FORT UNION, NEW MEXICO – GUARDIAN OF THE SANTA FE TRAIL

BY

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FOREWORD

The history of Fort Union, New Mexico, is, in a sense, the history of all such posts in the southwest. However, aside from serving as a base for troops engaged in active field service, the fort in question, was the most important arsenal and depot of Subsistence and Quartermaster's supplies in the entire frontier area. Arms, ammunition, clothing, medicines, as well as other equipments and materiel necessary to conduct war against the marauding tribesmen were stored in the huge warehouses within the confines of Fort Union over a period of forty years, from 1851 until 1891.

To enable one to understand the need and activation of such an establishment it is necessary to delve into many phases of military life not to be found within the immediate boundaries of the Fort Union Military Reservation. Moreover, the interpretation of the Fort Union story to the visiting public should be somewhat generic in its scope. By this I mean that in discussing the elements making up the history of this particular post, one must not lose sight of the fact that these same elements are, in part, common denominators of the military history of the entire western frontier. It is quite true that each fort and camp maintained by the United States on its western frontier during the stirring days of the second half of the 19th century had its own peculiar characteristics and individual problems. On the other hand the human personnel, the

routine of military life, the methods of conducting business by the military authorities and the relationship between the military and civilian inhabitants of the various regions, were essentially the same. The garrisons changed from time to time as new outfits were shifted from post to post. Thus officers and men in the frontier army formed a montage of familiar faces and names in different settings. But whether the various companies of infantry served at Fort Laramie in the north or at the Presidio on the western coast, the problems of garrison life remained virtually the same.

Aside from the discomforts entailed by changing climatic conditions, the distances from bases of supplies, and the varying difficulties of transportation, life within the environs of the far-flung outposts was monotonously the same. Military personnel, those who adopted the army as a way of life, soon learned to adapt themselves to these changing and rigorous conditions. Army wives became experts in making shift with scanty supplies and, to a certain degree, became inured to the hardships of frontier garrisons. Rank of their husbands had a great deal to do with the degree of comfort they enjoyed. Naturally the best accomodations were assigned to the officers of higher ranks. Thus, a second lieutenant and his new bride, or a first lieutenant and his wife had to take what meagre quarters they could procure, if the post happened to be over staffed with captains, majors and colonels or lieutenant colonels. Moreover, if a bachelor "ranker" was assigned to an overcrowded post, he generally claimed a suite of quarters befitting his rank and an officer of lesser rank, married, and with a family, was promptly ousted to make room for the top brass. Such incidents were not uncommon and many an

army wife married to a junior officer found herself and family suddenly transferred from her none too commodious quarters to a single room or even a shed.

There were baggage troubles too, the lesser ranks had to be satisfied with only a certain amount of space in the transports at sea and the wagon trains on land for their personal effects. The privates and the non-coms suffered equal inconveniences in their living quarters, food, clothing and lack of recreation. Monotony was probably the greatest curse of frontier garrison duty. The only amusements of the men and officers alike were short trips of exploration, occasional hunting parties, souvenir collecting, fishing (providing there was a stream nearby sufficiently large to contain fish), reading, gambling, drinking and wenching. The latter three diversions were carried to excess, particularly drinking and gambling. Patrol duty against the Indians was actually welcomed by the troopers and their officers. If there was not enough diversion of the latter sort, the hum-drum life in garrison, the eternal gaming and drinking, caused many desertions. Fort Union, while larger than most establishments, was not free from all these inconveniences. Men fought each other, drank heavily and "went over the hill", i.e. deserted.

Thus, in appraising the story of Ft. Union, one must take all of these general aspects into consideration in order to provide a good interpretation of the post and its ever changing garrison.

During the four decades in which Ft. Union was occupied, many changes took place in New Mexico and the west. Scarcely five years had passed between the occupation of the Mexican territories west of the Mississippi and the founding of the post, and the land was still in a political and

racial turmoil. The New Mexicans suddenly found themselves no longer citizens of Mexico but of the United States. There were few large towns in the new Territory and no good roads, except the overland road from Santa Fe to the Missouri over which passed the long freight trains of horse, mule and ox drawn vehicles. This thoroughfare, by 1851, had been in use for nearly thirty years but even so it was not a highway in any sense as we know the term today.

For over three centuries the Spanish-Mexicans had been fighting their Indian neighbors, particularly the Navajo and the Apache and sometimes the Comanche and other Plains tribes. Slave raiding by the Navajo, Apache and the Mexicans upon each other was a time honored and accepted custom. As soon as the United States occupied New Mexico, attempts were made to put a halt to this custom. In the eyes of the newly established government, both parties were equally guilty and although the Indians as well as their New Mexican adversaries, complained bitterly to the duly constituted authorities about the actions of their enemies, they still carried out their old feuding and raised perplexing problems for the United States Territorial officials. As a result, the civilian officials called in the army and then the usual wrangling between the military and the civilian authorities began. This added more confusion and increased the border problems. Neither the newly appointed politicians nor the changing military personnel were free from faults in their management of affairs in New Mexico during the formative years of the Territory. As a result the mails were filled with a cross fire of letters between the men in the field and their superiors in Washington. Eastern appointees to political

positions in New Mexico seldom understood the background or temperament of either the New Mexican inhabitants or the various Indian tribes over whom they were supposed to govern.

The same observation holds true about their military counterparts. Officers fresh from the Military Academy at West Point, or garrison duty in long established and quiet posts on the eastern seaborad or interior posts, long since removed from the frontier activities, had very few definite ideas of how the Indian problem should be tackled. Personal ambitions, greed for power, distrust of the civilian authorities and contempt and hatred for the Indians all combined to create more confusion.

With the advent of the army new towns sprang up. The expenditures of the various departments of the army, the Quartermaster, Subsistence and Ordnance created a new market for the rancheros and merchants alike. Then, as now, whenever this golden stream of dollars was threatened by army economy and posts were ordered abandoned, the civilians immediately sent long letters and petitions of protest to the commander of the 9th Military District and to Washington. Alleged Indian uprisings were fomented in the local press and every attempt was made to keep the army dollars in the local tills. Naturally, such machinations of the ranchers and townspeople did not endear those worthies to the harrassed military personnel who had to cope with the flood of red tape and correspondence which each incident inspired.

In the ensuing pages I shall take up the various phases of this conflict and the problems besetting the army in New Mexico.

Any projected interpretation of the story of Fort Union should embody certain basic ideas of the foregoing phases of Southwestern history,

aside from the actual physical details of the post itself and the material culture illustrating military life in and around the garrison.

As I see it, the broader aspects of the story of Fort Union are to be found in:

1. Brief historic background of New Mexico, Spanish-Mexican period, 1539-1846.
2. Indians versus Europeans.
3. New Mexicans vs. U.S. citizens, 1820s-1850s.
4. Opening of the Santa Fe Trail.
5. Occupation of New Mexico, 1846.
6. Establishment of Military Posts in the 9th Military District of New Mexico, 1846-1851.
7. FORT UNION, 1851-1891.

Under the latter division will be given the particular and generic story of the military in New Mexico, with special emphasis upon the post itself, its importance during the four decades of its existence, as well as minutae of army life involving the various military and social aspects of duty at Ft. Union. For the sake of a better understanding of the activities centering in and around Fort Union it seems to me expedient to divide the history of the post into four parts, covering in effect the forty years of its occupation.

This broad coverage will suffice to give the complete story of Fort Union but cannot be said to be exact in all aspects of the interpretative presentation. For example, the changes of uniforms do not fall into such a neat pattern. The dragoon, cavalry, artillery and infantry units which occupied Fort Union from its inception until the abandonment of the post in 1891, while clad in the current uniforms of the day and having regulation

equipments, did not receive their new outfits as readily as did the garrisons of posts located more accessible to the centers of supply in the east. Consequently, the 1840-1850 uniforms carried over into the 1860s without major changes were those worn by the soldiers in the Army of the Potomac during the Civil War. Likewise, although there were certain regulation changes in the 1860s and 1870s, arms, accoutrements and uniforms were not abandoned with the changing decades but overlapped by as much as twenty or more years. It was customary, when new uniforms and equipments, as well as arms, were devised in Washington, that the orders sent to the respective posts usually provided that such new items were to become regulation after such and such a date, with the exception of those posts where a large supply of obsolete equipment was on hand in the Quartermaster stores, in which event, the older material was to be used until exhausted.

One of the most colorful phases of life at Fort Union was from 1861 until 1866. This covered the Civil War excitement and the fort was the centre of military activities, more so perhaps, than during any other period of its existence. This portion of the post's history should occupy a prominent place in the interpretation of Fort Union's background.

After the war, the post more or less subsided into the doldrums. With the menace of the Confederates removed and the Navajo no longer an active problem, the field of military activities shifted from the northern section of New Mexico into the southern part of the Territory and over into Arizona. For the next twenty years Fort Union assumed the role of a supply depot and even that part was weakened as time went on. The records

indicate that the post was an expensive one to maintain, all out of proportion to its importance in the military scheme of things. Less than twenty years after the close of the Civil War, in 1883, it was proposed that the buildings at Fort Union be turned over to the Department of the Interior for use as an Indian school, but even then the structures were deemed inadequate for school purposes. Six years later many of the buildings were in bad condition, unfit for occupation and some of them unused.

In assembling the ensuing report I have intentionally barely sketched in the Spanish-Mexican background of New Mexico, feeling that this subject has been adequately covered elsewhere. It will be noted that more emphasis has been placed upon the Indian vs. Europeans and the opening of New Mexico to U.S. trade and influences (which includes the laying out of the Santa Fe trail) and the occupation of New Mexico by American forces. These latter factors were more directly the reason for the establishment of Fort Union and therefore should receive more detailed treatment.

In discussing the minutia of the more material aspects of life at the fort, I have done so for this reason; mainly because the artifacts recovered are indicative of the life led by the occupants of the post and, moreover, are applicable not only to Fort Union, but to all other military posts in the Southwest and elsewhere.

Little serious study has ever been given to the type of material recovered at Fort Union and Fort Laramie, (the latter post is practically synonymous with Fort Union in period and length of occupation, 1849-1890). The excavations at Fort Vancouver, also a National Monument, at Jamestown and various historic sites in the Missouri River Basin Survey, with subsequent studies of the materials found on those sites, have proved the

value of such work. In those instances the periods represented were different from either Fort Union or Fort Laramie (with the possible exceptions of some of the Missouri River sites).

Many of the items recovered from Fort Union can well be used in the interpretive story of the post. When properly cleaned and mended the various pieces of ironstone ware, the metal work, insignia, buttons, bottles, etc. can more readily be used as three dimensional exhibits and with much greater effect than mere sketches or photographs. Likewise, good surplus objects of like nature can, or should be placed in storage collections, for use of future students or distribution to other areas where such artifacts can be used to good advantage. The hundreds of bottles found in perfect condition at Fort Union are of the common varieties to be sure, but unfortunately no adequate studies have been made of this type of containers hence, any information, however scanty, can be used to good advantage.

In September-October I spent two and one half weeks cleaning and making notes on some of this material. Much more work of this nature needs to be done on the remaining masses of specimens yet to be sorted and classified. I would suggest that a workman be employed in merely cleaning the crockery, bottles, etc. and removing rust from the more solid pieces of iron and steel, leaving the more delicate task of mending the ceramics and cleansing the fragile brass work to more skilled personnel. Such basic work would enable a skilled technician to work much more quickly in assembling the fragments and classifying the bottles.

NEW MEXICO

1539----------1846

New Mexico---1539-1846

These dates mark the beginning of Spanish-Mexican control over the area known as New Mexico and the end of that domination.

Prior to 1539, the vast region north of Mexico was an unexplored mystery. Cabeza de Vaca and his Negro-Moorish companion, Esteban, and two others upon their return to Mexico as the only survivors of the ill-fated Narvaez expedition paved the way for future exploration of Arizona and New Mexico. The wild yarns of Fray Marcos de Niza, who, with the loquacious, and probably more-than-arrogant Estevanico had penetrated New Mexico as far as the Zuni country in 1539, paved the way for subsequent expeditions seeking the mythical Seven Cities of Cibola, the walls of which were plated with silver and studded with turquoise. The Moor fell under the war clubs of the angry Ashiwi (Zuni) and Fray Marcos returned with tales of a marvelous country. As a result of his stories various rivals, Hernando de Soto, Cabeza de Vaca, Hernan Cortes, Diego de Guzman and the Viceroy Don Antonio Mendoza, decided to be the first to reach the promised land, "otro Mexico, otro Peru". The upshot of it was that Mendoza received permission from the Emperor to dispatch an expedition into the unknown terrain now believed to contain untold wealth. A young Spanish adventurer, Francisco Vasquez de Coronado, not quite thirty years of age, was given the coveted plum and on Sunday, February 22, 1540 Don Francisco set out at the head of a rag-tag and bob-tail outfit (in so far as equipment was concerned) headed for New Mexico and fame. With him went 230 men with horses and 62 men who trudged on foot. There were about 1300 Indians from Mexico who voluntarily accompanied the Coronado expedition. A caballada of some 1000 horses and 600 pack animals as well as a herd of cattle and sheep for provender went with the

outfit.

Contrary to the usual popular belief Coronado's men were not all equipped with plate-of-proof nor even good chain mail. Only about ten men had suits of complete armor, there were twenty cross bows, twenty-five harquebuses; seventy men wore the cueras or buckskin jackets. Listed on the "Muster Roll of the Coronado Expedition" were the following miscellany of arms and armor: forty-eight men wore helmets, casques or "native head armor". Some of themen had helmets with beavors or chin-pieces and four soldiers had beavors only. Practically all of Coronado's men were listed as bearing "arms of the country". No explanation is given about this equipment. Since most of the regular arms, such as cross bows, arquebuses, swords and daggers are itemized, I am inclined to believe that these "armas del pais" were the semi-heart-shaped leather shields and lances, possibly bows and arrows. No quilted cotton armor is mentioned and there is also the possibility that this type of protective covering was included in "arms of the country". I mention the equipment of Coronado's men because it was so varied and because these weapons persisted down the years. The lances, leather shields and leather coats were used in New Mexico and on the Spanish-Mexican frontiers until the middle of the 19th century.

Once the Spanish adelantados found the valley of the Rio Grande and the rolling plains to the eastward, one might say that the settlement of New Mexico had fairly begun, and in the seeds of Spanish culture thus planted along the Great River, were the future harvests of political and economical ideas that make New Mexico what it is today.

The contacts with the Pueblo Indians in the drainage basin of the

Rio Grande as well as with the isolated Pueblos of Acoma, Zuni and the Hopi villages were not too favorable. Suspicious Indians and equally suspicious Spaniards were at each others throats before the winter of 1541 was over. However, the intruders from Mexico were there to stay and during the next century and a half the Spanish settlers were firmly established, or thought they were. Then, in 1680, the Indians rebelled and for twelve years New Mexico was again in Indian possession.

In 1692 the Spanish soldiery and clergy returned and again the pueblos felt the weight of Spanish arms. Most of the warlike activities were directed against the puebloan groups but there were side excursions against the Apache and Navajo.

In the years to come, the Navajo as well as the Apache were to be the sharpest thorns in the sides of the New Mexicans. The former claimed as their territories, by right of occupation, the region west of the San Juan Mountains and beyond the Chama River, north to the San Juan River and south almost as far as the Zuni country. Their western boundaries were lost in the mountainous region around Canyon de Chelly. As a matter of fact there were no hard and fast boundaries, all of which complicated matters when the United States entered the picture in 1846.

The advent of the Spaniards also brought sheep, cattle and horses into the cultural pattern of the Navajo and it is estimated that sometime between 1630 and 1700 the Navajo began acquiring their herds of horses and flocks of sheep. Prior to this time they were farmers, growing their little patches of corn and beans and pumpkins in the sheltered canyons beyond the area of active Spanish occupation. When they became acquainted with the horses and sheep, they also became raiders and, as time went on,

they stole not only animals but human slaves as well. Some of these stolen children were adopted into the Navajo clans along with captive Ute, Hopi, Apache and Zuni. By the early 19th century, the stealing of Mexican slaves had become a recognized part of Navajo culture. Similarly, the new Mexicans raided the Navajo whenever they felt that they could fall upon a small Navajo clan with impunity. This slave stealing and marauding by both the Indians and the New Mexicans was one of the greatest problems which the United States acquired with the newly captured Territory in 1846.

As the Rio Grande became more settled it was only natural that commercial intercourse between New Mexico and Old Mexico would be opened. This was done in the most direct manner via the overland route which ran down the Rio Grande into Chihuahua and thence southward. Later another route was laid out from northern Sonora into New Mexico. About the middle of the 18th century venturesome traders out of Santa Fe reached as far north as Ft. Machilimackinac in Lake Huron but never maintained active trade with either the French or the British at that point so far as I know.

Likewise the New Mexicans opened trade with the Comanche Indians on the plains to the eastward and there were skirmishes between the "ciboleros" as the New Mexican traders were known and the Comanche. The Apache Indians also found the outlying New Mexican settlements fairly easy prey. The route south from El Paso del Norte led through Apache country and the ox trains and isolated settlements in that region were subjected to many Apache raids. North of Taos and the settlements of the upper Rio Grande were more Apache and Ute tribesmen. Thus the New Mexicans were in effect confined not only by favorable geographical limitations, but by implacable

enemies as well, to the narrow, fertile strips of farmlands bordering the Rio Grande and its tributaries.

Life in New Mexico was hard. The people literally scrabbled for a living and water was the prime necessity of life. The Spanish settlers bought with them wheat, barley, oats and such fruits as peaches, apricots, apples, pears and pomegranates. They used chile in great quantities as well as beans and corn. Onions were also another great crop. Grapes became the source for good wines and the "Paso wine" as it was known, was famous the length and breadth of New Mexico.

Practically all of the houses of New Mexico were constructed of sun baked adobe bricks. Most of the timber used in the framework of the interior and vigas for the roofs came from the pine forests in the mountains. Although home industries produced ordinary cotton cloth and woolen sarapes and blankets, finer textiles such as silks, satins, linens, etc., had to be imported. In general, the bulk of the population was quite poor. Most of the hard money and largest flocks of sheep and herds of goats, cattle and horses were in the hands of ricos. The latter were also the ruling class and dominated the political scene, along with the clergy of the Catholic church.

Prior to 1800 few citizens of the United States haveever penetrated New Mexico. There was no direct road between the Mississippi river and Santa Fe.

On the maps of the day the area west of the Mississippi is denoted as wide open spaces, dotted here and there by the names of Indian tribes. Scarcely more than - or should I say less than - a century ago, there were no towns of any importance west of the small Missouri hamlets. There

were no main highways, no railroads. The Santa Fe trail was the main thoroughfare connecting the east and west and the only centers of civilization were the scattered fur posts and a few isolated military posts which came into being after the Mexican War.

The first outsiders who penetrated New Mexico from the east and north were trappers or adventurers.

Among these men were French Canadians and men of French descent from St. Louis, as well as Anglo-Saxons, Irish and other nationalities.

One of the earliest Americans to reach New Mexico was James Purcell of Boone County, Missouri. It is said that Purcell left his home in the year 1802 and was trapping and prospecting in South Park, Colorado in 1803. In 1805 he ran out of supplies and had no furs with which to trade with the New Mexicans as he had done in the previous years. Instead he used some placer gold which he had found. This gold excited the cupidity of the Spanish officials in Santa Fe and when Purcell refused to tell where he had found it he was thrown into the calaboso and pressure was put upon him to reveal the source of his nuggets and dust. With characteristic Missouri stubbornness, Purcell refused to tell his inquisitors where he had found the gold--so he remained in jail.

At least such is the story reported in the Rocky Mountain Herald, August 2, 1913. However, this account does not quite jibe with that of Maj. Zebulon Pike, 6th U. S. Infantry, who said that Purcell (or Pursley as he was sometimes called) was "the first American who had ever penetrated the immense wilds of Louisiana". Pike went on to relate that Pursley with two companions had left St. Louis in 1802 on a hunting

expedition westward to the head of the Osage River. After sundry adventures Pursley or Purcell eventually arrived in Santa Fe June, 1805, "and had been following his trade (a carpenter) ever since, at which he had made a great deal of money, except when working for the officers who paid him little or nothing".

Purcell, according to Pike, was-"A man of natural sense, and of undaunted tropidity: and entertained me with numerous anecdotes of his adventures with the Indians and of the jealousy of the Spanish government. He was once nearly being hanged for making a few pounds of powder, which he innocently did, as he was accustomed to do in Kentucky, but which is a capital crime in these provinces. He still retained his gun, which he had with him during his whole tour, and spoke confidently that if he had two hours' start, not all the province could take him. He was forbidden to write, but was assured he should have a passport whenever demanded: he was obliged, however, to give security that he would not leave the country without the permission of the government. I brought letters out for him. He assured me that he had found gold on the head of the Plate (sic), and had carried some of the virgin mineral in his shot pouch for months, but that being in doubt whether he should ever again behold the civilized world, and losing in his mind all the ideal value which mankind have stamped on that metal, he threw his sample away; that he had imprudently mentioned it to the Spaniards, who had frequently solicited him to go and show a detachment of cavalry the place, but conceiving it to be in our territory he had refused, and was fearful that the circumstance might create a great obstacle to his leaving the country". (Exploratory Travels through the Western Territories of North America, etc. "by Zebulon Montgomery Pike, London, 1811. Reprinted W. H. Lawrence & Co. Denver, 1889, pp. 314-316).

New Mexico--1539-1846

James Purcell left New Mexico in 1824 and returned to Missouri, where, according to his cousin, Henry Thomas Galbreath (born Audrain County, Mo., December 13, 1842) Purcell's three sisters, Mary, Cynthia and Martha were living with a younger brother. After his return to Missouri he gave an interview to the editor of the Intelligencer, Franklin, Mo., April 10, 1824, which was reprinted April 26, 1824 in the Missouri Republican. The editor said in part:

> "Since our last we have conversed with Mr. James Purcel, for 19 years a citizen of New Mexico and formerly of Pennsylvania.... Mr. Purcel's long residence there has given him an opportunity of knowing many particulars concerning the Nabijos whom we described last week both by observation and report" (Missouri Intelligencer, Apr. 3, 1824..A.W. for reprint of this and the article on Purcel in full see "A Brief History of Navajo Silversmithing", by Arthur Woodward, Museum of Northern Arizona Bulletin, Flagstaff, 1938.

It will be noted that the editor refers to Purcell as having been originally from Pennsylvania, Pike refers to his home state as Kentucky and his cousin states Purcell went home to Missouri, where he engaged in lead mining in the southwestern part of the state. While working in the mines he fell into a hole and broke the lower bone in one of his legs. Apparently he received inadequate attention and died as a result of the wound.

Although Purcell was probably the first American to make his way into New Mexico, others such as Baptiste Lalande, a native of French Descent born in Illinois, went on a trading venture up the Platte River for William Morrison of Kaskaskia and Philadelphia, in the year 1804. Lalande too made his way into Sta. Fe. where he settled down, appropriating his employer's funds as his own. According to Thwaites (Commerce of the Prairies by Josiah Gregg, 1827, edited by Reuben Gold Thwaites and republished by Arthur H. Clark Co., Cleveland, Ohio, 1905, in the Early Western Travels series, vol. 19, p. 174). "One of Pike's ostensible errands at Santa Fe

was to recover for Morrison's firm from this renegrade trader".

This in effect one might say that Lalande was the first trader from the States to set himself up in business in Sta. Fe. He, however, never returned but continued to live in New Mexico where he was said to have accumulated a fair sized fortune.

The story of Major Zebulon Pike's expedition up the Platte and his subsequent arrest and transportation to Santa Fe and thence onward into Mexico in 1806-1807, is too well known to bear repetition here. In the following section I shall take up more in detail the opening of the Santa Fe trade with the eventual development of the first major overland road into the west.

THE SANTA FE TRAIL
1812-1880

In thus advancing the date beginnings of traffic from the States into New Mexico, from 1812 until 1822, I realize that during the intervening ten years there was no active trade over the trail, but since the first organized company of men did set out from St. Louis with a quantity of goods easily transported on pack animals with the predetermined intention of opening a trade route between the Missouri river and Santa Fe, I feel that there is some justification in establishing the year 1812 as the beginnings of such a trade.

The editor of the St. Louis Enquirer, Wed. May 5, 1819 published an article in his paper under the heading:

AMERICAN CITIZENS IN THE DUNGEONS OF SANTA FE

"In the year 1812 Robert M'Knight, James Baird, Benjamine Shreeve, Alfred Allen, Michael M'Donough, Samuel Chambers, William Mines, Peter Baum,

Thomas Cook and --- Mailie, citizens of the United States set out from St. Louis with an adventure of merchandise to Santa Fee. The articles consisted of light and valuable productions which would be easy to transport and yield a great profit as at Santa Fee they only get goods that are carried from La Vera Cruz to the city of Mexico and thence packed on Mules about 1500 miles to Santa Fee, and that by monopolizers who get what they please to demand. Allured by the prospect of handsome profit alone and without thinking of political objects, the party set out from St. Louis without passports and without other arms than those necessary for their defense against Indians.

They arrived at Santa Fee---were robbed of their property---and distributed among different prisons.

In the year 1813 Mr. Hempstead, delegate in Congress from Missouri laid their case before the Department of State, and demanded the interposition of the American government.

This application seems to have been unattended to by the American government until the 8th day of February, 1817: possibly because in the interim Don Luis de Onis, whose interference alone, would have availed anything, was not acknowledged as Spanish minister, and Joseph Bonaparte's minister who was acknowledged as such, had no power to do anything in Mexico.

On the aforesaid 8th day of Feb. Mr. Monroe addressed a letter to Don Luis in behalf of the prisoners.

On the 13th of the same month Don Luis answered, that he would transmit the application to the viceroy in Mexico, 'with a request that he exert his authority to cause the American citizens to be liberated, provided no sufficient cause of detention appeared against them'.

On the 29th of December following, nothing having been heard in the meantime in favor of the prisoners, Mr. Scott, delegate in Congress from the Missouri territory, addressed Mr. Adams, Secretary of State, a formal note in their behalf.

On the 7th of Jan. following (1818) Mr. Adams forwarded a copy of Mr. Scott's letter to Don Luis de Onis with a request in the name of the President of the United States, that the citizens might be released and furnished with a safe conduct to return to their homes.

On the 12th Don Luis answers that he had not received information to the effect of his application to the viceroy of Mexico, made 13th of Feb. 1817. That he had on that day (12th of Jan.) again addressed the viceroy stating to him that the object of the American citizens in going to Santa Fee being purely and simply commercial, it was hoped that he, the viceroy, would immediately give the orders for their release.

On the 15th of April, 1818, the case of the prisoners and that of Messrs. Choteau and de Mun, robbed by the Spaniards on the Arkansas in 1817

and carried prisoners to Santa Fee was brought before the House of Representatives; by a resolution calling for information on those subjects, and from the Department of State, was communicated the letters and documents above stated.

No particular measure was adopted in Congress in behalf of the prisoners.

In the month of November following, Mr. Scott again applied to the Secretary of State on behalf of the prisoners and received a copy of a letter from Don Luis de Onis dated 26th of June, 1818, with a copy of a letter from Viceroy Apodaca, dated to be made in the case of the prisoners and that the most favorable decision would be given which was compatible with the laws and orders of his soverigns'.

Nothing further has been heard of the prisoners since the date of the viceroy's letter".

The editor of the Enquirer then continued in a patriotic vein, decrying the arrests and asking why so much delay in the release of American citizens and condemning the United States Government for its apathy and political red tape. He also quoted a portion of a letter from de Mun to Governor Clark of Missouri telling of the arrest, imprisonment and subsequent release of Choteau and de Mun.

De Mun stated that he and Choteau were taken into Santa Fe as prisoners, June 1, 1817. They were ordered to appear before the Governor of New Mexico who assumed a very arrogant and threatening manner as he questioned them about their presence in New Mexico. It appeared that these two men had been intercepted near the border and warned to leave the Province of New Mexico. They had then gone over onto the Arkansas river and when they had traveled far enough and believed they were on United States territory had begun a trade using a license which had been issued them by the President of the United States. While thus conducting their business they were arrested by a Spanish patrol.

The Governor threatened to have them shot. They were ironed and placed in separate cells and later taken before a court martial consisting of six men

headed by the Governor. The court did not come to any decision on the first day and the Governor blustered and again threatened them with death. Then, said de Mun:

"Next day we were again placed before the court---. We were led out and Mr. Choteau and myself put into the same room. Half an hour afterwards the Lieutenant (de Arce) came in with the written sentence: we were forced to kneel down and hear it read, forced to kiss it'. To kiss the iniquitous sentence which deprived us of the fruits of two years perils and labor and permitted us to escape on the meanest of horses which belonged to ourselves".

The two men to which reference is made in the foregoing paragraphs were Jules de Mun, born of French parents at Port au Prince, island of Santo Domingo 25 April 1782. The negro uprising caused the de Mun family to seek refuge in less hostile territory in England. In the meantime France itself was in the throes of the Revolution and Jules and his brother who had been sent to France when quite young to complete their education, were forced to flee to England in disguise.

After the death of their father, Jacques de Mun, in England about the turn of the century, the widow remained in that country until about 1808 when she migrated with her family to the United States and made her home at Ste. Genevieve. Young Jules de Mun married Isabel Gratiot in St. Louis, 31 of March, 1812. In September 1815, he and August P. Choteau went on their trapping and trading expedition to the head waters of the Arkansas where they were later taken prisoner and imprisoned in Santa Fe for forty-eight days before being released. Jules de Mun died in St. Louis Aug. 15, 1843.

Auguste Choteau, eldest son of Pierre Choteau by his first wife, Pelagie Kierserau, was born in St. Louis 9 May 1786. In later years he was a graduate of the United States Military Academy at West Point (June 1806). He served for less than a year in the army and resigned. The remainder of

his life, aside from another brief tour of military duty during the War of 1812 and an even briefer venture into politics, was spent in trading and trapping. At the time of his capture by the Spanish soldiers he and de Mun had amassed property to the value of $30,000 which was confiscated by the Spanish officials at Santa Fe. Long after the deaths of both Choteau and de Mun, the Spanish government paid the families a claim for indemnity on this stolen property. Choteau "died at his trading post and plantation at the Grand Saline on the Neosho river about fifty miles from Fort Gibson, in what is now Oklahoma, 25 December 1838".

Biographical notes on these two men are derived from "Three Years Among the Indians and Mexicans" by General Thomas James, .Edited and re-published by Walter B. Douglas, Missouri Historical Society, St. Louis, Mo. 1916, pp. 258-260; 294-295. The original edition of this book was published in 1846 but was suppressed. A third edition edited by Milo Milton Quaife for The Lakeside Press, 1953, does not carry the full biographical annotation made by Judge Walter B. Douglas in the second (1916) edition which is to be regretted.

Apparently the inhospitable treatment accorded the first traders into New Mexico did not dampen their avarice. The published accounts of Major Pike, particularly his section on "Trade, Commerce and Manufacturers", indicated the profits that might be expected in the New Mexico trade. No sooner had the prisoners of 1812 been released early in 1821 (after the Mexican revolution against Spain), than they began organizing pack trains to go once more into New Mexico.

On September 25, 1821 a party of twenty men under Colonel Hugh Glenn, a trader, with Major Jacob Fowler, second in command, set out with a pack train of thirty horses, seventeen of which were loaded with traps and trade goods, from Col. Glenn's trading house on the Verdegris or Vermilion river,

about one mile upstream from the confluence of the Verdegris and the Arkansas. (See The Journal of Jacob Fowler, edited by Dr. Elliott Coues, New York, 1898, pp.3-4-5, et seq.)

Although the expedition was outfitted primarily for taking beaver and trading with the Indians, Col. Glenn with four men left the party, Jan. 2, 1822 to accompany a party of Spaniards whom they had encountered on the road, December 30. Glenn took with him "Some things to Sell so as to pay their Expenscea". (Id. p. 74).

On Jan. 28, 1922 Fowler and his men, after wandering about in southern Colorado and northern New Mexico for nearly three weeks, trapping and trading with the Indians, with indifferent results, were met by one of the men who had accompanied Glenn to Santa Fe, and "some Spaniards". The next day Major Fowler and his group broke camp "Packing up the goods So as to Set out in the morning for the Spanish Settlement agreeable to the advice from Conl glann (sic) We now under Stand that the mackeson (sic Mexican) provence (sic) Has de Clared Independance of the mother Cuntry and is desirous of a traid With the people of the united States Conl glann also advises me that He Has obtained premition (permission) to Hunt to trap and traid In the Spanish provences". (Id.pp. 94-95)

After remaining in New Mexico, in and around Taos, until June 1, 1822, the Fowler-Glenn party took up the march homeward, in company with the long incarcerated James Baird and Robert McKnight with some of their companions, who had finally won their freedom.

The combined outfits reached St. Louis in the forepart of July where McKnight and Baird began making arrangements to return to New Mexico with another pack train loaded with tradegoods.

New Mexico---1539-1846

The St. Louis Enquirer, Sept. 2, 1822 reported:

TRADE TO SANTA FE

"About twenty individuals with sixty pack horses and mules set out from this place last week with an adventure of merchandize to Santa Fe. Messrs. Baird and Chambers who were prisoners in the internal provinces for nearly ten years are of the party. They will go overland passing fort Osage and going nearly west between the waters of the Kanzas and Osage rivers.

After passing the western limit of this state they will see no white settlement or fort, nothing but Indians, until they arrive on the Rio Del Norte. It has long been conjectured that the internal provinces must be supplied with merchandise through the branches of the Mississippi, to wit: By the Red River, the Arkansas, or the Osage river. The Rio del Norte is not navigable below the Passo, that is to say the lower half of it, being choked with sands and it is the only river which drains those provinces. At present they are supplied with merchandize by the way of Vera Cruz and Mexico, which is fifteen hundred miles overland on mules.

The branches of the Mississippi furnish a much shorter and cheaper route, they being navigable nearly to their heads within a few days travel of Santa Fe. This commerce has always been looked to as one of the resources of St. Louis, and the eagerness to engage in it has been so great that the imprisonment of each successive party and the confiscation of their goods, could not deter others adventuring in it under the old government. Since the revolution, four or five parties have gone without molestation, the present being the largest adventure that we have heard of. Malgacos, who commanded the party that took Gen. then Lieut, Pike, is now Governor of New Mexico, and has treated the citizens of the United States who have visited him, with civility".

With the end of Spanish domination in New Mexico, a new era in trade relations began between that territory and the citizens of the United States. During the remainder of the 1820s, the road to Santa Fe became an actuality. Although some pack animals were used, wagons now became the chief means of transportation to and from the New Mexican settlements along the Rio Grande and the growing towns along the Missouri and Mississippi rivers within the boundaries of the United States.

One of the first outfits to take a single wagon over the Santa Fe trail was that commanded by Captain William Becknell. The editor of the Missouri Intelligencer, a staunch advocate for increased trade between Missouri and New Mexico, reported in his paper Feb. 18, 1823 on the dispatch of the first

wagon over the road. He editorialized on the speech made by the Hon. Mr. Floyd in Congress on "The bill for the occupation of the Columbia River."

In his discussion of the bill, the editor took Mr. Floyd to task for a "trifling inaccuracy" relative to the latter's statement on the commerce from Missouri to Santa Fe.

"We are well pleased with the remarks made by this gentleman and confidently hope that the subject of them will be considered in an important light to which it is so justly entitled. There is however a trifling inaccuracy in that part of the speech in which it is stated that a wagoon returned from Santa Fe last summer 'bringing with it the sum of ten thousand dollars', etc. Although we do not doubt that $10,000 or even a much larger sum was brought to this state during last summer from Santa Fe, yet the amount was conveyed upon pack horses, etc., and not in a waggon.

But one waggon has ever gone from this state to Santa Fe, and that was taken by Capt. Wm. Becknell (from the vicinity of this place, and not from St. Louis as stated by Mr. Floyd) in the early part of last spring, and sold there for seven hundred dollars, which cost here $150. This information we obtained from Capt. B. personally, who at the same time mentioned his intention of starting again for Santa Fe next fall with three waggons for the same purpose.

We are promised by Capt. B. that in a few weeks he will furnish us with such information relative to Santa Fe as will be useful and entertaining to our readers".

There is a curious discrepancy in the matter of dates concerningthe passage of this first wagon over the trail. The editor published the foregoing statement in his issue of Feb. 18, 1823, which would indicate that Capt. Becknell has taken only one wagon out in the spring of 1822. Possibly the editor intended to say 1821 but his reference to the "early part of last spring" could only refer to 1822. However, Captain Becknell stated in his account of his trek to Sta. Fe in the spring of 1822, as published in The Missouri Intelligencer, April 22, 1823:

"Having made arrangements to return (i.e. to Sta. Fe,NM) on the 22d day of May 1822, I crossed the Arrow Rock ferry and on the third day our company consisting of 21 men, with three waggons, concentrated".

Thus it would appear that if the editor was correct in his assumption that Becknell had taken only one waggon out over the trail in advance of the three waggons which the latter himself said he took out in May, 1822, then the year in which the first wagon set forth from Missouri was in the spring of 1821. In later years, other authorities,including Gregg (op.cit) said that 1824 marked the beginning of wagon traffic to Santa Fe. However, if the editor made an error in his calculations, and assuming Becknell's statement that he transported three wagons over the trail in the spring of 1822, then it would seem only logical to indicate the year 1822 as marking the first year in which wheeled vehicles rolled west over the Santa Fe trail. Perhaps further research will indicate that Becknell did take a pilot wagon out in 1821. Quien sabe?

However, I am inclined to believe that the year 1822 should be set down as the proper date for the movement of freight by wagons into Santa Fe from Missouri and that Gregg in his statement wherein he said that 1824 marked the "first attempt to introduce wagons in these expeditions", erred by two years.

After Capt. Becknell's initial venture or ventures with wagons, the ever increasing flood of men, pack animals and vehicles began surging out of Missouri "adventuring to Santa Fee". During the years 1823-1825 the editor of the Intelligencer noted every party that trekked west. The first journeys were fraught with dangers from Indians and robbers. Men died singly and in numbers at the hands of the Indians. But even the fear of death and the hardships of the trail did not deter the hardy Missourians

and others from tapping the riches of the newly liberated Spanish territory.

Said the editor of the Intelligencer, June 11, 1825:

"In the exploring of all new countries, difficulties and dangers must necessarily be the consequence; but these are soon removed with the advantages of commerce and gain invite to the undertaking large numbers, and when the Government lends her protection. We look to this matter with confident expectation that when the trade is properly organized our country will realize great advantages from it, and our follow citizens reap a hundred fold the reward of their labors.

Such is the facility with which the country between this and New Mexico may be passed that a single traveller left this place on Tuesday, for Santa Fe which journey he will be enabled to accomplish in thirty days--the time occupied in going from Franklin to Philadelphia".

Indians along the route between Missouri and Santa Fe constituted the greatest menace tothe new born infant of International commerce. The Pawnee particularly irritated the New Mexican officials by their persistent attacks upon the west bound caravans. Accordingly, Governor Bartolomeo Baca sent a letter from Santa Fe, Feb. 21, 1824 to Benjamin O'Fallon, U.S. Agent of Indian Affairs asking that a meeting be held with the Pawnee, Mexicans and Americans to conclude a treaty of peace. The Commissioners of the New Mexican government arrived at Council Bluffs safely under the protection of the American flag and a peace treaty was negotiated between the Mexicans in Santa Fe and the Pawnee tribe. Said the Intelligencer: "The Commissioners were highly delighted at the attention paid by our Government to the request of their Governor, and left Council Bluffs (26 in number) on the 11th ult. for their native home. They can nowmake the long trip in peace".

Capt. Becknell in relating the adventures of his expeditions of 1821 and 1822, stated at the end of his second trip:

"An excellent road may be made from Fort Osage to Santa Fe. Few places would require much labor to render them passable; and a road might be so laid out as not to run more than thirty miles over the mountains". (Missouri Intelligencer, Apr. 22, 1825).

New Mexico---1539-1846

Although the first adventurers over the trail had described their various routes, Capt. Beckness with his wagons was the first to indicate that the trail might be made into a full-fledged highway.

In the following year Senator Thomas Hart Benton, recognizing the ever growing trade between Missouri and New Mexico, set to work stirring up the Missourians to demand the establishment of a regular road over which the wagons and pack trains might find their way from the western settlements of Missouri to the mud and rock hamlets in the valley of the Rio Grande. By 1825 Senator Benton and his political colleagues, Rep. John Scott of Missouri, Governor Alexander McNair of Missouri, as well as others, interested in seeing the project of a road to Santa Fe completed, were ready to bring their ideas into fulfillment.

On January 3, 1825, Senator Benton pressed the laying out of the road with all the rhetorics at his command. A bill was presented authorizing the President to cause a road to be marked out from the frontier of Missouri to the boundary of Mexico. ("The Road to Santa Fe",by Kate L. Gregg, Albuquerque, 1952, pp. 1-7). On March 3, President Monroe signed the bill making it a law. This bill provided for the sum of $10,000 for surveying the route and $20,000 for treating with the various Indian tribes for a right of way through their lands.

March 16, President Adams appointed three men, Benjamin H. Reeves of Howard County, Missouri; Pierre Menard of Kaskaskia, Illinois and George C. Sibley of Fort Osage,Missouri, as commissioners empowered to lay out the Santa Fe road.

Of these three men Menard and Sibley were the most qualified for the work. Reeves was a politician, Menard (who later resigned) had been engaged

in Indian trade for years, and in his place was appointed Thomas Mather, likewise a politician, and not equal in capability for such a task as Menard.

Sibley took the initiative in the work of making the Santa Fe trail become a reality. He wrote the history of the project and saw the task through a completion. He came from a long line of "doers". All of the Sibley family seem to have been active in politics, finance, manufacturing and the army since the early part of the 17th century.

George Champlin Sibley was born April 1, 1782. He received a good education and was well grounded in business. He entered government service in 1805 as assistant factor in the Indian trading post at Fort Bellefontaine, eight miles from St. Louis and continued in that business until 1822. Hence, he knew the importance of the need for a good road between the American frontier and the Spanish possessions to the west.

One of the foremost surveyors in Missouri, Joseph Cromwell Brown, was selected to aid in this great task. He had already worked on important frontier surveys. In 1816 he laid out the Osage Indian line from Fort Osage to the Arkansas River. In 1820 he completed the first survey of the incorporated limits of St. Louis. He had held various public offices in St. Louis county and city such as deputy sheriff, sheriff and collector of revenue. At the time he was appointed by the Commissioners to survey the road to Santa Fe he had just been elected as a member of the upper house in Missouri. There were two hundred applicants for the job of making the Santa Fe survey but Brown was considered the most eligible of the lot.

Another man selected for the job was Archibald Gamble, Virginia born secretary of the Commissioners, who entered Missouri around 1815 and who

was a close friend of the Sibley family.

Other names famous in the history of the west are to be found on the rolls of the first surveying party headed out from Missouri to New Mexico. The pilot of the expedition was Stephen Cooper who had been "adventuring to Santa Fee" several times. William Shirley Williams, the now almost legendary "Old Bill" Williams, the lone wolf trapper made famous by Frederick Ruxton and countless other authors since Ruxton's time, was the interpreter. Joseph Reddeford Walker who continued to follow the unknown trails threading the western wilderness until he died, was hunter and chainman on the trek while his brother Joel and another Walker by the name of John, who may also have been a brother, were on the roster. Then there were two Carson boys, Andrew Carson, half brother of Kit, and Robert, full brother, also went with Sibley on this expedition.

"Old Ben Jones" who had been trapping in the mountains since 1808 and who had been one of the Kentuckian hunters to accompany the Astorians overland to the Pacific and back again, 1810-1811, was yet another veteran mountain man who helped blaze the way to Santa Fe with the Sibley party.

The jump off from Ft. Osage took place on July 17th, 1825. The baggage was carried in seven light wagons, painted - as was customary at that time - a sky blue on the body and probably red wheels and under gear. These were not the heavy "Conestogas" of Pennsylvania but good strong two and four horse vehicles. One was secondhand, the others were new. The total strength of the party was forty persons, all carefully selected for their knowledge of the country and the Indians as well as their stamina and marksmanship with the long rifles. There were also fifty-seven mules and horses and an ample supply of provisions, ammunition and tools.

Surveying as they went the expedition started up the country from Fort Osage and roughly paralleled the Kansas River, diverging to the southwest and crossing numerous small tributaries of the Osage and Neosho Rivers. At a point 267 miles from Ft. Osage the proposed road struck the Arkansas River and followed along the north bank as far as Choteau's Island. At the latter point the road went straight south for a distance of forty miles, struck the north bank of the Cimarron River and thence in a south-westerly direction along the stream for a distance of over eighty miles, crossing the river near Upper Cimarron Spring and angled southwest to the Canadian River, at which point the Brown map indicated that the route divided, the mule path heading west to Taos along the south bank of the Cimarron branch of the Canadian while the possible route for the wagons diverged still further south-west to the Ocate River thence angling northwest to Taos and the upper Rio Grande.

This, in a few words, is a rough approximation of the first regularly surveyed route to Santa Fe. A detailed account of this route would entail a volume or more. There were, in fact, several Santa Fe trails. Mr. Kenyon Riddle, in his "Records and Maps of the Old Santa Fe Trail", Raton, New Mexico, 1949, shows the various routes known as the "Santa Fe Trail" on a series of maps. Likewise, Dr. Margaret Long in her excellent book, "The Santa Fe Trail", Denver, 1954, gives a resume of the various branches of the Trail and a detailed mileage account of her expeditions over the old road.

Dr. Long, in her account, states that the Trail began at Franklin on the Missouri River in 1821. Later the eastern terminus shifted westward,

upstream, first to Independence then to Westport (now incorporated within the city limits of Kansas City, Missouri). The Trail struck the Arkansas River a few miles east of the city of Great Bend, Kansas. In western Kansas the road divided into the mountain and the Cimarron branches.

The Mountain or Bent's Fort Branch antedated the Cimarron Cutoff and became the main route again after the Cimarron Trail fell into disuse. The Mountain Branch went on up the Arkansas to La Junta, Colorado, turned southwest up Timpas Creek, crossed a divide into Trinidad on the Purgatoire (the famous Picketwire River) and thence entered New Mexico via Raton Pass. These two branches reunited at Tiptonville on the Mora River between Fort Union and Watrous, en route to Santa Fe.

The Cimarron Branch was a hundred miles shorter than the trail through Raton Pass but was more dangerous because of lack of good water. The trail from the middle Cimarron Crossing was shorter than the Upper Cimarron Crossing and was therefore used more than the upper crossing trail.

From Las Vegas south the old trail, in a measure, followed the modern Highway U.S. 84-85, now meandering off to the east, now crossing the highway and paralleling it on the west and in places merging with the present day road. The old trail passed south of the Pecos Ruins between the ancient pueblo and Highway 84-85 and in La Glorieta and Apache Canon the two highways merge. At San Sebastian the old trail again swings north of Highway 85 and 285 and enters Sta. Fe from the southeast.

During the early days of freighting over the Trail attacks by Indians on the freight trains were of common occurrence and as the importance of the trade increased, there was considerable agitation in Congress, mainly on the part of Senator Benton to secure military protection for the traders.

The deaths of three men, Daniel Monroe, John Means and another young man (first name unknown) McNees, en route to Independence with a wagon train from Santa Fe, in September, 1828, was the fuse that fired the powder keg of indignation. The Comanche were apparently responsible for the deaths of these three men and the harassment of other caravans along the Trail.

One of these, a small party consisting of thirty men captained by John Means, and four wagons in which they were transporting a considerable amount of silver, was forced to bury their treasure on Choteau Island. The wagons were abandoned and the men esceped to the Missouri settlements after a long and dangerous journey.

Public sentiment was aroused when the starved refugees reached Independence.

Governor John Miller of Missouri stated that the Federal Government should protect the inland commerce against Indian marauders as well as it protected maritime commerce against pirates. He called for the establishment of a post on the Arkansas but General Jacob Brown said it wasn't feasible. Five hundred miles from the next nearest post or settlement posed too great a transportation problem and a fixed garrison was of no use against lightly clad and extremely mobile Indian horsemen. It would require two troops of dragoons and two companies of infantry to do the job, and this would be too expensive. So Congress did nothing. However, the men in the Missouri legislature were aroused. They forwarded a memorial to the United States Senate and a committee headed by Senator Thomas H. Benton became busy. A bill was presented to the floor: "To provide for the better defence of the Western Frontier of the United States,

and for the better security of the inland trade with Mexico".

(See Young, Otis, The First Military Escort on the Santa Fe Trail, 1829. The Arthur H. Clark Co., Glendale, Calif. 1952). Also consult Perrine, Fred S. Military Escorts on the Santa Fe Trail, The New Mexico Historical Review, Vol. III, No. 3, July, 1928 and an earlier article by same author, same title, Pt. I, v. II, No. 2, 1927.

After some delay the Benton committee bill was approved and President Andrew Jackson was authorized to send four companies of mounted infantry to the far western frontier for protection of the traders on the Santa Fe Trail. Jackson in turn ordered Major General Alexander Macomb to get moving. Macomb then ordered out four companies of the Sixth Infantry from Jefferson Barracks on the outskirts of St. Louis to proceed upstream to the Eastern Missouri terminus of the Trail. Thence the troops were to march as escort to the boundary of New Mexico and await the return of the traders at the upper Arkansas Crossing.

The troops arrived at Cantonment Leavenworth May 15, 1829 and on June 4th the battalion, with its wagons, marched out of camp enroute for Round Grove, some sixty three miles distant, the point of rendezvous with the traders' caravan bound for Santa Fe.

The commander of this first detachment of military guards was Captain and Brevet Major Bennet Riley who had been in the army since 1813. Under him were eleven junior officers, including Lt. Philip St. George Cooke, who kept the official journal of the expedition and who, in later years was to see much distinguished service on the western frontier. There were some two hundred privates and non-commissioned officers.

The caravan of traders moving west under this protective shield was a relatively small outfit and consisted of about sixty men and thirty-six or thirty-seven wagons. The captain of the train was Charles Bent, long a

trader in the west.

The combined outfits moved slowly onward. As summer advanced the heat became oppressive. The flies plagued men and animals alike. Heavy rainstorms made progress almost impossible in places.

On the morning of July 10, the traders crossed the Arkansas at the Upper Crossing, some two miles below Choteau's Island. This was the point of separation of the two outfits. However, on the following day word came back to the military that Indians had attacked the wagon train and Major Riley ordered troops in pursuit of the raiders. One man, Samuel Craig Lamme, the largest owner in the caravan had been surprised and slain.

The expedition was now within the limits of Mexican territory and Major Riley, having no authority to proceed further on alien soil made preparations to retrace the steps of the command to the north bank of the Arkansas. A few of the more timid of the traders tried to persuade the major to send a detachment with the wagons to Sta. Fe but to no avail.

The troops encamped at the Upper Crossing to await the return of the traders in the fall. During August the tedium of camp life was enlivened by a skirmish with the Indians. The remainder of the time was spent marching and counter marching along the river, breaking camp at intervals to get better water, or grass, or to escape the stench of butchered buffalo used as provender for the men. By the first of October provisions began to get low and on the morning of October 11, just as the detachment was making ready to begin the return march, there having been no news of the returning traders, a number of mounted men were seen approaching the troops. These horsemen were the advance

party of the long overdue Missourians.

