state, the indiscretion of a few junior officers was added ammunition in the dispute.[39]

Even while such strigent measures as clothing seizures were proceeding, substantial amounts of clothing were finding their way into the hands of the enemy in Philadelphia. To the distress of Pennsylvania's political leaders, Washington was having a particularly difficult time attempting to staunch the flow of food, forage, and all manner of supplies proceeding into Philadelphia from the territory east of the Schuylkill. It cannot be said that in any real sense the army was exerting control in the area north of Germantown to and including Bucks County. Small parties of militia under the command of Brigadier General John Lacey ranged throught the area, struggling doughtily with the problem, but they were repeatedly defeated by the irrepressible desire of the disaffected and neutrals in the area to trade with the British.

Just before Christmas, Colonel Jacob Morgan of the Pennsylvania militia had written to the Council informing them that, incredibly, about 100 stocking weavers were still living in Germantown, their looms quiet for lack of work. As Germantown was on the very brink of the British defenses, Morgan was worried

that the looms would be seized and destroyed. At the same location were numerous tanners, with their tanyards full of leather. There was much, according to Morgan, that was in the latter stages of the process and could be removed without damage.[40] The Council, incredulous of Morgan's information, took no action. His assertions were in part confirmed, however, by Militia General James Potter, whom Washington had sent with a detachment to the east side of the Schuylkill to interrupt trade with the enemy. Potter reported to Washington on January 14 that there were quantities of buckskin and breeches at Germantown, which the inhabitants were sending into the city for sale. The stocking looms Morgan had alluded to were still there, and Potter suggested that they be moved and set to work weaving hose for the Continental Army. At this time, some action appears to have ensued. Washington communicated the information to Richard Peters at the War Office, suggesting that a party proceed under secrecy to Germantown to bring off the leather. He suspected, probably correctly, that the reports of large quantities may have been exaggerated, and further thought that the tanneries at the lower end of the town were so perilously close to the British outposts as to be out of reach.[41]

The most disputatious imbroglio involving clothing that Washington faced during the winter began during January, and emerged from what appeared at first to be an extraordinarily fortuitous windfall. On December 30, General William Smallwood reported to

Washington that men of his division had captured a British brig, the Symetry, which had run aground near Wilmington. Although an inventory of the prize had not as yet been taken, the ship was thought to hold 1,000 stand of arms, ammunition, barrelled provisions, military equipage, and sufficient clothing for four regiments, along with the personal baggage of a number of British officers.[42] The news, doubtless somewhat exaggerated, spread rapidly through the Valley Forge encampment, and seemed to many to be an excellent omen for the new year. Jedediah Huntington reported the windfall to his father, and in writing his wife Elias Boudinot made an amused reference to the fact that some of the prisoners taken were ladies, placing him, as Commissary General of Prisoners, in an enviable situation.[43] Washington wrote enthusiastically to Smallwood, congratulating him on the prize and announcing that he was dispatching Clement Biddle to assist in removing the cargo. Biddle was marching with all the wagons he could muster, and was under orders to impress those he encountered along the way. The first object, Washington insisted, was to move the goods inland out of danger. Smallwood had offered some liquor found on board to Washington, but the Commander in Chief directed him to keep it for his own division, unless there was an extra quantity.[44]

Thus far all was harmonious. Then some of Washington's brigadiers opined that the goods on board the Symetry were far too needful at camp to be suffered to rest in Wilmington or to be

dispersed from the Clothier's store at Lancaster. Generals Maxwell, McIntosh, Patterson, Varnum, Scott, and Poor protested loudly, petitioning Washington to have the articles suitable for officers sent directly to the vicinity of Valley Forge, where they could be fairly apportioned.[45] Upon brief consideration, Washington agreed. He wrote to Smallwood informing him that the officers at camp were avid to share the booty, and proposed that the whole cargo be transported to Valley Forge to be inventoried. Smallwood was to appoint an officer from each of his regiments to attend the inventory to assure a fair apportionment to his division.[46]

At this juncture the officers of Smallwood's Wilmington division discovered that Washington meant to distribute the clothing they had seized to the officers of the entire army, and they furiously dissented. A group of Smallwood's officers sent an angry remonstance to Washington, questioning the right of any of the officers at camp to the spoils. Claiming with some justification that they had run all of the risk and hardships in order to secure the prize, and that the amount of clothing on board suitable for officers had been exaggerated, they insisted that the stores on board were sufficient only to benefit the officers of one division. In a fit of pique they announced, "..we are certain that there will not be above a shirt to 8 officers. rather than attend the scramble we give up our shares to those gentlemen who are anxious to share a part."[47] Smallwood appended

a letter of his own to the remonstrance, acknowledging that he had been discomfitted by Washington's chosen mode of distributing the goods. He concurred with the statement that the number of articles would hardly benefit the entire officer corps. Meanwhile, all arms, tents, and heavy stores on board had been removed inland to safety.[48]

Washington was taken aback by the virulence of the outcry from the Wilmington officers, which he had to a degree engendered by at first treating the matter rather cursorily. The Commander-in Chief admitted to Smallwood that his order to remove the goods to camp reflected a miscalculation of the quantity of goods on board, and he approved Smallwood's request to hold the stores until the matter of division was settled. Washington questioned, however, the impertinence of the officers who had drafted the querulous complaint. He advised them that there was no plan afoot to rob them of their prize, implying that they would have been paid in cash for any goods allotted or sold to the officers at camp. Washington reminded Smallwood that his officers were in comfortable quarters, whereas most of those wintering at Valley Forge were in far less enviable circumstances. He nevertheless advised Smallwood to assure his officers that he was the protector of their prerogatives and that he meant them no injustice, and consented to allow the captured officers' baggage to be distributed among the officers under Smallwood's command.[49]

This would seem to have been a logical conclusion to the affair, but repercussions from the incident did not end. Now it was Washington who became justifiably provoked. Several medical officers under Smallwood's command tendered their resignations directly to Washington, claiming as a joint grievance the fact that as staff officers they were not being permitted to share equally in the prize spoils with the officers of the line. Washington found this inequity insupportable, and wrote to Smallwood objecting to this mistreatment of the staff officers. Clearly out of patience with the entire affair, he brusquely ordered Smallwood not to sell any of the prize stores, save the ship itself, until a complete inventory was in hand.[50] Washington applied wearily to Congress for a ruling on what articles on the prize were to be considered public property, and for a determination of the correct proportion in which such booty should be distributed to the officers, when it had been captured by detached parties.[51]

Smallwood returned a suitably chastened reply, claiming that the officers who had addressed the remonstrance earlier to Washington now regretted their precipitate complaint, but that the field officers still felt that they deserved a greater proportion of the spoils than the staff, whose pay was generally higher than theirs. They awaited Congress' various pronouncements on the issue before selling any of the goods.[52] By mid-February the matter had still not reached a definite conclusion,

but Washington was too deeply concerned with the most drastic food crisis of the winter to pay heed to the factious squabbling of grasping inferior officers. As a gesture of repentance Smallwood sent Washington two swords and two sets of pistols from the ship, of which he was to take his choice. A partial inventory of the prize goods (now lost), was appended.[53] For the officers and men at Valley Forge, the considerable promise the cargo of the Symetry held for clothing had come to very little, as apparently all was absorbed by Smallwood's division at Wilmington.

Of all the Americans in the Continental service, those who suffered most cruelly for lack of clothing were the prisoners incarcerated in Philadelphia and New York. Commissary General of Prisoners Elias Boudinot frequently conferred with Washington on the conditions in the British prisons. It was the convention of the period for both sides to see to the needs of their own prisoners in enemy camps, for which purpose they sent agents under flags of truce to take clothing, firewood, and food to the imprisoned soldiery. Often an agent residing within the enemy territory would be employed to do this. This genteel custom of war was not without its occasional difficulties, particularly as both sides could hardly resist using their agents as spies. Boudinot was conscientious, tireless, and wily, and he governed his operation as effectively as could be expected, being understaffed and underfinanced. This could not always prevent

extreme hardships from befalling the American prisoners in New York and Philadelphia. Boudinot was having a very rocky time in January, first of all finding clothing and food to purchase, and then with General Howe. His agents in New Jersey found it impossible to buy shoes; all they could purchase was hay for the prisoners to sleep on. An indiscretion committed by American boatmen ferrying necessities to prisoners in Philadelphia had angered Howe, who for a time blocked all shipments of necessaries to the American prisoners.[54] Hugh Fergusen, a British official in Philadelphia who corresponded regularly with Boudinot on the matter of the incarcerated Americans, reported on January 9 that the prisoners were in a barely tolerable condition for want of clothing, taking Boudinot to task for the dearth.[55] Howe had prevented Boudinot's agent in Philadelphia from purchasing a parcel of blankets for the prisoners, and Boudinot reported to the Board of War that several men had died for lack of proper covering.[56] Boudinot was not a man to await formal sanction for what he perceived to be appropriate measures, and he had retaliated by warning Howe that if he persisted in imposing such strictures, British agents would be prevented from purchasing like necessities for their prisoners located west of New Jersey.[57] Howe then relaxed his injunction against purchases for American prisoners, but Boudinot's purchasing problem did not ameliorate to any marked degree.

By the beginning of February, even Connecticut was pressing the limits of frugality by salvaging the clothing of deceased soldiers in order to clothe the living. Captain Chapman of the 7th Connecticut travelled to the military hospital at Ephrata to collect the clothing of men who would never again rejoin their companions at camp. He was unable to obtain an accurate return of the clothing thus accumulated, reporting that the garments were haphazardly thrown into a little room. While forty or fifty soldiers had died at the hospital, he could only locate the clothing of eight or ten. He discovered that "...the poor lads is very lousey...," noting in dismay that eight had died just since he had arrived, in a hospital of about 150 patients.[58] Had he but known it, there was hardly a more efficient method of spreading disease than clothing the living in the raiment of the dead.

In early February Henry Knox was in Boston, checking on ordnance stores and artillery pieces collecting there and at Portsmouth. He reported to Washington that military stores were accumulating in encouraging quantities, but that prices were extravagantly high, and that public business was foundering for want of cash.[59] The Clothier at Boston, Mease's subordinate, claimed that he could purchase enough clothing for 30,000 men by the beginning of March if he had access to sufficient funds. Even in his reduced state he asserted that he had sent on 7,000 suits of clothing, and was engaged in making up another 5,000.

This news may have lifted Washington's spirits, but wherever the clothing was located, it did not come into camp during the month of February. The army's demand for clothing went unanswered from most official sources, and despite being desperate, was overshadowed by the food crisis which struck during the second week of the month. It was not that the clothing requirements were any less acute, but rather that the necessity to feed the troops became more so. As a result, the lack of clothing did not receive concentrated attention until later in the month.

Anthony Wayne's efforts to provide clothing for the troops in his division were certainly exceptional, but the regiments of the Pennsylvania Line were nevertheless very unevenly supplied. Zantzinger was continuing to forward clothing to camp, and he announced on February 4 that he had some shoes, hose, hats, and breeches packed, awaiting a wagon to take them to camp.[60] He found it impossible to get shirts, and this was the item which the troops in Wayne's division most conspicuously lacked. On February 10, Wayne addressed President Wharton on the subject. James Mease had mustered the affrontery to tell him that there were plenty of shirts in camp, but Wayne found that this was clearly not the case. Some soldiers were entirely bereft of linen, and in Wayne's words were compelled "...to wear their waistcoats next their skins & to sleep in them at night...".[61] The result was uninhibited proliferation of vermin and disease. Wayne invoked Wharton, "...for God's sake procure a quantity for me if you have to strip the Dutchmen for them...".[62]

Wayne's continuing preoccupation with uniform clothing emerged unfailingly in his communications with Wharton. He now insisted that he only wanted uniforms made up of blue cloth, and that the remaining materials of varied hue should be made up into overalls and vests. Wayne reported that the Virginians now had sufficient blue cloth to clothe all of their troops, "So I fear we shall be eclipsed by all the other states - unless we take some pains to give our soldiers an elegant uniform-"[63] With ponderous rhetoric he reiterated his favorite precept, that the best-dressed soldiers proved to be the bravest in the field.

The shipment from Zantzinger finally got underway about February 18, but he was now finding it increasingly difficult to purchase cloth.[64] Wayne's two brigades had, at this juncture, coats of varied color, breeches, waistcoats, shoes and stockings, but very few shirts. It was some time before this last item would be supplied.

The situation of the remaining Pennsylvania regiments, that is, the 3rd, 6th, 9th, and 12th (composing the preponderance of Conway's Brigade), was not nearly so luxuriant. Washington was sufficiently provoked to take up the issue with Wharton. He related their great distress for clothing and noted that they were all the more discontented for seeing their companions in Wayne's division comparatively well supplied. Washington had heard that there was a quantity of clothing belonging to the state located at Reading, and he suggested that it be sent down

the Schuylkill to camp. He had specifically declined interfering with the property himself, because it belonged to the state.[65]

The wretched condition of the Pennsylvania troops in Conway's Brigade is confirmed by an appeal from Richard Butler, Colonel of the 9th Pennsylvania, directed to the Supreme Executive Council. Pleading the case for his troops, Butler asserted, "...they are totaly naked for body Cloathing & not a blanket to seven men, I have been obliged to retain the Tents as substitutes for blankets...."[66] Butler claimed that the 3rd, 6th, and 12th Pennsylvania regiments were in nearly the same plight, and that considerable grumbling resulted from the conspicuously better supply enjoyed by Wayne's men. Butler nevertheless claimed for his regiment the lowest desertion rate of any unit that he knew of, and pledged his efforts to stem the jealousy developing among the regiments of the Pennsylvania line.[67]

Walter Stewart's 13th Pennsylvania Regiment briefly found itself to be at a unique and wholly unanticipated disadvantage for clothing. In mid-January, Washington had ordered Stewart to take his regiment into the territory east of the Schuylkill to reconnoiter and stiffen Lacey's militia patrols in Bucks County. Stewart reported a prodigal outpouring of provisions from the area going into Philadelphia. He was pleased to discover, however, over 1,200 yards of coating owned by disaffected Quarkers, located at a fulling mill near Newtown, Bucks

County. The owners, he claimed, were by no means in want, and he requested permission to seize the lot.[68] With Washington's approval, Stewart commandeered the cloth, to be used specifically to clothe his own regiment. As it happened, Major Francis Murray of the 13th Pennsylvania resided with his family in or near Newtown. He took charge of the cloth when the regiment moved westward again, storing 1,000 yards of it at his own house and leaving the remainder at Jenks' fulling mill. Murray employed tailors from the 13th as well as some local men to make it up into uniforms. On February 13 a worried Murray wrote to Washington representing that he was being pressured by the owners of the cloth for payment. He noted that some of the owners were wealthy Quakers whom he suspected of being disaffected, while others were apparently loyal and demonstrably in want. Murray recommended that a value be attached to the cloth and the owners paid off as soon as possible. He also made an ominous observation:

> It is surprising what numbers of people pass to Philadelphia from this and other Places Daily. And I am informed they carry on Marketing little inferior to former times - there being no Guards on the Road between here and the City: the Militia being about four miles back from the Cross Roads-" 69

Murray had with him but one subaltern and eighteen privates, some of whom were occupied in guarding the supplies at the fulling mill. He must have suspected that his operation was dangerously exposed, and that it was increasing daily in peril as his presence became common knowledge. During February Washington's

efforts to interrupt the flow of produce into the city from east of the Schuylkill were in vain, and the further a locality lay from camp the less able he was to exert control in it. Lacey's men were far too weak during this period to effect anything of consequence. Stewart was out of the area entirely and probably returned to camp.

On the night of February 19th, a large party of British dragoons descended upon Murray and his diminutive guard. Doubtless advised of Murray's presence by the disaffected elements of whom he had complained, the dragoons appear to have had his tailoring operation in mind as a specific objective. The party of horse seized Murray, his family, and 2,000 yards of cloth. Lacey, who had only 140 men under arms spread out through the country, was powerless to thwart the raid, and arrived on the scene at Newtown only after the British had departed. In a concerted operation, other British parties had advanced up Old York Road and along the Smithfield Road. These also retraced their steps after seizing some inhabitants.[70]

The seizure of inhabitants in this sector produced consternation in government circles, and Lacey in particular suffered unwarranted criticism. The British now began in earnest to wreak havoc east of the Schuylkill, and Washington, his army disabled by the February food crisis, was unable to oppose the incursions. Commissary supplies passing through this area were imperiled, and a wagon brigade loaded with barrelled pork

narrowly escaped capture at Newtown.[71] In ruefully reporting the depredations to President Wharton, Washington added that not only would the Council have to make provision for clothing the beleaguered 3rd, 6th, 9th, and 12th regiments, but they now would have to add the 13th to the list.[72]

Thomas Wharton meanwhile apprised Washington that Francis Johnson, who was recruiting for the Pennsylvania regiments in Lancaster, was doing his utmost to forward clothing to camp for the regiments that desperately required it. He reported that nearly 400 suits and 400 pairs of shoes were ready for shipment. Wharton adjured Washington to see to it that these were distributed to the neediest of the Pennsylvania regiments, and to assure the soldiers that more was coming. The clothing at Reading of which Washington had earlier inquired was being turned over to the Clothier General. It had apparently been collected by the old Council of Safety and had been sitting unused at Reading for many months. In tones ingenuously sanguine, Wharton expressed bright hopes for the future of the clothing supply system in Pennsylvania.[73]

Timothy Matlack, Secretary to the Council, soon addressed a letter to Washington which suggests that Wharton's figure of 400 suits was rather too optimistic. Matlack reported that 300 coats and vests, 200 leather breeches, and 80 overalls were on their way to the 3rd, 6th, 9th, and 12th regiments. The 13th, he claimed, would be supplied from another source.[74] Washington

then assured Wharton that the needy regiments would be supplied from the first shipment to arrive, and the same day sent a sternly worded missive to Mease, who stood accused of not seeing that the Pennsylvania troops had received their rightful share from the Continental store. Mease was directed to explain the error to Wharton and the Council.[75]

The situation in February with the rest of the army appears to have been just as checkered and uneven as that of the Pennsylvania line. Clothing allowances were sparse and almost universally inadequate. General James M. Varnum wrote Major General McDougall at the beginning of February reporting that a portion of his division was performing one third of all the duty in camp, and that some of his men were the best clothed of all the troops. Only Varnum's Rhode Island troops (his brigade included two Connecticut regiments which were apparently not sharing the clothing received by Huntington's men), were too ragged to parade for duty. A shipment of clothing from Rhode Island was reported to be enroute.[76]

The North Carolina troops were in an equally sorry state. Governor Richard Caswell had responded to Washington's call for clothing by having 4,000 yards of woolen cloth purchased, along with 300 blankets and 1,500 yards of osnaburgs, and some shoes and stockings.[77] Apparently the goods did not arrive in February, and the general aspect of the army suffered no improvement. Francis Dana, attending the Committee of Conference sitting at

camp, wrote to Congress that the widespread lack of clothing rendered the soldiers "...totally unfit for duty...".[78] Washington, in reply to a letter requesting clothing for the troops and attendants in the army hospitals, referred to continued and unabated want.[79]

Huntington's troops continued to be the best supplied. An officer was sent to Connecticut from Colonel Swift's 7th regiment in order to supervise the making of uniforms, so that they would be of a standard pattern. From Huntington's observation that "...many Inconveniences arise from our troops being clad in the usual Habits of our enemies...",[80] it would appear that some of the Connecticut men were wearing British scarlet.

The irremediably miserable state of the Massachusetts troops is perhaps explained by the exceptionally high demand for clothing in that state, both from General Heath's army and Burgoyne's Convention troops. According to Knox, however, there was a surfeit of clothing at Boston, but it seems not to have been applied to the needs of the Massachusetts troops at Valley Forge during February. General Paterson wrote to Colonel Thomas Marshall of the 10th Massachusetts, who was at home on furlough or special assignment, reporting that the soldiers were "...ten Times worse now than they were when you left the Camp, they are naked from the Crown of their heads to the Soles of their Feet...".[81] Of the 756 rank and file of his brigade present, 450 were unfit for lack of shoes and clothes. He knew that some

clothing had come in for the army, but apparently none for the New Jersey troops under his command. Claiming that the other brigades were nearly as badly off, Paterson entreated Marshall, "...for Gods Sake lift up your Voice, cry aloud & spare not, until there is something done to relieve our Distresses-"[82] The hard-pressed New Hampshire line drew a scattering of clothing towards the close of the month, including shirts, stockings, leather breeches, and waistcoats, as receipts for Colonel Alexander Scammell's 3rd New Hampshire Regiment demonstrate.[83] Assorted other issuances were made, apparently to men whose special duties required a good set of clothes and shoes. At the beginning of February "Lord Stirling's Guard," possibly a body of men assigned to protect the shops and tools of the artificers, drew nineteen pairs of shoes.[84]

Uneven and often inadequate clothing issuances also beset the far-flung commands and detachments under Washington's aegis. A sizeable proportion of Henry Jackson's Additional Continental Regiment spent part of the winter in Lancaster, where they may have been undergoing smallpox inoculations. Major John S. Tyler reported regularly to Jackson on the condition of the troops, including the state of their clothing supply. From Tyler's dutiful reports it is evident that the regiment was much better served than their brethren at camp. At the beginning of February, Tyler observed that Washington very much wanted the men to return to camp, but that they would not march until they were

issued shoes. He had nevertheless been successful in drawing forty shirts from the Continental store, and was about to draw hose.[85] By mid-month some new recruits had come in, whom Tyler described as a "fine sett of fellows." He had drawn 108 pairs of mittens, (a scarce commodity that winter), and a lavish issuance of 176 pairs of shoes.[86] By February 17 of the men were shod and were ready to begin training and drill. By then it appeared that Jackson had been clothing the new men out of his own pocket, and had been paying substantial sums for shoes, shirts and stockings, for which Mease was expected to partially reimburse him.[87] This arrangement, together with that made between Anthony Wayne and Paul Zantzinger, suggests the degree to which the role of the Clothier General had altered from the design of the previous autumn. Although Mease still presided over a clothier's store and a manufacturing operation, his role seems by now to have been reduced in part to that of a financial intermediary between the individuals who were actually purchasing clothing, often the generals and regimental commanders, and Congress. Mease's principal function at this juncture appears to have been as a supplier of funds to self-appointed purchasers.

Clothing and equipping the dragoon regiments was always a nettlesome problem, as their requirements were much more varied and costly than those of the infantrymen. They needed particularly strong leather breeches and boots, and these were among the scarcest of items. It was the task of Major Benjamin Tallmadge to attend to the clothing requirements of the 2nd Continental

Light Dragoons, posted for the winter at Chatham, New Jersey. He enjoyed what can only be called spectacular success, having accumulated 100 pairs of the breeches in February. He negotiated also a contract for 250 pairs of boots at fourteen dollars a pair. These, he claimed, were of equal quality but cheaper than those doled out by the Clothier General at Lancaster.[88] That Tallmadge, purchasing in New Jersey, appears to have had better luck than the purchasers concentrating in the Lancaster vicinity, points up the development of local shortages in south-eastern Pennsylvania that were analogous to the high prices and scarcity of food in the same regions. Mease was apparently incapable of developing effective and reliable avenues of trade and transportation with other regions and states, at least until the late spring.

Mease had fallen prey to the same logistical difficulties that afficted the Commissary Department, although his sparse communications imply this, rather than state the case openly. His ties to Pennsylvania, and probably to Pennsylvania political figures as well, are suggested by the fact that he chose Lancaster, rather than York, as the locus of his manufacturing operations. He appears to have been reluctant to apply to Deputy Quarters in Pennsylvania for wagons, as his chief aide in this respect seems to have been James Young, Wagon Master General to the state of Pennsylvania. During this period of the late winter of 1777-1778, Mease certainly neglected the New

England arm of his department. His concentration on producing clothing from areas less far-flung, particularly central Pennsylvania, was perhaps engendered by the awesome problems inherent in transporting bulky clothing and better goods at this time of year. With goods coming from the south only to be stranded west of the Susquehanna, and materials from New England being waylaid east of the Hudson, Mease may well have considered distant sources of supply to be too unreliable. He seems, however, not to have been much more successful in purchasing and manufacturing in closer proximity to the army. It is clear that the conditions of the men with regard to clothing deteriorated steadily in January and February, and that Mease was unable to halt the decline.

The dearth of clothing continued to be a preeminent affliction throughout the army. Delaware was clothing its sole regiment and militia troops from stores discovered aboard an abandoned schooner on the Delaware, and the inhabitants who had rescued the dry goods were in February disputing ownership of them with the state. Delaware found itself particularly beset, as its wool-producing sheep had in large numbers fallen prey to the British in 1777, and there had been a widespread failure of the flax crop which crippled the production of linen for shirts.[89] Washington found that James Mease was paying no attention whatever to the needs of the troops stationed on the Hudson, and had to urge him to supply Putnam's command, bereft of clothing

issuances since Washington had forbidden him to break into clothing shipments enroute to the army in Pennsylvania from New England.[90]

The problems surrounding the supply of shoes were particularly galling. The principal task of the Commissary General of Hides was to collect skins produced from the army's butchering operations, so that they might be cured and fashioned into shoes and breeches by private contractors. Early in the winter Commissary Ewing had not received wholehearted cooperation from the army in turning over the hides, particularly from the commissaries of Wayne's division. For the remainder of the encampment, this necessarily elaborate recyling system appears to have been a fount of difficulties. Wayne simply contracted with Zantzinger for shoes for his division. Typically, the manufacturing contractors were scattered about a fairly substantial distances from camp, as the local center of the tanning industry at Germantown was functionally quiescent because of its proximity to the British lines. One manufacturer, Duncan Oliphant, also a Deputy Commissary of Hides, operated a shoe manufactory in Northampton County. He was compelled to apply to the Deputy Quarter Master at Easton for wagons to haul rawhides from the vicinity of camp to his place of manufacture.[91]

General William Smallwood had been informed by Washington when he took the post at Wilmington that he would to be responsible for clothing his own troops, and he experienced particular

difficulty getting shoes. Unsuccessful in locating a reliable contractor, he let Commissary Ewing provide him with 1,000 pairs in exahange for 100 rawhides. Only 80 pairs were eventually delivered, most of which were too small. The shoes were generally ill-fitting and of execrable quality. Then mistaking some instructions from Washington, Smallwood purchased leather-working tools and set to work those men in his division who were trained as cobblers.[92]

Always receiving the dregs of the clothing supplies and funds for purchase were the prisoners of war and hospital inmates. The lot of the American prisoners in Philadelphia improved measurably in February, when Howe relaxed his temporary strictures on the purchase of items within the city. Thomas Franklin, acting as agent for Elias Boudinot, delivered 226 rugs and blankets along with some shirts and woolen trousers. The prisoners nevertheless remained sickly for want of firewood and sufficient vegetables in their diet.[93] George Gibson brought the matter of clothing required in hospitals to Washington's attention, noting that the efforts of the Clothier General should be brought to bear on supplying some of the recuperated patients. He assured Washington that with an ample supply of clothing the hospitals, now overcrowded, could be thinned out and some of the men sent to rejoin the army.[94] Washington was also concerned that many of the soldiers listed on returns as "sick, absent" were indeed dead or deserted. He launched a general inquiry into

hospital management at the end of February and endeavored to take more effective control of the far-flung facilities. He ordered the hospital superintendents to make regular application to the Clothier General for clothing for convalescent inmates. Clothing belonging to soldiers who had died was to be appraised and redistributed.[95] It is not at all certain that Washington entertained much hope that the hospitals would be adequately supplied by Mease, although his directive clearly indicates that he considered the clothing of hospital patients to be the province of the Clothier General's office, and not that of the states.

III ONE AND A HALF SHIRTS TO THE COMPANY

As conditions in the Main Army improved toward a semblance of normality in the spring of 1778, the months of March, April, and May saw a vigorous effort on the part of the high-ranking officers to provide clothing for their men. Results were uneven and painfully slow in coming, but there was a general improvement in supply, particularly during May. At length the appeals which went out to the states began to elicit some response from even the more recalcitrant governing bodies. Wayne's troops, however, did not receive their long-sought shirts until the end of May. The remainder of the Pennsylvania troops, the Massachusetts line, and other units apparently continued receiving unsatisfactory quantities of supplies at least until the army marched in June. Glaring inequities at camp, resulting from the varying degrees of success achieved by the states in clothing purchases, characterized the endeavor throughout the spring.

In the most general terms, and with certain prominent exceptions, an improvement in the supply of clothing issued at

camp during March and April is reflected in observations from relatively dispassionate sources. The British had been aware of the lamentable condition of Washington's troops in early March. Sir William Howe related to General Sir Henry Clinton during the first week of the month that American deserters, coming daily into Philadelphia, were reporting critical distresses in the American army from lack of provisions and clothing.[1] A British spy reporting to Captain John Andre on Americans going home on furlough described their predicament more vividly: "...The Taters thats on them will scarcely keep them from the Inclemencies of the Weather...."[2] Nathanael Greene, commenting generally on the condition of the army, found the soldiers' plight "intollerable," and charged that because of their lack of clothing their numbers were more a burden than an advantage. "Thousands of our poor fellows are without cloathing especially shoes and stockings-"[3] By mid-April, however, there were indications that matters were on the mend in comparison with the depths of February and early March. Ebenezer Crosby, a Massachusetts physician assisting Doctor Cochrane in innoculating the troops, saw a good many soldiers in the course of his tasks. He reported the army to be "tolerable healthy" and to be better clothed than it had been for some time.[4] The improvement had been wrought by Washington and his generals and colonels. Their surviving correspondence discloses the formidable pressure they applied not only to the clothing department officials but to the governments of their own states.

The predicament of the Pennsylvania troops was particularly complicated, as the inequities between Wayne's Division and the regiments of Conway's Brigade were not easily dispelled. Colonel Walter Stewart's troops, whose clothing source had been decimated by the British raid on Newtown in February, posed a further problem. The Supreme Executive Council assured Washington that they were aware of the regiment's plight, and that they would endeavor to produce some supply of clothing for Stewart's men,[5] but this worthy design was more easily expressed than accomplished. Stewart himself applied to the Council at the beginning of March. Apologizing for his tedious reiteration of clothing shortages which beset his men, Stewart averred that his own honor and the health of his troops depended on his unrelenting attention to their needs. Their nakedness was keeping them from the parade and was impeding their training. Stewart had somehow acquired a supply of shoes and stockings, but was entirely bereft of other basic items. He sent Colonel Farmer as an emissary to Lancaster to place the specific needs of the regiment before the Council.[6] Although it is not certain how much clothing he received or when he got it, the application to the Council appears to have engendered some relief, as there is no record of further applications for assistance.

Richard Butler, who had earlier appealed to the Council on behalf of his 9th Pennsylvania Regiment, was constrained to do so again toward the end of March. Asserting that his men could

brave inadequate provisions and lack of pay, he blamed the clothing problem entirely for the incidence of desertion in his unit.

> I am sorry to inform your Excellency that there has not been a blanket to five men through the whole winter, and the Chief of them but one shirt, and many none (Indeed I may almost say with Sir John Falstaff one & a half to a CompY.) 7

Wharton assured Butler that the condition of his men was known and lamented by the Council, and he added a rather empty commendation of the bravery and fortitude exhibited by the soldiers. Mease had informed the Council that shirts were on their way to camp, and Wharton promised to continue to urge him to attend to the needs of the Pennsylvania troops.[8] Colonel Thomas Craig, whose 3rd Pennsylvania Regiment was also one of the orphans of Conway's Brigade, found himself in circumstances similar to Butler's. His men were unable to parade for duty, and jealousy was breaking out between them and the soldiers of Wayne's Division. The obvious distress of his men, Craig asserted, was also having an adverse effect on recruiting.[9]

The discrepancy between clothing supplied to Wayne's Division and Conway's Brigade clearly indicates the indispensability of having the general officers in camp, whence they could lobby most effectively for the supply of their troops. Wayne's dealings with Zantzinger, despite being irregular, were doubtless of great service to his men. General Thomas Conway, whose open scorn for Washington was interpreted by many officers friendly to Washington as conspiratorial, found camp an uncomfortable

place to be, and thus his brigade was without an on-the-scene commander. The most vociferous advocate within the brigade for redress of clothing shortages was Colonel Richard Butler, but his voice did not carry the same weight as that of a Brigadier-General, even in his native Pennsylvania.

The Supreme Executive Council was apparently determined to induce Mease to shoulder as much of the responsibility for clothing the Pennsylvania line as they could force upon him. Wharton made good his promise to pressure Mease, writing him of the continuing dearth of shirts afflicting Conway's Brigade and the rest of the Pennsylvania troops.[10] With the foot-dragging reticence which typified so many of the Council's actions over the winter, they had at length decided to purchase their own linen, but were still reluctant to begin to make it up in that it might in some way interfere with Mease's department. This, at least, was how they put the matter to him. Mease was to inform them of how he viewed their prospective shirt-making operation. In the glacially dispassionate manner that was peculiarly his own, Mease replied,

> I did imagine the very great supplies of that article which have been sent to Camp would have made the Army tollerably comfortable in that way, but I fear the practice of Issuing necessaries at Camp is in itself one great cause of their never being satisfied. 11

Mease did not elaborate on this thoroughly obfuscating comment, neither did he offer an opinion on the Council's shirt-making project beyond the veiled dissuasion implicit in his thanks

for not interfering. It would be the end of May before the men of Wayne's and Conway's brigades were issued shirts, and then they were supplied by the State of Pennsylvania.[12]

Anthony Wayne was meanwhile continuing his productive dealings with Paul Zantzinger, and was managing to clothe his men reasonably well, excepting in the matter of shirts. On March 20, Zantzinger reported that he had four more hogheads ready for shipment, which had been delayed for some time for lack of transportation. The hogheads contained stockings, hats, breeches, jackets, and some shoes. Zantzinger continued to be reimbursed by the Clothier General, but he could not apply for further sums until he received receipts for the clothing issued at camp. By this time he was impecunious, and he complained to Wayne that he had run into debt.[13] By March 27, three of the hogsheads had been sent off to camp, but Wayne was still pressing President Wharton on the shirt problem. He wanted not only linen shirts, but also linen overalls, an ample supply of which, he maintained, would go far to reduce the incidence of sickness and desertion.[14]

Returns for clothing wanted in Wayne's Division made out at the end of March indicate that the eight regiments were still scantily attired. All the regiments but the 8th Pennsylvania required substantial numbers of hats. The need for breeches had lessened somewhat, but the 1st and 2nd regiments were wanting large quantities of shoes. The 1st, 2nd, 5th, and 10th regiments required substantial numbers of stockings. Some of this clothing may have been wanted to clothe new recruits, particularly in the

4th Regiment, which wanted seventy-two each of jackets, breeches, shoes, and stockings.[15]

Wayne was soon constrained to demand that all new recruits be clothed and equipped before proceeding to camp, where clothing available from the Continental store was being diverted entirely for the use of additional regiments and other Continental units, as well as to the particularly distressed North Carolina line. Wayne reported to Wharton on April 10 that his division was now reasonably well equipped with shoes, stockings, and hats, but that:

> ...near one third of my men have no kind of shirt under Heaven - and scarcely a man in the Division with more than one, nor have I been able to draw any during the whole winter....16

Reiterating that clean linen was necessary to good health, he claimed that for shirts his troops were worse off than any in camp, "...nay worse than Falstaff's recruits - they had a shirt and a half to a company-"[17] (It appears that Wayne and Butler had not only been comparing notes, but also literary analogies.) Wayne had been investigating possible sources of redress, and had learned that between 1,200 and 1,500 yards of linen were in the hands of one Jacob Eichelberger at York. This was said to be destined for the use of the Pennsylvania line, and Wayne begged Wharton to see that it did not go astray.[18] He also had approached a contractor in York by the name of Donaldson on the matter of making shirts. Donaldson claimed that he could make

between 300 and 400 per week, having already sufficient linen on hand for 600. With a supply of cash, he could purchase more materials. Wayne wrote immediately to Wharton suggesting strongly that he be engaged, and estimating that the Pennsylvania troops would require 9,000 shirts and 9,000 pairs of overalls to take them through the next campaign.[19] Some of the shirts eventually issued to the Pennsylvanians in May could have come from this source.

While the needs of the Pennsylvania troops in Wayne's division centered on shirts, their plight was not nearly so grave as that of the New Hampshire, Massachusetts, and North Carolina regiments. The condition of the Massachusetts troops appears to have ameliorated but little during March and April. A report was received in early March by the Massachusetts General Court attesting to the exceptionally poor condition of the troops in the "southern army," (i.e., Washington's Main Army). The men were reported to be utterly destitute of shoes, stockings and shirts. The General Court was informed that in one company of an unnamed regiment only two men were sufficiently well clothed to be fit for duty.[20] By mid-March Washington had more than one cause to be disquieted about the manner in which the state of Massachusetts was serving the needs of its soldiery. The state had also been refilling the ranks with deserters from the British army, and these had proven to be utterly unreliable. On the matter of clothing Washington demanded that new recruits be uniformed before they

left for camp, or that shipments of clothing be sent to the army to be available when the new men arrived. He sternly reminded the President of the State that lack of clothing was held principally responsible for desertion and deaths.[21] By mid-April at least one Massachusetts regiment was receiving a few shoes and stockings, either provided by the state or from the Continental store.[22] General observations, however, indicate that even into May the Massachusetts troops where shockingly ill-supplied.

Enoch Poor's repeated appeals to the state of New Hampshire had produced some meager quantities of clothing which were completely inadequate to the demand. Some wagon loads of clothing arrived from New Hampshire near the beginning of March, but apparently they were absorbed into the Continental store. A distressed General Poor once again addressed Meshech Weare, President of New Hampshire, pleading with him to redouble his efforts to relieve the shortages besetting the New Hampshire line. The troops had just received an absurd allowance of 1 coat per every 100 wanted, waistcoasts 6 to 100, and breeches 4 to 100. Obviously the preponderance of the men were still in rags. Many, Poor reported, had no covering at night but straw. (They were in a worse condition even than Butler's Pennsylvanians, who at least had old tents to use as blankets.) Poor recommended that the state appoint agents to apportion the clothing that was now being collected from townships, so that the items would go directly to the New Hampshire

troops rather than being distributed throughout the entire army. Some shoes, he noted, had recently arrived.[23] New Hampshire had begun to take up collections on the Connecticut model, but was not resorting to the impressment of clothing. An advertisement entered by the state in The Freeman's Journal or New Hampshire Gazette on March 10 listed articles "wanted immediately" for the New Hampshire soldiers. These included homespun cloth suitable for shirts, overalls, yarn stockings, men's shoes, leather breeches of moose or deerskin, and blankets. Owners of such articles were to bring them to the War Office at Portsmouth or Exeter, where a "generous price" would be paid for them.[24]

Upon receipt of Poor's letter, the New Hampshire Council attempted to explain the embarrassing inadequacy of their clothing program. Admitting that they had anticipated being able to depend upon the Continental clothing supplies, they informed Poor of the establishment of a new state Board of War, which he could depend upon to take matters in hand. (It was apparently this Board which placed the above notice in the New Hampshire Gazette.) Until a state distributor could be appointed at camp, the Council requested Poor to assume the responsibility for receiving the shipments which were collected from the townships.[25]

General Lachlan McIntosh, arrived lately at camp, communicated his shock on observing the condition of the North Carolina troops to Governor Caswell on March 20. Describing the suffering endured by the men, he claimed that fifty of them had died at or

near camp since the beginning of January, and that the loss of life was principally attributable to their lack of clothing.[26] By late March, Caswell had informed Washington that the state had purchased a quantity of clothing. In a revealing communication, Washington disclosed his opinion that the shipment should be kept out of the hands of the Clothier General's department, and that it should be distributed exclusively to the North Carolina line. He nevertheless suggested to Caswell, that in the interest of saving time, the clothing should be made up in Lancaster rather than in North Carolina. If facilities were already operative in the state for making it up, it could be accomplished there, providing that care was taken to make the garments in large sizes.[27] General Wayne was under the apprehension in early April that certain of the Continental clothing supplies were going to the Carolina troops, which supports the conclusion that they were particularly bereft at this time.[28]

The condition of the Rhode Island regiments improved by the merest of increments. Israel Angell, Colonel of the 2nd Rhode Island Regiment, wrote to the Governor and Council of Rhode Island at the end of March, reporting that his regiment had recently received eight boxes of clothing, but that it was insufficient to serve all of his men. He despaired of any assistance from the Clothier General. Angell requested enough clothing for his regiment to take them through the summer into the autumn, suggesting that then they should be supplied with uniform suits. His men, Angell asserted, suffered sickness and death in a greater

proportion than the rest of the army because of their naked condition.[29]

Besides the Pennsylvania line, the best clad troops continued to be the units from Virginia, and particularly those in Huntington's Brigade from Connecticut. The smoothly functioning township collection programs of this state resulted in a letter of rare effulgence from Washington to Governor Trumbull. In the missive he reported that 2,000 men were still listed on the returns as unfit for lack of clothing (which represented a decrease from over 4,000 at the end of January). None of the ill-clad men, however, were from Connecticut. In praising the efforts of that state, Washington wrote, "The care of your Legislature, in providing cloathing and necessaries of all kinds for their Men, is highly laudable, and reflects the greatest honour upon their patriotism and humanity."[30] The Connecticut units had also labored to abide by Washington's directive to appraise and redistribute the clothing of deceased soldiers, as two accounts dating from early April disclose. These describe the private effects of two deceased soldiers of the Connecticut line, and the variety of extra clothing which they possessed attests to the success of the Connecticut clothing program.[31] Clothing continued to arrive from Virginia, resulting from a vigorous legislative effort to collect it. What must have been a fairly substantial shipment was loaded aboard two galleys, the Picketer and Safeguard, to sail for the Head of Elk. There

Deputy Quarter Master Henry Hollingsworth would receive it and ship it overland to the army.[32]

Clothing the Additional Regiments, the Artillery Regiments, and the Dragoons should have been the principal concern of James Mease, as these units had no recourse to state allotments. Washington, however, experienced continuing difficulties in eliciting the clothing from the store at camp. The dragoon regiments, posted in New Jersey for the winter, attended themselves to clothing supply, and as noted earlier Major Benjamin Tallmadge enjoyed particular success in his purchasing. Coats and waistcoats were already in hand, and boots and leather breeches were on order. The cost of well-made boots had risen to fourteen dollars per pair. Colonel Sheldon had engaged a tailor to make 140 pairs of leather breeches, at 26 2/3 dollars per pair, well below the then current price of thirty dollars per pair. These were strong and well made articles, judged by Tallmadge to be superior to recently issued breeches, which had lasted only four months. Tallmadge sought the advice of Washington on how to arrange payment for Mr. Estry, the tradesman providing the articles.[33] Lt. Col. Temple of the 1st Regiment of Light Dragoons also informed Washington that he had met with success in obtaining articles of clothing for his regiment.[34]

During March and April, Washington disclosed his intense dissatisfaction with the inept and wholly inadequate performance of the Clothier's Department at camp. James Mease was consistently

absent and unwilling to regulate the laxities of his assistants, particularly those of his deputy at camp, Daniel Kemper. Complaints arising from Kemper's management of the clothing store were virulent and rife. In March, a board of general officers met to apportion the meager clothing quantities in the store, and it was Kemper's duty to release the articles to the individual regiments. Some regiments did not call promptly for the items allotted them, and Kemper issued their portions to other units, engendering a loud outcry. Kemper was beleaguered, however, with insufficiency, and his position must have been far from comfortable. He made special issuances of clothing to Morgan's Rifle Corps, and reserved 150 suits for Washington's guard. What remained did not produce much of a salutary effect on the deleterious state of the infantry regiments. Colonel Benjamin Tupper of the 11th Massachusetts Regiment charged Kemper with refusing to supply his officers and Kemper went to some pains to demonstrate his impartiality to Washington. He claimed to have never received clothing specifically for the use of officers. When a shipment arrived, his practice had been to separate out those items of obvious high quality and sell them to the officers at what he termed a "moderate price," in accordance with General Orders.[35]

Washington, however, was vexed beyond endurance with Kemper's management of the camp clothing store, and was no less irate with Mease's apparent indifference. He complained directly to Henry

Laurens on April 10, spurred on by Knox's report of a surfeit of clothing in the Boston vicinity:

> The Clothier Genl. of the Army as well as the heads of every other department, should be in Camp, near the Comr. in Chief; otherwise it is impossible that the operations of War can be conducted with energy and precision. I wish most sincerely that this, as not the least essential part of the business settled with the Comee. were decided and a thorough investigation were had into the conduct of this department, as it is a matter of universal astonishment, that we should be deficient of any article of Cloathing when it is commonly asserted that the Eastern States *alone* can furnish Materials enough, to cloath 100,000 Men. If this be fact there is a fatal error somewhere, to which may be attributed the death and desertion of thousands. 36

With this unapologetically censorious missive, Washington implanted the idea of an investigation of the Clothier's Department, which would be taken up later in the spring by Congress. The explicit charge that the Clothier General was personally responsible for the incidence of desertion and death afflicting the army was too grave to brush aside. It resulted directly from the overwhelmingly pervasive belief among the officers that the lack of proper clothing was the principal cause of disease, death, and disenchantment with army life.

Unwilling to let the matter rest, and accosted by the continuing problems and niggling difficulties resulting from Mease's absentee management, Washington wrote him on April 17. Claiming that his days were filled with complaints relative to the Clothier's Department, Washington professed ignorance of the

actual quantities of clothing available. He was encumbered by having to refer the questions to Mease at Lancaster, and berated him for residing at an inconvenient distance from the army:

> In a word your absence, and the incompetency of a Clerk, to answer the various applications that are daily making, throws a load of business upon me which ought to be the burthen of your own Shoulders, and which were you present you would become more intimately acquainted with and know better how to provide for. 37

Washington went on to demand that Mease post himself with the army, and suggested that an active assistant could easily take his place at Lancaster. This is wholly consistent with Washington's often employed stratagem of exerting his will upon dilatory officials by means of bringing them into close physical proximity. Not only was Mease's presence urgently required, but Washington may have thought that with close supervision he could improve his performance. The enormity of the inefficiency with which Washington struggled is clear from his letter to Mease:

> I hear, by report, of great quantities of Cloathing purchased on continental account in every quarter. But where are they? I cannot get as much cloth as will make Cloaths for my Servants notwithstanding one of them, that attends my person and Table, is indecently, and most shamefully naked, and my frequent applications to Mr. Kemper (which he says he has as often transmitted to you) in the last two Months. I can easily under such an instance as this give credence to the complaints of others, when they assert that no attention is paid to their wants. The greatest part lately supplied has been by particular States to their own troops. 38

Calling for Mease's immediate attendance at camp and for his attention to fixing the prices of clothing issued and sold,

Washington directed him to attend to the insatiable need for shoes, shirts, and overalls.

Washington, at something of a loss to determine the precise reasons for failure in the Clothier's Department, had nevertheless received sufficient information to raise grave doubts and suspicions in his mind. Mease was unable to cope with his duties, yet he was not entirely responsible for the abysmal depths to which the supply system had descended. The same logistical failure which dogged and hobbled the other support services did not spare the Clothier's Department, delaying the transportation of clothing coming from Virginia, New England, and Lancaster. At the beginning of March, for instance, George Gibson appealed to Deputy Quarter Master George Ross at Lancaster for four covered wagons to haul clothing to camp, at the order of a body no less august than the Board of War.[39] The Board had informed Gibson that clothing sufficient to load seven wagons was enroute from York, maintaining that "...the other four are Continental property, the horses belonging to the whole are so emaciated as to be scarce able to drag the empty Waggons."[40] When Gibson applied to Ross for four more vehicles, Ross waited on the Supreme Executive Council, apparently for a press warrant. He was disappointed in this hope, and returned the reply to Gibson that the wagons could not be had.[41] This sort of incident was epidemic in February and early March, when the entire logistical system of the army had broken down. It should not, however, have

affected Mease's department so severely in April and May. Adjunctive causes attenuated the clothing failure, and strident calls for investigation mounted as May wore on.

IV "A DISORDER CALLED THE MEASES"

The problem of the Clothier's Department, while naggingly recurrent, assumed a priority subordinate to the drive for military equipage that absorbed Washington in May and June. During the latter months of the encampment, references to clothing emerge with much less frequency from the correspondence of Washington and his officers. The influx of clothing into camp remained uneven, yet there was an appreciable increase. The advent of spring weather also lessened the outcry for raiment. This did not necessarily mean, however, that the system was in good working order, or that the glaring discrepancies between clothing supplied by the various states had been obliterated. The Massachusetts line, together with the Rhode Island, North Carolina, and New Hampshire troops still suffered, while Anthony Wayne was at length able to complete the clothing of his brigades with the long-awaited shirts. James Mease still clung to his station at Lancaster, where he sought cover from a mounting barrage of criticism.

At the beginning of May, Anthony Wayne forwarded returns for the thirteen Pennsylvania Regiments to the Supreme Executive Council. They still listed men as "sick, present" who were unable to appear on Parade for want of clothing. Wayne insisted that with an adequate supply, desertions could be stopped.[1] Later in the month, in writing to Richard Peters of the Board of War, Wayne did not hesitate to accord blame for the intolerable condition of the Pennsylvania units of Conway's brigade. He had hoped by then to have clothed all of the troops of his division:

> ...but the Distresses of the Other part of the Troops belonging to this State were such as beggars all Discription - Humanity obliged me to Divide what would have in part clothed six Hundred men, among thirteen Regiments... 2

Wayne claimed that the division of clothing was necessary to avert mutiny and desertion. The inevitable jealousies which erupted between the soldiers of Conway's Brigade and their comparatively well-clothed brethern in Wayne's division had reached drastic proportions. With labored but pointed irony Wayne went on the excoriate Mease as the source of the rampant mortality which had thinned the army:

> ...some hundreds we though prudent to Deposit - some Six feet under ground - who died of a Disorder called the Mease's i.e. for want of Clothing - the whole army at present are sick of the same Disorder - but the Penns. Line seem the most Infected - a pointed and speedy exertion of Congress - or Employing an Other Doctr may yet remove the Disorder.... 3

Thus Wayne added his voice to Washington's unbridled criticism of Mease's performance.

At the very end of May, nine Pennsylvania regiments received a total of 442 shirts from the State of Pennsylvania, terminating at least in part the shirtlessness of the Pennsylvania line.[4] The state appears to have assumed the task of making shirts and other uniform articles, but not without attendant fiscal confusion. As stipulated in the resolve of Congress of November, 1777, Congress was responsible for reimbursing the states for their clothing purchases. Daniel Roberdeau, Pennsylvania delegate to Congress, reported a disquieting occurrence at the end of May to George Bryan, who had assumed the office of President of Pennsylvania following the sudden death of Thomas Wharton. Roberdeau related that one Robert Craig, who had been appointed a state purchasing agent for clothing, applied through the Board of War to Congress for reimbursement of 20,000 pounds he had expended in his office, adding that he could not continue without an additional 10,000 pounds. The difficulty was that Craig could neither produce an inventory of his purchases and expenses, nor could he state where the dry goods were stored, beyond alleging that they were in the hands of reputable persons in Lancaster County. As Congress was unwilling to provide funds on the basis of such suspiciously vague information, Roberdeau formally withdrew the request until he had conferred with Bryan. He doubted, however, that Congress would advance the money even upon proper application.[5] Roberdeau appears to have taken lightly this rather shocking evidence of negligence, but his

missive to Bryan allows yet another glimpse of the egregious ineptitude lurking within the state's purchasing operation.

The State of Pennsylvania was pressed with other insistent applications that should have been Mease's concern. Officers of the artillery regiments who had been recruited in Pennsylvania applied to the Supreme Executive Council for clothing. Complaining that neither they nor their men appeared so well dressed on parade as did the other Pennsylvania troops, they requested permission to draw upon the state clothing supplies to refurbish themselves.[6]

An exception to the generally improved aspect of the Main Army were the soldiers of the still threadbare Massachusetts line. Colonel Shephard of the 4th Massachusetts Regiment wrote during mid-May to the Massachusetts Council on a variety of grievances. The worst affliction he still pronounced to be want of clothing. In a manner which was by now pro forma for regimental commanders, he claimed that most regiments were better off than his own. None of the troops, however, were clothed as they had been promised upon enlisting, "...and many of them are, from their wretched, ragged, naked Appearance, unfit to be seen in open Daylight and much more unfitt to perform the Duty of Soldiers."[7] The officers, Shephard asserted, were but little better off, as their pay did not allow the purchase of clothing at the prevailing exorbitant rates, while other states furnished clothing to their officers at reasonable prices. He complained that one

of the worst torments endured by the men was the dearth of shirting. Shephard's letter was read before the House of Representatives and Council, but it is unlikely that Shephard saw much improvement in conditions before June or July.