The army halted and awaited the arrival of the caravan which came into camp on the afternoon of October 12th. With the traders was an escort of some two hundred Mexican troops and Taos Indian militiamen under the command of Colonel Jose Antonio Viscarra. He stated that had the U. S. forces not been at the Arkansas River, he had planned to escort the traders beyond danger into United States territory. On the morning of October 14, after an interchange of hospitality between the two commands, the Mexicans turned back and the caravan, once more under the protection of Major Riley's escort, moved out eastward. On October 25th the traders began to leave in small detachments on their own and the troops returned to Cantonment Leavenworth, which they reached on the evening of November 8th. Thus ended the first experiment of sending a traders' wagon train to Santa Fe under military escort.

The opportunities to make fortunes in New Mexico and further south, Mexico itself, appeared boundless to the traders of Missouri. Nor was it entirely one-sided. The people of the Rio Grande Valley suddenly found new vistas opening before them in the arrival of the yearly caravans of white topped wagons which came laden with all sorts of goods hitherto virtually unobtainable. The Spanish (later the Mexican government) officials likewise found the exorbitant duties imposed upon the goods a satisfactory source of new income, both to the governmental tills and their own pockets.

By 1825 much of the ready silver had been drained off but there remained the products of the country and livestock to be had, while those merchants willing to trek on beyond Santa Fe into Chihuahua and Sonora could still reap valuable harvests.

An unknown writer, "a highly respectable and intelligent gentleman, now in New Mexico", wrote home to a friend giving him a brief appraisal of conditions as he found them. This letter was published in the Intelligencer, November 4, 1825:

Santa Fe, Aug. 25, 1825

"Dear Sir:---Before I left Franklin I promised on my arrival at this place to give you an account of the state of the trade in this country. From my own observations, and conversations which I have held with a number of individuals, some of whom have been trading throughout all the upper provinces of New Mexico I think I shall be able to draw a pretty correct picture of the present state of commerce in this and the neighboring states.

The importations this year have been so great, the market for goods is completely overstocked. Many who brought but few goods, and who left families behind, have been compelled to sell; some at a loss and others for about enough to save themselves. In this way the trade for cash has been ruined.

Every village is crowded with goods, and it would be difficult to find a place within 300 miles where any more could be sold. There is a large amount still in Santa Fe, & the owners are completely at loss how to act. The little cash that was in the country has been expended, and to think of bartering althogether for mules, at high rates, they cannot.

In Sonora, goods may yet be disposed of on pretty good terms for mules; but the great fatigue and the still greater hazard attending a traffick of that kind, deter many from engaging in it. Several persons, however, have left for that Province, and necessity, I expect, will compel others to follow them. There is no cash in the country except in the hands of a few individuals who are already supplied with more goods than they can consume in two years.

The great mass of the people are extremely poor, except here and there a nine pence which they get from our traders, they have not the handling of a farthing from one year's end to the other.

The sales that they have been effecting this year have been principally at wholesale; and I think hazard nothing in saying, that more than two thirds of the amount imported still remain to be distributed throughout the country. How long it will take to sell fifty or sixty thousand dollars worth to a people who have nothing to buy with, is a calculation rather too nice for me to make. It is reasonable, however, to suppose that it will take some time.

Goods are entered at the custom-house without any regard to their invoice prices. They are valued at from 10 to 150 per cent, above the cost, and pay on that valuation a duty of 22 per cent. which on a common

(Letter quoted from the Intelligencer, Nov. 4, 1825, cont'd.)

assortment amounts to about 35 per cent. on the actual cost; and yet several sales have been made here at 50 per cent. advance, the vender paying the duty.

Those who are acquainted with the country, and can speak the language, may possibly keep up a small trade for two or three years longer, but new adventurers generally must suffer.

On the whole, it appears that there is but little prospect of a successful trade being kept up between the United States and this Province, except on a very limited scale indeed. The country has but few resources, and the people in general are too indolent to call even those few to their aid. They are very poor but very contented".

Even Captain Wm. Becknell, the pioneer of the wagon trade found conditions less cheerful in 1825 than he had three years earlier. He wrote of a trip he had made into New Mexico, during which time he had gone on a trapping expedition to the Green River, several hundred miles from Santa Fe. The account was published under the title "Capt. Becknell's Tour", in the Missouri Intelligencer, June 25, 1825, and his comment on the trade at that time was:

"The trade to this province has been greatly injured by the reduction of prices---white domestics are fifty cents per yard. An export duty of three per cent. is collected on all specie brought out of the province in this direction. Although my essays have been unfortunate speculations, I am disposed to make another experiment."

In his account of his earlier expeditions, which were printed in the Missouri Intelligencer, Apr. 22, 1823, Becknell had advised the transportation of trade goods of a good quality:

"Those who visit that country for the purpose of vending merchandise will do well to take goods of excellent quality and unfaded colors.---An idea prevails among the people there, which certainly is a very just one, that the goods hitherto imported into their country, were the remains of an old stock & sometimes damaged.

A very great advance is obtained on goods, and the trade very profitable; money and mules are plenty, and they do not hesitate to pay the

"prices demanded for an article if it suits their purposes or their fancy.

The administration of their government, although its form is changed, is still very arbitrary, and the influence which monarchy had on the minds and manners of the people still remains, which is displayed by the servility of the lower orders to the wealthy."

The trend toward a glutted market had been noted by the editor of the Intelligencer, June 18, 1825, who constantly reported every scrap of information he could obtain on the trade with New Mexico and he berated traders from states other than Missouri for horning in on the profits which he deemed should fall into the hands of the local people. He said:

"Our own citizens were the first to explore the route and find the market, and, in our opinion ought to reap the advantages resulting from the discovery. We have generally stated plain matters of fact, in regard to this trade, abstaining from all unnecessary embellishment or exaggeration, which could only have the tendency to attract the attention of other states and induce large bodies to engage in it, to the injury of our own citizens, and to the annihilation of the commerce itself by glutting the market.

Already has a large party left Tennessee, and another from Alabama, (the latter taking $80,000 worth of merchandise) and but a few days since, a gentleman from Boston, an agent of an extensive commercial concern, passed through this place, on his way to New Mexico, for the purpose of ascertaining the real situation of the market, and if favorable, to engage in the business extensively. That country cannot support the trade to the extent it is now carried on. Missouri alone can supply that country with twice the amount of goods it has means to purchase. Our position enables us to carry on the traffic to the greater advantage than any other state in the Union."

The Mexican Government in July, 1824, imposed a tax on many imports from the United States and issued a list of articles which were prohibited to be imported into New Mexico. A glance at this list seemingly indicates that it is in the nature of a protection for home manufactures in Mexico and her outlying provinces. The information was contained in an article which appeared in the Intelligencer, August 26, 1825.

New Mexico---1539-1846

"We have been politely favored by Mr. M. M. Marmaduke who has lately returned from New Mexico with a list of articles prohibited by the state law of the Mexican Congress which will be found below."

This list, which had been obtained in Mexico by Santiago Smith Wilcocks, in the U. S. Consulate in Mexico City, was enclosed in a letter written by Wilcocks, Feb. 8, 1825 addressed to Messrs. M'Clure and Marmaduke at Santa Fe. Wilcocks noted:

"In July last, the established duty of 25 per cent and $2\frac{1}{2}$ per cent. consulado, the municipal charges which amounted to about half per cent. more, making in the whole 28 per cent."

Since this list seems to contain a cross section of theitems used in the every day life of the New Mexicans during the early 19th century, I have deemed it of interest to present the bulk of the items listed:

Spirits of cane or of the grape
Onions, pepper or red pepper
Starch, common white beans, pease,
Anise, cumin, alcarrovea
Rice, coffee, barley, wax (worked)
Artichokes, all garden plants, etc.
Sugar and canamolasses
Salted or dried meat, peas, beans
Chocolate, biscuit; chick pea
Apples, grapes and other fruit not dried
Barley, wheat, corn and rye
Hard and soft soap; common salt
Bacon or bears' hams
Oranges and limes
Tallow, green or cured
Raw cotton, boots, ruffled shirts
Drawers worn under breeches
Ribbon or tape; cords of all kinds
Tapestry hangings for rooms or beds
Curtains for windows or beds
Linen bags, as sacks, etc.
Aprons made up; petticoats for women
Gloves of all kinds for men and women
Pointing or edging for shirt, no bands
Clothes made up of all description
Robes, sheets for beds, coverlets, etc.
Breeches of all kinds made
Short cloaks for women
Large, wide coats of all kinds

Table cloths or carpets; coats for men
Waist coats of all kinds; sword belts
Girths for saddles, etc.
A kind of cloth worn by monks
All kinds of broadcloth except superfine
A sort of a blanket covering for beds
Dressed deer and goat skins of all colors and descriptions
Dressed skins of buffalo, horses or cattle
Dressed sheep and tanned cattle skins
Dressed lamb or kid skins
Boots and half boots for men and women
Upper leathers of all kinds for boots
Hats made of leather——sole leather
Saddle bags, parchments
Shoes of all descriptions
Earthenware, bricks and tile
Water jars of all descriptions, etc.

Once the wagon trade to Santa Fe had been established and the trail made plain, each year saw hundreds of wagons and thousands of dollars worth of merchandise headed west out of Independence, Missouri.

In the beginning, according to Josiah Gregg, the vehicles used were drawn by four to eight horses or oxen. Mules were occasionally used in the first years of the trade, but were not as plentiful as horses or oxen. The latter animals were favored because they could pull heavier loads than mules but had several other points not so favorable. For one thing they became sore footed and few of the thousands of travelers who used oxen crossing the plains knew how to shoe them properly. Rawhide shoes were used but these wore through if the weather was wet. Likewise, if the grass became scarce, the oxen fell off in flesh and reached Santa Fe in deplorable condition. Sometimes they were salvaged and made strong enough for the return trip, but generally they were sold for low prices in New Mexico and were either replaced by fresh ones or with mules. The mules cost more but in the long run proved less of a loss than the oxen.

In the matter of wagons used on the trail there were also differences in opinion as to the best vehicles to be used. One reads in fiction of the "Conestoga" wagons rolling over the trail. However, I am inclined to believe that few, if any, of the heavy Conestogas ever lumbered as far as Santa Fe. Those Pennsylvania built vehicles were constructed for the hill country and their boat shaped beds were made, not for the popularly conceived idea of being converted into boats to cross the rivers, but to prevent cargo shifting on the steep pulls.

Many of the wagons used in the west were made in Pittsburgh during the first decades of the 19th century, but these were modified versions of the Conestoga. The bodies had a slight curve to them, but the overall weight of the bed and the size of the wheels varied considerably.

Mr. H. K. Landis, an authority on the Conestoga wagon, commenting upon the differences between that vehicle and those used elsewhere - in the book "The Conestoga Six-Horse Bell Teams of Eastern Pennsylvania" by John Omwake, Cincinnati, 1930, p. 73, states that:

"The Civil War covered wagons, the covered wagons and carts of the South and the prairie schooner were all built with a straight box-like body instead of the curved boat-shaped one of the true Conestoga, whose bottom was also curved crosswise".

Josiah Gregg, a recognized authority on the Santa Fe trade, writing in 1844, said:

"The wagons now most in use upon the Prairies are manufactured in Pittsburg; and are usually drawn by eight mules or the same number of oxen. Of late years, however, I have seen much larger vehicles employed, with ten or twelve mules harnessed to each, and a cargo of goods of about five thousand pounds in weight. At an early period the horse was more frequently in use, as mules were not found in great abundance; but as soon as the means

"for procuring these animals increased, the horse was gradually and finally discarded, except occasionally for riding and the chase.

Oxen having been employed by Major Riley for the baggage wagons of the escort which was furnished the caravan of 1829, they were found, to the surprise of the traders, to perform almost equal to the mules. Since that time, upon an average about half the wagon s in these expeditions have been drawn by oxen." (Gregg, Josiah, Commerce of the Prairies, etc. 2, vols. N.Y. 1844, vol. 1, p. 190).

The majority of the wagon makers who supplied the vehicles for the western trade were of German ancestry. The contracts of the Civil War days between the government and the wagon manufacturers indicate this fact. Of these I shall speak later.

According to J. Evarts Greene in his article, "The Santa Fe Trade, Its Route and Character", Journal of the United States Cavalry Association, Sept. 1897:

"The first wagons used were made in Pittsburg. Those used later were built by Murphy of St. Louis and were known as 'the Murphy wagons'. They were large and heavy, each carrying a load of six thousand or seven thousand pounds and drawn by six yoke of oxen or ten or twelve mules. The oxen were bred in Missouri, the mules in New Mexico.

"The drivers of the wagons owned by the New Mexican traders were usually Mexican Indians, those of the Missouri traders or of freighters, who supplied teams and drivers and transported merchandise at the rate of twelve or fifteen cents a pound, were usually 'American' in the restricted sense in which that word was used on the frontier, or sometimes Shawnee or Delaware Indians.

The most peculiar part of their equipment was the formidable whip, its stock a good-sized, tough ash or pecan sapling nearly ten feet long, with a lash somewhat shorter, but fully two inches in diameter, ending in a buckskin thong. To wield this tremendous implement required all the strength of a man's loins. The driver did not flog his beasts with it, but cracked it with a heavy flourish and a smart jerk. You would hear a sound like a pistol shot, and see a little mist of hair and blood start where the cruel thong had cut like a bullet."

(These whips, in the slang of the border, were known as "Missouri pistols".)

"The usual day's drive was from fifteen to twenty miles. At the appointed stopping place the wagons were driven up in such order as to form a square or enclosed space or corral, an entrance to which could be closed

by stretching chains across it. At halting, often early in the afternoon, the cattle were watered and turned out to graze under the charge of the herders. At night they were driven into the corral and the entrance was closed. In the early morning for some hours before starting they were turned loose again to graze. The men camped for the night outside the corral, but retreated to it for defense in case of a formidable attack by Indians*.

Following the general rule of wagon painting at this time the vehicles of the overland traders were painted in two distinct colors. The bodies were a light blue while the wheels and all undergear were a bright red. Later during the 19th century the bodies for farm wagons were usually painted green but the red colored running gear was still retained. Even the army wagons were painted in the same blue and red fashion.

Surmounting the squared, high box of the wagon was a white, stout Osnaburg or canvas cover stretched over a series of arched hickory bows, varying in number according to the size of the wagon. Some of the smaller wagons had five, others seven and the largest used as many as nine or ten bows. All parts of the wagon were made of well seasoned wood. The timber used was of the lightest but toughest wood that could be obtained and each wooden part of the wagon was constructed of the timber best suited for stress and strain to be put upon it.

General Marcy in commenting upon the wagons most suitable for prairie travel said:

*Wagons should be of the simplest possible construction---strong, light, and made of well seasoned timber, especially the wheels, as the atmosphere in the elevated and arid region over which they have to pass, is so exceedingly dry during the summer months, that, unless the wood-work is thoroughly seasoned, they will require constant repairs to prevent them from falling to pieces.

"Wheels made of the bois-d'arc, or Osage orangewood, are the best for the plains, as they shrink but little, and seldom want repairing. As, however, this wood is not easily procured in the Northern States, white oak answers a very good purpose if well seasoned". (Marcy, Randolph B. Capt., The Prairie Traveler, N.Y. 1859, pp. 26-27).

Unless the wheels were kept tight, the shrinkage caused the felloes or "fellies" as the old plainsmen called them, i.e. the individual short curved sections composing the rim of the wheel itself, to loosen and fall out. This in turn weakened the entire wheel and a crash followed. Any felloes that showed signs of shrinking had to be tightened and on the road this was done by removing the wheel and submerging it in the nearest stream or water hole, or the wagon was driven into a creek and allowed to stand for a few hours. The wood swelled and the wheel tightened.

The size of the wheels and the width of the iron tires were also factors in overland transportation. Narrow tires facilitated movement over the road. The ordinary farm wagons had tires with treads four to four and a half inches in width. Road wagons were three inches or less.

To enumerate all of the fine points of wagon building would be the equivalent of writing a complete volume on the subject. Wagon making in its way was as precise and as highly specialized a craft as the manufacture of automobiles is today. George Sturt, in his book "The Wheelwright's Shop", Great Britain, 1923, delineates the art of wagon making as no other author has done. The ancestors of the wagons that carried goods to Santa Fe, namely the various types of "waggons" and carts made in Europe and Great Britain from medieval times onward, embodied many of the features retained in the American descendants of those vehicles in the 19th and 20th centuries. The item, "Sleds, Carts and Waggons" by Cyril Fox in Antiquity, June 1931.

New Mexico---1539-1846

Much has been written about the "prairie schooner" of the western American plains. One author, C. M. Edgar whose article "The Great Overland Trade With New Mexico", appeared in the St. Louis Republican, (n.a) and was reprinted in The Sacramento Daily Union, Oct. 30, 1860, presents a very vivid picture of a wagon train en route to Santa Fe:

"Every Spring, as soon as the stagnation of the winter is fairly superseded by the animating influences of the warm season, 'mighty fleets of prairie schooners', or, to use a less figurative language, numerous freight trains propelled by all kinds of quadrupeds, issue from the various ports or border towns in which they harbored during the Winter months, and steer across the 'grassy ocean' in their slow, steady way. The various overland routes then become fairly covered with seemingly endless caravans of men, vehicles, and animals. Articles of trade of every description representing millions of dollars in value and weighing tens of thousands of tons, are then being transported to all the settled portions of the far West---to no other region, however, more extensively than to the Anglo-American possessions acquired by from Mexico.....

The trains reveal their approach at a great distance. Long before getting within sight, especially where the wind carries the sound in the right direction, the jarring and creaking of the wagons, the 'gee ho' and 'ho haw' of the drivers and the reverberations of the whips announce it in most unmistakable manner.

The traveler coming nearer, the train will, by degrees, rise into sight, just as ships at sea appear to emerge from below the horizon. The wagons being all in view, the train when seen a few miles off, from the shining white of the covers, and the hull like appearance of the bodies of the wagons, truly looks like a fleet sailing with canvas all spread, over a seeming sea. A further advance will bring one up with the train master who always keeps a mile or so ahead, in order to learn the condition of the road, leaving the immediate charge of the train to his assistant.

On coming up with the caravan itself, one will pass from twenty-five to seventy-five high boxed, heavy wheeled wagons covered with double sheets of canvas, loaded with from fifty to sixty-five hundred pounds of freight and drawn by from five to six yoke oxen, or five span of mules each. One driver for every wagon is attached to the train. From four to ten extra hands also accompany it to fill possible vacancies. One or more mess wagons, under the superintendence of cooks, likewise form part of the cortege---the whole being under the supreme command of the wagon master and his assistant. As to cooks, the crews of the prairie fleets, after having traveled on the Plains a week or two, outshine the deck hands of our steamboats altogether.

"When 'under sail' the prairie schooners usually keep about thirty yards apart from each other, and as each of them, with its animate propelling power, has a length of eighty or ninety feet, a large train requires often nearly an hour to pass a given point.

The time occupied in making the transit comprises from forty to sixty days, in accordance with the good or bad luck encountered upon the trip, and the respective distances to several points of destination. Stampedes of the cattle by Indians and otherwise, breakdowns, badroads, scarcity of grass, etc, etc, frequently cause delays. The average time made does not, however, exceed fifty days.

Having arrived at the end of their journey and discharged their cargo, the trains start immediately on their return trip. The back freight does hardly ever amount to full loads, and hence much better time is made in coming in than going out. Most of the trains manage to reach the Missouri line in the course of the month of August. After a few days rest the trains are made ready for the second trip. The scenes that accompanied the first outfitting and starting are, of course, re-enacted with one variation, viz: rousing sprees on the part of the teamsters, who receive their dues as soon as they land from their first journey, and like sailors that are paid off on reaching the harbor after a long cruise, never stop until the last cent of their earnings is gone.

Having accomplished the second trip, most trains go into winter quarters in New Mexico. A few, however, return to winter in eastern Kansas or eastern Missouri".

In spite of the ban on cotton textiles and the high <u>derechos de arancel</u> or custom duties imposed by Mexico upon all such imports, which, according to Gregg, were extremely oppressive, being about one hundred percent upon the cost in the United States, the early cargoes carried in the caravans consisted largely of such goods.

The principal items of trade as described by Gregg in the 1830s were "a fair variety of dry goods, silks, hardware, etc., is to be found in this market, domestic cottons, both bleached and brown, constitute the great staple of which nearly equal quantities ought to enter into a 'Santa Fe assortment'.

"The demand for these goods is such that at least one half of our stocks of merchandise is made up of them. However, although they afford a greater nominal per centum than many other articles, the profits are reduced by their freight and heavy duty. In all the Southern markets, where they enter into competion, there is a decided preference given to the American manufactures over the British, as the former are more heavy and durable. The demand for calicoes is also considerable, but this kind of goods affords much less profit. The quantity in an assortment should be about equal to half that of domestics (i.e. plain bleached or unbleached cotton cloth, so called to distinguish the home manufactured goods from imported textiles AW). Cotton velvets, and drillings (derived from the German drillich from drei, three, a 3 cord fabric. It was a twilled material of either linen, or cotton, very stout and used for waist linings, underwear, summer trousers, pockets, etc., found in all colors. Also called drill and drills. (Cole, Geo. S., A Complete Dictionary of Dry Goods, Chi. 1892, p. 115. AW) whether bleached or brown or blue,(and especially the latter) have also been in much request. But all the coarser cotton goods, whether shirtings, calicoes or drillings, etc., were prohibited by the Arancel of 1837; and still continue to be, with some modifications".

Governor Manuel Armijo, the Governor of New Mexico who took over that office after the revolt of 1837-38 and held it until 1846, established a tariff of his own, as Gregg said, "entirely arbitrary---exacting five hundred dollars for each wagon-load, whether large or small---of fine or coarse goods".

This squeeze or mordida, as it would be called today, on the part of Armijo caused the traders to set up a counter defense against such high handed methods. The traders carrying their goods in large wagons came off

better in this contest of wits than did the smaller merchants who hauled their merchandise in lighter wagons of less tonnage. The net result of the impost was to bring about the use of larger vehicles whereby more merchandise could be hauled to greater advantage to the importers.

There were several means by which the traders evaded the exorbitant duties. One of the most common methods was to start from Missouri with a train of wagons lightly loaded to make passage across the plains much easier. When the outfit arrived within the boundaries of New Mexico and before reaching the first of the northern settlements around Mora, Taos, etc., where Mexican soldier patrols and snooping customs officials or their spies might be encountered, the merchandise was transferred from the various wagons to one or two of the largest ones and thus taken into Santa Fe.

In addition to the duties placed upon the individual wagon loads, there were also numerous "legal taxes" placed upon the goods. However, by paying the mordida demanded by the governor, some of the more astute traders avoided paying the heavy duties required by law. Of course, there were many subordinate officers, clerks and military palms to be greased, but even so, these tributes cost less than the legal duties per wagon, the latter taxes might run between $1,800 and $2,000 per wagon!

Thus Webb, when accosted by Governor Armijo in 1846, prior to the American occupation, had with him a handsome pair of horses, which had cost $175. Juan Armijo, the Governor's brother traveled with his wagons in the same train and knew all about the horses and what they had cost. He also knew how many wagons were in the train of Webb and Doan, and

en route he intimated that the team might want to buy the animals. Acting upon this tip Webb took good care of the horses and when he entered Santa Fe, the span was well groomed and hitched to an ambulance. He made a particular point of driving around the plaza and halted in front of the Palace and requested that the officer on duty examine the carriage to see that it contained no contraband goods.

Shortly afterward the Governor sent for Webb and wished to buy the handsome team of sorrels. Webb set a price of $900 on the pair. He informed Armijo of the price and the latter informed him that he knew Webb had paid only $175 and couldn't expect to get that much money for them.

Webb replied: "Yes, they are a very fine pair of horses, and it is a great deal of trouble and risk to get them here; and more than that, you are asking very high duties".

After some more dickering, in which Armijo let Webb know exactly how many wagons he had in his train en route, which had originally numbered four, heavily loaded, an agreement was struck between the trader and the Governor.

Said Webb: "Now, General, your brother has told you all about it. He knows, as well as he knows what we paid for the horses. We had four wagons heavily loaded and a kitchen wagon with some goods in it, which on nearing the settlements, we put into the large wagons, making as heavy loads as we could haul through the mountains".

Replied Armijo: "Well, young man, I will be liberal with you. You know that the legal duties on your goods would amount to $1,800 to $2,000 a wagon, and I allow you to enter them at seven hundred and fifty dollars a wagon, and if you want to take them to Chihuahua or any interior market,

"I will give you the manifest for them and certify that all import duties have been paid. Now this, young man, is stealing, but we do all the stealing, and divide with you, giving you much the largest share of booty. I will give you the duties on one load of goods for the sorrels, and you must pay seven hundred and fifty dollars a load for the balance". (Actually Webb paid only $500 per wagon for each of his three wagons, the fourth one being tax exempt. Webb thus received only $500 for his animals). (Webb, op. cit. pp. 86-87)

Webb on his part defended the actions of both himself and his trader friends as well as making allowances for Armijo, whom he considered a product of environment. As a self-made man Armijo evidently commanded more respect and tolerance than did the other Americans with whom Armijo came in contact at that time.

Another little trick for evading custom duties was to remove the outer canvas cover of the wagon and spread over the naked bows Mackinack blankets or pieces of cloth, then the cover would be replaced, and with the extra material lying in thin layers between these outer and inner coverings of the wagon, more merchandise could be entered without paying duty upon these items.

At the time when Webb described his adventures with Armijo, the American had in his wagons the following items:

> Dry goods which composed the bulk of the loads included black cloth; striped, plaid and black and white calicoes; white cambric; cotton, ponjee, silk, fancy and plaid handkerchiefs; bleached and plaid muslins; blue and brown drillings; bleached sheeting; red ponjee; bonnet ribbons; plaid silk shawls; women's white cotton hose; hickory shirts (the latter were made of small colored checked

> thick variety of twilled and calendered cotton cloth, finished with a high gloss, used in making the uppers of ladies' shoes then in vogue, etc. (See Cole op. cit. p. 210). Among the notions were cotton thread, black sewing silk, hooks and eyes, ivory combs, coat buttons, plain and gilded vest buttons, needles, 'London pins', and suspenders. The most of the hardware consisted of brass nails, iron spoons, scissors, pocket knives, butcher knives, saw files, padlocks, tacks, hose and spades. (Webb op. cit. p. 82).

The profits from the goods sold in Santa Fe or further south in such places as Chihuahua, Durango, San Juan de Lagos, etc., were great, even after the exorbitant duties and official bribes had been paid. A certain amount of beaver furs, buffalo robes and other pelts were obtained as well as mules. Placer gold was also taken east by the traders but since there was a high export duty on gold, the traders resorted to various ruses to escape paying this tariff. One trader had a false, wooden axle attached to the regular axle and in this hollowed out container he packed his gold dust and nuggets. Iron axles for freight wagons didnot come into general usage until 1848 and afterward.

Silver coin was, perhaps, aside from gold, the most coveted medium of exchange. Thousands of dollars in silver went into the United States from Mexico and her provinces. Mr. Elias Brevoort, an old resident of Santa Fe, told Greene (op. cit.) the manner of packing the specie for shipment to the States:

> "Silver dollars were dumped in quantities of about five thousand into, or upon a green or fresh beef hide, and done up by having a rawhide rope interlaced around the edge of the hide and drawn up tightly. Then a fire was built near it so as to shrink the hide solidly to its contents and prevent the friction of the coin".

These packages were as hard and their contents as immovable as if the

metal had been melted and poured into a mould.

The arrival of the caravans from Missouri was a gala event in Santa Fe. The trains halted on the outskirts of the city and made ready for the big day. Men washed their faces, combed their hair and donned their most fancy clothes. The bull whackers and mule skinners braided new poppers on the ends of their whips to insure the maximum of noise when they drove their teams through the narrow, crooked streets of Santa Fe. The populace turned out to greet the Norte Americanos and cries of "Ya vienen! Los Americanos! Es la entrada de la caravana!" greeted the new arrivals. Crowds of women and boys and the usual loafers were on hand. The women were anxious to see what new treasures the wagons contained, what the latest in fashions were in los Estados Unidos del Norte, while the boys and dogs swarmed about to be entertained by the swaggering, whip popping Missourians..and the leperos were there to see what they could steal. Likewise, the minor officials were present to see what "official" loot they could get. When nightfall came the old pueblo rang with songs and music from the dances. Men who hadn't slaked their thirst for many long dry days drowned their road aches in the cantinas on 'Paso wine' and 'Taos lightning'. There were fights and broken heads and when the cedar wood smoke settled in long, level layers in the still air over Santa Fe on the following morning, there were many aching heads and empty pockets.

The goods destined to be sold in the town itself were offered to the public in temporary stores rented for the occasion. Some of the wiser merchants established branch stores in Sta. Fe. By 1847 the following firms

had establishments in the city:

Wm. S. McKnight --- wholesale and retail merchants, books, etc.
Bogg -- Kean & Boggs --- dry goods, hardware
Henry Mayer --- Dry Goods, Groceries, Liquors
P. R. Tully, agt. for Benj. F. Coons —Dry Goods, Groceries, Liquors
Harrison & Abel ---------- " " " "
St. Vrain & Bent ---------- " " " "
Boon Hamilton & Hayes (Council Grove, Ind. Terr.) - Provisions
Harvey & Co. ----- Provisions, Liquor, Hardware
Peacock & Co. ---- Hardware, Dry Goods
Hartley & Powers - Dry Goods and Groceries, Liquors
F. X. Aubrey ----- Liquor
J. E. Saline ----- Jeweler
John C. Ronald --- Santa Fe House
John M. Abeel and Nicolas Pino ---- Missouri House
Joseph Nangle ---- Provisions, Liquor & Hardware

(Santa Fe Republican, Nov. 20, 1847).

Although the traders knew that war was imminent between the United States and Mexico, that fact didnot deter them from sending their regular caravans out in 1846. In fact, one of the oldest of these traders, James Magoffin who had entered the trade in 1828, as well as his two brothers Samuel and William, took their wagons out over the trail with James in advance as a secret negotiator for the United States Government. It was the hope of President Polk that New Mexico could be taken without bloodshed. To that end James Magoffin was sent out to contact Governor Armijo and to persuade him that it would be folly to resist the forces of General S. W. Kearny and also to gain the friendship of the Lieutenant Governor, Col. Diego Archuleta. He accomplished this and then went on into Chihuahua where he hoped to perform the same service for General Wool. In Chihuahua, however, Magoffin didnot have much success. He was imprisoned for nine months on suspicion of being a spy. He was well known there and he gave many parties. He narrowly escaped death when some personal correspondence was delivered to him by a

Mexican officer, a close friend, who advised Magoffin to burn the letter unopened, which he did. Had this letter been read by the Mexicans, Magoffin's goose would have been cooked. It was from General Kearny commending Magoffin for the excellent services rendered Kearny in New Mexico. This experience cost Magoffin many thousands of dollars. He presented a bill for $50,000 but through the machinations of Secretary of War, Crawford, Magoffin was persuaded to take $30,000 in settlement for his claim although Congress had actually voted the larger sum.

(Magoffin, Susan Shelby, Down the Santa Fe Trail and Into Mexico, 1846-1847, edited by Stella M. Drumm, Yale Univ. Press, 1926).

Once the war was over the high tariffs were lifted and freight trains rolled freely into New Mexico. For over thirty-two years more freight wagons were to pass over the Trail into New Mexico. The arrival of the first passenger train into New Mexico, at Otero, February 13, 1879, marked the beginning of the end for the long haul.

As a matter of fact, the actual beginning of the cessation of flow of freight over the Trail started when the first rail head was established west of the Missouri River. As in all such instances the slow ox or mule drawn wagons could not hope to compete with the steam engine and as fast as the rails advanced, the end of steel became the provisional terminus for the freight line. Here the wagons were loaded from the railroad cars or depots and started on their shortened routes to their destinations. As the tracks pushed further and further across the plains the life span of wagon freighting shortened until suddenly, one day, there were no more long caravans of white topped wagons creaking into Santa Fe. True the smaller towns, and even Santa Fe itself, continued to receive a certain amount of freight by wagon

until the automobile superseded the mule and the ox, but these were short hauls.

During the 1850's, 1860's and into the 1870's wagon trains continued to inch over the hundreds of miles into New Mexico and Arizona from the east.

In 1860, G. M. Edgar (op. cit.) furnished a good picture of the trade as it existed at that time. He noted certain changes in the character of the merchandise, the firms shipping it and the general condition of the trade itself.

Originally the wagons left Independence and that town, "held its own" as long as it remained without rivals. As soon, however, as such commenced springing up west of it the scepter of monopoly slipped from its hold.

"The birth and growth of Westport and Kansas City gradually brought about this event. As early as 1834, Messrs. Bent and St. Vrain landed a stock of goods destined for the New Mexico market at Francois Choteau's log warehouse, near the island just east of Kansas City, and from that time the removal of the trade from Independence and its two immediate western neighbors took place in annually larger proportions. Since 1850 nearly all of it has passed over to its successors so to speak. But few wagons are now being sent out from Independence to New Mexico.

Of its two successful competitors, Kansas City is at the present time enjoying the largest benefit of the transfer.

"Its accessibility and direct communication with the eastern market has made it the point at which not only a large portion of the goods yearly forwarded to New Mexico is sold, but also nearly all those bought in the east are disembarked, stored and reshipped on the trains. Westport, however,

has no mean share of the trade. To show this, it will be only necessary to mention that the great house of J. & W. R. Bernard & Company (formerly Kearney & Bernard) have sold a little over one hundred and twenty thousand dollars worth of goods to some sixty American and native New Mexico traders in Westport during the last year.

Westport from its greater vicinity to the prairies, which commence directly west of the town limits, offers greater inducements as a mere starting point than Kansas City. (N. B. Westport has long since been engulfed in the growth of Kansas City proper, AW). Most of the trains, indeed, camp within a few miles of this place while waiting for loads, etc. But as a shipping and trading point, the preferences are decidedly in favor of Kansas City.

"The heaviest buyers, with the exception of three or four who seek more easterly markets, are the regular patrons of our wholesale dealers--- welcome ones, from the extent of their ready resources, and their promptness as time buyers. In Kansas City and Westport, the New Mexican trade is in the hands of a relatively small number of houses. They are, in the former place:

J. S. Chick & Co., wholesale grocers and dealers in provisions
J & P Shannon & Co., wholesale dealers in dry goods, etc.
William A. Chick & Co., commission, storage and forwarding merchants
McCarty & Barkley, commission, storage and forwarding merchants
C. E. Kearney (late of Bernard & Co., Westport) wholesale grocer and commission merchant.

The trade being divided up among so few houses, they all do a very large business with New Mexico.

In Westport, the New Mexico business is transacted by the already mentioned house of Bernard & Co. The firms of Street & Baker, George D. Vogelsong, Thomas H. Rosser & Childs; Hayes & Co., are also operating to

some extent in the same line.

"In this city (i.e. St. Louis. AW), the number of houses doing business with New Mexico is, of course, much larger.

One of the oldest (if not the oldest) is the well known firm of R. Campbell & Co. They, as well as Voorhies, Hellmers & Co., Wise, Singer & Co., McCrow, McCreery & Co., supply most of the dry goods. Childs, Pratt & Co., the hardware. Glasgow & Bro., and Erfort & Petring, liquors and groceries; Martin Bros., and Young Bros., clothing. Wolff & Hoppe, notions, etc."

In commenting upon the change in goods desired in New Mexico, Edgar said:

"In the early days of the overland traffic, when the wants of the natives had not yet been qualified by a frequent contact with Anglo-American civilization, the variety of the imported goods was not very great. Groceries, flash calicoes and leather constituted the main stock. The gaudier the colors of the calicoes the better favor they found. A buff colored kind was especially popular. As the intercourse between New Mexico and the East became livelier, and the material condition of the people improved after the establishment of the Anglo-American regime, the goods introduced and adopted in that market became from year to year more varied and at the present time very few articles that the merchants in the Western States keep on hand will not be found in the assortments taken out by the New Mexican traders.

There are, however, some peculiar wants the importers are called upon to supply. They consist of an uncommonly large demand for calicoes and bleached domestics, and hosiery particularly for feminine use. The number of white stockings bought by the Mexican women is said to be astonishing. The diminutive character of their pedal extremities renders a prevalence

of small sizes necessary. For the same reason, dealers in shoes, that do business with New Mexican traders, have articles expressly made to meet the requirements of the senoritas in this respect.

"Fancy dry goods are wanted to a limited extent, only people of wealth being the purchasers. What little is imported consists, however, of articles of a very costly character.

Of late large quantities of ready-made clothing and furnishing goods have been sold, thereby indicating that the old national costume is giving way to the Anglo-American style of garments.

The settlement of a large number of Americans has for some years been the cause of considerable annual shipment of American flour to the territory from the Missouri River. New Mexico, it is true, produces usually an amount for breadstuffs sufficient for the home demand. The primitive mode of working up the wheat into flour, still adhered to by the natives, makes it, however, of a quality that is hardly adapted to the wants of the Anglo-American stomachs. The foreign flour is, of course, held much higher than the domestic.

Allusion has previously been made to the fact that in former years the exports from New Mexico consisted principally of silver and gold bullion, and coin and mules. The latter branch has, however, all but dwindled away in consequence of the extensive mule breeding now followed in many portions of the Western States. The exportations of coin and bullion have also greatly decreased during the last few years. The cause of the diminution is the continued paralysis from various causes, of silver mining throughout the Territory. The surplus of precious metals has been carried off by the steady draft for the purpose of commerce, and the balance remaining in the

Territory is hardly adequate to the wants of the inhabitants. Eastern payments are now mostly made by the merchants in drafts obtained on the Sub-Treasury of the United States from the military and civil officers stationed in the Territory.

The falling off in the export of the aforementioned articles has been made up, to some extent, by an increase in that of others. The exportation of wool, above all, has been carried on very largely for some years. In 1859, nearly nine hundred thousand pounds arrived on the Missouri River from New Mexico and this year (1860) over a million is expected to be brought in. The excellent natural pasturage of that Territory is likely to make sheep breeding one of the principal pursuits, and steadily swell the yearly wool clip.

"Mexican wool is worth about fourteen cents per pound on the Missouri River. Its export largely benefits the transportation houses that do the freighting for New Mexican traders, inasmuch as it secures return loads to them---an advantage not enjoyed by the overland freighters to any other part of the country. The freight is from four to five cents per pound.

Goat and sheep skins also constitute an additional article of export. Some thirty thousand, worth about twenty-five cents each, were brought in last year. Also, some dry hides, tallow, and a variety of furs.

The value of the merchandise taken into New Mexico last year, was estimated by competent judges at about one million and a half of dollars. That of the exports such as bullion, wool, skins, etc., is claimed to be about one-half a million. But this does not represent all the capital invested in importing and exporting different articles of trade, as will be shown in a succeeding paragraph on overland transportation".

Edgar believed that with the cessation of Indian troubles in New Mexico and the ensuing influx of emigrants from the eastern states, even better commercial conditions would prevail in that Territory. Agriculture, sheep raising and mining would increase.

The author then went on to discuss other aspects of the Santa Fe trade:

"The New Mexico merchants usually make their appearance in the Eastern markets in the early part of the spring, so as to have their new supplies on the frontier at the time of the opening of the 'prairie navigation'. Our hotel keepers and wholesale dealers know exactly the time when they may expect the yearly visit of the well dressed gentlemen, with bronzed countenances, and big bags of silver dollars and gold doubloons. They return as regular as the birds that migrate to more southerly climates during the cold season.

The old accounts being squared (New Mexican traders hardly ever ask 'extension') and the new purchases made---generally comprising stocks intending to last a whole year---they repair to either Kansas City or Westport, to await the arrival and storage and reshipment of their goods.

In Kansas City, their bales, boxes and packages are usually stored in the extensive warehouses of the already mentioned firm of Wm. H. Chick & Co., and McCarty & Barkley. Their rates charted are 6-1/4 cents per 100 pounds for storage; 95 cents per hundred pounds for drayage, and 2-1/2 per cent for advancing charges. Monthly settlements are required by them".

Edgar paints a very spirited picture of the jumping off points of the freighters for their long trek over the Santa Fe Trail. It seems worthwhile, at this point, to quote further from his article:

"The outskirts of the principal starting points---Kansas City and Westport---now become the scenes of the active and extensive preparations for the loading and departure of the countless trains that are yearly employed in the transportation of merchandise to New Mexico.

Solid squares of wagons, covering whole acres, are formed. Thousands of draft animals are scattered over a 'thousand adjoining hills'. Blacksmiths, wagon makers and saddlers are busy day and night. The streets resound with the barbarous vociferations and the loud cracks of heavy whips, used by the teamsters in urging the cattle under their charge. The rumbling noise made by the clumsy, lumbersome 'prairie schooners', while propelled along by the patient oxen, is heard incessantly. Swarthy Mexicans, in dirty buckskin and flannel, lounge in large numbers on the sidewalks, and street corners. Anglo-American prairie men in scarcely better habiliments, and likewise intended humble performers of the humble part of 'bull whackers', crowd the whiskey shops---in short, a spectacle, similar to that our Levee presents on the re-opening of river navigation is enacted.

Many of the traders have their own trains with which to transport their wares across the Plains. A number, however, prefer to have it done by the regular overland freighting firms, located in and about Kansas City and Westport. The trains of both mostly winter in New Mexico where the Winter pasturage is almost as good as that of Summer.

They start for the Missouri line as soon as the new grass commences springing up, and manage to arrive on or about the first of May, and remain encamped in localities convenient as to wood, water and grass until the time for loading has arrived. Native Mexicans are employed as teamsters mostly

"by traders of the same nationality. Some American freighters, however, hire them likewise on account of the low wages they are paid. While they receive only about $15 per month, the Anglo-American colleagues receive from $25. to $30.

Everything being ready, one after the other of the trains receives its load from the warehouses. The several wagons being of very large capacities, several days usually elapse in the loading of each of the trains. During the entire months of May and June, indeed, the fitting out of them is continued in Kansas City".

Gregg (op. cit. p. 191) likewise described the care with which the freight wagons were loaded at the points of debarkation.

"Those who understand their business, take every precaution so to stow away their packages that no jolting on the road can afterwards disturb the order in which they have been disposed. The ingenuity displayed on these occasions has frequently been such that after a tedius journey of eight hundred miles, the goods have been found to have sustained much less injurt, than they would have experienced on a turn-pike road, or from ordinary handling of property upon our western steam-boats".

For the better protection of the merchandise, the wagon boxes themselves were lined with heavy Osnaburg (a plain coarse, plain woven cotton cloth, like canvas. It received its name from the town of Osnabruck or Osnaburg, Germany where this type of cloth was first produced and during the 17th-18th centuries it was a favorite trade cloth among the Indians. Originally it was linon but in after years it became a cotton cloth. Sometimes it is spelled oznabrig or osnabrig. AW). The same cloth covered the bows of the wagons and was generally spread over the top of the wagon in two thicknesses to

give better protection against the storms. When used in the latter capacity the wagons covers had brass or lead grommets at each corner and along the sides through which tie ropes were passed to secure the cover to the bows and the wagon beds.

Edgar then concludes his description of the scene at the loading areas in Missouri:

"The wagons, after receiving their loads, severally return to the camping places until all belonging to the train are assembled. At last the 'order of march' is given. A scene then ensues that baffles description. Carriages, wagons, men, horses, mules and oxen appear in chaotic confusion. Human cursing, distressing mulish outcries, and bovine lowing form an all but harmonious concert, above the dissonances of which the commanding tone of the wagonmaster's voice only is heard. The teamsters made a merciless use of their whips, fists and feet; the horses rear; the mules kick; the oxen balk. But gradually order is made to prevail, and each of the conflicting elements assume proper place. The commander finally gives the sign of readiness by mounting his mule, and soon the caravan is pursuing its slow way along the road".

Council Grove was one of the important way stops on the Trail and here the house of S. M. Hays & Co., had a store. Few freighters failed to stop here and the concern kept tally on the number of wagons, men and animals that passed along the Trail during the season.

In 1859, according to statistics obtained by Edgar from the register kept at the Hays & Co. store the following numbers of teams and men were noted:

1532 wagons averaging 5,500 lbs. of freight each
4,377 mules.
12,545 oxen
360 horses
5,405 men

In 1860, the total was:

2,170 wagons
17,836 oxen
5,933 mules
464 horses
5,984 men

"The value of the moveable property employed this season (1860) in the transportation of the above immense total weight", said Edgar, "appears to be:

"Wagons	$100 each	$ 217,000
Horses	$100 each	46,000
Mules	$100 each	593,300
Oxen	$ 65 a yoke	579,670
Total		$1,436,370

In addition, the cost of the saddles, harness, yokes, chains, wagon covers, the provisions for the teamsters, etc., must be taken into consideration in order to arrive at a proper conclusion as to the amount of capital actually invested in this carrying trade. It cannot fall very far short of two millions of dollars.

The expense occurred by one train of 25 wagons is about $3,000. Merchants that do not run their own trains usually pay freight at the rate of ten cents per pound. It is claimed that about one half of the freight carried out this season went out this way. Supposing it to be but twenty five hundred tons, we find that at least $250,000 was paid to freighters. The Government sent out three million, eight hundred and forty-three pounds and four thousand pounds of supplies for the troops in New Mexico, for which contractors are paid at the rate of from $1.40 to $1.70 per hundred pounds for every hundred miles, the rates varying according to distance and

the season. Presuming this average to be about $1.50, we will find that no less than $400,000 must have been paid for freighting by the Quartermaster's Department during the present Summer.

Would any wish a better argument in favor of the construction of the Pacific Railroad than the above facts and figures? And yet they comprise but a fraction of the vast commerce of the great North American Plains".

Mr. Greene (op. cit.) who obtained statistics on the Santa Fe trade from Theodore G. Case of Kansas City said:

"In 1855, the goods shipped were valued at five million dollars. In 1860, the weight of the goods shipped from the same point (Kansas City) was 16,439,000 pounds, employing in their transportation 9,084 men; 6,147 mules; 27,920 oxen and 3,083 wagons". This was quite a contrast to the average of $100,000 annual volume of trade for the first fifteen years beginning in 1845 and the 600 wagon loads of goods that left Kansas City in 1850.

Perhaps Edgar in his summing up of the statistics on the trade was aware of the hand writing on the wall spelling the doom of this picturesque phase of frontier life when he penned his concluding paragraph. Greene, writing thirty-seven years later added the touch that Edgar didn't know, which was, that six years after Edgar's article appeared, this then enormous trade was already trundling into oblivion. Said Greene in 1897:

"It is almost as hard to fix with precision the end as the beginning of the Santa Fe trade in the form which I have tried to describe. The last train left Kansas City about 1866, and in successive years, the eastern starting-point of the caravans moved westward, following the progress of the railway. About fourteen years later, the locomotive thundered into Santa Fe,

"and broke the spell which, for three centuries, had shut from the modern world, the city of the Holy Faith of Saint Francis".

(It might be noted in connection with the "Locomotive thundering into Santa Fe", that in Wm. G. Ritch's fifth edition of Illustrated New Mexico", Sta. Fe., 1885 he has this to say:

"Notwithstanding the competion which has come with railway transportation and the building up of new centers of trade, Santa Fe holds its own, with additions. It has the benefit of the same railway system of any other commercial center in the Territory, and in addition is within thirty miles of the business of the D. & R. G. railway system, with a branch graded and ties at hand, only needing the iron and rolling stock to complete the running connection. It requires no prophet to foretell the early completion of the same...."

NEW MEXICO ---1846-1851

NEW MEXICO BECOMES U. S. TERRITORY
1846

Prior to 1846, New Mexico, in common with her sister province of Alta California, had been infiltrated slowly and almost unobtrusively by adventurers from the United States and elsewhere. As a rule, the Spanish authorities did not welcome these heretical and often turbulent invaders. It was only natural that the fiddle-footed mountaineers and frontiersmen from Kentucky, Tennessee and later Missouri, accompanied by the restless descendants of the coureurs de bois, the "woods' lopers" of French-Canadian extraction should eventually drift into Spanish territory seeking new trapping grounds. These men from the 17th century onward had been roaming the forests, plains and mountains from the eastern seaboard coast as far west as they could travel.

Many of them, as they grew older, passing swiftly from their teens into adulthood, often in a season saw the advantages offered in this wide open land and settled down as permanent residents. They inter-married with the Indians and the Mexican-Spanish, were converted - or professed to be - to the Catholic faith and became citizens of the Empire of Spain and later Mexico. Some, of course, never relinquished their status as U. S. citizens. Many remained independent rovers to the end, moving on when they saw and felt the constricting noose of civilization tighten about them.

Some of the French immigrants, originally voyageurs for the Hudson's Bay Company or the Northwest Company co-mingled with their brethren from St. Louis and other French settlements in the Mississippi Valley. Their names became Hispanicized or Anglicized, thus Pierre L'Esperance, born in the Province of Quebec, Oct. 10, 1791, one of the settlers in San Geronimo

Valley in New Mexico, became Pedro Lesperance or Esperanza. He had been a French trapper and became a local Paul Bunyan in the upper Tecolote country where he built one of the first sawmills. He had been one of a party of French trappers who came to Taos, some fifteen or more in number, around 1811. Among others alleged to have come in at the sametime were Duchesne, Le Foux, Le Duc, Biejeau and Don Carlos Beaubien.

Abran and Antoine Ledoux, two brothers, were said to have come to New Mexico in 1815 or 1817. Antoine raised a family in Mora and died there about 1858. His son, for whom the town of Ledoux, New Mexico is said to have been named, was Jose. Felipe Ledoux, son of Abran who died at Taos, 1835, was with the Marcy-Loring expedition of 1858.

Michael Demorais from Vercheres, Canada, arrived in New Mexico with seven other Canadians on a trading venture in 1837. They landed at San Miguel, N. M., Oct. 10, 1837, and of the seven only Michael Demorais and Pierre Antonio Senecal survived. Then there was Juan Batiste Trudeaux who became Juan Bautista Tridu; another was one of the old Nor'westers, or "Norwegians" as they became known, Jo "Levanway" whose name was Barnois. He became Barney to the Americans. These and many others were among the settlers in northern New Mexico.

Some of these men squatted on lands which were parts of larger land grants. Others were granted their tracts of property and given juridical possession. They settled along the little streams, built adobe houses or jacales of wattle and daub. They planted fields and orchards. Some installed small gristmills or operated crude saw mills. Their settlements in isolated spots were built in the form of squares with an inner patio and one large entrance gate, with bastions on two diagonally opposite corners.

These placitas as they were called became miniature forts which they defended against the attacks of Ute and Apache or occasional raids by the Comanche.

So it was with the Americans or Anglo-Americans, who came in as trappers and who remained to farm, and trade.

Later when General Stephen Watts Kearny and his troops entered New Mexico in 1846, he found staunch allies in many of these estranjeros who by that time had become part of the economic and political life of New Mexico.

The occupation of New Mexico has been told many times and there does not seem to be much need to rehash it here. Once the Territory had changed hands and a new political and military regime had been instituted many problems remained to be ironed out.

Confronting both the civil and military authorities in the newly acquired Territory were the centuries of warfare and feuding between the Spanish-Mexican population and the various tribes of Indians. Chief among the latter were the Navajo and the Apache. The practice of slavery was a part of the social system of both sides. Outlying Mexican ranches had been raided for nearly three hundred years and the children who were abducted were reared among the tribesmen as good Indians. Similarly the Indian youngsters who were taken into the towns and kept on the ranches were held, bought and sold as slaves.

The mere changing of political title to this area did not immediately change this system. Both sides laid their grievances before the American authorities, each side trying to jockey for the best bargaining position. The New Mexicans wanted protection against the barbarous redskins and at

the same time desired to carry on their slave raids against their hereditary enemies. The Indians desired peace but they too felt it an infringement upon their rights to be asked to cease taking New Mexican children as slaves. Hence, the Americans, bound by their own agreements to treat all residents within the territory, Indian and Mexican as United States citizens with equal rights, frequently found their trousers spiked neatly upon the horns of that well known dilemma.

The lack of social anthropologists in the mid 19th century no doubt hampered the negotiations between the Indian agents and the military and their brown brethren of the Navajo and Apache tribes. To the Americans of the period, Indians were Indians and if an Indian committed murder or abducted a child or stole a herd of sheep, cattle or horses, or laid waste some isolated ranch, then the proper thing to do was to sally forth and chastise the first band of Indians with whom the troops came in contact. The fact that the Indian family happened to be peaceful and innocent of the crimes was not considered. Solemn treaties were made between the United States and perhaps one Navajo clan or band, and that treaty might be scrupulously observed by the group with which it was made...but the band living in the next canon, not belonging to the one with which the treaty had been concluded, would go on a raid...and the Indians were immediately accused of having acted in bad faith and must be punished accordingly.

So the treaty makers were attacked and brought to justice. This was all very bewildering to the Indians and quite aggravating to the military commanders who became firmly convinced that all Indians were liars, thieves and murderers and should be exterminated without mercy.

New Mexico---1846-1851

Expeditions, such as that under Col. John M. Washington, Military Governor of New Mexico, consisting of an effective force of one hundred and seventy-five men, infantry, artillery and mounted volunteers, accompanied by John S. Calhoun, Indian Agent for New Mexico with his small group of assistants, set out from Santa Fe, August 15, 1849, to make war against the Navajo in the vicinity of Chaco Canon and Canon de Chelly and other points west.

This expedition ended in failure as did the previous one sent against the Navajo in 1846 by Col. Doniphan and his Missouri troops. The soldiers met the Indians, they shook hands, held the treaty, solemnly promised to obey the dictates of the duly authorized American authorities and scattered to their individual hogans with the gifts they had received, and by the time Washington and his troops returned to Santa Fe, the Navajo were once more raiding New Mexican pueblos and ranches.

Aside from the troubles with the Indians, the threat of armed insurrection against the American forces became serious in 1847 when a faction of the New Mexicans rose against the newly organized Territorial government and killed a number of Americans at Taos, Turley's Mill and Mora. This rebellion was speedily crushed in the battle with the insurgents at Pueblo de Taos on the Rio Chiquito, February 3, 1847, and in lesser engagements at La Canada on January 24th and at El Embudo on January 29th, at the expense of thirty-one killed (including those slain in the initial outbreak in which Governor Charles Bent and his party were killed and the men who died at Turley's Mill on the Arroyo Honda, two others of this number were Mark Head and William Harwood who were murdered on the Rio Colorado).

In addition to the dead there were many wounded on the American side. The New Mexicans lost heavily. Colonel Sterling Price, then in command of

the 9th Military District comprising New Mexico, who headed the expedition of regular and volunteer troops that left Santa Fe against the rebels, in his official report of the various engagements estimated that over three hundred of the enemy were slain and an unknown number were wounded.

Fifteen of the ringleaders of the insurrectionists were captured, tried and hung on February 6th. One of the most virulent foes of the Americans, according to Twitchell and other historians was Fr. Antonio Jose Martinez, who was allegedly the leader of this uprising but no definite connection being produced that would tie him to the bloody business, he escaped punishment and died peacefully at Taos, July 27, 1867, twenty years after the rebellion.

Yet another fight between the American troops and the unruly inhabitants of Las Vallas took place in June, 1847. The trouble began when a Lieutenant R. T. Brown and two private soldiers were slain near Las Vegas and robbed of their arms and clothing. June 27th Major B. B. Edmonson, stationed at Las Vegas with a detachment of Missouri volunteers, set out for Las Vallas, some fifteen miles south of Las Vegas, marched into the pueblo, shot some of the men who resisted and conveyed about forty prisoners back to Las Vegas. Later these men were sent to Santa Fe to be tried for their part in the murders.

This turmoil and the restlessness of the various Indian tribes, the lack of a firm Territorial government as well as the absence of any definite military policy affecting the entire area made it apparent to the politicians in Washington that some of these affairs would have to be regulated or chaos would ensue.

The close of the Mexican war brought on the usual upheaval in army circles that has followed hard upon the heels of the conclusion of all armed

conflicts in which the United States has been involved since the formation of the Republic.

The majority of the troops that had participated in the war were volunteers. When the war ended there was the usual race for home on the part of the patriots who, when the conflict began couldn't be restrained from dashing off to battle, but who, when the smoke cleared away were equally anxious to get back to home, mother and a job. The result was that the regular standing army was too small and the newly won frontiers too far flung to be successfully defended by the regulars. The Secretary of War began juggling regiments as soon as the peace treaty had been signed. The creation of the 9th Military District of New Mexico and the 10th District of California called for new permanent posts as well as garrisons. Moreover, there were no well defined roads leading into the newly won domain over which supplies, men and mail might move. Consequently military parties set out to survey feasible routes into the west and sites for new posts were recommended by both military and civilian officials.

In the Report of the Adjutant General of the Army, November 3 0, 1848, the authorized regular force consisted of 865 commissioned officers and 8,940 enlisted men - a total of 9,805. The troops of the line were two regiments of dragoons, one regiment of mounted riflemen, four regiments of artillery and eight regiments of infantry.

At the termination of the war there were 1,338 commissioned officers and 22,695 non-commissioned officers and men. These were regulars, recruited for the war. The volunteer forces consisted of 1,527 officers and 21,590 non-commissioned officers and privates. Thus the total number

of soldiers under arms when the combat ceased was 47,150.

Of the regulars, the men who enlisted during the war, signed up for a period of five years numbered 9,418 and 13,277 for the duration of the war.

The Adjutant General's report also stated:

"Instructions have been issued for the careful examination of Texas, New Mexico, California and Oregon, by competent commanders, assisted by officers of the corps of engineers and topographical engineers, with a view to the permanent location of military posts within their limits. Meanwhile, and until all the troops destined to occupy them can reach their stations, the best disposition has been made of such forces as were already in the territories, or could be at once put en route to check Indian depredations and preserve quiet and good order along the frontiers and Pacific seaboard".

Adjutant General Jones also spoke of the disposition of forces in New Mexico as of Nov. 30, 1848:

Santa Fe, near the Upper Rio Grande	1 co. 2nd Drag. 1 lt. co. 3d art.
Taos	1 company 1st dragoons
Albuquerque	1 company 1st dragoons
Socorro	1 company 1st dragoons
El Paso del Norte	6 companies 3d infantry

However, he also indicated that in posts to be established other troops to be quartered there were: 1 co. 2d dragoons; 2 co's. 2d artillery and 4 cos. 3d infantry and the necessary companies from these regiments were either en route, or intended to be sent to the 9th Department of New Mexico.

(See House of Representatives, Ex. Doc. No. 1, 30th Cong., 2nd Sess. Washington 1948, pp. 160-161 and 165).

Furthermore the Adjutant General said:

"In Department No. 9, (New Mexico), it is believed that no serious disturbance need be apprehended. There are now in that quarter three companies 1st dragoons, one company 2nd dragoons, and a light battery 3d artillery. As soon as the season will permit a march across the prairies, this force will be increased by four companies 3d infantry, in addition to the six companies of the same regiment before mentioned, and one company of artillery". (Id. p. 162).

After the disturbances of 1848 the political pot in New Mexico seems to have simmered down from an active boil to an even seething, and whereas the troops were not called out to put down any uprisings of the civilian populace, the detachments of the various outfits were quartered in many small towns in the valley of the Rio Grande as a precautionary measure.

The Indians, however, continued to raid the outlying ranchos and small pueblos. The few troops were kept busy chasing will o' the wisps here and there with but very little effect.

Col. John Monroe in command of the Department of New Mexico complained in a letter, Mar. 15, 1850, of an insufficiency of all troops, cavalry in particular. He said he needed more men to combat the Indian marauders. Moreover the strength of the companies stationed in the different parts of the Territory was below par. Bvt. Maj. Enoch Steen's company of the 1st Dragoons was at Santa Ana and couldn't be replaced. The companies of Bvt. Maj. William Grier and Capt. William Eustis, resigned in Aug. 1849, were mere fragments. Lt. Col. Braxton Bragg's company of the 3d Artillery was acting as escort to Lt. Col. John M. Washington who was returning east and at Las Vegas there was a company of only about forty men and horses on duty and "many of these men are unfit to serve on horseback but they can be replaced by others from the company of the 3d Infantry which I recently sent to reinforce the post of Las Vegas".

On June 30, 1851, Monroe said that he had two companies of artillery at Santa Fe headquarters and on the 15th of that month he dispatched a force of 60 rank and file with 2 twelve pounder mountain howitzers under Bvt. Maj. H. L. Kendrick, 2nd Artillery to Taos where a rebellion was said to be brewing. This was a false alarm and the troops returned to Sta. Fe. on June 28.

This constant juggling of forces in New Mexico, moving from one widely separated point to another, was tiring to both men and animals. The total number of United States forces in 1851 consisted of 12,934 men and of this number about one-ninth were in the field in New Mexico. According to the report of the General-in-Chief of the Army (Report of the House of Representatives, 32nd Cong. Ex. Doc. #2, 1851), there was in New Mexico, as of Nov. 26, 1851, an aggregate of 1,338 men, and providing there were no absentees, a supposedly potential force of 1,459 assigned to the Territory. There were 71 officers and non-commissioned officers on duty at the various posts in New Mexico at this time.

The troops, consisting of dragoons, infantry, mounted rifles and artillery were posted at the following places:

Santa Fe	Dona Ana
Las Vegas	San Elizario
Rayado	Taos
Albuquerque	Abiquiu (listed as Albiquin and Abiquin)
Ciboleta	
Socorro	El Paso

During the year 1850, the War Department had taken some steps to augment the troops on the frontier. In October of 1849, Col. John Monroe of the 2nd Artillery went out to replace Col. John Washington as commander of the 9th Military District and Aug. 6, 1850, the former was told that 750 recruits were en route to New Mexico to bring up the strength of the regiments

under Monroe. Aside from Indian troubles, Col. Monroe was also advised that in the event Texas decided to press her claims for additional territory to be added to that state from the lands claimed by New Mexico, he would be ready with U. S. troops to intercede and keep the peace.

As additional backing it was expected that the 7th Infantry and one or two troops of the 1st Dragoons would leave Missouri for the 9th District. Of this number of troops some 200 men of the 7th Infantry would be mounted.

NEW MEXICO——1851-1861

New Mexico----1851-1861

THE FOUNDING OF FORT UNION
1851

On April 1, 1851, Secretary of War, C. M. Conrad, wrote to Colonel E. V. Sumner, then in command of the 1st Dragoons at Saint Louis, Missouri:

"You have been selected to take command of the Ninth military department, and will repair to it as early as practicable.

It is believed that material changes ought to be made in that Department both with a view to a more efficient protection of that country and to a diminution of expense.

You will, therefore, immediately on assuming the command, revise the whole system of defense---you will examine particularly whether the posts now occupied by the troops are the most suitable, and, if not, will make such changes as you may deem advisable. In the selection of posts you will be governed mainly by the following considerations, viz:

1st. The protection of New Mexico
2d. The defense of the Mexican Territory, which we are bound to protect against the Indians within our borders.
3d. Economy facility in supporting the troops, particularly in regard to forage, fuel and adaptation of the surrounding country to cultivation.

The Department is induced to believe, that both economy and efficiency of the service would be promoted by removing the troops out of the towns where they are now stationed, and stationing them more towards the frontier and nearer to the Indians".

Colonel Sumner was further ordered to send out expeditions against the Navajo, Ute and Apache tribes, take hostages whenever possible and hold them as security for the observance of the treaties which he was supposed to make with these tribesmen.

In addition Conrad said: "You will use every effort to reduce the enormous expenditures of the Army in New Mexico, particularly in the Quarter Master's and Subsistence Departments, and will rigidly enforce all regulations having reference to the economy of the service.

It is believed that the number of employees may be diminshed without inconvenience to the service, and that material changes may be made in the ration, whereby its cost may be reduced without interfering with the health or comfort of the soldiers. You are authorized to make all such changes as you may deem advisable".

Finally Sumner was told: "In carrying out these measures and such others as your own judgment may hereafter suggest, you will exercise a larger discretion than would be allowable where the communication between the Commander and the Department is more frequent and rapid".

In effect, Col. Sumner was told to do about as much as he wished (within reason), in the reorganization of the 9th Military District and not to bother Headquarters in Leavenworth with petty details.

Col. Sumner has been accused of locating Fort Union "out in the boon docks" as our present day soldiers would express it, and no doubt the merchants and saloon keepers and gamblers of Sta. Fe and other towns from from which Sumner promptly removed the troops then stationed there believed that the new commanding officer was acting on his own initative in so doing. However, as it may be observed from the instructions given Sumner by Conrad, the Colonel had no alternative but to comply with his orders. In his reports, submitted after he had arrived in New Mexico, Sumner seemingly indicates that he was doing somethings on his own iniative, but reading between the lines, one discovers that practically everything that was done in the summer of 1851 had been embodied in the letter sent by the secretary of War in April

of that year.

Bad luck dogged Sumner's command, even before it left Ft. Leavenworth. Cholera, the dreaded scourge of the frontier in the mid-19th century, broke out at the post and the troops destined for New Mexico were hard hit by the plague. Thirty-five men and a badly needed surgeon died at Fort Leavenworth and the remaining troops, consisting of dragoons and infantry recruits did not leave the stricken post until May 26. By the time they reached Santa Fe, July 19th, however, the soldiers were free of the disease.

Colonel Edwin Vose Sumner was an old war horse. His first command was as a second lieutenant in the 2nd Infantry, March 1819. He became a captain of the 1st Dragoons in 1833, and on June 30, 1846, he obtained his majority in the 2nd Dragoons. For a brief period, during a hassle between Major-General Scott and Colonel Harney in the early part of 1847, Sumner was placed in command of seven companies of the 2nd Dragoons, over which Harney nominally had command. However, Harney was restored to his proper place in February of '47 and Sumner was assigned to the command of the Mounted Rifles until such time that the Rifles could be reunited under their own Colonel. Sumner was transferred again to the 2nd Dragoons and served with distinction all during the war. He received a head wound from a musket ball at the battle of Cerro Gordo and rode in at the head of his outfit into the zocalo or main plaza of Mexico City as escort for General Scott and his staff, the morning of September 14, 1847, to the stirring music of the band of the Second Dragoons, playing "Hail Columbia" and "Yankee Doodle".

While in command of the Mounted Rifles at Cerro Gordo he won his brevet as Lieutenant Colonel "for gallant and meritorious conduct," and

was brevetted Colonel "for gallant and meritorious conduct in the Battle of Molino del Rey". He became a Lieut.-Colonel in the 1st Dragoons, July 13, 1848, and a full Colonel in the 1st Cavalry, March 3, 1855. He was promoted to Brigadier-General, March 16, 1861, and later was made Major-General commanding the Second Corps and Right Grand Division, Army of the Potomac, 1861-1863. He died March 21, 1863. (N. B. Although Heitman, Francis B., Historical Register and Dictionary of the United States Army, 2 vols., Washington 1903, Vol. 1, p. 936, gives his name as Edwin Vost Sumner, another authority, General Theodore F. Rodenbough, in his volume, "From Everglade to Canon with the Second Dragoons, 1836-1876", N. Y. 1875, p. 441, gives it as Edwin Stanton Sumner, a curious discrepancy. AW)

Sumner lost no time in assuming command of the District and on July 19, the day he arrived he posted orders announcing that he had been appointed to take charge of the District of New Mexico and named the chiefs of the respective Departments or Corps responsible to him:

Bvt. Maj. D. C. Buell, Adjutant General of the Department
Bvt. Maj. E. S. Sibley, Quarter Master of the Department
Captain Isaac Bowman, Subsistence Department
Surgeon Charles McDougall, Medical Department
Maj. F. A. Cunningham, Pay Department
Bvt. Captain John Pope, Topographical Engineers

Section II of his order concerned the removal of headquarters from Santa Fe to Fort Union.

"II. The Headquarters and principal depot of the Department are transferred to the Moro (sic) River and all military Stores now at this place will be at once removed to the point selected".

It might be well to state at this point that the sites of new posts were selected by a board of officers sent out to a region where it was deemed a

fort might well be established.

Apparently Sumner had already decided upon the general area in which Ft. Union was to be located as he marched from Ft. Leavenworth to Santa Fe in the early summer of 1851. According to a brief resume of the history of the post made by 1st. Lt. Frederick Wooley, A.A.Q.M., 10th Infantry, Ft. Union Dec. 12, 1889 (see box 1269 Q.M. Gen'l. Reports, Nat'l Archives) the site for the new post was actually selected on July 26, 1851. This was a week after Sumner had ordered the supplies at Santa Fe to be removed "to the point selected".

On August 2d, 1851, Sumner issued "Orders No. 21" from "Headquarters 9th Military Dept. Camp near the Morro (sic) N. Mex."

> I.... The military post established at this point will be called Fort Union.
>
> II.... In order to afford protection to travel and commerce between the Missouri frontier and this Territory, Bvt. Major Carleton's company K. 1st Dragoons, will be kept in motion this Summer and fall along the Cimmaron route between this place and the post below the Crossing of the Arkansas River, returning finally to this Post".

The site selected was against the base of a low wooded escarpment of lime and sandstone on the western edge of open valley approximately three and one-half miles from the nearest timbered point of the Gallinas Mountains and over twenty-one miles from Las Vegas. Perhaps the closest occupied place was the placita of Alexander Barclay, George E. Simpson and Joseph Bainbridge Doyle, a rectangular adobe fort which stood on the south bank of Mora Creek, approximately one-half mile from the junction of the Mora and Sapello streams. I shall give a more detailed description of this post in a subsequent paragraph.

Ft. Union----1851-1861

At the time the first pine log buildings were begun at Ft. Union, that side of the valley was well watered by springs which later dried up.

On August 25, 1851, Quarter Master Thomas Swords, on an inspection tour of the posts in the western military districts reported that he had visited Fort Union, en route back to Fort Leavenworth:

"I reached Fort Union, the new headquarters where quarters & c. were being put up of rough pine logs, by the labor of the troops, pine timber being very convenient. As this was to be the general depot, a large amount of public property had been removed to it from Santa Fe and Las Vegas and which, as no storehouse had yet been provided for its protection, had to be placed under canvas, and it is feared much of it has become more or less damaged by exposure to the weather, the rainy season having set in. (Report of Q. M. Swords, House Report, 32nd Cong. Ex. Doc. No. 2, 1851, p. 258).

Sumner in his zeal to carry out his orders had moved swiftly. On August 3, 1851, the day after he had issued the order formally naming Ft. Union, he wrote to Asst. Adjt. Genl. W. W. S. Bliss Headquarters Western Division at New Orleans and announced that he (Sumner) had assumed command on the 19th of July" and immediately transferred the Head Quarters, and principal Depots to this place, (i.e. Ft. Union, NM). I deemed it very important to have the Depot each of Santa Fe and directly on the line of communication with Missouri, as it gives me more direct control over all the affairs of the Department.

I have broken up the posts of Las Vegas and Rayado, as this post makes them unnecessary, and they were very expensive, especially the latter.

I intend to abandon Albuquerque, Abiquin, Toas (sic), and Socorro, and establish two larger posts, one at Valverde (sic) on the Rio Grande, and the other at some point in the mountains, in the Utah and Apache Country".

In a later, more lengthy report which Sumner sent to Bvt. Maj. Gen'l. R. Jones, Adjt. General from Fort Union, October24th, 1851, he enumerated the changes he had made. In this report it is easily seen that he detailed the instructions he had received earlier that year from the Secretary of War and indicated that he had been carrying them out to the letter.

"I reached Santa Fe, on the 19th of July and assumed command of the Department. My first step was to break up the post at Santa Fe, that sink of vice and extravagance, and to remove the troops and public property to this place. I left one company of Artillery there, and shall have a

"cavalry station within striking distance of that place, during the coming winter.

I understand that many applications have been made to the government, by the people of Santa Fe, to have the troops ordered back there. I have no hesitation in saying, that I believe most of these applications proceed directly or indirectly from those who have hitherto managed to live, in some way, from the extravagant expenditures of the Government, I trust their petitions will not be heeded.

I have also withdrawn the troops from the towns of Las Vegas, Rayado, Albuquerque, Ciboleta, Socorro, Dona Ann, San Elizario, and El Paso, and I have established this post, (Fort Union,) near the Moro River, and on the line of communications with the Missouri frontier. This will be the Department Head Quarters and general depot.

I have also established a post on the Rio Grande near El Paso (Fort Fillmore,) one at Valverde on the same river (Fort Conrad,) and one at Canon Bonito (Fort Defiance). These posts have all been selected, with a view to cultivation as well as the defense of the frontier, and they are now being built by the troops and the expense will be very small. I designed establishing a post in the Utah country this fall, but it is so late, I am obliged to postpone it till spring.

I consider the withdrawl of the troops from the towns, a matter of vital importance, both as it regards discipline and economy. It is unquestionably true that most of the troops in this territory have become in a high degree demoralized, and it can only be accounted for, by the vicious associations in those towns. These evils are so great, that I do not expect to eradicate them entirely, until I can bring the troops together, in considerable bodies for discipline and instruction". (Calhoun, James S., The Official Correspondence of, edited by Annie Heloise Abel, Washington, 1915, pp. 416-417).

As indicated in previous paragraphs, the troops had been quartered in the various towns in rented buildings.

In Santa Fe, for example, rentals amounted to $897 per month for quarters, storehouses, offices, slaughter house, etc.

In Albuquerque $275 a month was expended for the same purposes.

Troops quartered in Socorro paid $290 per month.

In Dona Ann the cost was $362 monthly.

The citizens of Las Vegas charged $439 for the buildings rented by the Quarter Master for use of the troops.

The total for these towns amounted to $2,063 which Uncle Sam spent to keep his soldiers under cover and the supplies out of the weather. (See Message of the President, 32nd Cong. 2nd Sess., Ex. Doc. No. 2, Washington 1851, pp. 242; 244,245,251).

In addition to these expenses, there were those of a number of civilian employees who acted as clerks, cooks, forage and wagon masters, carpenters, blacksmiths, laborers, herdsmen, etc. Sumner's first order issued in Santa Fe, July 19th, cleared out the majority of these men and ordered their work taken over by the troops themselves. Naturally the closing down of the Santa Fe headquarters did not please the townspeople. But, as Sumner indicated, he hoped that the petitions to have the troops returned to the city would not be heeded.

The loss of the civilian employees created difficulties. In the first place skilled artisans were needed to assist in the construction work on the new posts. Soldier labor was, with few exceptions, totally unskilled. Nor could the average recruit handle stock with any degree of knowledge or experience. Many of these were straight from the city streets and had to be taught everything from how to mount a horse to the proper care of the beasts. There were few experienced mule skinners or bull whackers among the green soldiers. Consequently the army suffered from these petty economies. Morale usually fell to zero when men who had enlisted to become soldiers were turned out each day to do laborers' work, to act as carpenters, stone cutters, drovers, blacksmiths, etc.

The lack of good men on these tasks was reflected in the type of work done on the construction of the post itself. At first, the troops sent to Fort Union were housed under canvas. During fair weather this wasn't so bad, but when the fierce winds blew and the rain fell, tents were poor shelters.

Ft. Union----1851-1861

In addition to the construction of the post, the troops were also set to work to plant gardens. As a rule, prior to this time, few posts had vegetable gardens. The War Department, however, because of the distance from the usual supplies of such foodstuffs and difficulties in transportation issued G. O. No. 1, Jan. 8, 1851, which stated in part: "In order to promote the health of the troops and to reduce the expenses of subsisting men and horses at remote posts---as on the Indian frontiers of Texas, of New Mexico, California and Oregon by systematic gardening and farming", (Ex. Doc. #2, 1851, op. cit. p. 161)., the Commanding Officers of the posts were to cultivate kitchen gardens with soldier labor. The products were to be used in the hospitals and company messes. When feasible such field labor was to be done by Indians hired for the purpose, but in the event the redmen couldn't be induced to toil in the truck patches or hay fields, the soldiers were to become farmers. This order was to be put into effect "as soon as possible".

Since there was plenty of water at the site selected for the post, garden patches were planted there if we are to take the word of Brigadier General James H. Carleton, who, writing in 1862, 11 years after the founding of the posts said:

"Many think the site too far from water and some of the old residents of the Fort say that the pools of water in the vicinity are gradually disappearing. When I was stationed at Fort Union in 1852, there was one pond in front of the fort which was more than ten feet in depth and was filled with fish; and by artificial means I drew water from it to irrigate a post garden. That pond (1862) is filled ~~with~~ up by drifted sand and people

walk across it dry shod. This may have been the result of the three dry years which have last passed by". (Letter, Brig. Gen'l. James H. Carleton, Head Quarters, Dept. of New Mexico, Santa Fe, Nov. 20, 1862, to Maj. Gen'l. Montgomery C. Meigs, Q.M. Gen'l. USA. Box 1169 Consolidated Correspondence Files, Office of Q.M. Gen'l. Old War Records, Nat'l. Archives).

According to a map of the Military Reservation of Fort Union, drawn by John Lambert, under the direction of Chief Quarter Master Bvt. Col. H. M. Enos, August---December, 1866, two post gardens are indicated. One of these is shown as having been about one-eighth of a mile southeast of the Ordnance Reserve fence enclosing the Arsenal buildings and about five-eights of a mile from the southwest point of the major earthwork at FortUnion proper, which was then under construction on the present siteof the post.

Another garden was approximately one and one-fourth miles northwest of the Ordnance buildings at the base of the ridge against which the post had been constructed. Approximately three miles south and a trifle east of the spring and post garden of 1866 was a cienega, or marshy place fed by springs, the water forming a small lagoon. No garden is indicated as having been planted at that point. This spot was directly on the old road to Santa Fe.

To make it more official, the amount of the crops of hay, wheat, barley and corn as well as garden produce was to be included in the reports of the Commanding Officers of each post as of July 1, and October 1, and these officers were to be held accountable for all losses sustained (unless they could be proved unavoidable). The cost of maintaining each cavalry mount and draught animal at Ft. Union and other frontier posts at this time (1850---1851) amounted to $10 per month. It was admitted however, that some difficulties might be encountered in raising forage and garden supplies in

New Mexico, unless more adequate irrigation could be had for fields and gardens. Such were some of the headaches of the commanding officer at Fort Union during the days of its infancy.

As a matter of fact, aside from the few vegetables grown in the post garden, I very much doubt that any great amount of hay and grain were ever planted or harvested by the troops stationed there. Certainly the Indians in the area were not amenable to farming and the soldiers themselves were kept too busy chasing said Indians, acting as escort for wagon trains, pursuing deserters or otherwise engaged in duties at the post to spend long hours planting and reaping crops.

Construction on the actual building of the post began shortly after Col. Sumner ordered the headquarters removed to that point from Santa Fe.

On September 2nd, 1851, Major E. S. Sibley, whom it will be remembered, was appointed Quarter Master of District 9, in New Mexico, reported to Major General Jesup in Washington, his superior officer in the Quarter Master Department:

"I arrived here on the 6th ult. (August 1851) in charge of a large train of wagons loaded with medical supplies, clothing subsistence and Q Master's stores...".

Apparently this was the initial wagon train to arrive on the site of the old fort. Sibley then continued:

"We are progressing rapidly in the erection of buildings at this place and have already raised log cribs for the quarters for two companies, one of Infantry and one of Dragoons, for a hospital and quarters for the Commanding Officer of the post and three staff officers. I have found limestone

"in our immediate vicinity, which, having been tested, proves of good quality, and I have had a kiln made which will be filled and burnt immediately. As soon as the mill, which is now being built, is in a state of readiness to saw lumber, which will be the case I trust, tomorrow, we shall commence covering the buildings and laying the floors and if no accident occurs, I expect the quarters will be in readiness to receive the troops the 1st day of November next at the farthest".

On August 18th, Bvt. Col. Sumner had put in an order for supplies for the post for the fiscal year commencing July 1, 1852 and ending June 30, 1853, but Major Sibley stated that he needed an additional amount of materials for the construction of an use in the new post.

He called for 20 kegs of 10 o nails, 10 kegs of 12 o nails, 10 kegs of 20 c nails as well as 500 pounds of horse shoe nails and 200 pounds of mule shoe nails.

He also needed 20 boxes of window glass 7 x 9 inches and 10 boxes of window glass 8 x 10 inches. To cement these in the frames he wanted 150 pounds of putty.

Anticipating continued activity in the cutting of timber he ordered 12 dozen felling axes and 30 dozen axe handles. He also wanted 12 dozen spades, four dozen shovels, 3 dozen stone masons' hammers; 3 dozen stone masons' axes; 1/2 dozen stone masons' sledges, and 2 dozen brick layers' trowels. In anticipation of brush grubbing and ground breaking he wanted 6 dozen mattock handles and 12 dozen scythe stones. The latter to keep sharp the mowing scythes which would be needed to cut the wild prairie hay for forage.

Quarter Master Lt. Col. Thomas Swords (op. cit) wasn't too happy with the arrangements made for the protection of public property at Ft. Union. He deplored the hasty action of Col. Sumner in moving everything from Santa Fe, without previously having made adequate provisions for housing the perishable material, said Swords:

"Though too much credit cannot be awarded to Colonel Sumner for the prompt measures he took immediately on assuming command for cutting down expenses, I must express my doubts as to the propriety of removing the stores from Santa Fe before provision was made for their security at the new post. As there were large and secure storehouses belonging to the government, and a company of artillery still at Santa Fe, I think it would have been better to have removed only such stores as were immediately required, and to have left the rest until proper storehouses were provided, or until they should be called for at the posts in the lower end of the Territory, to which many of them will ultimately have to be sent. Santa Fe being about one hundred miles nearer to these posts the expense of double transportation would have been avoided. In addition to the supplies already at the post, large trains with others, were then on their way out, for which additional protection would be required, though everything that could be made available had already been stored to its utmost capacity".

Col. Swords in thus emmerating the various reasons for the retention of the major bulk of the stores at Santa Fe, placed his finger squarely upon the sore point in the construction of Fort Union so far from the main center of military activity in New Mexico and Arizona, which was to fester for many years until finally Fort Union ceased to be a concentration of supplies for the military posts of the Southwest.

Ft. Union----1851-1861

Although Major Sibley voiced his optimism concerning the occupation of the buildings at Fort Union in the immediate future, his optimism began to want a month later when he wrote to General T.J. Jesup, Oct. 3, 1851:

"On the 2nd ultimate I had the honor to report to you the operations of the Q Master's Department in New Mexico up to that date, since which time, as no regular system of expresses was authorized by the Colonel commanding this department before his departure on his expedition to the Navajoe country, I am unable to give you as full or as detailed a history of the operations of the Department except at this post, as under other circumstances I could have done.

The expenditures of the Q Masters Department have been materially reduced within the last three months and with very few exceptions all clerks, mechanics and operatives have been discharged from the service and their places, when the public interests required it, have been supplied by soldiers from the line of the army. At this post there are, exclusive of the teamsters attached to a train of wagons intended as a moveable one between the general depot and subordinate depots in the Territory, only four citizens employed in the Q Masters Department, a clerk for the principal Act. Q Master, who is also in charge of the General C. Depot, a Master carpenter and two sawyers, and their services are at present absolutely necessary and cannot well be disposed with.

We have during the last month progressed rapidly in the construction of the buildings at this post, andnave finished the log cribs for all those contemplated by Col. Sumner before his departure. In addition to the buildings enumerated in my letter of the 2nd ult. cribs have been completed for

"quarters for the two staff officers, the Colonel commanding the Department, and two captains of companies; a roof has also been placed on the Commanding Officer's quarters and the carpenters are now at work covering the quarters intended for a Company of Dragoons. Contrary to Col. Sumner's intention it has been necessary, owing to the saw mills we are compelled to use, which are incessantly requiring repairs to cover the officers' quarters with earth, the custom of the country.

The only buildings that will be covered as he designed, with board roofs, will be the Company quarters and the hospital. The earth coverings are only considered temporary, and if it is deemed best, can be replaced next spring by board roofs when we shall have lumber enough on hand to warrant the change.

Although the buildings are not as far advanced toward completion as I anticipated they would be at this time when I last wrote you, yet I am still of the opinion that we shall all be in confortable quarters by the 1st proximo unless our mills fail which, from the present appearances, I hardly think probable.

Capt. Bowman, Regl. Q. Master of the 3d Regiment of Infantry, reached Fort Union on the 21st ult. in charge of a large amount of silver coin, which he turned over to me, and which, for the want of a place of greater security, I have deposited for safe keeping in a vault under my tent. He came directly from El Paso del Norte and at the time he left that post no movement of troops had been made.

It is probable, however, that the movement has been effected and that the troops have ere this taken their position at the new post of Fort Fillmore. I fear, though the lateness of the season, that it will scarcely be possible for them with their utmost exertions to hut themselves comfortably

at Fort Fillmore before winter and I fear the same result at Fort Conrad.

Nothing official has recently been heard from Col. Sumner, but I am unofficially advised that he will probably be back from his expedition in the course of eight or ten days.

He has, as I am informed, located a new post in the Navajoe country at the Canon of Boneta (sic) instead of the Canon of Chelee (sic) where he contemplated establishing it when he left here, and, owing to the want of good grazing, many animals, both horses and mules have been lost, etc., etc.."

One month later, Nov. 3, Major Sibley again reported to Jesup, on progress of the construction of Fort Union and other affairs concerning the post. (Box 1168, Q.M.G. Reports, Nat'l. Archives).

"We have not got along with our building at this post quite as rapidly as I anticipated at the date of my last report. I think, though, I may safely state that we shall all be in quarters in less than two weeks, if the weather continues to prove as fair as it has been for the past month. The quarters for one company and the hospital are completed except the glazing of the windows and the hanging of the doors, and I am now busily occupied in sawing the lumber necessary to cover the other set of soldiers' quarters.

The officers' quarters are all covered and with a few exceptions floors are laid in one room of each set and the quarters are occupied by officers and their families. Those that are not completed will not with one exception, be immediately required, as the officers for whom they are intended are either absent or purpose to leave on a temporary absence in a day or two.

"An order has been issued to concentrate Bvt. Maj. Gideon's company of the 3d Infantry, which now occupies Abiquiu and Taos, at La Joya, and I presume the Col. Comd'g. has given the necessary orders for quartering them on arrival, although I know nothing in relation thereto".

Apparently Maj. Sibley always felt somewhat in the dark as to the thoughts and actions of Col. Sumner. His letters indicate this time and again.

When two companies of the 1st Dragoons were ordered from Ft. Union to take post at Galisteo, a village about one hundred miles from Fort Union and only about twenty-five miles out of Santa Fe, nine wagons left Fort Union with supplies for the new cantonment of which five remained with the command and the other four returned to Fort Union. Said Sibley:

"I do not know the arrangements of Col. Sumner for quartering the troops at Galisteo as I was not consulted in the matter and have not been informed".

On October 15, 1851, an ox train of twenty-six wagons and ten mule drawn wagons left Fort Union loaded with quarter master and ordnance supplies, destined for Ft. Defiance. The outfit went via Santa Fe and Albuquerque. Major Rucker, appointed to duty at Ft. Conrad commanded the train as far as Santa Fe at which point Col. Chandler of the 3d Infantry was "ordered to escort it with his company to its destination. This new post established within the limits of the Navajoe country must be an expensive one owing to the necessity of transporting a long distance all the forage and other supplies that will be required by that of far distance garrisons". So wrote Major Sibley, the unhappy Quarter Master of Fort Union and the 9th Military District of New Mexico.

Ft. Union----1851-1861

The use of untrained personnel in the building of Fort Union resulted in the slow but steady disintegration of the structures at the post. The pine logs used in its construction were laid up green with the bark on. The normal procedure would have been to cut the timbers ahead of time and strip off the bark. By not doing so the logs warped in drying and the wood boring insects as well as others, such as bed bugs, found a snug haven in the logs and under the bark and by the time the logs were fairly dry they were already decaying. So with the roofs and the flooring. Rafters also warped and caused uneven places in the flat roofs. Water settled and then came through upon the inhabitants.

By the summer of 1854, a bare three years later, the fort was in a miserable condition.

Lt. Col. Philip St. George Cooke stationed at the post reported to Maj. Gen'l. T. F. Jesup, July 15, 1854. He said that the company barracks for two companies of the 2nd Dragoons and those of one company of the 3d Infantry were in "habitable condition". Concerning the other structures he said:

"Most of the buildings at Fort Union were erected in the fall of 1851 in great haste, owing to the lateness of the season and the desire to get the troops in quarters before the winter set in.

They are built of rough pine logs with the bark on. Many of them with flat roofs covered with dirt, others with sharp board roofs. The logs of which the Quarters were built are now considerably affected with dry rot. In consequence of which the roofs are frequently falling in and the buildings settling so as to make constant repairs necessary which have been, and can be made by the troops, and out of the ordinary appropriation of the Quartermaster Department.

"The planks for these repairs being sawed by a small mill which is at the post.

During the last year there has been made to one set of quarters, a small addition and one addition and considerable repairs to the store rooms in many of which floors and new doors have been put.

There has been built a stable for Dragoon horses, one hundred and ninety feet long and thirty feet wide, made of upright logs, set in the ground, with a sharp board roof. Also a large corral made with upright logs and plank gates for the preservation of hay.

Within the last four months a company of artillery which was previously stationed here has been replaced by a company of Dragoons. This change will make it necessary to build an additional stable.

It is contemplated to make it the same dimensions of the one lately built with a flat earth roof instead of a sharp plank one.

This can be done by extra duty men out of the ordinary appropriations for the Quartermaster Department.

In conclusion it may be proper to state that up to within a few months past this place has been the principal Quarter Master and Commissary Depots for this Department.

These Depots have been lately transferred to Albuquerque, and in consequence there are now some vacant store rooms at the post. This, however, is still a sub-depot for the supply of the northern posts of the department." (Source: Box 1169, QMG Reports Nat'l. Archives).

In his last two paragraphs Col. Cooke indicated something of the fluctuating policy that governed the use of Fort Union during its entire existence.

Col. Sumner, acting as we have already noted, upon the direct orders of the War Department to remove headquarters of the 9th Military District of

New Mexico from Santa Fe, that "sink of vice and extravagance", soon discovered that it was not practical to administer the District from so remote an area. Accordingly, on January 1, 1852, approximately five months after he had established Fort Union as Head Quarters, Sumner wrote to his superiors in Washington saying:

"I find it indispensably necessary to remove my headquarters from this post (Fort Union) to Albuquerque on the Rio Grande, in order to be nearer the new posts in the Indian country. Circumstances might arise that would make it very important that I should be within striking distance of these posts". (Calhoun Correspondence, op. cit. p. 434).

As a simple matter of logistics it was easy to see from the beginning that the maintenance of Fort Union as a central supply depot of quarter master, ordnance and subsistence supplies, for the most important posts in New Mexico and the eastern part of Arizona, was practically useless and would in time become a white elephant. Col. Sumner soon discovered that practically all of his troubles lay in the Rio Abajo district. South and west of the lower Rio Grande were the centers of most of the Indian troubles. Here, within the next few years were to be concentrated the bulk of the troops and here new posts such as Fort Craig, Fort Selden, Fort Stanton, Fort Sumner, etc., were to be constructed to supplement Fort Conrad and Fort Fillmore. Although Sumner had broken up the "very expensive and useless" post on the Rio Grande, opposite the Mexican town of El Paso (i.e. Juarez in later years) he found it necessary to maintain troops in the same general area.

Major Sibley, the Chief Quarter Master at Fort Union reporting on April 1, 1852, to Major General Jesup in Washington after Col. Sumner had gone to Albuquerque said:

Ft. Union 1851----1861

"The public buildings at this post, all that will be required for the present except a few shops and a store house, have been erected and are in a habitable condition. I shall continue to finish them completely as rapidly as I can with the means at my disposal, using the labor of enlisted men and I hope by the close of the ensuing summer to be able to announce to you that everything has been done that was originally contemplated and agreeable to the original design. All the lumber that is now used, and with the exception of a very small quantity, all that has been used at this post has been sawed here, and I am now having both lime and coal burned, thus providing the necessary materials with enlisted labor and reducing to some extent the expenses of the Q Master's department in this Territory. I have been compelled, however, as my Report of Persons for the last month will indicate, to increase the number of citizens employed as teamsters at this Depot.

I shall have to increase their number still further this month. It was Col. Sumner's intention to have sent soldiers from each of the companies in this Department to Fort Union to serve as teamsters, but owing to the Indian disturbances on the lower Rio Grande he has found it impracticable to do so at the present. As soon as the disturbances cease I presume he will carry his intentions into effect.

Then all citizen employees will be discharged. In the meantime I have Col. Sumner's sanction and authority for hiring citizens as teamsters, the necessity of the service absolutely requiring it.

I know nothing officially of the progress that has been made in the erection of quarters and other public buildings at Fort Defiance or at the posts on the lower Rio Grande, but I am informed that the troops are comfortably located and the stores tolerably well protected". (QMGO Box 1169, Nat'l. Archives).

Ft. Union——1851-1861

In October 1851, Sibley had reported on the reduction of civilian employees in the Quarter Master's Department stating:

"The expenditures of the Q Master's Department have been materially reduced within the last three months, and with very few exceptions all clerks, mechanics and operatives have been discharged from the service and their places, when the public interests required it, have been supplied by the soldiers from the line of the army. At this post there are, exclusive of the teamsters attached to a train of wagons intended as a moveable one between the general depot and subordinate depots in the Territory, only four citizens employed in the Q Master's Department, a clerk for the principal Act. Q Master, who is also in charge of the Gen. Commissary Depot, a Master carpenter and two sawyers, and their services are at present absolutely necessary and cannot well be disposed with".

The problem of stretching soldier labor to cover everything from gardening to general construction work and transportation was one that continually plagued the Quarter Master at Fort Union. In spite of the orders from the War Department to economize in such matters, and the desire of the Commanding Officer and his subordinates to comply with such orders, it was not always possible or sensible to do so.

The problem of transportation of supplies via the long overland route from Fort Leavenworth to New Mexico was one that harassed the commanding officers of the 9th Military District from the beginning.

Originally the supplies were moved by steamboat to Fort Leavenworth from St. Louis and Kansas City and other points, thence they were freighted by wagons over the Santa Fe trail to their destination. In the later days of the post (Ft. Union) the railroad carried the supplies to Watrous and

thence via wagon the few short miles to the depot of supplies at the fort.

Prior to 1845, Fort Leavenworth was an extreme outpost on the frontier but by 1851 it had become an intermediate depot of supplies for forts and troops in New Mexico as well as on the Oregon trail. Originally founded in April 1827 by Colonel Henry Leavenworth and called Cantonment Leavenworth, the post stood on a high embankment one hundred and fifty feet above the water on the west bank of the Missouri River "near the mouth of the little Platte river". As the frontiers of the United States pushed further to the west, Fort Leavenworth assumed a more important status than a mere frontier outpost. After the Mexican War it grew steadily and in 1854 a company of men from Weston, Missouri, attracted by the possibilities of business at Fort Leavenworth, laid out a town site two and a half miles below the post and called the town Leavenworth. The town boomed and from a population of thirty-two in 1854 it had grown to some 15,000 by 1859-60.

In the new town were located many business concerns of all sorts. For example, there were eleven wholesale grocers and fifty-five retail groceries six years after the first town lots were cleared of the underbrush. There were six carriage and wagon manufacturing establishments, dozens of saloons and numerous other stores, blacksmith shops, livery stables, contracting firms, etc. The famous firm of W. H. Russell, Alexander Majors and W. B. Waddell had a large store here which sold everything from laces and embroideries to rubber boots and groceries. In fact this outfit had three different establishments, one at No. 40-41 Levee, on the waterfront, another on the corner of Seventh and Sioux Streets and the third at No. 62 Main Street.

Ft. Union----1851-1861

It was from Leavenworth that Russel, Majors and Waddell dispatched their huge wagon trains west to various points along the Santa Fe and Oregon trails. As a matter of fact, Wm. H. Russell acted as agent and trustee of the Leavenworth Association and bought in most of the town lots from the government, for the benefit of the Association in November 1857. The price paid was $24,000. Many of the teamsters and wagoners who drove the wagons loaded with merchandise and government stores made their homes in Leavenworth.

About January 1st, 1859, Leavenworth was linked with St. Louis by telegraph and all dispatches for Fort Union and the other posts in New Mexico from Washington and other points east arrived at Ft. Leavenworth and were thence sent by mounted couriers or stage coach mail to their destinations.

The first "Leavenworth City Directory" published at St. Louis in 1859, summing up the advantages of the new city of Leavenworth said:

"The proximity of Fort Leavenworth, one of the most important posts in the United States, the enormous amount of business to which it gives support and encouragement, together with the surprising fertility of soil everywhere in Leavenworth County, etc., etc.....combine to make it a rare and unique spot in a beautiful valley.

As to the geographical position of Leavenworth, it is enough to look at the map, and see to what a vast distance its trade seeks support, and its enterprise penetrates; the roads that lead to Salt Lake, New Mexico, California, Oregon and Arizona, are enough themselves to support an enormous amount of business. These roads have been worked, bridged and carefully located, and being upon the routes that abound with all the requisites of

"extensively traveled roads, are the great avenues by which all this vast interior continent is supplied, not only with merchandise, food and luxuries, but with all their correspondence and newspapers". (p. xiii).

TRANSPORTATION TO NEW MEXICO

In general the matter of transportation of supplies to New Mexico has already been discussed in the section of this report devoted to the brief history of the Santa Fe Trail. When, however, the various posts were founded in the new Territory, the Federal government entered the scene as one of the major factors in the movement of supplies, not only to Santa Fe, Albuquerque and various other smaller posts, but also to Fort Union, which during its formative years was the major depot of government material in the Southwest.

For a time at least these supplies were sent over a southern land route into Texas, as well as by sea, thence by wagon up the Rio Grande from El Paso. This, however, was too costly and eventually all of the subsistence, quarter master's and ordnance supplies moved out from Fort Leavenworth over the Santa Fe Trail. In 1851, it was noted that west of Leavenworth there was not one foot of railroad, and the optimistic statement of the author of the Leavenworth Directory to the contrary said there wasn't one good "turn pike" road either.

To transport supplies effectively the Quarter Master in Ft. Leavenworth usually contracted with private parties to carry the goods at specified rates per pound laid down at a stated destination.

Thus, in February 1850, Bvt. Maj. E. A. Ogden, AQM at Ft. Leavenworth, contracted with Joseph Clymer to transport military stores in a train of not less than 25, good, strong wagons to be well covered with two substantial duck covers. "Such wagons shall not be over-loaded and are to be provided

with adequate teams of good work oxen". Clymer also agreed to employ not less than 30 well armed men to accompany each train and that he would have the first train in readiness to leave Fort Leavenworth by May 1, 1850, and subsequent trains of like size and strength were to depart for Santa Fe between May 1 and September 1. Moreover, Clymer was to be held responsible for all shortages of goods upon their arrival at the Santa Fe terminal. Clymer was to have the privilege of taking such military wagons from Ft. Leavenworth as Maj. Ogden deemed could be spared.. "at Price to be established by disinterested persons, price to be deducted from payment for delivery of supplies which was to be at the rate of 8-7/8 cents per lb. laid down in Santa Fe", (Register of Contracts, QMGO, Book 11, 1847-1852, pp. 327-328 Nat'l. Archives).

This was a typical contract. Other contractors who hauled freight from Ft. Leavenworth to Fort Union and Sta. Fe, 1850-51, were David Waldo, James Brown; Brown, Russell & Co.; Jones and Russell, and perhaps others. In this period a total of 1,703,536 pounds of freight were transported in some 335 wagons. Rates varied from $7.07½ to $14.33-1/3 per hundred pounds and the value of the goods carried amounted to $219,685.05. (Hose Report, 32nd Cong. Ex. Doc. No. 2, 1851, Report of Quarter Master Thos. Swords, pp.295-296).

The traine moving out of Leavenworth over the Trail, started as early as possible in the Spring, taking advantage of the new crop of grass to provide as much forage as possible for the teams en route. This matter of adequate forage was a serious problem for the wagon masters in charge of the trains and of great concern to the Quarter Masters at both ends of the line.

If the trains were delayed in starting, the grass withered and provided less sustenance. Moreover the eastern bred animals were not acclimated to the extreme heat of the plains and many died en route or became so crippled that they had to be abandoned. Likewise the wagons, manufactured in the east and middle west of timber best suited for traffic in those regions, often dried out and began to fall apart on the road. Hence, a reserve supply of wagons and draught animals was necessary at Ft. Leavenworth as well as at Fort Union. But here again there were troubles. Grain and hay were scarce in New Mexico and prices were correspondingly higher than at the eastern terminal.

Col. Sumner in October 1851, suggested to Col. Swords that the best way to send supplies from Fort Leavenworth would be large trains of ox drawn wagons in the hands of a good Quarter Master. These trains could start on the trek west early in the Spring, be used in New Mexico until Fall and then be sent back to Ft. Leavenworth where they could be wintered much more cheaply than at Fort Union. He also believed that 8 yoke of oxen could be hooked up to every outbound wagon and four yoke could be left in New Mexico to be used as beef while the other four animals could haul the almost empty wagons back to winter quarters. He felt this would be more economical than any other system. The Subsistence Depot at Fort Union would have beef at Missouri prices and he didn't believe costs of freight transportation would be much over $4 per hundred lbs.

Sumner also requested at this time that officers assigned to duty at Fort Union be permitted to transport free of charge certain amounts of supplies for their own use, not to exceed 500 pounds, for any one officer at any one time. Officers were required to find their own supplies, not

being furnished with free rations, hence with prices so exorbitant on the frontier and supplies being scarce, it was more economical to these underpaid men to be able to obtain articles and foods from the East by government wagons than to buy them in New Mexico. (Report of Col. Sumner, Oct. 22, 1851, to Lt. Col. Thos. Swords, Box 1168 QMGO, Nat'l. Archives).

On October 24, Col. Sumner reported that he had dispatched to Fort Leavenworth a train of 71 wagons and 473 mules to save the expenses of wintering them at Ft. Union. Moreover, he said that he didn't believe any contract train would be required for 1852, since he had all of the basic necessary supplies, aside from a few articles that the Government train could bring out in the spring.

He enumerated the items (by rations) on hand which he deemed sufficient to subsist the troops for the ensuing year:

Pork and bacon (at the present rate of issue).....	1085 days
Beef (this can be bought here)	50 days
Beans and rice (beans can be bought here)	525 days
Coffee	800 days
Sugar	775 days
Vinegar (vinegar can be bought here)	290 days
Candles	740 days
Soap	471 days
Salt	700 days"

I have already indicated some of the difficulties encountered by the Post Commander in securing proper personnel to handle the teams necessary in local transportation in the Territory.

Major Sibley writing Dec. 31, 1851, to Quarter Master General Jesup, said he had found it necessary to employ civilian teamsters:

"It is impossible to procure soldiers sufficient for our wants who have any experience whatever in ox driving. The roads are rough and rocky and to entrust loaded wagons to inexperienced drivers would be to insure a

"certain loss and an almost certainty that the supplies would not reach their destination in a reasonable time at all.

The expense is unavoidable but will be gradually diminished as the soldiers become accustomed to driving and experienced in the care of oxen and mules. Col. Sumner is aware of the necessities of the service in this respect and all I have done has been with his sanction". (Box 1168 QMGO, Nat'l. Archives).