The matter of clothing for officers, as demonstrated by Shephard's complaint, varied considerably from state to state. Apparently some states made provisions for clothing for their officers at cost, or with a slight surcharge, while others did not. Occasionally they drew supplies from the Clothier's store or from state supplies, but many purchased items as the opportunity arose or sent home for articles of apparel. As noted earlier, General Huntington occasionally importuned his brothers for clothing. In February he announced that he had run out of waistcoats, and requested his brother Andrew to send him some white broadcloth or swanskin sufficient for a waistcoat and breeches.[8] Henry Laurens occasionally sent to his son John cloth suitable for an aide to the Commander in Chief. In early March he sent from York 172 yards of "yellowish" fabric, with the wry comment that it was "...enough the Taylor reports for 2 pr Breeches or a Waistcoat & Breeches-"[9] The stratagem of obtaining clothing from relatives on the home front was widely employed. Gustavus B. Wallace, Lieutenant-Colonel of the 15th Virginia Regiment, wrote his brother requesting two coarse shirts, a jacket, and two pairs of thread stockings, in addition to brandy and tobacco.[10]

John Cropper, Lieutenant-Colonel of the 11th Virginia, sent a meticulously detailed set of instructions to his wife, illustrating how some officers were obtaining garments. He sent her twenty yards of coarse linen with thirteen yards of superfine, wrapped up in two shirts he had drawn from the Continental store. (During the late spring the store was providing some items for officers, but the prices are not known.) Cropper disgustedly reported that the two shirts were not fit for wear until made over again. He had obtained three pairs of stockings at Bethlehem which he forwarded home with the other items to be whitened. Also included in the parcel was a pair of shoes made at Bethlehem which were too small. Cropper sent the shoes, a pair of stockings, and the fine linen as a gift to his wife. He wanted the two shirts made over again and ruffled with fine cambric, if she could obtain any. Cropper also wished her to make him some summer-weight waistcoats and breeches.[11] (With all of these mail-order clothing requests, it should be remembered that the sizes of breeches and waistcoats were highly adjustable, both having buckles in the rear.)

Many of the officers, particularly those luckless enough not to have wives at home, had to pay staggering prices in order to uniform themselves with any degree of elegance. Joseph Hugg, a Commissary Department official, sold a substantial amount of cloth to the officers of the New Jersey line during May and

June. Thirty-two officers bought a total of 520 yards of linen and 3 1/4 yards of cambric for ruffles. The cost of ten yards of linen was two pounds, two shillings, sixpence, and the officers bought between 20 and 25 yards apiece. A few bought bits of cambric, anywhere between a quarter yard and a yard, at the astronomical rate of four pounds per yard.[12]

The teamsters or wagoners in the army, because of the rugged nature of their service, often fared well in clothing allowances, particularly as clothing supplies became more plentiful in the spring. In May, forty-six new teamsters were enlisted in McDougall's division, each receiving a greatcoat, a coat, a waistcoat, two shirts, a pair of breeches, a pair of shoes, a hat, a cap, and a pair of boots.[13]

Despite evidence that clothing supplies sluggishly approached a scant adequacy in late May, James Mease was the target of increasingly acrimonious censure. To all external appearances it was well deserved. Washington, it will be remembered, ordered him to come to camp in a sharp missive dated April 17, but by mid-May he still had not appeared. Technically, Mease was subject only to the order of Congress, and his behavior towards Washington was patently evasive. After waiting patiently for a month, Washington composed a withering exposition of his profound dissatisfaction.

> Sir: I wrote to you the 17th. of last Month, desiring your immediate attendance at Head Quarters, duplicate of which I now inclose. I cannot conceive how that letter could have miscarried; neither can I conceive, if it got to hand, what can have prevented my receiving some answer to it. I am now to inform you that the complaints against your department have become so loud and universal, that I can no longer dispense with your presence in camp to give satisfaction on the many subject of discontent that prevail in the army from that source, and to relieve me from those difficulties in which I am involved by your absence. If you have not therefore express directions from Congress to the contrary, you will consider this, as a positive and preemptory injunction immediately to repair to Head Quarters. I am, etc. 14

This directive at last shook Mease sufficiently to elicit a reply, but it doubtless hardened further his resolve to elude, if at all possible, the vengeful clutches of the officers of the Main Army. His laconic riposte was hardly adequate to the occasion. Taking refuge in the dubious pretense that Washington's first letter had indeed miscarried, he averred that on receipt of the May letter he had prepared immediately to set out for camp. Unfortunately, the necessity of arranging to send money off to Boston had detained him, but he expected to be able to proceed the following Monday to Head Quarters.[15] Mease was certainly not in any particular hurry, nor does any of his surviving correspondence disclose the least stirring of remorse or hint of anguish over the tragic inadequacy of his department. The obdurate and impenetrable callousness might at best be attributed to his absence from the scenes of misery, combined

with a stupifying incapacity of imagination. That he was capable of prodigious feats of disassociation is clear from a curious letter he penned to Francis Dana at the end of January. Dana had ordered Mease's immediate attendance on the Committee of Congress meeting at camp. Mease demured, pleading that he was convalescing from a "violent Pleurisy & fever," but assented to send his assistant, who would present returns of clothing issued to the Army to January 1st. Mease concluded:

> Tis not very wonderful there should be complaints, where there are wants there will always be complaining...complaining is the fashion at present & therefore it would be wonderful if a department for which there is little fund of supplies within ourselves should escape when those whose resources are entirely so are ever abroad. 16

It is not difficult to imagine Dana's response to this disconcerting logic. It is much less easy to perceive why Congress did not move more expeditiously to remove Mease from office. The reluctance to censure him may have been a tacit acknowledgement of the truth that Congress was not providing him with sufficient funds to discharge his duties adequately. Yet Mease appears not to have devoted much effort to rectifying the problem, prefering to lean heavily upon the clothing efforts sponsored by the various states at Congress' request. He was known on at least one occasion to have rejected a large parcel of cloth because he thought its price too high, while at the same time the army was in the depths of want. In this less than stellar performance, his worst failing may have been a highly constricted

sense of his own responsibility and a disinclination to become an advocate before Congress for the wants of the army.

At length Congress could no longer avoid dealing with the clamorous complaints directed against Mease, and a resolution was passed on May 28 halting all further purchases of the Clothier General's office until he could make full returns to Congress.[17] With these returns Mease managed at least for a time to pacify his critics. Increased quantities of clothing were becoming available as substantial imports from France and Holland arrived, and overland transportation improved with the advance of spring. With the British evacuation of Philadelphia in June, Mease was able to reestablish his office in the capital. By the end of July the stores at Lancaster and in reoccupied Philadelphia, though hardly substantial, demonstrated some increase. Clothing supplies had also arrived at Portsmouth from France and the Netherlands and more were situated in Rhode Island. Substantial amounts were in the hands of Boston merchants, and purchases had been made by the states of Maryland, Virginia, and South Carolina.[18] So seemingly vast were these influxes that the fears of Congress were allayed and their incipient investigations blunted. One ship, the Dutchess de Gramont, arrived at Portsmouth carrying 12,718 coats, 13,196 waistcoats, 13,196 breeches, and 15,002 stockings.[19] It looked for a time as if Mease had weathered the storm.

During May, June, and July huge sums were advanced by Congress to Mease, who in turn sent them on to his agents in Boston, Messrs. Otis & Andrews. It appears that at this late date he had at last established important logistical links with this quarter. Mease was advanced $150,000 on May 25, and on the same date a warrant for $500,000 was drawn in his favor on the loan office of Massachusetts Bay.[20] In June he was advanced $80,000 to pay for uniforms and linen shirts already contracted for by Pennsylvania for the Pennsylvania line, whose officers had loudly protested his lack of attention to the men of their state. Mease was the recipient of $37,570 30/90 on July 16 for the use of Otis & Andrews, and $79,980 30/90 for the same purpose on July 25. These may have been reimbursements for the huge quantities of clothing and materials imported, as well as for payment of manufacturers employed in making uniforms.[21]

These successes, however, appear not to have erased the appalling record of the previous winter, and Mease was apparently still hard pressed by those dissatisfied with his performance. On September 17, Congress voted to investigate his department, and four days later Mease tendered his resignation. This was implicitly accepted on October 9, when Mease was ordered pre-emptorily to cease purchasing. The business of clothing the Continental Army was now turned over entirely and officially to the states, although later the Board of War would assume a supervisory role. In a massive reorganization of the system

in March of 1779, Congress once again ventured to appoint a Clothier General.[22] Although augmented substantially by importation and improvements in the purchasing system, the army received highly erratic clothing issuances throughout the remaining active years of the war. A wholly satisfactory arrangement was never achieved, and was only approached after 1781.

Following his resignation, James Mease retired to private mercantile ventures. The firm in which he was partner, Mease & Caldwell, continued at 536 Front Street, Philadelphia, until 1785, when it appears to have been dissolved. Mease made out his will in anticipation of death on the fifth of July of that year. Absent from nearly all of the published chronicles of the Revolution, his name slipped quietly into oblivion.[23]

In 1777 and 1778, the success of any one of the departments serving the army depended directly upon the integrity, energy, and influence of the department head. James Mease was not adequate to the admittedly herculean task before him. He was however, the victim of a number of daunting and perhaps insurmountable obstacles. Thwarted by the almost total curtailment of regular shipments of clothing and fabrics from abroad, he was unprepared for the logistical problems inherent in shipping such materials overland from New England, where they were demonstrably more abundant. Congress refused to reimburse

him with funds for future purchases until he had submitted returns demonstrating clothing issued. This meant, in effect, that he had to issue clothing before he could contract for future supplies, and the procedure created a substantial lag in the entire financial mechanism. The rationale supporting Congress' recommendation to place the burden of clothing the troops once again upon the states is easily discernable. By then it must have become unavoidably clear that Mease was having a very difficult time providing the vast sums of clothing required by the army. Calling upon the states would engage far-flung manufacturing, commerical, and domestic sources inaccessible to Mease. Unfortunately Congress, which until the passage of the Articles of Confederation in 1781 governed only by consent, could not phrase the resolution in any form other than a recommendation. Some time was then required for even the most conscientious of state governments to organize their collection and purchasing departments, and this lag accounts in part for the desperate condition of the troops in the early months of 1778. The lag was further attenuated by the hazards of winter transportation and the disintegration of the Quarter Master's logistical system in January, February, and March. Even as the clothing programs got underway, there were gaping inconsistencies in the levels of success achieved by the various states. Connecticut stood alone as a paragon of efficiency, whereas the feeble ministrations of New Hampshire and Massachusetts

earned the repeated censure of Washington and his brigadiers and colonels.

Despite the drastic reduction of imports occasioned by the opening of hostilities, shortages resulting from this should have been surmontable. Although demand in quarters near the army created local shortages and aggravated price levels, New England and the Middle States produced quantities of homespuns, and imports had not altogether ceased. It is unlikely that the coercive and punitive seizures of clothing embarked upon by Pennsylvania and New Jersey resulted in collections of any quantity, and these may well have discouraged the domestic production of home-spuns which could have been a substantial auxiliary source of materials.

The difficulties encountered in clothing so vast a number of men demonstrate the overwhelming organizational complexity inherent in relying upon such disparate sources. Like Commissary General Buchanan, James Mease had an inclination to ignore New England, one of the most important sources of woolen cloth of domestic manufacture. It was not until late spring that he moved to purchase the substantial quantities of materials accumulating from a variety of sources in Boston, and this was only after Washington had brought these quantities to the attention of Congress. The ability to organize a vast network of commercial interests was beyond Mease, but he was not aided by the inability of Congress to coerce the states.

In suggesting the causes of failure, one cannot ignore the perpetual charges of corruption and peculation levelled at nearly all of the support services. As these did not result, however, in formal charges or public recrimination, it is very difficult to discern specific instances of malfeasance. Whatever its extent, the single most pervasive cause of the clothing fiasco seems to have been a general inability to anticipate and make provision for the massive quantities of clothing and materials consumed by an army that campaigned into the winter and was then exposed to the unparalleled rigors of cantoning in the field. A crucial element of this involved proper transport, and Mease was apparently disinterested in logistical efficiency. His inability to move clothing and materials from New England and the South, as necessity demanded in 1777-1778, was the principal cause of his unsatisfactory performance as Clothier General.

PART III - THE MILITARY STORES



Major General Robert Rogers — C. W. Peale

Courtesy of Independence National Historical Park

I "...A VERY RESPECTABLE TRAIN..."

If the operations of the Commissary and Clothier's Departments have been shrouded in obscurity, the Revolutionary Department of Military Stores has been completely engulfed by it. No monograph, nor even an extensive article on this crucial service has appeared. Louis C. Hatch's 1904 study, The Administration of the American Revolutionary Army, does not so much as mention the Department of Military Stores, yet ordnance, small arms, ammunition, and accoutrements were certainly essential to the prosecution of the war. The historiographical neglect of this aspect of military administration is as puzzling as it is peculiar. It is possible that the department has attracted such sparse attention because to all casual appearances its workings seem to have been relatively tranquil. Most of its officials were for the most part plodding rather than colorful, and were content to subside into obscurity without leaving a documentary legacy of any arresting consequence. For the active years of the war, the Department of Military Stores was under the direction of a single

man, Colonel Benjamin Flower. No political turbulence unseated him, no accusations of malfeasance were sufficiently well-grounded to remove him from his post. Flower appears to have served as faithfully and as well as the circumstances of war would permit, until death relieved him of office in April, 1781.[1] Flower's department, however, was not without its own species of administrative upheaval. During the Valley Forge winter, as the artificers, laboratories, and manufacturers of arms and ordnance strove to prepare for the spring campaign, the Department of Military Stores was hard pressed and suffering from geographic dislocation. Acute shortages of arms and accoutrements beset the army as late as June, 1778, constituting a potentially disastrous aspect of the supply crisis of the winter of 1777-1778.

Late in 1776, the pressing necessity for a proper organization to manufacture, purchase, and repair military stores provoked Washington to press Congress for leave to make some suitable appointments in that line. In January 1777, when the army was scattered in the Morristown, New Jersey vicinity, Washington appointed Benjamin Flower to the newly instituted office of Commissary General of Military Stores. Simultaneously, he was awarded the Colonelcy of a regiment of Artillery Artificers, which he was directed to raise. Flower had been Commissary of Military Stores to the Flying Camp since July 6, 1776.

The Department of Military Stores engaged from early on the expertise of a diverse collection of Philadelphia artisans and manufacturers.

While the Commissary and Clothier's departments of necessity employed merchants, the Military Stores arena demanded the ministrations of skilled artisans and tradesmen. Man and task, however, were not always matched with consummate logic. Flower, for instance was a Philadelphia hatter, who perhaps had engaged in some minor mercantile activities. He was not, it would appear, a "society" tradesman, but advertised in 1774 for the custom of "Country Store-keepers, Shallop-men, Waggoners, and others...."[2] As a tradesman and native manufacturer, it is likely that Flower found nonimportation to be in his interest, although there is no evidence that he was prominently active in revolutionary politics. By June, 1776, he was secretary to the First Battalion of Philadelphia Associators. How he managed to capture the appointment as Commissary of Military Stores is not known, but he typified the pattern of involvement of small Philadelphia tradesmen and artisans in the Military Stores Department from early in the war.[3]

Flower, who was only about thirty years of age in 1778, suffered repeated bouts of severe ill-health throughout his period of service until his death in 1781. It is tempting to suggest that he had been incapacitated by the toxic substances, particularly mercury, used in hat-making, although this is by no means certain.

A principal task assigned to Flower by Washington in January, 1777, was an order to establish a substantial artificers'

shop in Pennsylvania, to be manned with forty-nine carpenters, forty blacksmiths, twenty wheelwrights, tinsmiths, turners, and harness makers. Flower also directed to set up a laboratory for the manufacture of ammunition and employ a company of artificers to serve in the field with the Continental Artillery regiments.[4]

Benjamin Flower's dual appointment as Commissary General of Military Stores and Colonel of the regiment of Artillery Artificers placed him in an ambiguous command situation. In the former appointment he was wholly under the command of the Board of War and Ordnance. As Colonel of the Artificers, however, he was an officer in the Continental Army and responsible to General Henry Knox and ultimately to Washington.[5]

Lines of authority concerning the Department of Military Stores are difficult to define, and become more so after the resuscitation of the Quarter Master's Department in March of 1778. Benjamin Flower and his deputies remained under the direct supervision of the Board of War. Attached to the Quarter Master's Department, however, was a Deputy Quarter Master for Military Equipage who was solely responsible to the Quarter Master General. Quarter Master General Thomas Mifflin had appointed Anthony Butler to this post, and he retained it through most of the Valley Forge winter. After Nathanael Greene assumed the office of Quarter Master General on the first of March, 1778, he found Butler's performance to be unsatisfactory, and replaced him with another Deputy Quarter Master, James Abeel. From

that point on, the Quarter Master's Department began to accrete some tasks which normally would have been the responsibility of the Department of Military Stores. While Flower and his deputies concentrated principally on the purchase, repair, and manufacture of small arms, ordnance, ammunition, and accoutrements, Butler and later Abeel specialized in repairing and procuring tents, knapsacks, haversacks, canteens, portmanteaux, camp kettles, harness, saddlery, and wagon traces. This distinction was far from rigid, however, as Abeel supplied some guns for the Continental Dragoons, and the Department of Military Stores was also supplying canteens and knapsacks. Greene relied upon Robert L. Hooper and Moore Furman, Deputy Quarter Masters at Easton and in New Jersey respectively, to supply a variety of essential equipage.

The location settled upon for the principal Continental Works west of the Hudson was Carlisle, Pennsylvania. Springfield, Massachusetts continued as the principal armory in the "eastern," or New England states. Flower was empowered to appoint superintendents at various smaller stores and magazines, and he began to fill posts shortly after his appointment in January, 1777. Major Jonathan Gostelowe took charge of infantry stores, and after the British occupation of Philadelphia in September, 1777, his stores were located principally at Allentown, Pennsylvania. Joseph Watkins was appointed Commissary of Ordnance Stores, and his location from late 1777 was at Lebanon. Samuel Sargeant was

given custody of the Continental Works at Carlisle, and Samuel French was appointed Commissary of Military Stores with the army.[6]

This roster indicates that Flower had recruited at least in part from the ranks of Philadelphia artisans and tradesmen to fill the posts. Of Samuel Sargeant and Sammuel French little is currently known, but Jonathan Gastelowe and Joseph Watkins are not so elusive. Gostelowe was, of course, one of Philadelphia's leading cabinetmakers. He had a yen for military service as well as for clubs and politics, and retained his commission as Commissary of Military Stores until 1783, apparently to the satisfaction of his various superiors.[7]

Joseph Watkins was the son of a Philadelphia carpenter of the same name who died in 1776, and possibly he carried on in the craft. It was probably Watkins, Jr., who was elected a member of the Philadelphia Committee of Safety, 23 August 1775. Watkins, who Flower placed in charge of the magazines in Philadelphia following the British evacuation, resigned in early 1779.[8]

Although Pennsylvania's Commissary of Military Stores, Robert Towers, was not part of the Continental establishment, he should be mentioned in connection with this group. Towers, who had a son by the same name with whom he is easily confused, was a "skinner" (a dealer in pelts and hides), from Philadelphia, to whom the Council of Safety gave custody of state-owned

military stores in the city.[9] (These were located at a specially constructed magazine in what is now Franklin Square, at Carpenter's Hall, and sundry other storage facilities.)

In March of 1777, Benjamin Flower received $100,000 from Congress to purchase supplies, construct buildings, and contract for services for his department. It became obvious that he would have to open a set of books, and that he needed an assistant to handle finances while he supervised the multifarious tasks assigned his department. On the recommendation of the old Pennsylvania Council of Safety, the predecessor of Pennsylvania's Supreme Executive Council, Flower hired Cornelius Sweers as assistant to handle his books. It was a decision which Flower would keenly regret.[10]

Through the summer of 1777 work proceeded on the Continental Manufactory at Carlisle. Flower's men built a lime kiln, made their own bricks, and quarried stone to build the structures to house their work. To reduce costs, Flower employed Hessian prisoners of war as laborers.[11] His Deputies, however, working in the unfamiliar environs of interior Pennsylvania, faced a multitude of difficulties despite the availability of cheap labor. Flower later commented:

> The officers appointed to do the duty of the different Departments met with almost every difficulty that Avarice and ill-nature could produce together with being in a strange Country, with great difficulty materials were procured and their prices rising in proportion to our Demands....12

Work nevertheless proceeded at a satisfactory pace, and when the Treasury Board auditors looked at his books in August, 1777, Flower was relieved to learn that they found everything to be in order.[13] He had very little time to enjoy this evidence of success, however, before a crisis of the first magnitude was upon him.

On September 5, Congress alerted Flower to be ready at a moment's notice to evacuate the military stores housed in the city of Philadelphia. Robert Towers, Commissary of Military Stores for the Supreme Executive Council and operating from an office on 3rd Street, had substantial quantities of stores on hand there, or nearby. They included rifles, cutlasses, hand barrows, clock weights (collected presumably for the lead content), 24,700 flints, axes, shovels, sulpher, prepared paper cartridges for artillery, portfire sticks, and 250,000 musket cartridges.[14] (For the complete list see Appendix D.) The obvious avenue of escape into western Pennsylvania was blocked when on September 16, Sir William Howe followed his success at Brandywine by leading his army due north. Washington evaded Howe's apparent intention to cut off his access to interior Pennsylvania by crossing the Schuylkill and moving toward the Perkiomen Creek. Howe continued to cut west of Philadelphia, and having successfully separated Washington from the capital, crossed the Schuylkill at Valley Forge and approached Philadelphia from the north, via Norristown and Germantown. From the time that Howe had moved north from

Brandywine, the route into western Pennsylvania was first perilous, then impossible for the transfer of military stores. Some time during the ten days prior to the British occupation of Philadelphia on the twenty-sixth of September, Towers turned over the stores to his assistant Robert Stiles, who moved them by water up the Delaware to Trenton. It was not the choicest of locations, but it was the best that could be done under the circumstances. The move itself must have been something of a frantic undertaking. The eighteenth, nineteenth, and twentieth of September witnessed chaotic commotion within the city, as every available wagon was engaged to evacuate public stores, together with those citizens who chose to flee the city, now certain to fall to Howe. Robert Stiles was still delivering out military stores to militia and regular army units as late as September 22 from the 3rd Street office. The Philadelphia artillery received six and nine pounder paper cartridges. Twelve and three pounder cartridges were issued to guns stationed at the Middle Ferry. General Sullivan's brigade was sent 4,332 musket cartridges, and more cartridges were issued to various militia units. (All of the receipts bear the date of September 22.) By the twenty-third, an expectant quiet had fallen over the streets. Lord Cornwallis entered the city on the twenty-sixth.[15]

The exposed position of Trenton induced Washington to order both Flower and Quarter Master General Mifflin to remove all of the Quarter Master's and Military Stores from New Jersey to Allentown, Pennsylvania. The confused exodus therefore continued,

with materials scattering about the countryside. Eventually the artificers were able to roost at Allentown, and they set to work repairing arms and manufacturing cartridges. By this time, however, the stores were in a near-hopeless state of confusion, as no one seemed to know what belonged to the Continental Army and what was the property of the State of Pennsylvania. As Flower later explained to Thomas Wharton, President of Pennsylvania's Supreme Executive Council, "...since the removal from Phila., all our stores have got mix'd in such a manner that a distinction became very difficult and I believe impossible."[16] This unavoidable confusion was the basis for some of the convoluted arrangements which later developed between the army and the State of Pennsylvania with regard to arms and ammunition.

What happened to the stores in Philadelphia? Certainly some or most of them reached Trenton, but some items on Towers' return of August 23 seem to have disappeared permanently from sight. The naval cutlasses, for instance, turn up later on at Allentown, but many other items, especially the bulk of the 250,000 musket cartridges, appear not to have arrived at the prescribed destination, and were perhaps issued to regular and militia units. Some of the material may have found its way directly to the army, but it is possible that some of the bulkier items met their end at the bottom of the Delaware during the frenetic days of the evacuation. Allentown nevertheless received a sizable influx of all sorts of military paraphernalia during the month of

October. Some of this came from Philadelphia, and other items arrived from New Jersey, including arms and equipment captured from the Hessian troops at Trenton the previous December.[17]

Despite the upheaval occasioned by the British invasion of Pennsylvania, Washington's supply of arms, ammunition, and military equipage was adequate during the autumn campaign of 1777. Committee of Safety muskets, manufactured under contracts let by the various states, were gradually being replaced with new French government "Charleville" muskets, of a far superior design. Between April and November 1777, ten ships arrived from France bearing quantities of these fine quality .69 caliber muskets. Although their numbers were not yet sufficient to supplant entirely the English muskets, Committee of Safety arms, and muskets imported from Holland, they were finding their way into the magazines in increasing quantity. Between October 1 and November 1, 1777, 4,279 of the new French muskets were received from New England into the stores at Allentown, along with 643 new Dutch shoulder arms. The dragoons, however, were not nearly so well supplied as the infantry, as proper sabers, carbines, and horse pistols were in perennially short supply. There is, nevertheless, no indication that Washington experienced a critical or extended shortage of ammunition during the autumn campaign of 1777, such as had beset him outside of Boston in August of 1775.[18]

Under the energetic management of Brigadier General Henry Knox, the Artillery branch of the army had assumed, by mid-1775,

great utility. In July of that year, Sir William Howe had reported to Lord George Germain that "...the War is now upon a far different Scale with Respect to the encreased Powers & Strength of the Enemy than it was last Campaign."[19] He pointed in particular to the arrival of French officers and the accumulation of "...a very respectably Train of Field Artillery..."[20] as the principal causes of this escalation. Howe estimated at that time that Washington had fifty pieces of brass ordnance with him in New Jersey. While this observation was calculated to persuade Germain to send reinforcements, there is no doubt that Washington had gathered a fairly impressive array of field pieces. While Washington had not quite fifty guns, (he had thirty-nine in November), he had enough to induce Howe to take notice of this increasingly effective branch.[21]

From a contemporary point of view it is difficult to imagine how thirty-nine guns, most of them of rather small caliber, could be considered formidable. It would, however, be useful to remember that there was not much precedence for the use of heavy artillery in the British Colonies of North America. So, too, the tactical use of artillery in the field was very different from what it would become in the nineteenth century. The great, heavy twelves of the Napoleonic era were yet to claim their ascendency in the field. The backbone of the field artillery of the Continental Army was composed of "brass," (actually bronze), six-pounders. Washington has twenty-six of them in his train in

late 1777. Lithesome three-pounders, capable of being hauled by a single horse and affectionately called "grasshoppers," were favored by the light infantry and militia. When General Burgoyne invaded northern New York in 1777, he had with him what was considered a devastatingly formidable artillery train, and it proved far too cumbersome for the terrain he encountered. It consisted of forty-three brass guns, and he lost all of them upon his surrender at Saratoga. The Continental Artillery found itself fortuitously augmented by the addition of two eight-inch howitzers, eleven three-pounders, twenty-two six-pounders, six twelve-pounders, and two superb twenty-fours. It was a handsome gift from the Royal Board of Ordnance.[22]

The artilleryman's profession, like that of the field engineer, was one of highly specialized knowledge, and the artillery regiments in any eighteenth-century army usually were considered to be a professional, although not a social, elite. Something of this feeling of esprit developed within the four artillery regiments of Continental Army, despite the fact that, as was common in the era, the units were broken up to serve in support of infantry regiments in time of battle. There still hung about the profession, even into the mid-to-late eighteenth century, a faint aura of necromancy that had a good deal to do with the arcane pyrotechnical skills required. The service of an artillery piece, which would be simplified somewhat in the nineteenth century, was still a rather complicated and formal affair.[23]

The business of gathering a "very respectable train" had not, however, been accomplished with any degree of ease. Some of the guns in use were imported, and some captured, and a good many experiments with domestic manufacture had resulted in time-consuming, costly, and injurious failure. The United States had been experimenting almost from the outbreak of hostilities with casting ordnance. This was a complex undertaking requiring highly developed technical expertise, and few native Americans had much practical experience with gun-founding. Early contracts for the casting of iron ordnance were entered into by the Cannon Committee of Congress, and initial efforts were predictably disastrous. Some of these early contracts were never committed to paper. In 1777, the business of the Cannon Committee was transferred to the Board of War and Ordnance, and in September of that year Robert Treat Paine attempted to unravel the entangled dealings of the committee, without much appreciable success. He discovered that the committee had engaged in a verbal contract with Mark Bird of the Hopewell Furnance to supply seventy-six twelve-pounders, twenty nine-pounders and twenty four-pounders, all to be delivered at Philadelphia, for which he was to be paid forty pounds per ton. This contract was entered into in 1776, but Paine was unable to determine how many guns had been delivered. Some of the guns had been issued by the Navy Board to be mounted in frigates, and had apparently burst upon prooving. (It is not known if Bird was casting ordnance

also for the military service.) Colonel Grubb had undertaken to cast cannon, but again Paine could not determine the number he had actually supplied. Daniel Joy was under contract, as were Daniel and Samuel Hughes, who had undertaken in July of 1776 to cast 1,000 tons of cannon. A good deal of this ordnance was apparently designed for naval use.[24] Daniel Joy not only cast ordnance, but also in early 1778 was employed proving and invoicing bombshells cast at the Berkshire Furnace. In 1776 he had tested 150 cannon cast at Hopewell, at the request of the Cannon Committee. Not one of them stood proof. Apparently brass ordnance was also being cast at Hopewell, for Joy asserted to Congress that neither the iron nor the brass guns were sound until his advice on casting was acted upon. The Hughes experiment was rather less successful, at least initially. They had a forge at Antietam, Maryland, and employed George Mathews as gun founder. Four out of the five cannon cast by Mathews blew up upon testing, the last one killing the unfortunate gun founder. The forge later went on to produce serviceable guns.[25]

By means of importation, capture, and trial-by-error founding work the United States managed by late 1777 to collect a sizeable and effective pool of ordnance. In the supply of small arms and accoutrements, however, periodic shortages through the late autumn and winter of 1777-1778 heralded the headlong drive for arms and equipage which would occur in the spring of 1778.

Cartridge boxes, like any variety of heavily used leather

equipage, tended to wear out and to become damaged and lost in battle. Following the battle of Germantown, Washington discovered that the army was in the "greatest want" of them, not only for the use of the militia but for the Continentals as well. The dearth was sufficiently serious to induce Washington to order Brigadier General Woodford to collect what numbers he could find in the stores and from the sick and wounded in the hospital at Bethlehem, and to send them on to the army. Shot pouches and powderhorns suitable for the use of the militia were also to be brought forward.[26] As was commonly the case, the militiamen who served through the autumn with the Continentals, suffered chronically from insufficient equipage. Pennsylvania's efforts to redress this shortage were not universally crowned with success, despite the fact that the state harbored a burgeoning rifle-making industry. After the British seizure of Philadelphia, Continental stores were interchanged rather casually with those belonging to Pennsylvania, with the result that Pennsylvania arms often found their way into Continental service. In the spring of 1778, the exchange was formalized, to a degree, when muskets belonging to the State of Pennsylvania were used by the Contiental army, and it is of interest to note what steps the state had taken to procure shoulder arms and bayonets.

In March of 1776, the old Committee of Safety appointed Peter Dehaven, gun-maker from Philadelphia, and Benjamin Rittenhouse to establish a state gun-lock factory. The facility,

which was set up in the autumn of 1776, eventually extended its operation to the manufacture of entire muskets. (The factory was located on Cherry Alley, Philadelphia, and later at French Creek.) After the Battle of Brandywine, when Howe moved north to the west of Philadelphia, Dehaven became understandably alarmed about the safety of his operation. Reporting his concern to the Supreme Executive Council on September 10, he noted that he had received information that British troops had been sighted four miles from Downingtown, and he requested a guard to protect his diminutive French Creek manufactory. The Council thought it a better idea to move the entire operation, and at their direction Dehaven transferred the men and equipment to Hummelstown. The enterprise apparently did not thrive at this location, and the men became unhappy because of the geographic isolation and the increasingly high cost of living.[27] At the end of October the Supreme Exeuctive Council received a petition from ten gun stockers at Hummelstown. While at French Creek they had petitioned to have their pay raised from ten to fifteen shillings per gun stock, but the disruptions since Brandywine diverted the Council from considering their plea. The workmen found provisions to be even more expensive at Hummelstown than they had been at French Creek. Dehaven and Rittenhouse had promised them interim pay while the factory was being moved, but the stockers had not received it. The gun stockers complained that the men employed at the Continental Works (apparently meaning those at Carlisle),

received regular pay and rations. The Council probably found some way to render satisfaction, for the factory continued at Hummelstown and there is no record that further petitions were received.[28]

The State gun factory probably employed thirty or more men, yet even an operation such as this one could not produce arms at anywhere near the pace achieved in the nineteenth century, resulting from the use of standardized parts. The manufacture of each lock, barrel, and stock was a product of individual workmanship, and the resulting muskets were probably rather crude productions in comparison with British and French pattern pieces. (There is no indication that the workers at the state gun factory were producing rifles.) Thus their rate of production was rather slow. At the end of November the Council queried Dehaven on how many arms he had available, and he reported that about twenty-eight would be finished shortly.[29] It is impossible to estimate his weekly production, but it could not have been helped by the dissatisfaction current among his men.

Much of Pennsylvania's military equipage was stored at Allentown in the Autumn of 1777, and this apparently became Robert Towers' base of operations. Pennsylvania-owned stores received at that location between October 15 and December 4 included over 800 muskets and bayonets. Of these 296 muskets, 341 bayonets, and 349 scabbards were delivered out, presumably to the militia.[30] During the autumn, the Pennsylvania

militia was particularly active as a result of the British invasion. In mid-October, the Board of War proposed that Pennsylvania undertake widespread, punitive seizures of clothing, supplies and arms directed against the disaffected in Chester and neighboring counties. Although the Supreme Executive Council complied readily with the plan, the measure appears to have been considered more of a disciplinary gesture than a method whereby the state and Continental stores could be substantially augmented.[31]

During November the contribution of the Pennsylvania militia was diminished by a shortage of arms. Jacob Morgan, for instance, had been ordered to call out the militia in the Reading vicinity so that they might join with the main army. Morgan reported that two contingents were already at camp, and that they had consumed nearly all of the equipage available in his county. Morgan could arm and equip two companies, but the remainder of the men were loath to go to camp without the proper arms and accoutrements.[32] On the twenty-third of November, 2,400 Pennsylvania militiamen were in the field, 100 of them serving without arms. In order to offset the dearth, firearms were being repaired as rapidly as possible by armorer William Henry at Allentown.[33] The difficulty the state encountered in supplying sufficient arms and equipment in the autumn and winter can be explained in part by a practice that developed in the regular army of retaining militia arms at camp and sending the

men home at the end of their period of service without their guns. This procedure produced an unremitting drain on the state's military supplies.[34]

Despite the dislocation of the military supply system resulting from the British invasion and seizure of Philadelphia, Washington does not appear to have suffered from an acute ammunition shortage during November and December. General Orders, however, reflect his recurring concern that ammunition not be wasted. At the end of October Timothy Pickering, serving on the Board of War, issued an order reminding the officers to see to it that arms in their units be put in proper order. Damp cartridges, (there had been torrential rains in October), were to be dried out and remade.[35] A similar order was issued by Washington at the end of November, stating that charges were to be drawn from the weapons. If this proved impossible, the fire-arms were to be discharged into a bank of earth at 11 A.M. on the first clear day, in order to conserve lead. The order demonstrates that it was the practice to allow guns to remain loaded with highly corrosive powder for days, even weeks at a time, and that withdrawing balls with a "worm" became difficult, if not impossible.[36]

As the army approached Valley Forge, and the inadequate performance of the Commissary and Clothier's departments was ever more evident, the supply of arms, equipage, and ammunition appears to have been the least of the difficulties besetting Washington's troops.

II "GENTLEMEN ARTIFICERS"

When the army had arrived at Valley Forge and had set about making quarters, Washington commenced immediately to plan for the spring campaign. At the end of December he was heartened to learn of a late arrival from France. The ship Flamond had arrived at Portsmouth laden with a trove of supplies. On Christmas day Washington wrote to Governor Caswell of North Carolina reporting that the ship had come from Marseilles, and carried forty-eight four-pound balls, nine tons of powder, 61,051 pounds of sulphur, and 2,500 nine-inch shells. This was one of the last covert shipments before the ratification of the alliance between the United States and France, and it augmented the American pool of ordnance by better than one-third.[1]

One of Washington's principal concerns in providing for the spring campaign was to ensure that the Artillery regiments would be in a state of readiness, and he had it clearly in mind to strengthen this branch still further. Knox prepared an estimated return for horses required to haul his guns, ammunition,

and baggage wagons, and it disclosed that he expected the whole of the army to take into the field 106 pieces, fifty-three ammunition wagons and sixty spare wagons. The guns would require four horses each, the ammunition wagons five, and the spare wagons six. By this it is clear that Knox meant to double the force of artillery that he had employed in the field in 1777. On December 29, ten days after the arrival of the Army at Valley Forge, General Knox presented his recommendations concerning the management of Ordnance stores and personnel to Washington. It was his opinion that the laboratories at Carlisle and Springfield be augmented to 100 men each. The artificers working at these locations, Knox suggested, should be treated as infantrymen, with regular pay, rations, and terms of enlistment.[2]

On January 8, Washington responded with a set of detailed instructions bearing not only on ordnance but on military stores generally. These demonstrate that Washington was using Knox to supervise and report on some matters which, strictly speaking, were the concerns of the Board of War and the Department of Military Stores. He would rely increasingly on Knox to report on the geographical distribution of small arms and to garner together stores in New England. After events in December and January proved conclusively that Washington had no friends on the Board of War, he would never be content to leave so important a matter as military stores solely in the hands of men he profoundly mistrusted. In employing Knox, however, to supervise

the collection and shipment of certain military stores, Washington was bound to act with some discretion.

Instructing Knox on the matter of the Artillery Artificers, Washington agreed that experience had disclosed that their periods of enlistment were too short to allow the body of men any real cohesion. As a result he wanted new recruits to be enlisted for the duration of the war, or so long as Congress required their services. To man fully the laboratories at Carlisle and Springfield, Knox was directed to enlist 100 new artificers for each.[3]

Washington directed Knox to consolidate the stores at principal magazines in Carlisle, Lebanon, and Springfield. Artillery stores not immediately required at camp were to be stored at Lebanon, or at some intermediate location between Lebanon and the army. The place eventually selected for this purpose was Rhiemstown, situated nearly halfway between Lancaster and Reading. Rhiemstown would become the principal magazine for spare infantry and ordnance stores not of immediate use to the army. It could be reached by a good set of roads which followed the Schuylkill in its northwesterly course to a point south of Potts Grove (Pottstown), and then cut along due west to the main artery between Ephrata and Reading, on which Rhiemstown was located.[4] Washington's instructions were accompanied by the explicit requirement that the Board of War be informed of all arrangements made by Knox, so that no conflicting instructions

regarding military stores would ensue. Washington suspected that work at Lebanon might proceed too slowly, and provided for the likelihood by suggesting that materials for manufacturing cartridges might be transported to camp, where each regiment could prepare its own ammunition.

Knox and Washington certainly had given careful consideration to the strategic location of ordnance, and at even this early date they determined to concentrate most of the available field artillery with the main army during the spring of 1778. There would be very few guns allocated to troops stationed to the northward, save those required to stiffen the defense of the Hudson Highlands. It is possible that Washington meant to move the artillery southward by easy stages so as not to alarm the Board of War. Knox was directed to bring on all the recently arrived artillery at Portsmouth to Carlisle. The ordnance at Albany, which now included the welcome addition of Burgoyne's brass guns, would come down to Pennsylvania to be stored at Lebanon or at another suitable location. Knox was to enlist sufficient artillery wagoners for the duration of the war, on terms as offered by the Quarter Master's Department to wagoners in that branch. The four artillery "battalions," or regiments, of the Continental Army, were to be augmented by fully a third to a total of 2,880 men.

The scope of Washington's instructions to Knox extended into the territory of the Department of Military Stores, as Washington

directed him to see to it that all disabled firearms be collected and repaired, and that a traveling forge be provided for each division of the army. From the strategic level of artillery dispersal down to the details of arms repair, Washington bore down on husbanding sufficient military supplies for the spring. He directed Knox to procure sufficient screws, or "worms" for drawing balls so as to eliminate the wasteful and ill-disciplined firing of muskets in camp. Later in January, Washington continued to support Knox's expanded role by ordering him to take charge of substantial numbers of firearms which had arrived in the eastern ports from France. These were to be distributed to the various magazines west of the Delaware and put in order for spring, so that they might be doled out to new levies. Upon reconsideration, he now wanted a traveling forge to be allocated to each brigade, rather than to each division. [5]

Knox's extensive involvement in the preparation of military stores probably proceeded from two causes. As already stated, whatever confidence Washington had placed in the Board of War was quickly eroding as the hostility of Gates and Mifflin to his military preeminence became obvious. The management of the Department of Military Stores was also placed in jeopardy by the indisposition of Benjamin Flower, who was struck down by a virulent fever, or ailment, which nearly took his life and required an extended period of recuperation. His tasks, particularly in the area of transporting and repairing small arms, thus fell under Knox's supervision.

A consideration of the stores at camp, at the staging magazine at Rhiemstown, and at Carlisle during the month of January, 1778, discloses that although a great deal needed to be done before spring, the army was not bereft of stores. If Howe had sought to move against the army between January and April, Washington would have been in a very grave situation indeed, yet there were enough materials to supply patrols, pickets, and the several expeditionary detachments sent out during the winter and spring. During January, 77,537 musket cartridges were delivered out, either directly to the troops or to brigade and regimental stores, apparently to provide the men with full cartridge boxes. This left none, save 16,700 damaged cartridges, remaining in the store at camp, but almost 69,000 were on hand at Rhiemstown. In terms of the spring campaign, this was far from a lavish reserve, when one considers that 300,000 cartridges were required to supply each man in an army of 10,000 with thirty cartridges apiece. Other potential shortages, not so easily redressed as the cartridge dearth, constituted a more pressing concern. Supplies of bayonets, scabbards, and cartridges boxes remained dangerously low, and some mode of manufacturing and purchasing them had to be devised before the army took the field. The bayonet was indispensable as an offensive weapon, and could be used almost like a short pike by small detachments in repelling mounted troops. Although there were only 331 muskets at Rhiemstown, more were expected to be arriving from New England

in quantity. Almost all of the available artillery ammunition were in the four most common calibers: three-, four-, six-, and twelve-pounder loads, with the heaviest concentration in the six-pounder diameter. There were also some supplies for five and one-half inch and eight inch howitzers. Yet so long as supplies built steadily through the winter existing surpluses were adequate.[6]

A variety of methods were brought to bear on the more pressing shortage of bayonets and cartridge boxes. Although the full utility of the bayonet in battle was yet to be impressed upon the officers and soldiery by the enterprising Baron von Steuben, there was no question in Washington's mind about the absolute necessity of providing each soldier with a bayonet fitted to his shoulder arm. Successful performance on the battlefield demanded proficiency with the weapon. So too, the men must have proper receptacles to carry their cartridges and protect them from the weather. Acting on Washington's January orders, Knox had an advertisement placed in the Pennsylvaina Gazette. It appeared on February 7 and was directed "To all Gentlemen ARTIFICERS, who prefer LIBERTY to SLAVERY, and are hearty friends to the GRAND AMERICAN CAUSE." In the minds of some "gentleman" and "artificer" would have seemed to be mutually exclusive social orders. The advertisement appealed directly to the artisanal sense of self-respect, a recurrent theme of working-class support of the revolution in urban Philadelphia. Artisans were in exile from their urban shops, and

formed a labor pool of use to the Continental and state governments. The notice invited carpenters, blacksmiths, gunsmiths, locksmiths, and wheelwrights to apply to work at the Continental Works at Carlisle. Anyone wishing to enlist was to report to Jacob Gardiner at York, who would provide quarters. Artificers would receive thirty dollars per month and would be given a suit of clothing for bounty. The announcement stressed that the men to be of good character and accomplished in their trades.[7]

Washington was not content to rely, however, on the production of the Military Store Department to supply the demand for equipage. As in the case of cartridge production at Lebanon, he apparently distrusted the abilities of the Deputy Commissaries of Military Stores to produce the required equipage with any reliable rapidity. Washington ordered his brigadiers to consider the best method to produce both bayonets and spontoons for officers. (A matter which had disturbed Washington during the course of the autumn campaign was the use of firearms by the officers of the line. He was strongly of the opinion that operating a firelock reduced the officers' attentiveness to their men.) Just after the arrival at Valley Forge, he forbade the further use of firearms by officers and enjoined his brigadiers to meet at General Maxwell's quarters to design a halfpike to be carried by the line officers.[8] The pressing duties of setting up the encampment intervened, and Washington had to reiterate his order on January 17.[9] The council at length met and resolved to

have the Quarter Master General manufacture spontoons which were to be six and one-half-feet long, one and one-quarter-inch thick in the staff, with an iron blade no less than one foot long.[10] The brigadiers also addressed, rather casually, the matter of bayonets. They decided that the brigades should furnish their own armorers and tools, and manufacture the bayonets required by the brigade. An alternative solution was to contract for bayonets with the "Country Artificers," presumably meaning any manufacturers who could be found west of the camp. Obviously the arrangement was more than a little haphazard, and suggests that the manufacture of bayonets was not a principal concern among the brigadiers during January of 1778. (The men, apparently, did not have much use for the items either. General Arthur St. Clair estimated that nearly half of the troops had lost their bayonets during the autumn campaign.)[11]

Reduced to its essence, the decision of the brigadiers simply meant that each brigade would have to fend for itself in the matter of producing bayonets. As there was, at the time, no Quarter Master General, it is fairly clear that the same could be said of the manufacture of spontoons. At this juncture, the more enterprising of the brigadiers simply got to work making their own arrangements. The methods devised to procure these items demonstrates the ways in which the Continental Army employed the skills and entrepreneurial talents of its officers and men in such a manner as is only possible in a nonprofessional army.

On the day that the brigadiers met, General Jedediah Huntington, commanding the Connecticut Line, sent instructions home to Connecticut for the manufacture of bayonet scabbards to sheathe bayonets being made by armorers in the brigade. The scarcity of leather in Pennsylvania doubtless persuaded him that he had a much better chance of having the items made at home, and he sent his brother Andrew instructions to have 200 of the scabbards and bayonet belts made for blades" ... now making in my Brigade...".[12] The scabbards were to be sewn to the waist-belts. Huntington also ordered 100 cartridge boxes and 300 shot bags, "...the Boxes and the Bags should be made as Mr. Hide made his, to be unconnected with the Belts so as to be taken from them occasionaly - the Bayonets will all be of a length Mr. Peck has one for a Pattern-"[13] Huntington would try to procure hides at camp to be used in partial payment for the leather work. (This was not Huntington's first venture in procuring equipage personally for his troops. He had, at the end of December, asked his brother Andrew to have cartridge boxes and buckles made up in his native state.) [14]

While General Huntington had his own armorers at camp busy making bayonets, the New Jersey officers pursued another solution. Lt. Colonel Matthias Ogden of the 1st New Jersey Regiment was a trained armorer, and his divisional commander, Lord Stirling, sent him to a facility in Elizabethtown, New Jersey, to manufacture bayonets and scabbards. Ogden was mightily displeased

with this assignment, being sensitive to the fact that his absence from camp was exciting ridicule, but he persevered at his task well into April. He sent a sample bayonet belt and spontoon to Stirling, and his observations disclose the laborious nature of manufacturing such implements of war in the face of a dearth of the basic materials required. At the time he wrote to Stirling, Ogden had not quite finished some bayonets for want of smooth files, and he was unable to forward a completed sample. He nevertheless assured Stirling that his productions were superior to the British bayonets. He lacked emory for polishing and a crucible for casting buckles, bayonet hoops, and scabbard tips, but expected to have these articles within a few days. For oil to dress the leather, be boiled out bullocks' feet, to make neat's foot oil.[15]

Because of the chronic shortages of supplies, Washington was particularly attentive to the matter of wastage. He demanded that everything from muskets to small arms cartridges be repaired, remade, and properly stored for the winter. Although his wishes were sometimes very far from the result, a good deal of material was salvaged which might otherwise have been lost. At the end of December, Washington had directed Flower to place every available man to work on the repair of unserviceable muskets. Once the repairs were completed the guns were to be packed in chests and stored in secure places. He found it "...scarcely necessary to add..." that every effort be bent

toward repairing and making up sufficient cartridges for the next campaign.[16] Orders went out to the brigadiers to appoint officers to collect all extra cartridges from the regimental Quarter Masters, after it was ascertained that every man had a full cartridge box. The Commissary of Military Stores would provide paper so that the spare cartridges could be packed carefully in bundles to preserve them until spring.[17] A predictable incidence of unintentional loss, however, was almost inevitable. Astonishingly, no serious accident involving munitions occurred at Valley Forge during the winter, but militia General John Lacey, who operated through most of the winter in Bucks County, was not so fortunate. On January 24 he reported this disaster at his camp at Graham Park to President Wharton:

> An axident hapened in Camp this day by a number of Cartriges taken fire by axident, blew up and burnt five Men very badly, but I believe not Dangerous, they were sorting the Damaged Cartridges when they took fire, the Number lost, is computed to be about Six or Seven thousand, the Cartriges was in a tent, which blew up, and set fire to some Others which stood Near, and were all consumed with a number of Blankets and Cartridge Boxes in them, the numbers not Exactly known. 18

It must have been particularly chagrining for Lacey to have to report this incident, as the State of Pennsylvania faced chronic shortages of stores, and had frequently to call upon Continental sources of supply.

The winter and spring of 1778 brought recurring disturbances on Pennsylvania's frontiers, erupting in savage violence between indiscrete settlers and Indians whom the British were doing their

best to provoke. These would worsten in April and May, but even in December 1777 western militia units were reporting shortages of guns, powder, and flints. The Supreme Executive Council authorized an agent to proceed to Valley Forge late in December to collect whatever items he could from the Continental stores. He was keenly disappointed to find very little to draw upon. Despite the fact that Flower thought it only just that Pennsylvania be able to draw upon Continental arms and ammunition, he could only offer the state 300 pounds of powder and 2,000 flints. This he did without the prior consent of the Board of War, and he reminded President Wharton that all future requests would have to be channeled through that body. The supplies given over to Pennsylvania were so diminutive that Forage Master General Clement Biddle found it unnecessary to provide wagons to haul the materials away.[19]

The supply of raw materials necessary for the manufacture of equipage and munitions was a constant concern. While iron, sulpher, saltpeter, and flints were for the most part plentiful, leather and steel were not. Steel was of course essential for the manufacture of gun locks and barrels, and Congress was sufficiently sensitive to this to grant the Board of War some extraordinary powers. In mid-January, when Congress endowed the Board with far-ranging powers for contracting for flour for the army, they were also authorized and instructed to contract for steel. The matter was rather prickly, as the only iron deemed

suitable for making steel was produced at the Andover Works in New Jersey, and this concern belonged to a party who was considered to be somewhat lukewarm on the matter of the American cause. Colonel Flower was directed to apply to the New Jersey government for permission to install a suitable person at the iron works, apparently as owner, so that he might contract for iron to make steel. The Board was directed to write to the Governor of New Jersey to explain the pressing necessity of this extraordinary demand.[20] It was the intention of Congress to simply appropriate the Andover Iron Works to provide a reliable domestic source of steel.

A specialized problem in which Washington took personal interest was the manufacture of the expensive trappings required for the dragoons. Encouraged by Count Pulaski, Washington had entertained the idea of fashioning his dragoon units into an élite cadre of shock troops and employing them in the same tactical manner as Pulaski had used in eastern Europe. To this end he had sent them at the end of the campaign into relative isolation near Trenton, to re-equip and train for the expanded role he envisioned. His personal interest in securing solid mounts and good equipment for the dragoons led Washington into protracted correspondence with the various high-spirited native and foreign officers who had been attracted to this glamorous branch of the service, and who occasionally proved particularly intractable to command. In January, Washington's principal

concern was to find a location for the dragoons where they could rest, retrain, and find plentiful forage, but which was nevertheless not so populous as to tempt them to terrorize the inhabitants. He also took personal interest in seeing that they received sufficient sabres and carbines. Washington demanded and received regular reports from the dragoon officers who were charged with recruiting, purchasing mounts, and contracting for equipage, and he suggested to Count Pulaski that armorers at Easton might be employed to furnish arms to the troopers.[21] He was heartened to hear that a large shipment of carbines had arrived from France, but soon was disappointed to learn that the arms were too long for the dragoons to use conveniently.[22] Pulaski was designing a new saddle pattern, and Washington was anxious to submit it to the Congressional Committee on Conference which sat at Moore Hall, near Valley Forge, from the end of January. He urged Pulaski to have it sent to camp without delay.[23]

Washington had initated the new year with a clear determination to set about immediately filling magazines with arms, ammunition and equipage. He had succeeded to a degree in assuming some of the powers and prerogatives which, strictly speaking, would have fallen to the renascent Board of War. This was rendered possible by the illness of Benjamin Flower, which allowed Washington to assign certain tasks relative to military stores to Henry Knox, and probably also by the Board's

preoccupation with one of their principal assignments of January—the regulation of a new but short-lived, flour-producing system. Except for brief and isolated instances in which they periodically attempted to assert authority, the Board appears to have been acquiescent about letting Washington direct matters pertaining to ordnance and small arms. The Board nevertheless still controlled entirely the activities of the Deputy Commissaries of Military Stores, and they in turn would not be particularly generous in informing Washington of the quantities of stores available throughout the states. February, in any case, brought more immediate concerns, as the army was engulfed in the worst food shortage of the winter, the logistical system decayed, and the lack of clothing in camp rendered a substantial proportion of the army unfit for any sort of service. This had the effect of deferring the matter of arms and equipage to the late winter and spring.



Major General Nathanael Greene — U. S. Army

Courtesy of Independence National Historical Park

III SKIRMISHES WITH THE BOARD OF WAR

It was the end of February before Washington began to delve once again into the muddled affairs of the by now almost moribund Department of Military Stores. Knox had been packed off to New England to inspect ordnance stores and small arms. Flower had nearly succumbed to his violent fever, and little had been accomplished of those objectives Washington had painstakingly outlined in January.