Col. Swords in his report (op. cit. pp. 240-41) felt that if sufficient crops could be raised at the various posts some of the transportation costs could be reduced. However, as it developed, the lack of manpower and adequate tillable lands with sufficient water, was the stumbling block in this agricultural problem and supplies of grain, corn and barley for the mules, horses and oxen still had to be purchased wherever they could be found.

Col. Swords also felt that the methods of packaging the different supplies were wasteful. He advised cutting down the weight of the empty barrels in which bacon and hard tack were packed. The bacon barrels weighed 45 pounds empty, those for hard tack weighed 35 pounds. When filled, the bacon barrels weighed 230 lbs. while those of hard tack were 130 lbs. He recommended that more flour be sent out in order that the troops could bake their own bread for garrison use and eat hard tack only when in the field. He also thought it would be more economical to order both bacon and flour at Ft. Leavenworth instead of in St. Louis.

Swords also believed that life on the frontier would be less irksome to the officers if their baggage allowance was increased. If such were the case the men could enjoy a few little luxuries taken for granted in the more settled regions, by having more books and musical instruments, or whatever

else might make life more endurable and less monotonous on the fringes of civilization. As it stood then the pay was barely enough to permit carrying only the barest of necessities. (pp. 240-241)

Swords also cited the scarcity of corn for the animals and the high price it commanded in the Rio Grande valley, when it could be obtained. Likewise he deplored the wastage of grain by the wagoners en route across the plains. He said that few of the teamsters used nose bags in feeding horses and mules. The corn was thrown on the ground in front of the animals and thus much of it was lost.

He was also concerned with the lack of proper storage facilities for the foodstuffs at Fort Union. Ham and bacon spoiled easily as did other types of subsistence, particularly when poorly stored. As a result thousands of pounds of meat, beans, flour, etc., were condemned annually. (id. p. 252).

This matter of provender and its maintenance in storage was one that caused trouble at Fort Union during its entire existence. As noted previously, the hasty decision of Col. Sumner to remove all stores from weatherproof warehouses in Sta. Fe and Albuquerque to Fort Union in the summer and fall of 1851 where the boxes and barrels were stacked in the open with only tarpaulins or tents to cover them, was a sore point with Quarter Master Swords.

Captain Issac Bowen, in charge of Subsistence Commissary supplies at Fort Union at this time also fretted about the stores in his charge. He wrote his superior officer, Maj. Gen. George Gibson, Sept. 30, 1851, and said that he had made an accurate inventory of all supplies but candidly admitted that he didn't know how many items had been stolen from the stores

while they were in Las Vegas:

"I know from observation that scarcely a day has passed since I arrived here, that something has not been stolen from the tents in which the provisions are stored. The first log has not yet been cut for building storehouses here and the probability the stores will have to remain in tents the whole or greater part of the winter".

Nor were such things as coffee, hard tack, sugar, etc., the only items that were pilfered. The large cattle herd for which he was responsible had to be herded day and night because there was no corral available...and many of the animals were not even branded. The result was that the oxen were easily stampeded and since they could travel many miles during the night it was almost impossible to round up all the missing brutes.

Capt. Bowen also believed that the unbranded strays were promptly snapped up and branded by neighboring ranchers, thus there was no way to prove that they had ever been Government stock. On the morning when he posted his report he said 200 head had been missing on the morning count. A man sent in search of them reported that he had found the animals some eight or ten miles from the Post, going at a full trot with an old, lame, broken down ox leading the van. Thus, he observed, he and his men had spent endless hours and traveled hundreds of miles searching for strayed or stolen animals.

The extreme isolation of Fort Union weighed heavily upon the garrison. Said Bowen:

"We are perfectly isolated here from the rest of the world, that the sight of a new face once a month is an object of curiosity. This fact combined with the impossibility that has existed for one to leave the post has

"prevented me from obtaining any information not already in the possession of the Department with regard to the resources of the country". (Box 1168, Office of Q. M. Gen'l. Nat'l. Archives).

A month or so after Capt. Bowen wrote about his difficulties in keeping the cattle together, Major Sibley contracted with an old French Canadian Mountain man, Levin Mitchell, known also as Leveen Michel and by a more familiar nickname "Colorao" Mitchell, to herd the public animals which were unfit for public service, or those which were held in reserve for public service at a later date, for the sum of fifty cents per head per month. (Letter, Maj. Sibley, Nov. 26, 1851, Box 1168, Gen. Correspondence Army, QMGO, Nat'l. Archives).

In November of the same year Capt. Bowen also advised Gen. Geo. Gibson (Id. Box 1168) over Bowen's concern relative to obtaining sufficient stores of subsistence from local sources. He stated that of all the supplies needed, beans and flour were the only foodstuffs easily obtained in New Mexico. However, even beans were scarce in 1851. Onions could be had at $5 per 100 lbs. Tallow candles cost 50¢ per pound, and none could be purchased wholesale. Good wine vinegar sold at $2.50 per gallon and he complained: "I cannot get an article made from the most common whiskey at less than $1 per gallon". The fresh beef allowance at this time was 1-1/2 pounds per man.

The pressure put upon the Quarter Masters and the Commisaries of Subsistence by the local populace to buy from the ranchers and merchants within the area has always been one of the major headaches of the army, particularly during the frontier years. As already noted, the town of Leavenworth flourished because of Government patronage. So it was in New Mexico. It didn't matter whether the supplies to be furnished at local levels were either adequate or up to army standards or whether the prices were exorbitant,

the populace howled to high heaven when the army imported its supplies from outside the Territory. One William Carr of Santa Fe wrote to the War Department on this subject, and as a result the much harrassed Capt. Bowen had to vindicate his stand on the matter.

On February 22, 1853, Bowen wrote to Col. Sumner as Post Commander concering the purchase of supplies for the troops and said that flour, corn, beans and salt "are purchased here". He continued, "Vinegar that is manufactured in New Mexico is of an inferior quality and costs more than double distilled cider vinegar in St. Louis with transportation added and I am opposed to the purchase of any more of it at present.

"Beef and mutton can be furnished in this Territory but it is indisputably necessary to guard the Government from paying exorbitant prices for these articles to estimate for one half about that is required to come from the States.

Vegetables will be purchased here. My instructions are to draw from the productivity of New Mexico as far as practicable the articles of subsistence required by the troops and save enormous expense of transportation from the States, and I have endeavored to comply with both the letter and spirit of these instructions".

Still later, on July 31, 1853, Captain Bowen wrote to General Gibson (QMG Correspondence File, Nat'l. Archives), requesting additional supplies be sent from the East for use at Fort Union and other posts in the Territory, to round out those already needed for 1853 and to maintain a sufficient supply on hand at least until Jan. 1, 1855.

Certain of the supplies on hand were meager and at some of the other posts, "the troops are without certain parts of the ration". The Captain

also anticipated that considerable difficulty would be entailed in sending the supplies within the proper time limit to the various posts owing to the delays in the arrival of the wagon train from the East.

He enumerated the amount of additional foodstuffs, soap, etc., which he estimated would be required for the remainder of 1853 and the entire year of 1854:

"30,000 lbs. of bacon
4,000 lbs. of hams
10,000 lbs. rice
20,000 lbs. coffee
40,000 lbs. clarified sugar
4,000 lbs. crushed sugar
2,500 gallons of vinegar
15,000 lbs. of soap
200 bushels Fine salt "for Family use. The Salt of this country is so impure as to be unfit for making butter and most purposes for which the article is required in a family.
500 gallons of pickles
4,000 lbs. of Candles (Star)."

As a result of Bowen's plea for more supplies, Russell, Waddell & Company signed a contract at Fort Leavenworth, September 15, 1853, undertaking to transport in well covered wagons, as speedily as possible, military stores from Ft. Leavenworth to Fort Union, the wagons to start rolling as near Sept. 20th as practical. The rate charged was 16 cents per pound. Alexander Majors and James B. Yager, also of Ft. Leavenworth, signed contracts on the same day for the same rate to transport goods to Fort Union. Considering the thousands of pounds of supplies requisitioned by Capt. Bowen to be carried at the rate of 16 cents per pound, the three firms had a tidy sum to split between them. (See Vol. 12, Contracts QMFO, 1852-1859, Nat'l. Archives, P. 909).

Ft. Union----1851-1861

In October of 1853, Fort Union, for the time being at least, ceased to be a Depot of army supplies. On the 29th of that month Brigadier General John Garland, an old soldier who had entered the army in 1813, wrote from Head Quarters 9th Mil. Dept. at Albuquerque to the Asst. Adjt. General of the Army, saying:

"Fort Union is entirely out of position for a Depot and it has been decided by a court of law, that the title to the land is in an individual--he may at any time claim damages or eject us. I have under these circumstances determined to withdraw the supplies and have ordered the principal Quarter Master and company of subsistence to a more convenient post---- Albuquerque----leaving the present garrison there for the winter".

This letter reveals the uncertain status of Fort Union which existed from the beginning. When Col. Sumner established the post on the site in 1851 he failed to take into consideration that the location was not on open domain but was in reality on privately owned property.

The legal battle relative to the military reservation continued for many years. In 1852, under Special Orders No. 30, issued May 11, the Fort Union Military Reservation was provisionally declared to cover eight square miles. Significantly, however, there was no Presidential order declaring such a reserve and in consequence no record was filed in the General Land Office.

In brief the post had been established upon a Mexican Land Grant known as the Mora Grant, which embraced some fifty square miles.

A detailed account of all the legal embroilments between the government and the owners of the land upon which the post was built would necessitate a book. Some of this background was given in the Report of Lieut.

Frederick Wooley, A.A.Q.M. 10th Infantry, Dec. 12, 1889 (Box 1268, Q.M. Gen. Reports, Nat'l. Archives) to which reference will be made further on in this report; likewise, Fr. Stanley devotes a number of pages to the controversy in his volume "Fort Union", 1953, pp. 27-57, hence no attempt will be made to expound on the complications of that situation at this time. Suffice it to say that although there were tentative proposals made to abandon the post at various times, the site was retained by the government until it was decided that Fort Union had outgrown its usefulness.

As mentioned previously Fort Union all during the 1850's was in a perpetual state of disrepair. Lt. Col. Philip St. George Cooke's report on it's status, July 15, 1854 (op. cit) indicates the causes.

Approximately a year and a half later, Feb. 4, 1856, Captain John C. McHerran, Asst. Q. M. at Ft. Union wrote to Capt. L. C. Easton who had relieved Maj. D. S. Sibley as Quarter Master in New Mexico in August 1853, to the effect, that after an inspection of the buildings at Ft. Union he was convinced it was absolutely necessary to take immediate steps in "rebuilding the entire post before the rainy season begins. At present some of the company quarters have to be propped up, outside and in, to prevent them from falling and all of the quarters and public buildings at the post are very much decayed, out of repair, unsafe and filled with insects and vermin".

Asst. Surgeon J. Letterman stationed at Union gave a report on the condition of the post, October 4, 1856 (See Statistical Report on the Sickness and Mortality in the Army of the United States compiled from The Records of the Surgeon General's Office, embracing A Period of Five Years From January, 1855, To January 1860. Washington, 1860, 36th Cong. Senat. Ex. Doc. No. 52). (pp. 221-222).

Ft. Union-----1851-1861

Said Letterman:

"The entire garrison covers a space of about eighty or more acres, and the buildings being, of necessity, widely separated, causes the post to present more the appearance of a village, whose houses have been built with little regard to order, than a military post. Unseasoned, unhewn, and unbarked pine logs, placed upright in some and horizontally in other houses, have been used in the erection of the buildings, and as a necessary consequence are rapidly decaying. In many of the logs of the house I occupy, an ordinary sized nail will not hold, to such an extent has the timber decayed, although several feet above ground. One set of the so-called barracks have lately been torn down to prevent any untoward accidents that were liable at any moment to happen from the falling of the building; and yet this building was erected in 1852.

The unbarked logs afford excellent hiding places for that annoying and disgusting insect the Cimex lectularius (bed bug...AW), so common in this country, which it is by no means backward in taking advantage of, to the evident discomfort of those who occupy the buildings---the men almost universally sleeping in the open air when the weather will permit. The building at present used as a hospital, having a dirt roof, has not a room which remained dry during the rain in the latter part of September last, and I was obliged to use tents and canvass to protect the property from damage.

The buildings have been during the past summer, and some are yet, undergoing repairs; and so long as they are occupied repairs will constantly be requisite to make them at all habitable.

Badly laid out and badly built, it is now essential that the post be rebuilt, and buildings erected with some regard to the welfare of those

"who are destined to occupy them, and not on the principle of short-sighted and extravagant economy.

The troops have been chiefly occupied in the erection of temporary stabling, in repairing quarters, some as escort to a surveying party, and in working upon the arrival of stores from Fort Leavenworth and their transmittal to the different stations in this department.

The diet has been that usually issued to troops. As no gardens could be cultivated during the past summer in consequence of the want of water for irrigation, which is required in the spring and early part of the summer, and on account of the great abundance of grasshoppers, extra issues of pickles, &c., from time to time, were deemed necessary for the health of the troopswho were liable at any moment to be called upon for hard service, and who at one time were ordered to hold themselves in readiness for field service.

In the clothing, the temperance, and cleanliness of the command, there is nothing to call for any particular remarks".

Dr. Letterman also commented upon the location of the post, the resources of the country water situation, etc. He mentioned the sandstone cliffs 150 feet high which rose immediately in the rear of the encampment.

"A portion of the post is placed in the immediate proximity to those rocks, and upon rapidly descending ground; the remainder being built nearer the arroyo, is on an almost level spot, and, receiving the wash from the higher part of the garrison, is not so well drained, ---the water during a heavy rain not unfrequently running into and through some of the buildings.

The soil is composed of clay, sand and gama-grass. No timberis found near the post, all that is required for building and for fire-wood being

"brought from a distance of six and eight miles.

"There is no stream of water sufficiently near to be of any service. The Rio Mora, a fine stream, coming directly from the Taos mountains, about twenty-five miles distant, which for nine months of the year are capped with snow, enters the valley about five miles to the south of the garrison, and a few miles further on forms a junction with the Rio Sapillo (sic), coming from the same mountains, and the waters of both pass on to empty into the Canadian. Quite palatable water is obtained by hauling from a spring near the post; it occasionally gives rise to diarrhoea when used by persons not accustomed to it; I am not able to state what are the mineral ingredients".

Dr letterman indicated that the climate seemed to be changing, old timers of the region assured him that the rainfall was heavier than in previous years. "It is probable", said Letterman, "that this increase may, in a measure, be owing to the greater extent of land brought under cultivation, and as a consequence a much more extensive surface of upturned land, and of water used in irrigation exposed to evaporation, which at this altitude is very great".

The doctor had no unusual cases of illness to report and remarked:

"Wounds in this climate do not readily heal unless completely protected from all external influences, being prone to erysipelatous inflammation, and even in many cases not healing quickly when such inflammation does not supervene. The use of collodion or some preparation of a similar character in the dressing of wounds is highly beneficial".

Thus it would seem that practically all observers who described Fort Union during the period 1851--1861 were unanimous in their opinion that the

post was an undesirable place in which to live, in fact, was not habitable for the entire time of its existence as a military encampment. Certainly it was not adequate as a depot for Quarter Master, Subsistence and Ordnance supplies.

There are many ground plans of Fort Union as it existed after the removal in 1861 to the present site of the post but few, if any, official plans of the place in its early years. I suspect the earliest semi-bird's eye view of the fort is the sketch made by Private Joseph Heger, presumably of Co. K, First Mounted Rifles in May, 1859.

This sketch made by the young German-American lithographer was penciled from the rocky ridge immediately to the west of the post and apparently a short distance south west of the spot from which the photograph of the Arsenal was made in 1879. (See Mazzonovich, Anton Trailing Geronimo, Hollywood, 1931 ed ed. p. 33).

Heger may well have been in Co. K, 1st Mounted Rifles commanded by Lt. John Van Deusen Du Bois (See Campaigns in the West, The Journal and Letters of Colonel John Van Deusen Du Bois, 1856-1861, edited by Dr. George P. Hammond, Arizona Pioneers Historical Society, 1949). The sketch is fairly detailed and shows the post as it stood shortly prior to the Civil War and the abandonment of the old quarters in favor of tents and the newer adobe structures and the "star fort" which rose on the plains about a mile to the east of the original site. Heger enlisted in the army Oct. 9, 1855 from Jefferson, Wisconsin, and was Honorably discharged at Fort Union in the Fall of 1860.

Judging by Heger's delineation of the post, there were some thirty-four or thirty-five structures, large and small composing the fort.

Ft Union----1851-1861

Lt. Du Bois arrived at Ft. Union about 2 p.m. January 9, 1858 with his detachment of Rifles. He commented upon the appearance of the place which was to be his home, off and on, for the next three and a half years:

"The company was quartered, my goods unpacked and I was home once more---not 'my home', but home theoretic. The place looks like a log village. The houses are scattered in every direction. The quarters are all of logs but are very confortable. I hope to enjoy myself here but suppose I will not. The regimental band is now playing. It is a great addition to the post". (p. 47)

Unlike some other occupants who shared the quarters at the post with him, Lt. Du Bois seemed to overlook the discomforts of the decaying log structures and settled into the monotonous life with a minimum of grumbling. He noted in the entry of his diary for February 26, 1858, that he had spent the month of January arranging his room, calling upon the ladies at the post, etc. He also transferred the command of Co. K to First Lieutenant A. McRae. Said Du Bois:

"I was perfectly delighted with my new home. We were like a band of brothers. I could not have selected from the regiment a more choice band of companions".

It is evident from a study of Heger's sketch that by the Spring of 1859, most of the buildings had been re-roofed and the flat mud and brush roofs which were placed on the structures in 1851-1852 had been done away with. The Commanding Officer's house, or at least it would appear that the house in the foreground on the small knoll overlooking the rest of the cantonment, was his quarters, was larger than the rest of the single quarters.

It had a fireplace at either end of the structure and was of logs laid up in crib style (i.e. horizontal) with what was termed "hog pen finish", that is the ends of the logs at the corners were not sawed off. The chimneys were of stone and mortar. As with many of the officers' quarters there were smaller out houses in the rear, surrounded by a log fence made by standing small logs on end, with gateway at the rear. There was also what appears to have been a root cellar in the backyard. On the southside of the rear enclosure were two smaller sheds with another small log fenced enclosure, possibly a corral for the Commanding Officer's horse. Immediately to the rear of the quarters adjacent to, but not joining the main house, stood a smaller roofed building. There were also two fireplaces, one at either end of the quarters, on the west side of the main house. These may have been for the kitchen. One door opened into the rear enclosure.

Although the contemporary descriptions would lead one to surmise that the buildings comprising the post were scattered helter skelter over the area, a careful study of the Heger sketch indicates that this was not strictly true.

Immediately southeast of the Commanding Officer's quarters on the knoll stood two separate sets of quarters, each with a long narrow fenced area in the rear within which were two or three smaller outhouses. These quarters faced north. There were chimneys at each end of these structures, i.e. on the east and west ends. Fronting this set of quarters some yards to the north was another set of like size and construction.

On the flatter ground immediately east of these latter buildings, stood a row of four buildings, three of which had two smaller additions built on the rear of the main structure. These all had the usual fenced

areas in the rear with gates facing to the west. A fifth building stood in alignment with the other four at the southwest end of the line. It was "L" shaped, with only one small house or room attached in the rear. In front of these buildings still further to the east, was what might normally correspond to the parade. Along the north end, running east and west were four small buildings, and thence running southeast along a line roughly parallel with the row of quarters on the west side were a number of smaller structures. East of these, on the flats were other buildings and corrals. The habit of building small sheds, fences, leantos ("linters" in army dialect of the day) on these primitive military establishments did give the post a more ragged appearance than those posts which were laid out and constructed according to a War Department plan.

It might be well to add at this point that aside from a very few places, where actual fortifications, either log palisades with blockhouses, or regularly laid out earthworks, such as were constructed during the Civil War at Ft. Union (new site), at Fort Craig near Socorro and the scattered outworks at Ft. Yuma, there were no actual forts in the Southwest. The latter term indicates a fortified place, the word has been loosely applied, not only by the army but also by civilian authors. The War Department recognized the difference between camps and forts but continued to apply the two words indiscriminately to the various military establishments on the west and southwest without much effort to distinguish between them.

Occasionally a half-hearted attempt would be made to make changes in the nomenclature through official orders but without much effect, nor, I might add without much logic.

The ground plan of most of these military establishments of this nature were essentially the same, namely a flat area, rectangular in shape, with the officers' quarters on one side, the troop or company barracks on the other side, commanding officer's quarters at one end with the various office buildings, supply buildings, etc., grouped around the parade. The flagpole might stand either at one end of the parade, in front of the guardhouse, the commanding officer's headquarters or in the center of the parade. Corrals, stables, magazine, etc., were located away from the parade where the odors of the first would not offend the nostrils of the personnel and the danger of explosion of the latter would not endanger the lives or other buildings in the area. In well planned and regularly constructed posts stone or board sidewalks connected the buildings and where there were sufficient water trees planted, flower gardens were permitted and the quarters had green lawns and were surrounded by neat fences.

The early Fort Union was not such a place. Like Topsey, it "just grew". Each commanding officer had his own ideas about the location of new structures, and while most of these men adhered more or less to the general conformity of post planning the nature of the terrain, and individual tastes tended to create a seeming confusion which reacted upon the newcomers to the garrison most unfavorably.

Fire was a constant dread on every post, especially those where the facilities for fighting it were nil. Although old Fort Union seems to have escaped this scourge; as will be seen later on, the new post was not so fortunate.

Ft. Union----1851-1861

LIFE AT OLD FORT UNION

Monotony and isolation were the two evil companions of nearly all frontier garrisons. In the case of Fort Union these factors became intensified. The nearest large town was Las Vegas, over twenty miles distant to the southeast. The smaller towns, such as Loma Parda, approximately five miles to the southwest on the north bank of the Mora River, (of which more later) Ocate approximately fifty miles due north, but reached only by a devious route, as well as such places as Ft. Barclay, a privately owned trading post and placita near the junction of the Mora and Sapello rivers, etc., didnot offer much in the way of diversion to the soldiers who were fairly well confined to the limits of the post by their numerous duties. When they did have a few free hours they roamed the vicinity of the fort, hunting souvenirs in the form of curious rocks, cast off deer antlers, Indian arrowheads, etc. Some men became fascinated by the various reptiles and insects and made collections of these which they preserved in formaldehyde begged from the post surgeon. In turn the men often presented these rattlesnakes, trantulas, centipedes, scorpions, etc., to the wives of their favorite officers, and oddly enough many of these "conversation pieces" were retained by the recipients.

Lt. Du Bois in his journal indicates briefly how he spent his time. He welcomed patrol duty either as escort for the mail heading East and the return coach from the Arkansas River, or long days in the saddle into the Navajo country. The men too were anxious for such trips, no matter how strenuous, anything to get away from the monotony of garrison life.

Now and then a court martial would be organized at Ft. Union and when this occurred officers arrived from other posts in the Territory,

bringing with them news of old friends, distribution of troops, new newspapers (they might be many months old) novels, and a fresh supply of liquor. Then would ensue post dances. The garrison band would play, the Quarter Master's storehouse would be renovated and decorations made and for a few days everything would be gay. Occasionally new officers would be assigned to the post with their wives and families and for a short time all social amenities would be observed, then again the lapse into the dull routine of garrison duty with all its petty details.

The only escape from the deadliness of such a life was the occasional flurries with Indians or stock thieves. Patrols went out to search for deserters who couldn't stand the boredom, the poor living conditions and harshness of army discipline.

Du Bois noted under the entry in his Journal for Dec. 21, "It is New Year's Eve. Lt. May has arrived and produced no change in the unvaried monotony of post life. On the 11th inst., Major Rhett, his brother and myself went to Santa Fe. It was my first visit and I did enjoy it. The Fonda is filled with gaming tables, the town with baile (dancing) rooms and this is the solitary amusement of the place; still for a short time I can enjoy it. The gamingtables were crowded---faro, monte, roulette & vingt-une tables all crowded. It is quite exciting to watch the various expressions as the bettors lose or win even if one is not in the throng. Then the fair ones of Santa Fe though not pretty are pretty enough to dance with. Bonny (Col. Bonneville..sometimes called "Clabber Bonny"..AW) left the day after our arrival. I met his servant in the street the following day & said to him, 'I supposed you had gone with the Colonel'. 'Oh no', said he, 'there is no use for both of us to go to the Navajo War'."

On May 4th Du Bois wrote: "change is stamped upon all things except Fort Union".

Again on May 20th, he recorded: "A chance for a change has appeared, but for me, alas, it is only a chance. Orders have been received at Fort Union directing that 100 mounted men be prepared to march so as to reach Abiquiu by the 15th of next month. There are only about 100 horses in the three companies now at this post & if the only officer with 'G' & 'H' Companies goes with the thirty horses each can furnish & my captain goes with his fifty, I will be left to play the part of the commander without the pay or privileges belonging to the command. Nous verrons!

The paymaster was here on the 14th inst. & only remained one day. The non-com. officers of the command gave a concert last week. It was not a success in itself but certainly was a move in the right direction".

May 30th, the Lieutenant again notes a visit to Santa Fe:

"Have just returned from Santa Fe, bringing Major Simonson with me. After making or rather compiling a map of the Navajo country---my ostensible business at headquarters---I visited all my old inamoratas, and being detained two days to get the old man sober, I returned home. On the way Major S. told me I would go with the command next summer".

In such posts as Fort Union, furnishings for the quarters of men and officers alike were most primitive. The baggage allowance for the officers in government trains was limited as I have already indicated, and since the pay of junior officers did not begin to cover the costs of transportation of any amount of furniture, their wives were forced to utilize anything at hand to make the quarters assigned to them livable.

In the barracks assigned to the men wooden bunks were built along the walls out of rough timber or whatever wood that was available. Every packing

case, ammunition box and empty barrel or crate was salvaged, the nails carefully removed and straightened.

The bunks were double deckers, with wooden slat bottoms. On these the men laid bed ticks made of canvas or cotton cloth and these bed sacks were filled with dried grass which the men called "prairie feathers". These crude mattresses were refilled with fresh grass once a month. Straw was also used whenever available but this was scarce on the frontier. Both grass and straw had the unhappy habit of crumbling and breaking and when this happened the body of the soldier squirmed its way through the resultant chaff and came to rest upon the bare boards. Rolled up blouses or overcoats served as pillows. Each trooper had one pair of blankets which he used in the field and in garricon. During the winter these blankets became extremely dirty and since it was a choice of sleeping cold or using filthy coverings, the private soldier usually chose the lesser of the two evils, and did not wash his bedding.

The barrels were sawed in half, usually by the cook, and in these the men took their baths in the mess halls between supper and tattoo. Barrels with the sides cut down and filled with grass or straw served as seats.

Empty packing cases fitted with legs became tables. The stout wooden boxes in which the paper cartridges of the 1850s-1860s were shipped, when emptied of their contents served a multitude of purposes from desks to book cases. Sections of cottonwood or pine logs of the right length became stools and chairs. Discarded pieces of wagon covers were stretched tightly over a thin layer of evenly distributed grass and nailed down around the edges on the earth floors and gave a modicum of relief from

the damp earth in the rainy season and winter and kept down the dust in summer.

The garrison at Fort Union were more fortunate than the men at some of the other posts regarding furniture. There was plenty of pine timber within easy reach of the post. From this the sawmills ripped out board which provided plenty of material for tables, chairs, cupboards, desks; etc. Even after some of the officers were transferred to other posts in New Mexico where there was no timber at hand, they sometimes wrote to the Quarter Master or officer in charge of the shops begging for a few homemade chairs, tables, etc.

Military wives who followed their husbands from post to post soon became experts in packing their household necessities in the smallest possible space. Usually all they took were their personal effects, clothing, toilet articles, a few treasured bits of china, bedding and silverware. When any of these items became lost in a river in which the baggage wagon overturned or went down with a steamboat or fell prey to an Indian attack upon the wagon train, it was a real tragedy for the owners. In such cases the other women of the post ransacked their own meager belongings and donated them to the unfortunate family.

Whenever an officer was transferred out of a post to a distant garrison or into another military district, the usual procedure was to auction off many household items. The army wives attended these auctions as a matter of course and frequently augmented their own few belongings at a minimum of cost. In this manner the furnishing rotated from one family to another. An officer moving onto a post often found the quarters

stripped of everything because in the interim between the previous occupants' departure and his arrival, chairs, tables, desks, etc., which had been left behind fell into the hands of the personnel already on post.

Tallow dips were used as candles, although the army rations of this period provided for candles to be used in the quarters. Later, of course, kerosene lamps and lanterns were prevalent.

To brighten the homes the women bought calico at the nearest store, usually at the sutler's store on the post, and made it into curtains, bed valances, etc. Rag rugs, deer skins, buffalo pelts, canvas coverings and occasionally carpeting were used as floor coverings.

From the States came precious current periodicals, newspapers and books. Most of the forts had post libraries containing rather limited collections of paper backed novels, books of every description as well as the papers and magazines. Officers going into the field usually tried to carry a small volume or two in their saddle bags for enjoyment in the evenings or when lounging around camp.

A fragment of one of these paper novels was discovered in the ruins of new Fort Union. The title of this book was "Lil: 'Fair, Fair with Golden Hair'", by Mrs. Fetherstonhaugh, and was one of a number of such sentimental novels published by F. Lupton in New York City for the New Series of the Leisure Hour Library. It appeared in 1884 and sold for 6¢.

During the 1850s and 1860s such magazines as Harper's, Leslie's Pictorial Weekly, Godey's Ladies Book, etc., were to be found in the post libraries or sent by subscription to the individual officers and men. Hometown newspapers were also popular but often, when the mail arrived, the soldiers did not receive these vital contacts with the outside.

Du Bois remarked in the entry of his journal for January 2nd, 1859; "The President's message & the reports of the various Secretaries should have been received by the last mail but all of the papers were stolen, we suppose by the Missouri postmasters".

Other recreations aside from reading, and far more prevalent were gambling and drinking. Card games such as poker, euchre, "twenty-one", etc., were common and when money ran out they played for matches, beans, socks, undersear, or almost anything. Drunkenness prevailed whenever the men could obtain liquor. In New Mexico the potent "Taos lightning" vied with lager beer shipped in casks from the east. "Paso wine" was also a favorite. Hot gut whiskey composed of alcohol, burnt sugar, tobacco juice, red pepper and other equally high tasting and firey ingredients was bootlegged to the men by civilian operators living just outside the post. These men also sold illicit liquor to the Indians.

Fort Union was not a year old when the problem of the sale of illicit liquor to Indians and the purchase and sale of stolen government property (probably sold by soldiers wanting money for a spree) posed itself to the authorities.

Accordingly Governor James S. Calhoun, on May 1, 1852, issued a warrant for the arrest of ten men living in five shanties near Fort Union on the charge of "selling liquor in Indian Country and for purchasing & receiving stolen property of the United States". With the aid of the commanding officer at Ft. Union, U. S. Marshal John Jones and his deputy, R. M. Stephens, took the culprits into custody and removed them from the post to the jail in Santa Fe, at a cost of $358 (which included the task of burning the five shanties at $2.50 per hut and the cost of ten pairs of handcuffs at $3.00 per pair). (Corresp. James H. Calhoun, p. 544)

In later years this problem of drunkenness among the troops continued and became particularly aggravated during the 1860s.

It was bad enough for the men in the ranks to turn out for duty disgracefully drunk but it was worse when the officers from the commandant on down led their forces into the field when they, the officers, were drunker than the men.

All through his Journal Lt. Du Bois comments sarcastically upon this propensity of the commanding officer to imbibe too heavily. However, it might be said that the drinking of whiskey was not particularly frowned upon at that time, although drinking to excess by the officers was commented upon rather bitterly by their equals and subordinates who felt that the offenders should have been able to control themselves a little better. Thus on May 22d, 1857, Du Bois remarked: "Edson was arrested for being under the influence of liquor at guard mounting. I have just returned from begging his release and failed to accomplish anything. I am sorry for Jack but his offense has been very leniently viewed for a long time & when the Colonel asked me if he had not shown more kindness than Jack deserved I could not but answer 'yes'."

The first thing men did when returning from a hard patrol was to take a drink, providing liquor was at hand. The men in the ranks drank heavily during the early days of the "old army" but oddly enough several officers have testified that left to his own preferences the enlisted man would drink beer instead of whiskey. When a post was liberally supplied with beer, drunkenness dropped noticeably and sutlers found difficulty in selling their stock

of wine or other liquors.

Both officers and men enjoyed hunting and fishing whenever the opportunity presented itself. When things were quiet on the frontier the commanding officer frequently issued passes for the men to be absent on hunting expeditions. They usually carried their carbines or rifles and were issued ammunition by the supply sergeant, which since it was to be used for private purposes was charged against them, unless the hunters were out to bring back fresh meat for the garrison. Many officers and some of the men had their own shotguns and rifles which they kept at the post for just such expeditions. The hunters might be gone from two days to a week. At times the commandant of a post would decide the men needed exercise and would march the entire company or troop off into a country where the hunting and fishing was good usually on the pretext of hunting Indians. As a result, many of the quarters were decorated with mounted heads of deer, or elk, and the floors acquired new coverings in the shape of buffalo robes, wild cat or panther skins, deer skins, bear rugs, etc.

General Dabney H. Maury, C.S.A. who as a lieutenant of the Rifle Regiment was stationed at Ft. Union at the sametime Lt. Du Bois was at the post, has left some of his recollections of life at Ft. Union 1859-1861. Among other officers in the garrison at that time were Gen'l. W. H. "Red" Jackson; Major Simonson (frequently mentioned by Du Bois); Capt. Morris; Dr. Baily; Lt. Julian May and Capt. Wm. R. Shoemaker.

The latter officer had charge of Ordnance stores and remained at Ft. Union for many years after the war. He was the inventor of the famous military bit which bore his name. Both Capt. Shoemaker and Lt. Maury were ardent sportsmen. Maury being a Virginian (and a staunch Secessionist) owned a fine setter

which answered to the name of "Toots". Capt. Shoemaker from Illinois owned a pack of fine gray hounds which he kept kenneled in the Commissary's corral. The leader of the pack was called "Possum". In their free time Maury and Shoemaker ranged the foothills of the Gallinas Mountains with their dogs, hunting coyotes.

On one of these occasions, the hounds flushed a skunk. It so happened that "Toots" had previously encountered his first skunk in the kitchen of Maury's quarters at Ft. Union a short time before the hunt. He was ranging in the van when the pack chased the second skunk out of the grass. "Toots" however, was no fool. He promptly gave over the chase and sat down at one side and watched the grayhounds tangle with the black-and-white wood's pussy. The result was disastrous to all but Toots who according to Maury "sat off beyond pole-cat range, laughing as if he would split his sides. Evidently he enjoyed the joke more than any of us". It is a safe bet that none of the ten hounds ever displayed any further interest in skunks.

Maury described the methods used by the dogs in hunting coyotes or "wolves" as he called them. "Possum" the tallest and longest of the pack led the rest of the animals and about three times a week during good weather they hunted their wild cousins on the rolling prairie at the west base of the Gallinas. Said Maury:

"Possum, invariably in the lead, would thrust his long snout between the wolf's hind legs as he closed on him and toss him over his back, where he would hold him until the rest of the pack came up, when he was soon killed. Sometimes the riders would be up in time to beat the dogs off and tie up the wolf, taking him home for another day's run.

"Occasionally we would get an antelope, and Possum always threw him in the same way. No animal is so fleet as the antelope, with a good start and a fair field before him. Like the hare, however, he is timid and when headed off or turned, becomes bewildered, loses his running, and is easily caught".

The reminiscences of officers such as Maury, Marcy, Du Bois, etc., are usually replete with many tales of border hunting and fishing. Consequently many of these men looked forward to transfers to posts which were located in a region where such sports were to be found. The dogs mentioned, as well as those described by other military writers, were to be found at all posts. Pets of any kind were welcomed by the men on duty in these out-of-the-way places. When dogs became too numerous the commanding officer generally issued orders for a decimation of the canine ranks.

Only the most cherished pets and veteran dogs escaped such pogroms. The mongrels and useless animals were summarily disposed of in one way or the others.

During 1860, the shadow of the impending Civil War lay heavily upon the men and officers of the Union army. In all of the western states and territories politics usurped the conversations of officers and men alike.

Lt. Du Bois, although a loyal Northerner spoke of the feeling that ran high among even the men who were destined to remain true to their oaths, against the treatment the army received from the politicians in Washington. Even those who were unwavering in their determination to stand fast there were bitter denunciations of the civilian controllers of military destiny and an equal understanding and sympathy for their classmates and companions in arms who were destined to resign and join the Confederate forces. There

were, of course, the idealists among the Northerners who could not see or understand the arguments presented by the States' Rights men. These officers were vehement and unswerving in their condemnation of their companions who openly avowed their intentions of resigning and fighting for what they believed was right.

In New Mexico, at Fort Union, Santa Fe, Ft. Craig, and all other posts in the valley of the Rio Grande, the war kettle was seething even before the announcement came of the actual outbreak of hostilities in the Spring of 1861.

At Ft. Union, Lt. Du Bois stated - entry of January 5, 1861:

"The papers are all filled with secession. Our glorious Union will at last prove a failure because man must needs have a brother man for a slave. So much for Republicanism. I must get home soon. If there is trouble I would be where I may not be condemned to inactivity...."

And again on February 11th, he observes: "Nothing but secession talked of at the post. Of all the officers here only Lt. McCrae of North Carolina, Capt. Shoemaker, M.S.K. (Military Store Keeper) & myself are thoroughly loyal. The northern men are equally affected and it seems right that they should be, for there is no doubt in my mind that the constitution protects slavery. It was made at a time when slavery was recognized as an evil by all, but its presence was also recognized and acknowledged.

"Likewise, I think the constitution, as interpreted by the Democratic party & sustained by the voice of the people for eight years, sustains the views of the States' Rights party, but Alexander Hamilton & the aristocratical Federal party urged the concentration of the government, and with the minority I have always believed. But if the politicians force us into a war,

"as I think they will, I go in for the government whether wrong or right, & most certainly so if slavery is to be increased & a big slave power established".

As the war fever mounted in the east, the epidemic, fed by the press, spread with even more rapid deadlines on the frontier as soon as the papers reached the isolated outposts. The uncertainty of the state of events was heightened by the lack of reception of daily news. On March 10th, Lt. Du Bois noted:

"I became involved in several very bitter political discussions here & threatened, if an effort was made to seduce my regiment from its allegiance I would assume command myself & fight it out. Propositions were made me to go into the southern army & high positions were offered me, but of course declined, although it is hard to fight as a 2nd lieutenant when I might have a much higher rank. Republics are ungrateful. So be it! 'Do my duty' is the only watchword now for a soldier. The soldiers are loyal, most of the officers going south themselves & all the West Pointers except Longstreet urge their soldiers to remain true. The oath taken by a cadet is to serve for eight years, four as a cadet & four as an officer. After eight years have expired it is claimed that government must accept an officer's resignation. If this view is not correct it is at least the established custom of the War Department. The soldier's oath is different, being for five years & no longer except under a separate contract".

On the 17th of March, Lt. Du Bois left Fort Union for his home in the east. Said the Lieutenant:

Ft. Union----1851-1861

"It was hard to bid McRae goodbye. Thank God he is true to his country. All the officers of the Rifles have as yet resisted all inducements but I do not think they will do so long. Tremendous efforts are being made to coax them south and the pretense is that this matter will be settled without a war, and after a peaceable separation. Very few officers would not prefer to serve the south, who has always treated us well, to the north who has always abused us".

It was the last time Du Bois ever saw his friend Lt. Alexander McRae. That unfortunate young North Carolinian died serving his guns at the battle of Val Verde, a trifle over a year after he parted from Du Bois, Feb. 21, 1862.

In Santa Fe, Lt. Dabney Maury and his Secessionist friends also received news of the outbreak of the war. They too had felt the tension mounting all during 1860. Said the Virginian:

"We passed one year at Fort Union, at the end of which we heard the news of John Brown's capture of Harper's Ferry. Then the Indians cut off mail communication, and we heard no more for many weeks, when by a system of escorts between the Rifles and the First Cavalry our mail-route was re-established, and a sergeant brought me a letter from Lieutenant Jeb Stuart, congratulating me upon my promotion to a captaincy in the Adjutant-General's department, with orders to repair to Santa Fe, then headquarters of the department of New Mexico. This was a great gratification, as it was a position of high trust and importance, and carried with it assurance of a confortable and permanant residence.

There were many officers stationed at Santa Fe, and the city, being the headquarters of the department, was much visited by officers from every part of it, and we all got on very cordially together until the quickening excitement of the approaching war separated us. Before the year (1860) was

"out we had to be upon our guard in our intercourse with each others; for, whereas we seemed to be in accord before the hostilities began, and nearly all were Southern in their sympathies, when the time came to prove the faith, there were but few who gave up the certain pay and emoluments of the established government of the United States for the uncertainty of one yet to be created. I remember that at our last Christmas dinner in Santa Fe, we carefully selected our guests according to their avowed intentions in the coming crisis.

At last the blow fell for which we had so apprehensively been watching. In these days of telegraph and rapid transit, it is hard to realize the suspense and anxiety from which we suffered as the days dragged their slow lengths along from the arrival of one mail to the next. We could only expect news once a week, and not then if the Indians chose to interfere with its transmission, which they frequently did.

As the mail-day would approach, our impatience would increase with each hour of suspense, and I well recall the anxious group which gathered in our parlor one evening in May, 1861, to await its arrival and distribution".

Among those who were in that New Mexican parlor on that evening were several military men of note. Colonel William Loring of the Mounted Rifles who had recently been appointed to take command of the Department of New Mexico. (Du Bois, en route east encountered Col. Loring at the crossing of the Arkansas during a terrible snowstorm on a stage coach bound for Santa Fe. This was shortly after the middle of March, 1861.) Du Bois observed rather

pithily: "I doubt his loyalty but he says he is sound. He brought with him the 1st copy I had seen of Mr. Lincoln's inaugural address. Five states have seceded, hoisted a southern flag & are in open arms to resist what they call invasion. This will be a long and bloody war. It will last five years at least & may not be a success. If we could only keep the West Pointers true there would be very little fighting in the south, for they could not organize & equip an army. But Jeff Davis will take with him many of our best men. The north have not a political friend in the army, but nevertheless not as many West Pointers will resign as graduates of other institutions of learning, and fewer in proportion will leave from the army than from the custom house or other government machine".

It seems strange looking back upon the events of nearly a century ago that such men as Colonel Loring, well known for their Southern sentiments, should be placed in command of a military department on the eve of internecine conflict, but it was true.

Another officer at Maury's house that evening was a young Virginian who had been on frontier duty with the 2nd Dragoons since the summer of 1854, Lt. John Pegram who later rose to be a Major General in the Confederate Army. His brother, Lt. Col. "Willie" Pegram, commanded one of the most famous batteries in Marse Lee's army. General Pegram died of wounds February 6, 1865, at Petersburg, Va., age 33.

Maury continued: "The mail for all the department came to my office, and had to be assorted there, but at last we were able to seize the papers and turn to the telegrams. Usually it was our home letters, with news of our dear ones far away, which were opened first, but that night these were cast aside innoticed, while we read of the fall of Fort Sumter.

"Even then it was some time before we could grasp the details. One after another we took the sheet and tried to read aloud its contents, and each voice, broken with emotion in the effort, refused to do its owner's bidding.

The die was cast. The great war which was to bring to us and to our people ruin and desolation was upon us and we must meet it. It was in no light or unappreciative mood that we sat looking at each other in the silence which followed the reading of the telegrams; for we realized the greatness of the sacrifice expected of us, and it was with sad hearts that we turned our backs upon the friends and associations of a happy past, and faced the issues of a future which had but little to offer us save the consciousness of duty loyally performed. At last I awoke once more to the excitement of the moment, and to a realization of the great crisis of which we alone were informed, and, seizing the papers, I ran out into the street and made way to the officers' quarters, shouting aloud as I went that Fort Sumter had fallen, and war had begun!"

(Maury, Dabney H., General, Recollections of a Virginian, N.Y. 1897 pp. 128-130).

Immediately upon receipt of the news of the outbreak of hostilities, Maury and those who were destined to go South, sent in their resignations and prepared to leave New Mexico for their homes in Dixie. Colonel Thomas F. Fauntleroy of the First Dragoons, who had served at Ft. Union in 1854 and for whom Ft. Fauntleroy was named (later changed to Ft. Defiance), had already tendered his resignation March 25, and by the time Maury and his friends received the news of Ft. Sumter, Fauntleroy was in Richmond.

Now began the preparation of leaving. Capt. Maury sold his household goods and hired a wagon of the first train en route east across the plains.

The quartermaster at Santa Fe furnished him with an ambulance. Then the captain and his comrades set out for Fort Union where their party organized to move out under an escort.

It was a sorrowful occasion at the post. Lt. Ebenezer Gay of the 2nd Dragoons, from New Hampshire, who was to remain loyal to the Union and emerge a Bvt. Lt. Colonel, took Maury aside and gave him a fine Navajo mare which Gay had selected from a herd of 500 captured Indian ponies.

Another brother officer, Lt. Herbert Enos of the Mounted Riflemen from New York, was deeply affected by the parting. Mr. Webb, the post sutler offered Maury a gift of money but he refused it saying he had enough but that some of the other members of the party were short of funds.

The escort for the party was made up of about seventy enlisted men whose term of enlistment was up and they were being furloughed to their homes in the east. With two exceptions all of the enlisted men planned to rejoin the forces of the Northern army when they reached their destinations.

After a number of adventures this group, which was probably the last outfit of such proportions to leave New Mexico prior to the opening battles of the Civil War, reached the eastern settlements in Kansas and Missouri. In Topeka the newspapers carried an order announcing that:

"Captain Carter L. Stevenson, Captain Dabney H. Maury and Lieutenant Edward Dillon are hereby stricken from the rolls of the army for entertaining treasonable designs against the government of the United States".

Upon reading this Capt. Maury fully expected to be arrested and detained at Fort Leavenworth but such was not the case.

In such manner did the first news of the war reach Fort Union and the other posts in New Mexico.

FORT UNION ----- 1861-1871

FORT UNION----1861-1871

A DECADE OF CONSTRUCTION

For a decade-as we have seen-the post of Fort Union existed as a small combination military garrison and supply depot in buildings wholly inadequate for the purpose.

The outbreak of the Civil War, with all its attendant evils, soon made itself felt even on the frontier. It is not my purpose to go into a lengthy dissertation on the various phases of the war in the Territory. However, I believe an outline sketch of events is necessary to understand the occurrences at Fort Union during the years of war activities in New Mexico.

To begin the narration it must be understood that although many of the officers on duty in New Mexico when hostilities commenced, went East and South to join the regular Confederate forces, there were others who went down the valley of the Rio Grande and entered the Secessionist troops then being organized in Texas.

Before these officers left their various posts they endeavored to entice the rank and file to go with them. One Union officer, Lieutenant-Colonel Benjamin S. Roberts, who had graduated from the U. S. Military Academy in 1835 and had served with distinction during the Mexican War and later on the Texas-New Mexican frontier during the early phases of the conflict until the early fall of 1862 when he was transferred east to take part in the active fighting in the South, emerging as a Bvt. Major General in the Union army of U. S. Volunteers in 1866, was one who testified in Washington, July 15, 1862, on the invasion of New Mexico by the Confederates.

Col. Roberts said that soon after Col. Loring "a well known secessionist" assumed command of the Department of New Mexico in the Spring of 1861

had assembled an expedition consisting of detachments of the Mounted Rifles (later the 3d Cavalry) to march against the Mescalero Apache out of Fort Stanton, distant some 271 to 301 miles via Ft. Sumner from Fort Union. There was a shorter route but it was hazardous to use in the summer because of lackof water.

Col. Roberts believed that this expedition was organized as a pretense to assemble the troops there in order to march them south. Prior to the assembling of the various companies, the Apache Indians in the vicinity Ft. Stanton had been scared away with tales that there was a small-pox epidemic in the fort. At any rate, a march was made headed by Colonel George B. Crittenden, an old army man but a confirmed Secessionist, in the direction of the Texas--New Mexico line. No Apache were found and the troops returned to Ft. Stanton, then said Roberts:

"Colonel Crittenden, who is one of the leading rebels, was in command of the expedition. I joined him at Fort Staunton (sic) with two companies of cavalry. While at Fort Staunton (sic), Colonel Crittenden, having been drunk for a long time, was about leaving the post, and had his ambulance brought up for that purpose. He sent for me, as I would be left in command, and told me he was going to Fort Union. In the course of the conversation he said to me:

'Colonel, we have known each other for a long time, and I am going to tell you my plans. I am going to bring the regiment all here; I am going to bring the other companies from Fort Union, Fort Craig and Fort Albuquerque, and I am going to march the regiment into Texas and deliver it over to the Confederate states'.

"This was about the 1st of May, 1861. He said:

'Will you obey my orders and march with me?'

"I told him that I considered him crazy, for he would be attempting what he could not succeed in doing, and I tried to dissuade him from his purpose. He said that all hell could not persuade him from it, and repeated the question to me again:

'Will you march with me, and obey my orders?'

"I then told him that, as he had made known to me the object of the expedition, I would not obey his orders or march with him, but would resist any such attempt with all the force I could. In the course of the day he called to see me at my headquarters, and asked me if I would take a furlough. I told him I would.

"My object in doing so was to get away from the post for the purpose of defeating his object, by giving information of it to others".

Roberts had a rude awakening at Santa Fe after he had a private interview with Col. Loring the Department Commander, and the Adjutant General who was of course Captain Maury.

Continued Roberts: "I there became satisfied that they were in the conspiracy also. I was treated very rudely by them; told that I was neglecting my duty and had no business to come there, and was ordered immediately back".

The exasperated Colonel did, however, contact Captain John P. Hatch, another loyal officer of the Mounted Rifles then in command at Albuquerque and asked him to notify Captain Morris in charge of Fort Craig, as well as other officers in the Territory, of the conspiracy and to put them on their guard and to disobey any orders of the commanding officer of the Territory or Colonel Crittenden.

Prior to leaving Ft. Stanton, Col. Roberts had instructed the lieutenant left in charge of the command as well as the orderly sergeant to resist all attempts to carry out the plan for marching the troops to Texas. The orders to the sergeant and the lieutenant were to seize the ordnance which was in the company quarters of Col. Roberts and flight if necessary.

Said Roberts:

"My impression is that those officers left so hurriedly in consequence of their being convinced that they would be arrested and put in irons if they remained. They left the country as rapidly as they could get out of it.

"I was informed by a number of the soldiers and the sutler at Fort Staunton (sic), the orderly sergeant of Captain Claiborn (sic) (Capt. Thomas Claiborne) and others in that company that Captain Claiborn (sic) had made several harangues to his company to persuade them to desert the service of the United States and go with him to Texas. And I have no doubt, from information received from others, that all the other officers who left had used their influence with all the soldiers in the country to persuade them into this conspiracy, by representing to them that there was no longer any Union, that it was dissolved and they never would be paid by the government; but if they would go to Texas their payment would be guaranteed to them. They told them that they had promises of money for that purpose from Mr. Hartt (sic) a man of great wealth at El Paso. But the men proved loyal, and not one went with the officers".

Colonel Roberts went on to relate that Col. Loring, Col. Crittenden, Captain Claiborne, Captain Wilcox and Lieutenants Jackson and McNeil, with

a number of infantry officers all rendezvoused at Fort Fillmore, not far from El Paso. Here, so Col. Roberts believed, the number of disaffected officers so greatly demoralized the morale of the command under Major Isaac Lynde of the 7th Infantry that his subsequent surrender on July 27, 1861, "to an inferior force of insurgents" was probably "consequent upon that state of demoralization, as he had no confidence his men would fight".