The returns of military stores at camp and Rhiemstown for the month of February reveal little change from the previous period. Stores were certainly not accumulating in any quantity in camp and Rhiemstown, nor were substantial amounts being delivered out from either of these locations. Some issuances were made, principally of cartridges, bayonets, bayonet belts, cartridge boxes, and flints from the store at camp. Some of these had been sent on from Rhiemstown, with the result that supplies of these important items were now almost exhausted at both locations.[1]

The schedule that Washington had devised in January for bringing on ordnance to Pennsylvania had gone awry. Upon receipt of Washington's orders about bringing down the artillery from Albany, Knox had consulted Governor Clinton of New York on the best way to transport the pieces. Clinton made the entirely practical suggestion that the guns should remain at Albany until the ice on the Hudson broke up. They could then be floated down to New Windsor and brought from the post cross-country into Pennsylvania, saving 100 miles of laborious overland transportation. Knox, however, heard rumor of a plan, apparently initiated by the Board of War, to transport the pieces instead to Springfield, an objective which he judged "highly improper," as the bad roads and added miles would then delay their southward progress interminably.[2]

At the end of January, Knox had coursed through New England, investigating matters as disparate as the state of the arsenal at Springfield and the availability of clothing and materials at Boston. He had with some shock discovered that the rumor he had heard was not entirely unfounded, and that the Board of War had authorized the removal of twenty-five field pieces and two howitzers to Farmington, where they had already arrived. His letter reporting this development was delayed by the execrable roads, and took fully a month to arrive at Valley Forge. Washington was meanwhile under the apprehension that the artillery had remained at Albany, as he had never been informed otherwise by the Board of War.[3]

When Knox's communication at length arrived, Washington immediately queried the Board, expressing some surprise at not having been informed of this important decision. Carefully explaining the reasoning which had induced him to allow the artillery to remain at Albany until spring, he disclosed his intention of bringing the guns on to augment the ordnance attached to the main army. Washington stiffly inquired if the Board had some other objective in mind. If there was no such plan, he intended to give instructions immediately for the guns to be forwarded before the roads became impassable with mud in the spring.[4] Horatio Gates replied rather rather lamely that the move was initiated in order to move the guns to a safer location, but he did not quarrel with Washington's intention of bringing the guns on to Pennsylvania. The matter closed when Washington wrote to Gates saying that the move had been quite proper, and that he would have taken every safety precaution in escorting the guns through New Jersey when it was thought necessary to send for them.[5]

One can only speculate on the veiled motives behind this incident and the exchange it occasioned. Why did the Board of War transfer a substantial portion of the artillery captured from Burgoyne to Connecticut without informing Washington? Gates, who was serving as Chairman to the Board, certainly expected to take the field again in the ensuing campaign. It is possible that he was loath to turn over the artillery at Albany, which he

had triumphantly wrested from Burgoyne, to Washington, with whom he was at best on very strained terms. The removal of the artillery to Farmington was perhaps a maneuver to retain the pieces for his own command, should he reassume his post in the north, by rendering their transport to Pennsylvania prohibitively arduous. When Washington found him out, and challenged the Board to produce a strategic rationale for the move, Gates had no real choice but to accede. Once he had dealt successfully with the issue, Washington wisely let the matter drop. It became but another in the lengthening series of skirmishes between Washington and his persistent antagonists on the Board of War.

The food shortage, which struck the army during the second week of February and which provoked a threatened mutiny in the ranks, consumed Washington's attention until the latter part of the month. When the supply lines again were open he was free to entertain other, more long-range concerns. He became particularly anxious about the ability of the Military Stores Department to provide sufficient materials to last through the next season in the field. Henry Knox had some time before drawn up an estimate of the quantities of stores which would be required, and on February 23 Washington addressed the problem to the Board of War:

> I am extremely apprehensive that we shall suffer much, and have the operation of the Campaign greatly retarded and enfeebled, from a deficiency in some essential articles, unless the most strenuous exertions are employed to make the Ample provisions of which we shall stand in need. 6

He appealed to the Board to insure that such deficiencies would not impede his progress in the spring, but did not presume to make any specific suggestions about the management of the Military Stores Department.

Washington's anxiety was in part stimulated by his correspondence with Knox, who was the expert in his inner circle on matters of military supplies. Two days prior to writing the Board, he had written Knox, who was still in New England, requesting him to pay particular attention to thwarting waste of equipage and expressing doubt that sufficient cartridge boxes were being manufactured. Washington was impatient to have Knox return to camp, as he felt that Colonel Flower was not yet sufficiently recovered to look after his department.[7] His concern about Flower's health was well founded. By February 20, the Colonel had wobbled to his feet and had decided to proceed to Allentown to inspect the progress being made toward removing stores from thence to Lebanon, now the central location for infantry stores. Washington cautioned him that too much exertion might induce a relapse, but Flower was determined to take horse. According to a statement later penned by Flower, this resolve was dictated by a worrisome matter which he intended to take up with the Board of War at York.[8]

When Flower had been in the grips of his illness and was, in his own phrase, "not in my senses,"[9] the Board of War had appointed his financial assistant, Cornelius Sweers, to the office

of Assistant Commissary General of Military Stores. During the course of Flower's illness, this essentially meant that Sweers commanded the entire department. Flower was mildly perturbed to learn of the appointment, for as he later put it with the inestimable benefit of hindsight, "...Mr. Sweers was a local genius and not fond of Exercise, and therefore not fit for a Deputy-"[10] Flower, despite being discomfited, felt that he had more pressing duties to attend to than to complain about a less than suitable appointment, and he could find solace in the fact that the first auditing of Sweers' books had proceeded without incident.

Flower set out on a formidable tour of duty for a man who had so recently recovered from a near-fatal illness. He had many things to attend to which were long in arrears. Everything at Allentown was in a state of upheaval, as the magazine for infantry supplies was being concentrated at Lebanon. The Board of War had ordered Flower to purchase all the leather he could get his hands upon, and Sweers had gone off to York for cash. Flowers also had considerable difficulty in rounding up teams to send supplies from Lebanon to camp. Rather than proceeding to York as he had originally intended, Flower was compelled to set out for New Jersey to secure stores scattered about the countryside, to collect materials from galleys being dismantled on the Delaware, and to confer with the Jersey legislature (probably on the issue of the Andover Iron Works). Once he had

completed a sweep through New Jersey, Flower dashed back to Allentown, where he was disappointed to find that the transfer of stores was still proceeding sluggishly. He remained for a while to personally supervise the move, and at this time ordered Cornelius Sweers to prepare the departmental books for audit.[11]

On account of the indisposition of Flower and poor communications with Knox in New England, Washington was belabored to estimate the quantities of material upon which he could depend during the spring and summer. Here Knox's assistance was invaluable, and his trip to New England was of particular utility. A detailed letter from Knox arrived at Headquarters early in March, wherein he reported that he had found that the arsenals in Boston and Springfield held between 6,000 and 7,000 new French shoulder arms. He proposed sending 4,000 on to Pennsylvania, leaving the remainder to arm the recruits raising in New England. The arms seized from Burgoyne remained at Albany, save for 1,000 sent to Springfield for repair. Knox worried that lead and flints were becoming scarce, and wished to be allowed to order the purchase of all that could be found, even if this had to be accomplished at exorbitant cost. Knox also proposed sending sixty-three pieces of ordnance at Boston on to Pennsylvania. Meanwhile work at Springfield was being slowed by the scarcity of artificers wishing to enlist. Those whose terms of service had nearly expired scorned the offer of thirty dollars per month with a suit of

clothes for bounty. An added inducement, Knox speculated, of one and one half rations per day plus a gill or half pint of whiskey might set matters aright.[12]

Washington generally approved of Knox's proposals, but he wished him to send all the new arms to Pennsylvania, leaving only those which were absolutely essential in New England for arming the new levies. Knox was directed to give the strictest orders for the repair of older arms, as Washington predicted that if new recruits came on in the numbers he anticipated, every musket, old and new, would be called into service. He suspected that an expedition to Canada which had been proposed by the Board of War was now a moribund scheme, and he hoped that the arms at Albany could be brought southward. Knox was to press for the purchase of flints on the best possible terms, as once the acute need of the army became common knowledge prices would be certain to escalate. Once these tasks had been attended to, Knox was directed to report to camp, where he was sorely needed.[13]

While Washington, through Knox's personal investigations, had achieved some understanding and control over military stores in New England, he was still much in the dark concerning the stores on hand at the local magazines in Pennsylvania. Flower and his subordinates submitted regular returns to the Board of War, but it was not their usual practice to send copies to Washington, neither did the Board feel any compulsion to do so. (Flower sent

Washington a return from Allentown in February, but this was an isolated incident.)[14] Washington's earlier wish that the stores west of the Hudson be concentrated in Lebanon and Carlisle had hardly been met with energetic compliance. Stores at Bethlehem and Allentown were still being moved as late as March. On March 6, Washington appealed directly to the Board, relating that he had not recently received a return from the principal store at Carlisle and that therefore he could not fashion an accurate estimate of the number of arms he could count on being available for his troops and new recruits. He requested from the Board an abstract of all the most recent returns from the military stores throughout the states.[15]

A branch related but not attached to the Military Stores Department, and which was causing some concern, was the Armourer's Department. The appointment of the Public Armourer, whose task it was to supervise the repair and from time to time the manufacture of firearms and blades, was made by the Board of War. Thomas Butler (not to be confused with Deputy Quarter Master for Military Equipage Anthony Butler), held the office and operated workshops in Allentown. As the quantities of arms awaiting repair accumulated rather than diminished, Washington received discouraging reports relating to Butler's capacity for the appointment. In his March 6 missive to the Board, Washington commented, "...I am fearful that there is neglect in the Armourer's department, owing to the inactivity of the Person at the head of that branch, who I am told is almost superannuated."[16] Butler was replaced by

Pennsylvania gun maker William Henry on April 23, 1778.[17]

To the Board Washington opined that all available shoulder weapons would soon be required to arm the renascent army. Relating that he had ordered Knox to send on as many as could be procured in New England, he suggested that arms from as far south as Charleston should be sent northward. New recruits coming in from Virginia would very likely have insufficient arms and accoutrements. The Commissary General of Hides was at work tanning leather, but it would not become available until the autumn. To redress a forseeable shortage of cartridge boxes, he suggested two courses of action; importation, and trading the hides produced by the beef cattle consumed by the army to leather manufacturers in exchange for leather goods. He suggested strongly that the latter stratagem using so-called "contracts of exchange" was the best plan.[18]

At the middle of March Washington received a return of ordnance and military stores at Lebanon from superintendent Josiah Watkins. Watkins reported that the laboratory and furnace were now operating, and were turning out 6,000 musket cartridges and a ton of lead ball a day. More workmen were expected soon from Lancaster, and with his augmented force, Watkins suggested that he would be able to increase production substantially. He had already prepared 400,000 cartridges and 15,000 pounds of musket ball, and he was sending all of his cannon powder to the ordnance store at Carlisle.[19]

At length on March 13 the Board of War responded to Washington's request for a summary return of arms and equipage in the stores throughout the country. The figures represented were far from encouraging. There were only 6,323 bayonets and, more worrisome yet, 306 cartridge boxes in all of the magazines of the United States.[20] Washington shot back a bitter complaint to the Board, decrying the shocking deficiencies and enjoining them to waste no time in seeing that they were remedied. (He himself had taken steps to manufacture bayonets by employing armorers from the line.)[21]

Washington also addressed the Board on the matter of artillery distribution. They were apparently in agreement on using Carlisle and Springfield as the principal ordnance magazines, but Washington found that there was one prominent deficiency in the Continental Army's burgeoning train of ordnance. This was what was commonly referred to as a "battering train," a compliment of heavy guns and mortars suitable for seige operations. While he thought that most of these heavy pieces could be housed at Carlisle and Springfield, he wanted nine or ten of the nine-inch mortars (presumably those arrived from France), to travel with the army. He also wanted all small arms and tents concentrated at Carlisle. Knox was going to order the field artillery, heavy twelves and the twenty-four pounders which had remained at Albany and which were not required on the Hudson, to be sent to Carlisle, where they could be called upon by the army as needed.

"That place will then be the grand Arsenal of all Artillery and Stores on this side of Hudson's River, as Springfield will be of those on the East Side."[22] Washington was also ordering heavy cannon salvaged from naval vessels on the Delaware to be mounted on traveling carriages and sent westward. They amounted to about twelve eighteen and twenty-four-pounders, presumably iron.

It appears likely from this communication that Washington, despite paying lip-service to the "grand arsenal" at Springfield, intended to concentrate the preponderance of his military stores in interior Pennsylvania, at a location much more central in the states than Springfield, Massachusetts. At this time one of the options he was considering for opening the spring campaign was to lay siege to Philadelphia and pinch off the Delaware below the city, and this is reflected in his concern for battering ordnance.[23] Washington had now been operating consistently for the past year along a strategic line which ran from Head of Elk, Maryland to the Hudson Highlands, and his desire to place his principal stores to the rear of that line, rather than in relative isolation in Massachusetts, made good sense.

In March Washington still harbored high hopes for an expanded role for the dragoons in subsequent campaigns, and the profound disenchantment later prompted by the lassitude of many of the dragoon officers had not yet discouraged him from this objective. He thus was still intimately concerned with the difficulties some of the more assiduous officers experienced in

their search for proper arms and equipage. Casimir Pulaski resigned as Chief of the Dragoons at the end of March, when disagreements with his subordinate officers induced him to seek command of an independent legion of dragoons.[24] Until that time Washington directed most of his correspondence related to horsemen to Pulaski, but later he exchanged letters with the commanders of the four Continental Dragoon regiments and their subordinates. The matter of providing dragoon equipage was taken up with the Committee of Conference sitting at camp, and they hit upon a method of procuring horses and saddlery from the states presumed to be richest in these commodities. Quotas were assigned to Virginia, Maryland, Delaware, Pennsylvania, and New Jersey. Writing for the Committee, Francis Dana informed President Wharton and the Supreme Executive Council that Pennsylvania was expected to produce 250 horses and "common country" saddles and bridles, for which the Council was directed to assign quotas to each of the counties of the state. Horses were not to be less than five years nor more than twelve years of age, and Congress would provide for the expenses incurred.[25]

Despite exhortations of haste from the committee, the Council took some time to mull this matter over, reporting on their considerations on March 14. After careful review, they anticipated insurmountable difficulty in obtaining the "country saddles" required, which would have to be purchased from the farmers of Pennsylvania. The price of such a saddle, which would

have none of the attachments required by the dragoons, was generally given at £22. The farmers, the Council surmised, would be tempted to charge all that the market would bear. As an alternative they had investigated the cost of manufacturing horsemen's saddles, complete with mail pilions, leather girth and circingle, a small leather portmanteau, pistol holster, carbine boot, double reined bridle, and horseman's bit. The cost of the saddle with the attached equipage came to £47.5.0.[26] It is not known if Pennsylvania entered into a contract for such saddles, but as time for training new dragoons was of the essence, it is probable that they gleaned whatever saddlery they could find to fulfill their quota.

From the beginning of March, Washington did his best to oversee military equipage in every quarter, and he was astonished to note that a return from the military store at Albany listed 5,000 muskets out of repair at that location, and that there were very few bayonets. The militia, he warned the superintendent at Albany, were so adept at losing their firearms that without proper attention stores would soon be exhausted.[27]

Washington also maintained a very careful watch on progress in manufacturing camp equipage. This was principally the responsibility of Anthony Butler, Deputy Quarter Master for Military Equipage, who was stationed at Reading. Butler made a detailed, but not very satisfactory report to Washington on March 9, discussing prospects for supply. His letter suggested

that he was engaged in a flurry of productive activity, but when reduced to its essence he had not actually garnered much material. Butler had apparently been rather slothful through most of the winter, and if the reports of his successor James Abeel are to be credited, he had done very little of anything.

One of Butler's tasks was to produce, or contract for, camp kettles. These indispensible items were used by the soldiers to cook their meals, and they were made of very thin cast iron and were particularly vulnerable to breakage. Butler reported that none were made as yet, but that two tons of iron for the purpose was ready to go to a local manufactory. Two tons more were enroute to Cox's Iron Works in New Jersey, and Butler estimated expansively that he would be able to provide 1,800 kettles within a few weeks time. A manufacturer in Boonetown, New Jersey, had agreed to make 8,000 and would deliver them at a rate of 600 per week. Production had been hindered chiefly by lack of wagons to haul the iron. Butler reported progress in making harness for baggage and ammunition wagons, and would ship sets through to camp. He was falling behind on iron traces, because the unavailability of wagons was preventing him from hauling spike iron to Reading from Bird's Furnace, where it was being produced. Two thousand horseshoes were on hand, and more were in the making. He was at work on the traveling forges requested by Washington for the brigades. He had completed

the construction of fifty ammunition wagons, and thirty more were at various stages of completion. Six thousand knapsacks were already finished, but there were no canteens available, as Butler had been unable to prevail upon his canteen manufacturers to leave Philadelphia when the British arrived. He was endeavoring to obtain 50,000 of the cedar wood receptacles from Boston, and estimated that he would have 4,000 ready by mid-April. He was laying in sets of carpenter's and blacksmith's tools, reams of paper for orderly books, writing implements, nails, and a variety of other materials. When stripped, however, of its promises for the future, Butler's statement seems to indicate that he had little in his actual possession save 2,000 horseshoes, fifty ammunition wagons (this appears to have been something of an overstatement), 6,000 knapsacks, and some paper. He appears to have given scant attention to the manufacture and repair of tents, one of his principal responsibilities.[28]

Ezekiel Cheever, Commissary of Military Stores at Springfield, found his "grand arsenal" being markedly diminished by Washington's unremitting calls for arms to be sent southward. Knox's sudden descent on the armory with his raft of orders left Cheever, who only employed thirteen men, hard pressed to obey with alacrity. Knox had ordered him to send 3,550 stand or arms with bayonets, and all available lead, to Allentown or Lebanon. Cheever set his armory master to work immediately, and

reported to Washington that he could send half of the arms by the end of March. The delay was occasioned by the poor condition of the arms, which had arrived from Boston wet and rusty, requiring repair before they could be sent on. Some lead was already enroute to Pennsylvania, but he awaited teams from the local Quarter Master to haul the twenty to twenty-five tons which still remained. Cheever was trying to hire enough workers to augment the armory work force by twenty or thirty men, who would speed his repairs. One thousand, three hundred arms were ready to send as soon as the Quarter Master sent wagons, and General Heath at Boston would provide a guard to escort the shipment.[29] Washington acknowledged Cheever's efforts on April 2, and requested that all the arms in his store be cleaned and sent forward as soon as the task was completed.[30]

Since Washington had protested loudly over the dearth of cartridge boxes, Congress had taken a hand in the matter and passed a special resolution on March 19 requesting that the various states engage in producing the articles. General Gates corresponded with several governors, including Wharton and Caswell, explaining that Congress had sought to offset the dearth in the public stores by recommending that the states undertake the manufacture of cartridge boxes and cannisters. It was nearly impossible, Gates advised, to make them in the Continental manufactory, where there were but very few workmen. Gates appended detailed instructions for the manufacture of tinned cannisters,

which would hold thirty-six cartridges apiece. The Board of War opined that these were superior to leather cartridge boxes, which were in any case difficult to procure because of scarcity of leather.[31] In a pattern established during the Autumn of 1777, Congress as a last resort passed off to the states the supply of crucial items which they were unable through their various administrative dependencies to obtain. The most drastic instance of this collapse of centralized procurement had occured in the Clothing Department, with identical results. The call that went out to the states for items of military accoutrements was but another instance of the inability of the congressionally appointed military supply officers to extend their avenues of trade beyond central Pennsylvania.

The Board of War also sought to experiment with other methods of providing receptacles for the soldier's ammunition. Board member Thomas Mifflin commissioned John Litle to make an experiment using very thin rolled iron for the manufacture of cartridge cannisters. Using as a model a tin cannister manufactured earlier, Litle was to create a prototype using iron rolled thinner than the standard thickness of camp kettles, to be about the same thickness as the heaviest gauge tin plate. The dimensions of this beast were to be the same as those specified by Gates, and the finished cannister was to either be painted or coated with "...a very hard pitch so hard that in warm weather it will not stick to the soldiers Cloaths."[32] Mifflin directed Litle to send

the completed sample to the Board of War, with an estimate of how many of the cannisters a man could make a day, and the probable cost. Judging from the returns of Samuel French, no significant number of cannisters, either tin or iron, turned up in camp in either April or May. Forty-seven cannisters (only about 1,000 of the iron cannisters were produced) were delivered out to the men in April, ten in May. None were received during either month, but 300 had come in during March.
Leather cartridge boxes, however, were making their appearance in some number during this period. One thousand and sixteen were received in April, and 1,033 delivered out, with nearly the same quantities arriving and being issued in May.[33] It is probable that the tin and iron cannisters were quite time-consuming to manufacture.

While Washington had initiated some new policies and directions in the management, transportation, and disposition of military stores during March, there was an inevitable lag between the issuance of orders and the appearance of tangible results. The Quarter Master's Department and the Department of Military Stores had yet to shake off the profound somnolence into which they had fallen over the winter. The principal agents in injecting new energy into the operations of both departments would be Henry Knox, Nathanael Greene, and Washington himself, but the effort would tax their ingenuity. When the Commissary Department had collapsed in early February, Deputy Commissary Ephraim Blaine had

in effect assumed command of the Commissary Department and had enlisted aid from every quarter to feed the army on a hand-to-mouth basis. Military personnel had been detached by Washington on emergency foraging expeditions. So too, lines of authority and distinctions in assigned tasks diminished as responsibility for the management and procurement of military stores fell to Greene, Knox, and Washington himself. It was yet another case wherein functional efficiency filled an administrative vacuum. At no time, however, did Knox attempt to supplant Flower entirely. Thus his involvement with the Military Stores Department was of a more superficial nature, perhaps so rendered by the inescapable presence of the Board of War.

IV UPRISING AND MISCHIEF

April returns for supplies at camp and at Rhiemstown disclose that the laboratories had been busy manufacturing musket cartridges, although very little artillery ammunition appears to have come forward at all. Very possibly it was building up a Carlisle and had not as yet been sent eastward.[1]

The establishment at Lebanon seems to have been the most active arsenal for the manufacture of musket and artillery cartridges, and the works continued under the direction of Joseph Watkins. At the beginning of April, Watkins recorded his distress at not being able to manufacture ammunition with sufficient speed to supply the army adequately. He had now on hand 704,676 musket cartridges, but his supplies of paper cartridges for artillery and fixed ammunition were disturbingly low. Forwarding a disappointing return to Washington, Watkins complained of want of sufficient workmen and space. He was now employing fifty-three men in the manufacture of musket cartridges, ball, and buckshot, yet he still felt that the number

of completed cartridges would fall far short of an adequate supply unless he could engage a total of 200 workmen. Cornelius Sweers had informed him that the Board of War had ordered men from Lancaster to augment his work force, but they had never arrived. Watkins made the suggestion that the only way in which to obtain sufficient numbers would be to detail them from the army. (In this wan hope he had little prospect of success, as Washington received many such requests during the course of the Valley Forge encampment. If he had sent tailors to Clothier General James Mease, artificers to James Abeel, workmen to Watkins, and had honored all such demands, the main army would have been substantially diminished. Instead he firmly adhered to the policy that work should be brought to the men at camp, if they should engage in it at all.) The space wherein Watkins was working and stock-piling his stores was crowded, and probably highly dangerous. With unconscious irony he told Washington, "The Military Stores are all contained in the only Church that could be appropriated for a Magazine at this Place."[2]

Any communications such as the above which Washington received from the superintendents of the magazines were purely gratuitous. The military stores remained under the supervision of the Board of War and Washington was not, as a matter of routine, informed of any arrangements pertaining to their organization. The Board's heterogeneous involvements, however,

rendered their attention to the matter of military stores rather cursory. Toward the end of April, Robert Morris wrote a confidential letter to Washington informing him that the work at the laboratories was not nearly so productive as was necessary. He suggested that Washington send a superintendent to each of the laboratories to supervise production. Washington was grateful for the covert warning and replied,"I shall write to the Board of War, and without mentioning names, let them know that I have been informed, and there is not the activity and exertion in the conductors of our Elaboratories that the advanced season demands."[3] Allowing that some disjunction must have occurred when the works were moved during the winter from Allentown and Easton to Lebanon and Carlisle, Washington observed that "...there can be no excuse for not going on briskly now."[4] It was beyond his authority to send a superintendent to the laboratories, but he told Morris that he did not doubt that the Board of War would take appropriate steps. Washington then penned a politic but firm message to the Board, saying that he had been approached by someone who was apprehensive that supplies, particularly musket cartridges, would be wanting for the spring campaign. He suggested that more workmen be employed at Carlisle and Lebanon, and that the Commissary of Military Stores (Flower) be advised to enlarge his program of supply. He ended by warning the Board of the "fatal consequences" which would arise from a shortage of munitions during the course of an active campaign.[5]

Washington probably wondered what had been occupying Benjamin Flower since his recovery. The Commissary of Military Stores had at some time toward the beginning of April returned from his tasks in New Jersey to Allentown. It is clear from returns that there were still plenty of stores left at Allentown during April and May, and that they were being dispersed gradually to Carlisle and to camp.[6] Washington's letter to Morris indicates that he assumed the move to have been long since completed, and it demonstrates the rather startling degree to which he was uninformed concerning quantities and distribution of military stores.

Flower had by now regained a semblance of health, and after ordering Cornelius Sweers to prepare the department books for audit, proceeded to Lebanon, arriving April 14. During his stay at the location of the principal magazine of infantry stores he began to hear some disquieting things about the recent deportment of Sweers. His informant was apparently Jonathan Gostelowe, who was still Superintendent of the stores at Allentown. Gostelowe told Flower that Sweers had entertained with conspicuous lavishness over the winter, and had engaged openly in the somewhat shady practice of speculating in Continental currency. This caused Flower to remember some things which he himself had witnessed. While at Allentown the previous November he had seen Sweers carrying a number of Loan Office certificates, amounting to $16,000, and had briefly paused to

wonder what business Sweers was about. He also knew that Sweers had brought a house at Lebanon for he and his family to live in, at a cost of £500. All of this suggested some possibilities which were not at all creditable to the department. Yet Flower's suspicions were still not sufficiently aroused for him to mention them to the Board of War when he at length arrived at York in late April. He did, however, complain to the Board about Sweers' promotion. They offered to dismiss Sweers immediately, but Flower wished to postpone this until Sweers had completed the audit. There, for the moment, the beleaguered Flower was content to let the matter rest.[7] He was apparently unwilling, as yet, to grapple with what was becoming a damning collection of circumstantial evidence.

One of the principal causes for Washington's continued concern with the state of military stores was some very disquieting news he received at the end of March. It had been reported from New York that transports laden with 2,500 British soldiers had set sail, probably for Philadelphia. The intelligence Washington received was usually of a highly reliable character, and from it he enjoyed considerable success in predicting his adversaries' intentions. He now thought it more than probable that Howe had it in mind to strengthen his force in Philadelphia and open the spring campaign early. Washington knew that he was grievously unprepared should this prove to be the case. When General William Smallwood, commanding the garrison

at Wilmington, reported a fleet of fifty British sail coming up river, Washington assumed that the reinforcements had arrived, and that he might expect Howe to move at once. This prompted him to write an urgent appeal to Congress for reinforcements. Congress replied not by authorizing the enlistment of more regulars, nor by pressing the states to adhere to their enlistment quotas, but rather by empowering Washington to call out 5,000 militiamen from Pennsylvania, Delaware, and New Jersey. It soon developed that the transports which Smallwood's men had spotted were empty, but Washington was signally disappointed by Congress' feeble response to what could easily have been a genuine emergency. Nevertheless, he quickly recognized that the militia resolution could be turned to a considerable advantage, and he advised the appropriate governors that they might soon be called upon to produce the militia quotas assigned by Congress.[8]

The resolution passed by Congress specified that the states were to send their militiamen into the field accoutered and armed. Washington was quick to perceive a way in which he could use the resolution to increase the number of Continentals at Valley Forge. Writing Pennsylvania's President Wharton, Washington enclosed a copy of the power granted him by Congress, and assured Wharton that he would only call upon the state to call out its entire quota in the event of absolute necessity. He wanted the Council, however, to call out 1,000 militiamen as expeditiously as possible. These he would use to replace the Continental troops

serving as guards at Lancaster and in other quarters, enabling him to call the regulars back to the army.[9]

Wharton must have blinked hard once or twice when he received this directive. Through all of the winter he had been unable to turn out the numbers of militiamen demanded by Congress. He had ordered out 500 to act as guards at Easton, and only 300 had appeared. Wharton could not even gather enough men together to consistently reinforce Lacey's motley band which operated in Bucks County. He nevertheless promised Washington that he would try to call out enough men to replace the Continental Guard at Lancaster.[10]

The requirement that the militia turn out armed and accoutered seems to have placed the Council in something of a quandary, as it was not at all unusual to send militia into the field hoping that they would be supplied from Continental stores. State-owned shoulder arms were far from plentiful. As early as mid-February, the Council had inquired of its County Lieutenants how many arms were available for the use of the militia. One surviving reply, from Andrew Boyd of Chester County, suggests that the pickings were sparse indeed. He had only eight to ten guns available, as those he had sent to camp with a militia contingent had been "detained." (This is but one of several instances in which state officials charged Continental authorities with augmenting their supplies at the expense of state stores.)[11]

At the end of April, in response to a query from Washington, another circular letter went out to the County Lieutenants and the Superintendents of State Stores and Armories. Peter Dehaven, superintending the state works at Hummelstown, was asked to report the number of guns he would have available by May 20, and the same request went to William Antes, armorer to the state.[12] The replies which came tricking in to the Council's office at Lancaster demonstrate the profound ill-preparedness of Pennsylvania's militia establishment.

Without waiting for returns from outlying districts to come in, the Council sent Washington an estimate of available arms, which they knew to be far short of what he expected. Guns available in the state, they claimed, would not amount to more than about 3,000. The Council explained the various causes to which this was owing. Not only did the men often leave their arms in camp, but they would, upon occasion, simply throw them away. There were many guns in the hands of private owners, but these could only be had if their owners came into active service.[13]

In truth, the Council had been more than a little optimistic with its figure of 3,000. The estimate, based on the most sanguine expectations, were certainly typical of the pattern the Council had long established in its dealings not only with Congress but with the army. With the best of intentions, they often promised more of everything than they could possibly hope to supply. At the time they replied to Washington, only a few of the returns

had come in. They were still coming in mid-May, and cumulatively they presented a rather dismal prospect.

William Antes, who worked in New Hanover Township, had been employed by the state chiefly to repair arms. He reported to the Council that he had all of twenty-five on hand. Andrew Boyd, in Chester County, had ten. He reported that the Tories at the lower end of his County were well supplied and were drilling under arms. Armorer Ebenezer Cowell at Allentown had 350 stand complete, and he expected to finish grinding bayonets for them by May 20. Lewis Gronow, also in Chester County, reported in with ten very unfit arms. Archibald Lochrey of Westmoreland could gather, he estimated, about 250, but the Indians were creating such havoc in his County that he doubted if he could wrest any more from private owners. Arthur Thompson thought that he could raise 122 in Philadelphia County, and Jacob Shoemaker, Sub-Lieutenant of Northampton County, had forty-eight public arms and believed he could raise a total of 123. Joseph Kirkbride had perhaps fifty or sixty at Bristol. Frederick Hagner, also employed repairing arms at Allentown, had the greatest number: 800 muskets complete with bayonets and scabbards. John Tyler, at the same location, had an additional 300 muskets and bayonets, which would be ready by the twentieth of May.[14] All of this amounted to about 2,050 firearms, a full third short of Wharton's estimate to Washington. It is possible, however, that Wharton may have included in his estimate some local stores which did not appear

in the returns from the County Lieutenants and armorers. In any case, the numbers available were far from ample, considering the fragility and propensity for breakage which characterized flintlock firearms.

Pennsylvania, during this spring season, was unfortunately caught between two fires. Hostilities between Indians and settlers on the western frontiers had been fomenting all winter, and burst out as the weather became milder. Indians attacked isolated settlements in Bedford and Cumberland Counties, and the inhabitants were hurled back toward more populous areas. This placed Pennsylvania in a predicament for serviceable arms, particularly rifles. From the beginning of May, the Supreme Executive Council had to concentrate their efforts on arming the militia in these exposed areas. Fortunately, the demand of the Continental Army for muskets worked to Pennsylvania's advantage. In sending one western militia commander a shipment of fifty muskets and fifty rifles on May 3, the Council noted, "Congress are from some strange fatality under a necessity to ask from us some Musquetts; this enables us to lay hold of their rifles newly made here."[15] The Board of War had already given over some powder and lead to the state to help them thwart the Indian uprisings, but the Council was compelled to request an additional allotment. A militia commander attempting to buy rifles in the west was paying £30 per gun, a price the Council found "extortionate" and far above the price prevailing in Lancaster.[16]

The state's demand for arms quite naturally came into conflict with the demands of the Continental Army. Some confusion developed over 300 muskets at Allentown, which apparently belonged to the state but which Washington mistakenly claimed to be Continental property. When Lieutenant Colonel Bayard had attempted to cart them away for the use of Wayne's brigades he was refused, and Wayne brought the matter to Washington's attention. Washington suggested that if the arms did indeed belong to the state, then armorer William Henry could replace them with arms he was repairing for the Continental army.[17] In this manner, Pennsylvania received the rifles it needed to supply its frontier militia units, eventually accepting 118 rifles from Henry.[18]

Arms began to drift away into the far western reaches of the state. Militia Colonel Gibbon at Harris' Ferry in North Cumberland County received 100 shoulder arms, but the uprisings became so severe and protracted that during May the demand for guns on the frontier was almost continuous. On May 18, the inhabitants of Path Valley in Cumberland County sent a desperate appeal to the Council. The petitioners claimed that the militia from Cumberland County had been called to Valley Forge while at the same time the Indians were murdering the inhabitants of Bedford. The active men of the County, they averred, were defenseless for want of arms and ammunition. The inhabitants requested that the Council rescind the order to call the militia westward, and that supplies of rifles and ammunition

be sent out. "If our militia is marched to Camp our Women and Children will fall a Sacrifice to Cruel Barbarity..." The petitioners informed the Council that Tories had joined with the Indians. They requested specifically a supply of rifles, as "...muskets is of very little use in the woods against Indians."[19]

In the midst of the drive for military supplies at Camp, Washington had been apprised by the Board of War of the seriousness of the situation on the Pennsylvania frontier. On the advice of the Board, he ordered 250 riflemen at camp, including Broadhead's Regiment and part of the 13th Pennsylvania, to Fort Pitt to help defend the settlements. These units were composed of experienced Indian fighters, and were chosen for their familiarity with the geographical area in which they would serve. The Board made a further allotment of ammunition to the State, and ordered William Henry to supply 100 more rifles. Meanwhile, Himbergers Mill on French Creek, which produced gunpowder for the State, had produced nearly a ton of powder. Forage Master General Clement Biddle, a Pennsylvanian who enjoyed close relations with the Council, offered to have it shipped wherever the Council specified.[20] There perhaps was an ulterior motive in Washington's willingness to dispense with riflemen. He appears to have had little faith in them in a formal battle, and was committed, with the new regulations for the army, to reducing their numbers in the line. The disturbances on the western frontier offered him a perfect opportunity to accomplish this, without engendering rancor in military circles.

The trouble on the western frontier also affected another aspect of military supply, involving the mining of lead. Lead mining, like steel manufacture, was an undeveloped industry at the outbreak of the Revolution, and Congress was closely concerned with finding sources of domestic production. Supplies of lead available to the army consisted solely of the twenty or so tons at Springfield and scattered, smaller allotments at Lebanon and a few other locations. Pennsylvania delegate to Congress Daniel Roberdeau secured a leave of absence from Congress in mid-April to organize a special expedition. He was to open and supervise the working of lead mine at Sinking Spring Valley in Cumberland County, and the frontier disturbances now imperiled the undertaking. On the way to the site he stopped at Carlisle, and reported to the Council that the Continental stores there were entirely bereft of lead. He sent men and tools forward to Sinking Spring Valley, where he would shortly follow, but he feared that the Indian depredations would distract his workmen and leave the country around him exposed. Roberdeau therefore drew twenty-five arms and some gunpowder from the stores at Carlisle so that his men could defend themselves, but he was quite disturbed by the news that the militia were being drawn off from the area to serve with the army. To counter the Indian threat, he proposed building a stockaded fort near his mine, manned with a company of militia which had been offered to him by the state. Roberdeau believed that this would

encourage local settlers to stay on in the valley. Later in May, the Board of War sent arms and supplies for his guard at Sinking Spring Valley.[21]

The lead mines at this location, despite a promising appearance, were apparently of little lasting consequence. Roberdeau over-extended himself financially, and the effort continued in a rather desultory fashion only into 1778. The Pennsylvania militia apparently received 500 pounds of lead from the mine, but it is doubtful that the Continental Army benefitted at all. Once a treaty was concluded with France, supplies doubtless arrived from Continental Europe.[22]

Continental stores provided arms and ammunition not only to Pennsylvania, but also to militia detachments in New Jersey and to units that Washington sent out on special detachments. He sent Israel Shreve's 2nd New Jersey Regiment to Jersey to help stiffen the flagging militia when the British began to wreak havoc in the lower counties. Once arrived, Shreve sent an urgent appeal for cartridges. Washington, still full of apprehensions about British reinforcements which he thought to be arriving in Philadelphia, replied that he could spare none. Instead he sent a shipment of loose powder and ball.[23] At the beginning of June, New Jersey's militia General Dickinson received 2,000 weight of musket ball, which was all the loose lead then available in camp. Dickinson had called the Jersey militia out in force to nip at the British, who were then expected to move through New Jersey enroute to New York.[24]

The shortages of musket cartridges and other supplies in camp in April and May demonstrate that the army was moving all too sluggishly toward that state of preparedness which Washington unceasingly demanded. To a degree this must be charged to the inattentiveness of the Board of War, for on more than one occasion Washington had to initiate a drive for such basic articles as cartridge boxes. If he had not personally examined the returns, pinpointed the shortages, and demanded redress, it is likely that very little would have been done to speed production.

The demand for new arms at Valley Forge increased as new recruits began to arrive at camp, but there is ample evidence that even the troops who had remained throughout the winter were under-equipped. In mid-March, for instance, Shreve's 2nd New Jersey Regiment lacked thirty-seven muskets and thirty-six bayonets.[25] The return reflecting this was taken because Shreve's unit was about to be ordered to New Jersey for active service, but its condition may have been typical of the state of those regiments which had wintered at Valley Forge. Bad weather and hard wear had taken their toll of the fragile flintlock mechanisms. During the month of March, bayonets and cartridge boxes were issued to the 8th Massachusetts, to the 1st Rhode Island, and certainly to other regiments.[26]

Not only were muskets and rifles easily damaged, but when they were out of repair they had often been scattered about the countryside by troops on the march. The North Carolina battalions

marching north to join the main army during the summer of 1777 had distributed no less than 281 damaged muskets, fifty-three rifles, and eighteen fuzees along their route of march northward, leaving them principally at Alexandria and Philadelphia.[27]

During April Samuel French delivered out 1,263 muskets, and had none remaining either at camp or at Rheimstown. The following month he was able to issue 1,821 more, leaving a scant surplus of forty-one at camp at the end of May.[28] Neither were there any muskets at the infantry stores at Lebanon in April, although during May, 867 new French muskets turned up at Allentown.[29]

The cause of the sparse supply of muskets in Pennsylvania was the inefficient repair and shipping operation in progress at Springfield, Massachusetts. Most of, if not all of the new French arms destined for Washington's army were funneled through the armory at Springfield for repair and reconditioning. While in March and April Washington had concentrated chiefly on the supply and manufacture of cartridge boxes and bayonets, in May he was compelled to investigate the serious bottleneck which had developed at Springfield.

Early in May Washington had written to the Commissary of Military Stores at Springfield, Ezekiel Cheever, urging haste in sending on the French muskets, and Cheever had complained of a shortage of workmen hampering his progress. The muskets had traveled to Springfield in the rain, and were in such poor condition that they had to be worked over before Cheever could

send them on.[30] Washington waited patiently, and then on May 17 he wrote Cheever once more, redirecting a shipment of 2,000 arms from Lebanon to Camp. He wanted Cheever to send the 2,000 with an additional 1,000 arms, to camp with all possible haste, as many new recruits were arriving unequipped. Cheever was directed to send a responsible officer along with the shipment to insure that the guns came on speedily. As soon as the guns approached the Delaware, Washington wanted to be personally notified, so that he might direct them to a safe crossing place and probably send an escort.[31]

At the time he wrote to Cheever, Washington was under the strong apprehension that the British were about to evacuate Philadelphia. On the same day that orders went out to Cheever, Washington wrote to Knox, now returned to the Artillery Park in camp, ordering him to make ready to move at a moment's notice. Washington's inquiry as to what orders Knox had sent out to Albany and Springfield discloses that he had been relying on the artillery commander for some months to direct the flow of ordnance and small arms toward the army. Washington also wanted to know to what magazines in the immediate vicinity of camp he could most profitably direct requisitions for small arms.[32]

Knox replied immediately, informing Washington of the arrangements he had initiated for the shipment of shoulder arms. Noting that Colonel Flower was the best local authority to whom an appeal for arms should be directed, Knox related that he had

ordered Cheever to send on 3,500 new arms in February. When he had visited Cheever on March 25, however, Knox had reduced the number to 2,000, as sufficient teams were not available to ship the entire lot. Of the entire quantity of 5,000 arms at Springfield, Knox had directed that 3,000 be issued to new recruits coming from New England. There were also 2,460 serviceable muskets with bayonets at Albany, and on March 30 he had directed that 2,000 arms complete be sent down from that location. These too had been detained for lack of teams. Knox assured Washington that he would send immediately two conductors to Springfield and Albany to hasten the shipments. Knox's report had spurred Washington's directive to Cheever, as well as a letter to Philip van Rensselaer, Commissary of Military Stores at Albany, whom Washington ordered to send the 2,000 muskets with all possible dispatch.[33]

Cheever, as it happened, had already begun to ship his muskets directly to camp. He sent them down in three rattling convoys, beginning on May 11, when he sent off thirty-two chests containing 800 new firearms complete, 800 gun worms, and nine pigs of lead weighing in at fourteen hundredweight gross. To protect the arms he covered the wagons with eight new tents. On May 1 another thirty-two chests were launched, and a final shipment of sixteen chests containing 400 new arms went off on May 23. The last convoy also carried 71,808 musket cartridges packed in sixty-eight chests, a cask containing 4,686 gun worms, and ten new tents to be used as covering.[34] Cheever explained

in a letter to Washington which accompanied his invoice that the shipments had long been delayed for lack of wagons, and that he had at last resorted to a ruse to obtain the needed transport and move the guns on to Peekskill. Knox's emissary, Mr. Frothingham, accompanied the shipments.[35]

That the muskets from New England were at last enroute, if belatedly, must have been encouraging news. It was soured, however, by confusion which developed over the first convoy of arms, which went west to Fishkill to cross the Hudson. The muddle involved none other than Horatio Gates. Gates had by now returned to his command on the Hudson, and was demanding reinforcements to aggrandize his northern force. On May 18, Abraham Lansing, Commissary of Military Stores at Newburg, sent Captain Abraham Ten Eyck southward with a shipment of 728 arms. These may have been part of the first of Cheever's shipments. The arms were directed to the care of Quarter Master Robert L. Hooper, at Easton, who was requested to store them until Lansing's arrival. Presumably the Commissary would then conduct them on to camp.[36] The arms arrived in Hooper's domain and he stored them at Sussex Court House. Hooper then received an order from Gates' Quarter Master, Andrew Taylor, which in effect countermanded the shipment and ordered it back to New Windsor. Hooper sent the guns on to camp but then decided to inform that someone at Headquarters concerning the odd sequence of events. He wrote to Washington's Aide, Colonel Harrison,[37] and sent a copy of Taylor's countermanding order.

When Washington learned of what was supposed to be a countermanded shipment, he was furious. By now profoundly mistrustful of Gates, he dealt with him in prefunctorily harsh language. Writing, perhaps ingenuously, that he had long since informed the Board of War that he would be drawing 4,000 arms from New England and Albany, he declared that care had been taken that enough would be left east of the Hudson to arm the new levies. Meanwhile the new men coming in from New York, New Jersey, Pennsylvania, and Maryland were unable to do duty for lack of arms. The 10th Carolina regiment, which had just arrived in camp, did not have a single musket. Washington demanded not only that the 728 arms be returned immediately, but that the 3,000 muskets that Knox had earmarked for new recruits be sent on as well. He continued:

> This countermand has greatly disappointed and exceedingly distressed & injured the service, as I depended upon and had actually given an order to General Maxwell to send and meet those arms, that he might draw a part of them for the Jersey Levies, who are ready to take them up, and who will now be unable to give any opposition to the Enemy, should they attempt to pass thro' the Jersies.
>
> You will consider the above as an order not to be dispensed with in the present situation of Affairs. 38

And indeed, the principal source of Washington's ire was that the previous day he had ordered Maxwell to take his brigade to New Jersey, to combine with militia General Dickinson in obstructing a possible British march through the state. Intelligence sources had suggested to Washington that this was the most

probable avenue the enemy would employ in their removal to New York. The day following his sharp missive to Gates, Washington wrote to Maxwell, who was now on the march, alerting him to the arms shortage and promising him part of the first shipment that arrived.[39]

Gates, stung by Washington's reprimand, secured a written avowal from his Quarter Master that the arms had not in reality been ordered back, but were simply detained at Sussex Court House, beyond which New York teams could not by law proceed, to wait for Hooper's transport. Gates denied that he had entertained any intention of retrieving the arms.[40] Washington's anger, however, was not allayed. Hooper had sent a copy of Taylor's countermanding order along with his letter to Harrison, and it conflicted profoundly with Taylor's later statement. In the order, Washington claimed, Taylor had specifically stated that the shipment was being countermanded by order of General Gates. Washington still suspected that Gates had made a positive order to countermand the shipment, but in his final missive to Gates on the matter, he coyly intimated that the lie was Taylor's. In any case, the issue was a moot one, for due to the initiative of Robert L. Hooper, arms had arrived in camp on June 4.[41]

Certainly much of Washington's correspondence with Gates during the spring of 1778 is highly distempered, and he was inclined on several occasions to stretch the truth in order to make his point. In this case, it is not at all certain that

Washington had informed the Board of War about his transfer of the arms from Albany and from New England; in fact, there is evidence to the contrary. Gates' response to Washington's order to send the arms southward was, typically, a remonstrance to Congress. He complained of wanting nearly every material necessity, including guns. The missive was passed on to the Board of War, and on June 16, Timothy Pickering wrote a cool and carefully worded query to Washington, pointedly questioning the shortage of arms which Gates had reported to Congress. The Board, Pickering wrote, was under the impression that 2,000 arms remained at Albany, and he requested to be informed of what specific measures Washington had taken involving the arms at Albany and at Springfield.[42] Despite its cool tone, Pickering's letter discloses a new spirit of acquiescence in permitting Washington to supervise the strategic distribution of small arms as his priorities dictated.

It is likely that Gates, on his part, simply wished to strengthen his none-too-formidable command with the shoulder arms from Springfield or Albany, and perhaps he assumed that the guns would not be missed and that no one would inform Washington of the countermand. Yet it is certain that there was a burgeoning need for shoulder arms in Washington's army. During May, 867 arms were sent to camp from Allentown.[43] Only 1,862 were received at camp during the same month, and all but a small reserve of forty-one were issued out.[44]

The truant arms from New Windsor arrived at Camp on June 4, and Cheever's later shipments appear to have come in by June 15. On that day Washington ordered Benjamin Flower to issue 362 muskets at the Artillery Park in the new, temporary encampment near the winter quarters at Valley Forge, and required him to see that 300 arms would always be kept near at hand to offset occasional demand.[45] Four days later the army marched in pursuit of Clinton, and had received a full complement of arms in the very nick of time.

Despite Washington's earlier avowal to the Board of War, the artillery at Farmington, along with that at Albany, was not ordered on to the main army until May. This collection of guns, which Gates had captured from Burgoyne, had been described floridly by Knox as a "most noble park indeed,"[46] and it augmented the pool of artillery available to the Continental Army to truly formidable proportions. On May 11, orders went out to Colonel John Lamb to transport the ordnance at Farmington to Headquarters in Pennsylvania. The lot included fifteen six-pounders, two eight-inch howitzers, ten four-pounders, nineteen ammunition wagons, and eight tumbrils with stores. The two eight-inch howitzers, Knox suggested, should best be left on the Hudson, but all the remaining pieces were to come south. Knox also directed that three brass twelve-pounders at or near Fishkill, one at Albany, a brass twenty-pounder at New Windsor, and the two twenty-fours at Albany also be brought along. Lamb was to collect all of the ordnance and bring it on himself

to the army, leaving Major Stephens in command of the artillery remaining on the Hudson. Three or four of Lamb's best companies were also to join the main army, but Knox vaguely indicated that Gates was to be consulted before this transfer of troops took place. The artillery at Farmington were already equipped with harness, portfires, tubes, and ammunition from Springfield, and was ready to move as soon as the 210 hourses required to haul it were procured. General Greene was sending an agent to New England immediately to see to this.[47] By early June Knox was attending to such niceties as procuring artillery swords for each of his noncommissioned officers, matrosses, and drummers, and ordering elegant white belts for the artillerymen. Lamb's artillerymen, and presumably the guns, where held up for some time in the Hudson Highlands because of a dispute concerning rank which broke out among the officers. Because the artillery complement of the main army was reasonable strong, the arrival of guns from the northward was not so pressing an issue as the arrival of sufficient small arms.[48]

The dragoons, who Washington had hoped would turn out in fine form, continued to have a difficult time garnering sufficient equipment. In May, Washington was outraged to hear reports that the men were mistreating their mounts, and that the officers had been shamefully neglectful of their commands over the winter. Now there were apparently unbrookable obstacles to the procurement of swords, horse pistols, and carbines, particularly

for the 4th Light Dragoons. Stephen Moylan had appealed to Headquarters on the matter, and Washington's aide Tench Tilghman replied on April 29 that he was simply at a loss as to how to procure arms for the cavalry. He noted that there were 107 carbines at camp, but very few swords and pistols. It had been reported that 1,100 carbines had come in from New England, but upon inspecting them Knox had found that they were really light muskets, too long for the cavalrymen to use. Tilghman advised Moylan that Colonels Bland and Baylor had contracted for swords with Hunter's manufactory in Virginia, but he knew of no source for horse pistols other than import. Long before, Tilghman had recommended to Congress the expedient of importing sets of horse equipment from France, but he had never found out if they had taken up the idea.[49]

Shortly after Moylan's appeal, Washington, who still mentioned interest in the welfare of the dragoon regiments, wrote to Colonel Baylor, who was busy recruiting men and purchasing horses in Virginia. Noting that Moylan's and Sheldon's regiments were particularly bereft of swords and pistols, he ordered Baylor to engage whatever quantities he could from Hunter's manufactory.[50] One of Moylan's officers had managed to capture a few British dragoons, complete with their equipage, and Washington was sufficiently impressed to grant the officer a bounty of $510.00.[51] Such windfalls, however, could hardly be counted upon to equip entire regiments, and Washington was

doubtless relieved to find that Baylor had already engaged Hunter to produce 600 swords and pistols, and was ready to contract for more if Washington so desired. Unfortunately, none of the arms were completed by mid-May, when Baylor informed Washington of the contract.[52]

Throughout these convoluted dealings concerning arms and ordnance, with which Washington and Knox involved themselves increasingly as the opening of the campaign approached, Benjamin Flower was supervising production at the laboratories and the distribution of military stores to the army. He was now distracted, however, by inescapable signs that a scandal was welling up in his department, one which was perilously close to his own person. It broke at the most inconvenient time conceivable—the very onset of the campaign.

It will be remembered that Flower had deferred the Board of War's offer to dismiss Cornelius Sweers in April, because Flower wished him to complete the department's accounts for audit. Flower apparently remained at or near York for a solid month, and did not return to Allentown to observe Sweers' progress until May 20. When he at length did so, a number of officers of the Military Stores Department were waiting to fly at him with bitter complaints about Sweers' expensive habits, and Flower's suspicions were aroused anew. He pressed to have the accounts of the department submitted immediately for review.[53] In early June Flower personally took the books to York and then

repaired for camp. When the army marched on June 19, he went into Philadelphia to re-establish the main office of his department in the evacuated capital.[54]

At York the worst of Flower's fears were realized. The Treasury Board discovered enough irregularities in Sweers' accounts and patent evidences of fraud to report them immediately to Congress, which they did on June 20.[55] In a deposition he made subsequently, Flower noted that upon his arrival in Philadelphia he was apprised "...of the discoveries of Fraud in Mr. Sweers' Acct. to be a very considerable amount tho' I feared it yet was greatly shock'd."[56] He sent off expresses to Lebanon and York, directing Joseph Watkins, Commissary of Military Stores at Lebanon, to suspend Sweers and seize his books and papers. He then requested further instructions from the Board of War.[57]

The Board had already acted, and had written Flower on June 22 ordering him to have Sweers and his papers seized. On receipt of this directive, Flower widened his dragnet by sending expresses to the old encampment at Valley Forge and to Easton, as the Board had expressed the concern that Sweers might attempt to escape to the enemy. There was no necessity, as it turned out, to search so far afield. At six o'clock on the evening of the twenty-second, Colonel Grubb and Cornet Buford arrested Sweers as he tried to leave Lebanon for Valley Forge, and they confined him to his house. Sweers immediately appealed to Congress, and was apparently determined to bluff the charges, but they were unmoved

and ordered that he be imprisoned at the barracks in Philadelphia. There Flower visited Sweers, who continued to plead innocent and complain of ill-usage. By July 31, despite Sweers' continued protests, the Board of War had determined with some certainty that he had defrauded the government of many thousands of pounds through his office of Assistant Commissary of Military Stores. In the light of this burgeoning evidence of chicanery, the Board was concerned that Sweers was under too light a guard, and ordered him incarcerated in the city jail, recommending that he be charged with misconduct and forgery.[58]

At the beginning of August Sweers was still awaiting trial, and was building up a prodigious resentment against Flower, his erstwhile superior. In a letter to Congress, Sweers accused Flower of complicity in fraudulent practices. Congress became sufficiently alarmed to order Flower's arrest, and he briefly joined Sweers in the public jail at Philadelphia. A Committee of Congress, however, quickly determined that Flower's conduct was "unspotted," and that to all appearances Sweers was guilty of numerous instances of misconduct. The one incident they specified was an exchange between Sweers and one Henry Baker, who had been persuaded to sign a receipt for much more money than he had actually received from Sweers' hand, at about the time of the battle of Brandywine. Congress ordered Flower to be reinstated to his post, and directed the Treasury Board to retain a counsel to represent the United States in an action against Sweers.[59]

Sweers had many more months to languish in the city jail before his case was tried before the Supreme Court of Pennsylvania in the spring of 1779. He was convicted by the court of fraud against the state, and sentenced to a prison term, a heavy fine, and a period of punishment in the public pillory. Sweers appealed this last portion of his sentence, on the grounds of the undue pain and embarrassment that it would cause his wife and family should he be exposed in the stocks to public ridicule. His petition, which was addressed to the Supreme Executive Council, was signed by several men of consequence, including Stephen Girard, Henry Laurens, Daniel Clymer, and William Rush. It was co-signed by the normally implacable Chief Justice of Pennsylvania, Thomas McKean, and by justices Atlee and Evans. Apparently the sentence to the pillory was rescinded, probably more as a statement against the medieval tenor of the punishment than as an act of compassion for Sweers.[60] Neither did the fallen deputy remain for long in prison. The tax lists of 1783 for the County of Philadelphia include "Cornelius Sweers-merchant."[61]

It is difficult to assess the damage Sweers' misconduct inflicted on the efficiency of the Military Stores Department, although it may certainly be said that Flower's mid-winter illness combined with Sweers' waywardness to place a heavier burden of responsibility on Knox and on Washington than they might otherwise have assumed. Because, however, the two generals appear to have been actively engaged in wresting the matter of strategic

disposition of arms and ordnance away from the Board of War, Flower's role was in any case somewhat diminished. Sweers' misconduct, however, created a financial drain on the department, which to some extent had to be reflected in purchasing power. His extravagances at Lebanon, and apparent inattention to duty, doubtless had a stultifying effect upon morale and did little to encourage production efficiency.

Not all matters pertaining to military stores and camp equipage, however, were under the direction of the Commissary General of Military Stores, and one of the more remarkable performances of the spring was achieved by Nathanael Greene's hand-picked Deputy Quarter Master, James Abeel.

V "A MAN OF SPIRIT & BUSINESS"

When Nathanael Greene assumed command of the Quarter Master's Department at the beginning of March, 1778, he made no sweeping changes in the staff appointments previously instituted by Thomas Mifflin. One key office, however, required his particular attention. This was the post of Deputy Quarter Master for Military Equipage at Reading, occupied by a Thomas Mifflin appointee, Anthony Butler. Reading had been throughout the winter the principal location for the storage and manufacture of camp equipage for the main army. It was a geographically convenient town, for there were reasonably good roads to camp, and flat-bottomed boats plied the Schuylkill between Reading and Valley Forge when the water conditions permitted. Greene considered this office to be of particular importance, and he replaced Butler with a more energetic deputy, James Abeel. Abeel was a Jerseyman who may have been recommended to the post by one or both of Greene's assistants, Charles Pettit and John Cox. His terse correspondence reveals him to have been a man of few unnecessary words, but prodigious energy. He had previous

experience in the Quarter Master's Department, and had served as Captain in the New York militia in 1776. Abeel was clearly on friendly terms with Moore Furman, Robert L. Hooper, and other key department Deputies, and he proved not the least disinclined to hold his ground when a subordinate became intransigent. From the beginning of May, 1778, Abeel kept up constant, and rather harried correspondence with Greene, Cox, and Pettit, who were then operating the Quarter Master's Department from Moore Hall, just west of Valley Forge. At the beginning of his appointment, Greene authorized Abeel to collect returns of all the materials harbored by the Deputy Quarter Masters, and thereby used him as an instrument to organize the scattered resources of the Department. The post required a man of Abeel's fundamental reliability, for at the beginning of May the Quarter Master's stores at Reading were in a condition which was far from encouraging.[1]

By his own account, when Abeel arrived the materials which had been entrusted to Butler were in a state of almost irremediable neglect. Upon an initial inspection, he found that "A great Number of Stores of every kind are all but scattered about the whole Place & lyable to be pilfered."[2] Butler had been using an assortment of dank cellars for storage space, with the predictable result that fabrics and perishable items such as cord were ruined. Tents collected from the army after the soldiers built their huts the previous winter had been left outside, exposed to the weather

to rot; twine stored in the cellars disintegrated. To make matters worse, Butler showed no particular inclination to indicate where the stores had been strewn. Abeel wrote to Greene:

> I find Mr. Butlers Conduct not so agreeable as I expected, he dont seem disposed to assist me in any respect, & is dilatory in delivering up the stores, besides very disobliging Claiming every Desk Table Office &ca for his private property. 3

Butler tried to make off with a horseman's tent, but Abeel managed to wrest it a way from his clerk. Soon the former deputy departed for York, leaving Abeel to discover the caches of stores as best he could. As late as May 27, he was still finding more tents, and he then assured Charles Pettit that Butler would be compelled to locate and give over everything upon his return from York.[4]

Anthony Butler's unfortunate legacy was not confined to neglect. He had entered into some contracts, chiefly for axes and cutting boxes, and the resulting items, to which Abeel was heir, were of very poor quality.[5] Abeel was also distressed to find that stores belonging to his department had become inextricably confused with those under the care of the Military Stores Department at Lebanon. He promised his superiors at Moore Hall that he would do his best to sort matters out when time allowed.[6]

Despite the setbacks he encountered, Abeel set to work with uncommon zeal and was soon transporting and manufacturing stores at an impressive rate of speed. In accordance with instructions

from Pettit, Abeel had, within a week of his arrival, shipped to Valley Forge a cask each of halters and nails, coffee, fine quality paper for Pettit's own use, and a number of wagons. He set a man to work making blank orderly books, ordered 600 tents down from Bethlehem to camp, and set about manufacturing new tents, portmanteaux, and valises. He was repairing axes and had begun to make out a complete return of the stores at Reading, and promised to send trace chains as soon as wagons became available to transport them to camp. Difficult as it was for Abeel to assess the number and kind of the scattered stores now under his supervision, he had found that they included 1,060 wedges, various types of tools, some camp kettles, axes, a good many shovels and spades, tomahawks, hatchets, writing paper, sealing wax, and various weights of canvas. He set about immediately writing the Deputy Quarter Masters at Lebanon, Lancaster, York, and elsewhere and drawing together raw materials. To John Mitchell at Pottstown he sent orders to forward all of his canvas, noting that Mitchell need not send any "home made steel," as it was nearly useless for making tools. He sent a shipment of carbines, eventually destined for the dragoons, to Mitchell for repair.[7]

To Robert Patton at York, Abeel sent for well-made axes and wagon harness. He noted that there was no shortage of intrenching tools, including picks, shovels, and spades, and that no more were required to be made for the present. To Robert L. Hooper

at Easton, Abeel wrote for saddle trees, saddlery, leather, tents, and sails taken from dismantled American galleys trapped in the upper Delaware. He ordered Hooper to hire two or three good sailmakers and send them to Reading to assist in the manufacture of tents. Moore Furman in New Jersey received an order for saddlery, paper of any kind, and blank orderly books.[8]

Abeel had just managed to get this operation underway when on May 18 he received an urgently worded order from camp, demanding that all available marquees, horsemen's tents, common tents, knapsacks, kettles, canteens, and camp equipage be forwarded immediately to the army. The British were giving signs of being about to evacuate the city of Philadelphia, and the army was still perilously short of the bare necessities which would allow it to take the field. The order sent out to Abeel was the result of a missive from Washington to Greene. Washington had been convinced by his intelligence sources that the British Army was either about to evacuate the continent entirely, or what was more likely, remove to New York. He therefore wanted the army to be ready for an "instant move," and he ordered Greene to "strain every nerve" to prepare the Quarter Master's Department for the transportation of baggage and provisions. Tents were to be brought forward to the army, as the men's huts had become so noisome that continued habitation in them posed a serious threat to health. The men were soon to move out to a fresh piece of ground near the old camp and reside in tents.[9]

Abeel reacted with impressive vigor and ordered John Oakly at Bethlehem to hurry on camp kettles and tents from his stores to the army. To underscore the urgency of the demand Abeel pleaded, "...for Gods Sake Spare no pains nor lose any time...."[10] Word went out to Hooper to assist Oakly, enjoining him also to send on whatever tents, knapsacks, camp kettles, wagons, and good axes he could muster.[11]

Within an hour of receiving the order from Valley Forge, Abeel had sent out the dispatches and had begun to report his own progress in an express letter to Pettit. He promised that wagons were at that moment making ready to transport 330 common tents, four horsemen's tents, 100 camp kettles, 1,200 knapsacks, and assorted canteens and hogsheads of harness to the Quarter Master's stores at camp. Deputy Quarter Master Jacob Morgan was sending sixteen covered wagons for transport.[12]

The anticipated British evacuation proved, for the moment, to be chimerical, but the pace that Abeel set at Reading hardly slackened. The momentary miscalculation of British intentions was perhaps fortunate in that it disclosed the full extent to which adequate preparation was wanting in the Quarter Master's Department. During the weeks that followed, Greene, Pettit, and Cox pressed Abeel relentlessly to redress the principal wants, the most conspicuous of which were for tents, wagon traces, knapsacks, and canteens.

Abeel continued to bombard distant and neighboring Quarter Masters with a barrage of letters requisitioning endless items of equipage and raw materials for manufacture. His orders of the week between May 20 and May 27 sent materials hurtling toward camp and to the shops at Reading. Abeel directed George Ross at Lancaster to send to camp all his traces, wagon harness, knapsacks, saddles, bridles, wooden pails, tax [chamber ?] pots, forage bags, portmanteaux, and 500 pasteboard orderly books. To John Mitchell went an order for tents, duck, (to manufacture valises), a ton each of sheet iron and spike iron, and eight or ten sets of traces for new wagons Abeel was constructing. Abeel offered to pay Robert Patton at York for all the light canvas he could gather together. Someone had informed Abeel that Robert L. Hooper had some paint, which was needed for coating knapsacks, and he sent off to Easton for a cask each of Spanish brown, yellow paint, and white lead. To John Davis at Carlisle went a request for knapsacks, portmanteaux, iron traces, canvas for tents, writing paper, and another 500 orderly books. Hooper was again importuned for any tents which should arrive in his quarter from New England, for a box of sheet iron, and for a horse and saddle for Abeel's personal use. Oakly at Bethlehem was sent to purchase calf-skins from his local tanner for the manufacture of horse collars, and Ross was again written, this time for a woman's saddle tree. This unique item, it seems, was to be used to make a saddle for

Mrs. Washington to use on her trip back to Mount Vernon. The hard-pressed Robert Patton received his second request in a week's time for harness, saddles, portmanteaux, halters, halter ropes, and belly bands. Oakly was sent a rather more specific order for forty calf-skins to be made into collars and ten for portmanteaux. Abeel ordered James Calhoun, Deputy at Baltimore, to supply light canvas, duck, and paper.[13]

The repetitive nature of Abeel's orders to the Department Deputies suggests that he did not attempt to impose any elaborate system of specialization on the various deputies. Nearly everyone received orders for traces and orderly books, suggesting that the Deputy Quarter Masters were expected to have at their disposal a fairly basic complement of artisans, including blacksmiths, harnessmakers, bookbinders, coopers, and so on. This ideal situation, however, was often found to be unattainable, and some specialization developed. John Oakly, for instance, seems to have had an unusual number of tanners working for him.

Lest it be thought that Abeel relied entirely on the outlying Deputies to supply the wants of the army, his correspondence, wherein he reported to Greene and Pettit nearly every day, discloses the extent of his own activities at Reading. The flow of equipage between Reading and camp increased markedly, and was now only occasionally restricted by lack of transport. On May 20, Abeel sent off three hogsheads of harness and four dozen orderly books. The next day 1,120 knapsacks went forward,

but Abeel warned that they had best be issued immediately or aired before storage, for he had just lost 500 of the articles from what would later be known as spontaneous combustion. (The process of coating the knapsacks with paint rendered them particularly vulnerable to fire.) More knapsacks, about 1,600 Abeel predicted, would be ready in a week's time. He sent also cutting boxes, and 240 tent poles, and requested that some wagoners be rounded up from among the soldiers at camp to assuage his transportation difficulties. Two days later, on the twenty-third, 200 good axes and a substantial supply of tailors' equipment, including shears, grease, thimbles, and 5,000 needles and bodkins went to the army. Apparently Continental currency arriving at camp came in uncut sheets of bills, and Abeel sent shears for cutting them up into individual notes. Another six dozen orderly books went off, but Abeel was finding the production of these to be distressingly slow, as he was forced to rely upon one superannuated bookbinder. On the twenty-fourth Abeel sent six boxes of horseshoes to camp, as he feared that with the increase of horses in the Continental yard a shortage would develop. Greene appears to have found in Abeel a man who could anticipate needs, rather than passively await demands.[14]

During that same hectic week Abeel sent three hospital tents with poles to Doctor Cochrane at camp, and repaired and sent the horseman's tent used in the field by Colonel Thompson, the Wagon Master General. He had managed to have four boxes of arms,

presumably carbines, repaired with lightning speed, and he sent them via Colonel Hooper to Sheldon's Dragoons in New Jersey. This task undertaken by Abeel is yet another instance of the fluidity of responsibility in the Quarter Master's and Military Stores Departments. During this same period Abeel vigorously tackled the problem of tent manufacture, and despite being hampered by lack of sufficient materials, he made considerable progress. He reported to Pettit that with a sufficient supply of light canvas his tentmakers, who were under the direction of Philadelphia sailmaker Joseph Moulder, could deliver 200 common tents per week. While he waited for light canvas to come in from outlying areas, Abeel experimented with manufacturing tents from old sails. He found, however, that the difficulty in manipulating and sewing this heavy fabric slowed production to about eighty tents per week. He estimated that 200 tents could be made of the sails he had on hand, but that they would be so heavy that they would require twice the normal wagon transport. (Manufacture would have been facilitated by the presence of a number of Philadelphia sailmakers in exile from the occupied city.) Seven hundred and fifty old tents were under repair and would soon be sent, and 300 new ones could be made of light and heavy cloth before Abeel would run out of materials entirely. A new tent for Adjutant General Alexander Scammell would be made when new material arrived, but as a temporary substitute Abeel sent a tent to camp which he guaranteed would keep the rain out for at least

a fortnight. Eleven marquees and horsemen's tents were scheduled to leave for camp the following day.[15]

The manufacture of knapsacks was moving along rather more encouragingly. Abeel was employing women at Reading to sew the articles, manufactured from oznabrigs which Butler had turned over. Abeel sent with his letter of the twenty-seventh 1,322 more to camp, promising that 700 more would follow in about eight days. A further 450 were ready for painting but materials were now running low. Abeel manufactured canteens from a quantity of cedar which had just arrived, and had sent more wood to Lebanon so that workmen there could be employed manufacturing them. He requested Cox to send him another shipment, so that he could make grease buckets for the wagons he was building at Reading. As a final flourish, Abeel sent with his letter six lead ink pots, six brass pocket ink pots, and six papers of ink powder. All these were apparently provided so that the Quarter Master's Department could continue their burgeoning correspondence.[16]

With this quantity of material heading for camp, the Quarter Master's stores at camp must have fairly bulged. Much of the material, however, was issued as soon as it was received. The stores, which to all indications were at or near Moore Hall, could probably have been confined to a barn complex attached to the structure. It is not improbable, however, that special structures were built on the property to house the materials, as Abeel noted that following the Valley Forge encampment, considerable quantities of stores remained at Moore Hall.

During May, Nathanael Greene appears to have lavished particular attention on correcting the slackness in his department and in defining more carefully the custodial responsibility of the Quarter Master with relation to that of the Department of Military Stores. Greene and Flower both set about separating the entangled stores at Lebanon, the confusion in which Abeel had commented upon earlier in the month. During this period the Deputy Commissary of Military Stores at Lebanon, Jonathan Gostelowe, gave over to Deputy Quarter Master Robert Patton 5,088 new knapsacks, 2,160 canteens, 1,114 tomahawks, and 314 haversacks, many of which were probably issued immediately to the army.[17]

Moore Furman, Deputy Quarter Master at Pittstown, New Jersey, was being employed during May as an agent for the purchase of iron to be made into the hardware for wagon traces.[18] He was also called upon repeatedly to supply wagons, teams, wagoners, and saddle horses, all in prodigious quantity. Whereas Greene used Abeel principally to supply equipage, Furman was the recipient of most of his orders for wagons and drivers. Implicit was Greene's recognition that interior Pennsylvania had been drained of logistical means, whereas there was a reasonably good source of refugee labor in the interior towns to aid in the manufacture of equipage. Furman's area, presumably, had not been so badly bled of wagons and horses the previous winter. Although this division of responsiblity was informal and far

from strictly observed, it is certainly worth noting. It is also evident that in both Furman and Abeel, Greene had found men who he could drive hard and who would deliver at least satisfactory results.[19]

Activity at Reading, which had become one of the most important staging centers for the spring campaign, intensified in June. Abeel's principal concerns were supplying iron traces and trace chains for the baggage train, and he continued his feverish manufacture of canteens, knapsacks, and tents. Apparently there were few coopers at Reading who could turn out canteens, and he queried other Deputies on the workmen they might have who could take on the job. He sent a shipment of cedar to Robert Patton at York for the manufacture of canteens, and he asked Hooper at Easton and Oakly at Bethlehem if they had men who could manufacture them. At length he found that John Mitchell, Deputy Commissary of Military Stores at Pottstown, had artificers who were experienced in the work, and he suggested to Mitchell that he send the men on to Reading so that he could supervise them himself. Abeel also contracted locally for canteens, to be supplied at four shillings apiece. He arranged with Deputy Quarter Master Chace at Boston for a shipment of 3,000 canteens from that vicinity. As a result of these initiatives, Abeel was able to send 1,400 canteens to camp on June 5, and another 3,000, apparently the Boston shipment, two days later by flat-bottomed boat. These were sent on without straps for carrying, and John Mitchell complained to Abeel that

6,000 straps were wanted at camp, and that he was unable to supply anywhere near that number. The next evening Abeel dutifully sent 2,252 straps down by boat, promising more the next day. By the supply standards of the time, Abeel was becoming a paragon of efficiency.[20]

He was doing this, to his own increasing embarrassment, with little or no cash. Greene had apparently not sent him out with any substantial sum to set up his office in Reading. Nevertheless, Abeel's financial responsibility quickly aggregated. Late in May, once Abeel had proven himself, Greene formalized his pre-eminence over the other Deputy Quarter Masters by appointing him Superintendent of all Camp Equipage and Quarter Master's Stores in the United States, with the result that he was soon being importuned by deputies in distant quarters for supplies. Although there is no doubt that Greene designed Abeel's title to assist him in serving the needs of the main army, the new Superintendent apparently felt that he could not ignore requests from as far away at Boston, if he was in turn to receive any assistance from these distant quarters.[21] Toward the beginning of his tenure at Reading, Abeel was rescued from complete financial insufficiency by Colonel Jacob Morgan, the Deputy Quarter Master at Reading. Abeel got on famously with him, and was soon referring him to as "a fine Stirling Fellow."[22] Not only did Morgan have excellent credit in the Reading vicinity, but he lent Abeel $8,000 so that

he might purchase iron. On June 1, Abeel wrote Pettit requesting $20,000 to cover his obligations and continue the work in his shops. On the seventh, he wrote to Greene, detailing his iron purchases, and asking again for money. He received instead from the staff at Moore Hall further demands for equipage. As it happened, Greene was having particular difficulty in extracting funds from Congress. Abeel received as a result a very disappointing reply from John Cox, relating that it was impossible to send money but that Abeel would have some "...the moment we are in Cash...."[23] Abeel was downcast by this unsatisfactory reply, and in an effort to elicit a more favorable response disclosed his obligations to Cox in greater detail. He related that a portion of the funds borrowed from Morgan was being expended supplying nail rods to deputies in New Jersey and in purchasing iron for Deputy Chace at Boston. Chace had sent an urgent appeal to Abeel, declaring that in Boston they were taking down lamp posts and removing iron railings from buildings to remedy the shortage of the scarce substance. Abeel had purchased about fifteen tons of bar, nail, and spike iron and had already sent nine or ten tons to Chace in the wagons in which the Boston Deputy had sent down the canteens. Patton, Ross, and Oakly had also received iron for their manufacturing operations.[24]

In part the elaborate explanation which Abeel sent to Moore Hall resulted from a pointed hint from Cox that he had overstepped his authority in paying such close attention to the Boston situation. When Abeel had first mentioned his

communications with Chace, Greene had expressed his astonishment that he had taken quite so literally his new title as Superintendent for Military Stores for the entire United States. The title was doubtless designed to be a authoritative tool whereby Abeel could command the deputies of the Department in the immediate business of securing supplies for the main army. How, Cox demanded sharply, had Abeel come to respond to such far-flung demands for iron? Abeel had countered by offering a candid description of his communications with Chace. Although Greene and his assistants may have been concerned that Abeel was assuming too much independent initiative, they nevertheless appear to have been sufficiently satisfied with his performance to let the matter drop.[25]

A further complication developed in Abeel's external relations with the Department of Military Stores, involving John Mitchell, the Deputy Commissary for Military Stores at Pottstown. Both men appear to have been responsible for supplying similar, sometimes identical articles, which resulted in some strained correspondence. Both Abeel and Morgan, for instance, had been ordered by their respective departments to produce canteens. Mitchell wrote Abeel asking for cedar, and Abeel countered by suggesting that Mitchell instead send his artificers to Reading to act under Abeel's supervision. Mitchell was also producing knapsacks, but he was making them from large pieces of duck which Abeel thought would better serve for the manufacture of

tents. He conceived this to be a sufficiently serious misjudgment to be mentioned to Greene. Apparently Mitchell employed only women in his sewing operations, and Abeel doubted that they could easily drive a needle through the heavy fabric. He suggested instead that the materials be sent to Reading, where his sailmakers, who used leather palms, could work the fabric with much greater ease. It appears doubtful that Greene sought to interfere in this matter, although on a large scale his department seems to have been assuming tasks which had previously been the sole responsibility of the Commissary of Military Stores. Because the energies of the Military Stores Department, however, appear to have been consumed entirely during this period in the manufacture of ammunition and the repair of arms, the production of such things as knapsacks and canteens diminished to the degree that John Mitchell appears to have been the only department official who dealt at all with them. Meanwhile the responsibilities of the Quarter Masters Department expanded under Greene's direction to encompass the manufacture of these items.[26]

Instead of cash, Abeel continued to receive increasingly urgent appeals from Moore Hall for more equipage. On June 4 John Cox had written, "We are in the greatest distress imaginable for want of Iron Traces & Bind Bridles, but more particularly for the former...."[27] He recommended that Abeel order all of the smiths under his supervision at Reading, Lancaster, and in outlying areas to concentrate to the exclusion of all else on

the manufacture of traces. In a postscript Cox advised, "General Greene desires you'd hurry & Drive as if the Devil was in you. These are his own words."[28] With his shipment of canteens the following day, Abeel sent off ten sets of traces and some blind bridles, with 4,000 knapsacks. He bowed to Cox's directive by asserting, "Genl. Greene may be assured I will drive as if the Devil was after me...."[29] It was a useful phrase, and Abeel did not hesitate to employ it as a lash on his own subordinates. On June 6, Abeel sent eighty-seven sets of traces to camp, and by that time had set all of his hands to work on making the scarce articles.[30]

During this period of feverish activity Abeel's shortage of cash at last began to impede his progress. He managed to keep producing on the basis of Colonel Morgan's good credit, and on June 10 sent 108 knapsacks, 43 pairs of traces, canteen straps, and harness to Moore Hall. The next day, however, he was constrained to report to Cox, "I am entirely out of money & people Dunning me daily."[31] By June 12, Abeel's need had become so insistant that he told Cox he required $40,000 in order to comply with orders coming in to him from all the military departments and to maintain his own operations. (By this he presumably referred to demands for raw materials received from Deputy Quarter Masters in the other military departments.) He nevertheless continued to send articles to camp, including forty-one additional pairs of traces, blind bridles, canteen straps, and bags of tent pins.[32]

At length Greene's office received the long anticipated cash from Congress, and Cox used the first reliable emissary to send Abeel $12,000. It in no way approached the sum he required, but it allowed him to discharge his debt to Colonel Morgan and pay his workmen. Cox gave voice to his sympathy with Abeel's predicament, revealing that Abeel's strenuous efforts to supply the army had not gone unnoticed at Moore Hall: "...well knowing how very disagreeable it must be for a man of spirit & Business to be without Cash I have embraced the first good Conveyance that hath presented since our last arrival from Congress...."[33] Cox's missive contained more welcome news. There were now more than sufficient traces in camp, and Abeel could halt manufacture of them. Moreover a large supply of common tents had just arrived from Head of Elk, and as the soldiers would now be well supplied Abeel could bend his efforts to manufacturing officers' tents and marquees. Because Abeel had corresponded with Deptuy Quarter Master James Calhoun at Baltimore on the subject of tent canvas, a supply of light duck had arrived at camp, which Cox promised to send along as soon as he could pack the material in some good tight hogsheads. From this communication it is evident that the worst of the demand for military equipage, as directed to Abeel, had passed. The Quarter Master's Department had received a sufficiency of such absolute necessities as wagon traces and tents none too soon, for in six days time the army would decamp and march across New Jersey in pursuit of General Clinton.[34] Abeel had already stilled the

hammers of some of his smiths, and he halted the remainder on about June 14. He was producing a few more common tents, for Broadhead's regiment to use in their assignment at Fort Pitt. He now bent his attentions almost exclusively on using the new canvas to supply officers' tents.[35]

An unexpectedly vexing little task had fallen to Abeel when he was ordered to provide a new set of marquees for His Excellency General Washington. Apparently Washington's old tents had become unservicable and he required a fresh set at the commencement of the campaign. One marquee was finished by June 14, save for red binding to finish the fringe about the roof of the tent, and girth web to reinforce stress points. For these articles Abeel wrote to Ross, Hooper, and other deputies, but to no avail. Presumably Abeel forwarded the tent to Washington after the opening of the campaign, if he did so at all.[36]

On June 18 the long anticipated British evacuation of Philadelphia was completed, and the news that the city was open spread with almost incredible speed through interior Pennsylvania. Continental soldiers had been strictly forbidden entry into the city by Washington, but no such strictures prevailed among the exiled workmen who had peopled the workshops of the support services. On June 18, Abeel wrote resignedly to Cox; "...upon receiving the news all our Tent makers quit work, in spite of all Moulder could do & went off to Philad^{a}, that will be the place for manufacturing for the future if we cannot prevail upon them to return."[37] The following day the main army marched from

Valley Forge towards Coryell's Ferry where they crossed the Delaware into New Jersey.

Throughout the winter a shadow army of artificers and artisans had been at work at Reading, Allentown, Carlisle, Lebanon, and Lancaster supplying the skills that rendered the efforts of men like James Abeel successful. Many, it would seem, were city men, who at the first opportunity returned to Philadelphia to see to the state of their properties, or ply their trades as the city sought to render itself habitable to civilians once more. Whatever their origins, one can only wonder at the perilous instability of their livelihoods during this period when blacksmiths, pressed to herculean efforts one week, would be laid off the next. During the British occupation those artisans who chose to leave the city were compelled to follow an itinerant life, to which they may or may not have been individually inured. The advertisements for hiring all manner of artisans in the Pennsylvania Packet, together with Abeel's mention of moving groups of skilled craftsmen about, suggest that work groups moved throughout interior Pennsylvania plying their trades and settling in where the demand for them was greatest. Of the women who Abeel and Mitchell hired, it is not known whether they were of local origin or from Philadelphia, although there may have been numbers of both.[38]

Through the frenetic month and a half that Abeel had served at Reading prior to June 19, he had successfully dispatched

all of the important tasks which Greene and his assistants had laid before him. Abeel supplied enough tents, harness, hardware, and assorted military and camp equipage for the army to get underway, and with the assistance of the Deputy Quarter Masters he had done so in a remarkably short period of time, with astonishingly little money. The degree to which he succeeded is revealed by his subsequent activities. On June 21 Abeel wrote to Jacob Weiss, Deputy Quarter Master with the army who had stayed on briefly at Valley Forge, suggesting that any stores left at the old encampment and not immediately required by the army be sent to Reading for storage. Abeel subsequently arranged to have a brigade of wagons pick up stores remaining at Moore Hall, "...as there are many stores to be removed."[39] By mid-July stores still remained at the Valley Forge location. Abeel set out to inspect them, directing that those not moved up to Morristown be sent into Philadelphia. Throughout late June and July, Abeel continued to send knapsacks, haversacks, and various items of equipage on to the army as required.[40]

VI POSTSCRIPT

The purchase and manufacture of military stores, arms, and equipage during the Valley Forge period was a composite responsibility. Because the Department of Military Stores was under the less than assiduous direction of the Board of War, Washington and Knox of necessity took an active hand in directing the manufacture, transportation, and repair of arms. Upon occasion, the strategic disposition of ordnance and small arms became a subtle yet distinct matter of contention between Washington and the erratically willful Board. The specific motives and maneuverings which underlay this conflict are far from clear, but the tangible result was that by the late spring of 1778, Washington had consolidated the power to dispose of arms and ordnance about the states as his reasoning dictated. This meant, as Horatio Gates certainly must have recognized, that Washington had accrued more pre-eminence than any other individual in the military direction of the Revolution. To use a term borrowed from a later era, Washington had won the contest over who would assume the strategic direction of the war.

In order for the main army, however, to achieve anything at all, it had to be mobile, and this was assured by the Quarter Master's Department under the direction of Nathanael Greene. Thus in another crucial area, Washington had succeeded in placing the matter of military preparedness in the hands of a trusted member of his inner circle. The events of the late winter and spring of 1778 demonstrate that Washington was working progressively toward lessening his dependence upon men whose motives jeopardized his own military success. He had learned, during the harrowing winter at Valley Forge, the direct relationship between efficient management of the support services and his ability to successfully wage war.

AFTERWORD

An examination of the operations of the Continental Army's support system over a six month period with the object of identifying causes for failure, of necessity involves the inclusion of considerable detail. The system could only be as effective as its discrete parts, and causes for failure often devolve into a host of minute evidences of discord and disruption. Difficulties which engulfed the lowest echelons of purchasers and transport personnel were made manifest almost immediately in supply dearths. There was little room for slackness or slippage in the system, because of the near cessation of foreign imports and the hazards entailed in constructing a supply network from the bottom up during so brief a period of time.

A deficiency of foresight beset nearly all of the support services in the late summer and autumn of 1777. To William Buchanan, James Mease, and possibly Thomas Mifflin, the Continental Army was still a seasonal army; one which melted away in the winter to coalesce once again when the ice-locked rivers reopened in the spring. There seems to have been no notion whatever

in any of the support services that supplies would have to be kept flowing throughout the winter at the same rate that characterized summer campaigning. The army at Cambridge in 1775-1776 had been able to subsist on the undiminished riches of the environs; the army about Morristown in early 1777 had been scattered, its numbers decimated by disease and desertion. The difference at Valley Forge was that Washington was bent on endowing the army with some degree of permanence. Despite disease, death, and a plague of resignations, the army stayed in one piece. This was a development for which the support services appear to have been entirely unprepared.

The dependency on local credit dictated that when the army moved from New England to the middle states, a corresponding changeover in support service personnel occurred. Congress had yet to be persuaded by events that the successful supply functionary not only had to command services within his own territory, but also had to be sufficiently energetic and reputable to establish avenues of commerce with distant regions. Thus when the Continental Army arrived in New Jersey and Pennsylvania, the support services began to sprout Pennsylvanians in the principal offices. This, of course, was a result of the prevailing theory that regional men commanded the best local credit and knew the best sources of supply. What occurred, however, was often an inability to extend consistantly the vectors of supply to more distant quarters, when the army had exhausted its

proximal resources. This problem is glaringly evident in the difficulty the Commissary, Clothier's Department and Military Stores Department experienced in extracting desperately needed stores from New England and the South. Although Commissary General William Buchanan had become enmeshed in a rather hair-brained scheme involving trading salt from New England for flour from the middle states, for the most part he neglected the management of his New England deputies unconscionably. Buchanan did not perceive the crucial necessity of bringing on beef from New England into southeastern Pennsylvania, and were it not for some energetic Department Deputies in Connecticut, the system would have broken down entirely. Benjamin Flower, as Commissary General of Military Stores, failed to make proper provision for forwarding to the army the thousands of muskets and items of military equipage which had arrived in New England from France. It required the direct intervention of Washington to bring the guns on from Springfield, and they arrived at Valley Forge only a scant two weeks before the British evacuation of Philadelphia. So too, stockpiles of materials and fabrics urgently needed by the Clothier's Department, having arrived from Europe, stayed at Boston, neglected by Clothier General James Mease, through much of the Valley Forge winter. Congress, groping for a solution to the clothing problem, threw the matter of clothing the troops back on the states, rendering more erratic still the supply of raiment for the army.

Throughout the foregoing study it has been suggested that to varying degrees logistical failure, maladministration, financial incapacity, and local disaffection adversely effected the operations of the various supply departments. Disaffection and neutrality rendered the purchase of supplies in southeastern Pennsylvania more arduous than it would otherwise have been. Evidence for this is impressionistic at best, and is well-nigh impossible to quantify. The practice of sequestering by the inhabitants seems to have chiefly centered upon grain, forage, and livestock commodities, although clothing collections as well were not crowned with any particular success.

The problem of financial inadequacy was certainly not peculiar to the Valley Forge winter alone. The imposition of price ceilings for commodities purchased for the army imposed by the state and Continental governments, apparently helped to keep prices under control, but at the same time they rendered the purchase of grains, forage, and meat by the Continental purchasers particularly difficult. It would seem, however, that Congress had very little choice in the matter. Upon the relaxation of price ceilings, the cost of commodities rose so precipitously in 1779 that it brought down the otherwise efficient administrations of Nathanael Greene and Jeremiah Wadsworth.

The most pervasive, and least excusable contributor to the supply dearths was the collapse of the transport facilities provided for the army. Certainly the winter season entailed the

usual obstacles of swollen rivers and impassable roads. The numbers of oxen, horses, and wagons needful to the army, however, diminished and then vanished entirely by the beginning of March, 1778, representing a particularly serious problem that demands some explanation.

Here, a brief comparison of the American supply system with practices and conditions which prevailed during the mid-eighteenth century on the European continent and in North America is particularly instructive. Yet if one chooses as examples the armies engaged in the Seven Years' War, the conflict most nearly contemporary to the Revolution, a comparison may still only be framed in the broadest sense. The French Army, for instance, did not have its own internal commissariat during the Seven Years' War, and its supply program was subject to a wholly divergent agricultural economy and set of culturally imposed food preferences. The soldiers of the French Army of the Lower Rhine, while operating in Germany, were provided with a daily ration of twenty-four ounces of bread and a quarter pound of meat. The American Revolutionary Army, following the British tradition, could not be weaned from a preference for a high proportion of meat in the daily ration, usually amounting to a pound or a pound and a quarter.[1] The heavy proportion of bread consumed by the French required that elaborate field ovens be constructed within a reasonable proximity of the army, wherever it might be, the flour either being drawn from France or purchased from the

more compliant of the German principalities. The American demand for meat, whether fresh or barrelled, dictated reliance upon lengthy supply lines stretching from Valley Forge to New England and the South.

By the end of the Seven Years War, the French Army was the last European army of any consequence to rely upon civilian entrepreneurs almost exclusively for the supplies issued to the troops. While the British Army maintained its own commissariat from 1760, modelled on that of the Prussian Army, it too relied upon civilian contractors to supply rations. The American Revolutionary army was apparently unique in that it had a wholly internal commissariat. Provisions were purchased directly from farmers and millers, prepared, and then shipped solely by employees of the Commissary Department.[2]

The Delegates to Congress may not have known that they had devised an innovative commissarial system. It was simply a reasonable way to get around the problem of not having contractors at their disposal who were sufficiently substantial to provide the army's rations. Deputy and Assistant Deputy purchasers took the place of external contractors, in that they compiled supplies from farmers and millers. Instead of being paid on a per-ration basis, as were the huge civilian contracting firms supplying food to the British and French armies, they received a percentage of the Continental funds they expended on commodities. They were also subject directly to the orders, regulations, and discipline of Congress.

But for these important divergences, there were certain over-arching logistical and technological problems shared by eighteenth century armies, be they American, French, German, or British. They endured, as a matter of course, shortages of every description, which commonly curtailed military operations. The French Army of the Lower Rhine, while operating in Germany, consisted at times of as many as 200,000 men, who probably consumed something in the neighborhood of 400,000 pounds of flour a day while their thousands of horses munched their way through 70,000 tons of hay and 4 million bushels of oats during a winter season. The lumbering behemoth that was the Army of the Lower Rhine was so shackled by its need for supplies while operating without the borders of France that its maneuverability was severely impeded by interrupted supplies of food and forage. This could result in savage encounters between soldiers and inhabitants. Following their defeat at Minden in 1759, the French Army retreated a distance of thirty-five leagues, or about 105 miles. This had the effect of unhinging the meat supply system, although the army was apparently supplied with bread. The troops exacted a heavy toll on neighboring farms in order to make up the dearth, and the peasants in turn attacked the wagons bearing wounded back from the field. By way of reprisal, the troops burned several small towns. Cast against this example of the rapaciousness of an army denied food, American and British behavior resulting from provision shortages during the Revolution appears to have been generally restrained.[3]

Supply of adequate quantities of forage presented a particularly galling problem to an eighteenth century army in the field. It was sufficiently difficult to obtain and transport that it remained the one supply matter handled internally by the French ministry during the Seven Years' War. During the winter season, an army could be effectively immobilized by forage dearths. Over the winter of 1758-59, the French were compelled to send 20,000 horses and six cavalry regiments back to France so that the animals could be fed. Military movements during the winter season, particularly those involving the French Army's ponderous field artillery, could be altogether abrogated. Horses died by the thousands, from overwork, undernourishment, and epidemics of diseases like glanders. In this light, the destruction of the Continental Horse Yard at Valley Forge through malnutrition and disease takes on a less startling aspect. It is certainly less explicable, however, than it is during the Seven Years' War on the European continent. The French officer corps was in the grips of what Lee Kennett describes as an unchecked "...mania for luxe in the camp and field..." which "...kept the roads filled with thousands of wagons hauling trifles...."[4] It was certainly not mirrored by the Continental Army, wherein Washington did his best to curtail such lavishness during 1777-1778. In the American case, the dwindling horse yards and shrinking supply of wagon conveyances and harness is attributable not to actual shortages, nor, as demonstrated by Nathanael Greene, to an insufficiency

of funds and labor, but to the maladministration of the Quarter Master's Department under Thomas Mifflin.

Another, perhaps more apt, example of logistical problems besetting an eighteenth century army can be sought in looking at the British forces in North America operating against the French during the Seven Year's War. By continental European standards, the prosecution of the Seven Year's War in America involved a miniscule transport train. The core of Lord Loudon's wagon system in 1757 consisted of fifty wagons specially constructed for the British Army at a cost of 3,521 pounds. (These were of course supplemented by batteaux, larger craft, and auxiliary wagon transport.) The following year, Abercromby estimated that he needed 800 wagons, 1,000 batteaux, and 1,000 oxcarts to haul the 5,760 barrels of provisions necessary for his advance from Albany against Ticonderoga with 20,000 men. This was still a diminutive transport arrangement in comparison to the requirements in the principal European theaters of the war.[5]

When one observes that when Washington left the Valley Forge vicinity in pursuit of the British force under Sir Henry Clinton with something over 300 wagons bearing baggage, ammunition, food, and forage, one discerns how slender were the resources he had at his command. The Forage Master General Clement Biddle, however, had carefully preselected forage magazines along a proposed route of march, thus decreasing the necessity of hauling it along. While operating along the strategic line stretching from Head of

Elk, Maryland, to the Hudson Highlands, Washington's supply lines to the interior food producing regions were, while hampered by insufficient transport, very good indeed by eighteenth-century standards. The lightness of his supply train, together with thoroughly worked-out preparations, rendered his pursuit of Clinton remarkably speedy. Frederick the Great of Prussia, whose lightning movements confounded the French commanders who opposed him, operated on a five-march scheme, interspersed with a one-day halt to allow the commissaries to bake bread and bring up other supplies. In June, 1778, Washington used a three-day march sequence, interrupted by single-day halts, but he moved his small army at considerable speed, plotting marches of fourteen to sixteen miles per day in order to catch up with Clinton.[6] Like Frederick, he could when necessary move even faster.

It is of particular interest to note the degree to which the management of the support services involved several issues of contention between the Board of War and Washington and his adherents. The Board of War, during the winter of 1777-1778, made a rather disjointed series of attempts to grasp control of all of the most important offices of the support services. Under Chairman Horatio Gates, this diminutive but sporadically influencial committee attempted to assume direct control of the Quarter Masters Department, articulate a new system of commissary supply for the army, and direct the distribution of arms and ordnance throughout the states. Domination of these functions

meant that the Board would have achieved broad-based, Congressionally sanctioned direction of military planning, which Washington clearly wished to retain as the prerogative of high-ranking officers of the army under the aegis of Congress. Probably because the Board launched their offensive toward so many objectives, they did not succeed in securing permanently any of them. The flagrant, internecine warfare which resulted was far from beneficial to the army, as in the case of the Commissary Department it only succeeded in aggravating still further the supply problem and in markedly disquieting the officials of the Department.

Washington and the Board of War contended throughout the winter for the support and sanction of Congress, and it is evident in late 1777 that Washington was playing with the weaker hand. His military record of the past several months was far from enviable, particularly in the light of Gates' recent success at Saratoga, and to add to the unstable situation, Congress was increasingly indecisive because of the proliferation of factions. Washington's brilliant coup of the winter, as pointed out by Wayne Bodle in Volume I, Chapter V of this report, was his dextrous management of the Congressional Committee of Conference which sat at Valley Forge to confer on a host of matters pertaining to military administration and organization. Through this committee Washington succeeded in impressing Congress with the plight of the army, in pressing for the

reorganization of the army on the European model, and he secured the crucial appointment of Nathanael Greene as Quarter Master General. He also succeeded in shoring up his own influence in Congress, with the result that the importance of the Board of War began to diminish.

Although Congress can be taxed with insensitivity to the problems and central importance of the support services, and with compounded ill-judgement in the selection of functionaries, the opprobrium with which the body had been saddled by historians is not entirely deserved. During this period Congress was certainly weak, pathetically few in number, and suffering from geographic dislocation. Its efficacy, moreover, was curtailed by slender financial resources. The oppressive conditions under which it labored should be sufficiently obvious to disuade a judicious analyst from pummelling the body with broad, demeaning generalities. Henry Laurens, for all of his inconsistencies of behavior, was a highly principled man. His extreme aversion to factions, however, perhaps induced him to studiously ignore them, thus permitting them to proliferate. The congested, hot-house atmosphere at York produced some very strange organisms, and there, in the absence of a sufficiently formidable counter-force, the Gates/Mifflin faction throve unchecked for many months.

Historians have found it almost impossible to resist fashioning the Valley Forge Winter into a "crucial turning point" of the Revolutionary odyssey. It was, of course, but one of

many. Washington had equally severe trials to face in the field, in the political arena, and in restless, ill-supplied winter cantonments. The Continental Army had certainly not seen the last of cold, rags, and ravaging hunger. What was unique about Valley Forge was the unparalleled convergence of hazards besetting the army, as one support mechanism after another faltered, then failed, threatening the survival of the Army as a concerted force.

Much of the information which has appeared here bears on the nature of revolutionary armies, as compared to the military organizations of established powers. In contrast to some revolutionary forces, the Continental Army evolved into an approximation of its opponent. Despite this, the popular mythology surrounding the American Revolution tenaciously represents the revolutionary effort as the triumph of the untrained, "embattled farmer" over the superbly trained and organized armies of the Crown, with the individualistic, American rifleman confounding the mechanically massed oppressor. The David and Goliath scenario is a telling, but misleading component of our national self-image. In reality, both the American army and its support services began early in the war to evolve toward higher levels of training and efficiency, so as to more effectively combat their British foe. The Valley Forge winter was a period during which some of the realities of army supply and logistics were perceived for the first time by Congress and department officials. At the same time the army itself progressed,

albeit slowly, from a seasonal, militia-modelled emergency contingent toward a pseudo-professional military organization. If the army was, as many of its officers wished, to approximate more closely a European model, then its support services would have to attain commensurate levels of sophistication. The American army did not have at its command an experienced cadre of professional logisticians and commissaries, and Congress was compelled to seek out talent by what amounted to trial-and-error, until through a convergence of potential and experience, men emerged who were adequate to the task.

APPENDICES

APPENDIX A: MATERIALS AND FABRICS

The study of materials employed in the manufacture of clothing for the soldiery is complicated by the circumstance that many of the fabric terms and types have fallen from usage. In the cases of those terms noted below which derive from locations in France and the Netherlands, it should be noted that many, by the time of the Revolution, had become generic. In other words, the term "oznaburgs" referred not only to cloth imported from Holland, but also to linen manufactured in the Colonies. A good deal of this fabric was imported, but the term should not be understood to apply only to imported goods.

At the outbreak of the Revolution, the Colonies were importing substantial amounts of cloth from Europe, especially fine fabrics suitable for clothing the wealthy classes. Those at the other end of the social spectrum depended upon domestic industry and homespun cloth. Of the European cloth, woolens were the principal imports, followed by linen and finally cotton, which was more expensive than the universally employed grades of linen.

The cessation of British imports substantially reduced supplies of woolen cloth available for clothing the army, although there were a great number of people spinning and weaving their own woolens for domestic use. With reference to the clothing shortages experienced by the army, Clark has said that "...this, like many other troubles of the Continental government, was due more to faults of revenue and currency than to a general lack of supplies." Household looms not only clothed their owners, but produced a surplus for sale. For

instance, Augusta County, Virginia, was producing very substantial amounts of "osnaburgs," or linen. Clark's assertion points toward the conclusion that the states did not universally lack the ability to produce quantities of wool in New England and linen in the South, although there was a failure of the flax crop in Delaware during 1777. The recourse to seizure of cloth and clothing for little or no payment may have had the baleful effect of stunting potentially productive sources of domestic manufacture.

Aside from the sources mentioned, the best lexicon for antiquated fabric terms is the complete Oxford English Dictionary.

Bergenopzooms. For Bergen-op-zoom in Holland. James Mease described this imported fabric as "coarse Woolen stuff" suitable for making into jackets. It was apparently a low quality, dyed woolen cloth. (See Account by James Mease of imported clothing, 23 July 1778, PCC, RG 93, Roll 38, NA, Washington, D. C.)

broadcloth. A tightly woven, carded, and costly woolen fabric commonly used in uniform coats and civilian garb well into the twentieth century. Chiefly imported from Britain prior to the Revolution, there were few manufacturers in America. It was most often dyed black, blue, red, or left white. (See Clark, Manufactures, I, p. 109.)

cambric. (Often spelled "cambrick.") A very fine linen, which originated in the French city of Cambrai. Also applied to any very fine cotton resembling cambric. It was most often employed for shirt ruffles for officers, and was mostly if not entirely imported.

dowlas. (Also dowlace, doulas, douglas, etc.) Generally a cheap linen or sometimes calico, named for the town of Doulas in Brittany. (Calico, at this time, referred to a plain white cotton like a heavy muslin.) Dowlas was generally used for shirting. (See Joseph P. Shipley, Dictionary of Early English. (Paterson, N. J.: Littlefield Adams & Co., 1963), pp. 223-224.

duck. A coarse, heavy cotton fabric. "Ravens Duck" was used by Mease for tents. (See Mease return, noted above, 23 July 1778.)

flaams. Probably a linen fabric like canvas or sail-cloth. (See Mease return, noted above, 23 July 1778.)

frize. (Also, frieze). A heavy, coarse woolen fabric.

German serge. Probably a woolen worsted fabric imported from Germany. According to Mease it was suitable for breeches. (See Mease return noted above, 23 July 1778.)

Hollands. Imported, unbleached linen. (See Clark, Manufactures, I, p. 110.)

linen. (Often spelled "linnen" at this time.) A strong, lustrous cloth made of flax or hemp and generally used for shirts. It was especially valued for its coolness by residents of the southern states. Linen was the fabric which in the eighteenth century served the purposes later assumed by cotton.

Osnaburgs. (Also osnabrigs, oznabrigs, etc.) A cheap sturdy linen imported from Holland. It was used as we now use denims, i. e. for work clothes. (See Clark, Manufactures, I, p. 110. It was also used during the war for tent flaps and closures. (See Mease account noted above, 23 July 1778.)

shalloons. A worsted twill used for coat linings.

swanskin. A soft-napped fabric resembling flannel.

Ticklenburg. Probably a type of coarse linen. Mentioned by Mease as an imported cloth suitable for shirting. (See Mease return noted above, 23 July 1778.)

APPENDIX B

Clothing return, unsigned, 1 January 1778, frame 445, Reel 13, PA, PHMC, Harrisburg, Pa.

Regt.	Coats	Vests	Breeches	Shirts	Shoes	Hose	Hats	Blankets	Hunting Shirts	Overalls	Mitts	Caps	Leggings	Great Coats
1st Pa.	479	442	296	1190	1265	823	275	187	-	20	45	24	-	-
addnl *			4		18			1		8				
2nd "	323	393	404	920	925	862	182	288	1	162	88	12	12	-
3rd "	424	529	571	1109	1282	1013	212	363	52	106	-	-	30	-
4th "	381	466	444	1028	1043	906	341	321	234	229	12	36	-	-
5th "	610	625	513	1392	1309	1196	318	385	-	306	24	-	-	-
6th "	300	322	299	557	649	643	142	210	20	179	36	72	30	-
7th "	338	264	294	704	916	647	200	252	214	200	12	12	-	-
8th "	515	789	264	1475	1273	914	250	271	-	291	-	-	-	5
9th "	302	251	279	951	937	577	214	364	174	370	-	-	10	-
10th "	335	340	350	851	1042	726	264	341	-	115	12	12	-	-
11th "	262	315	294	902	1052	725	76	406	9	145	-	-	-	-
12th "	400	506	294	902	1052	725	76	407	9	145	81	15	30	-
	4,669	5,333	4,309	11,825	12,519	9,673	2,585	3,686	704	2,175	310	493	112	5
	4,388**	5,203	4,027	10,756	10,977	7,885	2,383	3,626	674	2,267***	172	0	0	0
	281	130	282	1,067	1,542	1,788	202	60	90	-	138	493	112	5

* Later issuances to the 1st Pennsylvania Regiment

** Clothing issued from 13 January 1777 to September, 1777, as taken from return of 1 December 1777, signed by James Mease, frame 160, Reel 13, PA, PHMC, Harrisburg, Pa.

*** There is some irregularity in the figures given for overalls. The figures of the 1 December 1777 return appear to have been revised downwards in the 1 January 1778 return.

The bottom line above represents clothing issued to the Pennsylvania line between September 1777 and 1 January 1778.

APPENDIX C

GLOSSARY OF TERMS - MILITARY EQUIPAGE

The brief definitions supplied in this section require some pictorial amplification. Several standard reference works are admirably suited to this purpose. Generally, Harold L. Peterson's The Book of the Continental Soldier (Harrisburg, Pa.: The Stackpole Company, 1968) illustrates excellently the standard equipage and arms of the Continental soldier. Weapons and accoutrements are illustrated exhaustively in George C. Neumann, The History of Weapons in the American Revolution (New York: Bonanza Books, 1967), and George C. Neumann and Frank J. Kravic, Collector's Illustrated Encyclopedia of the American Revolution (Secaucus, N. J.: Castle Books, 1975). Neumann's Collector's Encyclopedia covers polearms, and a chapter in Rodney Hilton Brown's American Polearms 1526 - 1865 (New Milford, Conn.: N. Flaydermann & Co., Inc., 1967), is also devoted to the subject. A standard work covering the manufacture and service of artillery of the period is B. P. Hughes, British Smooth-Bore Artillery: The Muzzle Loading Artillery of the 18th and 19th Centuries (Harrisburg, Pa.: The Stackpole Company, 1969). The Museum Restoration Service at Ottawa, Canada, has reprinted a superb selection of standard eighteenth-century military manuals and dictionaries, among which the following are particularly useful: George Smith, An Universal Military Dictionary, London, 1779 (MRS 1969), William Rudyerd, A Course of Artillery, Mss 1793 (MRS 1970), and Guillaume LeBlond, A Treatise of Artillery, London, 1746 (MRS 1970), and John Muller, A Treatise of Artillery, London, 1780, (MRS 1965).