After Major Lynde surrendered, the majority of the regular troops remaining in New Mexico, numbering about 1,200 were assembled at Ft. Craig. Supplies of all sorts were depleted and owing to the confusion and pressures upon the War Department, no immediate aid in either provisions, money or reinforcements were forthcoming. The troops in the posts and in the field against the invading Texans under General Sibley (the former commander of Ft. Union) were on short rations and lacked clothing.

On June 23, 1861, Colonel Edward S. Canby (later promoted to Brigadier General of U. S. Volunteers, assumed command of the Department of New Mexico. He called for volunteers from Colorado to aid in fending off the Confederate threat from the south and he also ordered earthworks thrown up to surround and protect Fort Craig on the lower Rio Grande and began the star-shaped fort which was to be the nucleus of the new Fort Union which was to rise from the rolling open ground immediately east of the old post of decaying log buildings.

In the summer of 1857, Capt. J. C. McFerran, AQM at Ft. Union noted in his report to Capt. L. C. Easton, Asst. Q.M. at Sta. Fe some of the natural resources in the neighborhood of Ft. Union relative to the construction of new buildings at the post in the future.

He stated that there was sufficient fine, white sandstone, clay for bricks and adobes, and plenty of pitch pine and spruce timber in the mountains at distances varying from nine to thirty miles. All other articles required for building would have to be freighted in from the east. There was fuel in great abundance near the post and easy of access.

"The greatest objection to this point as a military post is the want of running water for stock. This can be had within a distance of 10 to 25 miles, surrounded by all other advantages of this location.

There is no hardwood in any abundance in this vicinity suitable for wagon timber, now and then small quantities of scrub oak are found on mountain streams, that can be made to answer in an emergency". (Report Capt. J. C. McFerran, Aug. 4, 1857, Box 1163, Office of Q. M. General, National Archives, Washington, D. C.).

The summer of 1861 saw Ft. Union crowded with Union officers and civilian officials of the Territory as a result of the retreat of the Federal troops with their supplies from Sta. Fe, in anticipation of the occupation of the latter place by the forces of General Sibley.

There was not room enough at the post for this suddeninflux of men and supplies. Rows of tents were pitched and until the new quarters in the star fort were constructed the men lived under canvas. Even after the works were completed the troopers preferred the tents to the dank semi-underground rooms.

Captain Cuvier Grover of the 10th Infantry went to Ft. Union from Ft. Garland in 1861 and it was he who drew up the plans for the new post.

First Lieutenant Alexander W. Robb, AAQM of the 2nd Colorado Volunteers stationed at Ft. Union, wrote on June 20, 1862 to Maj. P. H. Wallen of the

7th Infantry, then in command of Union concerning the progress on the new buildings and earthwork.

Lt. Robb said:

"First post built in 1851 is in a state of dilapidation having been reported some years ago unfit for occupancy: there are a few buildings which have been repaired and are now temporarily used as quarters and storehouses.

Second: The new post which is being built according to the plans of Capt. C. Grover was commenced in 1861 and is not yet completed as orders were received from Dept. Head Qrs. to discontinue the work. The four angles designed for store houses and company quarters are completed---- each wing is 200 feet in length and 26 feet in depth which is subdivided into a store house 100 feet in length and 6 rooms designed for the use of one company.

The condition of these houses are good being just completed but being partly underground, when heavy rains occur, the roofs, being of earth, leak badly and the water collects and runs in the doors.

According to the plan there should be eight sets of officers' quarters, two of which are occupied, the rest not being completed, each set forms an angle and is composed of eight rooms.

One side of the angle is composed of 3 rooms, two of which are 16 by 18 feet and one 12 feet by 16 feet, the other side is composed of five rooms, two of which are 14 feet by 16 feet, one 12 by 10 feet and one 8 by 16 feet. They are built partly underground and during heavy rains the rooms are subject to inundation.

The parapet forming the breastwork is fast washing away and filling up the ditch around the works, this cannot be prevented unless the slopes were sodded.

"There are two sets of company quarters and one set of Officers' Quarters of four rooms inside the work which are put up temporarily which to render them substantial buildings would have to be rebuit. The only board floors in the garrison are in the two sets of officers quarters outside the field works, all the rest are dirt floors. I would respectfully state that the buildings forming the Officers' Quarters, Company Quarters and store houses, cover the curtain of the field works to such an extent as to weaken the defence of the place, and as stated before, all being underground and without ventilation are unhealthy to men and subject all the stores placed there to damage".

Major Wallen concurred in the lieutenants remarks on the condition of the post and added a few observations of his own. He said that the quarters and storehouses under the earthworks were so damp and poorly ventilated that he had recently moved the companies from their quarters in the earthwork into the open where they were housed under tents, "encamped them" as he expressed it. By so doing this left more space for those remaining in the unhealthy structures, thus lessening the chances of the spread of disease from overcrowding.

The major also recommended the erection of a new storehouse "at this point or in this vicinity, as those now in use are in every respect wholly unfit for the purpose for which they were designed".

On July 10, 1862, the major directed Captains Backus and Maynard of the 2nd Regiment of Colorado Volunteers to form a camp on the dry ground near the earthworks agreeably to the form laid down in the regulations.

On this same day Asst. Surgeon J. T. Chisolm likewise informed Major Wallen that the hospital (at the old site) was badly out of repair and

most uncomfortable. He said the walls were damp as well as the floors after every rain and bad for the patients. The following day, Major Wallen added his endorsement to the surgeon's plea for a new building and also said a new isolation ward for smallpox victims then in the post should be constructed in connection with the new hospital.

Prior to Major Wallen's report on the condition of the new earthworks, A. B. Curry had written to Capt. J. R. Hatch, Chief Commissary of Subsistence in Santa Fe. This was in 1861, exact date not given, but probably in May or June since Capt. Alfred Gibbs, to whom Curry referred in the letter had been captured by the Texans at St. Augustine Springs, New Mexico, July 8, 1861 and was not paroled until August 27, 1862.

Curry said: "The commissary stores are scattered around almost everywhere and very much mixed up. If one sett (sic) of company quarters were ordered to be turned over for the use of the Depot I think it would be a very great saving to the Government. Many of the stores are uncovered and some were damaged by exposure. Even if they were not exposed to the weather they are in such condition, that they could be stolen. Should not the sentinels over them be faithful, and we know they are not always so. The stealing of the mules at Albuquerque prove that!.....

Gibbs came in yesterday with his command that the 7th (Infantry) will be along soon. I tell you they are a sorry sett (sic) of fellows.

I was sorry to see McGrath leave as he is a very sensible and social fellow and I have no doubt he will make a good officer.

Union is not quite as good a place as Albuquerque. 'Tis such a rickety place, expecting the houses to tumble down every strong wind we

"we have. Joe and I have part of a house to live in. If this is to be the Depot two setts(sic) of quarters ought to be designated for the Depot officers. I wish McFerran would come and commence putting up the store houses. All the attention is now directed to the field work, which by the way, is as fine a work of the kind as I ever saw and all Texas can't take it. I dont believe we will ever have any use for it for the Texans will never get as far up as this but we are now on the safe side". (Box 1168 Repts. QM Gen'l. Nat'l. Archives).

As previously noted, the activities of General Sibley and his Texan troops marching up the Rio Grande in January 1862 had the Union forces in the Rio Adajo on tenter hooks.

Perhaps a quick resume of Confederate activities in the Southwest will help to clarify the situation and bring into sharper focus the position of Fort Union in the overall picture.

As the tension over secession began to mount in all parts of the Union, and it soon became apparent that all men would have to decide definitely what course they would take, the military and the politicians on the Pacific Coast and along the frontier entered into the pre-war turmoil with bitter intensity.

In California, Albert Sidney Johnston, Commander of the Department of the Pacific, quietly set about to put his affairs in such shape that he could retire honorably from his position of high command. When approached by a group of Secessionist conspirators who desired the General to hand over the keys to U. S. storehouses and arsenals all the way from California to Oregon, he told them that as long as he wore the uniform of the United States Army he would hold those places against all comers.

He likewise let it be known that he had moved many of the military stores to the fort on Alcatraz Island in San Francisco Bay and had ordered the guards doubled at all other points. When his successor arrived unannounced the affairs of the Department of the Pacific were shipshape and proper, and Johnston having remained true to his word, quietly left the State and headed South. There was no confusion, no dominationby armed Secessionists and thus California was spared her share of bloodshed on her own soil.

In Texas, on the other hand, General David E. Twiggs who commanded the Department of Texas was not of the calibre of honor as his brother general of the Pacific Coast.

Twiggs, who in 1860 had already determined to cast his lot with the South was prepared for the problem of Secession when it came to the showdown in February of 1861. By the time the yellow ballots, which had been printed for the decisive vote of the Texan populace whether to secede or remain in the Union, were distributed, General Twiggs who had met secretly and openly with the leaders of the Secession party, was ready to act. The Texas convention adopted the ordinance of Secession on February 1, 1861. In the middle of December 1860, Twiggs had written to his superior officer in Washington, General Winfield Scott, telling him that if war came Texas would secede and asked for instructions. Later in January 1861, Twiggs wrote a second time requesting that he be relieved of his military duties before March 4. Scott acted upon the latter communication and appointed Colonel Carlos A. Waite, commanding the 1st Infantry, to succeed Twiggs. News of Waite's appointment reached Twiggs February 15. The new commander of the Department of Texas arrived at Camp Verde, some 65 miles from San

Antonio three days after the actual surrender by Twiggs to the newly organized Confederate state of Texas, of the 19 posts comprising the Department, as well as all government stores of provisions, arms and ammunition.

There was nothing for Colonel Waite to do but try to recoup some of the losses. He wrote to the Assistant Adjutant General at San Antonio on January 28, apparently unaware that the rebels were in command after the coup of January 16, requesting one or two pieces of artillery to aid him in defending the public property at Camp Verde.. "the most valuable of which consists of 53 camels worth some $20,000". Needless to say he did not receive the ordnance.

When Waite understood the gravity of the situation he decided to try and withdraw as many companies of the 1st Infantry as possible from the state. He had no depot of provisions, a limited means of transportation and was unable to organize a sufficient number of troops to make a successful stand against the superior number of Texans. Although Twiggs had agreed that the 2,328 troops in Texas could be evacuated, the newly formed government refused to abide by the terms and so 815 officers and men were imprisoned. Col. Waite and his officers were given their parole under protest while the rank and file remained prisoners for nearly two years.

With the threat of Federal opposition in Texas out of the way the next move was to organize an army to march northward along the Rio Grande and take over New Mexico, while other Texans went into Arizona for the purpose of annexing that area for the Confederacy.

Prior to the actual secession, Captail John R. Baylor, had organized 1,000 men to go on a "buffalo hunt" in the general direction of San Antonio

and be ready to seize the arsenal in the event things didn't go smoothly. With the Federal opposition negated, Baylor and his "Babes" marched west and reached Franklin (now El Paso) in the first week of July with about 300 men of the 2nd Texas Mounted Rifles, C.S.A., and occupied Ft. Bliss which had already been abandoned.

July 23d, Baylor with nearly 200 men advanced up the Rio Grande to Sn. Tomas, thence to Mesilla.

On July 25, Major Isaac Lynde, old and easily frightened, made a sorry show of attacking the Confederate camp at La Mesilla. After the first fire, and under cover of darkness Lynde promptly retreated to Ft. Fillmore, his base four miles from the town. On the morning of the 27th, he began his retreat to Ft. Stanton with a force of around 500 men. Near San Augustine Springs, Baylor appeared in Lynde's rear with only 300 men and Lynde surrendered his forces consisting of seven companies of the 7th Infantry and three companies of Mounted Rifles, without firing a shot.

Since the Texans had no facilities for feeding or otherwise handling the prisoners, they were all paroled and marched north.

Surgeon Charles Alden, direct descendant of the famous John Alden of New England, had arrived at Ft. Fillmore on June 29th, at which time he found the place buzzing with rumors.

"All the troops are concentrating here rapidly" he wrote on July 7th". "We will soon have some 14 Companies, Infantry and Mounted, in all about a thousand men. We hear numerous rumors of hostile preparations at Ft. Bliss, occupied by Texan troops, only 45 miles off; of their throwing up batteries, collecting troops, &c. We don't know whether it is their intention to attack us, or if our (Dept.) commander to attack them, but one or the other will

"doubtless soon happen. We have pickets out three or four miles, and heavy guards, and use every precaution to be prepared, and to give them a good reception if they come....Ft. Fillmore is now the headquarters of the 7th Infantry, and we have a very tolerable band to play for us every evening. There is a great difference in the climate between here and Santa Fe. It is as hot as Tophet, and we have to drink warm, muddy river water---or rotgut whiskey. The town of Mesilla (a hotbed of broken down gamblers and secessionists) is just six miles above, on the west bank of the river". (Mss. letter C. H. Alden to his mother, Ft. Fillmore, July 7th, 1861).

After the surrender of the refugees from Ft. Fillmore pushed north to Albuquerque which they reached in August 19th, Dr. Alden was "on duty with a battalion of seven companies of the 7th Regt. of Infantry, about 400 men, being part of the command surrendered at San Augustine Spring by Major Lynde. We stayed at Albuquerque several days in order to get an outfit for our march to this place. (i.e. Fort Union, from whence Dr. Alden again wrote Sept. 5th, AW). Up to this point (Albuquerque) we had been without even the necessaries of life almost, the men being without sufficient clothing or blankets, and the officers, men and families having no tents or shelter from the rain which fell nearly every night. We managed to get along pretty well however, and at Albuquerque our mess of three got one small tent for all of us. The Department is very deficient in supplies now, owing to the amount used up in the Navajo campaign last winter, the large amount we destroyed at Ft. Fillmore and what was captured from us by the Texans.

"The nights are very cold now at this altitude and have caused much suffering and disease among the men. As far as I was individually concerned, I got along very well. Our mess of three all bunked in together. We had only two blankets apiece for bedding. I had provided myself here with a buffalo robe which in addition, will suffice to go across the plains. We expect to remain here some time, at least a week or so, as it will take us that time to collect together sufficient wagons, etc., to move us across the plains.

Since reaching here I have made my report of sick and wounded for August to the Medical Director. Out of 409 men and officers, in the command, there have been 121 cases of sickness and two deaths; so you see my office is not entirely a sinecure. I had sole medical charge of the Battalion, as the other medical officers who were with the command at the surrender, after the event, went ahead to Santa Fe with a small party of Mounted Rifles. Besides the men of the command, there were along with it 76 camp women and children, and about twenty ladies and children among the officers' families. One child died on the way.

Another surgeon has been detailed to go across the plains with us and thus divide the duties with me. The post here at Fort Union is improving the command, and if we can get, as we expect, sufficient supplies, we shall go across the plains very comfortably. I saved from the wreck of my property a small trunk with clothes, and have lost everything else. I especially regret my books which are valuable, and will be hard to replace; however, I ought not to complain, for some of the officers' ladies lost jewelry and clothes and almost all they had in our ignominious flight from Ft. Fillmore. I especially regret that Mother's and sister's

"photographs were lost....The mail starts for the East today, and I must finish. We are not yet ready for the march for no wagons have been obtained for our transportation. It will take forty to move us, on account of having to carry some 60 days rations to last to Leavenworth, and that number of mule teams is rather difficult to find. I am afraid we will have to take ox teams, in which case our movements will be very slow and tedious.

Since our arrival here one of the officers of the 7th Infantry has been arrested for losing $18,000 of public money at Ft. Fillmore, during our late trouble, and is now on trial here. I am a witness of the Court. Another officer of our command received notice when he reached here that he had been dropped from the rolls by the President. He left the Battalion, and while staying in the garrison waiting for the next stage, he was arrested a day or two since. He was arrested for treason by order of the Department Commander. Major Lynde, who surrendered us at San Augustine Spring, is also here in arrest, but will not probably be tried until we reach the States. The rest of the officers, though unfortunate, no one can or will say a word against. It is still doubtful whether the regular troops will leave New Mexico or not. They were ordered to do so, but this late surrender in Arazonia may make a change in the President's plans in regard to this territory. New regiments of Volunteers have been raised. Kit Carson is stationed here with his regiment, but is absent at present on a scout".

(Mss. letter Dr. C. H. Alden "Camp near Fort Union, N. Mexico" September 5th, 1861 to Mother and Sister).

The paroles left Ft. Union on September 18th via the Raton route of the Sta. Fe trail and reached Ft. Leavenworth shortly after November 8th.

Ft. Union----1861-1871

Now, back again to events occurring in the lower Rio Grande.

Prior to the surrender of Ft. Fillmore, two posts in Arizona, Forts Buchanan and Breckinridge were abandoned and the troops, four companies of the 1st Dragoons under Capt. Isiah N. Moore, were ordered to Ft. Fillmore but en route they learned of the surrender and destroyed the government property with them and beat a hasty retreat to Ft. Craig.

August 1, 1861, Baylor issued a proclamation reorganizing that portion of New Mexico south of the 34th Parallel as the Confederate Territory of Arizona with himself as Governor.

August 2nd, Fort Stanton, under Lt. Col. Benjamin S. Roberts of the 3d Cavalry, was abandoned and all public stores were destroyed.

Earlier, July 8, 1861, the Confederate Government at Richmond had appointed General H. H. Sibley as commander of all troops in Texas and New Mexico. In the meantime he was organizing his brigade. After Ft. Fillmore fell, Baylor, now a Colonel dispatched scouting parties further north during the month of September.

By Nov. 18th, Sibley had his outfit assembled. It consisted of Col. Baylor's regiment of Texas Mounted Rifles ("Baylor's Babes" so they were nicknamed) then already in New Mexico; Reily's 4th Regt., Green's 5th and Steele's 7th regiments of Texas Mounted Troops.

December 15, General Sibley and troops arrived at Ft. Bliss where he assumed command of all the troops and during the first week of January, 1862, started north to drive the Federals out of New Mexico.

In the meantime under G. O. No. 97 issued Nov. 9, 1861, the U. S. Dept. of New Mexico was re-established under the command of Col. E. R. S. Canby of the 19th U. S. Infantry who had relieved Col. Loring, Secessionist

commander of the Mounted Rifles.

After Major Lynde had surrendered Ft. Fillmore, Col. Canby began active preparatios for the defense of New Mexico. He strengthened Ft. Craig with a line of earthworks, some of which survive to this day (1958) the only visible remains of Sibley's invasion of the Rio Bajo. He likewise ordered the fortification of Ft. Union.

The stage was now set for an active clash of the two forces. As a bit of spice for both sides the Mescalero, Apache, Kiowa, Comanche and Navajo tribesmen began harrassing Canby and Baylor.

Sibley marched as far as Fort Thorn and then, on February 7th, resumed the march on Ft. Craig. After cautiously reconnoitering during the next two weeks he finally joined battle with the Union troops at Mesa de la Contedera on the eastside of the Rio Grande at Valverde, February 21, 1862. The Confederates numbered 2,000 men whereas Canby had 3,810 troops. Col. Canby had among his forces five companies of the 5th, three of the 7th and three of the 10th Regular Infantry; two companies of the 1st and five of the 3d Regular Cavalry; Ford's Company of the Colorado Volunteers; Kit Carson's 1st Regiment of New Mexico Volunteers was there as were seven companies of the 2nd, seven companies of the 3d; one of the 4th and two of the 5th New Mexico Volunteers as well as "Paddy" Graydon's Spy Company. In addition there were McRae's and Hall's batteries of artillery. At the beginning of the fight Col. Roberts was in command and the Union forces were holding their own. About the latter part of the morning Col. Canby came out from Ft. Craig with reinforcements and assumed command and the Federals lost the initiative. Canby was forced to retreat back to

Ft. Craig. McCrae died fighting hand to hand to save his guns which Sibley captured.

In this battle the Union troops lost three officers and 65 men killed, 3 officers and 157 men wounded and one officer and 34 men captured. The Confederates lost 40 men killed and 200 wounded. Later, it was almost universally agreed by the men who had been engaged that had Canby remained in Ft. Craig and permitted Col. Roberts to conduct the battle, the Northerners would have won and Sibley might have been forced to begin his retreat right then.

Instead of trying to storm the fortifications at Ft. Craig, Sibley by-passed the post and went on north toward Albuquerque after spending two days at Valverde burying the dead. He left his wounded at Socorro.

Capt. Herbert M. Enos, Asst. Q. M. in charge of the post at Albuquerque did not wait to give battle to the advancing Southerners. He destroyed the greater part of his stores and retreated with his command to Santa Fe.

As news of the disasters in the southern part of the Rio Grande reached Santa Fe, Major J. L. Donaldson, the Quarter Master in command of that place, made preparations to evacuate his troops and what supplies he could salvage and on March 4th he destroyed the surplus public property and set out for Fort Union. Shortly afterward General Sibley marched into the capital of the Territory and assumed command in the name of the Confederacy.

At Ft. Union the post was in a turmoil of activity. It was expected that the Confederates would march on to the north and lay siege to the depot.

Ft. Union----1861-1871

Colonel G. R. Paul of the 4th New Mexico Volunteers knew he could not defent Ft. Union successfully and he called for help from Colorado. During the first week of March, at the sametime Santa Fe was being abandoned, Col. John P. Slough of the 1st Regt. Colorado Volumteers arrived at Ft. Union full of fight.

Slough did not hesitate. He formed a command of his own regiment and a few regular troops and the New Mexico Volunteers and started south on March 22, determined to prevent the rebels from reaching Ft. Union. He hoped to form a junction with Canby's troops which he supposed had left Ft. Craig. Slough had 1342 officers and men, one battery of twelve pounder mountain howitzers and a second battery of lighter guns, eight in all. He dispatched Maj. Chivington of the 1st Colorado Volunteers with 200 cavalry and 180 infantry in the general direction of Santa Fe on March 26, and these advance troops met Sibley's men at Johnson's Ranch some fifteen miles out of Santa Fe in Apache Canon. A brief fire fight followed in which the Confederates lost 32 killed, 63 wounded and 71 captured. Chivington lost 5 men and 14 wounded. He fell back to Pigeon's Ranch. The Confederates received reinforcements from Galisteo.

On the 28th, battle was again joined. Maj. Chivington by a surprise attach captured and burned the Confederate train of 60 wagons and destroyed a 6 pounder cannon along with quantities of supplies and ammunition. In this fight the Northerners lost 28 men killed, 2 officers and 40 wounded and 17 captured, while the Secession forces had 36 slain, 60 wounded and 17 taken prisoner.

The loss of the wagon train and the death of his men demoralised the

the Confederate leader, Col. Scurry. Even as the clump of trees at Gettysburg was termed the "highwater mark of the Confederacy", so might the battle of Glorieta Pass or Apache Canon be said to mark the turn of the tide against Sibley in his attempt to seize and hold New Mexico for the Confederacy. It marked the definite beginning of the end of the invasion.

Had Col. Slough followed up his success at Apache Canon he might well have terminated the whole affair but he was content to have turned aside the Confederate threat against Ft. Union and so returned to that post reluctantly, but under orders from Canby.

In the meantime April 1st, Canby the futile, marched out of Ft. Craig with 860 regulars and 350 volunteers and arrived in the vicinity of Albuquerque, April 8, where he hoped to effect a juncture with Union troops from the north. He feinted an attack on Albuquerque then by-passed the town and continued on to San Antonio where he met Col. G. R. Paul and his command.

In the interim Col. Scurry reached Santa Fe and conferred with General Sibley who had hurried north from Albuquerque when he heard of the disastrous battle of La Glorieta. The plight of the Confederates was now precarious. Sibley ordered the immediate evacuation of Santa Fe and on April 5th and 6th they marched out of the city toward Albuquerque. They arrived just ahead of Col. Canby and his men from Ft. Craig, and Sibley threw up a rude earthwork along an irrigation ditch about a mile east of Armijo's mill in the eastern end of the old pueblo. Here, as I have previously indicated, the two forces fired at each other from long range with their artillery and did some skirmishing in the outskirts of the town but without much loss to either men or property.

Canby had sent orders north to Ft. Union for troops to reinforce him, and giving over the duel at Albuquerque thus allowing Sibley to further organize his retreat, Canby, as I have said, by-passed Albuquerque and camped finally at Tijeras fifteen miles to the northeast of Albuquerque and awaited the arrival of the men from Ft. Union.

Colonel Slough, disgusted over being ordered back to Ft. Union when he had victory in his grasp, sent in his resignation as commander of the Colorado troops on April 9, and the officers of the 1st Colo. Volunteers petitioned that Major Chivington be given the command. Canby signed a field order at Tijeras, April 13th, giving Chivington the command.

The fact that Col. Canby was General Sibley's brother-in-law aroused considerable bitter feeling against the former and many believed that Canby deliberately avoided further open conflict with Sibley in order to let the latter escape. This feeling was further heightened when Col. Chivington requested permission to lead a night attack upon Sibley's men on the evening of the 14th after the Union forces had made a march of 36 miles south from Tijeras and camped that evening, unknown to the Confederates who were making merry in their camp only a mile away, and was refused. Sibley, after burying 8 of his bronze twelve pounder mountain howitzers in a garden in Albuquerque because of lack of ammunition for them but retaining six field pieces and their carriages which he had captured at Valverde, crossed the Rio Grande near Albuquerque and took up the march down the west bank on April 12.

On the 15th of April the two forces clashed for the last time at the ranch house of Governor Connely, a short distance from Peralto, nearly opposite Los Lunas. The Federals captured a string of 7 wagons and one

howitzer straggling down toward the Confederate camp from the direction of Albuquerque. After another fire fight the Confederates slipped out of Los Lunas under cover of darkness and retreated as rapidly as possible, leaving their wounded and dead to be cared for by the pursuing Union forces. The "pursuit" of Sibley by Canby's forces was a farce. The action of the latter in this respect after the skirmish at Peralta rankled in the hearts of the Union populace of New Mexico and they never forgave him for permitting the Confederates to escape.

There is no point in detailing the retreat of Sibley back to Texas. The flight was a desperate one through the arid lands west of the Rio Grande along the eastern slope of the Magdalena Mountains, through the Sierra de San Mateo and thence down the dry bed of the Palomas River to the Rio Grande and on southward into Texas.

After the Confederates had left New Mexico, Col. Canby placed Col. Chivington and his Volunteers in command of Ft. Craig while the former and the regular troops re-occupied Santa Fe. Col. Chivington sent four companies of his regiment to welcome the advance guard of Brigadier-GeneralJames H. Carleton's "California Column" when it entered Mesilla. After Chivington had turned over the command of southern New Mexico to Carleton's troops, the Colorado Volunteers withdrew, leaving the Californians to take over the guard duties in New Mexico.

(References used in compiling data on the Confederate invasion of New Mexico were: "Recollections of the Twiggs Surrender" by Mrs. Caroline Baldwin Darrow, Battles and Leaders of the Civil War, vol. 1, pp-32-39. "The Confederate Invasion of New Mexico and Arizona" by Capt. Geo. H. Pettis, Co. K. 1st California Volunteer Infantry, Battles and Leaders, vol. 2, pp. 103-111, Century, N.Y. 1887. Also, "Colorado Volunteers in the Civil War" by Dr. Wm. Clarke Whitford, Denver 1906. Dr. Alden's mss. letters written from New Mexico, 1860-1861 in author's collection).

Ft. Union----1861-1871

During the invasion threat, as previously indicated, Fort Union became a center of wartime activity. Concerning the abaondonment of Santa Fe and concentration of troops and government stores at Union, A. F. Garrison of the Office of Chief Commissary of Subsistence wrote from Ft. Union, March 31, 1362 saying:

"On the 5th of March, 1862, on the anticipated approach of the army of the so-called Confederate States, on the order of Major J. L. Donaldson commanding the Military District of Santa Fe, N. M., the troops were ordered to Fort Union, N. M., and the town abandoned, and all the officers and attaches of the Army, under said order, left Santa Fe for Fort Union and the enemy has since occupied the town. There was no secure place to store our commissary property and no transportation could be procured to take it away and it was left in the office of the Chief Commissary of Subsistence, and as the enemy are occupying the town of Santa Fe, we can only account for the balance of our Commissary Property, as abandoned by order of the Commanding Officer upon approach of the enemy". Garrison added a P.S. "I was absent at the time of the abandoning Santa Fe, having been sent to Bent's Fort to forward troops for the protection of Depot Fort Union."

The approach of the Confederates in the Fall of '61 brought an appeal to Col. Paul from the headquarters at Santa Fe for field guns to be sent from Ft. Union for the defense of Ft. Craig. On December 30, 1861, Paul responded to their request saying that he only had 6 pieces of artillery left at Union and if he complied with the order he would be stripped and he didn't feel that 2 guns were sufficient to guard the Depot. Moreover, the storekeeper at Ft. Union had reported that two 24 pounder field howitzers

were unfit for service for want of caissons while other pieces in position at the field work could not be repaired and fully equipped in time to be sent to Ft. Craig.

Col. Paul added, however, that if the Department Commander insisted, the field pieces would be detached from Ft. Union and sent South.

Again on Feb. 27, 1862, Maj. Donaldson in command at Santa Fe urged that a field battery be organized at Ft. Union and sent to headquarters. Again Paul replied that he had only 5 pieces in working condition and couldn't spare a single one.

In this same letter, Mar. 1, 1862, Col. Paul said that he had sent an express to Ft. Wise urging speed in sending Colorado Volunteers to the aid of New Mexico. He also requested the return of the cavalry company under Capt. Lewis, which had been sent out previously from Ft. Union, to be returned to the post and said that after March 12th, he would not have a single mounted man for scout duty or picket work.

Construction on the earthwork at Ft. Union continued intermittently into late June 1862. The star fort may have looked like a choice bit of military construction to A. B. Curry who had written previously about it (see p. 114) but to Captain P. W. L. Plympton of the 7th Infantry who was acting commander of Ft. Union in the late spring of 1862, the defenses had been poorly planned and he set about proving his point in a most practical and dramatic way.

On June 8, 1862, he wrote to headquarters in Santa Fe concerning tests he had made to determine the validity of the defenses, then in the process of construction, "a few days since" against cannon fire.

He took two of the pieces of artillery at the post, one a 12 pounder mountain howitzer and the other a regulation 6 pounder field piece to the hill immediately west of the new fortifications. He planted the 12 pounder bronze gun on the crest of the hill and the other gun he placed at the base of the escarpment. Both pieces were loaded with regulation charges and the howitzer shells were filled with powder only sufficient to blow out the fuse at impact. The 6 pounder threw its balls within 75 or 80 yards of the works, while the 12 pounder dropped its shells some 60 or 70 yards beyond the northern demi-lune.

Not only did Capt. Plympton test the possibility of a raking fire from the hill, but he also fired his six pounder from the western bastion of the fort toward the hill to determine if he could range that far. Even with the piece elevated to the maximum the ball only reached about midway between the earthworks and the hill.

Each gun was fired at least three times. Plympton dryly observed, "The work has a dip toward these hills which cause its whole interior to be revealed".

On June 20 the captain again wrote concerning the general condition of the fort, suggesting various possible improvements of the defense works "now in process of construction". In his estimation the star fort could not be rendered safe from reverse fire from the heights, "by reason of the extent of the work and its peculiar construction. Sets of quarters, store-houses, shops and offices as built to form the demi-lunes and are consequently outside the work and can only be partially protected by traverses and this partial protection would preclude that

"of the curtains and flanks of the neighboring bastions. From the nature of the curved line in which the shot would reach the work proper, any system of traverses would afford but a very slight protection and from the effect of a shell and cannister not even a partial protection, as they would throw their fragments and contents generally from points directly above the work, and then too the work would be reduced as to its capacity by their introdution.

In a word the site should have been selected at a point beyond the reach of the shot and shells of the enemy if it had been necessary to put it where it is which was not the case, its interior erect should have had much greater command.

The quarters are very objectionable being built of unseasoned materials which are shrinking with the effects of the heat, and they are low and badly ventilated. The storehouses being like the quarters, mere shells, afford but little protection to their contents, and are dank and without floors. The magazine, I am informed, is unfit by reason of its dampness for the reception of ammunition, and if such is the case now, what must be its condition during the rainy season? I would further state that the soil here contains a large per cent of clay and therefore it retains its moisture for a long period".

(Bk. #11, Ft. Union Letter Books, National Archives).

Judging by these remarks the earth work, now popularly known as the "star fort", was a waste of energy and money, and had it be subjected to the test of actual battle, would have been more of a death trap than a protection to the forces occupying it.

Ft. Union----1861-1871

Two solid shot found during the course of excavation of Ft. Union in 1957, were weighed. One was 6 pounds 4 ounces. The other, badly rusted weighed 4 pounds 6 ounces. These may well have been two of the missiles fired in the tests alluded to by Capt. Plympton. The larger, unexploded shell now in the museum case is probably one of the 12 pounder missiles as are the fragments of another hollow shell found on the surface. AW).

The building of the earth work was a nuisance to the post commanders stationed at Fort Union during 1861-1862. The 1st Regiment of New Mexican Volunteers began the construction of the useless defenses and Col. G. R. Paul complained (Dec. 15, 1861), that the military instructions for the newly raised volunteer regiment were being very much neglected, "in the consequence of the constant labor of the troops on the field work at this Post".

Moreover he felt that, "on examination of the work, so much of it as required a ditch around the quarter, might be suspended this winter (in the case of the two sets of quarters) by throwing only so much dirt against the outer sides as will make them cannon proof. This will take but a few days and will give the troops an opportunity to resume their drills, neither will this suspension weaken the defences of the work".

As a result of this letter Col. Paul was advised to discontinue work on the fortification as of Dec. 16, 1861, and to resume company drills. (Letter Book #11, Ft. Union, Nat'l. Archives). Moreover it would appear that these orders still held good in the late spring of 1862. (See report of L. Alex. W. Robb, supra. p. 112) It is quite likely that very little, if any, further construction was done on the

earthwork, after the immediate threat of the Confederate invasion was removed following Sibley's retreat in April of 1862.

Scarcely any inspecting officer who had made a report on condition of the post during the first decade of its existence had anything favorable to say about it.

Lieutenant H. H. Enos of the 2nd Rifles writing to the Quarter Master General, Jul. 8, 1861, said:

"After a thorough inspection to the Government Buildings at this Post, agreeable with Paragraph 933 'Army Regulations', I have the honor to report that they are, with scarcely a single exception, rotting down; the majority of them almost unfit for occupation, and in fact, all of them in such a dilapidated state as to require continual and extensive repairs to keep them in a habitable condition. The Hospital Commissary and Quarter Master's Building are entirely unfit for the purpose for which they are required.

There have been no additions to, nor alterations of consequence at the Post during the past year. Several companies of Troops now here are occupying Tents because of the lack of Quarters for their accomodation".

This lack of good quarters plus the monotony and isolation of the post were reasons enough for men to wish to shake the dust of Ft. Union from their bootees and, in the parlance of the day, "slope" out of the country. Desertion was common.

Less common perhaps were the methods of obtaining "legitimate" discharges used by some of the men at Ft. Union. Since time immemorial

soldiers who have found life irksome in the army have schemed and planned to obtain speedy discharges. Men have feigned insanity, refused to drill, become insolent to officers, etc., in order to obtain the coveted "eagle", as the discharge paper was called during the 1860s--- 1870s.

The plan of Private Christian Bartholomus, a man of German extraction was, perhaps, one of the most ingenious ever practised at Ft. Union, to bring about his release from the army.

Private Bartholomus was discharged from the Mounted Rifles, June 30, 1860, under direct orders from the War Department and after he had left his unit his modus operandi came to light much to the chagrin of the reporting officers, Major I. S. Simonson, commandant at the post.

A month after the German soldier was discharged Major Simonson wrote (July 31, 1860) explaining what Pvt. Bartholomus had done.

Prior to receiving his cherished "eagle" Christian had inserted advertisements, composed by himself, of course, in various newspapers in the United States and Germany, the contents of which indicated that a wealthy relative of the soldier had died recently in Saxony and if Christian Bartholomus could reach his old Fatherland by such and such a date he could claim his inheritance. The proviso was that the recipient of the estate must be present in person to legally obtain possession. Once the advertisements were printed, Bartholomus had a friend in Germany, clip the ads and forward them to him at Ft. Union.

Phase two of the scheme was next set in motion. The advertisements were sent with a long pathetic letter to the consul of Saxe Weimar in St. Louis, stating that he, Christian Bartholomus, a good citizen of Germany who had emigrated to the United States in all good faith had been

shanghaied when drunk into the United States Army because of his lack of knowledge of the English language, and now wished to obtain his discharge in order to claim this valuable inheritance.

The bait worked. The Consul contacted the War Department forwarding the clippings to substantiate the claim. In due time the discharge was sent to the Consul in St. Louis, and the commanding officer at Ft. Union was notified to permit Private Bartholomus to proceed to St. Louis on furlough, at the end of which he would receive the discharge quite legally.

Not only had Bartholomus been able to obtain his freedom in this manner, but so had about nine other men of foreign extraction who had taken a tip from Bartholomus and had been discharged for the same reason, or slight variants thereof.

Said Major Simonson: "Not one in ten of these men intend to return to their country, nine have been inveigled, the whole proceeding is false and a swindle".

Perhaps the whole scheme would not have come to light had it not been for a woman. It appeared that not only had Private Bartholomus skipped the post in this manner but so had Mrs. Henry Ebert, the wife of bandsman Ebert, one of Christian's best pals. She deserted her husband and two infants, and robbed her husband of valuable papers before she took the stage east, presumably to St. Louis, to join Bartholomus, where at the time of writing, the Major thought the guilty couple must be residing. At any rate, Private Ebert apparently felt that his good comrade had double crossed him and, having inside information on the scheme, spilled the beans to get even.

In general, however, when soldiers decided to leave they simply

"went over the hill", singly or en masse. When possible these deserters were trailed by cavalry details, captured and returned to the post where they were tried and sentenced. During the 1850's and 1860's deserters and thieves, when convicted were expelled from the post by a special ceremony. The heads of the culprits were shaved, their blouses or jackets were put on them, inside out, and they were escorted to the limits of the garrison by a file of their comrades with rifles and fixed bayonets. Just behind the guilty ones marched a drummer boy playing the "Rogue's March", and when the outskirts of the garrison was reached, the drummer boy gave each a parting kick, and the men dihonorably discharged, were allowed to go their own way. Usually, however, in addition to this ignominious treatment, the prisoners had to serve a sentence at hard labor.

In the instance of the desertions at Ft. Morgan, on the South Platte in 1867, Troop "L" 7th Cavalry was ordered out one evening by the 1st Sergeant in full marching kit. Forty men formed quietly and were marched out of the post without the knowledge of Bvt. Maj. Michael Sheridan, commanding, and the only officer at the fort. The troopers rode to within a few miles of Pueblo, Colorado; here the 1st Sergeant cooly informed the men they were all deserters and each man was on his own. Then they separated and rode their various ways.

This mass desertion was equalled by practically all of the 40 recruits sent out from Fort Riley, under a Lt. Abell, to replace the men who had taken French leave from Ft. Morgan. En route the detachment encountered a terrific snowstorm. The new men were so demoralized that they stampeded, all except one man whose feet were so badly frost-bitten that he couldn't run. The lieutenant reached his destination with this

sole remaining member of his detail and the roster of the deserters.

Army punishments for deserters, thieves, drunkards, etc., were quite severe during the 1850s and 1860s. Men were "bucked and gagged" for the slightest infraction of the rules. This was a particularly vicious method. The culprit was seated on the ground, usually in the hot sun, his knees drawn up to his chin with his arms brought down to his knees and a stick, about the size of a broom handle thrust under the knees and in the crooks of the elbows and lashed in place. Then the shank of a bayonet, a corn cob or piece of wood was tied in his mouth. He was frequently left in this position for hours.

A california soldier, James Davis, was thus treated at Camp Union out of Sacramento late in October, 1864, and died as a result of the treatment. In addition his jaw was dislocated. His crime was getting drunk and being noisy. In this case Davis, who was ending some twenty-five years service, was only in the camp waiting to be mustered out and had celebrated his pending discharge a bit too wildly. (Sacramento Union 11-1-64).

Another punishment which often brought disasterous results to the victim was that of "riding wooden horse". A crude wooden horse was manufactured from odds and ends of lumber, with legs long enough to prevent the soldier's legs from touching the ground. The back of this mount was made from a wooden rail or heavier piece of wood, with the upper side somewhat sharpened. The prisoner was made to sit on this horse, sometimes in full marching order, with an old musket, the barrel of which had been filled with lead, or a heavy wooden saber five or six feet in length held

upon his shoulder. A guard was posted over him to see that he didn't dismount, or was furnished with water by his comrades. At times, just to heighten the misery, sand bags or bricks were tied to each foot. This treatment lasted from two to four hours, which was sometimes enough to ruin a man for life.

On the march the delinquents were at times tied behind the wagons with their hands bound and forced to march in the heat and the dust until they fell from sheer exhaustion. There were instances when these unfortunates were dragged some distance before being released. Another variation of this was to spread eagle a man on the extra wheel on an artillery caisson face up.

En route to California from Saltillo, Mexico, in 1848, a prisoner who was thus chained to a wagon, climbed into the wagon to avoid getting wet when crossing the Santa Cruz River. The lieutenant who had ordered the punishment saw the prisoner and ordered him off. The man jumped, missed his footing on the rocky bottom and was scraped badly. This man had been marching thus chained with an iron band around his waist for 20 days, subsisting on bread and water! The lieutenant who recounted the incident to his fellow officers thought it quite amusing!
(Mss. Journal of Lt. Cave J. Couts, 2nd Dragoons, 1848).

Flogging was also another common punishment for deserters or those accused of some minor misdemeanor. A vivid account of one such beating given to a soldier in Gen. Albert Sidney Johnston's command, Camp Floyd, Utah in 1859 was given in The Weekly Arizonia, Tubac, Ariz. 6-9-59/4:1.

Deserters and thieves were sometimes branded on the shoulder, or on the cheek with the letter "D" (about one inch high) later this was changed

to tattooing with indelible ink on the cheek or thigh. The latter style of "branding" was carried on at army posts until the late 1860's and was only frowned upon in the early 1870s as being "against public policy and opposed to the dictates of humanity, and consequently is not conducive to the interests of the service". (See Army and Navy Journal, Jan 13, 1872 for opinion of the Judge Advocate General re the case of Private Bell, 4th Artillery).

At Ft. Union and other posts in New Mexico occupied by the California Volunteers, soldiers charged with minor crimes did "the California Walk" around the flag pole on the parade. The culprits under the eye of an "armed orderly" (i.e. a guard) were forced to walk for several hours in the hot sun or freezing winds carrying a huge log on their shoulders. This bit of punishment was termed "the California Walk", so named because the Volunteers had hiked the long dusty miles from California to New Mexico.

Thieves were branded or tattooed with the letter "T". Drunkards were often clad in empty barrels, with heads and arms protruding from holes cut in the top and sides of the casks. Slogans, such as "I am a drunkard" or "I stole whiskey" were painted on the barrel and thus attired the culprits were herded through the garrison or camp by an armed sentry.

In times of war, deserters, mutineers or men convicted of treason were shot to death.

Corporal Charles Smith, Company K, 1st California Infantry Volunteers, was thus executed at Mesilla, under orders from Colonel Joseph Redman West, Nov. 26, 1862.

Many of the men in the ranks were Southern in sympathy and when several secessionist prisoners had escaped from the guard house in Mesilla, Col., West decreed that the next prisoner that escaped would be

replaced in the guardhouse by the privates and non-commissioned officers of the guard. He was true to his word and when the next secesh went scot-free, the colonel promptly jailed a popular sergeant and several privates of Co. K. When this happened the men of Co. K. refused to turn out for drill. Corporal Smith acted as spokesman for the mutineers and demanded immediate release of the prisoners. Col. West then gave a formal order for the company to carry on with the drill. As spokesman for the company Corporal Smith refused.

Col. West ordered Company D to fire at the mutinous non-com. They did but the volley went high, knocking dust from the adobe church and other buildings and wounding two invalid soldiers and a Mexican woman who, with her youngster were among the bystanders.

Again the colonel asked the corporal if he would obey the command. Again a negative answer. A second volley left the corporal untouched. Again the rifles were loaded and Col. West, riding behind the firing squad with saber uplifted, between the commands "aim" and "fire" said:

"Lower those rifles".

Again Captain Mitchell of the company was ordered by West to fire. This time Corporal Smith fell with a minie ball in high right breast. He died while being carried to the hospital.

After this grim scene the company was again asked if it would obey the orders to drill. The men answered in the affirmative. The company was dismissed and immediately reformed and continued with the drill. This was the last and only military execution of this sort among the soldiers of the Column from California in New Mexico during the war.

Ft. Union----1861-1871

On September 17, 1862, General Canby turned over his command of the Department of New Mexico to General James H. Carleton. The garrisoning of the posts throughout the Territories of New Mexico and Arizona was now assumed by the cavalry and infantry regiments of the California Volunteers and the New Mexico Volunteer regiments. The Coloradoans withdrew to their own state.

As previously noted (p. 88 of this report) General Carleton had served at Ft. Union ten years earlier. In November, 1862, the General turned his attention toward the construction of the new post of Ft. Union.

November 20, Carleton wrote to Maj. Gen. Montgomery C. Meigs, Quarter Master General of the Army to this effect:

"I have the honor to enclose herewith a rough plan of the proposed Buildings which are to constitute Fort Union, New Mexico. I also enclose an estimate of the Funds required to erect those buildings.

The site of Fort Union for a Depot for the Department of New Mexico has some war advocates. It appears from the enclosed estimate that General Canby approved of the location as well as the plan".

Carleton then went on to discuss the matter of sufficient water, already noted (p.88) after which he said:

"Colonel Donaldson, late the Chief Quartermaster here, believes that the Depot for this Department should be at Los Pinos near Peralta, New Mexico.

Captain Easton when here, was on a Board---so I learn---for the selection of a suitable site. I have heard the site he believed to be the most eligible was near the junction of the Moro(sic) and Sapillo(sic)

"rivers, seven miles from Fort Union".

In relation to the site proposed by Captain Easton it is interesting to note that on Feb. 4, 1856, Capt. John C. McFerran, Asst. Q. M. at Ft. Union wrote to Capt. S. C. Easton, Asst. Q. M. of the Department at Sta. Fe concerning the site mentioned by Carleton:

"I am informed that Mr. Doyle of the late firm of Barclay and Doyle, has sent to Taos to take out a letter of administration with the view of selling the place known as Barclay's Fort.

I have spoken to one or two reasonable citizens on the subject and there is an effort on foot to club together, and purchase the entire claim of Barclay and Doyle and offer it to the U. S. at a nominal rent, say one dollar per year, as long as the government requires it, with the conditions that when it is abandoned the buildings shall revert to the owners of the property. This is done to keep the post in this vicinity for the sake of the market it causes. If this purchase is made, I think it would be advisable to remove the post to some point on the Moro(sic) river".

It may be of interest to give a more detailed description of this old fortified placita in which the army expressed some interest from time to time.

Ft. Barclay, also known as Simpson's Trading Post, or Simpson's Factory, was established early in June 1848, on a spot approximately one-half mile upstream from the junction of the Mora and Sapello Rivers, on the south bank of Mora River.

The three men interested in the post were Alexander Barclay, a

transplanted Englishman, George E. Simpson, born in St. Louis, May 18, 1818, who started west in 1841 for Oregon and ended up with "Colorao" Mitchell and Charles Raymond and other trappers at Taos. Here on Nov. 30, 1842, Simpson married Juana Maria Suaso. With Barclay and Simpson was Joseph B. Doyle, a Virginian, born at Mount Pleasant, Shenandoah Co. Va., July 10, 1817.

Before building the post on the Mora, Barclay and Doyle had worked at Bent's Fort, Barclay as a bookkeeper and Doyle as counter man in the store where he handled the Indian customers.

Joseph Banbridge Doyle married Maria Kinkead or Kincaid, a sister of Andrew Kincaid and daughter of Matthew Kincaid, known among the New Mexicans as Matias. The latter had been a trapper in the Rocky Mountains, and when Kit Carson first arrived in the west he stayed with Kincaid.

It is not my purpose at this time to go into the genealogies of the triumverate who built Ft. Barclay. The family skeins are too complex and have but little bearing upon the aspects of the physical structure, aside from the fact that members of the various families are the sources of information relative to the description of the placita itself.

Professor F. W. Cragin of Colorado Springs during the years 1904-1908 interviewed many of the descendants of the builders, some of whom had lived in the old post. Said Cragin:

"Barclay's fort was quite a pretentious one built by Barclay with a view to selling it to the Government, but from a failure to agree on the price, the Government located a new fort called Fort Union at the 'holes', pools of clear spring water (fish in them), the holes were called 'Los Pozos'."

Ft. Union----1861-1871

The walls of Ft. Barclay were some four feet thick and perhaps eighteen feet high. It was quadrilateral in shape, a trifle longer on the north and south than on the east and west sides.

Mrs. Frank M. Jones, nee Fannie Kroenig, daughter of William Kroenig and Rafaelita Kincaid, born at Ft. Barclay, has left an outline plan of the post as it was in 1866.

The main gate faced south. Over this gate was a small square room known to the Mexicans as "la jaulita" (the little cage), which had two windows in front and o ne on each of the other three sides. This was used as a schoolroom where the children of the fort received their lessons.

The various quarters and shops were built against the inner sides of the east, south and west walls. These were all one story buildings with flat roofs. Round, or semi-round bastions, loop holed for rifle fire were at the northeast and southwest corners. The quarters for the workers at the post were ranged along the south and east walls. The building on the west side of the patio or plaza was divided into rooms for the storage of furs and other products. A garden with two ovens was also inside the west wall. A corral and stables were located outside the worker's quarters and inside the outer wall on the east.

The entire length of the patio on the north was occupied by a combination two-story building. The upper floor, reached by stairways at either end, was used as the residence of the owner of the fort, which in 1866 happened to be Wm. Kroenig. The lower rooms were the store where all the trade of the post was conducted.

Almost in the center of the patio, nearly opposite the gate was a

well and just east of the well was a huge tree surrounded with corn cribs.

Between the north wall and the south bank of the Mora River were the garden and orchard.

Louis Kroenig, born in 1870, informed Professor Cragin March 6, 1908, that the old cottonwood which stood in the center of the patio of the fort was still standing in that year. William Kroenig abandoned Ft. Barclay in 1864 and went to live on his new home on the Phoenix ranch. The elder Kroenig died at his residence about 3 miles southeast of Watrous, Dec. 18, 1900. After Kroenig left the old post S. G. Wright lived there for a short time but he too moved out about 1885. The last of the adobe walls of Ft. Barclay were swept away by the flood waters of the Mora River in September 1905.

Such was the old post which was at one time considered as a place to which the garrison at Ft. Union might be removed. Such a move was never made. Instead new plans were projected for a larger and more substantial Ft. Union.

Carleton in his letter of November 20, 1862, also said:

"General Garland believed it should be at Albuquerque:----but as my children are interested in the property which was once the Quarter Master's Depot at that place I shall offer no opinion.

This, however, I beg to recommend, that a Board of Officers be ordered from Washington, or from these Head Quarters to select the most eligible site: to have the title to the land vested in the United States: to have a well matured plan made of the proposed

buildings and have the work done and made a completed thing forever.

"By all these conflicting opinions the result is that one department Commander has a preference for one locality and orders buildings to be commenced; he is then relieved: and another comes with different preferences and orders other buildings to be commenced and so on. This has been the course for twelve years. The result is, we have no depot-- and have spent money enough to make two or three. I beg you will give the subject your earnest attention so that I may act advisedly in the case".