ANTIMONY — A metaloid (Sb), used in the manufacture of dry portfire.

BLUNDER BUSS — A short shoulder arm with a bell-shaped muzzle, designed to be loaded with musket or pistol balls which scattered with a shotgun effect when fired. Its principal military use was in the clearing of a narrow space, such as a stairway or doorway. It was also used as a naval boarding weapon.

BRIDLE, BLIND — A bridle equipped with blinders to restrict the vision of horses. Used with teams to prevent skittishness.

BRUSH & PICKER — See WIRE & BRUSH

BUDGE BARREL — A barrel holding forty to sixty pounds of cannon powder, used on the firing line for the service of artillery. At the open end there was a leather closure or flap, which was affixed to the barrel with brass nails. (Brass nails were used instead of iron to prevent accidental discharge of the powder from spark ignition.)

BULLET MOLD — (or MOULD, 18th c.) Molds made from iron, brass even occasionally stone, to cast lead musket and pistol balls. "Gang" molds had multiple cavities for rapid production.

CARBINE — (or CARABINE, 18th c.) A short, smooth-bore shoulder arm, usually having a barrel of about three feet in length, used by mounted troops.

CARBINE SWIVEL — Precise definition uncertain. These may have been the swiveled hooks, or snap-locks, used to attach the carbine to the cross-belt used by horsemen. The cross-belts would normally have a swivel attachment so that the carbine sling, or belt would not become twisted in service.

CARTRIDGE BOX — Generally a hard leather pouch attached to a cross-belt or waistbelt, which held the soldier's musket ammunition. The boxes, which were of varied design, held from eighteen to thirty-six rounds of ammunition, usually in the form of paper cartridges.

CARTRIDGE BOX, TIN (or iron)

(also CANNISTER) A cannister made of tin plate or rolled iron and used as a cartridge box. These were employed as substitutes for leather cartridge boxes, particularly when leather was in short supply.

CARTRIDGE BOX BELT (or STRAP)

Thin leather shoulder straps designed for carrying cartridge cannisters.

CARTRIDGE PAPER, MUSKET

Scrap or other cheap paper used in making musket cartridges.

CARTRIDGE PAPER, CANNON

During the autumn and winter of 1777-1778, paper used in making cannon cartridges, or individual, pre-measured powder loads for artillery. Flannel was the favored material for this purpose, but apparently shortage of materials dictated that the Continental artillery used paper during 1777-1778.

CASE SHOT

An artillery load consisting of a tinned can filled with musket balls and used for short-range fire into massed infantry. Case shot was used in both field guns and howitzers. Occasionally called "cannister."

DRAG ROPES

In the service of artillery, pairs of ropes used by artillerymen to maneuver field pieces in the line of battle. The ropes were attached to rings on the cheeks of the artillery carriages.

DRUDGING BOX

A tin cannister with a perforated lid, used to shake meal-powder over the fuses of mortar shells, once loaded. The purpose was to insure that the fuze took fire once the piece was fired.

DUCK

A material similar to light canvas, used in making tents, knapsacks, and for a variety of other purposes.

FLINT

Knapped pieces of flint used in the ignition system of flintlock firearms. Most flints used by the American troops were imported from France, and were honey-colored. The flints employed in the British army were more often grey in color.

FUSE

(also FUZE, 18th c.) Most often a conical wooden tube filled with powder and tapped into the aperture in artillery shells, usually done just before loading. The gunner could cut the fuse to a desired length, thus exerting rather imprecise control on the interval between the firing of the piece and the explosion of the shells.

GIMLET — (or GIMBLET, 18th c.) A small hand tool used to start or make holes in wood or leather

GIN — A tripod-like device used to mount and remove artillery pieces from carriages. Heavy ropes and blocks suspended the piece from the apex of the tripod, and the raising and lowering of the gun was operated from a capstan, usually attached to the gin.

GIN BLOCK — Heavy block, to be used as a "block and tackle", with the GIN.

GRAPE SHOT — In artillery, small iron shot enclosed in a canvas bag, roped on the outside and used in field pieces against short range targets.

HALBERD — An axe-like polearm, which had generally fallen from favor in the British service at the time of the Revolution. The Americans apparently captured several from the Hessian troops at Trenton. Used by officers and NCOs as a symbol of rank.

HESSIAN CAP — A tall grenadier's cap, frontally ornamented with a conical brass plate, used by Hessian and other German troops.

HORN — Powder receptacle made of a hollowed out steer horn, and used by militia, gunners, and occasionally regular infantry in the American service.

HOWITZER — Short artillery pieces, generally used in firing shells along a more arching trajectory than that characterizing guns. The trajectory was intermediate between that of the gun and that of the mortar. Used in bombarding, and at short ranged with the CASE and GRAPE SHOT. Five and one-half and eight-inch howitzers were most common in the American service in 1777-1778.

KNAPSACK — A square sack made of canvas or duck and sometimes painted for waterproofing, worn on the back to carry personal effects and articles of clothing.

LANYARD — Heavy, strong cord.

LIGHT HORSE CAP — A molded, hard leather cap of varying design used as protective headgear by mounted troops.

LINSTOCK — (or LINT STOCK, 18th c.) In artillery, a staff to carry slow match during an action. The slow-burning cord was twisted about the ornate iron head of the staff, and it was stuck in the ground near the artillery pieces which it served. From this smouldering cord quickmatch, or portfire was lit, and was in turn used to touch off the artillery pieces. Slow match was designed to burn at a rate of roughly one yard every eight to nine hours, and was thereby a reliable source of ignition throughout an engagement.

MARLIN — Untwisted hemp, used in artillery as a wrapping for twisted rope in order to prevent it from binding in blocks and pulleys.

MARQUEE — A large tent, usually oval in shape, used by high ranking officers in the field.

MORTAR — In artillery, a short piece designed to fire shells at a very high angle of trajectory and used principally to lob shells into works and towns.

PALM — A protective leather device worn on the hand by sailmakers and tentmakers and used in driving a needle through heavy fabric.

PILION — A saddle attachment used by dragoons. Generally, a small pad attached behind the saddle, on which another person might ride or upon which a portmanteau might rest.

PINCHER — In artillery, pincers used to extinguish portfire.

PORTFIRE — A quick-burning chemical substance used to touch off artillery pieces at the vent. It was molded into stick form and placed in a wooden PORTFIRE STOCK. It was ignited at the LINSTOCK and then applied to the vent of the piece. The portfire was then extinguished by clipping off the burning end until needed again. Muller gives the composition of both wet and dry portfire, both of which were packed into paper sticks for use. Wet portfire included saltpeter, sulfur, mealed powder, and linseed oil. Dry portfire was composed of saltpeter, sulfur, mealed powder, and antimony.

PORTFIRE STOCK — A short wooden staff used to hold sticks of PORTFIRE.

PORTMANTEAU — In dragoon equipage, a small leather box or bag for personal effects and clothing. Some were designed to be carried to the rear of saddles.

POUCH — A soft leather receptacle for cartridges, loose ball, and buckshot.

RIFLE — A shoulder arm with a rifled, or grooved barrel, which greatly enhanced accuracy but slowed loading.

ROUND SHOT — A round, solid projectile used in field guns, principally for battering.

SAIL NEEDLE — Heavy needles used in sail and tent manfacture.

SALTPETER — Potassium Nitrate (KNO_3) used in making gunpowder.

SCREW DRIVER — In eighteenth-century military equipage, a small wrought-iron screw driver which was a necessary item in the soldier's kit, used to open and tighten the jaws for holding flint in the musket lock.

SCREW & WIPER — Used principally with rifles, a combination tool which screwed on the rammer and which was used in cleaning the rifle and entracting unfired loads.

SHEEPSKIN — In artillery, tacked on the SPUNGE AND RAMMER shaft and used wet to spunge out cannon between shots.

SHIP SWORD — A short, curve-bladed naval cutlass used as a boarding weapon and to repel boarding attempts.

SLOW MATCH — Hemp or marlin, chemically treated to burn slowly, and attached to a LINSTOCK. Sometimes used directly to ignite cannon, in the absence of PORTFIRE.

SPANISH BROWN — Brown paint used extensively by the Continental artificers.

SPEAR, BREASTWORK — Similar to a rifleman's spear and used to repel attackers from fortified places.

SPEAR, RIFLEMAN'S — Pikes, (not to be confused with spontoons or halberds), issued to riflemen and infantrymen. They were 12 or 13 feet long, terminating in a simple iron spear point, and used in defending positions and earthworks.

SPONTOON	A pole arm usually equipped with a wide blade and some sparse ornamental iron work, being about six feet long and used as a badge of rank by officers and NCOs.
SPUNGE & RAMMER	In artillery, a wooden shaft equipped with a sheepskin spunge at one end and a broad wooden rammer at the other, used to ram loads home and to clean and flush the tube between rounds.
SPONGE TACK	Brass tacks used to attach sheepskin sponges to the SPUNGE & RAMMER staff.
STANDARD POLE	A wooden staff for military standards and flags.
SULPHER	A nonmetalic element(s) used in the manufacture of gunpowder.
SWEET OIL	An edible oil, such as vegetable or nut oil, used as a lubricant and preservative.
HOUZZA SWORD	A term found on some Continental equipage returns, and probably a corruption of "hussar sword," or European dragoon sword. Probably refers to blades captured from Hessian troops at Trenton.
SWORD, LIGHT HORSE	A curved heavy blade, or saber, used by horsemen.
SWORD BELT, HORSEMAN'S	Most often refers to a cross-belt used to suspend the sword worn by a horseman.
TENT, COMMON	Tents designed to house five or six soldiers, and generally six and one-half feet square and five feet high.
TENT, HORSEMAN'S	Large tents, roughly seven feet by nine feet, used to house five horsemen and their accoutrements. Sometimes used by officers in the field.
TOMAHAWK	An indian-style trade hatchet worn at the belt and favored in the American service by riflemen.
TOMPIONS	(or TOMPKINS, 18th c.) Wooden plugs used in the muzzles of artillery pieces and designed to keep weather and debris out of the barrels.
TRACE (IRON)	One of two chain devices used to attach a horse in harness to a vehicle to be drawn.
TUMBRIL	A two-wheeled cart, often used to carry artificers' equipage.

WADHOOK & LADLE — In artillery, a staff with a ladle at one end for loading loose powder into a piece, and a worm device at the other for withdrawing loose and burning wadding and paper after firing.

WHITING — Ground calcium carbonate used as a pigment.

WIRE & BRUSH — (or BRUSH & PICKER, etc.) Part of the essential equipage of an infantryman, consisting of a brass wire designed to clear the touch-hole of a musket, and a brush for cleaning out the pan of the lock. Attached together by a chain and usually worn at the chest attached to a cross-belt.

WORM — A screw-like device, which when attached to a ramrod was used to clear debris and powder residue from a fouled musket barrel. Also used to draw out the charge without firing the musket.

APPENDIX D

RETURNS FROM THE MILITARY STORES AT AND NEAR VALLEY FORGE, 1777-1778

Return of Stores in Philadelphia, signed by Robert Towers, 23 August 1777, PHMC, Reel 12,

The stores to be moved from Philadelphia when the British advanced on the city were considerable. They included, (the following are extracted from the return):

over 100 rifles, (figure illegible)
462 cutlasses
952 new knapsacks
78 old knapsacks
88 hand barrows
48 window weights
768 clock weights
328 hand grenades
224 pikes and sockets
782 ditto with handles
882 lbs copper
522 gun worms
24,700 flints
137 lbs sulpher
539 shovels
125 felling axes
73 hatchets
1238 canteens
1 bayonet belt
19 camp kettles
98 pouches
70 horns
13 blankets
2 powder measures
1 drudging box
2 muscavado lanthorns
7 iron wheels for cannon
1 drum
numerous rounds of solid shot and cannister for artillery, for 3, 4, 6, 9, 12 pdrs, also 1698 filled cartridges for 18 pdrs, filled bucks shot
250,000 rounds of musket cartridges
1,380 tubes
248 portfires
kegs slow match
numberous empty cartridges for artillery, and heads for grape shot

Return of Military Stores received and delivered at Allentown 1 October - 1 November 1777, signed by Jonathan Gostelowe, Assistant Commissary General of Military Stores, NA, MRWD, RG93, M859, Reel 69.

Item	Received	Delivered	Remaining
New French muskets from NE	4279	1551	2728
New Dutch muskets from French Creek	643	643	
Old muskets unfit	788	69	716
New & Old bayonets	5362	2262	3100
Bayonet belts	292		292
Bayonets unfit	292	292	
carbines	16	16	
carbines unfit	73		73
carbine barrels unfinished	54		54
Lt. horse pistols unfit	17 pr.		17 pr.
Lt. horse swords	90	62	28
Lt. horse swords unfit	53		53
Houzza swords	38	38	
carbine swivels	350		350
Lt. horse cartridge boxes not approved of	51		51
Riflemen's spears	46	46	
Oil cloth for Lt. horse	70		70
Rifles unfit	16		16
portmanteaux	47		47
Lt. horse caps unfit	43		43
Hessian swords	36		36
ships swords	443		443
New French gun locks	1000		1000
English gun locks	392		392
Screw drivers	5630	100	5530
gun worms	574		574
Screws & wipers for rifles	337		337
pouches & horns	127	24	103
artillery horns	39		39
gun flints	31060	3060	28000
Wires & brushes	216		216
canteens	678	32	646
knapsacks	4591		4591
tomahawks	860		860
drums	2	1	1
drums unfit	7		7
drums brass, unfit	4		4
drum sticks	601		601
drum cords	53		53
drum snares	675		675
spare drum heads	70		70
fifes	512		512
Hessian caps unfit	171		171

Item	Received	Delivered	Remaining
Hessian axes	2		2
Hessian halberds	18		18
Hessian camp colors	6		6
Hessian poles	75		75
Old division colors	3		3
Old Lt. horse colors	4		4
Standard & Division color poles with brass tops	28		28
Casks sweet oil	19 1/3	1	18 1/3
Rolls of wire	10		10
Pieces of duck	3		3
Small nails of different size	25850		25850

A note on the bottom states that the new French arms were received from Colonel Shievers & Major Nicholas from New England. The new French arms which had been delivered were sent to HQ to Capt. French, with the cartridge boxes, bayonet belts, houzza swords, 62 horsemen's swords and 46 riflemen's spears, by order of General Washington. The new Dutch arms received from French Creek were delivered to Mr. Phaelix McClasky for the use of the state of Pennsylvania, with one barrel sweet oil and one barrel flints, by order of the Board of War and the Supreme Executive Council.

Return of ordnance stores belonging to the USA, 16 November 1777, signed by Henry Knox, submitted to the Board of War and General Washington, NA, MRWD, RG93, M859, Reel 69.

With the Main Army:
2 brass 12-pdrs
26 brass 6-pdrs
6 brass 4-pdrs
4 brass 5½-inch howitzers
1 brass 8-inch howitzer
Total 39

With General Putnam:
1 brass 24-pdr
2 brass 6-pdrs
12 brass 4-pdrs
2 brass 5½-inch howitzers

Sent with the Northern Army:
10 brass 4-pdrs
Taken from the enemy (at Saratoga)
2 brass 24-pdrs
6 brass 6-pdrs
22 brass 6-pdrs
11 brass 3-pdrs
2 brass 8-inch howitzers

At Charleston, South Carolina:
19 brass, supposed to be 4-pdrs

At Springfield, Massachusetts:
20 brass 4-pdrs

At Boston:
1 brass 4-pdr

At Allentown, in the process of being mounted:
2 brass 3-pdrs
3 brass 4-pdrs
3 brass 6-pdrs
4 brass 5½-inch howitzers
1 brass 8-inch howitzer
1 wrought iron 3-pdr

At Carlisle
2 wrought iron 3-pdrs

The above totals 165 pieces, field artillery

Ordnance borrowed from the states:

From Massachusetts:
4 brass 3-pdrs

From New York:
6 brass 6-pdrs

From Pennsylvania:
2 brass 6-pdrs
2 brass 12-pdrs

Mortars and Cohorns

At Springfield:
1 brass 5½-inch

At Litchfield:
2 brass 8-inch
10 brass 5½-inch
2 brass 4½-inch

Taken from the enemy by the Northern Army:
2 brass 10-inch
4 brass 5½-inch
Total of 21

Battering Ordnance

At Boston:
7 iron 18-pdrs
3 iron 13-inch sea mortars

Return of military stores delivered out of the stores at camp and at Rhiemstown, with those remaining on hand, 1-31 January inclusive, dated February 1, 1778. NA, MRWD, RG93, M859, Reel 68.

	Received	Delivered	Remaining on hand at camp	Remaining on hand at Rhienstown
Musket cartridges	1515	77,537	none	68,967
Muskets	341	152	none	331
Bayonets	300	152	84	331
Bayonet belts	73	62	none	210
Cartridge boxes	384	63	5	133
Flints		1683	2488	10,837
Lbs slow match		48	84	60
Budge barrels			1	2
drudging boxes			8	
Tube boxes			3	
Lt. horsemen's sword belts	2		2	77
pr drag ropes			none	15
carbine swivels			none	83
gunners belts			none	25
tin cartridge boxes	394		46	702
belts for same	269			331
pouches	30			65
horns	17		17	96
bullet moulds				20
spears				70
lint stocks [linstocks]			39	4
port fire stocks			10	1
sheep skins		1	5	12
brushes & pickers		20		1980
Quarts Sweet oil		1		50
empty 5 1/2-in. shells			50	50
reams cartridge paper	473	2	200	301
reams cannon paper				20
Lbs powder	28	292	1200	
Lbs Musket ball	111		4280	
Round shot fixed:				
3-pdr			95	273
4-pdr		48		48
6-pdr			182	14,637
12-pdr				37
Grape shot fixed:				
3-pdr		63		226
4-pdr		63		
6-pdr				245
12-pdr				53

	Received	Delivered	Remaining hand at camp	Remaining hand at Rhienstown
Case shot fixed:				
3-pdr				336
4-pdr				240
6-pdr	66		66	750
12-pdr				40
Spunges & rammers:				
3-pdr			3	19
4-pdr			6	16
6-pdr			3	21
12-pdr				4
Paper cartridges, filled:				
3-pdr	6			106
4-pdr				56
6-pdr				68
12-pdr	none			
Loose Iron balls:				
3-pdr				300
6-pdr				150
Fuzes fixed:				
5 1/2-inch				235
8-inch				64
Wad hooks and Ladles:				
3-pdr			1	
4-pdr			1	2
6-pdr		1	3	6
12-pdr				2
empty 6-pdr cartridges				200
Case shot for 5 1/2-inch howitzers				48
fifes				8
tubes		156	326	336
port fires		12	80	320
Damaged Stores:				
muskets	186		819	170
musket cartridges	10,459		16,700	13,680
cartridge boxes	165		931	
bayonet belts	61		61	
rifles	26		26	
gun locks	4		4	
rifle ? (illegible)	20		20	
? (illegible)	15		15	
Lbs sulpher		?	158 ?	360 ?
sponge takes		?	1976	
drum snares		2	6	
Lbs thread		2		
hanks marlin		2		

Return of Military Stores at Carlisle, 1 February 1778, signed Samuel Sargant, (submitted to Col. B. Flowers, CGMS). NA, MRWD, RG93, M859, Reel 68.

Powder:
173 double barrels
525 single barrels
229 half barrels
Round shot:
3128 3 pdr
1760 6 pdr
740 12 pdr
Sulpher:
21 Hogsheads
10 tierces
9 barrels
6 bullet moulds
4 skeens of wire
800 tomahawks
13 knapsacks
Brass ordnance, unfinished:
2 6-pdrs
2 5½-inch howitzers
2243 muskets needing repair
100 muskets past (or part ?) repair
93 foot carbines needing repair
190 horse carbines needing repair
54 pistols needing repair
Cooper in sheet and block, 2 tons, and 920 lbs
1 ton and 300 lbs block tin
15½ tons grape shot
28 bells from Christ Church, New York - [These may have been from Philadelphia]
551 spears 12 feet long
20 sheep skins
12,000 sponge tacks
300 priming wires & brushes
2,700 flints
24 shot pouches
540 hessian cartridge boxes needing repair
80 bayonets
267 gun barrels
100 gimlets
50 pr artillery pinchers
4 gin blocks
7 gin talls (falls?)
60 cannister bottoms
22,280 musket cartridges
10½ tons steel
9 tons iron
2 tons nails (1200)
72 barrels of tin
6 barrels of horse shoes
40 sets of tools in use
1040 gun locks
49 copper kettles
19 reams cannon paper
22 reams musket paper
18 reams wrapping paper
140 lbs slow match
1 barrel flax seed oil
1 barrel fish oil for coopers
12 grind stones
3 boxes of antimony
3 boxes whiting
22 barrels sweet oil

Return of Military Stores at camp and Rheimstown, March 1 (for month of February) signed by Samuel French. (Figures in parentheses are selected from the April 1 return, for ease in comparison.)
NA, MRWD, RG93, M859, Reel 68.

	Received	Delivered	Remaining at Camp	Remaining at Rheimstown
musket cartridges	7932 (42,616)	34177 (46,342)	34080 (same)	7932 (same)
muskets	16 (364)	83 (300)	354 (231)	
bayonets	37 (18)	61 (310)	354 (231)	
bayonet belts	48 (352)	76 (447)	182 (87)	
cartridge boxes	103 (203)	163 (171)	78 (110)	
flints		3609 (1405)	(9433)	10837 (0)
Lbs slow match	24 (0)	(40)	36 (20)	84 (60)
budge barrels			1	2
drudging boxes				8
tube boxes				7
Lt. Horseman's swords & belts				77
prs drag ropes				15
Carbine swivels				83
gunners belts				25
tin cartridge boxes			46	407
belts for cartridge boxes				331
pouches				65
horns			23	96
tube boxes				3
bullet moulds				20
spears				70
lint stocks			39	4
portfire stocks			10	1
sheep skins			5	12
brushes & pickers				1980
Qts sweet oil			63	
empty 5 1/2-inch shells				50
reams musket paper				
reams cartridge paper	3 1/2	100 1/2	103	301
reams cannon paper				20
6-pdr paper cartridges empty				200
fifes	79	13		74
portfires	22		89	324
rifles			20	
Lbs powder	1800	325	2675	
Lbs musket ball	130	620	3690	

	Received	Delivered	Remaining at Camp	Remaining at Rheimstown
Round shot fixed:				
3-pdr	18		95	291
4-pdr				48
6-pdr	131		182	279
12-pdr	115			152
Grape shot fixed:				
3-pdr	9			335
4-pdr	none			
6-pdr	70			315
12-pdr	43			96
Case shot fixed:				
3-pdr	103			439
4-pdr				240
6-pdr	94		66	850
12-pdr	23			63
Spunges & rammers:				
3-pdr			3	19
4-pdr			6	16
6-pdr			5	21
12-pdr				4
Paper cartridges, filled:				
3-pdr				106
4-pdr				56
6-pdr				68
Loose iron ball:				
3-pdr				300
6-pdr	60			210
Fuzes fixed:				
5 1/2-inch				235
8-inch				64
Wad hooks & Ladles:				
3-pdr			1	
4-pdr			1	2
6-pdr			3	6
12-pdr				2
Damaged stores unfit for service:				
muskets	61	359	261	170
musket carts.	2700		19400	13680
Cart. boxes	29	231	29	
Bayonet belts			61	
Rifles			26	
gun locks			4	
Lbs powder	120		120	
6 pdr shot fixed	14		14	

	Received	Delivered	Remaining at Camp	Remaining at Rheimstown
5 1/2-inch case	97			145
5 1/2-inch shell	57			57
8-inch shell				
fixed 8-inch	13			13
fixed empty 8-inch	2			2
8-inch case	4			4
gun barrels			15	
Lbs sulpher		33	135	
spunge tacks			1976	
drum snares	96	6	96	
Lt. horse cartridge boxes	44		44	
Lbs thread	9 1/2		9 1/2	
drums	1	1		

Return of Military Stores at Lebanon, 12 March 1778, Under the direction of Joseph Watkins, CMS. NA, MRWD, RG93, M859, Reel 68.

Brass howitzers:
1 8-inch.
4 5 1/2-inch. -- out of repair

Brass Ordnance:
2 12-pdrs
1 3-pdr -- out of repair

Rounds 12-pdr fixed:
1136 round
99 grape
134 case

Rounds 6-pdr fixed:
211 round
552 grape
390 case

Rounds 4-pdr fixed:
216 grape
522 case

Rounds 3-pdr fixed:
3349 round
2368 grape
522 case

Case Heads:
28 12-pdr
358 6-pdr
105 3-pdr

Grape heads:
269 9-pdr
895 6-pdr
213 3-pdr

Paper Cartridges filled:
173 24-pdr
383 18-pdr
649 12-pdr
216 9-pdr
1497 6-pdr
1478 4-pdr
767 3-pdr
1094 swivel

Empty paper cartridges:
20 32-pdrs
220 24-pdrs
440 18-pdrs
723 12-pdrs
500 9-pdrs
700 6-pdrs
783 4-pdrs
1250 3-pdrs

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36 case fixed 2 1/2-pdrs
24 8-in. case fixed
144 5 1/2-inch
16 8-in. empty cannisters
465 5 1/2-inch
46 4-pdr
12,000 lbs lead
15,00 lbs musket ball
1,000 lbs. cannon cartridge paper
1 piece canvas
26 trail ropes unfinished
15 hanks lanyard
15 hanks marlin
120 barrels musket powder
129 barrels cannon powder
1775 tubes unprimed
699 tubes primed
7 barrels tin
2 barrels salt petre
54 8-inch tubes
1 barrel sulpher
1 barrel Spanish brown
144 sticks portfire
12 portfire stocks
14 linstocks
5 tube boxes
2 casks tin straps
130 powder horns
26 drudging boxes
18 kegs slow match
7,000 flints
638 musket cartridge paper reams
50 lbs thread
400,000 musket cartridges
39 sheets copper
50 lbs twine
10 reams packing paper
2 hogsheads paper cartridges, different sizes, not yet overhauled
59 boxes musket cartridges not yet overhauled
110 boxes cannon ammunition, different sizes, not yet overhauled

A note states that the above sticks portfire were made by Benj. Loxley an condemned by the officers at camp.

Return of Military Stores at Lebanon, under the direction of Joseph Watkins, CMS, 8 April 1778. NA, MRWD, RG93, M859, Reel 68.

Brass Ordnance: mounted

2 12-pdrs
1 8 inch howitzer
4 5 1/2-inch howitzer } out of repair
1 3-pdr

Brass Ordnance, not mounted:

1 5 1/2-inch howitzer
2 3-pdrs
1 iron 3-pdr
1 carriage half finished

Rounds, 12-pdr fixed:
1136 round
114 grape
175 case

Rounds 6-pdr fixed:
529 round
795 grape
621 case

Rounds 4-pdr fixed:
155 round
267 grape
561 case

Rounds 3-pdr fixed:
3715 round
2832 grape
311 case

Rounds 2 1/2-pdr
36 case

Rammers & spunges:
12 12-pdr
21 6-pdr
13 4-pdr
10 3-pdr

Ladles:
1 12-pdr
1 6-pdr

Ladle Heads:
1 12-pdr
9 9-pdr
13 6-pdr
17 4-pdr
9 3-pdr

Ladles without heads:
11 12-pdr
20 6-pdr
19 4-pdr

Paper cartridges filled:
173 24-pdr
383 18-pdr
649 12-pdr
216 9-pdr
1497 6-pdr
1478 4-pdr
767 3-pdr
1094 swivel

Spunge heads:
16 6-pdr
21 4-pdr

Rammer heads:
14 12-pdr
16 6-pdr
13 3-pdr

Worms:
1 12-pdr
3 6-pdr
3 3-pdr

Tompkins:
18 9-pdr
13 6-pdr
2 4-pdr
42 3-pdr

704,676 musket cartridges
66 1/2 barrels musket powder
29,000 musket ball (pds.)
219 thread (pounds)
196 twine (pounds)
161 hanks marlin
212 hanks lanyard

7 barrels tin
41 casks slow match
14 linstocks
13 portfire stocks
1010 sticks portfire
2 barrels salt petre
181 tubes fit for service
1754 tubes empty
54 8-inch fuzes
48 5 1/2-inch shells charged
31 ditto empty
24 8-inch cannisters filled
144 5 1/2-inch ditto
1 tierce sulpher
1 barrel ditto
1/2 barrel linseed oil
1/2 barrel tar
188 powder horns
5 tube boxes
35 drudging boxes
2 barrels Spanish brown
2 casks tin straps
7 reams packing paper
423 reams(?) musket paper
39 sheets copper
1/2 gallon spirits of turpentine
96 sand bags
52 barrels damaged powder
12 sets trail ropes
4 sets mens harness
10 sheep skins
8 budge barrels

A note states that the portfires were made by Benj. Loxley.

Return of Arms, Accoutrements, etc. received & delivered by Maj. Jonathan Gostelowe CMS to the different battalions, regts., etc. of the U. S. under the command of Col. Benj. Flowers, CGMS from 1 March to 31 ist. (probably March) 1778 at Lebanon. NA, MRWD, RG93, M859, Reel 68.

Balance at Lebanon 2/28	Amt. Received Since	Balance 31st inst.	Amt. Delivered this mo.	To HQ (VF)	To Carlisle	Total to Both	Items
1564		1564					New French Muskets from New England
2469	806	2966	309				Old muskets unfit for service
493		327	166		166		Old gun barrels
2396		2396					New & Old bayonets
	208	75	133	102		102	Bayonet belts
413		413					Bayonet belts unfit for service
	157	128	29				Cartridge boxes
862	185	1047					Cartridge boxes unfit for service
4955		4955					knapsacks
1226		1204	22				canteens
3620		3620					tomahawks
336		336					wires & brushes
1300		1270	30				gun flints
7120		5320	1800	1800		1800	screw drivers
974		399	575	575		575	gun worms
10		7	3		3	3	blunder busses
54		54					rifles unfit for service

Balance at Lebanon 2/28	Amt. Received Since	Balance 31st. inst.	Amt. Delivered this mo.	To HQ (VF)	To Carlisle	Total to Both	Items
15		15					rifleman's spears
206		206					pouches & horns
7		7					bullet moulds
337		337					screws & wipers for rifles
443		443					ship swords
15		15					sword blades
500			500		500	500	breastwork spears
100		100					large hatchets
8		8					old division colors
28		28					standards & division color poles with brass tops
2		2					drums
20		20					drums unfit for service
601		420	181	181		181	sets drum sticks
571		339	232	232		232	drum snares
360		59	301	300		300	fifes
2000		2000					New French gun locks
998		998					English gun locks
100		100					camp color poles
45			82(?)				carbines unfit for service

Balance at Lebanon 2/28	Amt. Received Since	Balance 31st. inst.	Amt. Delivered this mo.	To HQ (VF)	To Carlisle	Total to Both	Items
54		54					carbine barrels unfinished
47		47					slings
3		3					cartridge boxes not approved of
380		380					swivels
33			36				pistols
12		12					swords
40		40					sword belts
42		41	1				saddles unfit for service
86		86					holsters unfit for service
63		63					male pilions unfit for service
48		48					portmanteaux unfit for service
69		69					oil cloth unfit for service
43		43					caps ditto
4		4					standards
28		28					pistol locks
61		61					carbine buckles unfit for service
FOR ARTILLERY							
39		39					horns
	31	31					5 1/2-in. shells

Balance at Lebanon 2/28	Amt. Received Since	Balance 31st. inst.	Amt. Delivered this mo.	To HQ (VF)	To Carlisle	Total to Both	Items
TAKEN FROM HESSIANS:							
171		171					caps unfit for service
2		2					axes
25		25					halberds
6		6					camp colors unfit for service
4		4					brass drum bodies
36		36					swords unfit
SUNDRIES FOR THE USE OF THE ARTIFICERS:							
10 1/2		5 1/3	5		5	5	casks sweet oil
9		9					rolls of wire
25,850			25,850		25,850		small nails of different sorts
17		17					bear skins
	135	129	6				bars of steel
	224	195	29				bars of iron
	621	561	80	43			files
	17		17		17	17	pieces beach plank
	4	1	3				grind stones
	1	1					box carpenters tools
	3	2	1				smiths anvils
	6		6				smiths vises
	1	1					boxes of steel

Balance at Lebanon 2/28	Amt. Received Since	Balance 31st. inst.	Amt. Delivered this mo.	To HQ (VF)	To Carlisle	Total to Both	Items
	24	8	16		16		casks different size nails
	5	5					boxes canvas
	20	20					sail needles
	9	9					palms
	21	21					emory (lbs.)
	869	289	580				sides of leather
	2	2					casks copper
			39	38		38	drum cords

Return of military stores at Allentown, (document is marked Carlisle, but Gostelowe was CMS at Allentown, and there are references to stores sent to Carlisle). NA, MRWD, RG93, M859, Reel 69.

The following are extracts from this return, noting the stores remaining, those sent to Carlisle, and those sent to Camp, during the month of April.

	Remaining	to HQ	to Carlisle
New Fr. muskets from NE	867	697 (867)*	
New dutch muskets from French Creek	none		
Old muskets unfit	2370		1180
Repaired muskets	284	(848)	
old gun barrels			446
New & old bayonets	1162	697 (915)	
Bayonet belts	881	930 (1279)	
Bayonet belts unfit	none		
cartridge boxes	458	250 (1280)	
knapsacks	4664	230	60
canteens	1144		60
tomahawks	3620		
Wires & brushes	140	396 (960)	
gun flints	31,775	22,000 (9150)	
screw drivers	2070	3250	
gun worms		405 (4)	
rifle wall pieces	7		10
rifles unfit			98
rifleman's spears	15		
pouches & horns	206		
bullet moulds	7		
screws & wipers for rifles	337		
ship swords	443		
sword blades	15		
bayonet scabbards	150		
large hatchets	100		
old division colors	8		
standard & division color poles w/brass tips	23	5	
drums	2	0 (18)	
drums unfit	20		
sets drum sticks	339		
fifes	59		
New French gun locks	1500		500
English gun locks	600		380
camp color poles	100		
tin cannisters	30		
swords	18		
locks unfit	24		

	Remaining	to HQ	to Carlisle
FOR HORSE			
carbines fit for service		101	
carbine barrels unfinished	54		
slings	47		
swivels	333	47	
swords	12		
sword belts	25	22	
Cart. boxes not approved	3		
saddles unfit	30		
holsters unfit	86		
male pilions unfit	58		
portmanteaux unfit	43		
standards		4	
pistol locks	28		
carbine buckles unfit	61		
FOR ARTILLERY:			
horns	39		
5 1/2 shells			31
caps unfit	171	(It is noted that these have been broken up and the brass reserved for the gunsmiths)	
axes	2		
halberts	25		
camp colors unfit	6		
brass drum bodies	4		
swords unfit	36		
ARTIFICERS' STORES:			
casks sweet oil	5 1/3		
bear skins	17		
barrels tanners oil	2		
rolls of wire	9		
barrels of steel	116		
barrels of iron	170	20	
sorted files	227		200
grind stones	1		
smiths anvils	2		
boxes of steel	1		
casks of nails, different sorts	2		2
cases of canvas			5
sail needles	20		
palms	9		
Lbs emory	2		
sides of leather	261		
casks of copper			3
wood axes			2
shovels			151

	Remaining	to HQ	to Carlisle
pick axes	2		14
spades			5
core iron & gun formers	6 (?)		
pieces of carriage tier			41
paint mills	1		
paint grind stones	1		
crucibles			1
bees wax	1 barrel		
prs of flasks			8
prs of founders tongs			2

DURING MAY THE FOLLOWING ITEMS WERE FORWARDED TO CAMP

650 straps for cannisters
21 girth webbs
28 nose bags
75 gages
20 sides of leather
1 piece duck
41 1/2 yds duck
8 gimblets
12 awls with handles

* Figures in parentheses are extracted from Gastelowe's return for the month of May, and included here for comparative purposes.

Return of Military Stores at Camp, 1 May 1778. NA, MRWD, RG93, M859, Reel 68, Frame 224. (Entries in parentheses are selected from return of June 1.)

Return of stores and supplies received and delivered by Samuel French, Commissary of Military stores with the army, April 1778, at camp.

For the artillery	Total from last return	Received April	Delivered April	May 1 at camp	May 1 at Rhiemstown
Round shot					
fixed:					
3 pdr	380		(78)	95 (17)	291 (291)
4 pdr	48	155 (180)	(317)	155 (66)	48
6 pdr	549	150 (361)	(545)	590 (406)	19 (139)
12 pdr	152				152 (same)
Case shot					
fixed:					
3 pdr	439				439 (same)
4 pdr	240				240 (same)
6 pdr	882	(193)	(74)	32 (150)	850
12 pdr	63				63 (same)
[illegible]pe shot					
fixed:					
3 pdr	235	0 (110)	0 (77)	33	235 (0)
6 pdr	315		0 (87)		315 (228)
12 pdr	96				96 (same)
Spunges & rammers:					
3 pdr	22		2	1 (20)	19 (0)
4 pdr	22		0 (16)	6 (5)	16 (0)
6 pdr	26	0 (15)	3 (8)	2 (30)	21
12 pdr	4				4 (same)
Paper cartridges filled:					
3 pdr	105	0 (151)	0 (8)	15 (360)	90 (16)
4 pdr	56	100 (150)	0 (82)	140 (616)	16 (0)
6 pdr	68	200 (354)	0 (46)	268	
Loose iron ball:					
3 pdr	300				300 (300)
4 pdr	210				210 (210)
Fuzes fixed:					
5 1/2-inch	235				235 (235)
8-inch	64				64 (64)
Waddhooks & Ladles:					
[illegible]dr	1			1 (0)	
[illegible]pdr	3			1 (0)	2 (0)
12 pdr	2				2 (2)

For the artillery	Total from last return	Received April	Delivered April	May 1 at camp	May 1 at Rhiemstown
For 5 1/2-inch howitzer:					
Case shot	145				145 (145)
Shells fixed	57				57 (57)
Shells empty	50				50 (50)
For 8-inch howitzer:					
Shells fixed	13				13 (13)
Shells empty	2				2 (2)
case shot	4				4 (4)
6-pdr paper cartridges	200				200 (200)
tubes	740	163 (3349)	908 (2009)	(1340)	
portfires	401	(300)	154 (141)	247 (406)	
portfire stocks	11	(12)	9	2 (11)	
lint stocks	43		6 (4)	33 (42)	4
spunge tacks	1826		320 (1504)	1504 (0)	
Lbs slow match	80	(391)	80	(231)	
tube boxes	3				3 (3)
belts for tube boxes		27	(10)	27 (17)	
gunners belts	25		(1)		25 (24)
pairs of drag ropes	15				15 (15)
drudging boxes	8	(20)		(20)	8 (8)
budge barrels	3	(4)		(5)	2
sword belts		200		(200)	
sheep skins	15	(23)	3	(16)	12
leather haversacks	13	(2)	2 (7)	11 (6)	
Reams cartridge paper	20				20 (20)
For the Lt. Horse:					
carbines	30	101		131 (131)	
carbine swivels	83	47 (130)		47 (48)	83
belts		22		22 (22)	
oil cloths		65		65 (65)	
cartridge boxes	44		6	38	
standard poles		5		5 (5)	
sword belts	77			77 (77)	
muskets	418	745 (1862)	1163 (1821)	(41)	
bayonets	231	697 (1941)	928 (1888)	(53)	
bayonet belts	87	1016 (906)	1033 (976)	70 (0)	
cartridge boxes	110	329 (1022)	439 (953)	0 (69)	
gun worms	545	380 (988)	883 (488)		
screw drivers	1800	3250 (3582)	1468 (3582)	3582	
brushes & prickers	1981	396 (972)	1510 (897)	867 (75)	0 (867)
spears	70				70 (70)
musket cartridges	38286	284467(303655)	171617(256023)	143204(198768)	7932 (0)
flints	1433	22000	21470	20449(29152)	
knapsacks		220	60 (160)	160 (0)	
bullet molds	20				20 (2[illegible])

For the artillery	Total from last return	Received April	Delivered April	May 1 at camp	May 1 at Rhiemstown
Qts sweet oil	62		1 (9)	61 (52)	
Lbs powder	873	4400 (4000)	5273(2200)	0 (1800)	
lbs ball	1326	6339 (5262)	7665 (5262)		
lbs buck shot		733 (1233)	733 (1233)		
lbs thread		45 1/2 (80)	45 1/2 (60	(20)	
files	25		21 (4)	4 (0)	
reams of cartridge paper	380	0 (40)	320 (40)	40 (40)	0 (183)
drum snares	267		70 (22)	197 (175)	
drum cords	48		48		
sets drum sticks	181		80 (15)	101 (86)	
fifes	311		293	18	
lbs sulpher	131		20	111 (111)	
tin cartridge boxes	748		47		781 (701)
belts for cartridge boxes	331		0 (10)		331 (321)
Damaged Stores:					
muskets	313	590 (1125)	451 (607)	352 (810)	
bayonets		228 (115)	228 (115)		
bayonet belts		36 (12)	16	20 (12)	(20)
musket cartridges	2480	3500 (6153)	27580 (2000)	(4153)	
cartridge boxes	109	264 (602)	302 (481)	75 (202)	
lbs powder	120			120	
rifles		76	76		
Hessian swords		5	5		
Wagons:					
Lt ammo. without horses					22 (10)
Common ammo. with horses				13 (7)	(12) with horses (6)

ABBREVIATION KEY

APS	American Philosophical Society, Philadelphia, PA
CHS	Connecticut Historical Society, Hartford, CT
ChiHS	Chicago Historical Society, Chicago, IL
CSL	Connecticut State Library, Hartford, CT
GWP	George Washington Papers, Library of Congress, Washington, DC
HSP	Historical Society of Pennsylvania, Philadelphia, PA
HUL	Harvard University Library, Cambridge, MA
JAL	James Abeel Letterbook, LC
JCC	Ford, Worthington Chauncey, ed., Journals of the Continental Congress. Washington, DC: United States Government Printing Office, 1906.
LC	Library of Congress
LIHS	Long Island Historical Society, Brooklyn, NY
MdHS	Maryland Historical Society, Baltimore, MD
MHR	Maryland Hall of Records, Annapolis, MD
MHS	Massachusetts Historical Society, Boston, MA
MMC	Miscellaneous Manuscript Collection, LC, Washington, DC
MNHPL	Morristown National Historical Park Library, Morristown, NJ
MRWD	Miscellaneous Records of the War Department, NA, Washington, DC
NA	National Archives, Washington, DC
NCSA	North Carolina State Archives, Raleigh, NC
NJBAH	New Jersey Bureau of Archives and History, Trenton, NJ
NJHS	New Jersey Historical Society, Newark, NJ

NYHS	New York Historical Society, New York, NY
NYSHA	New York State Historical Association, Cooperstown, NY
NYSL	New York State Library, Albany, NY
PA	Pennsylvania Archives, PHMC
PCC	Papers of the Continental Congress, NA, Washington, DC
PHMC	Pennsylvania Historical and Museum Commission, Harrisburg, PA
PML	Pierpont Morgan Library, New York, NY
PUL	Princeton University Library, Princeton, NJ
RUL	Rutgers University Library, New Brunswick, NJ
UG	University of Georgia Library, Athens, GA
UVL	University of Virginia Library, Charlottesville, VA
VFHS	Valley Forge Historical Society, Valley Forge, PA
WGW	Fitzpatrick, John C., ed., Writings of George Washington, 1745-1799, Washington, DC: U. S. Government Printing Office, 1931-1944
WLC	William L. Clements Library, Ann Arbor, MI
WRHS	Western Reserve Historical Society, Cleveland, OH
YUL	Yale University Libraries, New Haven, CT

NOTES

PART I - THE COMMISSARY

I INTRODUCTION

1. John C. Fitzpatrick, ed., The Writings of George Washington, 39 vols. (Washington: U. S. Government Printing Office, 1931-1944), 10:192 (hereafter cited as WGW).

2. Works that treat these organizations are few and cursory. The best general survey of the Commissary is Victor L. Johnson, Administration of the American Commissariat during the Revolutionary War, (Philadelphia: University of Pennsylvania, 1941). This depends heavily upon the Ephraim Blaine papers and letterbooks in the Library of Congress, and is generally well-documented, yet the author is rather casual about accurate quotations and sometimes misinterprets documents. The interested reader is ernestly referred to the original papers. The work of Louis C. Hatch, The Administration of the American Army, (New York: Harvard University Press, 1904), is a solid general study but treats a subject which could stand reappraisal. A brief overview of the relationship between Commissary and Quarter Master departments is offered in Erna Risch, Quartermaster Support of the Army; A History of the Corps 1775-1939, (Washington, DC: Quartermaster Historian's Office, Office of the Quartermaster General, 1962), pp. 1-29. For a brief survey of Congress' involvement in the Commissary affairs, see Edmund C. Burnett, "Continental Congress and Agricultural Supplies," Agricultural History, vol. 11, no. 3 (July 1928), pp. 111-128.

3. F. B. Heitman, Historical Register of Officers of the Continental Army... (Washington, DC: n.p., 1893), p. 404.

4. Glenn Weaver, Jonathan Trumbull: Connecticut's Merchant Magistrate (1710-1785) (Hartford, CT: Connecticut Historical Society, 1956), p. 146.

5. Journals of the Continental Congress, vol. 8, (Washington, DC: U. S. Government Printing Office, 1907), pp. 433-447 (hereafter cited as JCC). On the liberties frequently assumed by support service personnel in using public offices to further private business, see E. James Ferguson, "Business, Government, and Congressional Investigation in the Revolution," William and Mary Quarterly, 3rd Series, XVI (1959), pp. 293-318.

6. JCC, vol. 8, pp. 433-447.

7. JCC, vol. 8, p. 598.

8. JCC, vol. 8, pp. 445-446.

9. Buchanan was appointed Commissary General on August 5, 1777. JCC, vol. 8, p. 607.

10. William Buchanan to Charles Stewart, 4 October 1777, Charles Stewart Papers, NYSHA.

11. On this problem in Pennsylvania, see Robert L. Brunhouse, The Counter - Revolution in Pennsylvania 1776-1790. (Harrisburg, PA: Pennsylvania Historical Commission, 1942), pp. 27-52. See also general comments in Jackson Turner Main, Political Parties Before the Constitution, (New York: W. W. Norton & Company, Inc., 1973), pp. 42-43, and Jackson Turner Main, The Artifederalists: Critics of the Constitution 1781-1788 (New York: W. W. Norton & Company, Inc., 1974), pp. 42-43. For the founding membership of the Republican Society see J. T. Scharf and T. Westcott, History of Philadelphia, vol. I (Philadelphia: 1884), p. 396. For an expression of the Supreme Executive Council's conviction that Congress was peopled with enemies, see the Supreme Executive Council to the State Purchasing Commissaries, 3 March 1778, Reel 13, PA, PHMC.

12. JCC, vol. 8, pp. 433-447.

13. Stanley McCrory Pargellis, Lord Loudon in North America (n. p.: Archon Books, 1968), pp. 291-296.

14. Arthur L. Jensen, The Maritime Commerce of Colonial Philadelphia (Madison, WS: The State Historical Society of Wisconsin for the Department of History, University of Wisconsin, 1963), p. 8.

15. The latter calculation is based on the short ton (2,000 pounds). If long tons were the unit of measurement (2,240 pounds) the number of pounds would have been closer to 67,556,160. See Jensen, Maritime Commerce, p. 8, and Anne Bezanson et al., Prices in Colonial Pennsylvania (Philadelphia: University of Pennsylvania Press, 1935), p. 46.

16. James T. Lemon, The Best Poor Man's Country: A Geographical Study of Early Southeastern Pennsylvania (New York: W. W. Norton & Company, Inc., 1976), p. 181.

17. Ibid., pp. 180-181.

18. Bezanson, Colonial Pennsylvania, p. 49.

19. Anne Bezanson, Prices and Inflation During the American Revolution: Pennsylvania 1770-1790 (Philadelphia: University of Pennsylvania Press, 1951), pp. 82-84.

20. Ibid., pp. 83-84.

21. Daniel Wier Letterbook, HSP. J. Smith Futhey and Gilbert Cope, History of Chester County Pennsylvania, with Genealogical and Biographical Sketches (Philadelphia: Louis H. Everts, 1881) p. 108.

22. Return of Joseph Trumbull, 8 August 1778, Roll 199, PCC, NA.

23. The Stewart calculation, probably made in January or February 1778, is based on rations issued to the Main Army during the month of December, 1777. See calculations and returns, Roll 199, PCC, NA. Stewart claimed to have issued 33,612-1/4 pounds of bread and flour per day to the Main Army in December.

24. Ibid.

25. Ibid.

26. Calculation of the amount of provisions issued daily during the month of December in camp. Roll 199, PCC, NA.

27. Ibid.

28. Ibid., and Charles Stewart return of provisions given over by Commissary General of Purchases, Joseph Trumbull, (Undated) Roll 199, PCC, NA.

29. Return of provisions signed by Charles Stewart issued to the troops under the command of General Washington in the Middle Department, December 1777, Charles Stewart Papers, NYSHA.

II QUALIFYING SUPPLY

1. Risch, Quartermaster Support, pp. 25, 41.

2. John W. Jordon, ed., Colonial and Revolutionary Families in Pennsylvania: Genealogical and Personal Memoirs, vol. 2 (New York: The Lewis Publishing Company, 1911), pp. 740-741. See also R. Fenton Duvall, "Philadelphia's Maritime Commerce with the British Empire, 1783-1789," University of Pennsylvania Dissertation, Department of History, 1960, pp. 46, 170.

Biddle was born in Philadelphia in 1740 and engaged in shipping and importing with his father and elder brother Owen. He was involved before the war in exporting grain from Maryland and Virginia, which would have prepared him well for the office of Forage Master General. Biddle continued in mercantile ventures following the war, and held a number of state and federal appointments. These included a seat on the Supreme Executive Council (1781), Quarter Master General for the Pennsylvania Militia, Prothonotary of the Philadelphia County Common Pleas Court from 1788, Judge of the same court from 1791. He was also, following the war, a scrivener in Philadelphia. President Wharton appointed Biddle United States Marshall for the State of Pennsylvania. The variety of Biddle's post-war appointments suggest that either by choice or necessity he became less dependent upon mercantile ventures for a livelihood. He appears not to have prospered so substantially as some of his fellow Philadelphia merchants, but seems to have lived comfortably nevertheless.

3. Congressional Resolve signed by John Hancock, 6 October 1777, Charles Stewart Collection, NYSHA.

Washington had been increasingly uneasy concerning stores which had been removed from Philadelphia to Trenton, and had on October 1 ordered Deputy Quarter Master Jonathan Mifflin to move them westward as quickly as possible so as to be out of range of a British thrust along the Delaware. This movement took some time to complete, particularly the last legs westward from Easton to Allentown, Carlisle and Lebanon. WGW, 9:291-292.

4. WGW, 10: 74-75.

5. ? to General Sir Henry Clinton, 3 December 1777, Clinton Papers, WLC.

6. Henry Christ to President Wharton, 10 September 1777, Frame 1034, Reel 12, PA, PHMC.

Henry Christ was apparently a Deputy Wagon Master in Berks County and evidently supplied substantial number of wagons for the use of the army. See Raymond W. Albright, Two Centuries of Reading, Pa. 1748-1949: A History of the County Seat of Berks County (Reading, PA: The Historical Society of Berks County, 1948), p. 77

7. Mark Bird to John Davis, (facsimile), 20 September 1777, Hipewell Village NHS, Hopewell, PA.

Deputy Quarter Master General Mark Bird was a power in Berks County during the Revolution. He built Hopewell Furnace in 1770 and inherited from his father the Birdsboro forges, which he expanded in the years prior to the war. Bird cast guns for the Continental Navy Board and was one of the principal iron manufactures in Pennsylvania, until the ecomomic woes of the 1780's forced him to mortage his interests. He subsequently lost his holdings and removed to North Carolina. See Charles E. Funnell, "The Elusive Ordnance of Colonel Bird," unpublished report for the Division of Resource Preservation, Mid-Atlantic Region, National Park Service, United States Department of the Interior, March, 1776. See also Arthur Cecil Bining, Pennsylvania Iron Manufacture in the Eighteenth Century (Harrisburg, PA: Pennsylvania Historical and Museum Commission, 1973), p. 129.

8. Gustavus Risberg to Charles Stewart, 5 October 1777, Charles Stewart Collection, NYSHA.

9. Clement Biddle to Thomas Wharton, 3 November 1777, frame 15, Reel 13, PA, PHMC.

10. Ibid.

11. Thomas Jones to John Magee, 25 November 1777, frame 142, Reel 13, PA, PHMC.

12. Mark Bird to John Davis, (facsimile), 27 November 1777, John Davis Collection, Hopewell Village NHS, Hopewell, PA.

13. Supreme Executive Council to Congress, 28 November 1777, Reel 13, frame 140, PA, PHMC.

14. Ibid.

15. Resolution of the Pennsylvania General Assembly, 6 December 1777, frames 184-6, Reel 13, PA, PHMC.

16. Ibid.

17. Henry Christ to Daniel Deturck and Isaac Levan, 6 December 1777, Mss 1777-8, Historical Society of Berks County, Reading, PA.

Daniel Deturck (DeTurk, DeTurck), was captain in the Berks County Militia in 1776. Deturck, whose family owned land and probably a mill, was of Huguenot descent had become a man of substance in his corner of Berks County. See Albright, Reading, p. 73.

18. George Ross to Thomas Jones, 6 December 1777, frame 305, Reel 13, PA, PHMC.

George Ross was another of Thomas Mifflin's Deputy Quarter Masters. Mifflin, as Greene seems to have recognized, had chosen well in selecting his deputies in Pennsylvania. Each seems to have been a man of enterprise and substance, who demonstrated considerable influence in his region. There was later some suspicion that Mifflin engaged in some private commercial ventures with one of his Deputies, Robert L. Hooper, that were detrimental to the Continental supply system, but Hooper appears to have been the only one of Mifflin's Deputies who were implicated in such charges before Congress.

George Ross was involved, like Mark Bird, in iron manufacture. Ross owned the Mary Ann Furnace on Furnace Creek, and was a member of the Pennsylvania Constitutional Conventions of 1776 and 1790. Other Pennsylvania iron masters involved in the public service were Assistant Deputy Commissary John Patton and Wagon Master General Joseph Thornsbury, who resigned his post in the autumn of 1777. See Bining, Iron Manufacture, pp. 48, 122, 125.

19. Ibid.

20. Thomas Jones to Thomas Wharton, 19 December 1777, frame 302, Reel 13, PA, PHMC.

21. Ibid.

22. Supreme Executive Council to the Pennsylvania Delegation to Congress, 20 December 1777, frame 320, Reel 13, PA, PHMC.

23. William Buchanan to Charles Stewart, 6 October 1777, Charles Stewart Collection, NYSHA.

24. Jedediah Huntington to ?, 12 October 1777, John Reed Collection.

25. President Wharton to George Washington, frame 1210, Reel 12, PHMC.

26. Ibid.

27. Receipt for rum purchased by Thomas Jones, 2 November 1777, Chaloner & White Papers, Box 5, HSP. See also a receipt for whiskey of the same date.

28. Supreme Executive Council to George Washington, 3 November 1777, frames 8-9, Reel 13, PA, PHMC.

29. Clement Biddle to Thomas Wharton, 3 November 1777, frame 15, Reel 13, PA, PHMC.

30. Supreme Executive Council to Clement Biddle, 5 November 1777, frames 1224-2125, Reel 12, PA, PHMC.

31. Ibid.

32. Supreme Executive Council to William Buchanan, 5 November 1777, frame 1227, Reel 12, PA, PHMC.

33. Receipt for Whiskey, 7 November 1777, Chaloner & White Papers, Box 5, HSP.

34. John Chaloner to J. Jennings, 16 November 1777, Society Collection, Case 19, Box 25, HSP.

35. Mark Bird to John Davis, (facsimile) John Davis Collection, Hopewell Village NHS, Hopewell, PA.

36. Lancaster County Inhabitants' Petition to the Supreme Executive Council, 20 November 1777, frames 10-13, Reel 13, PA, PHMC.

37. Robert L. Hooper to Frederick Leinback, (copy), 2 December 1777, Charles Stewart Collection, NYSHA.

38. Robert L. Hooper to Thomas Jones, 5 December 1777, Charles Stewart Collection, NYSHA.

39. Ephraim Blaine to John Patton, 13 October 1777, Society Collection, Case 19, Box 14, HSP.

40. Ibid.

41. William Buchanan to Charles Stewart, 13 November 1777, Charles Stewart Collection, NYSHA.

42. Ibid. William Buchanan is an exceptionally obscure individual. He was probably the same Buchanan who was appointed Commissioner for the "Braddock Road" (from Harris' Ferry to the Ohio) in 1755, along with George Croghan, James Burd, John Armstrong, Sr., and Adam Hoopes by Governor Morris. The estate of William Buchanan was valued at 4,000 pounds in 1780 (City of Philadelphia, Effective Supply Tax) indicating that, if the evaluation refers to the ex-Commissary General of Purchases, he was deceased by that time. See Irma A. Watts, "Colonel James Burd - Defender of the Frontier," Pennsylvania Magazine of History and Biography, L, (1926), p. 30. See also William Henry Egle, ed. Pennsylvania Archives, 3rd Series, vol. 15 (Harrisburg, PA: William Stanley Ray, 1897), p. 266.

43. On Charles Stewart See Larry R. Gerlach, New Jersey in the American Revolution 1763-1783: A Documentary History (Trenton, N. J.: New Jersey Historical Commission, 1975), p. 278.
He probably came by his appointment as Commissary General of Issues through the influence of the Jersey delegates in Congress, but the reason why he was selected for this not inconsequential task is not known. Stewart was himself a delegate to Congress in 1784-85.

44. Robert Dill to Charles Stewart, 4 October 1777, Charles Stewart Collection, NYSHA.

45. Robert Dill to Charles Stewart, 20 October 1777, Charles Stewart Collection, NYSHA.

46. William Green Munford to Charles Stewart, 11 December 1777, Charles Stewart Collection, NYSHA.

47. Michael Harvey to Charles Stewart, 8 October 1777, Charles Stewart Collection, NYSHA.

48. James Johnston to Charles Stewart, 16 October 1777, Charles Stewart Collection, NYSHA.

49. John Dickson to Charles Stewart, 8 October 1777, Charles Stewart Collection, NYSHA.

50. William Christy to Charles Stewart, 13 October 1777, Charles Stewart Collection, NYSHA.

51. John Mehelm to Charles Stewart, November 1777, Charles Stewart Collection, NYSHA.

52. Richard Backhouse to Charles Stewart, 3 October 1777, Charles Stewart Collection, NYSHA. Robert L. Hooper to Charles Stewart, 4 October 1777, Charles Stewart Collection, NYSHA.

53. Robert L. Hooper to Charles Stewart, 4 October 1777, Charles Stewart Collection, NYSHA.

54. Ibid.

55. Joseph Beavers to Charles Stewart, 30 October 1777, Charles Stewart Collection, NYSHA.

56. Robert L. Hooper to Charles Stewart, 4 October 1777, Charles Stewart Collection, NYSHA.

57. Gustavus Risberg to Charles Stewart, 5 October 1777, Charles Stewart Collection, NYSHA. The letter is addressed to Stewart at Pittstown.

58. William Buchanan to Charles Stewart, 8 October 1777, Charles Stewart Collection, NYSHA.

59. Charles Stewart to Samuel Gray, 7 October 1777, Samuel Gray Collection, vol. 2, CHS.

60. Charles Stewart to William Buchanan, 18 October 1777, Charles Stewart Collection, NYSHA. In the same collection see William Buchanan to Charles Stewart, 22 October 1777, Ephraim Blaine to Charles Stewart, November 1777, and Resolution of Congress, 6 November 1777. See also General Heath to Congress, 7 December 1777, frame 53, Roll 177, Microgroup 247, Record Group 93, NA.

61. Dyer to Trumbull, 15 December 1777, E. C. Burnett Collection, LC.

62. Ibid. Very little is known of Jones, other than that he was from New Jersey and was probably a protegé of Stewart's. See William S. Stryker, comp. Official Register of the Officers and Men of New Jersey in the Revolutionary War (Trenton, NJ: The State of New Jersey, 1872), p. 841.

63. John Chaloner to Charles Stewart, 2 October 1777, Charles Stewart Collection, NYSHA.

64. Ephraim Blaine to John Patton, 13 October 1777, Box 14, Case 19, Society Collection, HSP. From the same collection, case, and box see Blaine to Patton, 3 November 1777.

Blaine was the son of a Scotch-Irish emigrant who had come to Pennsylvania from Northern Ireland in 1745. He was a classically schooled veteran of the Seven Years War who had served as an ensign in the British provincial army. In 1763 he moved to Carlisle, where he prospered, accumulated land, and engaged in milling. At age thirty, in 1771, he was elected Sheriff of Cumberland County. He had, by then, three grist and saw mills and considerable property. Blaine was commissioned Militia Colonel January 1, 1777, and began to engage in Commissary affairs that spring. Following the Revolution he was in reduced, but far from penurious circumstances. He turned to land speculation in Kentucky and Pennsylvania, but maintained his residence at Carlisle. When President Washington came west to quell the Whiskey Rebellion in 1794 he stayed briefly with Blaine and his family. Blaine was one of the few commissary officers to emerge from the war with reputation unscathed. See John Ewing Blaine, The Blaine Family: James Blaine, Emigrant and his Children (Cincinnati: The Ebbert & Richardson Co., 1920.)

65. Ephraim Blaine to Charles Stewart, November 1777, Charles Stewart Collection, NYSHA.

66. John Chaloner to Ephraim Blaine, 24 October 1777, Charles Stewart Collection, NYSHA.

67. See particularly Chaloner's letter to John Jennings, 16 November 1777, Case 19, Box 25, Society Collection, HSP.

68. John Chaloner to Charles Stewart, 2 October 1777, Charles Stewart Collection, NYSHA.

69. As a point of interest, Chaloner, who was an Englishman by birth, used his Commissary Department connections to some advantage following the war. He was engaged by Jeremiah Wadsworth, (Buchanan's successor as Commissary General of Purchases), as Philadelphia agent for the mercantile partnership of Church and Wadsworth, (the other partner being John B. Church, brother-in-law to Alexander Hamilton). Unfortunately, Chaloner seems to have made some unwise transactions during the economic uncertainties of the 1780s, and he succeeded in loosing a considerable sum for Church and Wadsworth. Wadsworth was a loyal friend to Chaloner and attempted to shield him, but Church inevitably discovered the losses and would have not further dealings with Chaloner. The late 1780s found Chaloner with a large family, and like many other marginal Philadelphia merchants, in very tight circumstances. He moved his family to a smaller dwelling and applied successfully to the state government for an appointment as vendue master. As such he auctioned damaged mercantile goods, and at least one seventy-eight ton sloop, before he died circa 1794. Chaloner, like many of his support service brethren, was politically conservative, and opposed the state Constitution of 1776. See Chaloner and White Papers, Box 13, HSP; Harold C. Syrett, The Papers of Alexander Hamilton, Vol. IV January 1787 May 1788 (New York: Columbia University Press, 1962), pp. 624-625; also personal communication from Thomas M. Doerflinger.

70. For the very crucial role played by the price of wheat and bread in French and English political history in the eighteenth century see George Rudé, The Crowd in the French Revolution (New York: Oxford University Press, 1959), pp. 21-22, and also George Rudé, Paris and London in the 18th Century (London: Collins, The Fontana Library, 1970), pp. 53-54.

71. This is a very general estimate, given for the purposes of illustration, and based on figures in James T. Lemon, The Best Poor Man's Country: A Geographical Study of Early Southeastern Pennsylvania (New York: W. W. Norton & Company, Inc., 1976), p. 151.

72. Richard Peters to President Wharton, 30 August 1777, frame 916, Reel 12, PA, PHMC.

73. Thomas Jones to Charles Stewart, October 1777, Charles Stewart Collection, NYSHA.

74. Francis Hopkinson and John Wharton to Jonathan Mifflin, 1 October 1777, Charles Stewart Papers, NYSHA.

75. Ephraim Blaine to John Patton, Box 14, Case 19, Society Collection, NYSHA.

76. Robert L. Hooper to Thomas Jones, 5 December 1777, Charles Stewart Collection, NYSHA.

77. Thomas Jones to Gustavus Risberg, 29 October 1777, Charles Stewart Collection, NYSHA.

78. Ibid.

79. Supreme Executive Council of Pennsylvania to William Crispin, 6 November 1777, frame 29, Reel 13, PA, PHMC.

80. Thomas Jones to Charles Stewart, 16 November 1777, Charles Stewart Collection, NYSHA. Intelligence report directed to General Sir Henry Clinton, 3 December 1777, Clinton Papers, WLC.

81. Account of provisions issued to troops under the command of Washington in the Middle Department, December 1777, Charles Stewart Collection, NYSHA.

82. Jedediah Huntington to Andrew Huntington, 20 December 1777, Jedediah Huntington Letters, CHS.

83. Richard Peters to Anthony Wayne, (copy), 9 October 1777, Charles Stewart Collection, NYSHA.

84. Richard Peters to Charles Stewart, 9 October 1777, Charles Stewart Collection, NYSHA.

85. Resolve of Congress, 11 October 1777, Charles Stewart Collection, NYSHA.

86. Ephraim Blaine to John Patton, 13 October 1777, Box 14, Case 19, Society Collection, HSP.

III THE EASTERN DEPARTMENT

1. The colonies had been divided for administrative purposes into four Departments, directly effecting the administration of the QM Department, Hospital Department, and Commissary. Although the regional scheme was far from rigidly adhered to, it appears to have been clearly operative in the Commissary Department. The divisions were at this time (fall, 1777):

Eastern Department	Middle Department
Massachusetts	Pennsylvania
Connecticut	New Jersey
Rhode Island	Delaware
New Hampshire	Maryland

Northern Department

New York
North-Western Massachusetts (Vermont)

Southern Department

Virginia
North Carolina
South Carolina
Georgia

2. Joseph Trumbull to Samuel Barrett & Co. (copy), 1 October 1777, Charles Stewart Collection, NYSHA.

3. Peter Colt to John Hancock, 4 October 1777, frame 411-416, Roll 93, MG 247, Record Group 93, NA.

4. Ibid.

5. Ibid.

6. Ibid.

7. Ibid.

8. William Buchanan to Charles Stewart, 4 October 1777, Charles Stewart Collection, NYSHA.

9. William Buchanan to Charles Stewart, 6 October 1777, Charles Stewart Collection, NYSHA.

10. Ibid.

11. Despite the appearance that Stewart and Buchanan were co-equal commissaries, the number of orders issued to Stewart by Buchanan indicates that Stewart was, in effect, subordinate to the Commissary General of Purchases. At other times, however, Buchanan treated Stewart co-equally.

12. William Buchanan to Charles Stewart, 7 October 1777, Charles Stewart Collection, NYSHA. Charles Stewart to Samuel Gray, 7 October 1777, Samuel Gray Collection, vol. 2, CHS.

13. See Charles Stewart to Samuel Gray, 7 October 1777, Samuel Gray Collection, vol. 2, CHS.

14. William Buchanan to Charles Stewart, 8 October 1777, Charles Stewart Collection, NYSHA.

15. Charles Stewart to William Buchanan, 18 October 1777, Charles Stewart Collection, NYSHA; Samuel Gray to Charles Stewart, 16 November 1777, Charles Stewart Collection, NYSHA; William Heath to Henry Laurens, frame 25, Roll 177, Microgroup 247, Record Group 93, NA.

17. William Buchanan to Charles Stewart, 13 November 1777, Charles Stewart Collection, NYSHA.

18. Charles Stewart to William Buchanan, 18 October 1777, Charles Stewart Collection, NYSHA.

19. The itineraries of an unknown messenger in the winter of 1777-8 between NE and Pennsylvania give some idea of routes, and the number of stops required (not all necessarily overnight). The unknown personage left Philadelphia September 7 in the company of Mrs. Hancock. Despite the nearness of the British army, the trip was probably rather leisurely when compared to that of an express rider, but the return from Worcester, Massachusetts to Yorktown was probably rather speedy. The route was (using spelling of the text): Newel, Brookfield, Bulmer, Springfield, Suffield, Windsor, Hartford, Farmingtown, Litchfield, Danbury, Pikskill, Kings Ferry, (? illeg.) Franklin Township, Pumpton, Troy, Mendum, Valley, Mansfield, Macunsey, Dunkertown, Lancaster, Susquehannah, Yorktown. He left Worcester September 20 and reached Yorktown September 29, having, it would seem a fairly rapid journey of ten days. In December he once again made the same journey, only starting this time from Boston and thereby

adding four more rest stops through New Jersey, perhaps to avoid certain streams and rivers as well as the British, passing through Bloomingrove, Easton, and the camp at Valley Forge. He left Boston December 29 and arrived at York January 13, making the journey in sixteen days. Expense book of an unknown person, 1776-1778, Manuscript Division, NYSL.

20. Public Papers of George Clinton, First Governor of New York 1777-1795, 1801-1804, vol. IV (Albany, NY: James B. Lyon), p. 92.

21. Jedediah Huntington to ?, 12 October 1777, Jedediah Huntington Letters, CHS.

22. William Buchanan to Charles Stewart, 4 October 1777, Charles Stewart Collection, NYSHA; Robert Dill to Charles Stewart, 4 October 1777, Charles Stewart Collection, NYSHA.

23. William Buchanan to Charles Stewart, 4 October 1777, Charles Stewart Collection, NYSHA.

24. Thomas Jones to Charles Stewart, 10 October 1777, Charles Stewart Collection, NYSHA.

25. JCC, IX, 829-830. Extract of the Minutes of Congress, signed by Charles Thompson, 22 October 1777, Charles Stewart Collection, NYSHA.

26. Thomas Jones to Charles Stewart, 22 October 1777, Charles Stewart Collection, NYSHA.

27. Ephraim Blaine to Charles Stewart, 10 November 1777, Charles Stewart Collection, NYSHA.

28. William Buchanan to Charles Stewart, 13 November 1777, Charles Stewart Collection, NYSHA.

29. Ephraim Blaine to Charles Stewart, 16 November 1777, Charles Stewart Collection, NYSHA.

30. Thomas Jones to Charles Stewart, 16 November 1777, Charles Stewart Collection, NYSHA.

31. Charles Stewart to Samuel Gray, 28 November 1777, Force Manuscripts, Series 7E, Box 66, LC.

32. Samuel Gray to Charles Stewart, 5 December 1777, Charles Stewart Collection, NYSHA.

33. General Heath to Congress, 7 December 1777, frame 53, Roll 177, Microgroup 247, Record Group 93, NA.

34. William Buchanan to Charles Stewart, 9 December 1777, Charles Stewart Collection, NYSHA.

35. Jedediah Huntington to Andrew Huntington, 20 December 1777, Jedediah Huntington Letters, CHS.

IV TOWARD VALLEY FORGE

1. Account of Provisions issued to troops under the Command of General George Washington in the Middle Department, December 1777. Roll 199, PCC, LC.

2. See Chapter II, footnote 64.

3. Joseph Chambers to Charles Stewart, 21 November 1777, Charles Stewart Collection, NYSHA.

4. Ibid.

5. Compare list of commissaries in Account of Provisions Issued to troops under the command of General Washington, December 1777, Charles Stewart Collection, NYSHA with General Return of Provisions & Stores Received for the Troops in Camp, Thomas Jones, 3 June 1777, Charles Stewart Collection, NYSHA.

6. Thomas Jones to Charles Stewart, October 1777, Charles Stewart Collection, NYSHA.

7. John Chaloner to Charles Stewart, 2 October 1777, Charles Stewart Collection, NYSHA.

8. Ibid.

9. JCC, 9, 445-446.

10. John Chaloner to Charles Stewart, 3 October 1777, Charles Stewart Collection, NYSHA.

11. Thomas Jones to Charles Stewart, 6 October 1777, Charles Stewart Collection, NYSHA.

12. Wagon Brigades consisted usually of twelve wagons, teams (forty-eight horses) and drivers, or wagoners, under the direction of a Wagonmaster, but often there were fewer horses and wagons.

13. Thomas Jones to Charles Stewart, 10 October 1777, Charles Stewart Collection, NYSHA.

14. Crooked Billet was located in Bucks County; see Map 3.

15. Thomas Jones to Charles Stewart, 10 October 1777, Charles Stewart Collection, NYSHA.

16. Thomas Jones to Charles Stewart, 22 October 1777, Charles Stewart Collection, NYSHA.

17. Thomas Jones to Charles Stewart, 24 October 1777, Charles Stewart Collection, NYSHA.

18. John Chaloner to Ephraim Blaine, 24 October 1777, Charles Stewart Collection, NYSHA.

19. Thomas Jones to Charles Stewart, 29 October 1777, Charles Stewart Collection, NYSHA.

20. Ibid.

21. Thomas Jones to Gustavus Risberg, 29 October 1777, Charles Stewart Collection, NYSHA.

22. Ibid.

23. Receipt for rum for the use of Sullivan's Division, 2 November 1777, Chaloner & White Papers, Box 5, HSP.
Receipt for funds paid for whiskey signed by Thomas Welch, (three barrels containing 31.2, 30, 32 gallons each), Chaloner & White Papers, Box 5, HSP.

24. Ephraim Blaine to John Patton, 3 November 1777, Society Collection, Case 19, Box 14, HSP.

25. Ibid.

26. Receipt for flour received by Joseph Detweiler, 6 November 1777, Chaloner & White Papers, Box 5, HSP.

27. Order signed by Mordecai Gist to pay for whiskey for his brigade of the Maryland Militia, 7 November 1777, Chaloner & White Papers, Box 5, HSP. This order illustrates the rather circuitous manner in which these transactions were frequently effected. Gist wrote out the order to Jones. One Richard Loocherman apparently made the purchase, paying John Mackland and Henry Brooks $177.00 for fifty-seven gallons of whiskey, which was then turned over to Gist's brigade.

28. Order of George Washington (Ephraim Blaine's copy), 11 November 1777, Charles Stewart Collection, NYSHA.

29. John Chaloner to John Jennings, 16 November 1777, Society Collection, Case 19, Box 25, HSP.

30. Ibid.

31. Ibid.

32. William Moland to Ephraim Blaine, 2 December 1777, Ephraim Blaine Papers, LC.

33. Ibid.

34. Ibid.

35. Thomas Jones to Charles Stewart, 16 November 1777, Charles Stewart Collection, NYSHA.

36. Ibid.

37. George Washington to Ephraim Blaine (copy), Charles Stewart Collection, NYSHA.

38. Thomas Jones to John Magee, Reel 13, frame 0142, PA, PHMC.

39. Mark Bird to (? possibly John Davis), John Davis Letter Collection, (facsimile), Hopewell Village NHS, Hopewell, PA.

40. Supreme Executive Council of Pennsylvania to Congress, 28 November 1777, Reel 13, frame 0140, PA, PHMC.

41. Jedediah Huntington to Jabez Huntington, Jedediah Huntington Papers, CHS.

42. Robert L. Hooper to Thomas Jones, 5 December 1777, Charles Stewart Collection, NYSHA, Cooperstown, NY; Resolution of the Pennsylvania General Assembly, 6 December 1777, frame 184-6, Reel 13, PA, PHMC.

43. William Buchanan to Charles Stewart, 9 December 1777, Charles Stewart Collection, NYSHA.

44. Thomas Jones to President Wharton, 19 December 1777, frame 302, Reel 13, PA, PHMC.

V "THE SAYINS OF SOLOMON"

1. Jedediah Huntington to Joshua Huntington, 20 December 1777, Jedediah Huntington Letters, CHS.

2. Traditionally located near Head Quarters, on Route 23.

3. For returns (incomplete) bearing on the contents of the principal magazines at Camp during February, see Thomas Jones returns, Roll 199, PCC, LC.

4. Ibid.

5. Report of the Baron de Kalb, 20 December 1777, Laurens Papers, LIHS.

6. Ibid.

7. Jedediah Huntington to Jeremiah Wadsworth, 21 December 1777, Jeremiah Wadsworth Papers: Correspondence, CHS.

8. Jedediah Huntington to Timothy Pickering, 22 December 1777, Laurens Papers, LIHS.

9. Ibid.

10. James Mitchell Varnum to George Washington, 22 December 1777, Washington Papers, LC.

11. Charles Stewart to Captain Greenleaf, 22 December 1777, Manuscript Collections, MHS.

12. John Armstrong, Sr., to George Washington, 23 December 1777, Washington Papers, LC.

13. Ibid.

14. Thomas Jones to President Wharton, 24 December 1777, frame 343, Reel 13, PA, PHMC.

15. John Bull to President Wharton, 24 December 1777, frame 339, Reel 13, PA, PHMC.

16. John Bull to President Wharton, 24 December 1777, frame 358, Reel 13, PA, PHMC.

17. Ibid.

18. Ephraim Blaine to John Patton, 24 December 1777, Box 14, Case 19, Society Collection, HSP.

19. John Armstrong to George Washington, 23, 24, 25, December 1777, Washington Papers, LC. Thomas Jones to President Wharton, 24 December 1777, frame 343, Reel 13, PA, PHMC.

20. Jonathan Todd to Timothy Todd, 25 December 1777, Roll 1561, Microgroup 806, Record Group 15, NA.

21. Ibid.

22. General Orders of George Washington, 25 December 1777, Washington Papers, LC.

23. George Washington to Congress, 23 December 1777, Washington Papers, LC.

24. Daniel Roberdeau to President Wharton, 26 December 1777, frame 364, Reel 13, PA, PHMC.

25. Benjamin Talmadge to Jeremiah Wadsworth, 30 December 1777, Jeremiah Wadsworth Collection: Correspondence, CHS.

26. Mark Bird to John Davis, 21 December 1777, John Davis Papers (facsimilies), Hopewell Village NHS, Hopewell, PA.

27. John Bull to President Wharton, 24 December 1777, frame 339, Reel 13, PA, PHMC.

28. Clement Biddle to ?, 21 December 1777, NJBAH.

29. Mark Bird to John Davis, 21 December 1777, John Davis Papers (facsimilies), Hopewell Village NHS, Hopewell, PA.

30. Circular Letter of the Supreme Executive Council to Deputy Wagon Masters, 22 December 1777, frame 331, Reel 13, PA, PHMC.

31. Thomas Jones to President Wharton, 24 December 1777, frame 343, Reel 13, PA, PHMC.

32. Supreme Executive Council draft resolution, 24 December 1777, frame 346, Reel 13, PA, PHMC.

33. Supreme Executive Council to the Pennsylvania delegates to Congress, 26 December 1777, frame 370, Reel 13, PA, PHMC.

34. Ibid.

35. Henry Lutterloh to George Washington, 25 December 1777, Washington Papers, LC.

36. Ibid.

37. Francis Lightfoot Lee to Thomas Wharton, 30 December 1777, Autographs of Signers of the Declaration, PML.

VI CROSS PURPOSES

1. Order of George Washington, British transcription of order in the Saturday Evening Post (24 January 1778), Germain Papers, WLC.

2. John Lesher to Thomas Wharton, 9 January 1778, frame 494, Reel 13, PA, PHMC.

3. Ibid.

4. Nathanael Greene to George Washington, 17 February 1778, GWP, LC.

5. George Washington to Governor Livingston, 20 January 1778, Washington Papers, LC.

6. Report of the Committee on Conference at Valley Forge, 6 February 1778, frame 159, Roll 94, M247, Record Group 93, NA.

7. John Lacey to Thomas Wharton, 2 February 1778, Box 12, Case 4, Gratz Collection, HSP.

8. John Buss to his family, 2 January 1778, Knollenberg Collection, YU.

9. Ichabod Ward to Abraham Pierson, 19 January 1778, Pierson and Sargeant Family Papers, CSL.

10. Ibid.

11. Thomas Jones to ?, 8 February 1778, frame 704, Reel 13, PA, PHMC.

12. William Davies to ? This document is undated and is misfiled in the Washington Papers at the end of March, 1778 (GWP, LC). It is reasonably certain that it was the genesis of the market idea at camp, and was written early in January, as it proposes a market system similar to what Washington later authorized in General Orders.

13. Copy of orders pertaining to a public market at Camp, 30 January 1778, Theodore Woodbridge Papers, CHS. See also WGW 10:

The items and prices specified were as follows:

Item	Quantity	Price/Pounds
fresh pork	lb.	0.1.0
roasting pork	lb.	0.1.6
mutton	lb.	0.0.10
veal	lb.	0.10
fat turkey	lb.	1.4
fat goose	lb.	1.0
fat ducks	each	3.9
fat fowls	each	2.6
fresh butter	lb.	3.9
furkin butter	lb.	3.0
hogs lard	lb.	3.0
cheese	lb.	3.0
sausages	lb.	3.9
eggs	doz.	1.6
rough skinned potatoes	bushel	0.10
Spanish skinned potatoes	bushel	1.6
turnips	bushel	4.0
cabbage	head	4.0
onions	1/2 peck	2.6
beans	quart	1.3
sourkraut	1/2 peck	3.9
apples	1/2 peck	1.6
dried apples	1/2 peck	3.9
indian meal	1/2 peck	2.0
leaf tobacco	lb.	4.0
vinegar	quart	2.6
new milk	quart	1.0
soft soap	quart	2.6
cider	barrel	4.0.0
small beer		1.10.0

A clerk was to inspect the goods at the markets to insure that no one was defrauded.

14. WGW, 11: 85.

15. Receipt of James Richardson, February 1778, Henry Knox Papers, MHS.

16. Provisions issued Nathanael Greene, 22 January to 11 February 1778, Greene Papers, WLC.

17. General Orders, 1 January 1778, GWP, LC.

18. Nathanael Greene to George Washington, 1 January 1778, GWP, LC.

19. Receipt of Alexander Blaine, 10 January 1778, Box 6, Chaloner & White Papers, HSP.

20. Benjamin Rush to Henry Laurens, 9 February 1778, frame 215, Reel 101, Microgroup 247, Record Group 93, NA.

21. Receipt signed by David Williams, 10 January 1778, frame 569, Roll 52, Microgroup 247, Record Group 93, NA. On same reel see also receipts on frame 562 and 564.

22. John Chaloner to James White, 26 January 1778, Box 6, Chaloner & White Papers, HSP. White was at this time in Flemington, N. J., serving as Assistant Deputy Commissary of Purchases.

23. General Return of provisions received at camp and the different posts and magazines of the Middle Department for February 1778, NJBAH.

24. Gustavus B. Wallace to Michael Wallace, 27 January 1778, Ms. 28-150, UVL.

25. Henry Lutterloh to Thomas Wharton, 28 January 1778, VFHS.

26. Supreme Executive Council to the County Wagon Masters, 29 January 1778, frame 623, Reel 13, PA, PHMC.

In January, 1778, Pennsylvania reorganized its system for supplying wagons for public service. Previously, the County Lieutenants were responsible for calling out wagons as directed by the Supreme Executive Council. This system apparently proved inefficient, and the County Lieutenant doubtless had more than enough problems in calling out and supplying the Pennsylvania Militia. On January 9, the Supreme Executive Council moved to appoint a State Wagon Master, James Young, and the following County Wagon Masters:

Philadelphia County	Col. John Moore
Chester County	Thomas Boyd
Bucks County	John Thompson
Lancaster County	James Bayly
Berks County	Leonard Reed
York County	Joseph Jeffries
Cumberland County	Matthew Gregg
Northampton County	Conrad Knider
Bedford County	John Cesna
Northumberland County	James Mc_____
Westmoreland County	Andrew Linn

County Wagon Masters were paid twenty-two shillings, 6 pence per day, and they could appoint Deputies at twenty shillings per day.

The state still had difficulties calling out wagons, as numerous instances attest. James Patton, Deputy Wagon Master for Conestoga township, had to apply to the Council for an armed guard to force wagon owners into compliance during March. See Minutes of the Supreme Executive Council of Pennsylvania, from its Organization to the Termination of the Revolution, vol. 11, (Harrisburg, PA: Theo Fenn & Co., 1852), pp. 223, 371, 398, 438.

27. Clement Biddle to George Washington, January 1778, John Reed Collection.

28. Tench Tilghman to Clement Biddle, c. early February 1778, Clement Biddle Papers, HSP.

29. Daniel Roberdeau to President Wharton, 26 January 1778, frame 600, Reel 13, PA, PHMC.

30. Ibid.

31. Extract from the minutes of Congress, 15 January 1778, frame 516, Reel 13, PA, PHMC.

32. Joseph Nourse to President Wharton, 17 January 1778, frame 538, Reel 13, PA, PHMC.

33. Supreme Executive Council to the Pennsylvania Delegates to Congress, 26 January 1778, frame 606, Reel 13, PA, PHMC.

34. Instructions of the Board of War to Purchasing Commissioners, 31 January 1778, frame 636, Reel 13, PA, PHMC.

35. Supreme Executive Council to the Pennsylvania Delegates to Congress, 3 Febraury 1778, frame 662, Reel 13, PA, PHMC.

36. Ibid.

37. Supreme Executive Council to the Pennsylvania Delegates to Congress, 7 February 1778, frame 695, Reel 13, PA, PHMC.

38. Ibid.

39. Thomas Wharton to Thomas McKean, 14 Febraury 1778, frame 756, Reel 13, PA, PHMC.

40. Robert L. Hooper, et al., to the Board of War, 11 February 1778, frame 713, Reel 13, PA, PHMC.

41. Ibid.

42. Ibid.

43. Ibid.

44. David Forman to George Washington, 1 January 1778, GWP, LC.

45. Henry Laurens to Samuel and Robert Purviance, 12 January 1778, MdHS.

46. Ibid.

47. Henry Lutterloh to Ozias Bingham, 1 January 1778, Jeremiah Wadsworth Collection, CHS.

48. Pennsylvania Packet, 28 January 1778.

49. Clement Biddle to ?, 2 February 1778, frame 647, Reel 13, PA, PHMC.

50. General Heath to Henry Laurens, 6 January 1778, frame 65, Reel 177, M247, Record Group 93, NA.

51. Royal R. Hinman, A Historical Collection from Official Records, Files, etc. of the Part Sustained by Connecticut During the War of the Revolution (Hartford: E. Gleason, 1842), p. 302.

52. Ibid., p. 506.

53. Ibid., pp. 514-516.

54. Peter Colt to Samuel Gray, 26 January 1778, Samuel Gray Collection, Volume 2, CHS.

55. Cornelius Harnett to Governor Caswell, 31 January and 3 February 1778, Charles F. Jenkins Collection, Members of Old Congress, HSP.

56. A. Emmerick to General Sir Henry Clinton, 31 January 1778, Clinton Papers, WLC.

57. Samuel Savage, President of the Massachusetts Board of War, to the Governor and Assembly of New York, 5 February 1778, Letters of the Massachusetts Board of War, Series 7E, Force Manuscripts, LC.

58. Report of the Committee of Conference to Congress, 6 February 1778, frame 159, Reel 94, M247, Record Group 93, NA.

59. Ibid.

60. Ibid.

61. Ibid.

62. Ibid.

63. George Washington to Governor Trumbull of Connecticut, 6 February 1778, GWP, LC.

64. Ephraim Blaine to the Supreme Executive Council, 12 February 1778, frame 724, Reel 13, PA, PHMC.

VII "A PICTURE OF DISTRESS"

1. Nathanael Greene to Clement Biddle, appending a copy of an order from Washington to Greene, 12 February 1778, Clement Biddle Papers, HSP.

2. Ibid.

3. James M. Varnum to Nathanael Greene, 12 February 1778, GWP, LC.

4. Gustavus B. Wallace to his brother, 13 February 1778, Ms. #38-150, UVL. George Fleming to Major Bauman, Sebastian Bauman Papers, NYHS.

5. George Washington to Governor Livingston of New Jersey, 14 February 1778, GWP, LC.

6. Jasper Yeates to James Burd, 15 February 1778, p. 27, vol. 8, Shippen Family Papers, HSP. (The town of Lancaster and its vicinity now supported a host of refugee population as well as the trappings of the state government. It seems logical that spot shortages should strike in this and other crowded towns of central Pennsylvania.)

7. Thomas Jones to Charles Stewart, 15 Febraury 1778, Charles Stewart Collection, NYSHA.

8. Ibid.

9. Ibid.

10. There exists one letter from Stewart to Samuel Gray, dated February 17, Valley Forge, in which he notes that he has consulted with the Committee of Conference on the subject of the division of the Eastern Department, and speaks of a variety of related letters (Charles Stewart to Samuel Gray, 17 February 1778, Samuel Gray Papers, CHS). As it is bracketed on the sixteenth and the eighteenth by letters from Jones begging Stewart to come to camp, and as there is no record that the Committee of Conference confered with Stewart during this period, one can only surmise that he was deliberately deceiving Gray concerning his whereabouts in order to make him believe that he had personally confered with the Committee on a matter of considerable importance to Gray.

11. Ephraim Blaine to Charles Stewart, 16 February 1778, Charles Stewart Collection, NYSHA.

12. Ibid.

13. Return of Provisions issued from the Commissary General's Magazine, signed by Thomas Jones, 13 February 1778, Roll 199, PCC, LC.

14. Francis Dana to ? , 16 February 1778, Dreer Collection, Members of Old Congress, HSP.

15. Ibid. Ephraim Blaine to Charles Stewart, 16 February 1778, Charles Stewart Collection, NYSHA.

16. Ibid.

17. Thomas Jones to Charles Stewart, 16 February 1778, Charles Stewart Collection, NYSHA.

18. Ibid.

19. George Washington to Governor Johnson, 16 February 1778, Md HR 4608 - 10 & 11, MHR.

20. Committee of Conference to Governor Thomas Johnson, 16 February 1778, Fitzpatrick, X: 472.

21. George Washington to Governor Clinton, 16 February 1778, GWP, LC. George Washington to Governor Livingston, 16 February 1778, same collection.

22. George Washington to Henry Hollingsworth, 16 February 1778, GWP, LC.

23. John Laurens to Henry Laurens, 17 February 1778, Laurens Papers, LIHS.

24. Nathanael Greene to George Washington, 17 February 1778, GWP, LC.

25. Nathanael Greene to George Washington, 18, 20 February 1778, GWP, LC.

26. William Smallwood to George Washington, 21 February 1778, GWP, LC. R. H. Lee to George Washington, 22 February 1778, GWP, LC.

27. Tench Tilghman to George Washington, 19 February 1778, GWP, LC.

28. John Laurens to Henry Laurens, 17 February 1778, Laurens Papers, LIHS.

29. Ibid.

30. Thomas Jones to Charles Stewart, 18 February 1778, Charles Stewart Collection, NYSHA.

31. Ibid.

32. Ibid.

33. Ibid.

34. Ibid.

35. Circular Letter of George Washington, 18 February 1778, GWP, LC.

36. Ephraim Blaine to Charles Stewart, 18 February 1778, Charles Stewart Collection, NYSHA.

37. James Paxton to Charles Stewart, 20 February 1778, Charles Stewart Collection, NYSHA.

38. Henry Lutterloh to President Wharton, 20 February 1778, Reel 13, PA, PHMC.

39. Jedediah Huntington to Governor Trumbull, 20 February 1778, Trumbull Papers, vol. 6, #46, CSL.

40. Jedediah Huntington to Jabez Huntington, 20 February 1778, Jedediah Huntington Papers, CHS.

41. Timothy Pickering to Joseph Trumbull, 20 February 1778, Joseph Trumbull Papers, vol. 3, #231, CSL.

42. Francis Dana to Governor Johnson of Maryland, 20 February 1778, VFHS.

43. Peter Colt to George Washington, 20 February 1778, GWP, LC.

44. Henry Champion to George Washington, 28 February 1778, GWP, LC.

45. Resolve of Congress, 14 Febraury 1778, Reel 13, PA, PHMC.

46. R. L. Hooper, N. Falconer, and J. Mifflin to the Board of War, 14 February 1778, Reel 13, PA, PHMC.

47. James Young to Timothy Matlack, 14 February 1778, Reel 13, PA, PHMC. Resolve of Congress, 21 February 1778, Reel 13, PA, PHMC.

48. William Duer to Colonel Lee, 19 February 1778, Reel 13, PA, PHMC. JCC, X, p. 176.

49. James Young to Timothy Matlack, 21 February 1778, Reel 13, PA, PHMC.

50. R. L. Hooper, et al. to the Board of War, 14 February 1778, Reel 13, PA, PHMC.

51. James Young to Secretary Matlack, 23 February 1778, Reel 13, PA, PHMC.

52. Horatio Gates to Henry Laurens, (copy), 26 February, 1778, Reel 13, PA, PHMC.

53. Gates' letter to Laurens was forwarded to President Wharton by John B. Smith on February 28. Smith expressed considerable wonder, saying he had no idea what "..strictures were made on the subject by Congress..." John B. Smith to President Wharton, 28 February 1778, Reel 13, PA, PHMC.

It is certain that Gates ordered Mifflin to stop purchasing See J. Mifflin to George Washington, 20 February 1778, GWP, LC, and H. Gates to Jonathan Mifflin, 15 February 1778, GWP, LC.

54. Supreme Executive Council circular letter to the state purchasing commissioners, 3 March 1778, Reel 13, PA, PHMC. In urging the state purchasers on the redoubled efforts, the Council pointed to unnamed enemies working to discredit the state government. The success expected of the commissioners would "...wipe off the unmerited aspersions thrown upon the good people of the Commonwealth by many who have wished for is political ruin..."

55. Samuel Gray to Charles Stewart, 24 February 1778, Charles Stewart Collection, NYSHA.

56. For the letters pertaining to this incident see John Chaloner to Clement Biddle, 26 February 1778, Reel 13, PA, PHMC. On the same reel see Timothy Matlack to James Young, 4 March 1778; James Young to the Supreme Executive Council, 7 March 1778; frame 919.

57. Nathanael Greene to ?, 26 February 1778, Miscellaneous Mss., Nathanael Greene, NYHS.

58. Ibid.

VIII A NEW REGIME

1. Henry Champion to Ephraim Blaine (copy) 28 February 1778, Ms. 69457, Collection of Revolutionary Letters and Documents, CHS.

2. George Washington to Congress, 12 March 1778, Washington Papers, LC.

3. John Chaloner to Henry Champion, 12 (or 17) March 1778, Ms. 69492, Collection of Revolutionary Letters and Documents, CHS.

4. Ibid.

5. James Bradford to Thomas Wooster, 4 March 1778, John Reed Collection.

6. John Ladd Howell to John Chaloner, 5 March 1778, Lloyd W. Smith Collection, Morristown NHP.

7. George Washington to Governor Johnson, 21 March 1778, Md. HR 5429-60J, Washington Papers and Letters, MHR.

8. John Ladd Howell to Captain Patton, 22 March 1778, Lloyd W. Smith Collection, Morristown NHP.

9. John Ladd Howell to Captain Patton, 2-5 March 1778, PUL.

10. John Ladd Howell to John Chaloner, 26 March 1778, Lloyd W. Smith Collection, Morristown NHP.

11. William Smallwood to Henry Hollingsworth, 31 March 1778, WRHS. John Ladd Howell to John Chaloner, 20 April 1778, Lloyd W. Smith Collection, Morristown NHP.

12. George Washington to Governor Clinton of New York, 12 March 1778, GWP, LC.

13. James Young to Timothy Matlack, 2 March 1778, frame 891, Reel 13, PA, PHMC.

14. John Chaloner to James Young, 2 March 1778, frame 902, Reel 13, PA, PHMC.

15. Tench Tilghman to ?, 5 March 1778, John Reed Collection.

16. George Washington to Thomas Wharton, 7 March 1778, GWP, LC.

17. Ibid.

18. James Young to Timothy Matlack, 8 March 1778, Reel 13, PA, PHMC.

19. Supreme Executive Council to Joseph Jeffries, 9 March 1778, Reel 13, PA, PHMC.

20. Supreme Executive Council to Henry Lutterloh, 10 March 1778, Reel 13, PA, PHMC.

21. Supreme Executive Council to George Washington, 10 March 1778, Reel 13, PA, PHMC.

22. Ibid.

23. Charles Pettit to James Young, 17 March 1778, Reel 13, PA, PHMC.

Both Cox and Pettit were entrepreneurs and men of substantial reputation in New Jersey and Philadelphia. Pettit (b. 1737 near Amwell, NJ), was brother-in-law to Joseph Reed, and he had been partner with Reed's father Andrew in the Philadelphia mercantile partnership of Reed and Pettit before the war. On the dissolution of the house, Pettit's association with the younger Reed procured him important posts in the New Jersey provincial government, and by the outbreak of hostilities he was Provincial Secretary under Governor Franklin. After some deliberation, and apparently at the urging of his friend John Cox, Pettit cast his fortunes with the Revolutionary cause, and he made a neat transition to the part of Secretary to the Revolutionary government of New Jersey. There are various traditions concerning connections between Pettit and Greene prior to March 1778. Greene's biographer Theodore Thayer states unequivocally: "If Greene knew Pettit and Cox before they became his assistants, it must have been but slightly." Theodore Thayer, Nathanael Greene: Strategists of the American Revolution (New York: Twayne Publishers, 1960), p. 227. The undocumented, and rather unlikely, assertion that Greene and Pettit were childhood friends appears in Marquis James, Biography of a Business 1792-1942: The Insurance Company of North America (New York: The Bobbes-Merrill Company, 1942), p. 57. E. James Ferguson states that Greene had entered into a partership with Cox and Pettit before they were appointed Assistant Quarter Masters, which considering their future business ventures and the rather casual conception of conflict of interest which prevailed at the time, is quite possible. Pettit continued his mercantile ventures following the war. He served as a representative to Congress in the 1780's, and became the second president of the Insurance Company of North America. See Gerlach, New Jersey in the Revolution, pp. 143, 156-7, and E. James Ferguson, Power of the Purse, p. 95.

John Cox was a Philadelphia merchant who had engaged heavily in iron manufacture and marketing in the 1770s. With Charles Thompson he purchased Batsto Furnace, in Burlington County, N. J.

in 1770. (By 1781 Pettit was also a part owner). See Arthur D. Pierce, Family Empire in Jersey Iron: The Richards Enterprises in the Pine Barrens. (New Brunswick, NJ: Rutgers University Press, 1964), pp. 8, 12. In 1776 Cox began to manufacture ordnance and shot at Batsto for the Council of Safety at Philadelphia, and fulfilled some substantial contracts. He purchased the Mount Holly Furnace in 1777, which was destroyed by the British during their march to New York in June, 1778. Cox remained Greene's assistant, and was offered the post of Commissary General upon Greene's resignation in 1779, but refused to accept it. Cox continued his mercantile ventures following the war, and as partner of the firm John and James Cox, Philadelphia, carried on a substantial importing trade in the 1780s with the Windward Islands. See Charles S. Boyer, Early Forges & Furnaces in New Jersey (Philadelphia: University of Pennsylvania Press, 1931), pp. 134, 181. Duvall, "Philadelphia's Maritime Commerce", pp. 297, 328.

24. John B. Smith to President Wharton, 8 April 1778, Reel 13, PA, PHMC.

25. George Washington to Thomas Wharton, 10 April 1778, Box 31, Case 1, Gratz Collection, HSP. Also in Washington Papers, LC.

26. Nathanael Greene to Charles Pettit, 11 April 1778, Joseph Reed Papers, NYHS.

Red Lion was located on the Lancaster Road just east of Lancaster.

27. Lord Stirling to Charles Pettit, 13 April 1778, ChiHS. Ebenezer Crosby to ?, 14 April 1778, Manuscript Collection, HU.

28. Returns of James Thompson, Wagon Master General, 31 March, 7 April, 14 April, 21 April 1778 (series interrupted), Box 6, Chaloner & White Collection, HSP.

29. Extract of the minutes of the Supreme Executive Council signed by Timothy Matlack, 18 April 1778, WRHS.

30. Major John Clark to Elbridge Gerry, 28 April 1778, Franklin Collection, YU.

31. Theodorick Bland to George Washington, 10 April 1778, GWP, LC.

32. Supreme Executive Council to Nathanael Greene, 30 April 1778, frame 1243, Reel 13, PA, PHMC.

33. Tench Tilghman to Major Moylan, 29 April 1778, Philip Lansdale Papers, LC.

34. George Washington to the Inhabitants of Virginia, 26 March 1778, GWP, LC.

35. Clement Biddle to Moore Furman, 25 April 1778, Revolutionary Documents #61, NJBAH.

36. Ibid.

37. John Arndt to President Wharton, 6 March 1778, Reel 13, PA, PHMC.

38. Supreme Executive Council to Congress, 6 March 1778, Reel 13, PA, PHMC.

39. John Lesher to President Wharton, 9 March 1778, Reel 13, PA, PHMC.

John Lesher, it will be remembered, was the iron-master who complained to the Council because produce he used to feed his workers was seized by soldiers at bayonet-point. He was appointed one of the state purchasing commissioners to provide food for the army, on January 20, 1778 with Valentine Eckhard, for Berks County. Minutes of the Supreme Executive Council, XI, p. 404.

40. Ebenezer Cowell to Thomas Wharton, 24 March 1778, Reel 13, PA, PHMC. John Arndt and David Deshler to Thomas Wharton, 25 March 1778, Reel 13, PA, PHMC.

41. Resolve of Congress, 17 April 1778, Reel 13, PA, PHMC.

42. Supreme Executive Council Circular Letter to the state purchasing commissioners, 21 April 1778, Reel 13, PA, PHMC.

43. Thomas Edwards to President Wharton, 28 April 1778, Reel 13, PA, PHMC.

44. Charles Stewart to Samuel Gray, 9 March 1778, Samuel Gray Collection, CHS. Return of names of Assistant Commissaries of Issues under Samuel Gray in the Eastern Department, April 1778, Charles Stewart Collection, NYSHA.

45. Samuel Gray to Charles Stewart, 2 April 1778, Charles Stewart Collection, NYSHA.

46. Solomon Southwick to Charles Stewart, 8 April 1778, Charles Stewart Collection, NYSHA.

47. Solomon Southwick to Charles Stewart, 10 April 1778, Charles Stewart Collection, NYSHA.

48. Account of John Grant, 1 March 1778, Charles Stewart Collection, NYSHA. See also in same collection:
Account of George Meserve, 13 March 1778
Receipt of John White, 21 March 1778
Account of Jeremiah Child, 31 March 1778
Receipt of Eleazer Conants, 8 April 1778

49. Ephraim Blaine to Charles Stewart, Charles Stewart Collection, NYSHA. See also in the same collection: William Buchanan to Charles Stewart, 17 April 1778.

Jeremiah Wadsworth was an enterprising, self-made merchant seaman from Middletown, Connecticut, who by the outbreak of the war had acquired a substantial reputation in the state. His early appointment in April of 1775 as Commissary to the Connecticut Line suggests that he numbered the Trumbulls among his friends. Wadsworth resigned as Commissary General of Purchases January 1, 1780, but was later employed by the French to act as Commissary to Rochambeau's army in America. He used this latter appointment to good advantage and built a fortune on his commissions. Wadsworth served the Continental Army conscienciously, but in 1779 he evoked the wrath of Congress by the astronomical expenditures incurred by his department. See Allen Johnson and Dumas Malone, eds., Dictionary of American Biography, vol. 19 (New York: Charles Scribner's Sons, 1937), pp. 309-310.

IX FROM HAND TO MOUTH

1. Ephraim Blaine to Jeremiah Wadsworth, 10 May 1778, Jeremiah Wadsworth Papers: Correspondence, CHS.

2. John Chaloner to Jeremiah Wadsworth, 17 May 1778, M247, Record Group 93, NA. See also: George Washington to Ephraim Blaine (or John Chaloner) Roll 104, M247, Record Group 93, NA.

3. John Chaloner to Charles Stewart, 23 May 1778, Charles Stewart Collection, NYSHA.

4. Jeremiah Wadsworth to the Connecticut General Assembly, 26 May 1778, frame 503, Roll 104, M247, Record Group 93, NA.

5. John Chaloner to Jeremiah Wadsworth, 26 March 1778, Jeremiah Wadsworth Papers: Correspondence, CHS.

6. Jeremiah Wadsworth to Henry Laurens, 27 May 1778, Jeremiah Wadsworth Papers: Correspondence, CHS.

7. John Chaloner to Jeremiah Wadsworth, 1 June 1778, Jeremiah Wadsworth Papers: Correspondence, CHS.

8. Samuel Huntington to Jeremiah Wadsworth, 4 June 1778, Jeremiah Wadsworth Papers: Correspondence, CHS.

9. Jeremiah Wadsworth to George Washington (draft) 4 June 1778, Jeremiah Wadsworth Papers: Correspondence, CHS. In the same collection see: Jeremiah Wadsworth to the Board of War, 4 June 1778 and Jeremiah Wadsworth to John Chaloner, 5 June 1778.

10. Henry Champion to Jacob Cuyler, 6 June 1778, Jeremiah Wadsworth Papers: Correspondence, CHS.

11. Jeremiah Wadsworth to Henry Champion, 8 June 1778, Jeremiah Wadsworth Papers: Correspondence, CHS.

12. Ibid.

13. Jeremiah Wadsworth to Henry Champion, 9 June 1778, Jeremiah Wadsworth Papers: Correspondence, CHS.
Ephraim Blaine to Jeremiah Wadsworth, 10 June 1778, Jeremiah Wadsworth Papers: Correspondence, CHS.

14. Charles Pettit to Moore Furman, 5 May 1778, Sub Group: Military Records, Record Group: New Jersey Department of State, NJBAH.

15. Charles Pettit to Moore Furman, 15 May 1778, Sub Group: Military Records, Record Group: New Jersey Department of State, NJBAH.

16. Charles Pettit to Moore Furman, 29 May 1778, Sub Group: Military Records, Record Group: New Jersey Department of State, NJBAH.

17. Ibid.

18. Ibid.

19. Nathanael Greene to Robert L. Hooper, 31 May 1778, Joseph Reed Collection, NYHS.

20. Robert L. Hooper to Moore Furman, 6 June 1778, NJBAH.

21. Nathanael Greene to Moore Furman, 15 June 1778, NJBAH.

22. Ibid.

23. Ibid.

24. List of Continental Horses received at Camp, 11 May 1778, Chaloner and White Manuscripts, Box 6, HSP.

25. Order of Charles Pettit to Mr. McClaren, 11 May 1778, Chaloner & White Papers, Box 6, HSP. Description of Continental Horses, 16 May 1778, Chaloner & White Manuscripts, Box 6, HSP.