(Unfortunately the plans noted in Carleton's letter, which was filed in Washington Dece. 16, 1862, are not with the letter in the National Archives at the present time. AW).

Life at Ft. Union during wartime was less dull than in the years succeeding the conflict.

Troops were constantly on the move, to and from the post. The volunteers from California and New Mexico garrisoned the fort. After the threat of the Confederate invasion had subsided the troopers had other troubles with which to contend. There were the patrols to capture deserters, road building parties and expeditions against the Apache and Navajo Indians.

Whenever news of an important battle reached the post, excitement ran high, particularly if the Union forces won. Thus, G. O. No. 19 issued at Ft. Union, July 23, 1863, stated that in commemoration of signal victories won at Gettysburg and Vicksburg, a national salute would be fired at all posts, and all prisoners in arrest for non-capital crimes were to be released. Sky rockets exploded, cannon roared and the prisoners rejoiced.

Ft. Union----1861-1871

General Carleton made himself generally unpopular in New Mexico when he issued General Order No. 22 at his Headquarters in Santa Fe, July 12, 1864:

"All men of an age to bear arms, who are not natives of New Mexico or Arizona, when traveling within this Department at all places east of, and including the valley of the Rio Grande, will, until further orders, be required to have pass ports which will be furnished gratis at the military post of Franklin in Texas and at the following places in New Mexico, viz: Las Cruces, Fort McRae, Fort Craig, Los Pinos, Albuquerque, Santa Fe, Fort Sumner, Fort Bascom and Fort Union. These passports will be numbered and registered by Provost Marshals and will be countersigned by the Commanding Officers".
(The New Mexican, 7-15-64/2:2-3)

The order also stated that civil magistrates, and officers of civil courts, all lawyers practising in the country and all U. S. officers having business in the Department as well as citizen residents not native of New Mexico and Arizona, would be issued with standing passports upon application. Officers, soldiers and military employees were also required to have and show passports upon demand at any of the posts named.

This military censorship on travel within the Territory was not well received. General Carleton was harshly criticized by his enemies for this regulation, but the order remained.

During the middle 1860s, Fort Union was the scene of many activities. Escorts were formed at the post to protect wagon trains traveling between the Arkansas River and the fort. These escorts also went with government supply trains destined for other posts in the Territory. Roads were improved and distances between posts were measured. Thus the mileage from Ft. Union to Ft. Stanton, via Ft. Sumner as noted by Capt. Geo. S. Hollister of the 7th U. S. Infantry in August 1864, was 271 miles. Maj. Henry D. Wallen, found the distance from Union to Ft. Bascom to be 129.18 miles.

Ft. Sumner, the Bosque Redondo, where Col. Carleton established the camps for the captive Navajo and Apache, was 148.74 from Union.

Likewise, detachments sent out from Ft. Union founded other posts such as Ft. Canby. Under G. O. No. 15, June 13, 1863, Col. Kit Carson with Companies K, L and M, 1st New Mexico Volunteers then at Ft. Union were ordered to rendezvous with Companies A, B and C at Los Pinos, taking with them two twelve pounder mountain howitzers on their prairie carriages, and march thence to Pueblo Colorado in the Navajo country to establish a new defensive depot and hospital. However, the board of officers who selected the site decided that forage and water were too scarce at Pueblo Colorado so they shifted the location to a place near old Ft. Defiance. "The new post is to be called Fort Canby in honor of General Carleton's predecessor and from thence Col. Carson will operate against the enemy. Meantime Col. Chavez will operate from Ft. Wingate, etc". (Rio Abajo Weekly Press, 6-23-63/1:1-2-3 and id. 8-11-63/3:1).

Fort Selden, another post established on the lower Rio Grande, was ordered built by Carleton, G. O. No. 12, Apr. 25, 1865. This fort was on the west bank of the Rio Grande some miles below Ft. Craig. Selden, named after Col. Henry G. Selden, who died at Ft. Union after a brief illness Feb. 2, 1865, was to be a two company post, built of adobe. Lt. Col. Nelson H. Davis was ordered to "mark out as much ground contiguous to the site already selected as will be necessary for the military reserve at Ft. Selden. The ground will not be settled upon by persons not connected with the military establishment of Fort Selden". The first garrison at the post "will consist of Captain Whitlock's company 'C' 1st Veteran Infantry California Volunteers". (Sta. Fe Gazette, 4-29-65/2).

Ft. Union----1861-1871

ay 13, 1865 noted that: "The garrison of Las Cruces
of this week to Roblero, the site of the new fort Selden,
rations are at once commenced towards building the new

constantly on the move between all the p osts in the Rio
d further westward in Arizona. Thus, B Company, 5th U.S.
Lt. Mason Howard left Albuquerque, June 18, 1863 for Ft.
s outfit went "Harry" a famous race horse which had won

1st Infantry California Volunteers arrived in Albuquer-
363 and took up the march f... Ft. Union, on the 11th.
Press, 6-27-63/3:2).

rs at Ft. Union during the Civil War changed frequently.
alden, the veteran of the Mexican War, formerly of the
ntry, later in the Utah War, 1857, and who was in the
with the "Old Fifth" Infantry, later became colonel of
xican Volunteers, and as such was commandant at Ft. Union
eb. 2, 1865 and was interred in the post cemetery about
miles north of the old post.

was not enclosed and only about one grave in five had
it. By the spring of 1866 there were approximately 150
ot which was about three hundred yards long and fifty

rs remains did not rest in this cemetery very long. Late
they were disenterred and reburied in the Masonic Cemetery
rch 24, 1866.

Early in 1866, 1st Lieut. Harry Mumford, 1st New Mexico Volunteers, wrote to Maj. Gen'l. M. C. Meigs, April 16, giving some data on the cemetery. He stated that the "records, if any, are in the hands of the Adjutants of the different Regiments who have been stationed here", and he added, "I must respectfully recommend that the site be continued and that it be fenced, as it is within the limits of the Military Reservation".

A Circular G. O. No. 13, Feb. 13, 1866, was issued to all posts requesting information concerning post cemeteries and instructions were appended:

"Headboards should be placed over the graves, where the body cannot be identified and should be inscribed:

"UNKNOWN U. S. SOLDIER"

"Mounds should be sodded and the graves placed in a good, presentable condition in Compliance with G. O. No. 13, Q. M. G'ls.

A list of names as far as can be ascertained should be forwarded to this office". (Box 1169, Office QM Gen'l. Consolidated Correspondence, Nat'l. Archives").

Military funerals at regularly established posts were conducted with a certain amount of pomp and ceremony and the rank of the deceased usually decided the amount of ceremony.

General George A. Forsyth in his volume, "The Story of the Soldier" p. 107, describes the burial of the commandant of a post in the Indian country. Of the one hundred headboards, the inscription "Killed by Indians" was painted on ninety-seven out of the hundred.

"The commandant of this post died one May morning, and the next afternoon his funeral cortege moved out across the bare prairie to the burying ground, five hundred yards from the stockade. Dark clouds pressed heavily on the black hills in front, relieved only now and again by a few sickly rays of sunlight, which served to heighten the darkness of the scene....Raindrops fell at intervals as the procession moved at common time. All the garrison except the post guard was there, mourning the dead officer. The open grave reached, the young adjutant read the burial service and the coffin was lowered into the grave....."

Yet another descriptive sketch of a military funeral of the 1860s is given by Robert J. Burdette, "The Drums of the 47th" Indianapolis, 1914, pp. 184-196. He describes his experiences as a private in a military funeral escort, of which I quote in part:

"So the sergeant detailed six pall-bearers, of the dead soldier's own rank, and an escort of eight privates under the command of Corporal Davidson.

When the commanding general is buried, the minute guns boom their salute from sunrise until the march to the grave begins. Officers of high rank are selected for pall-bearers and escort.

When the colonel dies, his entire regiment follows its dead leader to his grave, even as it followed him to his death.

For the dead captain, his company marches as his escort.

And when we buried Private John Taylor, we followed the 'Regulations' in the detail of pall-bearers and escort. All the non-commissioned officers of the company were required to follow the detail, and when the

"commissioned officers attended the funeral, they marched in the inverse order of their rank---the privates, corporals, sergeants, lieutenants, and in the rear of all the captain.

When the platoon was formed the pall-bearers carried the body down in front of it. The corporal gave the order----

"Present!----arms!"

An honor never accorded the living private.....

When the body of the dead colonel is carried before the regiment, the lieutenant-colonel gives this same order. The regiment pays to the colonel the same honor---no higher---which the escort of eight men paid to Private Taylor----

The Pall-bearers, having halted to receive this honor to their burden, carried the body to the right of the line. Again the corporal's voice---

"Carry---arms! Platoon, left wheel---march!"

"Reverse---Arms! Forward, guide right---march!"

The dull flam of the muffled drums draped in crape gave our steps the time. Then the wailing fifes lifted the plaintive notes of the dead march, which was oftener than any other The Land o' the Leal, and the drums beat mournfully in the long roll with the cadences that emphasized its measures and moved our marching feet in the slow rythm of the dirge".

(Part of the song The Land o' the Leal is:

"Ye were aye leal and true, Jean,
Your task's ended noo, Jean,
And I'll welcome you
In the land o' the Leal.

There's nae sorrow there, Jean,
There's neither cauld nor care, Jean,
The day is aye fair,
In the Land o' the Leal.")

"We reach the grave. Wailing fifes and sobbing drums are silent. The platoon is halted.

"Right wheel into line---march! Carry-arms!"

The bearers bring the coffin down the front of the line, halting in the center. Again the Corporal----

"Present----arms! Carry----arms!"

The coffin is rested beside the grave.

"Rest on arms!"

"The muskets are reversed, the muzzles resting on the left foot; the hands of the soldier are crossed on the butt; the head is bowed on the hands; the right knee slightly bent."

If a chaplain was present, he stepped forward front and center, opened his Bible and began to read...."I am the Resurrection and the Life..." Frequently, on the frontier there were no chaplains available, in which case the lieutenant or captain read the verse. At the conclusion of the brief ceremony, the chaplain or officer stepped to the right of the platoon and took his place there.

"The corporal commands----

"Attention! Carry---arms! Load at will---load!"

The rattle of rammers and the clicking of musket-locks.

"Ready---Aim---Fire!"

Thrice the salute is fired over the soldier's grave".....

"Carry---arms! By platoon, right wheel---march!"
"Forward, guide left---march!"

The somber crape has been removed from the mourning drums. The rattling snares are tightly stretched. Clear and shrill as lark-songs the merry fifes trill out the joyous measures of A Rocky Road to Dublin; the stirring

"drums put the tingle into our half-dancing toes and the spring into our heels:

"Right shoulder---shift 'em!", jocularly calls the corporal, and with laughter and chatter we march back to camp, and life, and joy and duty, and death...."

Private Burdette's description of a soldier's funeral might well apply to any of the hundred or so ceremonies of like nature that took place in the bleak little sunburned graveyard at Ft. Union.

Mrs. Hal Russell who once lived at Ft. Union in the late 1860's said:

"Once, at Fort Union, a soldier had been condemned to die. I saw them dig his grave. He was to be shot at sunrise. At the eleventh hour he was reprieved. I felt that I too had been reprieved, as he had been so nice to me. However, he had tried to desert and desertion is a crime. I remember that the day this soldier was reprieved the body of another soldier, who had been stoned to death on Raton Pass by some of his own men, was brought to Fort Union for burial. Military regulations were such that they were not permitted to use the grave already dug, but were forced to fill it in and dig another". (The Colorado Magazine, Memoirs of Marian Russell vol. XXI, No. 2, Mar. 1944, p. 63).

Often timber was scarce or lacking at frontier forts and the soldier was simply wrapped in a blanket and buried without a coffin. If new timber wasn't available, coffins were frequently made of old packing-boxes. Lydia Spencer Lane in her excellent little volume of old army life, "I Married A Soldier", Philadelphia 1893, p. 126 said:

"An officer died at a post in Texas, and nothing could be found for a coffin but some old commissary-boxes, which were hastily put together and the poor fellow was carried to his last resting-place in a very rough one, on which was marked, in great black letters '200 lbs. bacon'!"

In the case of Lt. Lyman Mishler, 5th Infantry, killed at the battle of Valverde, Feb. 21, 1862, the remains were buried in a regular coffin at Ft. Craig and a year later were disinterred and packed for shipment to his home in Lancaster, Pa. A common custom of the day was practised in this instance. The casket, in good condition, was placed in a strong plank box, painted inside and out and surrounded with charcoal. In this fashion the body was transported to Ft. Union in the care of Captain Craig to await shipment east by the first wagon train. (Rio Abajo Weekly Press, 3-17-63/2:3).

When a cavalryman died his horse was often led in the funeral procession immediately in the rear of the coffin. The saddle and saber were draped in black and the empty boots, toes to the rear, were fastened in the stirrups.

After the earthworks, which proved to be totally unfit for either defense or occupation as living quarters, were constructed, active preparations were made for the building of a larger and more permanent post. Adobe buildings for use as quarters for both officers and men were under construction in 1864 and thenceforth there was almost continual replacement of old structures, as well as constant yearly repair on the surviving ones.

Luckily there was plenty of timber not too far from the post. Privately owned sawmills near the towns of Mora and Sapello, the former owned by Col. St. Vrain on the Mora river and situated on the outskirts of the town of Mora, and the latter owned by Ladean, a Frenchman, on Sapello Creek near the "convent of the priest," and a third mill a short distance above Sapello, furnished plenty of good pine lumber obtained from tall, straight pine trees in the hills and mountains of eastern San Miguel

County. Said a writer for The New Mexican, 4-23-64/2:1:

"The military demands at the posts stimulates the energies of the mill owners. I cannot state with certainty the price of lumber when sawed, though I think it is not less than $30 per thousand feet. The new post of Fort Sumner about seventy-five miles distant(sic) is obtaining its sawed lumber from the Sapello mills".

Although good sawed lumber was available from these private sources, General Carleton deemed it advisable to install a 25 horsepower steam engine with a saw and planing mill in the fort proper. His Chief Quartermaster of New Mexico, Col. J. C. McFerran objected to the purchase of this equipment but after voicing his objection ordered the machinery as proposed by his superior officer.

Said McFerran:

"I see no necessity for an engine and saw and planing mills at this time for the reason that there are several saw mills in the vicinity of Fort Union Depot from which good lumber can be obtained as can by a steam mill and nearly as cheap, and in my opinion a steam saw mill could in a year saw into lumber all the logs within a radius of fifteen or twenty miles of Fort Union Depot.

"Nearly all the lumber required to be planed for the Depot is now done and I see no necessity for this machine.

But, as in the opinion of Brig. General Carleton and Ass't. Inspector General N. H. Davis, a Steam Engine, Saw and Planing Mill are required, I have the honor to request that they may be sent to the Depot at Fort Union, N. M. If the engine and mills are sent I would suggest that a competent engineer be sent out to put them up and run the engine.

Major W. H. Davis who endorsed Carleton's request for the engine and mills said May 8, 1865:

"In view of the amount of building yet required to complete the Depot on Post at Fort Union, a planing mill is needed. I urgently recommend and would refer for the consideration of the Q. M. General, the use of a Steam Engine of some 25 horsepower to run the Saw Mill, Grist Mill and planing machine as being for the decided economy and interests of the public service in both time and money". (Letters, Brig. Gen'l. Carleton, Mar. 3, 1865 to Maj. Gen. M. C. Meigs, Q. M. Gen'l., and that of Maj. W. H. Davis, May 8, 1865, Box 1168 QMG Off. Repts. Nat'l Archives).

Apparently the new hospital at Ft. Union had been completed by May 8, 1865. In his letter (op. cit) Major Davis noted; that the approximate estimate of the cost of the new building, just completed, was $45,000 for the entire building, the foundation of which had cost $12,000. Presumably the stones for this foundation had all been hand dressed, but said Davis: "I understand that in the future the stones for the foundation are to be only rough dressed".

Other buildings at the new Depot erected in 1864-1865 were:

Seven sets of company officers' quarters, all of one story adobe each 55' x 55'6", six rooms, four of which were 18'x18' and two rooms 18'x15'6". These could accomodate two officers.

The commanding Officer's quarters, also one story adobe, had eight rooms, total 55'x78' and contained four rooms 18'x18', one room 16'x11'6"; one room 21'x16'; one room 18'x16' and one room 15'x16'.

All of these quarters were built in 1864.

Company barracks erected in 1864 were:

Infantry quarters, of adobe one-story in height to accommodate one company of troops. The main structure was 144'x26'5" while the two L's were 130'x16'7". There were four of these barracks.

In 1865 two more infantry barracks of different dimensions were under construction. These were 295'x30' and 290'x16'7".

An adobe one story guardhouse of three rooms over all dimentions of the building being 39'x35' of which the prison room was 32'7"x16'; one guard room 18'x18' and one non-commissioned officers' room 18'x13'.

The military prison, likewise, built of adobe one-story in height with 10 stone cells was 36'7"x36'7" in size.

The foregoing buildings comprised the post proper, and apparently these structures were commenced in 1864 and building continued well into 1869. In fact there was a constant building program at Ft. Union almost to the time of its abandonment in 1891.

The new Depot buildings incorporated within the area designated as the Post under construction 1864-1869 consisted of the following structures:

Three sets of field officers' quarters, all of adobe and one story in height. Each set consisted of eight rooms, the building being 56'x78', the rooms measured, four rooms 18'x18'. Two rooms 18'x16' and two rooms 18'x15'.

A Quartermaster's office, one story, adobe of four rooms, 55'x54' divided thus, two rooms 18'x23'6" and two rooms 18'x23'.

Subsistence office, same size as the Q. M. building.

Clerks quarters, adobe, one story, of 3 rooms, one room 18' x 23'7"; one room 18' x 23', and a third room 18' x 48'6". Exterior dimensions the same as the two previous buildings.

There were also many other structures to house the shops, subsistence and quartermaster supplies, etc. These were:

A building housing the mechanic, blacksmith and carpenter shops, 300' x 23'6" of adobe.

Machine shops, 315' x 23'6"

Q.M. storehouses, adobe, one story, 200' x 20'

Q.M. storehouse, same type of construction, 200' x 35'5"

Two other Q. M. storehouses, same dimensions

A Subsistence storehouse, with cellar, 200' x 35'5"

An icehouse of adobe and logs, 50' x 25', capacity 150 tons of ice.

Two frame buildings used for storage of grain, each 100' x 13' and having a capacity of 500,000 lbs. each .

In addition to these regular government buildings there was one other structure which was begun in the late spring of 1865. This was the curious seven sided little building with a rectangular vestibule which stood some two hundred feet southeast of the eastern most set of company quarters and abutted on the northeast side of the Quartermaster's office.

This was the temple or lodge hall of the Independent Order of Good Templars, a temperance society, a branch of which had been organized by the men of Co. K, 1st California Volunteer Cavalry in the latter part of 1864. A soldier correspondent from this outfit writing to the Santa Fe Weekly Gazette, Dec. 31, 1864, p. 1 col. 5, stated that the establish-

ment of this temperance lodge had worked remarkable changes among his comrades. The company had once been called the "Drunken K's", but a Good Templar Lodge effected a radical change in our character, giving us the euphonious title "Bully K's". The author also said that the same group of soldiers had started a Temperance Society in San Bernardino and Drum Barracks in southern California and has also organised two other lodges aside from that in Co. K, one in Co. A, 1st California Volunteer Infantry and in Co. H, 11th Missouri Cavalry, and as a result "whiskey drinking in on a decline. Drunkeness is no longer a virtue but a crime".

The Order of Good Templars was originally founded in Utica, New York and became one of the strongest temperance organizations in existence during the latter half of the 19th century. It admitted both men and women, on equal terms, and had lodges in the United States, England, Ireland, Australia, Canada, France, Germany, etc. In the state of Missouri alone there were 500 lodges at the outbreak of the Civil War. The conflict practically broke up the Order but many soldiers joined it. After the war the Order had a new birth and continued in power for many years until the Women's Christian Temperance Union came into being and drew away many of the members.

At Fort Union the Lodge was represented as being in a flourishing condition in April of 1865, and the soldier author of the articles to the Gazette said (April 15):

"They are about to commence building a new and fine temple near the post".

The construction of this lodge hall was probably undertaken with the official sanction of the commanding officer but without direct authority from the brass in Washington. Normally, the government frowned upon the erection of buildings other than those of strictly military purpose on a government reservation. As a matter of fact about two years later, in May 1867, applicatim was made to the Secretary of War, Edwin M. Stanton, by George W. Stebbins and Sam E. Shoemaker, to permit the construction of a Masonic Lodge Room to house the members of Chapman Lodge No. 95 A. F. and A. M., said the applicants, May 7, 1865:

"Sir:- We have the honor to request, for and in behalf of Chapman Lodge No. 95 A. F. and A. M. that we be allowed to select a site within the limits of the Military Reservation of this Post, subject to the approval of the Depot Quartermaste---for the purpose of building a Lodge Room thereon; and the said site to be guaranteed to Chapman Lodge as long as said Military Reservation shall exist".

The Quartermaster General turned down this request saying that the Department had hitherto been averse to granting privileges of this character or allowing the occupation of public ground for any purpose by persons disconnected with the military service and concluded: "I cannot recommend a departure from the established precedence in this case".

Thus it would seem that in the middle 1860s at least the members of Chapman Lodge No. 95 had no permanent lodge hall at Ft. Union. If such meetings were held it is quite likely the lodge met in some unused protion of the post buildings.

The Order of the Good Templars has frequently been confused with the Knights Templar, a commandry of the Masonic Order and this confusion is probably the reason for the rumor that there was a regularly established lodge hall for the Masonic Order at Fort Union.

Ft. Union----1861-1871

If the members of Company K were content to eschew the drinking of hard liquors, there were other troopers at the post in the spring of 1867 who were not. One of the greatest problems in all army posts in such isolated places as Fort Union was that of drunkenness.

Usually as soon as a post was established there sprang up just outside the regularly surveyed limits of the reservation a series of shacks which soon became a headache to the commanding officer. In such places known generally as "Hog Ranches", rot gut liquor of the worst kind was sold to the troopers. In time gamblers and prostitutes also went into business and the military was powerless to do anything about it. They could and did post these places as being out of bounds to the military personnel, but since time immemorial soldiers have never been ones to obey to the strict letter of the law any order which they deemed an infringement upon their personal liberties.

During war time post sutlers had been allowed; the Secretary of War was empowered to appoint one sutler for each post. These men held office for three years unless sooner removed. There was a proviso in the regulations, however, that the Commanding Officer had the power to suspend a Sutler's privilege in the event of any trouble on the post which involved the Sutler and the troops, pending a full investigation by the War Department.

The Sutler was permitted the use of a spare building on the post to be used as his store - rent free. He was supposed to keep the building in good repair but could not be taxed or otherwise charged except for assessments for the post fund.

Ft. Union----1861-1871

The Sutler, under an Act of Congress approved March 19, 1862, could sell only certain articles in his place of business and he was ordered by law to post the schedule of his prices. In the field the Sutler was permitted to sell: "apples, dried apples, oranges, figs, lemons, butter, cheese, milk, syrup, molasses, raisins, candles, crackers, wallets, brooms, comforters, boots, pocket looking-glasses, pins, gloves, leather, tin washbasins, shirt-buttons, horn and brass buttons, newspapers, books, tobacco, cigars, pipes, matches, blacking, blacking-brushes, clothes-brushes, tooth-brushes, hair-brushes, coarse and fine combs, emery, crocus, pocket-handkerchiefs, stationery, armor oil, sweet oil, rotten-stone, razor-strops, razors, shaving-soap, suspenders, scissors, shoe-strings, needles, thread, knives, pencils, and Bristol brick. Said list or schedule shall be subject, from time to time, to such revision and changes as in the judgement of said board, the good of the service may require: Provided, always that no intoxicating liquors shall at any time be contained therein, or the sale of such liquors in any way be authorized by said board".

The Sutler allowed the soldiers to charge articles but could not hold the soldier responsible for more than one-sixth of his pay for one month. Moreover, the Sutler was permitted to sit at the Paymasters table when the troops were being paid and call off from his records the amount owed him by each man and this amount was deducted from the pay of the soldier concerned.

Such were the regulations, but there were ways and means of circumventing them. Some Sutlers curried favor with the commanding officer in charge of the post by making him presents of delicacies beyond the pay of

the officer, or gave the officers fine wines and whiskies, accompanied by a wink. In such cases the Sutlers were able to doctor accounts and sell liquor on the side and the officers who accepted the bribes could not say anything.

However, in some instances the "Hog Ranches" played so much havoc with the morale of the men that the officer commanding the post was hard pressed to circumvent the evils. Thus at Camp Floyd, Utah, where a collection of shacks housing the most undesirable elements of the camp followers sprang up outside the camp limits in 1857, known as "Frogtown", the commander authorized the establishment of an army operated brewery and sold beer at 5 cents per quart to the soldiers.

This cut down the rate of drunkenness also immediately. General George A. Forsyth risked court martial when in command at Ft. Cummings, New Mexico, after the Civil War by authorizing the post Sutler to import 3 barrels of good whiskey to sell to the men to combat the poisonous concoctions sold at the "Hog Ranch". The Sutler sold this good liquor at fifteen cents a drink, or two for a quarter. During the first ten days Forsyth punished two men for drunkenness and that was all. In six weeks one of the "Hog Ranches" had disappeared and inside of five months the last one was up for sale.

The Sutler who had imported the whiskey was later asked by the post surgeon, who had sampled the liquor to assure Forsyth that it was pure, how much whiskey the men consumed:

"Mighty little" was the reply: "they drink beer. The miners are

"about my only whiskey customers. Why, blank it, soldiers don't really care for whiskey when they can get it. They prefer beer".

The Sutler at Ft. Union in 1865 was a Mr. Moore of the firm of Moore, Mitchell & Co. Wm. H. Ryus, a one-time employee in his book (The Second William Penn, Kansas City, Mo., 1913) pp. 124-125, said:

"This firm owned a sutler's store at Tecolote, Fort Bliss and Fort Union. The store at Fort Union was the general supply station for the other named stores. The stock carried at the supply store amounted to something like $350,000 to $500,000. This stock consisted of general merchandise. It was to this store one went to buy coffee, sugar, soda, tobacco and bacon, calico, domestic, linsey, jeans, leather and ginghams, officers' clothing, tin buckets, wooden tubs, coffee pots, iron 'skillets and lids', iron ovens, crowbars, shovels, plows, and harness. To this store the settlers came to buy molasses, quinine, oil and turpentine, vermillion, and indigo blue. During those times there were no drug stores, shoe stores, dry goods stores, etc., but everything was combined in one large store. Calico was sold for $1 per yard, common bleached muslin sold for $2 a yard, domestic was from $1 to $1.50 and $2.00 per yard. Sugar sold for 75 cents to $1. per pound. Coffee brought about the same. Tobacco and sheap pipes brought stunning prices".

Ryus said that Moore was "born to rule" and: "He never knew anything superior to his wishes. 'What he said went' with the procession. He even went so far as to order General Carleton, the commanding officer of the troops in that portion of the country, to make the payment to the soldiers and mechanics at Fort Union through him and let him pay off the soldiers. These payments would run up to $65,000 and $75,000 per quarter".

(Such at least is Ryus's statement which must be taken with a grain of salt although there is no doubt that Moore undoubtedly was a man of influence. Most wealthy sutlers were).

"The enormous trade at the 'sutler's store' kept us four counter jumpers constantly on the jump for a year. There were no five cent picture shows to keep the clerks out with their girls there, and the only amusement we had was to either playcards or billiards, or to sit around and watch Kit Carson and the boss play. Kit was a fine card player and seldom ever lost a game, but he would not put up very much. To see him play billiards was one sport; every time he hit a ball, he would kick his foot up and say 'A boys, ay'.

This store of Moore's was built like a fort. The walls a 150-foot square and built of brick. Everything in New Fort Union was of brick. (I believe Ryus was a bit confused. AW). It was a two story concern with a rotunda or plaza in the center. Here the wagons drove in to unload and reload. The front of the store was near the big gate. It had a safe room, an office and the store proper.

One trip per year was made to Kansas City with large mule trains to get goods to stock these three stores. These trips were sometimes full of suffering and hardships. Many a freighter left his wife and babies never to return to them more.....

Sometimes the old Indian squaws would come to the store to buy sugar, candy, nuts, tobacco or coffee. She would come riding in on her pony as slowly as her quick footed pony would carry her, greatly interested in all

"her eyes beheld. She was greatly attracted by the bright colors of the calicos and I have often made treaties with the Indians by offering their squaws some bits of bright ribbon or calico".

On the map of the Fort Union Military Reservation of 1866, the sutler's store is indicated as lying a few hundred feet west and a trifle south of the second group of officers' quarters.

The major problem at Ft. Union which concerned the morale and morals of the troopers and provided acting Commander Bvt. Col. W. B. Lane of the 3d U. S. Cavalry with his headache, was not that of the sutler's store on the post but rather with a nearby town, that of Loma Parda.

This small Mexican village, allegedly founded about 1835, consisted of about a dozen houses, stores and saloons strung along one narrow main street on the north bank of the Mora River, approximately five or six miles in a direct line southwest of Ft. Union.

Regarding this town Col. Lane was in somewhat of a quandry. G. O. No. 6, Jan. 26, 1867 had apparently revoked the licenses of the sutlers who maintained stores on military reservations and as Lane pointed out in a letter to his superior officer in June 1867:

"This order allows no sutler's to keep or sell any goods of any description within the limits of any Military Post, Camp or Station or on any Military reserve, and 'Commanding officers are made responsible for the strict execution of this order'".

Lane's trouble was that he didn't know the exact limits of the Fort Union Military Reservation although he observed:

"There is a map in the office of the Depot Quartar-master, made last year, which is said to give the correct limits of the Reservation, but

"whether it is official, or has been approved by proper authority I am unable to say. On this map the town of Loma Parda is given which consists of between two or three hundred people, some four or five stores and numerous places for the sale of liquor.

In the vicinity there is quite a quantity of land under cultivation, a large proportion of which is included in the map referred to".

Col. Lane assumed that the map had been made under Special Orders No. 20, issued at H. Q. New Mexico, July 3, 1866, but there was nothing on file at Fort Union to indicate that this survey had been approved or that the map showed the correct boundaries of the Reservation.

Furthermore the commanding officer at the post then went on to cite sundry orders dating as far back as 1852 concerning the various instructions for the outlining of the limits of the Ft. Union reservation.

Lane called attention to the fact that Paragraph 1, Orders No. 30, May 11, 1852 issued at Military H. Q. in Sta. Fe, extended the Military Reservation of Ft. Union to a plot 8 miles square. He also said that General Pope when at Ft. Union in 1866, issued Special Field Order No. 13, July 16, whereby the Gallinas Mountains, an area as large if not larger than the Reservation itself, was included within the limits of the reserve.

These orders were further confused by a General Order No. 52 of April 20, 1866 sent out from Headquarters, Department of the Missouri, St. Louis which directed commanders of frontier military posts "to lay off such reservations as are necessary for Military Posts, not to exceed four miles square, provided the actual possession by any citizen is not interfered with in executing this order". Moreover, said Lane, G. O. No. 28, from the War Department, Washington, May 8, 1866 referred to

"the Military Reservation of Fort Union, N. M., as a thing already established".

It is no wonder that the officer was a bit muddled. The limits of the reservation of Ft. Union had been in doubt from the beginning and the various orders issued during the years by the various Departments, local and national, only served to becloud the issue further.

In view of these facts Lane said that he didn't quite know what to do about closing down the various business establishments at Loma Parda. Army procedure is usually geared to follow the last order. In this case it involved denial of sutlers to sell goods of any kind on the military reserve. Since the town was of long standing (Ihave heard it was founded in 1835 but this is mere hearsay, AW) Col. Lane said he didnot feel authorized to close the stores or to remove the inhabitants without further instructions, particularly since any such action would meet with resistance and litigation.

Lane continued: "The town itself is a nuisance, and although there are doubtless some good people in it, its general character is that in the male population there is a large majority that are rascals, thieves and murderers, and as regards the women, they are very much abused, if a majority are not prostitutes of the lower class; I do not, however, speak from experience.

It is proper to add, however, that the bad name of the place is increased from the fact that it is a favorite place for the blackguards of this vicinity (this Post and Depot included) to meet and concoct schemes of rascality, to fight out old, and make new quarrels".

In other words, Loma Parda was considered by the military as a "Hog Ranch" on a large and substantial scale, and if a ruling had been issued from Santa Fe authorizing its destruction, Col. Lane would have been most happy to carry out such an order.

Today the ruins of Loma Parda drowse in the sun. The largest stone building, pointed out by tradition as having been a store, is roofless with huge cottonwood trees growing amidst the ruins. In the rear are high stone walls and other remnants of storehouses.

Only one family occupied Loma Parda in 1957. The abodes in some instances are kept in repair and used as places to store hay and grain. The little church as well as the more pretentious house directly across the street from it have windows and doors of the style which once adorned the officers' quarters at Ft. Union, and might very well have been removed from the post in the early 1890s.

There was great building activity at Ft. Union in 1866. Instructions were issued from Washington June 4, 1866 to have an Ordnance Depot laid off within the limits of the Ft. Union reservation. Bvt. Col. H. M. Enos at Ft. Union wrote to Bvt. Gen. M. C. Meigs, Q. M. Gen'l., Washington, July 2, 1866 stating that as soon as a suitable person could be found, a survey of the Military Reservation of Ft. Union would be made and a map prepared. He noted:

"The reservation for the Ordnance Depot is to be one mile in length and one half mile in breadth, the center being the site of the old post of Ft. Union. By its arrangement of the cemetery, where all the burials have been made since the establishment of the Post, will be embraced

"within the limits of the Ordnance reservation, but as there is nothing in the order fixing the manner by which the survey for the Ordnance reservation is to be made, it will depend upon the person making the survey, whether or not some of the most important springs of water on the old reserve will fall within the limits of the reserve set aside for the Ordnance Depot.

The Ordnance Reservation will be located in the center of the main reservation. The necessity for laying off a reserve within the limits of the main reservation is not apparent".

In this communication there are indications that all was not sweetness and light among the various Departments at Ft. Union. In the army, as in all other large organizations ambition and desire for power motivated many of the officers. There was also the petty jealousies and interdepartmental competitions which led to bickerings and dissatisfaction. Col. Enos intimated some of these problems in his communication when he said that he could not see why Ordnance should have a separate reserve, nor why the Military Storekeeper should be favored over the Depot Quartermaster who needed a separate reserve more than the Storekeeper, etc. etc.

General Carleton in July 1866 wrote the War Department suggesting modification of the plans for the Post. He felt that it should be a six company post instead of four. He wanted four companies of cavalry and two of infantry.

Beginning in the 1860s and raging on through the 1880s the conflict of opinions regarding the desirability of cavalry over infantry and vice

versa for frontier warfare found leaders of equal service and long experience ranged on opposite sides.

General Carleton believed that four companies of cavalry were necessary since they were more mobile in an emergency and should the Navajo decide to jump the reservation at Ft. Sumner, cavalry patrols could be thrown out in a hurry to block all avenues of escape.

Moreover if enough mounted troops were available, the Kiowa, Comanche and other Plains tribes could more easily be kept in check. Cavalry escorts were also needed for supply trains moving through hostile Indian territory. He added that Ft. Union was particularly favorable as a cavalry center since there was plenty of natural forage available and the horses could be maintained at less expense at the Post than elsewhere.

Carleton also suggested that in the event his plan was adopted the "quarters for the Commanding Officer, Post Surgeon, Post Quartermaster, Commissary and Adjutant be made to run across the Southern end of the Parade which extends between the officers' and mens' quarters, and face, of course, up that Parade".

It would appear, however, judging by the various plans of Ft. Union laid out in 1866-1867 that Carleton's plea for a six company post was not acceptable.

By consulting the ground plans and side elevations of the buildings already constructed and in course of construction during the period, as well as the various reports submitted by officers at the post, it is evident that the work proceeded rather slowly, but with good cause.

Thus, on Feb. 1, 1866, Capt. Farnsworth, A.Q.M. at Ft. Union noted on a ground plan of one of three sets of officers' quarters then in the

process of construction for the use of Depot Officers:

"The Building is one story high---Adobe walls, 18 inches thick, stone foundation, tin roof, a battlement or cornice of brick (to protect adobes from action of water) 18 inches in height, 18 inches thick, Portal of wood in front.

The Building was commenced in July 1865, and completed February 1st, 1866, the remaining two were commenced in August last, and will be completed March 1st, 1866---the whole three are to be enclosed in rear by an Adobe wall 8 feet high, and 18 inches thick built upon a stone foundation. Each building will have cost when completed, including Adobe wall in rear, out buildings, and cost of transportation upon building materials, $9,324.00.

After the adobe walls of the houses were laid, work upon them was discontinued for some months, in order that the adobes might settle, which will account for the seeming long time which elapsed between their commencement and completion".

According to the plan as drawn up by Capt. H. J. Farnsworth, who was the Depot Quartermaster, each set of quarters was divided by a hall, entered at the front by a folding door. The front hall was 36' x 12'. A second folding door at the rear of this hall opened upon a second hall which was 37' long and 16' wide. Each set of rooms had a parlor 19' x 18'6" with a single door opening from each parlor into the hall. These rooms were heated by fireplaces and were lighted by two windows in front and one on the side. These windows, in accordance with the architectural style of the day, were long, of ten panes each, and the window trim on the outside was a bit more elaborate than that used on the enlisted mens'

barracks. Likewise the doorway was framed around the upper half with small panes of glass. The portal or front porch was upheld by six, square white wooden pillars with simple cornices.

Adjoining each parlor was a chamber (entered by door giving into inner room from the parlor and also a second entrance from the hall). This room was 19' x 18' in size and illuminated by one window. It too was heated by a fireplace using the same chimney for the fireplace heating the parlor.

The second set of quarters opening from the larger hall in the rear of the building was composed of two rooms each with the rooms being of varying dimensions. On one side was a chamber 17' x 12' heated by a fireplace from which a door opened into a kitchen 17' x 21'. On the opposite side of the hallway were two chambers, one 17' x 18' and the other 17' x 15'. The kitchen and the room opposite it had two windows each, the other two rooms were illuminated by one window each. A door at the rear end of the hall opened up on the walled enclosure at the rear of the quarters.

The portal in front of the dwelling was fifty-four feet long and 8 ft. wide, and the distance between the floor level of the porch and the lower edge of the brick coping was 15'. The coping being 18" high, as previously noted. The brick chimneys protruded 5' above the top of the cornice.

In spite of Capt. Farnsworth's optimistic report on the quarters as noted on his plan in February 1866, adequate housing at Ft. Union was still lacking in the late Fall of the same year.

Major and Bvt. Col. E. G. Marshall writing Nov. 21, 1866 to Bvt. Maj. Cyrus H. DeForrest, A. A. Gen. District of New Mexico at Sta. Fe

gave a rundown on the structures fit for occupation at Ft. Union. It appears that an order No. 17, issued at Headquarters Department of the Missouri, St. Louis, a bit earlier contemplated shifting the Headquarters of the District of New Mexico from Santa Fe to Union and Major Marshall didn't believe there were sufficient quarters for any additional personnel at Union at that time.

Said Marshall:

"This garrison has now three companies, Co. I, 5th Infantry, Co's. G. & F, 3d Cavalry, the latter being for the present on detached duty. The new quarters can hold only four companies when completed. At present only one set is completed and occupied by Co. I, 5th Inf. Another set is occupied by Co. G, 3d Cav'y. being yet unfinished. The remaining two sets will not be finished before next May. Again, there are no quarters yet completed for officers, they are living in unoccupied quarters of the Depot of the old Garrison.

Capt. Inman, Depot. Q.M. stated to me today that the officers' sets cannot be finished before next May, excepting two sets, the Commanding Officer's and one other which may be made habitable in about two months and will be required to quarter the present officers of this garrison. One other company may be quartered here if the Qm. Dept. puts in windows, doors, floors, finish chimneys, copings, etc., of the two unoccupied sets of quarters, also is required to push the officers' quarters.

You are aware that we have no stables for Cav'y horses and it is contemplated to turn over two sets of Co. quarters of the old Garrison

"to each Cav'y. Co., thus making room only for four Cav'y. companies. These quarters are only fit for that purpose and even in a short time will be unsafe for that purpose. I have already authorized Co. G, 3d Cav'y. to transform two sets of same which will be in readiness in a few days".

Maj. Marshall also wanted at least five sets of officers' quarters plastered instead of carrying out the plaster job in the Company quarters first. He said that the buildings had settled sufficiently so that the plaster wouldn't fall off the walls; moreover he thought that the officers should be as comfortably housed as the men. (See Book 13, Letters Sent, Ft. Union, pp. 148-150, Nat'l. Archives).

In his same letter Marshall complained of a shortage of salt, beans and rice at the Post. His men had the scurvy and....."it is well known that Beans and Rice are necessary to avoid a continuance of that loathesome disease".

A more complete resume of the condition of the various structures at Ft. Union was made October-November 1866, by Capt. Henry Inman, AAQM at Ft. Union. (See Box 1167 Consolidated Corresp. File, QMG, Nat'l. Archives).

In October Capt. Inman wrote:

"The two sets of Officers' Quarters plastered outside, floors laid, and completely finished inside. One set partially plastered inside and painted. Outside face casings finished on all other quarters.

The walls got yards, of adobe, finished and chimneys put on four sets of quarters. The wood, water and root houses for these sets of Officers' Quarters finished, and well houses to two sets of Quarters for enlisted men finished. Plans of these structures were forwarded by my predecessor.---date unknown".

In November Inman furnished additional data:

"One building 52 ft. long, 13 ' wide, 10' high between sills with 6 windows of 15 lights each, eight by ten glass; and two four panel doors, two feet six inches wide, six feet six inches high, has been added to the Hospital for a Dead House and Laundress Quarters, built of adobe w ith tin roof, this building is complete with the exception of the roof and plastering.

Commanding Officers Quarters completed except Portal on front of blinds. Flooring and finish in the third set of officers' quarters are well advanced; the finish is a ll ready for the fourth set, chimneys and coping well on, except on three buildings, flooring being done in two squad rooms.

"Repairs have been made on the quarters for Employees not very extensive, occupying a few men about ten days".

Capt. Inman also submitted a cost of proposed buildings at Ft. Union. This estimate was received in Sta. Fe Feb. 20, 1867:

4 sets of quarters.....	$ 56,488
Q. M. Office	14,122
C. O. Quarters	16,900
Adjt's. Office	14,122
Double set, Co. quarters	12,113
Corrals, stables & laundries	168,328
Guard house and cells	21,912
Total	$ 298,890

When one is confronted by the various maps and reports submitted by the different officers, all bearing different dates and each one enumerating what has been done and what is contemplated for the future, confusion mounts.

Ft. Union----1861-1871

Early in 1865 the government apparently decided upon a new experiment in the preservation of Post records. Orders were issued from the Q. M. Generals Office in Washington, Jan. 21st, 1864 and sent to all the posts, requesting not only ground plans of the various forts but also photographs. Accordingly on May 4, 1865, Capt. A. B. Carey of the 13th Infantry dispatched a letter from Sta. Fe enclosing:

"Plan and view of Ft. Bascom, N. M.
Plan and view of Ft. Sumner, N. M.
Plan and view of Ft. Wingate, N. M.
Plan of Ft. Craig, N. M. with Photographic Views
Plan of Ft. Cummings, N. M.
Plan of Ft. Bliss Texas, with Photographic Views
Photographic views of the Post of Los Pinos, N. M.
Photographic views of Ft. Marcy, N. M.
Photographic views of Santa Fe, N. M.
Plan of the buildings occupied by Troops at Franklin, Texas

The Plan of the Depot at Fort Union, N. M. will, I presume be made and forwarded by Col. Enos, Chief, Q. M.".

On April 15, 1867, Col. Enos wrote to Gen'l. L. C. Easton, Chief Q. M. at Ft. Leavenworth, Kansas, to the effect that there were no correct records in the office at Sta. Fe which might indicate the posts for which plans had been drawn. Regarding the plans and photographs for Ft. Union he said:

"I am quite certain, however, that plans, elevations and photographs of Fort Union and the Depot, were sent to the Quartermaster General by Captain H. J. Farnsworth".

Enos also said that he had seen a circular calling for plans and elevations of each Post.

"When received I will have photographs made of the plans and forward a copy to your own and General Donaldson's office. I forward by this mail a

"photograph of the proposed plan of Fort Plummer as a sample. I think it will save labor and expense, by photographing these plans, and especially if they are to be furnished periodically.

I forward also plans of the Post and Depot of Fort Union. I have, as yet, been unable to procure a detailed estimate of the cost of building Fort Union".

No doubt various photographers visited Ft. Union at this time and recorded the progress of construction. The series of photos now on file in Santa Fe and also in the Still Photos Section of the National Archives, Washington, D. C., attest to this fact.

The editor of "The New Mexican," 6-15-66/2:1 advised his readers that Messrs. Wertz and Smith, "photographic artists" in Santa Fe would be in, and around Ft. Union during the ensuing week and those wishing photographs, ambrotypes, etc., could be supplied with such pictures. It is quite possible that the pictures of Fort Union, said to have been taken in 1866, were made by these men.

Continuing further Col. Enos commented on the stages of construction at Ft. Union:

"The Depot Corrals are temporary, the original plan contemplated building the permanent corrals upon the same ground now occupied by the temporary ones which are on the eastside of the depot Buildings. General McFerran received authority from the Quartermaster General to build the permanent corrals on the west side of the Depot.

"It was understood then that the Ordnance Department would be located on the north side near the Depot Buildings. Since that time a reservation for the Ordnance Depot has been laid out embracing the old site.

"As there is barely room for the permanent corrals on the West side of the Depot, I request authority to build the corrals on the North, where the ordnance buildings were to have been built. This, I think, will be a much better location than on either the west or east side of the Depot. If built on the west side, it places the officers' quarters between them and the mechanics' corral and shops.

The Depot is nearly completed, and the storehouse for Subsistence Stores is yet to be constructted. The original idea was to place this building parallel to the ends of the other Store Houses and on the east of them.

I think, however, that it should be built on the north side, by doing this, the wall which forms the corral to the Subsistence Store House can be used as one of the walls of the building to be erected and will make the Depot more uniform in appearance".

On May 6, 1867, Col. Easton, noted that he had received photographic views of Fort Union from Capt. H. J. Farnsworth.."but they show nothing except the general appearance and elevation of the buildings and therefore do not comply fully with G. O. No. 3, QMGO Series, 1864".

Thus it will be seen that many tentative plans for the proposed buildings at Ft. Union were drawn during the 1860s. Earlier 2nd Lt. B. Taylor, Fifth Infantry, wrote from Ft. Union March 26, 1864, saying that in compliance with G. O. No. 3, QMGO, Washington, January 21, 1864, he had made inquiry concerning plans for Ft. Union and had been informed by Capt. T. W. L. Plympton, 7th U. S. Inf. that: "drawings of the location, extent and construction of the buildings at Fort Union, N. M. prepared by him, have already been sent in 1862 and that no alterations in the buildings have been made and also that no new buildings have been erected since".

Ft. Union-----1861-1871

In the midst of all the turmoil of building, life at Ft. Union flowed on in the manner of all frontier posts of that day.

Working parties went out to mend roads leading from Ft. Union to the interior. The men from the 5th Infantry (Co. F) set out to put the Santa Fe road into shape. Heavy rains had made it impassable in August 1866. Ninety men under Bvt. Lt. Col. Christopher McNally, including three men of the 57th U. S. Colored troops, loaded with tools and rations for 30-days set out to repair the Taos road.

The Colored troops had arrived August 18 from Arkansas and were destined to be quartered at various posts in New Mexico and Colorado, Companies A, B and D to remain at Ft. Union. They did not remain long however. In September they received orders to be in readiness to march east where they were to be mustered out of the service. In July the 125th Regiment U. S. Colored Volunteers were also sent to Ft. Union. This outfit was about seven hundred strong.

During the fall and winter months various outfits were sent to Ft. Union to be mustered out of service. The different companies of the California Volunteers, cavalry and infantry, some of whom had served at Ft. Union, received their discharges at the Post. Arrangements were made that those soldiers wishing to remain in New Mexico would be permitted to do so. The troopers desiring to return to California were ordered to march thither under the command of their respective officers and there receive their final pay and discharges. (Sta. Fe. Weekly Gazette, 9-1-66/2:4). See also issues of this paper for 8-26-66/2:5 and 9-29-66/2:4).

In August of this year all unserviceable arms in Ft. Union were ordered to be turned into the Ordnance Depot (near Ft. Union) while water kegs were to be issued to troops leaving the Post for Ft. Stanton.

Ft. Union----1861-1871

With the Volunteer troops moving out, recruits for regular army regiments began arriving. The New Mexican, 12-1-66/2:1 reported that 150 recruits of the 3d U. S. Cavalry under Bvt. Maj. Tylford accompanied by Maj. J. C. Whitney (the latter to assume command of the 3d), had arrived at Ft. Union. Some 300 remounts came with this detachment to be distributed among the other posts in the Territory.

The problem of proper storage of supplies was a constant one at Ft. Union. Thousands of pounds of subsistence supplies were rendered unfit for human consumption each year during the early years of occupation of the Post. The necessity of hauling such perishables over long distance by wagons and the lack of adequate shelter for them when they arrived at their destinations, drove the Q. M. and officers of the Subsistence Department frantic.

Practically all of the hay and grain used as forage was obtained in New Mexico and a certain amount of foodstuffs, but as time went on and the post was enlarged, the bulk of the ordinary rations had to be hauled in over hundreds of miles of bad roads.

Complaints were made from time to time about the quality of the salt pork and bacon used at Ft. Union. Trials were made at smoking the pork after it had been received at the Post and the Commissary of Subsistence reported favorably on the experiment. There was, however, the problem of good storage facilities.

BVt. Brigadier General M. R. Morgan, Chief Commissary of Subsistence at the Missouri Depot wrote to Gen. C. McKeever, AAG Depot at Ft. Leavenworth, Sept. 9, 1867, relative to the better care of supplies at Ft. Union.

He recommended that the bacon be kept in a cool adobe building to prevent wastage by dripping in the heat, instead of being placed in a building

of pine lumber. A new adobe warehouse was then in the course of construction at Union and the General suggested that the two pine structures which were being used as warehouses be removed some distance from the new warehouse as a precaution against fire. He likewise suggested that since the uniform clothing, which was stored in bales and less combustible than the bacon, could be stored in the older buildings. Moreover, if fire did strike the post the men could survive loss of clothing better than their food supplies particularly if the fire occurred in November, because new wagon trains would not reach the fort until the following May. (See Box 1168, Consolidated Correspondence, QMG Reports, National Archives).

Construction of new buildings on the Post proper and the Arsenal (on the site of the old fort) went steadily forward in 1868 and 1869.

John Lambert, the surveyor who had surveyed the reservation at Ft. Union in 1866, was commissioned to make a new survey in January, 1868, and by September of the same year he had finished a survey of the entire reservation including a plat of the separate timber reserve which had been set up by the President. This new survey was forwarded to the Secretary of the Interior in order that it might be recorded by the General Land Office which was done in October of 1868.

In the spring of 1869, Capt. G. W. Bradley stationed at Ft. Union reported to Bvt. Lt. Col. M. I. Ludington, Chief Q. M. at Santa Fe on the number and condition of the structures then comprising the Post. It is only by such periodic reports that we can obtain a partial picture of the growth of the fort.