26. John Davis to Timothy Matlack, 29 May 1778, frame 149, Reel 14, PA, PHMC.

27. Supreme Executive Council to Nathanael Greene, 7 May 1778, frame 1312, Reel 13, PA, PHMC.

28. Charles Pettit to President Wharton, 16 May 1778, frame 21, Reel 14, PA, PHMC.

29. Ibid., and Supreme Executive Council to Charles Pettit, 19 May 1778, Reel 14, PA, PHMC.

30. Petition of John Hammon to the Supreme Executive Council, June 1778, Reel 14, PA, PHMC.

31. Peter Muhlenberg to Nathanael Greene, 8 May 1778, Box 13, Case 4, Gratz Collection, HSP.

32. Charles Pettit to James Thompson, 9 May 1778, Box 13, Case 4, Gratz Collection, HSP.

33. Return of tools and wagons in Learned's Brigade, 5 June 1778, James Abeel, MG110, Quarter Master Receipts, Accounts, etc., NJHS.

34. Return of Wagons in the Rifle Detachment commanded by Daniel Morgan, 18 May 1778, Box 6, Chaloner and White Papers, HSP.

35. John Ladd Howell to Colonel Wade, 19 May 1778, Lloyd W. Smith Collection, Morristown NHP. John Ladd Howell to Colonel Wade, 23 May 1778, John Reed Collection.

36. Enlistment of David Page (wagoner) 28 May 1778, Box 6, Chaloner & White Papers, HSP.

37. Return of John Skidmore, Deputy Wagon Master General, 21 May 1778, Box 6, Chaloner & White Papers, HSP. This return, although not specifically for wagoners enlisted at Valley Forge, offers a detailed account of the clothing issued each wagoner: 1 great coat, one coat, 1 waistcoat, 3 or 4 shirts, 1 pair breeches, 3 or 4 pair stockings, 1 pair shoes, 1 hat, 1 cap, 1 pair boots. The wagoners appear to have fared better than the average enlisted man in the matter of clothing, doubtless due to the constant exposure to the elements and hard labor required in the service.

38. Return of James Thompson, 21 April 1778, Box 6, Chaloner & White Papers, HSP.

39. Invoice of teams, etc., delivered to Archibald McMaster of Rhiemstown, 30 May 1778, Box 6, Chaloner & White Papers, HSP.

40. John Cox to James Abeel, 4 June 1778, MC 110, Correspondence of John Cox, NJHS.

41. Ibid.

42. Ibid.

43. Jacob Weiss to George Ross, 10 June 1778, Ms 657, Weiss, Lehigh County Historical Society, Allentown, PA.

44. John Chaloner to Charles Stewart, 9 June 1778, Charles Stewart Collection, NYSHA.

45. Ephraim Blaine to Charles Stewart, 9 June 1778, Charles Stewart Collection, NYSHA.

46. Ibid.

47. Nathanael Greene to Moore Furman, 18 June 1778, NJBAH.

PART II - THE CLOTHIER'S DEPARTMENT

I "...VERY LIGHT & EASY..."

1. James Mease is a particularly elusive character. Because his record as Clothier General was less than exemplary, and because he left no heirs, he has been the subject of no published biographical sketches. He was apparently unrelated to the noted Philadelphia physician, James Mease, born in 1771. A James Mease appears as cornet on the first roles of the dragoon company which was parent to the First City Troop, as noted by Charles P. Keith, "Andrew Allen," PMHB, Vol. X, No. 4, (1186), 362. The fact that Washington bought two horses from him appears in William S. Baker, "Itinerary of General Washington from June 15, 1775 to December 23, 1783," PMHB, Vol. XIV, No. 2, (1890), 114. Two letters of Reverend Francis Alison to Lt. Robert Alison of the Continental Army (22 September 1776 and 24 September 1776) note that the stores houses of Mease and Caldwell in Philadelphia were filled with shoes, shirts and stockings. See PMHB, "Notes and Queries", Vol. XXVII, No. 2, (1904), 240-241, for the letter of 22 September 1776. See PMHB, "Notes & Queries", Vol. XXV, No. 3, (1901), 420 for the letter of 24 September 1776.

Mease was at the forefront of the group of Philadelphia merchants who had supported resistance to Britain. A leader of Philadelphia radical committee politics since 1769, he had helped to organize support for the nonimportation movement of that year. His revolutionary credentials had been further enhanced in late 1773 when he served on a committee of twenty-four Philadelphians who sat in consideration of the question of how to resist the landing of tea at the Port of Philadelphia. Through 1774 Mease was very thick with the radical leaders of the city, who included Thomas Mifflin and Charles Thompson. Richard Ryerson, in his analysis of Philadelphia's radical committees before the war, characterizes the core group consisting of John Cox, James Mease, Thomas Mifflin, Joseph Reed, John Dickinson and Charles Thompson as "...a kind of day-to-day radical planning and task force..." operating in Philadelphia. Mease was but one of several men of relatively humble origins who managed to accrue considerable influence during the period immediately prior to the outbreak of hostilities. Ryerson places Mease among the "...radical stalwarts of the second rank..." being somewhat less influencial than widely popular leaders such as Mifflin, Reed, Thompson, Bradford, Bayard, Clymer and Cox. Mease was young, probably in his late thirties in 1777, and an aspiring merchant, and his rather abrupt disappearance from political leadership is puzzling. So, for that matter, is his less than satisfactory performance as Clothier General. See Richard Alan Ryerson, The Revolution is Now Begun: The Radical Committees of Philadelphia, 1765-1776 (Philadelphia: University of Pennsylvania Press, 1978), pp. 36, 82, 86-87, 130, 278; and

James H. Hutson, Pennsylvania Politics 1746-1770; The Movement for Royal Government and its Consequences (Princeton, NJ: Princeton University Press, 1972), p. 232.

2. Arthur Harrison Cole, The American Wool Manufacture, vol. 1, (Cambridge, MA: Harvard University Press, 1926), pp. 11, Unites States, vol. I, 1609-1860 (New York: Published for the Carnegie Institution of Washington by the McGraw-Hill Book Company, Inc., 1929), pp. 77-85.

3. Stephanie Graceman Wolf, Urban Village: Population, Community and Family Structure in Germantown, Pennsylvania, 1683-1800 (Princeton, NJ: Princeton University Press, 1976), p. 106.

4. James Mease to Thomas Wharton, 18 January 1777, Gratz Collection, Case 8, Box 14, HSP, Philadelphia, PA.

5. Jedediah Huntington to Col. Joseph Trumbull, 12 October 1777, Joseph Trumbull Collection, CHS, Hartford, CT.

6. The propensity for units and their clothing to become separated was quite common. For instance, Aaron Burr wrote to General Conway in November of 1777 reporting that the clothing and papers of companies joining Malcolm's Additional Continental Regiment were waylaid at Bethlehem, and that "...several of the officers cannot appear decint till they receive their cloathes..." Aaron Burr to General Conway, c. November 1777, Burr Family Papers, Stirling Memorial Library, Yale University, New Haven, CT. See also: extract of a letter from General Washington to Congress, 13 October 1777, Reel 12, frame 1183, PA, PHMC.

7. Supreme Executive Council to Congress, 3 November 1777, Reel 13, frame 8, PA, PHMC.

8. The wants of the regiment, perhaps slightly overstated in order to provide a store of clothing for the future, were as follows:

24 hats
30 coats
50 jackets
20 breeches
20 overalls
50 stockings
50 shoes
50 shirts
10 blankets

The return discloses several points of interest. The troops of this unit were equipped with a short jacket for fatigue wear. In this regiment, the shortage of blankets, soon to be endemic in the

the army, was still of modest proportions. Overalls were rather like trousers, as opposed to knee breeches, and were generally made of linen and were favored for fatigue. Shoes and stockings appear to be the most grievous dearths. Information from Return of clothing wanted, 2nd Pennsylvania Regiment, frame 1354, Reel 12, PA, PHMC.

For a short but generally accurate representation of clothing worn by the Contiental soldiers, with illustrations, see Harold L. Peterson, The Book of the Continental Soldier, (Harrisburg, PA: The Stackpole Company, 1968), pp. 219-238. The appended discussion of the administration of the Clothing Department is rather cursory, especially for 1777-1778. So too are the details offered in Louis Clinton Hatch, The Administration of the American Revolutionary Army. New York, London and Bombay; Longmans, Greene, and Co., 1904. No satisfactory study of the Clothing Department in the Revolutionary Army has appeared to date. Much of the information provided in Peterson's work pertains to the period from late 1778 through the end of the war, during which uniforms became much more regular than previously.

9. George Washington, General Orders, 6 November 1777, Fitzpatrick, WGW, X, p. 14.

10. George Washington to General Thomas Nelson, 8 November 1777, Fitzpatrick, WGW, X, p. 27. On the shortage of blankets, shoes, and stockings, see Washington to Lt. Col. Peter Adams, 7 November 1777, Fitzpatrick, WGW, X, p. 17, and Washington to the President of Delaware, 8 November 1777, Fitzpatrick, WGW, X, p. 20.

11. Jedediah Huntington to Hon. Major General Huntington, 11 November 1777, Jedediah Huntington Papers, CHS.

12. Ibid.

13. George Washington to James Mease, 12 November 1777, Fitzpatrick, WGW, X, p. 45.

14. Ibid.

15. Ibid.

16. Richard Peters to Anthony Wayne, (copy), 9 October 1777, Charles Stewart Collection, NYSHA.

17. Board of War to President Wharton, 15 October 1777, frame 1195, Reel 12, PA, PHMC.

18. Ibid.

19. Board of War to President Wharton, 18 October 1777, frame 1264, Reel 12, PA, PHMC.

20. Ibid.

21. Resolution of the Supreme Executive Council, 21 October 1777, frame 1273, Reel 13, PA, PHMC. The seven officers were: Col. Evan Evans, Col. William Evans, Colonal Thomas, Colonel Gibbons, Capt. Thomas Levis, Capt. William Brooks, and Capt. Jacob Rudolph.

22. Board of War to the Supreme Executive Council, 7 November 1777, Reel 13, PA, PHMC. It is conceivable that the Supreme Executive Council saw an opportunity to turn the Board's harsh directive to their own advantage. It did, after all, grant implicit Congressional sanction to the test/oath. This may have been the reason why the Supreme Executive Council did not protest the Board's incursion into the state prerogatives.

23. Ibid.

24. John M. Coleman, Thomas McKean: Forgotten Leader of the Revolution. (Rockaway, NJ: American Faculty Press, 1975), p. 216.

25. George Washington to the Board of War, 11 November 1777, Fitzpatrick, WGW, X, pp. 39-40.

26. Ibid.

27. John Hancock to the Assembly of the State of Virginia, 17 October 1777, Box I, AC 2433, Continental Congress Collection, LC.

28. George Washington to Lt. Col. Peter Adams, 7 November 1777, Fitzpatrick, WGW, X, p. 17.

29. George Washington to the President of Delaware, 8 November 1777. Fitzpatrick, WGW, X, p. 20.

30. Ibid.

31. George Washington to Governor Livingston to New Jersey, 8 November 1777, Fitzpatrick, WGW, p. 22.

32. George Washington to Governor Henry of Virginia, 13 November 1777, Fitzpatrick, WGW, X, pp. 55-56.

33. Ibid.

34. George Washington to Congress, 23 November 1777, Fitzpatrick, WGW, X, p. 98.

35. Congressional resolve, 26 August 1777, PCC, RG 93, Roll 38, NA, Washington, DC.

36. Draft resolve of Congress, 26 November 1777, Roll 28, RG 93, PCC, NA, Washington, DC.

Officers in the Continental line would be entitled to draw annually the following items, paying for them at cost, two-thirds of a dollar to equal one shilling.

Suit of plain regimentals
6 fine linen shirts
6 cambrick or muslin socks
} or the materials for making same
1 fine caster hat
6 pair thread or fine worsted hose
4 pair shoes
1 pair boots
1 blanket

Each NCO and private could draw the following extra clothing annually, at the above rate:

2 hunting frocks
1 woolen waistcoat with sleeves
} for summer
2 shirts
2 pair strong linen overalls
4 pair shoes (cavalry could draw only two pair, as they were issued boots)

It is perhaps superfluous to mention that such extra clothing was rarely available during the depths of the Valley Forge winter.

37. Elbridge Gerry to John Adams, 3 December 1777, Elbridge Gerry Papers, LC Manuscript Division, Washington, DC.

38. Jedediah Huntington to Col. Trumbull, 3 December 1777, Joseph Trumbull Collection, CHS, Hartford, CT.

39. Arthur St. Clair to Robert Morris, 13 November 1777, Early Ohio Political Leaders, Arthur St. Clair Papers, Ohio Historical Society, Cincinnati, OH.

40. Ibid.

41. Receipt of John Bordman, 11 December 1777, John Reed Collection. Bordman, a soldier in the 1st Connecticut Battalion, or regiment, Capt. Belcher's Company, received from the Select Men of Preston, Conn. two winter shirts, one pair woolen stockings, one pair woolen breeches, and one woolen waistcoat.

Account of clothing, 13 December 1777, Capt. Andrew Fitch Papers, "Valley Forge Papers", Connecticut State Library, Hartford, CT. This lists clothing from the town of Norwich delivered to the men of Fitch's company:

Coper Polegreen received:	1 pr overalls	@ 6/	(six shillings)
	1 pr shoes	8/6	
	1 pr hose	6/	
	1 linen shirt	8/	
		1.10.0	pounds
John Dolton received:	1 pr overalls	@ 6/	
	1 pr shoes	8/6	
	1 pr stockings	6/	
		1.0.6	pounds
Captain Cook received:	1 pr overalls	@ 8/	
	1 pr shoes	8/6	
	1 pr stockings	6/	
		1.2.6	pounds

In addition, two men received a linen shirt each at 9 shillings, and another man received a shirt, shoes, overalls, and a frock, the later item at 6 shillings.

Receipt of Stephen June, 17 December 1777, John Reed Collection. This lists materials received from the town of Stamford, including two flannel shirts, (three yards in each shirt), one pair woolen overalls, (two yards in each), one woolen vest without sleeves, two pairs woolen stockings, and one pair shoes.

These individual receipts reflect the warm clothing of good quality provided by the Connecticut townships for their troops.

42. Jedediah Huntington to Major General Huntington, 20 December 1777, Jedediah Huntington Letters, CHS, Hartford, CT. He goes on to say that some blankets provided by the towns were "very poor," but that more clothing had just arrived and another shipment was expected from Danbury.

43. Anthony Wayne to Thomas Wharton, 22 November 1777, Wayne Papers, William L. Clements Library, Ann Arbor, MI. See also copy on Dreer Collection, Generals of the American Revolution, HSP, Philadelphia, PA.

44. See return of Paul Zantzinger, November 1777-January 1778, John Reed Collection, Hubley's and Hartley's regiments received at least a fair proportion of this. Between November 9 and January 27 Zantzinger sent his shipments to the army in a total of seven hogsheads. He enumerated the coats he sent by color. From this it appears that during the Valley Forge winter, the Pennsylvania line was dressed in a far from uniform manner, as many being clad in brown as were in blue. The hogsheads sent contained:

Hhd.	
1	165 brown and white coats
	40 blue and red coats
2	147 blue and red coats
	12 brown and white coats
	26 blue and white coats
3	58 brown and green coats
	22 brown and white coats
	51 blue and red coats
4	32 blue and white coats
	6 brown and white coats
	50 brown and white jackets

The numerical sums of coat colors delivered during this period are: 205 brown faced white, 238 blue faced red, 58 brown faced green, and 58 blue faced white.

The remaining hogsheads sent by Zantzinger contained the buckskin breeches, hose, hats, shoes, and shirts. He found it almost impossible to obtain shirts and blankets.

45. Paul Zantzinger to Anthony Wayne, 9 November 1777, John Reed Collection.

46. Paul Zantzinger to Anthony Wayne, 10 November 1777, John Reed Collection.

47. Ibid.

48. Anthony Wayne to Thomas Wharton, 22 November 1777, Wayne Papers, WLC, Ann Arbor, MI. See also Dreer Collection, Generals of the American Revolution, HSP, Philadelphia, PA.

49. Ibid.

50. For the number received by January 27, see footnote No. 40.

51. Paul Zantzinger to Anthony Wayne, 4 December 1777, John Reed Collection.

52. Paul Zantzinger to Anthony Wayne, 6 December 1777, and enclosure: Joseph Donaldson to Paul Zantzinger, 5 December 1777, John Reed Collection.

53. James Young to Thomas Wharton, 8 December 1777, frame 201, Reel 13, PA, PHMC, Harrisburg, PA.

54. Thomas Wharton to Anthony Wayne, 12 December 1777, frame 241, Reel 12, PA, PHMC, Harrisburg, PA.

55. Clothing return of items issued to the Pennsylvania regiments by James Mease, September 1777 - 23 January 1778, frame 130, Reel 13, PA, PHMC, Harrisburg, PA. Clothing return of items issued to the Pennsylvania Regiments to 1 January 1778, frame 445, Reel 13, PA, PHMC, Harrisburg, PA, See Appendix A for comparative data.

56. Supreme Executive Council to James Mease, 20 November 1777, frame 115, Reel 13, PA, PHMC, Harrisburg, PA.

57. Fitzpatrick, WGW, X, p. 104.

58. Fitzpatrick, WGW, X, p. 124.

59. Jacob Morgan to the Supreme Executive Council, 1 December 1777, frame 149, Reel 13, PA, PHMC, Harrisburg, PA.

60. James Young to Thomas Wharton, 8 December 1777, frame 201, Reel 13, PA, PHMC, Harrisburg, PA.

61. Account book of an unknown officer, Captain Swearingen's Company, 8th Virginia Regiment, ChiHS, Chicago, IL. A notation for November, 1777, describing clothing drawn at Whitemarsh for Captain Swearingen's company, lists four coats, two or three jackets, six blankets, one shirt, sixteen pairs breeches, eleven pairs stockings, and eleven pairs of shoes.

62. Virginia Gazette, 5 December 1777.

63. George Washington to Patrick Henry, 1 December 1777, Fitzpatrick, WGW, X, p. 146.

64. Ibid.

65. George Washington to Patrick Henry, 19 December 1777, GWP, LC, Washington, DC.

66. New Jersey Gazette, 17 December 1777.

67. Enoch Poor to Thomas Odiorne, 17 December 1777, New Hampshire manuscripts, Force Transcripts, Mss Series 7E, LC, Washington, DC.

68. Jedediah Huntington to Joshua Huntington, 3 November 1777, Jedediah Huntington Letters, CHS, Hartford, CT.

69. Ibid.

70. Jedediah Huntington to Jabez Huntington, 3 December 1777, Jedediah Huntington Letters, CHS, Hartford, CT.

71. John Eccleston to Joseph Richardson, 15 November 1777, Revolutionary War Letters, 1777, Rutgers University Library, New Brunswick, NJ.

72. Peter Dubois to Sir Henry Clinton, 18 December 1777, Clinton Papers, WLC, Ann Arbor, MI.

73. Jedediah Huntington to Joshua Huntington, 20 December 1777, Jedediah Huntington Letters, CHS, Hartford, CT.

II "...CRY ALOUD AND SPARE NOT..."

1. George Washington to the President of Congress, 23 December 1777, Fitzpatrick, WGW, X, p. 196.

2. Daniel Roberdeau to President Wharton, 26 December 1777, frame 364, Reel 13, PA, PHMC, Philadelphia, PA.

3. George Washington to Patrick Henry, 27 December 1777, Fitzpatrick, WGW, X, p. 209.

4. George Washington, Circular Letter to the States, 29 December 1777, Fitzpatrick, WGW, X, p. 223.

5. Elias Boudinot to his wife, 1 January 1778 (copy), Society Collection, HSP, Philadelphia. PA.

6. James Mease to George Washington, 18 January 1778, Washington Papers, LC, Washington, DC.

7. George Washington to James Mease, 21 January 1778, GWP, LC, Washington, DC. On the jacket design see George Washington to Governor Trumbull, 24 January 1778, same collection.

8. George Washington to General Israel Putnam, 22 January 1778, Washington Papers, LC, Washington, DC.

9. Jedediah Huntington to Governor Trumbull, 13 January 1778, Trumbull Papers, vol. 8, No. 45, Connecticut State Library, Hartford, CT.

10. Governor Trumbull to George Washington, 14 January 1778, GWP, LC, Washington, DC.

11. Jonathan Todd to his father, 19 January 1778, RG15, M806, Roll 1561, NA, Washington, DC.

12. Jedediah Huntington to his brother, 19-20 January 1778, Jedediah Huntington, CHS, Hartford, CT.

13. Nathan Preston receipt, 28 January 1778, John Reed Collection.

14. Governor Cooke of Rhode Island to George Washington, 15 January 1778, Washington Papers, LC, Washington, DC.

15. Joshua Babcock to Governor Cooke, 24 January 1778, Letters: vol. 12, p. 4, Rhode Island State Archives, Providence, RI.

16. Ibid.

17. "Orderly Book". Col. Joseph Cilley, 19 January - 24 July 1778, Orderly Books, New Hampshire Historical Society, Concord, NH. Although listed as an orderly book, this volume comprises a set of returns.

18. General Enoch Poor to Mesech Weare, 21 January 1778, Force Transcripts, Series 7E, New Hampshire Council, LC, Washington, DC.

19. Lt. Col. Samuel Carlton to Gen. William Heath, 28 January 1778, Letters to the Governor and Council, Massachusetts State Archives, Boxton, MA.

20. Lt. Archelaus Lewis, (transcript by James Johnson), 1 February 1778, Letters of the Governor and Council, Massachusetts State Archives, Boston, MA.

21. Return of the Pennsylvania Line signed by Timothy Pickering, 5 January 1778, frame 446, Reel 13, PA, PHMC. Harrisburg, PA.

22. William Gifford to Benjamin Holme, Revolutionary Era Documents, #50, NJHS, Newark, NJ.

23. ? to Joseph Reed, 7 January 1778, Joseph Reed Papers, NYHS, New York, NY.

24. George Washington to Patrick Henry, 27 December 1777, Fitzpatrick, WGW, X, p. 209. Jedediah Huntington to his brother, 1 January 1778, Jedediah Huntington Letters, CHS, Hartford, CT.

25. John Clark to Nathanael Greene, 10 January 1778, Nathanael Greene Papers, WLC, Ann Arbor, MI. Clark was writing from York. James Mease to George Washington, 18 January 1778, GWP, LC, Washington, DC. Charles Young to George Washington, 24 January 1778, same collection.

26. George Washington to James Mease, 27 January 1778, GWP, LC, Washington, DC.

27. Supreme Executive Council to Colonel Biddle, 12 January 1778, frame 505, Reel 13, PA, PHMC, Harrisburg, PA.

Invoice of dry goods brought from Great Swamp, 30 December 1777, PA, PHMC, frame 400, Reel 13. The invoice specifies that the goods came in bales, each marked with alphabetical and numerical figures, which for the purpose here are simply numbered.

1.	Bale	containing	10	pieces	of	Broadcloth	351 1/4 yds
2.	"	"	"	"	"	"	362 3/4 yds
3.	"	"	"	"	"	"	360 1/2 yds
4.	"	"	"	"	"	"	386 1/4 yds
5.	"	"	"	"	"	"	366 1/2 yds
6.	"	"	"	"	"	brown coating	302 3/4 yds
7.	"	"	"	"	"	gray frize	328 1/2 yds
8.	"	"	"	"	"	brown coating	194 yds
9.	"	"	22	"	"	plains	373

28. Supreme Executive Council to Colonel Biddle, 12 January 1778, frame 505, Reel 13, PA, PHMC, Harrisburg, PA.

29. Supreme Executive Council to George Washington, 15 January 1778, GWP, LC, Washington, DC. See draft, President Wharton to George Washington, frame 519, Reel 13, PA, PHMC, Harrisburg, PA.

30. Ibid.

31. Clement Biddle to President Wharton, 18 January 1778, frame 542, Reel 13, PA, PHMC, Harrisburg, PA.

32. Ibid.

33. Joseph Carson to President Wharton, 28 January 1778, frame 616, Reel 13, PA, PHMC, Harrisburg, PA. The shipment from Amsterdam via St. Eustasia was to include, (using Carson's spellings):

28 boxes Russia sheeting
Dawless Britanias
Checks
Stripes
Shammays
81 pieces Ravens Duck

Also included were to be the following medical supplies:

2 hogsheads Juventas Bark
1 hogshead camphor

From another, unspecified point of origin Carson expected to receive:

40 bales blue broadcloth, 10 pieces per bale
10 bales scarlet cloth
20 bales indian blankets

34. Pay order and invoice for clothing seized at Great Swamp belonging to Joseph Carson, 10 April 1778, frames 1132-1133, Reel 13, PA, PHMC, Harrisburg, PA.

35. President Wharton to George Washington, 22 January 1778, GWP, LC, Washington, DC. See draft, frame 586, Reel 13, PA, PHMC, Harrisburg, PA.

36. Request for clothing from Pennsylvania officers, inclosed with Supreme Executive Council to George Washington, 15 January 1778, GWP, LC, Washington, DC.

37. Ibid.

38. Supreme Executive Council to the commissioners to collect clothing, 15 January 1778, frame 523, Reel 13, PA, PHMC, Harrisburg, PA.

39. President Wharton to George Washington, 15 January 1778, frame 519, Reel 13, PA, PHMC, Harrisburg, PA.

40. Col. Jacob Morgan to Vice President George Bryan of Pennsylvania, 23 December 1777, frame 360, Reel 13, PA, PHMC, Harrisburg, PA.

41. James Potter to George Washington, 14 January 1778, GWP, LC, Washington, DC. George Washington to Richard Peters, 24 January 1778, same collection.

42. William Smallwood to George Washington, 30 December 1777, GWP, LC, Washington, DC.

43. Jedediah Huntington to his father, 1 January 1778, Jedediah Huntington Letters, Connecticut Historical Society, Hartford, CT. Elias Boudinot to his wife, 1 January 1778, (copy), Society Collection, HSP, Philadelphia, PA.

44. George Washington to General Smallwood, 3 Janauary 1778, GWP, LC, Washington, DC.

45. Generals Maxwell, McIntosh, Patterson, Varnum, Scott and Poor to George Washington, 7 January 1778, GWP, LC, Washington, DC.

46. George Washington to General Smallwood, 7 January 1778, GWP, LC, Washington, DC.

47. Officers at Wilmington to George Washington, 10 January 1778, GWP, LC, Washington, DC.

48. General Smallwood to George Washington, 10 January 1778, GWP, LC.

49. George Washington to William Smallwood, to George Washington, 12 January 1778, GWP, LC, Washington, DC.

50. George Washington to William Smallwood, 13 January 1778, GWP, LC, Washington, DC.

51. George Washington to Henry Laurens, 12 January 1778, GWP, LC, Washington, DC.

52. William Smallwood to George Washington, 26 January 1778, GWP, LC, Washington, DC.

53. William Smallwood to George Washington, 15 February 1778, GWP, LC, Washington, DC.

54. James Caldwell to Elias Boudinot, 5 January 1778, Elias Boudinot Papers, LC.

55. Hugh Ferguson to Elias Boudinot, 9 January 1778, Society Collection, HSP.

56. Elias Boudinot to the Board of War, 11 January 1778, Elias Boudinot Letter Book, SHSW.

57. Ibid.

58. A. Chapman to Capt. Theodore Woodbridge, 1 February 1778, Woodbridge Papers, CHS.

59. Henry Knox to George Washington, 4 February 1778, GWP, LC.

60. Paul Zantzinger to Anthony Wayne, 4 February 1778, John Reed Collection.

61. Anthony Wayne to Thomas Wharton, 10 February 1778, Wayne Papers, WLC.

62. Ibid.

63. Ibid.

64. Paul Zantzinger to Anthony Wayne, 18 February 1778, John Reed Collection.

65. George Washington to Thomas Wharton, 10 February 1778, GWP, LC. Washington also in this letter denies that there was ever any official intention for the state to provide the elegant furnishings demanded in January, by the men he referred to as "your" officers, and that "decent and substantial" clothing was all that was required.

66. Colonel Richard Butler to President Wharton, 12 February 1778, PUL.

67. Ibid.

68. Walter Stewart to George Washington, 29 January 1778, GWP, LC.

69. Major Francis Murray to George Washington, 13 February 1778, GWP, LC.

70. John Lacey to George Washington, 19 February 1778, GWP, LC.

71. J. Paxton to Charles Stewart, 20 February 1778, Charles Stewart Collection, NYSHA.

72. George Washington to Thomas Wharton, 23 February 1778, GWP, LC. See also frame 846, Reel 13, PA, PHMC. This raid disclosed the extremely exposed nature of eastern Bucks County, creating warranted concern in York and Lancaster. See Joseph Reed to John Bayard, Speaker of the Pennsylvania Assembly, 7 March 1778, NA, PCC, RG 93, Roll 38. Reed relates that many were alarmed by the Newtown raid, and inquiries concerning Lacey's whereabouts abounded. Even Congress did not seem to know where he was, or how strong his force was. Reed thought Lacey's command not worth the expense of maintaining it in the field, but Washington thought differently. At the time of the raid, but 140 of Lacey's 600 men were armed, and Lacey was daily expecting a sizeable shipment of muskets. See John Lacey to George Washington, 19 February 1778, Washington Papers, LC.

73. Thomas Wharton to George Washington, 13 February 1778, GWP, LC.

74. Timothy Matlack to George Washington, 17 February 1778, frame 788, Reel 13, PA, PHMC.

75. George Washington to President Wharton, 19 February 1778, Box 31, Case 1, Gratz Collection, HSP. George Washington to James Mease, 19 February 1778, Washington Papers, LC.

76. James M. Varnum to General McDougall, 7 February 1778, Alexander McDougall Papers, NYHS.

77. Richard Caswell to George Washington, 15 February 1778, GWP, LC.

78. Francis Dana to Congress (?), 16 February 1778, Dreer Collection, Members of Old Congress, HSP.

79. George Washington to George Gibson, 21 February 1778, GWP, LC.

80. Jedediah Huntington to Jabez Huntington, 22 February 1778, CHS.

81. John Paterson to Colonel Marshall, 23 February 1778, MC 14 (Ely), NJHS.

82. Ibid.

83. Clothing receipts for the 3rd New Hampshire Regiment, 27 February 1778, John Reed Collection. On this date the following items were issued:

> 9 shirts and 5 pr stockings to Capt. Wear's Co. (1 Holland shirt, 2 Douglas shirts, 1 chentz shirt and 5 ozenbrigs shirts)

Swartout's Company received 3 Holland shirts, 2 Douglas shirts, 5 pr stockings and one waistcoat.

Frye's Company received 2 Holland shirts, 2 Douglas shirts, one chentz shirt, and four ozenbrigs shirts.

Stone's Company received 1 Douglas shirt, 2 chentz shirts, four ozenbrigs shirts, and 4 pr stockings.

Ellis' Company received 1 chentz shirt, 2 ozenbrigs shirts, and 1 pr stockings.

Gray's Company received 2 Holland shirts, 2 Douglas shirts, 3 chentz shirts, 2 ozenbrigs shirts, 5 pr stockings and 1 pr leather breeches.

Beal's Company received 3 Holland shirts, 2 Douglas shirts, 1 chentz shirt, 5 ozenbrigs shirts, 4 pr stockings and 1 waistcoat.

McCalry's Company received 1 Holland shirt, 1 Douglas shirt, 2 chentz shirts, 4 ozenbrigs shirts and 4 pr stockings. For definition of the fabrics, see Appendix B.

84. List of shoes delivered to Lord Stirling's guard, 4 February 1778, NJBAH, (Copy of a document in the Lenox Library, New York). One pair of shoes was issued to a Peggy Brindley. There are very few instances in which women are listed in clothing returns.

85. Major John S. Tyler to Col. Henry Jackson, 3 February 1778, Sol Feinstone Collection, APS, Philadelphia, PA.

86. Major John S. Tyler to Col. Henry Jackson, 12 February 1778, Sol Feinstone Collection, Philadelphia, PA.

87. Major John S. Tyler to Col. Henry Jackson, 17 February 1778, Sol Feinstone Collection, APS, Philadelphia, PA.

88. Benjamin Tallmadge to George Washington, 9 February 1778, GWP, LC, Washington, DC.

89. George Reed to George Washington, 5 February 1778, GWP, LC, Washington, DC.

90. George Washington to James Mease, 27 February 1778, Society Collection, HSP, Philadelphia, PA.

91. Robert Lettis Hooper order, 18 February 1778, Society Collection, HSP, Philadelphia, PA.

92. William Smallwood to George Washington, 27 February 1778, GWP, LC, Washington, DC.

93. Thomas Franklin to Elias Boudinot, 14 February 1778, John Reed Collection.

94. George Gibson to George Washington, 22 February 1778, GWP, LC, Washington, DC.

95. Alexander Hamilton's circular letter to the Continental hospital superintendents, 28 February 1778, GWP, LC.

III ONE AND A HALF SHIRTS TO THE COMPANY

1. Sir William Howe to General Henry Clinton, 5 March 1778, Clinton Papers, William L. Clements Library, Ann Arbor, MI.

2. Spy located at Rye, New York to Captain Andre', 12 March 1778, Clinton Papers, William L. Clements Library, Ann Arbor, MI.

3. Nathanael Greene to William Greene, 7 March 1778, Greene Papers, Rhode Island Historical Society, Providence, RI.

4. Ebenezer Crosby to Norton Quincy, 14 April 1778, Houghton Library, Harvard University, Cambridge, MA.

5. Supreme Executive Council to George Washington, 2 March 1778, frame 897, Reel 13, PA, PHMC, Harrisburg, PA.

6. Walter Stewart to Thomas Wharton, 26 March 1778, Case 4, Box 15, Gratz Collection, HSP, Philadelphia, PA.

7. Richard Butler to President Wharton, 26 March 1778, frame 1059, Reel 13, PA, PHMC, Harrisburg, PA.

8. Thomas Wharton to Richard Butler, 9 April 1778, frame 1122, Reel 13, PA, PHMC, Harrisburg, PA.

9. Colonel Thomas Craig to President Wharton, 12 April 1778, frame 1149, Reel 13, PA, PHMC, Harrisburg, PA.

10. Supreme Executive Council to James Mease, 17 April 1778, frame 1163, Reel 13, PA, PHMC, Harrisburg, PA.

11. James Mease to Thomas Wharton, 18 April 1778, Case 2, Box 15, Gratz Collection, HSP, Philadelphia, PA.

12. Receipts for clothing the Pennsylvania Line, 28-30 May 1778, John Reed Collection.

13. Zantzinger was still numbering his hogshead's sequentially. waiting at Lancaster were numbered 8 through 11, and they contained the following items:

No. 8	269 pr stockings	No. 10	325 hats
	26 pr shoes		43 pr stockings
	118 hats		
	100 pr breeches	No. 11	365 hats
			27 jackets
No. 9	163 pr stockings		16 pr breeches
	43 pr shoes		

See Paul Zantzinger to Anthony Wayne, 20 March 1778, John Reed Collection.

14. Receipt for hogsheads of clothing sent by Paul Zantzinger to camp, 27 March 1778, John Reed Collection. Anthony Wayne to President Wharton, 27 March 1778, Princeton University Library, Princeton, NJ.

15. Return of clothing wanted for Wayne's Division, 31 March 1778, John Reed Collection.

	hats	jackets	breeches	shoes	stockings
1st PA Regt.	107	139	-	226	192
2nd PA Regt.	65	96	36	108	100
4th PA Regt.	105	72	72	72	72
5th PA Regt.	126	129	64	36	140
7th PA Regt.	154	124	45	52	92
8th PA Regt.	-	76	85	86	115
10th PA Regt.	177	155	124	79	130
11th PA Regt.	76	50	49	50	82

16. Anthony Wayne to Thomas Wharton, 10 April 1778, Wayne Papers, William L. Clements Library, Ann Arbor, MI.

17. Ibid. The fact that Richard Butler and Wayne used the same Shakespearian analogy is doubtless more than coincidence. They were probably communicating regularly over the plight of the Pennsylvania troops.

18. Ibid.

19. Anthony Wayne to Thomas Wharton, 16 April 1778, Autographs of the Generals of the American Revolution, Pierpont Morgan Library, New York, NY.

20. Edward Mitchell to the Massachusetts General Court, 2 March 1778, Letter of the Governor and Council, Massachusetts State Archives, Boston, MA.

21. George Washington to President Bowdoin of Massachusetts, 31 March 1778, GWP, LC, Washington, DC.

22. John Sawyer receipts, 17 April 1778, Samuel Benjamin Collection, Sterling Memorial Library, Yale University, New Haven, CN.

23. Enoch Poor to Mesech Weare, 4 March 1778, New Hampshire Miscellaney, Force Transcripts, Series 7-E, Washington, DC.

24. Advertisement by the State of New Hampshire in the Freeman's Journal or New Hampshire Gazette, 10 March 1778.

25. New Hampshire Council to Enoch Poor, 20 March 1778, New Hampshire Miscellany, Force Transcripts, Series 7-E, Washington, DC.

26. Lachlan McIntosh to Governor Caswell, 20 March 1778, John Reed Collection.

27. George Washington to Governor Caswell, 28 March 1778, GWP, LC, Washington, DC.

28. Anthony Wayne to Thomas Wharton, 10 April 1778, Wayne Papers, WLC, Ann Arbor, MI.

29. Israel Angell to the Governor and Council of Rhode Island, 28 March 1778, Letters: vol. 12, p. 51, Rhode Island State Archives, Providence, RI.

30. George Washington to Governor Trumbull, 31 March 1778, GWP, LC, Washington, DC.

31. Accounts for clothing, 6 April 1778, Valley Forge Papers, Andrew Fitch Collection, Connecticut State Library, Hartford, CT. The account of clothing belonging to Benjamin Butler, (deceased), excepting his regimentals, included: one pair overalls, one shirt, two pairs of stockings, one illegible, one blanket, and one jacket. He also left one pound three shillings in cash.

The account of clothing belonging to Ben Benjamins, excepting his regimentals, lists one shirt, one great coat, one pair leather breeches, one old hat, one pair old shoes, one old jacket, and twelve shillings in cash.

32. William Turner to George Washington, 8 April 1778, GWP, LC, Washington, DC.

33. Benjamin Tallmadge to George Washington, 7 March 1778, Litchfield Historical Society, Litchfield, CT.

34. George Washington to Lt. Col. Temple, 25 March 1778, GWP, LC, Washington, DC.

35. Daniel Kemper to George Washington, 28 March 1778, GWP, LC, Washington, DC.

36. George Washington to the President of Congress, 10 April 1778, Fitzpatrick, WGW, XI, p. 240.

37. George Washington to James Mease, 17 April 1778, Fitzpatrick, WGW, XI, p. 269.

38. George Washington to James Mease, 17 April 1778, Fitzpatrick, WGW, XI, p. 270.

39. George Gibson to Colonel Ross, 1 March 1778, frame 890, Reel 13, PA, PHMC, Harrisburg, PA.

40. George Gibson to President Wharton, 2 March 1778, frame 889, Reel 13, PA, PHMC, Harrisburg, PA.

41. Ibid.

IV "A DISORDER CALLED THE MEASES"

1. Anthony Wayne to Thomas Wharton, 4 May 1778, frame 1295, Reel 13, PA, PHMC, Harrisburg, PA.

2. Anthony Wayne to Richard Peters, 13 May 1778, Wayne Papers transferred to the Society Collection, HSP, Philadelphia, PA.

3. Ibid.

4. The shirt issuances were as follows:

Date	No of Shirts	Regt.	Colonel
28 May	90	1st Pa.	Chambers
30 May	35	5th	Johnston
30 May	20	8th	Brodhead
29 May	29	9th	Richard Butler
28 May	27	7th	Irvine
30 May	45	4th	William Butler
30 May	37	3rd	Craig
30 May	30	6th	Harmar
30 May	110	12th	Cook
30 May	19	7th	Irvine
Total	442		

Receipts for clothing, 28-30 May 1778, John Reed Collection.

5. General Roberdeau to George Bryan, 30 May 1778, Dreer Collection, Members of the Old Congress, vol. 4, HSP, Philadelphia, PA.

6. Petition to the Supreme Executive Council signed by Captain Andrew Porter, Capt. Lt. James McClure, Lt. Robert Parker, Lt. Ezra Patterson, Lt. Ezekiel Howell, 2 June 1778, frame 179, Reel 14, PA, PHMC, Harrisburg, PA.

7. William Shepard to John Avery, (?), 18 May 1778, Letters of the Governor and Council, Massachusetts State Archives, Boston, MA.

8. Jedediah Huntington to Andrew Huntington, 20 February 1778, Jedediah Huntington Letters, CHS, Hartford, CT.

9. Henry Laurens to John Laurens, 3 March 1778, Laurens Papers, LIHS.

10. Gustavus B. Wallace to Michael Wallace, 28 March 1778, University of Virginia Library, Charlottesville, VA.

11. John Cropper to his wife Peggy, 29 May 1778, copy in Virginia Historical Society, Richmond, VA. Original in Smith College Library, Northampton, MA.

12. Account of Linen and Cambrick, May-June 1778, Israel Shreve Papers; Letters, Documents, etc. 1778, Department of Special Collections, Rutgers University Library, New Brunswick, NJ.

13. Return of John J. Skidmore, 21 May 1778, Chaloner & White Manuscripts, Box 5, HSP, Philadelphia, PA.

14. George Washington to James Mease, 16 May 1778, GWP, LC, Washington, DC.

15. James Mease to George Washington, 23 May 1778, GWP, LC, Washington, DC.

16. James Mease to Francis Dana, 30 January 1778, PCC, RG 93, Roll 38, NA, Washington, DC.

17. Resolve of Congress, 28 May 1778, frame 143, Reel 14, PA, PHMC, Harrisburg, PA.

Mease made several returns to Congress of clothing issued, but because those which survive in the papers of the Continental Congress are inadequately dated, their interpretation is problematic. One such return lists clothing issued at camp from 15 September 1777, and may be that which was submitted to the Committee of Congress which listed all items issued in the three-and-one-half period:

1,347 coats
1,187 waistcoats
3,095 Breeches
4,745 shirts
9,262 stockings
9,173 shoes
2,147 overalls
1,954 blankets
361 hats
1,106 (?) caps
917 mitts
157 leggings
46 boots
19 great coats

Between September 17 and January 1, the Continental army underwent some devastatingly hard campaigning that included two pitched battles, skirmishing, and miles of circuitous marching. The states had not as yet organized their purchasing and collection measures. If this was indeed all that was issued to the Main Army during this period, there is little wonder that the army was in rags. There were apparently some more issuances before January 1, but Mease does not specify the date when the issuances commenced. Most of the latter went to the 1st, 4th, 5th, and 6th Virginia Regiments. (See return of clothing issued, undated, PCC, RG93, Roll 38, NA, Washington, DC.

18. Account of clothing at the Clothier General's Warehouses in Lancaster and Philadelphia signed by James Mease, 22 July 1778, Roll 38, RG93, PCC, NA, Washington, DC.

27	Hunting Shirts
195	Regimental coats
260	Waistcoats
654	pr. cloth breeches
1743	pr. leather breeches
198	shirts
7960	pr. stockings
6829	shoes
102	hats
80	Lt. Dragoon and Infantry caps (presumably these were leather)
453	pr. overalls
623	watch coats
20,248	milled woolen caps
2340	milled woolen mitts
589	linen neckcloaths
2280	black stocks
1130	yds. blue, scarlet, and black cloth, 6/4 width
200	gross whitemetal buttons
940	pr. bendsoals

Note at the bottom says that the following clothing had just arrived from Virginia:

1350	pr shoes
3456	pr stockings
1707	white shirts
1448	yds very coarse brown linen, some damaged.

More clothing had arrived at Portsmouth and Rhode Island.

It seems that even at this date, despite the large imports lately arrived, Mease did not have much by way of a made-up reserve.

In a postscript of 24 July, Mease notes more outlying stores, including: A parcel of goods in the hands of agents at Boston, which he estimated would make up 1500-2000 suits, large purchases supposedly made for their troops by the state of Virginia, unspecified purchases made by the State of Maryland, and a parcel of clothing supposed to be in South Carolina, but he had no idea of the kind or quality.

(All of the above is in the form of a report from Mease to Congress.)

19. Account by James Mease of "Clothing imported on Sundry vessels lately arrived," 23 July 1778, Roll 38, RG 93, PCC, NA, Washington, DC.

The Dutches de Gramont, Portsmouth, NH, came in with 12,718 coats, 13,196 waistcoats, 13,196 breeches and 15,002 stockings.

Schooner Nancy, Boston, came in with 1,128 stockings and 1,585 blankets.

Schooner George, Boston, came in with 1,926 blankets.

Frigate Deane came into Boston with 9,878 coats, 9,876 waistcoats, 9,878 breeches and 12,098 shoes.

Ship Mercury came into Boston with 10,294½ ells of woolen cloth, 1673 blankets, 4923 ells of oznabrigs, 584 pieces of ravens duck, 82,854 ells of ticklenbrigs, 14,024½ ells of Bergenopzooms, and 1164½ pieces of Dowlases.

Ship Henrietta came into Boston with 29,279½ ells of woolen cloth, 4986 blankets, 123,886 ells of ozenbrigs, 908 pieces of Ravens duck, 81,582 ells of ticklenbrigs, 7,356 ells of bergenopzooms, 2,247 pieces of Dowlas, 480 pieces of diaper, 1598¼ ells of German serge (?), and 380 pieces of Flamms, (or Flaans).

The Ship Lively came into Boston with 1,695 blankets.

The Brig Two Brothers came into Boston with 1,276 suits.

Mease estimated that the materials would make up the following numbers of clothing articles:

The 39,574 ells of Flemish and French woolen broad cloth would make a total of 24,000 suits (i.e., coat, waistcoat and breeches). The 164,436 ells of Ticklenburgs and the 3,411½ pieces of Dowlas, at 32 yards each, would make up 88,000 shirts. Of the 128,809 ells of oznaburgs, Mease estimated that about a quarter would be good enough to make up about 12,000 shirts. The 21,383 ells of Bergenopzooms, which he described as "coarse Woolen stuff" would make about 7,000 jackets. The 1,589 ells of German Serges would make about 550 breeches. The 1492 pieces of Ravens Duck would make 3180 tents, using oznaburgs for the doors and ends, using 13 yards each. The 360 pieces Flaams were believed to be a sort of linen similar to sail cloth.

1st, 4th, 5th, and 6th Virginia Regiments. (See return of clothing issued, undated, PCC, RG93, Roll 38, NA, Washington, DC.)

Note: one ell = 45 inches

20. JCC, XI, p. 361.

21. JCC, XI, p. 696.

22. JCC, XII, pp. 937, 920, 996. Hatch, Administration, pp. 100, 123.

23. Macpherson's Directory for the City and Suburbs of Philadelphia, (Philadelphia: Francis Bailey, 1785), p. 156. Mease does not appear in Whites Philadelphia Directory of 1785, or in Clement Biddle's Philadelphia Directory of 1791. See will of James Mease, Wilson Papers, vol. 7, HSP, Philadelphia, PA.

PART III - THE MILITARY STORES

I "...A VERY RESPECTABLE TRAIN..."

1. Louis C. Hatch, The Administration of the American Revolutionary Army, New York: Longmans, Greene, and Co., 1904. On Flower's service see B. F. Heitman, Historical Register of Officers of the Continental Army (Washington, DC: n.p., 1893), p. 178.

2. Advertisement of Benjamin Flower, Pennsylvania Gazette, 27 April 1774. Flower announces that he has moved his establishment from Market Street to 2nd Street, 6 doors above Arch Street. At some later point he entered into a partnership with a man named Litle, (perhaps John Litle), which was dissolved 20 November 1776. At that time Flower continued his business at his "new" store, one door above Elfrith's Alley on 2nd Street. See Pennsylvania Gazette, 10 January 1776. It is possible that he had expanded his business to include merchandise other than hats.

3. Extract from the minutes of the 1st Battalion of Philadelphia Associators, 28 June 1776, signed by Benjamin Flower, HSP.

4. WGW, VII, pp. 19-20, 418. Heitman, Register, p. 178. "Artificer" was simply a generic term for a skilled laboror. The regiment of Artillery Artificers included blacksmiths, wheelwrights, gunsmiths and armorers who repaired and manufactured wagons, artillery carriages, arms, and equipage.

5. WGW, XIII, p. 471.

6. These appointments dated from January and February 1777, but Congress did not approve the commissions until November of that year. JCC, IX, p. 891. See also Deposition of Benjamin Flower, 19 August 1778, Reel 75, M 247, PCC, RG93, NA.

7. Jonathan Gostelowe (1744-1795) b. Passayunk, PA, probably began his career as apprentice to George Claypoole, joiner, in Philadelphia. Once established on his own, Gostelowe's shop grew steadily in the prosperous years of the 1770's and he employed servants, journeymen and apprentices. His commission as Assistant Commissary General of Military Stores was likely obtained through some prior connection with Benjamin Flower. Gostelowe, at this time, was certainly not openly opposed to the radical Pennsylvania Government. He signed the test oath fifteen days after it was established on June 13, 1777.

It was reportedly Gostelowe, who was a pillar of the Anglian Church, who transported the State House Bell ("Liberty Bell") and Christ Church chimes to Allentown for safe-keeping prior to the British occupation. He returned to Philadelphia in 1778 following the British evacuation, and organized a company of the reserve Artillery Regiment of Philadelphia. These men were largely artificers who worked under Gostelowe's direction at the Laboratory in the city, and included clerks, carpenters, turners, armorers, blacksmiths, file-cutters, wheelwrights, lock forgers, nailors, founders, shoemakers, grinders and harness-makers. It is probable that some of these men were with Gostelowe during the previous winter, when he ranged between Lebanon and Allentown.

Once returned to Philadelphia, Gostelowe continued his rise to prominence in his craft and in his social milieu almost uninterrupted. A prominent Mason, he became chairman of the Gentlemen Cabinet and Chair Maker's Society. Gostelowe evolved into a staunch Federalist, and lead the cabinet-makers' contingent in the famous 4 July 1778 parade of artisans in support of ratification of the Federal Constitution. Gostelowe's second wife was Elizabeth, daughter of Robert Towers, (see below). See Raymond B. Clark, Jr., "Jonathan Gostelowe 1744-1795", Winterthur Thesis, June, 1956. See also the Towers Papers, HSP.

8. See Pennsylvania Gazette, 23 August 1775 and 24 April 1776, (the latter for notice of the elder Joseph Watkins' death.) Also Benjamin Flower to Joseph Watkins, 16 February 1778, Griffith and Paschall Collection, HSP.

9. Robert Towers, Senior, became through the course of the war quite thick with Gostelowe. Both, along with Flower, were members of Christ Church, Philadelphia. Gostelowe eventually married Towers' daughter Elizabeth, and upon his father-in-law's death, moved into his shop on Market Street.

Robert Towers, Junior, had died by February 4, 1783, resulting in the curious case of a craft being passed on from son to father. While Towers Senior, was referred to as a skinner until his son's death, he then inherited druggist's equipment from his son, and apparently set up in the trade. See Will of Robert Towers, Jr., document proving the Will, 4 February 1783, and Will of Robert Towers (Senior), 24 February 1789, Towers Collection, HSP.

10. Flower Deposition, op. cit.

11. Ibid.

12. Ibid., The reference here to "a strange country" seems to reflect the fact that the assistant commissaries were from Philadelphia and other locales, and not well acquainted with interior Pennsylvania.

13. Ibid.

14. Return of stores at Philadelphia, signed by Robert Towers, 23 August 1778, Reel 12, PA, PHMC. Robert Towers to Timothy Matlack, 21 January 1778, Stauffer Collection, HSP.

15. Receipts for military stores, 22 September 1777, delivered out of the office of Robert Towers, 3rd Street, Philadelphia, Dreer Collection: Historical and Literary Curiosities, HSP. On the scene in Philadelphia just prior to the arrival of HOWE, see James Hutchinson to Israel Pemberton, 23 September 1777, APS.

16. Benjamin Flower to Thomas Wharton, 26 December 1777, Reel 13, PA, PHMC. See also Flower Deposition, op. cit.

17. Return of Military Stores received at Allentown between 1 October and 1 November 1777, inclusive, signed by Jonathan Gostelowe, NA, RG93, MRWD, M859, Reel 69. Reproduced in Appendix

18. Ibid. On imports in 1777 see Harold L. Peterson, The Book of the Continental Soldier (Harrisburg, PA: The Stackpole Company, 1968) pp. 36-38. The essential equipage of an infantryman included: a musket, bayonet and scabbard, a cartridge box or similar receptacle for cartridges or loose powder and ball, a brush and wire (for cleaning powder residue from the lock mechanism), a "worm" for cleaning and clearing the musket barrel and a screwdriver to open and tighten the jaws of the lock around the flint. A dragoon's equipage was considerably more complex. Excluding his saddlery, a well-accoutered cavalrymen would have a saber and scabbard, a carbine and carbine sling, a cartridge box, one or two horse pistols with saddle holsters and maintenance tools as described above. See glossary for definitions.