The completed buildings were:

"8 officers' quarters, 56' x 54', 18' in height, totalling 48 rooms.
1 Commanding Officer's quarters - 76' x 54' x 18' ..... 8 rooms.

"1 Post corral, 410' x 291-1/2' x 15', stables for 100 mules and quarters for 40 teamsters and laborers.
1 blacksmith shop
1 carpenter shop
1 wheel wright shop
6 laundress quarters. (These were apparently of one room each, heated by individual fireplaces
1 guard house
1 library
1 storeroom (now used as Post Chapel) 30' x 40' x 15'
(Two years previously, February 1867, a chapel and church had been proposed for the Post and a side elevation of the structure had been submitted to Washington but General Grant had vetoed it saying that such buildings should be postponed until the troops had been provided with more comportable quarters).
2 commissary storerooms 30' x 50'
1 " " 15' x 25' x 14'
1 Q. M. storeroom 80' x 75' x14'
Office, post Commissary of Subsistence, 2 rooms, 12' x 15' ea.
Office, post Q. M. - 2 rooms - 12' x 15' ea.
Post Bakery
1 Cav'y. corral 410' x 29-1/2' x 15' contains stable for 200 horses
Office, Post Adjt.
Regimental Adjt. Sgt. Major's room
Q. M. Sgt's. room
Saddler Sgt's. room
Band Leader's room
3 rooms for the band
Kitchen for Non-Commissioned Officers and Band
Stone prison; 2 rooms, occupied by Cavalry Co. Q. M. Sgts. and Co. saddler
Cav'y. Co's. grain room, capacity 5,000 bushels
Company blacksmith shop
Room for corral guard
1 Hospital 58' x 80' x 15' with accommodations for 100 patients

All buildings at the post are completed and no others contemplated. The officers' quarters, Company quarters, Offices, Shops and other rooms and storerooms described are built of adobes on stone foundations. Brick copings, roofs nearly flat, covered with tin.

The stables are of wood on stone foundations with shingle roofs. The hospital is of adobe on stone foundation, shingle roof, all are in a good state of repair.

The number of officers that can be accommodated in the officers' quarters,

48 rooms, depends entirely upon the rank of those stationed here".

Although it is noted that no other buildings were contemplated, by the latter part of the summer, August 16-21, 1869, when a more detailed report was made at the request of Bvt. Maj. Gen. Geo. N. Getty, commanding the District of New Mexico, at least one addition was recommended. This report concerned the "Quartermaster's Depot, Ft. Union, N. M.", the "POST" proper and the "Arsenal".

Quartermaster's Depot

" WAGON SHEDS are recommended to be constructed at this Depot for housing public wagons. The dry climate of New Mexico is so destructive or shrinking in effect upon carriage work, that the saving in repairs and otherwise by protecting public wagons by sheds, where they accumulate as at this Depot, would in my opinion, save much more to the Government than the cost of the shelter recommended.

BUILDINGS

There are three Depot officers' quarters, and three Depot office buildings in good condition and repair.

1st STOREHOUSE: For Quartermasters Stores, 2 storehouses----one 20' x 200' in good repair, and excepting one room used by military storekeeper for small issues, is used for the storage of horse medicines, tools, oils, stationery and a class of lighter articles----there are several rooms, and was erected for this class of articles and to regulate and facilitate their issue----it is not well suited to store in large bulk.

2nd STOREHOUSE: The other Storehouse is 40 x 200 feet, divided into 2 rooms, with passageway across the center of building 20 feet wide. Its incapacity: The capacity of the storehouse is insufficient, thereby necessitating the storage outside in sheds, jacal structures, etc., about one-fourth the bulk

" of the Quartermaster's Stores, which causes thereto, with every care, some damage.

DAMAGE: This storehouse has become damaged by the large amount of stores necessarily placed therein. The west wall (constructed of adobies) has bulged out several inches, and the wall near the passageway is cracked and settled----the floor in several places has settled, and the roof covered with tin, consequent upon the settling and warping of the building, is warped and does not permit the water to run off properly.

THE SPECIAL ATTENTION of the Department Commander is respectfully called to my letter from Fort Union, dated 18th August last, inviting attention to the condition of and apprehended damage to this Storehouse, and recommendation to use one half of one of the Subsistence Storehouses for the Quartermaster Department, which could be spared, and which transfer was, for the public interests, demanded.

3d STOREHOUSE: There is another storehouse of same dimensions as the last named which is occupied by Capt. Sieber for clothing, camp and garrison equipage. This is in good condition, but from the amount stored therein, gives hardly sufficient light and ventilation, two things essentially desirable for this class of public property.

COMMISSARY STOREHOUSES: There are two commissary storehouses, each of the same size as the last one mentioned----one of which is the last one erected and the best one, has under west half, a cellar 36 x 107 feet.

NO WINDOWS: There are no windows on the southside of this building for the upper storerooms, or the cellar----8 are required for the former and 4 for the latter to give proper light and ventilation. Attention was called to this deficiency in my letter above referred to.

"GRAIN STOREHOUSES: The grain storehouses are ample and in good condition.

SHOPS: The shops of various descriptions are capacious, convenient and in good condition.

ENGINES, ETC. : The steam engine and machine shop is about 500 yards east of the other depot buildings. There are here, 1 Planer, 1 Planing and Matching, 1 Moulding, 1 Tennan(sic) and sash; 1 scroll or gig(sic) saw and turning lathe....machines run by the engine----they are in good condition and work well---run 2 days weekly.

Engine is from fulton Works, St. Louis, of locomotive firm, 15-1/2 horse power and runs 12 hours on 3/4 cord of wood. An excellent engine.

The lumber is in a yard adjoining this shop and enclosed by a good board fence. There is much work done here by this machinery for other posts in the District of New Mexico, it being economy."

(Here, it might be added, on the plan of the Machine Shop and lumber yard, as laid out in 1866, begun January 25th and allegedly completed around February 28th, the machine shop housing the planing, framing and mortising machinery was one and one half stories in height, 72 ft. long and 36 ft. wide. In the lower or basement story was a pit 9' deep, 12' wide and 40' long to house the shafting. It was lighted by a window at one end, by 6 windows on one side and four on the other. The board fence enclosing the lot whereon the lumber was stored was 164' x 128'. As a measure of safety from fire, this frame building and yard was removed some 400 yards from the Main Depot buildings. Building and fence cost $2,870. There was a door 4' wide at one end and another door 7' wide on the side having four windows. AN...From ground plan of building, Feb. 1866).

"CORRALS, ETC.: The corral yards for animals are large and commodious.... the stables are, excepting for a few animals, of shed form; they are of a temporary character, made from refuse lumber and slabs mostly. There are rows of quarters for employees constructed of slabs, pickets, etc., covered with dirt, which are in a dilapidated state, and without repairs, can hardly be expected to be of service much longer. There is also a large wagon yard enclosed with pickets constructed by Capt. Bradley for parking trains.

POST

"At the post of Fort Union there are 9 buildings as offiers' quarters; barracks and extra rooms, laundress quarters, storehouses, corrals for 4 companies, and stables for two troops of Cavalry and Post Quarter master animals, which are in good condition and repair.

The plastering on the exterior walls is falling off, to replace which, for a protection thereof against rainstorms, a yellow wash is being used which is cheap and answers very well.

OFFICERS' QUARTERS: At the Post and Depot, as quarters and offices, there are 93 rooms, being 56 rooms in excess of the allowance of the present garrisons. This includes 10 small rooms, intended probably, for servants' rooms".

The Inspector then commented upon the fire hazard of the Post and because of the large amount of property at the Depot and Post, its great value, etc., he advised the acquisition of a new fire engine to replace the old hand fire engine then in use. He was informed that a new fire engine was to be sent out from Philadelphia but he said that in the interests of economy, it would be cheaper to have the good, unused fire engine than at Ft. Harker in Kansas (which was abandoned in 1872) sent on to Ft. Union.

The fire hazard was a potential menace at all frontier posts and Ft. Union commanders ever feared this catastrophe. The only answer to such a threat was an ample water supply and up-to-date fire fighting equipment.

On April 19, 1869, upon recommendation from the Depot Q. M., authority was given by Headquarters at Santa Fe, to construct 3 cisterns at the Depot and 5 at the Post, each to have a capacity of 10,000 gallons for the express

purpose of having sufficient water with which to fight fire. However, Capt. Bradley in a letter, July 1, 1869, reported that the construction of these cisterns was impracticable at that time because of his force of working employees had been greatly reduced and there was a lack of suitable masons, hence no work had been done on the storage reservoirs.

He did add however: "There is, between the warehouses and Depot offices, a cistern of 16,000 gallons, also 2 at the Hospital, out of repair." He then continued further with a description of the water supply at the Depot.

"WELLS: In the enclosure of the Depot, surrounded by the workshops and not far from the warehouses, is a well 85 feet deep with 30 feet of water in it, which cannot, by mules and horsepower be pumped dry. There is a force pump down this well 55 feet, which with two mules, a portion of the day, supplies a large portion of the water at the corrals and stables, and will throw water upon the tops of the adjacent buildings.

A pipe was about being laid from the cistern to this well to the corrals to the South, which when done would relieve the water team, etc., used for hauling water there supplied.

The north well at the Post Company quarters is inexhaustible like the one described."

The Inspector then suggested that each well have a wooden cistern or tank, constructed above ground some 10 feet, more or less, which would contain from 5,000 to 10,000 gallons of water which would be conducted from the tank through one inch iron pipes. These pipes would be laid to

hydrants located in front of the officers quarters and Depot offices and to all such points "as may be considered necessary", and these hydrants, if arranged for attaching a hose to them, will from the head of water gained in this way, throw water upon the tops of buildings named and with a few wooden cisterns at other points, readily supply water for the engine, a force pump, or buckets, to extinguish fires that may occur. This will also relieve the other water wagon now used to supply the Depot and Post, which hauls it some mile in distance.

ESTIMATE: "The Master Mechanic estimates the cost of the cistern of 5,000 gals. as proposed, at $75 to $100 only---one of 10,000 gals. will cost proportinally more.

HORSE POWER: Two horsepowers are required for this arrangement; the one in use being much worn---their cost is comparatively small".

The Inspector believed this method of supplying water for fire fighting would be not only more convenient but also more economical than any other. There were 3 fire extinguishers at the Depot and he had ordered two of them tried out on a hot fire and had found them quite satisfactory.

He also said that windows would be required on the south side of the new storehouse to provide sufficient light and ventilation.

ARSENAL

"The storehouses and shops are of quality, constructed of adobe and shingled, of sufficient capacity and convenient in their new arrangement, a part of them, including the magasine are enclosed by an adobe wall.

QUARTERS: The quarters for the Commanding Officer is an old log building of inferior quality, and will soon be required to be replaced by a better building.

"CISTERNS: Are being constructed at this Arsenal. Water is supplied by water tanks, and hauled from a spring some half a mile distant.

FIRE ENGINE: There is an old hand fire engine here, which is of little or no account.

IMPROVEMENTS: The cost of the permanent improvements is estimated at $30,400".

Most of the recommendations made by the Inspector were ordered to be carried out. Eight underground cisterns had already been authorized and 180 bushels of cement had been placed on order June 10, 1869 to carry out this project."

Although the military in New Mexico were heartily in favor of an ever expanding Fort Union, some of the high ranking brass in the Division of Missouri were not too enthusiastic about the sprawling, unwieldy Depot, Arsenal and Garrison.

Lt. General Phil H. Sheridan was one of these outspoken critics and he voiced his resentments in his endorsement on the construction and repairs then going forward at Ft. Union, Sept. 11, 1869:

"My own opinion of Fort Union, without having seen it, is that it has grown into proportions which never at any time were warranted by the wants of the public service. Quartermasters and Commanding Officers have gone on increasing and building up an unnecessary post, until it has become, by the unnecessary waste of public money, an eye sore. I do not accord with the opinion of any one as to its military bearings for protection of field operations, nor do I see any necessity for it as a Depot. I only approve the recommendations of General Rucker, thinking it may save perishable Government property stored there".

Nevertheless the post was to remain as a regular army post, depot and arsenal for another twenty years. But Gen'l. Sheridan was correct in his judgment of the place. It had grown out of all proportions and because of faulty judgment in construction, it was in constant need of repairs during the ensuing twenty years of its existence.

From the outset Ft. Union had been threatening to collapse, first from dry rot and then from poorly designed roofing which permitted water to seep down through the brick coping into the adobe walls, causing them to bulge and eventually collapse.

Then too there was the constant bickering over the limits of the Military Reservation, because of the clouded title of occupation of the land.

By Executive Order, Oct. 9, 1868, the post reservation of Ft. Union was declared to be an area embracing 51-1/2 square miles with a separate timber reserve of 58 square miles. This was in accord with a survey made by J. Lambert under the direction of Maj. M. I. Ludington, Chief Q. M., and the ensuing plat was ordered noted on the records of the Central Land Office.

This problem of the Government right to the land occupied by the reserve continued to plague the officials right up to the year of its abandonment.

If the army commanders were disgusted with Ft. Union the post had some defenders among the army wives who called it home during the 1860s and 1870s.

Mrs. Orsemus C. Boyd, wife of the unfortunate Captain Boyd, who went to his grave with an unwarranted cloud of suspicion hanging over him by an

unfortunate, false charge preferred against him while a plebe at West Point, was one of the women who found Ft. Union fairly comfortable. She was quite candid however when she said:

"Many ladies greatly dislike Fort Union. It has always been noted for severe dust-storms. Situated on a barren plain, the nearest mountains, and those not very high, three miles distant, it has the most exposed position of any military fort in New Mexico.

The soil is composed of the finest, and seemingly, lightest brown sand, which when the wind blows banks itself to a prodigious height against any convenient object. The most exposed place was between two sets of quarters, which were some distance apart. The wind would blow from a certain direction one day, and completely bank the side of one house; the next it would shift, when the sand would be found lying against the other.

The hope of having any trees, or even a grassy parade ground, had been abandoned long before our residence there; for either the grass seed would be scattered by the wind, or the grass actually uprooted and blown away after it had grown.

In 1886, when I again visited Fort Union, it seemed indeed a cheerless place on account of the lack of verdure. The cause is simply the lack of shelter; for with the ample waterworks which have been built since we lived there, much could have been done if it were in a less exposed position.

The sand-banks were famous playgrounds for the children. One little girl, whose mother was constantly upbraiding her for lack of neatness, contrasting her with our little daughter who was most painfully tidy, determining to be avenged, coaxed my child near a large sand-pile, threw

"her down on it saying, as she again and again poured dirt over her: 'There, now! I am glad to see you as dirty as I am'."

Social life at Ft. Union followed much the same pattern as that in other posts. In such large places, as Union, there were more officers and their families and larger contingents of enlisted personnel. Being so isolated the residents of the post had to devise their own amusements. The most common forms of amusements were the dances, known as "germaines" or "hops". The current regimental band furnished the music and the dance hall was generally decorated by the women with the enlisted men doing the labor.

Said Mrs. Boyd, (p. 204, Cavalry Life in Tent and Field, N. Y. 1894):

"The quarters at Fort Union had an unusually wide hall which was superb for dancing, and three rooms on each side. We had only to notify the quartermaster that a hop was to be given, when our barren hallway would immediately be transferred into a beautiful ballroom, with canvas stretched tightly over the floor, flags decorating the sides, and ceiling so charmingly draped as to make us feel doubly patriotic".

When the troops were in the field, leaving only a skeleton force necessary to carry on the usual garrison duties, life could indeed be dull at Fort Union. When the band was in the field with the troops as it often was, there were no band concerts on the parade to cheer the families. Now and then the monotony would be relieved by parties of Indians passing through the country. The peaceful ones usually asked permission to camp near the fort, in which case they came into the post to trade and beg. Settlers and frontiersmen also made the post their rendezvous, often it was the nearest point where they could obtain supplies.

Ft. Union----1861-1871

Lt. Duane Merritt Greene, in his illuminating little volume, Ladies and Officers of the United States Army or AMERICAN ARISTOCRACY, A Sketch of the Social Life and Character of the Army, Chicago, 1880, pp. 165-166 said:

"The Trader's store, like the immortal Bascom's at the Confederate Cross Roads, is the chief attraction, and here is the best place to make the acquaintance of the representative characters of the border.

"Though they are passionately fond of bar-room life and whiskey, one would hardly be justified in the assertion that they are too lazy to work, or too proud to beg, or that they ever become incorrible loafers and go into politics. However, they are partially demoralized and in favor of an easy sort of life.....

The Post Trader always has a tap-room in his building, adjacent to the bar-room, for the use of the officers and citizens, into which a private soldier is not allowed even to look.

At almost any time of day or night there may be seen, seated around a center-table, a motley group of officers and border characters playing Pedro, Seven Up, or Poker, for money and 'the drinks'.

We recall a scene: The usual card party at the center-table playing Pedro; at one side of the room is a long table upon which are the feet of an officer and those of two men from the dark places in the mountains, and whisky, lemons, sugar, cigars and tumblers, (side party are having a confidential talk, exchanging compliments in mutual admiration); a citizen with buckskin pants profusely ornamented with patches of other skins, and an officer are lying in fond embrace upon a couch almost hidden under a canopy of tobacco smoke, sleeping off an excess of toddy".

Lt. Greene then related a story concerning "an ex-Indian Agent of local celebrity" who was a frequenter of one of these resorts, which recalls

what is without doubt an apochryphal story of a mountain man who appeared in the trader's store at Ft. Union as related by Anson Rudd of Canon City, Colorado in 1901.

Rudd said that old Bill Williams was the one who went into an army post (Rudd said Ft. Union, but placed the event there a year or more after Williams met his death at the hands of the Utes, hence, if the story is true, Williams was not the participant, certainly not at Ft. Union, but it might have happened elsewhere), dressed as a Ute Indian.

The storekeeper was new at the post and when old Bill began shouting in Ute and shooting arrows all over the place, the clerk became frightened. Bill then piled some beaded trappings on the floor, shot some more arrows and jabbered loudly in Ute that he wanted to trade. In desperation the sutler sent for some army officers who recognized the old trapper and told the storekeeper not to be uneasy, but that Bill was just having a good time. It may have happened at some post but not at Ft. Union because Bill died in February 1849, two years before Ft. Union was established!

Continuing further on the discussion of the Post Trader and his ways, Lt. Greene said:

"It was one of the writer's province, as member of a Council of Administration to investigate the business of the Trader of a two-company post. Taking for the basis of calculation the measure of the small tumblers in which the Trader served spiritous liquors, for which quantity the soldier was charged twenty-five cents, it was ascertained that he (the trader) received the enormous sum of seven hndred and fifty-six dollars for a forty-two gallon cask of whisky. His books showed that the aggregate sales of this kind of liquor alone for one year amounted to twenty-three barrels,

making the gross receipts seventeen thousand three hundred and eighty-eight dollars. Allowing one hundred dollars per barrel for cost and freight he realized fifteen thousand and eighty-eight dollars profit. His profits from the sale of other kinds of spirituous and malt liquors and wines for the same period amounted to three thousand dollars, making a grand total profit of eighteen thousand and eighty-eight dollars from the sale of intoxicants for one year".

At the conclusion of the examination of the accounts one officer remarked to the trader that if it were not for the sale of his liquor his business wouldn't be very profitable. The trader retorted: "I would not be here.....it would not Pay", (id. pp. 200-201)

In contrast Lt. Greene noted that the Subsistence Department sold to the soldier, tobacco, canned and dried fruits, preserves, canned vegetables, prunes, cheese, sardines, oysters, etc., and many other items not in the regular army rations at first cost. Of course, the Trader could not do this, he paid exorbitant rates for transportation, especially to such places as Ft. Union, in addition to which he had some overhead for clerks, etc. Green also remarked:

"The Tradership at Fort Union, New Mexico, is worth twenty-five thousand dollars a year, but it is no better than any others. Traders who have the necessary influence to procure the transfer of troops to their Post may increase their revenues.

Virtually, the Army is a school of dissipation; and it really seems as if the establishment were kept up chiefly for the benefit of the Post Traders". (p. 203).

Judging by the numbers of beer, liquor and various types of patent medicine bottles (See Appendix on BOTTLES) found around Ft. Union, the men and officers of the post were not averse to imbibing anything which contained a certain percentage of alcohol.

In many posts where whiskey and wine were forbidden, stomache bitters, pain killers, extract of ginger, etc., were used to obtain the same effect. Greene gave an example of a young officer at one of the frontier posts who after a prolonged debauch promised his commanding officer that he would never again get drunk on whiskey. However, he drank other liquors and was carried on the report as "sick in quarters". Said Greene:

"After exhausting his supply of liquor in the field, he has been known to drink Alcohol, Perry Davis' Pain Killer, Extract of Ginger and Mustard as substitutes". (p. 192).

Another army officer of the 1860s who served in and around Fort Laramie, Capt. Eugene F. Ware, 7th Iowa Cavalry, relates in his book "The Indian War of 1864," Topeka, Kans. 1911, on pp. 128-130, the use of bitters as a beverage.

Said Ware:

"That good old ancient time was an era of drinking. There was no such thing known then in the West as 'prohibition', and nearly everybody drank a little. It was also the age of bitters.....three celebrated kinds were thrown on the market, and made great fortunes for their inventors, as they were early occupants of the field. The first in order was 'Plantation Bitters'; next, 'Hostetter's Bitters'; third, 'Log Cabin Bitters'. By the time the war broke out these bitters had been advertised with an expenditure of money which at that time was thought remarkable. Plantation Bitters

"appeared in 1860, and every wall and fence and vacant place in the United States was placarded with the legend, 'S. T. 1860'. For several months everybody was guessing what the sign meant. It was in the newspapers. It was distributed in handbills on the street. It was seen at every turn, 'S. T. 1860 X'. After the world had long grown tired of guessing there appeared the completed legend, 'Plantation Bitters S. T. 1860 x'. It was made out of alcohol, water and flavoring, and was really very attractive as to taste and results. Plantation Bitters became the bottled liquor of the age. The Hostetter and Log Cabin followed closely behind in popularity. The Log Cabin got into sutler tents all over the district which the army occupied. Its principal advertisement was the strange glass bottle made in the shape of a log cabin.... The legend of the Plantation Bitters was that it meant, 'Sure thing in ten years from 1860'."

As the rumor had it, according to Ware, the inventor of the concoction had first submitted it to a friend, who after sampling it, told the manufacturer that it was a sure thing for a fortune in ten years. On the strength of this the inventor placarded the nation with his mysterious signs and spent half a million in advertising before anyone knew what it meant.

Ware also related a story of Artemus Ward, the great humorist who visited Fort Laramie in March 1864, and after sampling the Hostetter Bitters in the Sutler's store on the post, forthwith bought the remaining 18 bottles of the trader's stock at $2 a bottle, and was on his way by stage to his destination.

FORT UNION 1871----1881

FORT UNION----1871-1861

The years merged one into another so swiftly that by 1871 most of Ft. Union, as it is known today, had been finished or was nearly done. Of course new buildings were added from time to time, many during the 1870s and thenceforth until the abandonment of the fort in 1891. Vast sums of money were spent on repairs.

During 1871 on June 2, Capt. A. J. McGonnigle, Asst. Q. M. requested spare parts for the wood planing machine then in operation at the post. He also wanted a new tire shrinker. Of the latter he said:

"The Tire shrinker now in use at this Depot is very small and is not serviceable and if it were, is not adaptable to heavy wagon tire, most of the tire set at the depot are of that kind." He wanted to order "1 Tire Shrinker or Upsetter of Ferris & Bacon's Patent, Sept. 17, 1871".

The Wood Planing Machine, Pat. November 11, 1862 by J. A. Fay & Co., Cinn., Ohio, with renewed Patent December 18, 1866 was in need of 3 knives, 24 inches each..... "There are no extra knives at the depot and are required for the same reason as the cogwheels".

It appeared that there were 22 cogwheels in the planing machine and he wanted one extra of each kind..... "This machine is in constant use and the breaking of any one of the cogwheels would disable the machine until a duplicate could be obtained from the states, which would be from one to two months time".

In the Spring of 1873, John Pullman, AAQM, 8th Cav'y. stationed at Ft. Union reported that:

"10 sinks were built in June and various repairs were made on the quarters. Among the repairs listed for the Post were:

"11 ceilings plastered
15 roofs repaired
11 halls painted
32 rooms painted
32 window panes replaced
67 doors painted
8 sidewalks repaired
11 floors repaired
103 fireplaces repaired
25 rooms repaired and whitewashed"

Likewise by this period most of the writers who described the fort divided it into the three sections comprising the establishment, namely, the Post of Fort Union, the Fort Union Depot and the Fort Union Arsenal.

The buildings of the Post and the Depot were side by side without any intervening fences. Thus, the eight sets of officers' quarters of the Post proper were in line with and connected by a sidewalk which ran the full length of all the quarters, including the three sets built for the Depot. It was not, however, until the late 1870s that a new stone sidewalk was constructed across the open space between the two groups of officers' quarters.

A picket fence did enclose the parade ground of the Post and extended from what was termed the end of Block 9 of the officers' quarters to the end wall of Block 1 of the Company quarters immediately opposite on the eastside of the Parade. Likewise the southeastern picket fence connecting the southeast end of Block 1 of the officers' quarters with the southeast side of Block 2 of the company quarters.

By the same token a picket fence set off the three sets of officers' quarters in the Depot from the Q. M., Commissary and Clerk's quarters. This fence extended from the northwest end of Block 3 of the officers quarters and the southeast side of the line of quarters for the mechanics and

also from the northwest side of Block 3 of the officers' quarters and the telegraph office which (1877) was located in the last room of the line of shops and machinery at the northwest end of the southwest side of the Mechanics' Corral. There was, however, no single long fence dividing the two major sections. The fences only served to provide privacy for the officers and their families.

A description of the Post proper, 1870-1874 given by Asst. Surgeon P. Moffatt, USA in Circular No. 8, Surgeon General's Office, A Report on the Hygiene of the United States Army with Descriptions of Military Posts, Washington, 1875, pp. 303--307, accompanied by a small plat of the Post, indicates that the structures then built were essentially the same as those described in reports of the late 1860s.

For the sake of the record, however, I shall include portions of Dr. Moffatt's description in this report:

"Fort Union is a four company post....All the buildings are of adobe, one story high, on stone foundations, and with the exception of the hospital, are all roofed with tin.

On the northeast side of the parade-ground, and directly opposite the line of officers' quarters are the quarters of the men. Each set occupies three sides of a rectangle----within which is a small court-yard or open space with a well in the center. The main buildings are each 73 x 27 feet. They are used as squad rooms and dormitories, and at the present time have an average occupancy of 30 men in each, giving an air-space of about 700 cubic feet per man. The wings on one side of each set are used as orderly and company-store rooms; those on the opposite side, for kitchens and dining-rooms. These quarters are really comfortable, although deficient

"in facilities for ventilation.

In the rear of the blocks occupied by the Men's quarters, and separated from them by a wide street, are situated the quarters of the married soldiers and laundresses; and in the rear of these again, and at a proper distance, are the cavalry stables and other out-houses.

On the southwest of the parade-ground are situated the quarters of officers, consisteing of nine buildings in one row. Each building is divided by a single hall running from front to rear, on each side of which are three capacious rooms----except the middle building, (the commanding officer's quarters) which has four-----affording the regulation-allowance of quarters for an officer with the rank of captain. As in the case of most of the buildings here, the roofs were made too flat, so that they allow leakage when violent rains occur, as they frequently do during the rainy season. In other respects the quarters are good; they all have good yards and out-houses in the rear, and are upon the whole very comfortable residences.

The guard-house is situated in the line of the laundresses' quarters. The structure itself may be well suited for the purpose for which it was intended, but the location of it is inappropriate, as no extended view of the post can be had from its vicinity.

"Sinks for the men and for the families of the soldiers have been constructed at all available points, but the accommodations in this respect are not sufficient without the necessity of traveling to a greater distance than is likely to be done under all circumstances.

Ft. Union----1871-1881

"The post-hospital is situated outside of the garrison inclosure, and about 300 paces to the east of it. The hospital building faces toward the southeast. It consists essentially of a central building 13-1/2 feet wide running back 130 feet, this being a hall 11-1/2 feet wide inside. Attached to each side of this central hall are three wings, each 31 x 39 feet outside, and long axis parallel, and the short axis at right angles to, the hall. These wings afe separated from each other by spaces 6-1/2 feet wide. An adobe partition through the center of each wing , and at right angles to the hall, divides each of them into two rooms, 19 x 30 feet, by 12 feet 9 inches high; thus giving twelve rooms, each of the above dimensions. The two front wings are used as dispensary and store-rooms, the rear half of each posterior wing for kitchen and dining-room respectively. The two middle wings and the front rooms of the posterior wings are used as wards, making six wards, occupied by six beds each, giving 1,200 cubic feet of space to each occupant. In case of emergency, the capacity could readily be increased one-fourth by temporarily using some of the store-rooms as wards. The hospital differs from all other buildings at the post, in being roofed with shingles, and in having a roof with the usual pitch. Although not constructed upon the best plan, in a hygienic point of view, it is amply adequate to the requirements of a four-company post.

For the reason that this post is located on the thoroughfare to and from New Mexico, and that it is the base of supplies of the district, it occurs that there are at almost all times men in the hospital not belonging to the command at Fort Union, but who have been taken sick or hurt while

"en route to or from other points, and been detained at this post for treatment or discharge on surgeon's certificate of disability.

Fort Union is situated upon the stage-road between the railroad terminus, on the northeast, and the city of Santa Fe, on the southwest. A daily stage, conveying the mail, is received from each point. From this point mail communications can be had with Santa Fe in twenty hours; with department headquarters at Fort Leavenworth in four to six days, and with Washington in seven to nine days. A line of telegraph also passes this place en route from the railroad to Santa Fe, along the stage-road, and having a station at this point.

Fort Union, as a frontier post, may be considered desirable, not so much from the natural surroundings as from the facilities, by stage, mail, and telegraph, of communications with the outside world.

One question I should like to add before closing: Are dobe quarters productive of rheumatism? I believe they are a fruitful source not only of rheumatism, but sciatica, and other forms of neuralgia".

With respect to the various diseases listed on the sick reports at Ft. Union 1870-1874, it is interesting to note that during 1870-71 the leading ailments were catarrh and bronchitis, 133 cases; rheumatism, 97 cases; diarrhoea and dysentery, 99 cases; intermittent fever, 81 cases; syphilis, 59 cases; gonorrhoea, 31 cases. There were only 12 cases of alcoholism in this year. The following year 1871-1872 these same diseases dropped considerably, but so did the mean strength of the personnel at the post. For example, 1870-1871 the mean strength of the garrison was 12 officers and 310 enlisted men. In the next year there were 11 officers but only 211 enlisted men and in 1872-1873 this number dropped to 9 officers

and 155 privates and non-coms, while in 1873-1874, the number rose slightly to 10 officers and 185 men. The cases of the various diseases also dropped in proportion. Thus there were only 10 cases in 1872-1873 and 7 in 1873-1874. In the four years there were only 8 deaths listed by disease alone and 7 deaths by gunshot wounds, accidents and injuries, homicide and suicide, out of 290 cases which were reported for hospital treatment.

(Circular No. 8, op. cit. p. 307).

One portion of the article by Dr. Moffatt is a bit puzzling. He stated that there was a telegraph station at Ft. Union by 1874, yet on Feb. 11, 1880, Capt. T. B. Hunt at Ft. Union addressed a letter to Bvt. Brig. Gen'l. J. J. Dana, Chief Q. M. for the Territory, saying that on Dec. 13, 1879, a proposal had been made by Hunt, to have a telegraph wire strung from Watrous, New Mexico (the nearest point on the railraod, seven miles distant) to Ft. Union. The Government would pay for the wire and insulators and for the services of an operator to be stationed at the post, with funds from the Quartermaster Department. This idea was approved by the authorities at Sta. Fe and returned to Hunt December 23. Capt. Hunt immediately sent out a work party to cut poles, the line was marked out and the poles were distributed along the route as fast as they were hauled in. However, when a request for wire was made to Sta. Fe on Dec. 29, the reply received at the fort On January 13, 1880 was to the effect that no wire could be furnished by the Signal Corps. Capt. Hunt then requested Mr. Armstrong, Superintendent of Western Union at Denver, via the operator at Watrous, to send down enough wire to string a line between Union and Watrous. On Feb. 14, Hunt had said that the dispatch of a daily messenger from the fort to the telegraph office at Watrous with messages was the only means of obtaining telegraphic communicatim with the outside world. Armstrong replied that he did not have

sufficient wire to form a loop but he did suggest that a telephone line could be stretched in one single line between Watrous telegraph office and Ft. Union and messages could thereby be telephoned into the Watrous dispatcher.

This was voted as feasible by the army authorities. Armstrong said he would have to send to Chicago for 1850 lbs. of No. 12 wire to provide the necessary amount for the proposed line. He also said the cost of the telephone per annum would amount to $46 for the two sets, without the battery. During all this time the poles were being hauled and planted in place but Hunt had to let the matter rest for the time being until he could obtain permission from the Chief QM at Sta. Fe at a time when all but 30 of the poles were ready to receive the wire.

If Mr. Moffatt's statement in 1874 was correct, why did Capt. Hunt want this new telegraph line installed and why did he say that any messages to be dispatched via the telegraph had to be carried by a messenger or horseback or ambulance from Ft. Union to Watrous and that was some six years later?

The Arsenal at Ft. Union was described by Capt. W. R. Shoemaker, a veteran ordnance officer in charge who had been at Union for many years, in Circular No. 8, p. 305:

"Fort Union arsenal is one mile west of Fort Union, on a reservation belonging to the Ordnance Department, and is enclosed by a wall forming a square of 1000 feet on each side. The buildings are one barrack 100 by 26 feet with porticoes in front and rear; one set of officers' quarters 54 x 75 feet; an office 45 by 18 feet; one main store-house 216 feet long, three smaller store-houses, shops &c. All are of adobe with stone foundations.

"The water supply is from a good well, and two cisterns of 18,000 gallons each".

Hence it would appear that by 1874 the original log structures which once comprised the old post had vanished.

The Depot was also described in 1874 by Capt. G. C. Smith, Assistant Quartermaster at Union: (id. p. 305).

"The Depot is adjacent to and north of the post. The buildings are, six sets used as offices and quarters; five storehouses, shops and corrals. The quarters are well built of adobes laid on stone foundations, with tops finished by bricks and roofs of tin. These sets are each 79 x 57 feet; the other three, each 56 and 55 feet. The store-houses are each 200 x 40 feet, except the southern one, which is one half the width of the others. In the plaza, fronting the northern sets of depot quarters, are two cisterns holding 2,400 gallons each, and the supply of which comes from the roofs of the store-houses".

The question of water at Ft. Union which began with the precious liquid being hauled in barrels and water carts from the springs, and later from wells, was one which was of great importance at Ft. Union. In reviewing the events at the post during the mid 1870s, mention must be made of the fire which struck the Transportation Corral and adjacent buildings June 27, 1874. As noted previously, fire was the most dreaded of all disasters at any military establishment. Since the buildings were all heated by fireplaces and wood stoves and since cigar and pipe smoking were prevalent, then as now men drunk or careless with such things could easily start a holocaust, fires were not uncommon.

Ft. Union----1871-1881

The big blaze of June 27 wiped out storerooms, quarters, wagons, 8-1/2 mule sheds, supplies of corn and oats, extra grain sacks, ambulances, ice house, yeso mill and the privy. (These losses were noted on a plan of Ft. Union submitted by Capt. A. S. Kimball, AQM as accompaniment to his reports on public buildings and estimates of additions, alterations and repairs for the year ending June 30, 1877. Now in the Consolidated Corresp. Files QMGO, Box No. 1167, Nat'l. Arch.).

During this same period, on the plan of the post for 1877, a series of new stone flagging sidewalks are noted as being in place along the front of the Laundresses Quarters and the Military Prison and running in front of the Chapel which was sandwiched between the Guardhouse and Shops (on northeast side of the guardhouse) thence along the line of Laundresses Quarters, Bakery and the full length of the front of one set of Company Quarters and Band Quarters. Likewise the new connecting stone flagging sidewalk between the Officers Quarters of the Post and those of the Depot was also installed at this period.

Other features noted on the 1877 map are the waterpipe lines connecting the officers quarters and "new well to be dug" and thence to the hospital on the post and likewise a pipeline running directly from the well and tank in the Mechanics' Corral to the Officers' Quarters on the Depot. One old sidewalk is noted on the Post as extending from the front of the Commanding Officers' quarters in a straight line to the flagpole to the southeast corner of Block 1 of the Company Quarters where it joined with the new flagstone walk which ran along the eastside of the same block of quarters. No sidewalks except the old one extending the full length of the front of Officers

and Offices, are indicated for the Depot.

Reverting for a moment to the matter of a telegraph office at Ft. Union, the map of 1877 shows one located in the western end of the south row of shops and machinery buildings of the Mechanics' Corral.

It was also during the later 1870s that Mrs. Orsemus Boyd (op. cit. pp. 207-209) noted another use for the telegraph poles of the line connecting Ft. Union with the outside world.

One of the few amusements at Ft. Union for the wives of army officers was horseback riding and after the Indian troubles were ended the only dangers with which they might be confronted were the desperados of the region. Mrs. Boyd and her husband were returning from a ride to the nearby Gallinas Mountains when they noted "two very ugly visaged men approaching". Capt. Boyd watched the men intently with his hand on his revolver, until they were out of sight. Later, when the couple reached the post they learned that a soldier-messenger who had carried the mail for ten years between the Post and the Arsenal had been waylaid and shot within fifteen hundred yards of the garrison. The body was found alongside the road, but the horse instead offalling into the hands of the assassins had galloped on to the Arsenal. The two men whom the Boyds had encountered were the murderers. A detail of men was hastily organized and the two were captured within sight of the post. The prisoners were ledged in the stone cells of the prison. Late that evening the civil authorities arrived at the post to demand a surrender of the men to the posse. The commanding officer claimedhe had no authority to hold the criminals and turned them over to the sheriff and his men. Silently the posse moved away from the post, the murderers pleading meanwhile to be allowed to remain in the safety of the post jail. The original

escort was augmented by a number of other armed men and once free of the confines of the reservation, the prisoners were promptly hung to the telegraph-poles where, said Mrs. Boyd, "their bodies dangled for days, a warning to all horse thieves and murderers," and concluded the author: "For a time my rides were spoiled; but soon I grew brave again, though we were always thereafter careful to be thoroughly well armed on leaving home".

In the year 1876-1877 an experiment was tried in shipping stores under transportation contracts to Ft. Union, where they were re-packaged and sent to other posts in the Territory. This system was pronounced too expensive an operation and was abandoned after one year's trial.

The complaint had long been raised over the shipment of supplies to Ft. Union as a central depot, from which wagon trains dispatched by the army, the bulk of which were maintained at Ft. Union, carried the ammunition, foodstuffs, uniforms, etc., etc., to the far flung posts in New Mexico, Colorado, Arizona and West Texas. The delays caused by the slowness of the teams, bad roads, weather, Indians and kindred troubles worked a great hardship on the troops depending upon such supplies. Thus in March 1877 large amounts of stores were shipped from Ft. Leavenworth direct to Ft. Bayard, N. M., and were six months en route, having been delayed some four months for some of the reasons cited. When the supplies at the different posts failed, the quartermasters in those places applied to Ft. Union, but, said Capt. J. H. Gilman, Chief of Commissary Subsistence at Ft. Leavenworth in a letter to Washington, Nov. 14, 1878:

Ft. Union----1871-1881

"During most of the past year, about one half of its garrison (referring to Ft. Union) two companies of cavalry has been absent causing a surplus of stores there which have been distributed to other posts requiring them". He also added that in emergencies stores could be drawn from Ft. Union and if the Commissary Officer in Ft. Leavenworth was notified immediately these supplies could be replaced.

Gilman, however, was against the storage of large amounts of stores at Ft. Union. He stated that the post was no longer regarded as a Depot for Subsistence Supplies and had not been so regarded for several years. He said that supplies destined for the posts in the Southwest were sent direct to those posts by government trains from Ft. Leavenworth, except in those emergencies (already noted) at which times the stores were obtained from the supplies kept on hand for Ft. Union alone.

The year of trial 1876-1877, i.e. sending goods direct by contract teams from Leavenworth, had not proved feasible, still Gilman was against piling up the material at Union and making that Post a central supply depot for the Southwest as of yore when "large quantities of old stores and property accumulated there".

Moreover the Captain did not believe it feasible to re-establish Ft. Union as a central depot of supplies in spite of the various applications to that effect. Nor was there room for such a Depot at Ft. Marcy in Santa Fe. He observed that the end of steel on the railroad then pushing down from the north was expected to be at Las Vegas in the Spring of 1879 and if such was the case, the need for a Depot of Supplies would be obviated. In any case, after the railroad pushed through New Mexico, and it was felt that such a Depot was required in the Territory, the

logical location would be at Santa Fe, not Ft. Union, since it was then expected that the railroad would pass directly through the capital city.

The battle for title to the land occupied by the Military Reservation continued unabated during the 1870s. On March 16, 1876 the Secretary of the Interior informed the War Department that the Commissioner of the General Land Office had ruled that the claimants of the Mora Grant were entitled to a patent for the land, under an Act of Congress of that date. On May 6, 1876 the Secretary of War transmitted to the Secretary of the Department of the Interior, that the military authorities estimated the value of the Post of Ft. Union and the improvements thereon was some $290,000.

The army countered the claim of the private owners of the grant by making an appeal July 19, 1876 under advice from the Judge Advocate General to prevent the sacrifice of valuable property of the War Department.

On August 5, the same year the Secretary of the Interior informed the War Department that a land patent, which had been issued previously to the claimants for the Mora Grant, had been recalled and the following clause of reservation had been inserted:

"The United States herein expressly reserves to itself the buildings and improvements situated on the Fort Union Military and timber reservations as at present established, together with possession and use of the same, and the right to remove said buildings and improvements upon the discontinuance or abandonment of said reservation by the United States".

In reply to a request of the War Department, made August 17, 1876, for the insertion of the words....."so long as they may be needed for military purposes".....the Secretary of the Interior stated that it was

impossible to amend the patent as suggested, but also added that "there seemed no method by which the grantees could compel the government to abandon the post should they feel so inclined.

It appears that no compensation has ever been made for the use and occupation of the Ft. Union Military Reservation to any party or parties claiming title thereto".

Efforts were made in the 44th, 45th and 46th Congresses to secure legislation for a "full adequate and complete title to the Ft. Union Military Reservation by issuing to the owners thereof certificate of location for an equal quantity of unappropriated public lands of the United States, not mineral nor what is known as double minimum lands, not exceeding 65,000 acres; this in full right, claim or demand against the United States of any kind, character or nature for use occupancy or damages."

"No legislation resulted as so far appears of record and the status of affairs existing since the establishment of the post in 1851 remains unchanged". Inasmuch as this resume of the legal status of the Post since 1851 was made in December 1889 (see Box 1269, Q.M.G. Repts. Nat'l. Archives), it would appear that the battle for the Post lands continued right up to the bitter end.

FORT UNION -------- 1881--1891

Ft. Union----1881-1891

The last decade of occupancy of Ft. Union was relatively uneventful. It was truly a dying post. The wagons no longer creaked over the Sta. Fe trail. The Indian menace had vanished. There was no longer any legitimate reason why Ft. Union should be maintained as a Depot of Supplies or as an Ordnance Arsenal.

On July 4, 1879, engineer Dan Daley eased the first train into Las Vegas. The city celebrated in the best western manner with free drinks and two grand balls. It was a Fourth of July long to be remembered. This was the opening of a new era. Eastern tourists who had been arriving in Colorado and staging south on the Barlow and Sanderson coaches from Trinidad to Santa Fe, a distance of 214 miles for the sum of $40, now found their way into New Mexico on the iron horse. Among the noted tourists who found his way into Las Vegas on January twenty-seventh 1879, and put up at the Adobe House near the town was a man with a short beard and piercing blue eyes. He was welcomed by W. Scott Moore the host as "Mr. James". The "tourist" was Jesse James who said he was looking for a sheep ranch or some other business in which he might invest. He found nothing to suit him and in August, quietly took the train back to Kansas City.

On April 7, 1882, the luxurious Montezuma Hot Springs Hotel and Sanitarium, built by the Santa Fe at the end of a six mile spur, opened with a formal banquet. The Fourth Cavalry Orchestra, conducted by Professor Helms, played for fourteen dances. Even earlier in July 1880, from the 7th to the 15th the Hot Springs had welcomed another famous guest and his wife, General U. S. Grant, who, according to the Las Vegas Optic reported that the General said: "I have never been given a better

"time, nor have I enjoyed myself more at any place in the world than right here at Las Vegas".

Ft. Stanley in his book "Fort Union" 1953, p. 285-286 observes that when the Santa Fe line reached Watrous a spur track was laid into Ft. Union and the railroad anticipated a large volume of business but there were so many rumors of the coming abandonment of the post that no train ever ran over the tracks which were eventually taken up and used elsewhere. Hence, during the last decade of the life of the post, army wagons continued to haul supplies from the station at Watrous to the fort.

The Las Vegas and other newspapers continued to record the various activities at Ft. Union right up to the end. Fr. Stanley believes that the reason Ft. Union failed to receive much attention from the newspapers during the period 1866-1881 was that during this time colored troops were stationed at the post and because most of the newspaper editors were Southern in sympathy, they devoted very little space to the negro troopers.

In May 1881, the Las Vegas Optic (May 13) reported that Col. Thomas Hunt, commandant at the post, had decided to move the lumber depot from Ft. Union to Las Vegas, much to the joy of the citizens. The editor pointed out that the selection of the original site of the Post had been a mistake on the part of the officer who had passed Las Vegas as a possible location, mainly because the Gallinas River had been dry during the year when the selection of the site was made, that being a year of unusual drought. Now the editor rejoiced in the possibility of having the "post entire before long and the government will thus lose by the bullheadedness of the officer who is accountable for the establishment

"of Fort Union".

A reporter who visited the fort and reported on its condition in the Optic November 22, 1881, siad it was occupied by four companies of the 23d Infantry with General G. O. Haller as commanding officer. "The houses and quarters were fast falling into rack and ruin in their tenantless condition. New life and industry is now clearing away cobwebs, dust and dirt and restoring the comfortable appearance of former days".

The regimental band furnished music for the post formations and social affairs.

Col. T. B. Hunt had charge of the Quartermaster Department while the aged veteran Captain Shoemaker still handled the Ordnance Depot.

The chief clerk of Ordnance J. T. McNamara acted as guide to visitors wishing to tour the Ordnance Arsenal. Here were cannon, small arms, ammunition and, as a sign of progress there were two Gatling guns, polished and ready for business.

The post trader was Frank Yeager who catered to the soldiers and their families. There were few civilians living on post. Harry Mumford, who had been living there twenty years, still occupied his old residence.

On Dec. 6, 1881, the paper reported there were five companies at the post and A. H. Conger was Post trader.

The most famous sutler at Ft. Union was the W. C. Moore noted previously by Ryus. He was alleged to have come in with Kearny's troops and had been mustered out at Sta. Fe and thenceforth had owned post trader establishments in various New Mexican posts.

In the main, however, life at Ft. Union during these last ten

years was relatively uneventful. There were the usual social affairs, dances, entertainments, band concerts and amateur theatricals. Nearly every post had among the enlisted men and officers, talented individuals who could either sing play musical instruments, or act. But aside from an occasionalprize fight which enlivened the tedium of garrison duties, or the flurry of excitement occasioned by the chase after horse thieves, deserters or murdering desperadoes, life at Ft. Union was very dull and monotonous. There were the hum-drum drills, guard mounts, and occasional target practices. Of course, there was always the eternal winds which at times reached nearly hurricane velocities. Early in November 1885, the sentry box of No. 1 post (which is generally in front of the main guardhouse) blew away in a blizzard.

Some interest was aroused on Feb. 10, 1881, when Lt. Cooke of the 15th Infantry arrived from Ft. Stanton with a detail of ten men as escort for four renegade Mescalero Apache, en route to Ft. Leavenworth. These Indians were Muchacho Negro (Black Boy) Tarantchie Tatche and Coquienchie (phonetic spelling by the newspaper). These men had caused a great deal of trouble at Ft. Stanton and had caused an outbreak on Dec. 2, 1880. There was a skirmish with troopers from the 15th Infantry and the 9th Cavalry in which Muchacho Negro was wounded and captured and soon after his friends, all ex-members of Victorio's band, surrendered.

Among the soldiers who had charge of these men was a Chinese soldier of Company B, 15th Infantry. He attracted nearly as much attention as did the Indians. This private was reputed to be the only Chinaman in the United States army at that time. He had been brought to the United States by his parents when he was eight years old. He had enlisted in the army

after graduating from high school in Boston and was eleven years in service when stationed at Ft. Stanton.

Then he was transferred to Ft. Union and proceeded to make money as a professional gambler. In his off duty time he operated a monte game in Las Vegas. When mustered out of the army at Ft. Union he had $18,000 in cash and his gambling paraphernalia. He went to New York, invested his money in a loan office business and made more money from his countrymen in New York Chinatown. In 1880 he had obtained a furlough for five months, after re-enlisting in the army, hoping to visit China. Instead he went on a prospecting trip in New Mexico. He received $7,000 for half interest in some property. He dressed well and wore diamond rings on his fingers. He was affable, courteous and well liked.

Genevieve La Tourette, daughter of Chaplain, Major James A. M. La Tourette, who lived at Ft. Union 1877-1890 published her Fort Union Memories in the New Mexico Historical Review, October 1951. She gave various recollections of life at the post during that time. She said that the various troops stationed there during this period were the 15th, 9th, 23d, and 10th Infantry and the 9th Cavalry. The Commanding Officers of these regiments were: Maj. Edward W. Whittemore, 15th Infantry; Col. G. O. Haller, 23d Inf., retired for age and succeeded by Col. Henry M. Black; Col. Henry Douglass, 10th Inf., also retired for age and succeeded by Col. Henry R. Mizner.

The Arsenal, "was commanded by Capt. W. R. Shoemaker, who had held that position 35 or 40 years and was very highly respected in the surrounding country. That very courtly old gentleman, who evidently did not

believe in the progressiveness of that part of the frontier----could not be persuaded to ride on the Santa Fe R. R. when it made its appearance in 1879, and had not been in Las Vegas for many years. He preferred his seclusive life within a certain radius of the Arsenal and the garrison, and was constantly in the saddle, a wonderful horseman, even though in his eighties. His eccentricity, perhaps, was due to his extreme deafness, which was a great detriment, yet he could not be persuaded to use remedies---rather (they used to say) preferred to have the ladies put their arms around his neck in order to make him hear---and very loud they had to speak too!" (pp. 277-278).

(For data on the army kit invented by Capt. Shoemaker while at Ft. Union, see Appendix on Cavalry Equipment).

Miss La Tourette also noted that the old flagpole on the parade was blown down in a heavy wind storm, during the 1880s and was replaced by another pole which was still standing when she left the post in 1890. She also said that it was the custom to plant a box containing various souvenirs or official documents in the hold in which the staff was erected and when the old pole fell, the box placed there many years before was removed and a new one put in its place. Unless the archeologists have removed it, it is quite likely the remnants of the second box are still there, in which case the spot should be exactly one hundred feet from the front of the Commanding Officer's quarters, as noted on the map of the Post of 1877. The old sidewalk which extended from the doorway of these quarters ran straight to the flagpole.

She also said that weddings at the post were very gala affairs. The large halls were draped with flags and festoons of green branches.