19. Sir William Howe to Lord George Germain, 7 July 1777, Germain Papers, WLC.

20. Ibid.

21. Return of Ordnance Stores belonging to the United States, signed by Henry Knox, NA, RG93, MRWD, M859, Reel 69.

22. Ibid. On the "grasshoppers" see Richard Butler to James Wilson, 22 January 1778, HSP.

23. Because of the cumbersome character of the 18th century field carriage, a typical crew for a 6-pounder gun would number fourteen men. Six or more would be employed at the drag ropes used to maneuver the piece into position. When the piece was in place they aligned themselves at the wheels, three on each side. (All artillerymen below the rank of gunner were generally termed "matrosses".) A matross stood at the right of the barrel, at the muzzle, with spunge & rammer. When the charge was placed in the barrel by another crewman, the rammer sent it home. A ninth matross stood at the breech and held his thumb, protected by a thumbspall, over the vent while sponging and ramming were in progress. (This was to create a vacuum and extinguish any remaining sparks in the barrel.) The vent was then primed with powder, and the crewman whose task it was to rough aim the piece maneuvered it into position with a handspike. The source of ignition was slowmatch, a treated hempen cord wound about a linstock. The crewman who touched off the piece lit a fast-burning stick of portfire at the linstock. On command of the officer in charge, he touched the flaring portfire to the vent, discharging the gun. The portfire was then extinguished and the barrel sponged, to prevent the next charge from igniting prematurely.

When the gun was being loaded without premeasured powder charges in cloth bags or paper cartridges, loose powder was ladled into the barrel from a budge barrel kept to the rear of the piece. In the service of mortars firing exploding shell, ignition of the simple tubular fuze was ensured by shaking powder from a drudging box onto the loaded shell, which was placed in the barrel of the piece with the fuze facing outward. The fuze was lit a fraction of a second before the gun was touched off in a maneuver which demanded, as may be imagined, considerable precision of timing.

For the service of artillery see the following manuals: John Muller, A Treatise of Artillery, (London: 1757), pp. 147-174, Guillaume LeBlond, A Treatise of Artillery (London: 1746), pp. 15-16. For a later, but still very useful manual designed for use in the United States, see Louis de Tousard, American Artillerist's Companion, 3 vols., (Philadelphia: 1809-1813). Tousard was a French engineer and artillerist who served in the Revolution. For a superb set of illustrations of guns, carriages and implements see C. W. Rudyerd, Course of Artillery at the Royal Military Academy, 1793. This is a reprint of a manuscript, done by the Museum Restoration Service, Ottawa, Canada, 1970. See also Peterson, Continental Soldier, pp. 113-138.

24. Robert Treat Paine to Joseph Nourse, 8 September 1777, Robert Treat Paine Papers, MHS.

25. Daniel Joy to Continental Board of War and Ordnance, account of 1776-1778, Reel 65, M859, MRWD, RG93, NA.

26. George Washington to General Woodford, 13 October 1777, GWP, LC.

27. Resolution of the Committee of Safety, 6 March 1776, Pennsylvania Archives, 2nd Series, (Harrisburg, Pa: 1890) X, p. 506. Peter Dehaven to the Supreme Executive Council, 10 September 1777, PA, PHMC. See also Pennsylvania Gazette, 15 May 1776, for Cherry Alley location.

28. Supreme Executive Council to Peter Dehaven, September 1777, PA, PHMC. Petition of the Pennsylvania State Gun Stockers, 30 October 1777, Reel 12, PA, PHMC.

29. Peter Dehaven to President Wharton, 2 December 1777, Reel 13, PA, PHMC.

30. Return of arms property of the State of Pennsylvania received into the public stores at Allentown between 15 October and 4 December 1777. Reel 13, PA, PHMC. The stores received during this period were:

7 pistols
810 muskets
847 bayonets
36 rifles
5 carbines
25 gun barrels
360 scabbards

Stores delivered out were:

296 muskets
341 bayonets
349 bayonet scabbards

See also, Robert Towers to Timothy Matlack, 21 January 1778, Stauffer Collection, HSP.

31. On the seizures see Board of War to President Wharton, 15 October 1777, Reel 12, PA, PHMC.

32. Jacob Morgan to President Wharton, 9 November 1777, Reel 13, PA, PHMC.

33. John Armstrong, Sr., to Thomas Wharton, 23 November 1777, Gratz Collection, HSP.

34. This at least, was the charge made by the state. Continental Commissaries, in their turn, often claimed the reverse. There can be no doubt, however, that the state was often short of arms to provide for unarmed militia.

35. Thimothy Pickering to General Stephen, 30 October 1777, Sol Feinstone Collection, APS.

36. General Orders, 29 November 1777, WGW, X, p. 112.

II "GENTLEMEN ARTIFICERS"

1. For the state of American ordnance at mid-November 1777, see return in Appendix A. See also George Washington to Governor Richard Caswell, 25 December 1777, GWP, LC.

2. Return of Henry Knox, 3 January 1778, GWP, LC.

3. WGW, X, pp. 277-280.

4. An assistant to Commissary Samuel French set out from Valley Forge on January 14, 1778, taking the spare ammunition of the army to Rhiemstown. This would certainly indicate that the army was well supplied with ammunition when it arrived at camp. See Book of Cash Accounts and Commissary Stores drawn, 1778, RG93, M859, Roll 65, NA.

5. George Washington to Henry Knox, 21 January 1778, GWP, LC.

6. For extracts from these returns see Appendix D.

7. Pennsylvania Gazette, 7 February 1778, MNHPL.

8. General Orders, 22 December 1777, GWP, LC.

9. General Orders, 17 January 1777, GWP, LC.

10. WGW, X, p. 314.

11. Arthur St. Clair to George Washington, 5 January 1778, GWP, LC.

12. Jedediah Huntington to Andrew Huntington, 18 January 1778, CHS.

13. Ibid.

14. Jedediah Huntington to Andrew Huntington, 25 December 1777, John Reed Collection.

15. Matthias Ogden to Lord Stirling, 27 April 1778, Dreer Collection: Generals of the American Revolution, HSP.

16. Instructions to the Commissary of Military Stores given at Headquarters, 30 December 1777, GWP, LC.

17. General Orders, 2 January 1778, GWP, LC.

18. John Lacey to President Wharton, 24 January 1778, Gratz Collection, HSP.

19. Benjamin Flower to Thomas Wharton, 26 December 1777, Reel 13, PA, PHMC. Clement Biddle to Thomas Wharton, 27 December 1777, Reel 13, PA, PHMC. Biddle's letter discloses that a powder mill producing gunpowder for the State of Pennsylvania was at work ten miles to the rear of camp (at French Creek). It was known variously as Himberg's or Himberger's Mill.

20. Resolve of Congress, 15 January 1778, Reel 13, PA, PHMC.

21. George Washington to Casimir Pulaski, 9 January 1778, GWP, LC.

22. WGW, X, p. 353.

23. WGW, X, pp. 419-420.

III SKIRMISHES WITH THE BOARD OF WAR

1. See excerpts of these returns in Appendix A.

2. Henry Knox to Benjamin Lincoln, 18 January 1778, WRHS.

3. George Washington to Henry Knox, 21 February 1778, GWP, LC.

4. George Washington to the Board of War, 21 February 1778, GWP, LC.

5. George Washington to Horatio Gates, 9 March 1778, GWP, LC.

6. George Washington to the Board of War, 23 February 1778, GWP, LC.

7. George Washington to Henry Knox, 21 February 1778, GWP, LC.

8. Deposition of Benjamin Flower, op. cit. Benjamin Flower to George Washington, 27 February 1778, GWP, LC.

9. Deposition of Benjamin Flower, op. cit.

10. Ibid.

11. Ibid.

12. Henry Knox to George Washington, 16 February 1778, GWP, LC.

13. George Washington to Henry Knox, 5 March 1778, GWP, LC.

14. Benjamin Flower to George Washington, 27 February 1778, GWP, LC.

15. George Washington to the Board of War, 6 March 1778, GWP, LC.

16. Ibid.

17. Ibid.

18. George Washington to the Board of War, 6 March 1778, GWP, LC.

19. Josiah Watkins to George Washington, 11 March 1778, GWP, LC. The return Watkins forwarded to Washington was probably a copy of the return signed by Watkins for the same period and submitted to the Board of War, which appears in Appendix D.

20. General Return of Military Stores, 13 March 1778, Board of War, signed by Horatio Gates, Reel 68, M859, RG93, MRWD, NA.

The places where stores were located were: Portsmouth NH, Boston, Taunton MA, Rhode Island, Brookfield MA, Springfield MA, Farmington CT; Albany, Gen. Putnam's camp, Lebanon, Allentown, Rheimtown, Grand Camp (VF), Carlisle, Chimoteague MD, Williamsburg, Bladensburg, Alexandria, Newburn, Edentown, Charlestown, and Reading (with Anthony Butler).

Totals were:

3,756 1/2	barrels powder
2,094,112	musket cartridges (flints not totaled)
1,292	reams musket cartridge paper
123,940	lbs lead
34,126	lbs musket ball
1,548	lbs buck shot
14,789	muskets serviceable
11,337	muskets not serviceable
6,323	bayonets
1,845	tents complete
6,815	yards tent cloth
306	cartridges boxes
10,956	knapsacks
92,700	gun worms

Of these the highest concentrations were at Lebanon, Carlisle, Albany and Springfield. At camp there were 27 barrels powder, 34,080 musket cartridges, 103 reams cartridge paper, 3,690 lbs musket ball, 264 servicable muskets, 261 unserviceable muskets, and 354 bayonets.

Lebanon and Springfield seemed to have had the highest concentrations. Locally Carlisle followed, then Allentown, and finally Rhiemstown, which had little of anything at this time.

21. George Washington to the Board of War, 20 March 1778, GWP, LC.

22. Ibid.

23. Ibid.

24. Heitman, Historical Register, p. 338.

25. Francis Dana to Thomas Wharton, 28 February 1778, Gratz Collection: Articles of Confederation, HSP.

26. Supreme Executive Council to the Committee of Conference at Headquarters, 14 March 1778, Reel 13, PA, PHMC. The cost of horseman's saddle and equipage broke down as follows:

saddle, mail pilion, leather girth and circingle	£	26.0.0
small leather portmanteau		6.10.0
one holster and horseshoe bag		7.10.0
carbine boot		1.5.0
double-reined bridle & horseman's bit		6.0.0
	£	47.5.0

27. George Washington to the Commissary of Military Stores at Albany, 8 February 1778, GWP, LC.

28. Anthony Butler to George Washington, 9 March 1778, GWP, LC.

The reference to Coxe's, or Cox's, Iron Works is interesting, as it appears that John Cox was supplying the army with certain supplies from his own manufacturing operations. The reference could have applied to the Mount Holly Furnace, but more likely to Batsto Furnace, which had prior to the war advertised kettles as among the products made at the manufactory in the Jersey Pine Barrens. (On John Cox's involvement with forges and furnaces see pp. 548-49, this report.

29. Ezekiel Cheever to George Washington, 15 March 1778, GWP, LC.

30. George Washington to Ezekiel Cheever, 2 April 1778, GWP, LC.

31. Horatio Gates to Thomas Wharton, (Circular of the Board of War), Gratz Collection, Case 1, Box 22, HSP.

"They are to be six inches and an half deep, or long, three inches and three quarters of an inch broad (this breadth receiving the cartridges lengthways, as they lie in a horizontal position) and two inches and seven eights of an inch thick; (this thickness admitting four cartridges, to lay side by side) A box of these dimensions, in the clear, will contain thirty six cartridges with ounce balls. - A wire is to be fixed in all the edges at the top, and then each side turned down (outwards) a full half inch and soldered; the cover is to be a full half inch deep, so that when fixed on the cannister the edges shall come close down to the ledge formed by the inclosed wire. This cover at one end turns on a hinge an inch and a quarter long, the wire, (fixed as above mentioned) being laid naked, that space, for the purpose; and a piece of tin is run underneath this wire, doubled together;

and soldered on the inside of one end of the cover. The soldier carries a cannister by a shoulder belt, as he does a cartridge box; and for this reason the cannister has fixed to it three loops of tin, each half an inch wide, with the edges turned back, to be smooth and strong; one of them is placed underneath the middle of the bottom, and one on each of the narrowest sides, the latter at four inches distance from the bottom to their lower edges. The loops are to be bent down at each end and well soldered, leaving a space to admit a leather belt full one inch and one half wide, and nearly an eighth of an inch thick - The cover opens against one part of the belt, which causes it to fall down, after the cartridge is taken out, by which means the rest are secured from accidental fire. - If possible the cannisters should be japanned, or painted, to preserve them from rust; and all are fixed with belts."

Gates sent the same instructions to Governor Richard Caswell, 28 March 1778, Gates Papers, NYHS.

32. Thomas Mifflin to John Litle, 31 March 1778, Society Collection, HSP. This John Litle may have been the same Litle who terminated a business partnership with Benjamin Flower in November, 1775. See advertisement of Benjamin Flower, Pennsylvania Gazette, 10 January 1776.

33. Return of Military Stores at Camp, 1 May 1778, Reel 68, M859, MRWD, NA, and return for June 1, same reel.

IV UPRISING AND MISCHIEF

1. A comparison of Samuel French's returns for March 1 and May 1, 1778 shows that between those dates no new artillery stores, (fixed round shot, case, grape shot or filled cartridges), had arrived at Valley Forge or Rhiemstown. Musket cartridges however, were beginning to accumulate. A total of 284,464 were received, and a reserve of 143,204 remained in the stores at camp on May 1. See returns of Military Stores at Camp and Rhiemstown, March 1 and May 1, Reel 68, M859, RG93, MRWD, NA. See also Appendix D.

2. Josiah Watkins to George Washington, 9 April 1778, GWP, LC. See also Return of Military Stores at Lebanon, 8 April 1778, Reel 68, M859, RG93, MRWD, NA, and Appendix D.

3. George Washington to Robert Morris, 27 April 1778, GWP, LC.

4. Ibid.

5. George Washington to the Board of War, 27 April 1778, GWP, LC.

6. Return of Military Stores at Allentown for the month of April 1778, Reel 69, M859, RG93, MRWD, NA. This return is labeled "Carlisle" on the reverse, but this is evidently an error. The return is signed by Jonathan Gostelowe, the DCMS at Allentown, and a column of the return lists items sent to Carlisle. Large quantities of stores remained at Allentown in April and even in May, but they were gradually being dispersed to Valley Forge and to Carlisle. See Appendix D for extracts.

7. Deposition of Benjamin Flower, op. cit. Because this document was composed as a defense at a time when Flower himself was accused of complicity with Sweers' misdeeds, its assertions should be approached warily. In instances wherein comparison is possible, however, it does seem to conform to other evidence. Flower, as will presently be seen, was cleared of the charges levelled against him. He was probably much embarrassed, however, at not having detected the extent of Sweers' perfidy more readily. He seems to have been strangely impervious to early warning signs pointing toward trouble in Sweers' management of public business, including Gostelowe's warning that something was amiss. Flower's itinerary during the late winter and spring of 1778 can be traced by means of his expense account, which appears to match at crucial points with his correspondence and other statements. See RG 93, M859, Roll 65, Accounts of Benjamin Flower, NA.

8. Samuel Parsons to George Washington, 20 March 1778, GWP, LC. Colonel Seely to George Washington, 2 March 1778. George Washington to Congress, 24 March 1778. William Smallwood to George Washington, 28 March 1778. George Washington to General McDougall, 25 March 1788. George Washington to General McDougall, 31 March 1778. William Smallwood to George Washington, 31 March 1778. George Washington to Henry Laurens, April 1778. Resolution of Congress, 4 April 1778. George Washington to General McDougall, 8 April 1778. George Washington to Henry Laurens, 10 April 1778. All in GWP, LC.

9. George Washington to Thomas Wharton, 11 April 1778, GWP, LC.

10. Thomas Wharton to George Washington, 13 April 1778, GWP, LC.

11. Andrew Boyd to President Wharton, 17 February 1778, Reel 13, PA, PHMC.

12. Supreme Executive Council to Peter Dehaven, 28 April 1778, Reel 13, PA, PHMC. A copy of this order was also sent to William Antes.

13. Supreme Executive Council to George Washington, Reel 13, PA, PHMC.

14. William Antes to the Supreme Executive Council, 1 May 1778, Reel 13, PA, PHMC. On the same reel see Andrew Boyd to Timothy Matlack, 7 May 1778, Ebenezer Cowell to Thomas Wharton, 9 May 1778. The return of Colonel Frederick Hagner to President Wharton, dated 11 May 1778, (same reel), demonstrates the sorts of equipage provided for those Pennsylvania militiamen fortunate enough to draw accoutrements. In addition to 800 muskets, bayonets and scabbards Hagner's stores included:

550 bayonet belts
750 cartridge boxes
45 shot pouches
118 powder horns
400 new knapsacks and haversacks
75 blankets
25 tent cloths
140 camp kettles

On the same reel see also: Lewis Gronow to the Supreme Executive Council, 13 May 1778; Archibald Lochrey to Thomas Wharton, 13 May 1778; Arthur Thompson to the Supreme Executive Council, 14 May 1778; Jacob Shoemaker to Timothy Matlack, 15 May 1778; Joseph Kirkbride to Thomas Wharton, 15 May 1778.

Only several Counties are accounted for presumably the western-most regions of the state attempted to retain their arms to thwart indian raids.

15. Supreme Executive Council to John Carothers, 3 May 1778, Reel 13, PA, PHMC.

16. Ibid.

17. George Washington to Thomas Wharton, 14 May 1778, GWP, LC.

18. Supreme Executive Council to George Washington, Reel 14, PA, PHMC.

19. Petition of the inhabitants of Path Valley, Cumberland County, 18 May 1778, Reel 14, PA, PHMC. See also Supreme Executive Council to Colonel Jacob Morgan, 18 May 1778, Reel 14, PA, PHMC, and Board of War to George Bryan, 22 May 1778, Reel 14, PA, PHMC, and Board of War to George Bryan, 22 May 1778, Reel 14, PA, PHMC.

20. Clement Biddle to President Wharton, 21 May 1778, Reel 14, PA, PHMC.

21. Daniel Roberdeau to Thomas Wharton, 17 April 1778, Reel 13, PA, PHMC, and from same reel Daniel Roberdeau to the Supreme Executive Council, 23 April 1778. Board of War to George Bryan, 22 May 1778, Reel 14, PA, PHMC.

22. Montgomery, Thomas Lynch, ed. Report of the Commission to Locate the Site of the Frontier Forts of Pennsylvania, Vol. I, 2nd Edition (Harrisburg, PA.: Wm Stanley Ray, State Printer, 1916), pp. 409-503.

23. George Washington to Israel Shreve, 4 April 1778, GWP, LC.

24. George Washington to Governor Livingston, 1 June 1778, GWP, LC.

25. Return signed by Luther Halsey, 17 March 1778, Israel Shreve Papers, RUL.

26. Receipts signed by John Sawyer, 14 March 1778, Samuel Benjamin Collection, YUL. Account Book of Captain Thomas Cole, August 1777 - March 1778, UG. (See entry for 23 March 1778.) A return exists for all of the arms delivered out to the main army between 1 November 1777 and 21 May 1778, by CMS Samuel French. The return is broken down by regiments, and reflects the following totals:

	Received	Delivered
good muskets	1,771	4,423
good rifles	68	5
damaged muskets	3,163	
damaged rifles	43	

The return was made out, it should be remembered, before sizable arms shipments arrived from New England and New York in early June, and the issuances reflected above were probably made mostly toward the end of the autumn 1777 campaign. Of interest is the high number of damaged muskets, and the extremely low incidence of rifle issuances. Those arms received did not come from military stores, but were taken into the store at camp from the army, and probably reflect the return of arms through expiration of service and death. See Reel 69, M859, MRWD, RG93, NA.

27. Return of arms singed by A. Thomas, 17 March 1778, NCSA.

28. Return of Military Stores at Camp, signed by Samuel French, 1 May 1778 and 1 June 1778, Reel 68, M859, MRWD, RG93, NA.

29. Return of Military Stores at Lebanon, 8 April 1778, Reel 68, M859, MRWD, RG93, NA.

30. Ezekiel Cheever to George Washington, 15 March 1778, and George Washington to Ezekiel Cheever, 2 April 1778, GWP, LC.

31. George Washington to Ezekiel Cheever, 17 May 1778, GWP, LC.

32. George Washington to Henry Knox, 17 May 1778, GWP, LC.

33. Henry Knox to George Washington, 17 May 1778, and George Washington to Philip Van Renssalaer, 17 May 1778, GWP, LC.

34. Invoice of Ordnance Stores, signed by Ezekiel Cheever, 25 May 1778, GWP, LC.

35. Ezekiel Cheever to George Washington, 25 May 1778, GWP, LC.

36. Abraham Lansing to Robert L. Hooper, 18 May 1778, GWP, LC.

37. Robert L. Hooper to Colonel Harrison, 23 May 1778, GWP, LC. For a copy of Taylor's order see 21 May 1778, GWP, LC.

38. George Washington to Horatio Gates, 26 May 1778, GWP, LC.

39. Instructions to General Maxwell, 25 May 1778; George Washington to General Maxwell, 27 May 1778, and 29 May 1778, GWP, LC.

40. Andrew Taylor statement, 1 June 1778, GWP, LC.

41. George Washington to Horatio Gates, 5 June 1778, GWP, LC.

42. Timothy Pickering to George Washington, 16 June 1778, GWP, LC.

43. Return of Military Stores at Allentown (mislabeled "Carlisle" on reverse), 31 May 1778, Reel 69, M859, MRWD, RG93, NA.

44. Return of Military Stores at Camp, 1 June 1778, Reel 68, M859, MRWD, RG93, NA.

45. George Washington to the Commissary of Military Stores, 15 June 1778, GWP, LC.

46. Henry Knox to Ebenezer Stephens, 7 January 1778, Henry Knox Papers, MHS.

47. Henry Knox to John Lamb, 11 May 1778, John Lamb Papers, NYHS.

48. Henry Knox to Major Stephens, 6 June 1778, Knox Papers, NYHS.

49. Tench Tilghman to Stephen Moylan, 29 April 1778, Philip Landsdale Papers, MMC, LC.

50. George Washington to Colonel Baylor, 1 May 1778, GWP, LC.

51. George Washington to Colonel Baylor, 13 May 1778, GWP, LC.

52. Colonel Baylor to George Washington, 16 May 1778, GWP, LC.

53. Deposition of Benjamin Flower, op. cit.

54. Ibid.

55. Ibid., JCC, XI, p. 627.

56. Ibid.

57. Ibid.

58. Ibid., Cornelius Sweers to Congress, 25 June 1778, Roll 102, M247, PCC, RG93, NA., JCC, XI, pp. 661, 737.

59. JCC, XI, pp. 741-2, 831-3.

60. Petition of Cornelius Sweers to the Supreme Executive Council, 21 April 1778, Stauffer Collection, HSP.

61. Pennsylvania Archives, series 3, volume 12.

V "A MAN OF SPIRIT & BUSINESS"

1. James Abeel to Nathanael Greene, 10 May 1778, James Abeel Letterbook, (hereafter JAL), LC.

2. Ibid.

3. James Abeel to Nathanael Greene, 12 May 1778, JAL, LC.

4. Ibid., and James Abeel to Charles Pettit, 27 May 1778, JAL, LC.

5. James Abeel to Nathanael Greene, 23 May 1778, JAL, LC.

6. James Abeel to Nathanael Greene, 10 May 1778, JAL, LC.

7. James Abeel to Charles Pettit, 14 May 1778, James Abeel to Nathanael Greene, 12 May 1778; James Abeel to John Mitchell, 14 May 1778 and another to Mitchell of the same date, James Abeel to Charles Pettit, 15 May 1778, JAL, LC. Clear reference is made in this letter to Mitchell of the poor quality of domestically made steel, which was of very uneven quality.

8. James Abeel to Robert Patton, 14 May 1778; James Abeel to Robert L. Hooper, 15 May 1778, James Abeel to Moore Furman, 16 May 1778, JAL, LC.

9. James Abeel to John Oakley, 18 May 1778, JAL, LC.

10. George Washington to Nathanael Greene, 17 May 1778, GWP, LC.

11. James Abeel to Robert L. Hooper, 18 May 1778, JAL, LC.

12. James Abeel to Charles Pettit, 18 May 1778, JAL, LC.

13. James Abeel to George Ross, 20 May 1778; to John Mitchell, 20 May 1778; to John Davis, 20 May 1778; to John Oakly, 23 May 1778; to George Ross, 25 May 1778; to Robert Patton, 25 May 1778; to John Oakly, 25 May 1778; to James Calhoun, 26 May 1778, JAL, LC.

14. James Abeel to Charles Pettit, 19 May 1778; to Nathanael Greene, 20 May 1778; to Charles Pettit, 29 May 1778; to Nathanael Greene, 23 May 1778; to Nathanael Greene, 24 May 1778, JAL, LC.

15. James Abeel to Charles Pettit, 27 May 1778, JAL, LC.

16. Ibid.

17. Return of Stores at Lebanon for May, 1778, signed by Jonathan Gostelowe, Reel 69, M859, MRWD, RG93, NA.

18. Charles Pettit to Moore Furman, 5 May 1778, Record Group: New Jersey Department of State, Subgroup: Military Records, NJBAH.

19. Charles Pettit to Moore Furman, 5 May 1778, 9 May 1778, 15 May 1778, 27 May 1778, Record Group: New Jersey Department of State, Subgroup: Military Records, NJBAH.

20. James Abeel to W. Nichols, 27 May 1778; to George Ross, 27 May 1778; to Robert L. Hooper, 28 May 1778, to the Deputy Quarter Master at Rhiemstown, 29 May 1778; to John Oakly, 30 May 1778; to Charles Pettit, 1 June 1778; to John Cox, 5 June 1778; to Nathanael Greene, 7 June 1778; to John Mitchell, 10 June 1778, JAL, LC. See also John Mitchell to James Abeel, 11 June 1778, James Abeel Correspondence, 1777-1778, NJHS.

21. No official record has been discovered which places a date on this appointment, but Abeel was certainly assuming a supervisory capacity over the other Deputies by mid-May. He mentions the appointment to Adam Zantzinger, 27 May 1778, JAL, LC.

22. James Abeel to (?), 16 June 1778, JAL, LC.

23. John Cox to James Abeel, 8 June 1778, MG110, Correspondence of John Cox, NJHS. See also James Abeel to Charles Pettit, 1 June 1778.

24. James Abeel to John Cox, 9 June 1778, JAL, LC.

25. John Cox to James Abeel, 8 June 1778, MG110, Correspondence of John Cox, NJHS.

26. James Abeel to John Mitchell, 28 May 1778; to Nathanael Greene, 30 May 1778; to William Allen, 28 May 1778, JAL, LC.

27. John Cox to James Abeel, 4 June 1778, MG110, Correspondence of John Cox, NJHS.

28. Ibid.

29. James Abeel to John Cox, 5 June 1778, JAL, LC.

30. James Abeel to Nathanael Greene, 6 June 1778, JAL, LC.

31. James Abeel to John Cox, 11 June 1778, and James Abeel to John Cox, 10 June 1778, JAL, LC.

32. James Abeel to John Cox, 12 June 1778, JAL, LC.

33. John Cox to James Abeel, 13 June 1778, Gratz Collection, HSP.

34. Ibid.

35. James Abeel to John Cox, 13 June 1778, JAL, LC.

36. James Abeel to Mathew Williamson, 14 June 1778; to Robert Lettis Hooper, 16 June 1778, to Greene, Pettit, or Cox, 16 June 1778, JAL, LC.

37. James Abeel to John Cox, 18 June 1778, JAL, LC. This suggests that Abeel's tent makers were probably displaced sail makers, or even upholsters.

38. The composition and movements of this army of skilled workers during the British occupation is one of the more obscure social issues of the period. Despite growing interest in the role of Philadelphia's artisanal community in revolutionary politics (viz. the excellent study by Richard Ryerson, as well as the work of Charles Olton), little has been done to trace the considerable effect of war and dislocation on this very necessary body of men and women. Their fate during the war for independence deserves closer scrutiny.

39. James Abeel to John Cox, 23 June 1778, JAL, LC.

40. James Abeel to Jacob Weiss, 21 June 1778; to John Cox, 23 June 1778; to Jacob Weiss, 23 June 1778; to John Cox, 16 July 1778, JAL, LC.

AFTERWORD

1. Lee Kennett, The French Armies in the Seven Years War: A Study in Military Organization and Administration. Durham, NC: Duke University Press, pp. 99, 110.

2. Ibid., p. 109.

3. Ibid., p. 104.

4. Ibid., p. 126

5. Pargellis, pp. 297, 299.

6. WGW, XI, pp. 466-467. Return of Horses, Wagons, etc., with the Main Army, 30 May 1778, Chaloner & White Papers, HSP.

NOTES ON SOURCES

Pennsylvania Archives

The Pennsylvania Archives (unpublished manuscripts) at Harrisburg, have recently been microfilmed. Reel numbers employed in the footnotes refer to the numbers of microfilmed reels assigned by the Pennsylvania Historical and Museum Commission.

The Albigence Waldo Diary

Historians and readers familiar with the Valley Forge encampment will note the omission of the Albigence Waldo diary from the preceeding narrative. The decision to do this reflects a persistent concern on the part of the author, based on a subjective assessment of style, that the diary may not be entirely authentic. The author has not been able to locate the manuscript diary, after an extensive search, nor anyone who has ever seen it in manuscript form. The Waldo diary was published in the Historical Magazine in 1860, and was reprinted in 1897 in the Pennsylvania Magazine of History and Biography, apparently from the earlier printed source. Because the text is problematic, and because the original manuscript defies location, the author has elected to omit it from the sources employed.

Chester County Historical Society, Chester County, Pennsylvania

During the entire length of the period devoted to researching and writing the foregoing work, the archives of the Chester County Historical Society have been closed to research. Pertinent information which may be found in the Historical Society will be incorporated into this work at a future date.

BIBLIOGRAPHY

Primary Sources

Manuscript Documents, Special Collections

Annapolis, Maryland

Maryland Hall of Records
Washington Papers and Letters

Ann Arbor, Michigan

William L. Clements Library
Sir Henry Clinton Papers
Lord George Germain Papers
Nathanael Greene Papers
Anthony Wayne Papers

Boston, Massachusetts

Massachusetts Historical Society
Henry Knox Papers

Massachusetts State Archives
Letters of the Governor and Council

Brooklyn, New York

Long Island Historical Society
Laurens Papers

Chicago, Illinois

Chicago Historical Society
Orderly Books

Columbus, Ohio

Ohio Historical Society
Arthur St. Clair Papers

Concord, New Hampshire

New Hampshire Historical Society
Orderly Books

Cooperstown, New York

New York State Historical Association
Charles Stewart Papers

Harrisburg, Pennsylvania

Pennsylvania Historical and Museum Commission
Pennsylvania Archives

Hartford, Connecticut

Connecticut Historical Society
Samuel Gray Collection
Jedediah Huntington Papers
Jeremiah Wadsworth Papers
Theodore Woodbridge Papers
Collection of Revolutionary Letters and Documents

Connecticut State Library
Pierson and Sargeant Family Papers
Trumbull Papers
Captain Andrew Fitch Papers

Madison, Wisconsin

State Historical Society of Wisconsin
Elias Boudinot Letterbook

Morristown, New Jersey

Morristown National Historical Park Library
Lloyd W. Smith Collection

New Brunswick, New Jersey

Rutgers University Library
Revolutionary War Letters
Israel Shreve Papers

New Haven, Connecticut

Yale University Libraries
Knollenberg Collection
Franklin Collection
Burr Family Papers
Samuel Benjamin Collection

New York, New York

New York Historical Society
Miscellaneous Manuscript Collection
Joseph Reed Papers
Alexander McDougall Papers

Pierpont Morgan Library
Autographs of Signers of the Declaration
Autographs of the Generals of the American Revolution

Newark, New Jersey

New Jersey Historical Society
- James Abeel Correspondence
- John Cox Correspondence

Philadelphia, Pennsylvania

American Philosophical Society
- Feinstone Collection

Historical Society of Pennsylvania
- Daniel Wier Letterbook
- Chaloner & White Papers
- Society Collection
- Gratz Collection
- Clement Biddle Papers
- Charles F. Jenkins Collection
- Shippen Family Papers
- Dreer Collection
- Towers Papers
- Stauffer Collection
- Peters Collection
- Griffith & Paschall Collection
- Henry C. DuBois Collection
- Clymer Manuscripts
- The Alfred Coxe Prime Directory of Craftsmen

Providence, Rhode Island

Rhode Island Historical Society
- Greene Papers

Trenton, New Jersey

New Jersey Bureau of Archives and History
- Revolutionary Documents
- New Jersey Department of State: Military Records

Washington, D. C.

Library of Congress
- Peter Force Transcripts
- Peter Force Manuscripts
- E. C. Burnett Collection
- Washington Papers
- Philip Landsdale Papers
- Continental Congress Collection
- Elbridge Gerry Papers
- Elias Boudinot Papers
- James Abeel Letterbook

National Archives
Papers of the Continental Congress (Record Group 360)
War Department Collection of Revolutionary War Records (Record Group 93)
Treasury Department Records (Record Group 15)

In addition to these special collections, miscellaneous documents were employed from the following archives:

New York State Library, Albany, New York
Historical Society of Berks County, Reading, Pennsylvania
University of Virginia Library, Charlottesville, Virginia
Maryland Historical Society, Baltimore, Maryland
Princeton University Libraries, Princeton, New Jersey
Harvard University Libraries, Cambridge, Massachusetts
Western Reserve Historical Society, Cleveland, Ohio
Lehigh County Historical Society, Easton, Pennsylvania
Rhode Island State Archives, Providence, Rhode Island
Litchfield Historical Society, Litchfield, Connecticut
Virginia Historical Society, Richmond, Virginia
Valley Forge Historical Society, Valley Forge, Pennsylvania

Through the special courtesy of Mr. John F. Reed, the John Reed Manuscript Collection was made available for research.

Newspapers

Freeman's Journal, or New Hampshire Gazette
Pennsylvania Gazette
Pennsylvania Packet
Saturday Evening Post

Secondary Sources, Published Works Cited

Albright, Raymond W. Two Centuries of Reading, Pa. Reading, Pa.: The Historical Society of Berks County, 1948.

Baker, William S. "Itinerary of General Washington from June 15, 1775 to December 23, 1783." Pennsylvania Magazine of History and Biography, Vol. XIV (1890), 111-142, 154-280, 335-263.

Bezanson, Anne. Prices and Inflation During the American Revolution: Pennsylvania, 1770-1790. Philadelphia: University of Pennsylvania Press, 1951.

Bezanson, Anne, with Robert D. Gray and Miriam Hussey. Prices in Colonial Pennsylvania. Philadelphia: University of Pennsylvania Press, 1935.

Bining, Arthur Cecil. Pennsylvania Iron Manufacturing in the Eighteenth Century. Harrisburg, Pa.: Pennsylvania Museum and Historical Commission, 1973.

Blaine, John Ewing. The Blaine Family: James Blaine, Emigrant and His Children. Cincinnati: The Ebbert & Richardson Co., 1920.

Bowler, R. Arthur. Logistics and the Failure of the British Army in North America 1775-1783. Princeton, N.J.: Princeton University Press, 1975.

Boyer, Charles S. Early Forges and Furnaces in New Jersey. Philadelphia: University of Pennsylvania Press, 1931.

Brown, Rodney Hilton. American Polearms 1526-1865. New Milford, Conn.: N. Flayderman & Co., Inc., 1967.

Brunhouse, Robert L. The Counter-Revolution in Pennsylvania 1776-1790. Harrisburg, Pa.: Pennsylvania Museum and Historical Commission, 1942.

Clark, Victor S. History of Manufactures in the United States. 3 Vols. New York: Published for the Carnegie Institution of Washington by the McGraw-Hill Book Company, Inc., 1928.

Cole, Arthur Harrison. The American Wool Manufacture. Cambridge, Mass.: Harvard University Press, 1926.

Coleman, John M. Thomas McKean: Forgotten Leader of the Revolution. Rockaway, N. J.: American Faculty Press, 1975.

Ferguson, E. James. "Business, Government, and Congressional Investigation in the Revolution". William and Mary Quarterly, 3rd Series, Vol. XVI (1959), 293-318.

Fitzpatrick, John C., ed. The Writings of George Washington. 39 Vols. Washington, D.C.: United States Government Printing Office, 1931-1944.

Futhey, J. Smith, and Gilbert Cope. History of Chester County Pennsylvania, with Genealogical and Biographical Sketches. Philadelphia: Louis H. Everts, 1881.

Gerlach, Larry R. New Jersey in the American Revolution, 1763-1783: A Documentary History. Trenton: New Jersey Historical Commission, 1975

Gruber, Ira D. The Howe Brothers in the American Revolution. New York: W. W. Norton & Company, Inc., The Norton Library, 1975.

Hatch, Louis D. The Administration of the American Army. New York: Harvard University Press, 1904.

Hazard, Samuel, ed. Pennsylvania Archives. 12 Vols. Philadelphia: Joseph Severns & Co., 1852.

Heitman, F. B. Historical Register of Officers of the Continental Army. Washington, D. C.: n.p., 1893.

Hinman, Royal R. A Historical Collection from Official Records, Files, etc., of the Part Sustained by Connecticut During the War of the Revolution. Hartford, Conn.: E. Gleason, 1842.

Hughes, B. P. British Smooth-Bore Artillery: The Muzzle Loading Artillery of the 18th and 19th Centuries. Harrisburg, Pa.: Ghe Stackpole Company, 1969.

Hutson, James H. Pennsylvania Politics 1746-1770; the Movement for Royal Government and its Consequences. Princeton, N.J.: Princeton University Press, 1972.

James, Marquis. The Biography of a Business 1792-1942: The Insurance Company of North America. New York: The Bobbs-Merrill Company, 1942.

Jensen, Arthur L. The Maritime Commerce of Colonial Philadelphia. Madison, Wisc.: The State Historical Society of Wisconsin for the Department of History, University of Wisconsin, 1963.

Johnson, Allen and Dumas Malone, eds. Dictionary of American Biography. New York: Charles Scribner's Sons, 1937.

Johnson, Victor L. Admistration of the American Commissariat during the Revolutionary War. Philadelphia: University of Pennsylvania, 1941.

Jones, U. J. History of the Early Settlement of the Juniata Valley... Philadelphia: Henry B. Ashmead, 1856.

Jordan, John W. Colonial and Revolutionary Families of Pennsylvania: Genealogical and Personal Memoirs. New York: The Lewis Publishing Company, 1911.

Journals of the Continental Congress. 34 Volumes. Washington, D.C.: United States Government Printing Office, 1904-1937.

Keith, Charles P. "Andrew Allen". Pennsylvania Magazine of History and Biography, Vol X, No. 4 (1886), 361-365.

Kennett, Lee. The French Armies in the Seven Years' War: A study in military organization and administration. Durham, N.C.: Duke University Press, 1967.

LeBlond, Guillaume. A Treatise of Artillery. (London, 1746), Ottawa: Museum Restoration Service, 1970.

Lemon, James T. The Best Poor Man's Country: A Geographical Study of Early Southeastern Pennsylvania. New York: W. W. Norton & Company, Inc., The Norton Library, 1976.

Macpherson's Directory for the City and Suburbs of Philadelphia. Philadelphia: Francis Bailey, 1785.

Main, Jackson Turner. Antifederalists: Critics of the Constitution 1781-1788. New York: W. W. Norton & Company, Inc., The Norton Library, 1974.

_____. Political Parties Before the Constitution. New York: W. W. Norton & Company, Inc., The Norton Library, 1973.

Mishoff, Willard O. "Business in Philadelphia During the British Occupation, 1777-1778". Pennsylvania Magazine of History and Biography, Vol LXI, (1937), 165-181.

Montgomery, Thomas Lynch, ed. Report of the Commission to Locate the Site of the Frontier Forts of Pennsylvania. 2 Vols., 2nd ed. Harrisburg, Pa.: Wm Stanley Ray, State Printer, 1916.

Muller, John. A Treatise of Artillery. (London, 1780), Ottawa: Museum Restoration Service, 1965.

Neumann, George C. The History of Weapons in the American Revolution. New York: Bonanza Books, 1967.

Neumann, George C., and Frank J. Kravic. Collector's Illustrated Encyclopedia of the American Revolution. Secaucus, N.J.: Castle Books, 1975.

Olton, Charles S. Artisans for Independence: Philadelphia Mechanics and the American Revolution. Syracuse, N.Y.: Syracuse University Press, 1975.

Pargellis, Stanley McCrory. Lord Loudon in North America. N.P.: Archon Books, 1968.

Peterson, Harold L. The Book of the Continental Soldier. Harrisburg, Pa.: The Stackpole Company, 1968.

Pierce, Arthur D. Family Empire in Jersey Iron: The Richards Enterprises in the Pine Barrens. New Brunswick, N.J.: Rutgers University Press, 1964.

Prime, Alfred Coxe. The Arts & Crafts in Philadelphia, Maryland and South Carolina 1721-1785: Gleanings from Newspapers. N.P.: The Walpole Society, 1929.

Reed, John F. Valley Forge Crucible of Victory. Monmouth Beach, N.J.: Philip Freneau Press, 1969.

Risch, Erna. Quartermaster Support of the Army; A History of the Corps 1775-1939. Washington, D.C.: Quartermast Historian's Office, Office the the Quartermaster General, 1962.

Ritter, Abraham. Philadelphia and her Merchants... Philadelphia: published by the Author, 1860.

Ryerson, Richard Alan. The Revolution is Now Begun: The Radical Committees of Philadelphia, 1765-1776. Philadelphia: University of Pennsylvania Press, 1978.

Rudé, George. The Crowd in the French Revolution. New York: Oxford University Press, 1959.

_____. Paris and London in the Eighteenth Century. London: Collins, The Fontana Library, 1970.

Rudyerd, William. A Course of Artillery. (Mss., 1793), Ottawa; Museum Restoration Service, 1970.

Scharf, J. T., and T. Westcott, History of Philadelphia. 3 Vols. Philadelphia, 1884.

Smith, George. An Universal Military Dictionary. (London, 1779), Ottawa: Museum Restoration Service, 1969.

Stryker, William S., comp. Official Register of the Officers and Men of New Jersey in the Revolutionary War. Trenton, N.J.: The State of New Jersey, 1872.

Syrett, Harold C. The Papers of Alexander Hamilton, Vol. IV, January 1787-May 1788. New York: Columbia University Press, 1967.

Taylor, George Rogers. American Economic History Before 1860. New York: Appleton-Century-Crofts, 1969.

Thayer, Theodore. Nathanael Greene: Strategist of the American Revolution. New York: Twayne Publishers, 1960.

Tousard, Louis D. American Artillerist's Companion. 2 Vols. Philadelphia: 1809-1813.

Ward, S. G. P. Wellington's Headquarters: A Study of the Administration Problems in the Peninsula 1809-1814. London: Oxford University Press, 1957.

Watts, Irma A. "Colonel James Burd - Defender of the Frontier". Pennsylvania Magazine of History and Biography, Vol. L (1926), 29-37.

Weaver, Glenn. Jonathan Trumbull: Connecticut's Merchant Magistrate (1710-1785). Hartford, Conn.: Connecticut Historical Society, 1956.

Wolf, Stephanie Graceman. Urban Village: Population, Community and Family Structure in Germantown, Pennsylvania 1683-1800. Princeton, N.J.: Princeton University Press, 1976.

Dissertations

Duvall, R. Fenton. "Philadelphia's Maritime Commerce with the British Empire 1783-1789". University of Pennsylvania Dissertation, 1960.

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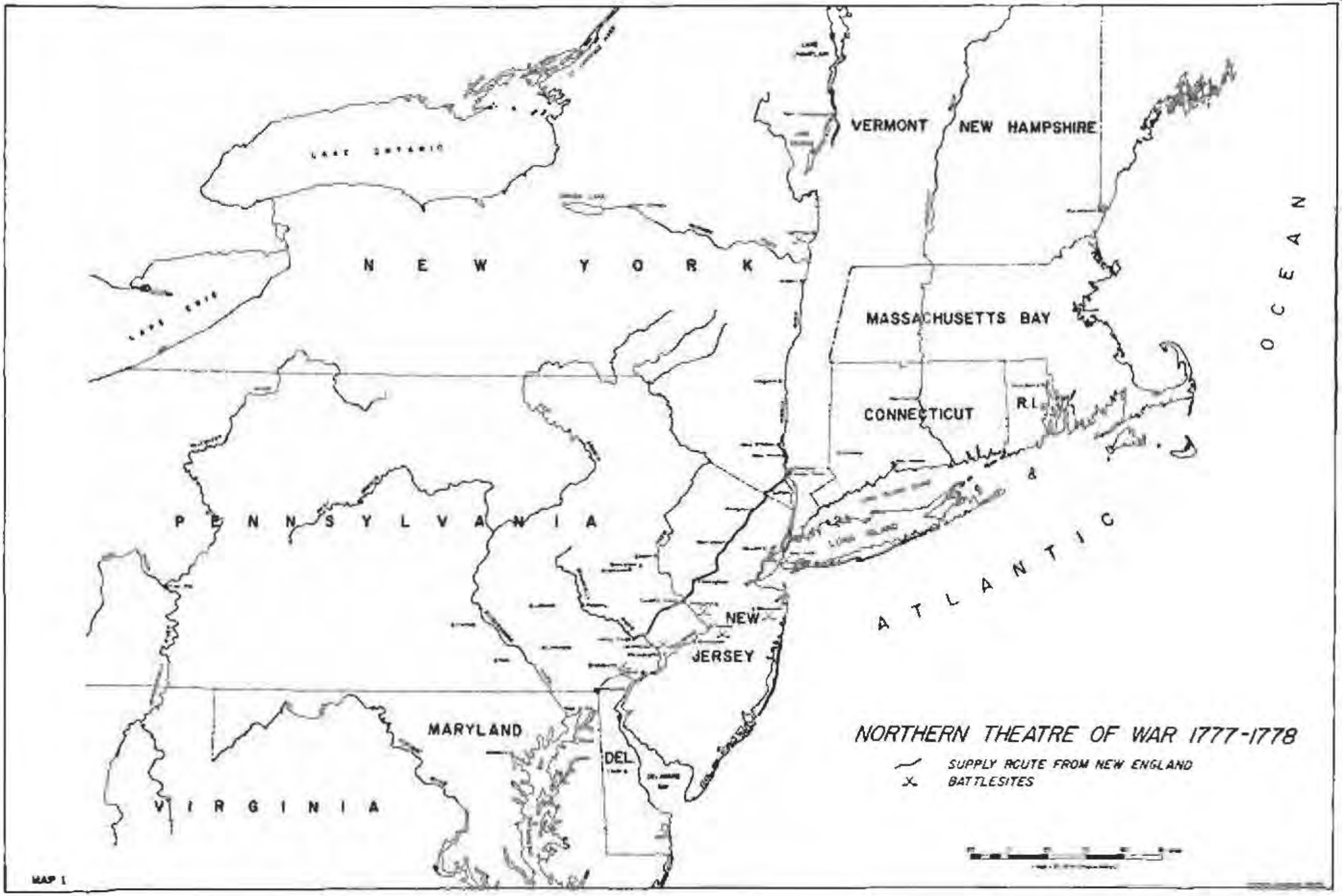
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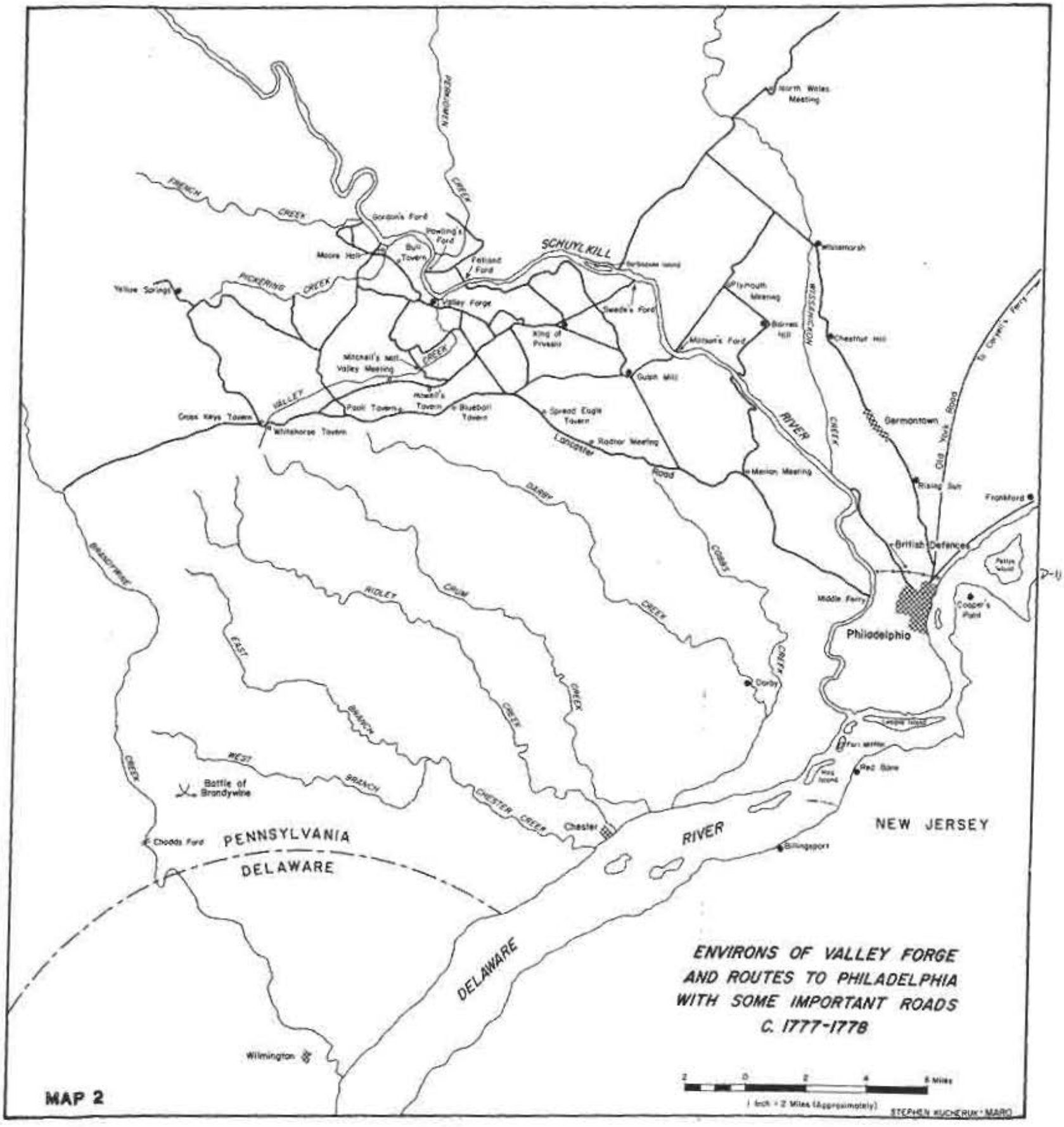
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VERMONT
NEW HAMPSHIRE
N E W Y O R K
MASSACHUSETTS BAY
CONNECTICUT
R.I.
O C E A N
A T L A N T I C
P E N N S Y L V A N I A
NEW
JERSEY
MARYLAND
DEL.
V I R G I N I A
NORTHERN THEATRE OF WAR 1777-1778
SUPPLY ROUTE FROM NEW ENGLAND
BATTLESITES
MAP 1


SCHUYLKILL
PERKIOMEN CREEK
FRENCH CREEK
PICKERING CREEK
VALLEY CREEK
MATSUNK CREEK
WISSAHICKON CREEK
DARBY CREEK
CRUM CREEK
RIDLEY CREEK
EAST BRANCH
WEST BRANCH
BRANDYWINE CREEK
CHESTER CREEK
DELAWARE RIVER
Gordon's Ford
Bowling's Ford
Moore Hall
Bull Tavern
Fatland Ford
Valley Forge
Yellow Springs
Mitchell's Mill
Valley Meeting
Mitchell's Tavern
Pool Tavern
Bluebell Tavern
Cross Keys Tavern
Whitehorse Tavern
King of Prussia
Swede's Ford
Gulph Mill
Spread Eagle Tavern
Radnor Meeting
Lancaster Road
Merion Meeting
North Wales Meeting
Plymouth Meeting
Whitemarsh
Mattson's Ford
Barren Hill
Chestnut Hill
Old York Road
To Carpenter's Ferry
Germantown
Rising Sun
Frankford
British Defences
Petty Island
Cooper's Point
Philadelphia
Middle Ferry
Darby
Fort Mifflin
Red Bank
Billingsport
Chester
Battle of Brandywine
Chadds Ford
PENNSYLVANIA
DELAWARE
NEW JERSEY
Wilmington
ENVIRONS OF VALLEY FORGE
AND ROUTES TO PHILADELPHIA
WITH SOME IMPORTANT ROADS
C. 1777-1778
2 0 2 4 6 Miles
1 Inch = 2 Miles (Approximately)
STEPHEN KUCHERIAK - MARO

MAP 2

Reading
Pottsgrove
Pennypacker's Mills
Skippack
Perkiomen Creek
Corgells Ferry
Trenton
Crooked Billet
Bordentown
French Creek
Gordon's Ford
Fatland Ford
Swedes Ford
Whitemarsh
Pennypack Cr.
Yellow Springs
Pickering Creek
Valley Creek
Valley Forge
Gulph
Barren Hill
Wissahickon Cr.
Burlington
Germantown
Mount Holly
Paoli
Moorestown
Philadelphia
Haddonfield
Darby Creek
Brandywine Creek
Brandywine
Chester
Red Bank
Woodbury
Delaware River
Wilmington
Big Elk Creek
Head of Elk

Environs of Philadelphia, 1777-78

6 miles : 1 inch

5 0 10 20

MAP 3