The officers wore their dress uniforms and the regimental band played both the wedding marches and for the dance which followed. She also noted that during the thirteen years she lived at the Post there were only five weddings among the officers' families.

This one time resident of the Fort likewise told of the deterioration of the quarters. The mantlepieces over the fireplaces began pulling away from the walls. Pictures and other smaller items slid behind them and were lost. In removing one such mantle from a neighboring house, a small old-fashined picture of one of her father's cousins, from Dr. Peter's family, who had been in Ft. Union about twenty years earlier, was found. Miss La Tourette admitted to a desire to ransack the crevices behind the other fireplaces. (The Dr. Peters to whom she referred was probably Dr. De Witt Clinton Peters from New York who became Ass't. Surgeon, Aug. 15, 1854, and died April 22, 1876. He was the biographer of Kit Carson and published the "Life and Adventures of Kit Carson" in 1858).

About eight years before the post was deserted by the army, on November 5, 1883, the Secretary of the Interior wrote to the Secretary of War requesting the use of the Arsenal buildings at Ft. Union for an Indian Manual Labor School. Robert Lincoln, son of the martyred President, then Secretary of War, approved of the transfer on November 24th. Apparently the army wished to get rid of the place and felt that this was a good opportunity. But someone must have informed the Secretary of the Interior about the poor condition of the structures and on January 17, 1884, the latter official reneged on the request saying that he had reconsidered the idea and had decided that the buildings were inadequate for school use and a new school was being constructed at

Albuquerque. Accordingly, the transfer was revoked by Lincoln, Jan. 23, 1884.

There was a steady deterioration of the structures, the bulging and collapsing walls, and the roofs that leaked like sieves added much to the distress of the families living in the quarters.

By the end of 1889 the buildings were for the most part reported as being in conditions ranging from "fair" to "bad". One of the last inspections made by 1st Lt. Frederick Wooley, AAQM on duty at Ft. Union with the 10th Infantry, October---Dec. 12, 1889, notes the various structures, their condition and use at that time. He stated that the buildings were heated by stoves using soft wood and soft coal. Steam power was used for pumping water and sawing wood for the Post uses. Most of the buildings were those that had been built in the mid 1860s. The quarters in which the officers of the 10th Infantry and the 6th Cavalry were living, including those of Capt. Chas. L. Davis, 10th Inf., Major J. A. M. La Tourette, Chaplain; Lt. Col. A. P. Morrow, 6th Cav'y. commanding the post; 2nd Lt. M. R. Peterson, 10th Inf., 1st Lt. J. N. Glass, 6th Cav'y.; 1st Lt. J. H. Shollenberger, 10th Inf.; 1st Lt. Frederick Wooley, 10th Inf.; Maj. E. W. Whittlemore, 10th Inf. and Maj. Henry Lippencott, Post Surgeon, were all listed as being in "fair condition".

The Infantry barracks occupied by Co. "C", 10th Inf. were termed "bad" as was the building occupied as quarters by Troop "G" 6th Cav'y. In one set of barracks, that occupied by Troop "G", the main building was used as Post Library and reading room, while the "L" wings were con-

verted into shops and storerooms for the troops.

The set of infantry barracks erected in 1865 could not, in 1889, accommodate one company. It had been altered from a shops' building and in 1889 had part of the building in use as an indoor target range and one room was used for storing Ordnance property. It was in very bad condition.

The other infantry barracks erected in 1865, were no longer occupied by the troops as quarters. Instead one room was used as the Post Bakery and another part of the building held Ordnance supplies.

The adobe shell surrounding the stone and cement cells, built in 1865 as a post prison, was in bad condition but the cells were good.

The adobe guardhouse was likewise in bad condition.

The structures at the Depot were as bad as those on the Post proper.

The field officers' quarters erected in 1865, one set was unfit for use as living quarters and was then being used as the Post School.

Another set of quarters, in fair condition, was unoccupied.

The same was noted about a second set of officers' quarters.

The adobe building in which the QM office, the Adjutant's office and the Commanding Officer's office were located was termed fair.

The Subsistence Office Building, likewise built in 1865, was unoccupied but in fair condition.

The Clerks' Quarters were unoccupied and were in fair condition.

The adobe structure housing the mechanics' shops, blacksmith and carpenter shop, was in fair condition.

The large structure in which the machine shops were located was unoccupied except for one small room used as the Telegraph Office, was labelled as being in bad condition.

The four QM storehouses were fair, and apparently were all in use.

The Subsistence Storehouse, with the cellar and having part partitioned off on the main floor for an office, was in fair condition, the cellar being in good shape.

The Ice House of 1865 was in fair condition.

One frame building housing the steam boiler which had been constructed by the troops in 1887 was in good condition.

Two frame structures used for storage of grain were both in fair condition.

There were also two wooden water tanks built in 1885 and 1888 respectively holding 13,000 and 19,000 gallons respectively. These were in good condition. (One of these tanks burst while in the course of construction causing some delay in the work. Las Vegas Optic 5-6-85).

The stables of adobe and framework used by Troop "G" 6th Cav'y. and by the QM, were termed bad.

Lt. Wooley also reported that even as late as 1889 there was no sewer system for the Post but said "the natural drainage is very good".

He concluded his "Notes" on the condition of the Post:

"The walls of most of the buildings are becoming much weakened and in some cases have separated in spite of being securely and strongly propped.

Ft. Union----1861-1891

"The porches of all Officers' Quarters are in a dilapidated condition, as well as the floors and roofs of all buildings, most of them leak very badly.

Original cost of the buildings is unknown but they were all built in 1864 and 1865(sic) (the Lieutenant was mistaken, the construction work continued until 1869 at least, AW); when the cost of labor and materials were abnormally high and besides a very large part of the material used in the construction was hauled by wagon trains, nearly one thousand miles from points on the Missouri River.

The only record of cost in this office is on a diagram of the proposed Post giving plan and elevation of No. 5 in the Post proper and estimated cost at $14,122. (i.e. The Commanding Officer's Quarters. AW)

A complete estimate of material and labor to put the post in good temporary repair was made a year and a half ago by Lt. Cranston, at that time regimental Quarter Master, and amounted to $4,920 for labor and $5,413.75 for material. It will require probably 20 per cent more to do it at present".

To all appeals for repairs on the Post, Arsenal and Depot, Washington now turned a deaf ear. The War Department was determined not to invest another penny in the decrepit derelict of the plains. Within a relative few months Ft. Union was to be no more.

One brief flurry of excitement occurred when Lt. John Bigelow and two brother officers, Koester and Donaldson, arrived by train from Wilcox, Arizona, with an escort of one company of the 24th Infantry and a troop of the 10th Cavalry, conveying seventy-six Apache prisoners, twenty-one of whom were men, shackled, the remainder women and children.

These Indians had been rounded up in Arizona and left Wilcox on March 20, 1890. They were the families of Apache who had jumped the reservation at the San Carlos Reservation and were sent to Ft. Union for safe keeping. (South Western Stockman, 3-22-90).

On Sept. 3, 1890, the request for improvement in the Post water supply was denied by the QM General in Washington:

"I am directed by the Quartermaster General to inform you that anticipating the early abandonment of Fort Union, New Mexico, the estimate for water supply materials of the local AAQM for the quarter ending Dec. 31, 1890 is not approved".

The hand writing on the wall was definite and was confirmed by the Las Vegas Optic, February 18, 1891. The reporter noted that:

"The last few days have told a terrible tale at Fort Union. Four days ago everything was in running order, now everything is upside down and inside out.....Scores of teams, both great and small, drivers also, could be seen in and around the post. The soldiers are all busy packing government and private property".

The property of "O" Company of the 10th Inf. was shipped to Watrous, morning of Feb. 18, as well as part of "H" Company's gear. The soldiers literally camped out in the stripped buildings making bunks of blankets and rubber ponchos on tables and floors. Ten men of the two companies were detailed as a skeleton guard until all the moveable government property could be removed. Then they too left.

The weather at Ft. Union was at its howling best during the last

two months of the Posts's occupation. The thermometer dropped to 13 degrees below zero in January, making it particularly miserable for the boys on guard.

In January thirty-six of the Apache prisoners were returned to San Carlos and by February 5, only 23 tribesmen remained at Ft. Union. "G" Troop of the Sixth Cavalry pulled out for the Dakotas when the Ghost Dance troubles started. The canteen continued to function right up to the end at which time E. D. Woodbury the post trader and post-master disposed of his goods at reduced rates.

On February 21st, the boys of Cos. C and H, 10th U. S. Infantry shouldered their rifles and marched down the road to Watrous where they boarded the cars. With them went 1st Lt. Frederick Wooley, 2nd Lt. Crawford and Captain (Bvt. Major) Davis as well as Capt. Drum. They were headed for Ft. Wingate in New Mexico to do garrison duty in that post. The troopers were in three special coaches. If they were saddened by leaving Ft. Union, they did not show it. Soldiers are usually eager and willing to be on the move. Traveling troop train is better than the monotony of garrison duty. En route the boys sang "There's a Land that is Fairer than This" and "I'se Gwine Back to Dixie No More". The rifles suspended from the little baggage racks swung to and fro with the motion of the train. The air, thickened with tobacco smoke, became redolent with the fumes of smuggled bottles. Small games of "Black Jack" and poker occupied the company gamblers. Other men sat with their eyes trying to penetrate the darkness of the New Mexican night as the train chugged on toward their new home. Fort Union stood

empty save for the few unfortunates left to guard Uncle Sam's moveable property and the winds and the snow whipped around the deserted and crumbling buildings. This then was the end of forty years of frontier service for old Fort Union.

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PAGE

WOODWARD REPORT

PART II

APPENDICES TO REPORT ON FORT UNION

1851-1891

APPENDICES TO REPORT ON FT. UNION

1851---1891

The following appendices have been divided into several sections for the sake of clarity. Included in these separate divisions will be phases of military life common to all posts and field operations during the period 1851-1891.

In the course of excavations made at Ft. Union (the original site not being included) many objects pertaining to garrison life were found. Some of these items were surface finds others were excavated from the sinks and from the earth inside and outside the ruins themselves. In estimating the age of these specimens, I have not adhered to the chronology used in the usual study of such material, i.e. that of stratification, for the simple reason that certain objects could only appear in a certain period regardless of where it was found on the Post. Thus, as far as the determination of age was concerned it does not matter where an 1884 cartridge is found. The date on the headstamp indicates when the cartridge was made. It might have been used the year in which it was issued or it might have been in storage until the post was abandoned. Moreover, in the period say from 1864-1891, the various rooms in the post buildings were used and reused. Sometimes the debris would be cast out the door, at other times it might be hauled to the post dump. Thus objects of the same period might be scattered over a wide area....but regardless of where they might be picked up seventy or eighty years later, the dates remain constant. We know that the company sinks were dug from time to time. During the periods of their usage, the debris of the post found its way into their depths. Again there is a mingling with no stratification possible...nor is there sufficient change in character let us say

of pieces of equipment, weapons, crockery, bottles, etc., to differentiate between those items found at Ft. Union and those uncovered at Ft. Laramie - over the same period of time.

In establishing the appearance of the various buttons, insignia, cartridges, weapons, bits of horse gear, etc., found at Ft. Union, I have made studies of the complete articles seen in private and public collections all the way across the continent and from photographs in books, private collections and the National Archives. In brief, the chronological determinations are generic not stratigraphic.

For the purpose of exhibition of these specimens the periods can be readily set forth without necessarily establishing the exact provenance since the various articles, especially those of military origins conformed to the regular issues made to all troops, forts and camps during this period. Similarly one might make the same observations concerning the mass produced commercial items such as beer and liquor bottles, patent medicine, flavoring, perfume and other bottles. Tooth brushes, dolls, parts of toys, marbles, poker chips, bits of jewelry, etc., of the types found at Ft. Union can be duplicated from Ft. Laramie, Camp Bowie, Ft. Fred Steele, Ft. Sanders, and any one of dozens of camps which were in existence at the time Ft. Union was occupied.

To establish the proper chronology of these specimens I have compared them with objects in museums and private collections and have also consulted many contemporary catalogs of everything from tin pans, tools, wagons and hardware to jewelry and clothing.

In utilizing these specimens for exhibition purposes, I would suggest that the best ones be cleaned and segregated into divisions and then used as three-dimensional pictures to illustrate the various phases

and periods of military life at Ft. Union. One actual, good specimen, restored as nearly as possible to its original state of cleanliness, is more intelligible to the average visitor than a photograph, sketch or diagram, although at times it is wise to supplement the items with such graphic portrayals in the event it is necessary to give a clearer understanding of the specimen or its usage. Thus, a nearly complete shoulder scale of brass or bronze can best be understood if it is shown in conjunction with a contemporary photograph of a soldier wearing said scales.

The iron parts of wagons, fragments of weapons, chains, bits of cavalry equipment, and a multitude of other specimens when cleaned and properly displayed with photos, sketches and models serve to revitalize what would otherwise be useless pieces of rusty and corroded junk.

The following appendices are divided into their proper sections, as indicated in paragraph one of this portion of the report. In some instances I have not followed the decade by decade chronology of the report proper. This is particularly true of equipment, both cavalry and infantry, uniforms and transportation.

The reason for this deviation is that although the history of the post can be arranged by decades according to the annual reports and the events which occurred during each year, such things as weapons, uniforms, etc., cannot be so neatly pigeon holed.

Certain factors in these categories remained constant over varying periods of years. Models of rifles and pistols as well as sabers, although introduced into the service and known by the date of their introduction, continued in vogue for long periods of time and bore the date stamps of different years. The same is true with portions of the uniform,

as well as parts of horse gear. Thus, although the McClellan saddle might have been introduced through a few model saddles in 1857 it does not begin active service until 1859 and continued in vogue for half a century, with some modifications.

For these reasons then I am assigning only the founding and terminal dates of Fort Union, 1851-1891, to the various appendices, inserting such changes in the chronology as may be necessary for the different items.

Appendices----Ft. Union

TRANSPORTATION

1851--1891

In this section I shall discuss the different forms of transportation used, not only at Ft. Union, but also by the entire army during this period. Under transportation I am including the wagons, ambulances, personal conveyances, hand carts used for garrison duty, water carts and pack animals.

WAGONS

When the post was founded in 1851, the army wagons in use were manufactured under contract, as were all articles used by the army. No item large or small was supplied except under contract.

The standard army wagons of 1851 were, for the most part, manufactured by D. M. Wilson, J. Childs & Company of Philadelphia. This firm continued to manufacture hundreds and thousands of wagons for military usage during the ensuing forty years.

The contracts of 1850 called for the delivery of one six mule complete covered wagon for the sum of $140. At that time for $2 extra each wagon was equipped with "an additional lock and chain and two iron staples and mortices in the Bolster for the purpose of attaching India Rubber floats". The latter invention was probably that of Col. Henry Stanton of the 1st Dragoons who served from 1842 until his death at the hands of the Apache, January 20, 1855.

During the Civil War, according to Harvey Riley, author of "The Mule", N. Y. 1867, there were many types of wagons made under contract. One of these was the "Wheeling", a light vehicle which was serviceable if the loads were not too heavy. The "Wilson" wagon, however, was the favorite being the sturdiest and needing the least repairs.

Riley said the best test for army wagons was on the plains:

"Run it there for one summer when there is but little wet weather where there are all kinds of roads to travel on and loads to carry and if it stands that it will stand everything. The wagon-brake, instead of the lock-chain is a great and valuable improvement made during the war".

The item on the brake casually mentioned by Riley is probably one of the most significant statements in his entire discussion on the army wagon of 1850s-1860s.

Prior to the invention of the wagon brake, the vehicles had to be braked in two or three different ways. Whenever an army teamster started down a hill he had to lock the hind wheels with a chain at the top of a declivity and unlock them when he reached the bottom. This was a tiresome process and the entire wagon train was held up each time a wagon started down hill and when it reached level ground. Thus roads became blocked and time was lost. The lock chain also wore down the tire at the point where it was fastened. The invention of the brake saved all this wear and tear on the wagon as well as the nerves of the driver and the necks of the animals pulling the vehicle. The necks of the mules or horses became bruised and chafed when a dead strain was imposed upon the animals by the drag of the locked wheels. Usually a space of 10 to 15 feet was kept between wagons in a military train and the delays caused by the locking and unlocking of the chains caused traffic jams and much sulphurous language on the part of the mule skinners.

Oddly enough many vehicles were not equipped with brakes long after they came into use.

Perceval Lowe in his book "Five Years a Dragoon", which first appeared serially in the Journal of the United States Cavalry Association, January 1904 through January 1906, and appeared in book form in the latter year, gives

a good description of a wagon train en route from Ft. Leavenworth to Fort Union in 1862.

On page 364 appeared a line drawing of a typical six mule team hitched to an army wagon of the 1860s. The wagon illustrated is of the older pre-Civil War make in that it does not have a brake. Otherwise this wagon and the hookup of the mules is about the same as the drawing (after a photograph) of the Civil War six mule team and wagon illustrated on page 1 of "The Mule". The latter picture shows the wagon equipped with a brake.

An examination of a number of photographs made during the Civil War from 1861 and 1865 would indicate that the brake was placed on army wagons and ambulances sometime during the early part of 1863 and was in fairly general use by the end of 1865 with the exception of those vehicles made prior to those dates and which had not yet been so equipped.

In discussing the use of the brake on the army wagons under his care during the War, Riley (who was Superintendent of the Government Corral at Washington, D. C.) said:

"The best brake, by all odds, is that which fastens with a lever chain to the brake-bar. I do not like those which attach with a rope, and for the reason that the lazy teamster can sit on the saddle-mule and lock and unlock, while with the chain and lever, he must get off. In this way he relieves the saddle-mule's back.

We all know that in riding mules down steep or long hills, you do much to stiffen them up and wear them out".

Riley's comments regarding the best types of wagons for army use seem pertinent to the subject:

Monument
New Mexico 87753

Appendices....TRANSPORTATION...1851-1891

"Government wagons, as now made, can be used for other purposes besides the army. The large sized Government wagon is, it has been proved, too heavy for four horses. The smaller sized one is nearer right; but whenever you take an ordinary load on it (the smaller one), and have a rough country to move through, it will give out. It is too heavy for two horses and a light load, and yet not heavy enough to carry twenty-five hundred or three thousand pounds, a four horse load, when the roads are in any way bad. They do tolerably well about cities, established posts, and indeed anywhere where the roads are good, and they are not subject to much strain. Improvements on the Government wagon have been attempted, but the result has been failure. The more simple you can get such wagons, the better, and this is why the original yet stands as the best. There is, however, great difference in the material used, and some makers make better wagons than others. The six and eight-mule wagon, the largest size used for road and field purposes, is, in my humble opinion, the very best adapted to the uses of our American army".

Lowe said that in July 1862 he started from Ft. Leavenworth to Ft. Union with a train of 120 six-mule wagons and four-mule wagons, and a traveling forge hauled by eight mules. Each of the six mule-teams hauled 2,500 lbs. while the four-mule wagons were loaded with 1,200 lbs. and carried in addition two sacks of corn weighing 112 pounds each.

In this same train went 18 strings of horses totaling 614 animals to be used as remounts by the cavalry at the various posts in New Mexico. There were about 32 horses in each string, including the wheelers and leaders. The horses were fastened together to a 2" rope attached to the end of a wagon

tongue at eight foot intervals. This wagon was drawn by one team of horses with the driver mounted on the left rear or "nigh wheeler". Only the animals hitched to the light wagon did any of the pulling, the others simply kept pace with the team and to prevent the animals from getting over the rope and injuring themselves while on the move, a foreman and one swing rider rode alongside each string to keep order. Each "string crew" consisted of a foreman, cook, driver, lead rider, swing rider and out rider, six men in all. The cook slept in the wagon during the day to prevent men from pillaging supplies. Each string crew had its own tent, mess-kit, rations, five water buckets, a 10-gallon water keg (kept full at all times) a big maul, iron bound wooden picket pins and cross jacks of hardwood bolted together to form supports (like the individual ends of a large saw-buck) which were about 7' long made of 1-1/2" x 3" pieces. These were set up at the end of the day about 30' apart and supported the long rope, to which the horses were tied, thus forming a picket line held by the cross jacks, some four feet from the ground. One end of the rope was tied to the iron ring at the end of the wagon tongue, the other was carried to a point some 10' beyond the last cross jack and fastened to a stake driven into the ground. The halter straps by which the horses were fastened to either end of this line were just long enough to enable the tethered animals to eat grass, hay or corn confortably from the ground.

En route the horses were kept in motion but when camp was pitched the horses were untied, led to water or given water from the buckets, perhaps grazed awhile, then tethered for the night to the picket line and given two quarts of corn and a pile of cut grass at night and two quarts of corn in the morning.

The mules hauling the loaded wagons were night herded away from the horse line by 10 teamsters and a wagon master or his assistant on shift until midnight, at which time relief herders went on duty until dawn when the mules were led back to a rope corral by a gentle white bell horse.

The army wagons of the 1850s-1860s- were sturdy, compact affairs. The boxes were rectangular and panelled and at times equipped with extra side boards which enabled the teamsters to carry larger loads. A study of the wagons shown in the corrals at Ft. Union in 1866 indicates that they were of two types, the light and heavy duty vehicles described by Riley (op. cit). Included with the photographs attached to this report are examples of US Army wagons used during the 1860s.

There is in the collection of the Sons of Utah Pioneers in Salt Lake City an old wagon which is alleged to be one of those which hauled supplies for the army under General Albert Sidney Johnston in Utah in 1858. (See photo).

If this is true then the brake was added at some later period. Likewise the bed and side boards have been mended and replaced and the sides heightened. Traces of the old light blue paint remain in spite of the weathering and the running gear was the usual red. The bed of this wagon was 14'6" long and 41" wide (inside measurements). The bed is 4' deep. The end gate 44" high. The rear wheels are 44" in dia. while the front wheels measure 42". The wagon is equipped with seven bows some of which have been replaced in recent times.

The army wagon also had a tool box fastened to the front of the vehicle. This was called a "jockey box" and in it were kept wrenches, hammer, pliers, pieces of leather, nails, tacks, bolts, wire, in fact almost anything

necessary to make repairs on the road. Wagons crossing the plains frequently carried extra pieces of seasoned hardwood slung under the wagon bed from which to cut pieces as needed to replace those parts which became broken. In fact hardwood of any suitable kind and size was at a premium in Ft. Union. Capt. F. Meyers wrote from the Post, June 25, 1858 complaining of some poor grade wagon timber which he had purchased locally saying that with the exception of a few poles it was all too crooked and too brittle. Moreover he said that much of the timber sent from St. Louis at great expense for the repair of wagons, was likewise of inferior quality.

During the Civil War the Government contracted with many companies in the East and Middlewest for army wagons. The bulk of such contracts were let in Philadelphia, Cincinnati and some in St. Louis. Many of the contractors were of German extraction and seemingly made the best vehicles. It is quite possible that many of the wagons which ultimately found their way to Ft. Union during this period were made by these firms:

Wilson, Childs & Co., Philadelphia
Jacob Rech of Philadelphia
Henry Simons, "
Kessler & Co., "

These outfits delivered four horse wagons at $100 each and delivered them in batches of from fifty to 240. They also made the four-wheeled ambulances which speedily replaced the light flimsy two-wheeled vehicles on hand when the war began.

The Cincinnati wagon makers who contracted to manufacture six-mule vehicles in 1862 made them for prices ranging from $91.50 to $100 each. These

firms were:

J. Henke
G. L. Jaap
Holenshall, Morris & Company
Henry Tratmeyer
Fred Zimmerman
Ben Stodhoff
G. Focks
John Arrel
Michael Silbernagh
Peter Kemp
Schell & Wernicke
J. Grisbaum
Henry Wenzel
J. Bob
Phillip Klopp
J. Frim & Co.
Conrad and Wayner
Bomberger, Wright & Company
C. Thornton & Company
F. Dorrman
J. R. Palmer

In Pittsburgh, F. Aeschlemann made wagons.

The Studebaker Bros., known as H. & C. Studebaker, turned out army wagons at their Mishawaka Wagon Works near South Bend, Indiana. To speed up production and obtain the needed supply of season timber requisite for the manufacture of good wagons, the Studebaker boys invented a drying kiln, thus condensing a three year seasoning process into a matter of weeks. These wagons were sold to the Government during the late 1850s for frontier service.

By 1862 Studebaker wagons had already seen much service. Now new contracts came their way for the manufacture of artillery caissons, army wagons, ammunition wagons and even a wagon for carrying barrels of lager beer to the soldiers in camp. (Longstreet, Stephen, A Century on Wheels, New York, 1952).

Appendices.....TRANSPORTATION.....1851-1891

An idea of prices for wagon parts is appended:

In St. Louis the firms of James Archer, Woodburn & Scott, Graff, Bennett & Company; Pratt & Fox; A. Peacock & Son and John Daly furnished:

Ambulance spokes at 9¢ each
Ambulance hubs @ 15¢
Carriage and tire bolts
Single trees, unironed, @ 10¢
Wagon bows @ 25¢ each

The Philadelphia firms also supplied extra parts:

Wagon bows, set of 6, @ $1.45
Complete, ironed single trees @ $1 each
Wagon spokes, for hind wheels of army wagons, @ 10¢ each
Blacksnake whips @ $1 each
Wagon covers @ $10.79 each
Halter chains @ 40-1/2¢ each
Wagon tongues (unironed) @ $2.00 ea.
Wagon tongues (ironed) @ $4.00 ea.
Front hounds @ $1.25 ea.
Hind hounds @ .63 ea.
Wagon axles @ 5-1/8¢ per lb.
Coupling poles @ $1.47-1/2 ea.
Felloes @ $1.50 per set
Hind wheels for wagons, $11.50 a pair
King bolts 39¢ each

By the time such items reached Ft. Union, the cost of transportation had to be added, thus making seemingly insignificant items quite expensive.

(Data on these costs obtained from Vol. 14, Register of Contracts, 1862-1864 QMGO, National Archives, Washington, D. C., pp. 100; 132-33; 135, 136, 137, 138, 143, 146; 175-176; 180, et seq.)

Wilson, Child & Company, one of the best wagon making firms of Philadelphia, supplied wagon parts in 1863 at the following prices:

Wagon bows, six in a set @ $1.45 per set
Single trees, ironed, complete, 1000 sets @ $1 each
Wagon spokes for hind wheels of army wagons @ 10¢ ea.
Four horse ambulance whips @ 74¢ each
Blacksnake whips @ $1 each
Wrought iron harness rings - 54¢ per gross for 1" rings
1-1/2" rings - $1.50 per gross up to $2 per gross for 2" sizes

Appendices.....TRANSPORTATION.....1851-1891

Captain Randolph B. Marcy, an experienced traveler in the west commented upon the US army wagons in his book The Prairie Traveler, New York 1859, as well as other vehicles suitable for western travel, pp. 26-30.

"Wagons should be of the simplest possible construction----strong, light and made of well-seasoned timber, especially the wheels, as the atmosphere, in the elevated and arid regions over which they have to pass, is so exceedingly dry during the summer months that, unless the wood-work is thoroughly seasoned, they will require constant repairs to prevent them from falling to pieces.

Wheels made from the bois-d'arc, or Osage orange-wood, are the best for the plains, as they shrink but little, and seldom want repairing. As, however, this wood is not easily procured in the Northern States, white oak answers a very good purpose if well seasoned.

Spring wagons made in Concord, New Hampshire, are used to transport passengers and the mails upon some of the routes across the plains, and they are said by those who have used them, to be much superior to any others. They are made of the close-grained oak that grows in a high northern latitude, and well seasoned.

The pole of the wagon should have a joint where it enters the hounds, to prevent the weight from coming upon it and breaking the hounds in passing short and abrupt holes in the road.

The perch or coupling-pole should be shifting or movable, as, in the event of the loss of a wheel, an axle or other accident rendering it necessary to abandon the wagon, a temporary cart may be constructed out of the remaining portion. The tires should be examined just before commencing the journey, and, if not perfectly snug, reset.

"One of the chief causes of accidents to carriages upon the plains arises from the nuts coming off from the numerous bolts that secure the running-gearing. To prevent this, the ends of all the bolts should be riveted; it is seldom necessary to take them off, and when this is required the ends of the bolts may easily be filed away.

Wagons with six mules should never, on a long journey over the prairies, be loaded with over 2000 pounds, unless grain is transported, when an additional thousand pounds maybe taken, provided it is fed out daily to the team. When grass constitutes the only forage, 2000 pounds is deemed a sufficient load. I regard our government wagons as unnecessarily heavy for six mules. There is sufficient material in them to sustain a burden of 4000 pounds, but they are seldom loaded with more than half that weight. Every wagon should be furnished with substantial bows and double osnaburg covers, to protect its contents from sun and weather".

Marcy also discussed the relative merits of mules versus oxen as draught animals. He believed that on good firm roads, in a populated country, mules were to be preferred because they could travel faster and endure summer heat better than oxen. Likewise he thought that if the journey was not more than 1000 miles and grass abundant, even without grain,mules were preferable. However, if the mileage was 1500 to 2000 over rough, sandy or muddy roads, young oxen were better. Oxen were more economical, a team of eight oxen cost only two hundred dollars on the frontier in contrast to the sum of six hundred dollars for a team of six mules. Likewise oxen could not be stampeded so easily as mules, especially by Indian raiders who didn't value the "whoa haws" as they called the oxen as much as the mules or horses. In an emergency the bovines could be used as meat.

In the early days of army teaming, there were no seats on the

wagons. Long teams were driven by a rider seated in a saddle on the near or "nigh" wheeler, if the team was of mules or horses, and by a "bull whacker" who walked on foot, if the oxen were used. In either case, the drovers used long whips (already described in previous paragraphs). In later days seats were installed and the driver sat on the wagon itself and handled both whip, reins and brake rod.

In the beginning wooden axles were used. Then these were reinforced with iron and finally during the late 1850s and early 1860s iron axles were used. On the wagons of the 1850s and the 1860s, the wheels were not held in place by the heavy iron nuts but by linchpins which fitted into the end of the axle and which passed through a slot cut in the iron rim bands.

All metal hubs for US army wagons did not come into use until 1876-1877. The Q.M. General reporting in 1877 said:

"The new two-horse and four-horse wagons have metallic hubs. Metallic hubs are still under trial in the service of the Quartermasters Department". He indicated that prejudices in favor of old styles of construction were the cause for slowness in changes.

Practically all parts of a wagon were reinforced with iron or steel.

The malleable iron pieces holding the six wagon bows on an army wagon were twelve in number on each side and were approximately 3/4" deep and 1-1/4" wide.

The tongue was reinforced with iron at the end, to which was attached an iron ring and chain. Iron plates reinforced the proximal end of the tongue which fitted into the fore end of the under pinning of the wagon. Altogether there were between 200 and 300 separate pieces of iron

or bolts which held the wagon gear and bed together. (For nomenclature of various parts of an army wagon see Manual For The Quartermaster Corps Vol. 2, Appendix, Washington 1916. This is a relatively late reference but wagon ironing and nomenclature changed but little over the years).

Attached to the rear of the wagon was a feed box. This was held in place by a chain fastened at either side. It was detachable and at feeding time was removed from the bed and fastened to the tongue so that the animals could feed out of it. During the 1850s there were no feed boxes. Instead nose bags were carried, or the corn was simply placed on the ground in front of the mule or horse. The latter method was wasteful so the feed boxes were adopted.

Spare chains were carried hooked to the wagon bed and used in lieu of brakes before the middle 1860s.

To hold the wagon bows at the top a long thin wooden rod was run lengthwise of the wagon along the center of the bows and riveted in place to the wood.

The side boards and end gates on the wagons could be removed separately or the entire bed could be lifted off the running gear to make repairs to the latter.

Axle grease made of pine tar and later of patented materials was used to grease the axles and other iron parts on the running gear where any friction was encountered. Axle grease was also a general cure-all or salve used by the teamsters for open wounds on man and beast.

In the jockey box were carried wrenches of various sizes and shapes to unscrew nuts from rods and wheels. These wrenches were of different shapes and multiple tools-in-one. When patent wheels were invented, these increased in number and sizes.

Appendices.....TRANSPORTATION.....1851-1891

During the mid 1870s certain changes were made in the wagons and likewise in the late 1880s. The light wagons became known as "escort wagons". There was also the Dougherty Wagon, a form of an ambulance. The latter will be discussed in the section on ambulances.

AMBULANCES

This style of military vehicle was primarily designed as a conveyance of the sick and wounded but during the 1860s-1890s it was universally used on the frontier as a passenger vehicle for military personnel, officers and their wives and children when traveling between posts. The frontiersmen generally called these light two or four horse vehicles "ambulanches". In their day the ambulances were deemed the last word in frontier traveling confort.

During the American Revolution and the War of 1812, the United States had no ambulance service. The wounded and sick were either placed in the rough jolting carts or wagons of the period or carried in hand litters. In time litters slung between two mules or horses came into use.

In New Mexico during the 1850s wounded soldiers were transported for some distances on two-horse litters. It was during this period that the military authorities became conscious of a growing need for more comfortable conveyances for the transportation of sick and injured troopers. Some attempts had been made during the Seminole War of 1835-1842 to ameliorate the pains of transport from the field by utilizing the animal litters according to a patented single-litter to be placed upon the mule's back. This was invented in 1836 and adopted in 1837 but Captain Thistle's horse litter as it was known, but so far as can be ascertained, never saw much service.

Appendices.....TRANSPORTATION.....1351-1861

During the Mexican War, the wounded were hauled in two-wheeled carts, many of them the ox carts of the country. These screeching, lumbering vehicles caused untold agonies to the badly wounded men who were carried in them.

In the spring of 1855, a Military Commission consisting of three officers, Major Richard Delafield of the Engineers (commanding the party) and Major Alfred Mordecai, likewise of the Corps of Engineers, and Captain George B. McClellan formerly of the Engineers but re-assigned to the 1st Cavalry, visited Europe for the purpose of obtaining comparative data on European military methods and material.

Jefferson Davis as Secretary of War was anxious to learn many things among them; "the medical and hospital arrangements, both in permanent hospitals and in the field. The kind of ambulances or other means used for transporting the sick and wounded".

The results of this Commission were embodied in "Report on the Art of War in Europe in 1854, 1855 and 1856" published in Washington 1861. The British army was, at this time, using four styles of two and four-wheeled wagons and carts as ambulances, one of which had India rubber springs. The French depended largely upon horse litters.

In 1858, various models of wheeled ambulances were submitted to the U. S. War Department and in November 1859, a Board convened in Washington consisting of Drs. C. A. Finley, R. S. Satterlee, C. S. Tripler, J. M. Cuyler and Ass't. Surgeon R. H. Coolidge, for the purpose of deciding upon the best ambulance system for the army. A statement was submitted by the Board to Secretary of War, J. B. Floyd, declaring that: "A complete ambulance system is very desirable and necessary for the hospital department in the field, and therefore asking that authority be given to the Board to

"consider and report on an ambulance system which will meet with the exigencies of the service".

One form of horse litter was recommended which may have seen some service in the Civil War, but which in later years saw more use in the Modoc Campaign of 1873 and in other frontier warfare of the 1870s.

During the Civil War several styles of ambulances, both two-wheel and four-wheel, were introduced. The former type was not as desirable as the latter because of the discomfort it caused to the patients. Where wheeled vehicles could not be used, the animal litters were put into service.

At the beginning of the war, one-horse ambulances with two wheels, designed by Drs. C. A. Finley and R. C. Coolidge, were sent into the field. These, however, were too frail in their construction and were soon abandoned. Then a four-wheeled conveyance known as the "Wheeling" or "Rosecrans Ambulance" (named because of the place of its manufacture, Wheeling, Virginia, and its inventor Brigadier General William S. Rosecrans) drawn by two-horses came into general use. The latter ambulance held twelve persons sitting, or two and three sitting and two lying down.

Towards the end of the war a still better ambulance, constructed from plans submitted by Bvt. Major General D. H. Rucker, and known as the "Rucker Ambulance" was adopted and later recommended as the regulation ambulance for the U. S. Army. (See Circular No. 9, War Dept. Surgeon Gen'ls. Office, Reports on the Extent and Nature of the Materials Available for the Preparation of a Medical and Surgical History of the Rebellion, Philadelphia, 1865, pp. 83-85).

The "Rucker" incidentally was equipped with a brake and had steel springs. The "Tripler Ambulance", also four-wheels, likewise had a brake

and steel springs, came into use during the Civil War. These sturdier vehicles were also equipped with water kegs, that of the Tripler being slung underneath the ambulance.

All of these vehicles were covered with water-proof canvas tops, the side panels of which could be rolled up in good weather to give more air to the occupants.

The "Wheeling" ambulance continued in service into the 1870s. In the 1870s a new type of wagon for general service was introduced. This was the famed "Dougherty" spring wagon which became well known on the frontier. Martha Summerhayes in her little volume Vanished Arizona, Philadelphia 1908, pp. 56-57, deacribes a journey made in 1874 from Camp Mojave on the Colorado River to Ft. Whipple:

"A comfortable large carriage, known as a Dougherty wagon, or, in common army parlance, an ambulance, was secured for me to travel in. This vehicle had a large body, with two seats facing each other, and a seat outside for the driver. The inside of the wagon could be closed if desired, by canvas sides and back which rolled up and down, and by a curtain which dropped behind the driver's seat. So I could have some degree of privacy, if I wished".

In 1878-79, Dougherty wagons were purchased by the Q.M. Department from Wilson, Childs & Co. of Philadelphia for $165 each and from the Kansas Manufacturing Company of Leavenworth, Kansas, for $149.50 each. It is interesting to note that in this same year "50 ambulance wagons, Army pattern" were also bought from the Kansas Mfg. Co. for $174.50 each. Thus it would seem that under contract the "Dougherty wagon" was differentiated from the "ambulance wagon, Army pattern" at least in name and in price differences. The same report states that "Forty-one spring wagons were furnished to the

"posts and depots during the year". This same year saw 281 six-mule Army wagons; 215 two-horse and four-horse or mule wagons as well as 72 spring wagons, the 50 ambulances and 6 miscellaneous wagons, trucks and drays go into Army service.

(Report of the Secretary of War, Messages and Documents, 2nd Sess. 46th Cong. 4 vols. vol. I, pp. 310-311).

At the end of June 1880 there were on hand in all the Military Departments of the United States a total of 2,721 army wagons and by the end of June 1881, there were 2,340 showing a depreciation of 381 vehicles due to losses, sale, destruction, etc. During this same period there were but 282 spring wagons in the Army at the end of June 1881 and 144 ambulances.

The Board on Ambulances met in 1875 and recommended a standard U. S. Army Ambulance which was put on trial and subsequently was modified and finally adopted by the War Department, May 25, 1881. There were also modifications in the two and four-horse or mule wagon which had been recommended for adoption by a Board of Officers convened in Philadelphia, December 1875. The altered wagons (which were modified at Ft. Leavenworth) were finally adopted by the Secretary of War, Nov. 21, 1878).

During the Civil War the "Coolidge" ambulance was supplied for $215 while another type of vehicle designed for the Medical Corps, the "Perot" medicine wagon, cost $235-275 complete.

Other firms manufacturing ambulances during the War were: D. B. Platt, Salem, Ind. at $130 each; Henry Simons, Jacob Rech, O. C. Whitaker, all of Philadelphia who made four-wheeled ambulances in 1862 for around $119 each. In Cincinnati, Ohio, these firms made the same sort of vehicles: H.P. Grydan, Moore & Albrecht, W. H. Ernst or Enst, H. Heimeyer, Philip Dorn, Holenshade, Morris & Co., supplied ambulances for $144 to $150 each.

In his annual report for 1877, the Q. M. General stated that 130 six-mule wagons had been purchased; 50 two-horse and four-horse mule or horse wagons "of the new pattern referred to in annual report for the last fiscal year, 27 spring-wagons, 20 ambulances of the Wheeling pattern, and 1 spring express wagon". These vehicles were made at the Pittsburgh Wagon Works, Allegheny, Pa., at the Kansas Manufacturing Co., Leavenworth, Kansas; 20 spring wagons "St. Louis Pattern" were made by the firm of Robert Nixon and John W. Kane, of Jeffersonville, Ind., while 20 ambulances "Wheeling" pattern were furnished by Jacob Rech of Philadelphia.

It will be noted that no mention is made of the "Dougherty wagon" for this year. Hence, it is possible that the "Dougherty" was not officially approved until 1878-79, in which case Mrs. Summerhayes, writing in after years may have confused the "Dougherty" with one of the other ambulances in use in 1874.

CARTS

Aside from the four-wheel wagons drawn by two, four or six animals there were two-wheel carts in use, one type drawn by a single mule or horse, the other a smaller handcart. As a rule, these two-wheel carts were used only for garrison purposes. During the 1860s "Coolidge" two-wheel, one-horse ambulance was in effect, a cart with a top on it. Since it was so light it was used but little for hauling anything other than wounded or sick soldiers (two men lying down on removable hand litters). It was recommended by the Army Medical Board in January 1860 that a sample "Coolidge" two-wheel ambulance cart be sent to New Mexico for trial along with one of the "Finley" pattern, hence there is a distinct possibility that either or both of these vehicles were at one time berthed at Ft. Union 1861 onward. Similarly the Department of New Mexico received a four-wheel "Tripler" ambulance at the same time.

There was, in addition to the two-wheel "Coolidge" ambulance, another sturdier cart known as the "Cherry"pattern. Whether any examples of this cart were ever sent to the frontier is a bit uncertain. It was, however, designed as a double duty vehicle. It could carry either wounded men or small amounts of supplies.

At least one two-wheel cart was manufactured for army use probably in the 1870s or 1880s by The Studebaker Brothers of South Bend, Indiana. This firm incorporated under the name "The Studebaker Brothers Manufacturing Company, March 26, 1868.

This Studebaker cart, with the exception of the shafts (which are straight), is similar in appearance to the "Cherry" cart. It is quite possible that this Studebaker cart was either patterned after the "Cherry" or a similar cart in use at the posts in New Mexico in the middle 1860s. A photo of Ft. Selden made in 1867 shows one of these one-horse carts at that post. Such vehicles were used to transport water, trash, etc., around the garrison and it is quite likely that on short marches they were used for either baggage, supplies, ammunition, etc. A comparison between the Studebaker and the cart used at Selden indicates but few differences.

Another small cart used in the garrison was the light, two-wheel hand cart. This was used in the Depot to move Q. M., subsistence and ordnance supplies within the warehouses and between points on the Post proper. It was also pushed or hauled by prisoners in policing up the parade and garrison, hauling garbage and trash and transporting light articles to and from the buildings.

APPENDICES.....FOODSTUFFS.....1851-1891

FOODSTUFFS and MESS EQUIPMENT

The old military adage that "An army marches on its stomach", was particularly applicable to the army of the United States, albeit there were times when rations were scarce and bellies were flat and empty.

During the early periods of western frontier history, the troopers ate what they could get, when they could get it and, in the field, prepared their meager allowances with all the ingenuity they possessed in the simple mess kits issued to them.

At this point let me interject a note regarding the use of the term "mess kit". Today it connotes the individual knife, fork, spoon, aluminum cup and plate carried by each soldier. During the 1850s-1870s the mess kit was used in a generic sense and referred to the cooking utensils and other kitchen paraphernalia used by a squad or company of men. The man in the ranks had as his personal mess gear a tin plate, a tin cup (the latter holding about a pint) a spoon, fork and knife. The latter was often in the form of a sheathed weapon carried at his belt or in the top of his boot. When the combination "mess kits" were issued to individuals during the 1870s, they were known as "meat cans" and were designated as such in the Q. M.'s lists of supplies.

In the garrison the soldiers had their regular company messes presided over by a cook. The cooks were usually drawn from the ranks and were chosen by lot to act in this capacity for a certain length of time. The cook was usually ignorant of the most simple rules of the culinary art and there was no such an institution in the army as a Cooks' and Bakers' School. Consequently the men were fed in a catch-as-catch-can manner. The rations were simple and monotonous. Consequently any man who was able to

take the army ration and make it edible was looked upon with great favor by his comrades.

Daily rations as issued during the 1350s through the Civil War consisted of:

Beef	20 oz.
Flour	18 oz.
Salt	.64 oz.
Yeast powder	.045 oz.
Black pepper	.04 oz.
Beans (dry)	2.56 oz.
Coffee	1.6 oz.
Sugar	2.4 oz.
Vinegar	.32 gill.
Potatoes (1 lb. thrice weekly)	
Desiccated vegetables	1 oz. twice weekly
Hard tack	
Soap and candles	
Cigarettes 4 (or their equivalent in pipe or smoking tobacco)	

This was the ration the soldier was supposed to get. In the field and at times in camps and forts, when rations spoiled or ran out, the men foraged for their food. On the trail, if game and fish could be had, the troop or company commanders issued ammunition for hunting and many soldiers learned to carry fishing tackle in their haversacks. The men were also allowed to buy extra foodstuffs whenever they had the cash with which to do so.

The "desiccated vegetables" were in many cases unpalatable and the Civil War veterans soon learned to call them "desecrated vegetables".

During the War the Scientific American reported, Nov. 28, 1863:

"Many large firms in the different states engaged in this business (i.e. canning and preparing desiccated vegetables) who employ a great many hands..... The consumption of fruit, vegetables, and, in many cases, meats

"and game (where this business is carried on) is enormous".

One firm in New Jersey had buildings "which cover more than an acre of ground and apart from the branch of canning and preserving which often exceeds 5,000 cans per day, they often turn out six tons of assorted jellies, in glass, per week. The product of 50,000 tomato plants, 30 acres of strawberries and 35 acres of sweet corn have been used during the present season for canning. During the peach season about two hundred hands, chiefly women, are employed paring and halving this delicious fruit. Few persons have any idea of the extent to which the business of preserving fruit for the army and the trade generally, is now carried on in this country".

The same issue carried another item on desiccated vegetables alone. In 1863 there were 150 employees of the New York Desiccating Company at 327-329 Stan Street, New York, doing this work. The vegetables were picked, cleaned, cut up and grated. Then they were dried and the moisture evaporated out of them. They were then pressed under hydrostatic pressure into flat cakes weighing seven pounds each.

Each cake contained enough vegetables to make 42 gallons of soup. In this season the company desiccated and shipped into the field:

56,000 baskets of tomatoes
442 tons of string beans
8,000 bushels of green peas
15,000 barrels of turnips
23,000 heads of cabbages
12,000 barrels of potatoes
20,000 barrels of onions
100 tons of parsley

The process of canning foods began in the United States in 1825 with the granting of a patent to Thomas Kensett and Ezra Daggett for "an improvement in the art of preserving" and the patent mentioned "vessels of tin".

In Europe, however, Nicholas Appert, A French inventor, was working on the preservation of meats, vegetables and fruits in stoppered glass containers at the end of the 18th century. In 1810 he published a book "Le Livre de tous les Menages ou l'Art de Conserver pendant Plusieurs Annees Toutes les Substances Animales et Vegetales".

English patents, based upon Appert's work, were taken out in 1811 by Bryan Donkin using containers of tin or iron instead of glass. A year or so of experimentation followed and by 1813, the tinned products of the factory of Donkin & Hall, Blue Anchor Road, Bermondsey, attracting favorable attention and in 1814 shipments of preserved meats were sent to the British Naval Station in West India. These were called "embalmed Provisions". A filet of veal, canned in December 1812 was opened in 1815 and was found to be "in a perfect state of preservation".

By 1818 the firm of Messrs. Donkin, Hall and Gamble were supplying thousands of cans of tinned meats, vegetables and soups to the British Admiralty and many of these canned provisions were sent on ships exploring the Arctic regions. Some of these cans were left in caches and were later found by subsequent explorers and taken home as souvenirs forty to one hundred and more years later. Upon being opened they appeared to be perfectly good and were eaten by humans and animals without ill effect.

(See Historic Tinned Foods, Pub'n. No. 85 (2nd Ed.) International Tin Research and Development Council, Middlesex, England, 1939.)

Kensett, an Englishman who emigrated to the United States, likewise followed Appert's lead and his son Thomas Kensett, Jr., born at Cheshire, Connecticut in 1814, followed in his father's footsteps and opened a small canning establishment in Baltimore on the waterfront in 1849 and gave to the

world some of the first canned Baltimore oysters. (Fifteen years earlier other Baltimoreans had canned, pickled and shipped fresh oysters inland. Konsett was soon sending his tinned oysters as far as Pittsburgh.

The first cans were made of tinplated sheetiron, cut into "bodies" laboriously by hand or foot-powered scissors and bent around cylindrical moulds by the tinsmiths hands and st'ong arms. The round tops and bottoms were made in the same way. The pieces were put together by hand and the side seams were soldered. A cap hole was left in the top through which the food to be canned had to be forced. Sixty of these canisters a day was a good output for one tinsmith. The word canister from the Greek kanastron, meaning a "basket of reeds" was shortened to "can" by the bookkeepers of William Underwood & Company, the founder of which was also a young English immigrant who had landed at New Orleans fresh from an apprenticeship in the firm of Mackey & Co. Ltd., which sent out preserved pickles. This was in 1817. By 1819 he was in Boston where he started his canning business and by 1839 he shifted from glass containers to cans, mainly because the panic of 1837 made the use of tin cans cheaper than glass bottles.

Slowly but surely the ubiquitous tin can began to find its place upon the kitchen shelves of the American household. During the gold rush days it found itself in California and it is said that the first gold to reach Boston in 1849 was carried in an empty Underwood & Company tin can. The emigrants left their trail of tin cans across the country during the 1840s and the roadside camps and trash heaps of the frontier towns added to the rusty litter which has marred the landscape from that day to the present time.

Appendices.....FOODSTUFFS...1851-1891

As the years went on the first crude systems of canning were improved. Hundreds of thousands of cans of food were destroyed and written off as dead losses in the process of learning how to preserve foods without spoiling. New methods of making the tin containers were discovered. Eventually the primitive trial and error methods of canning fruits, vegetables, oysters, lobster, fish and meats of all kinds, gave way to scientific procedures. It was not until the opening of the 20th century, however, that the old-style hole-and-soldered-cap process gave way to the airtight clinched seam cans.

To follow each process through and outline the development of each canning company would be tedious and space consuming. I have inserted this brief resume of canning merely to indicate that from the time Ft. Union was founded in 1851, tinned goods were finding their way into the diet of the soldier, not through his regular army rations but via the sutler's store and outside sources.

Thus, the discovery of tin cans in the debris excavated at Fort Union or, for that matter any of the western army posts of the mid-19th century, does not necessarily indicate a recent deposition of such material. The chronology of these containers may only be determined, to a certain extent, by a careful examination of the techniques of manufacture of the cans themselves.

A few dates in the evolution of tin cans may be useful.

1847 - Allen Taylor, an American, patents a machine-stamped tin can with extension edges.

1849 - Henry Evans, an American, invents a "pendulum press" for semi-automatically making can tops and bottoms and in the same year William Numsen & Son of Baltimore adopt the "combination die" for can making.

1876 - The Hume "floater" is introduced to "float" solder onto the ends of cans as they are rolled along "the Line".

1877 - The first simplified "side seamer" for cans appears.

1880 - The Merriam "joker", first substitute for the tinsmith's soldering iron starts labor troubles between hand craftsmen and machine can-makers.

1890 - Max Ams, of the Max Ams Machine Company, Greenwich Street, New York, is the first to use the European style inside lacquered or coated tin can in America.

1897 - Ams and Brenzinger further improve can by crimping the top and bottom to the body by a double instead of a single seam.

Likewise here are a few more mileposts in the progress of canning in America.

1824 - Lima beans first brought from Peru and planted at Chester, New York by Captain John Harris, U.S.N.

1839 - First attempts to can corn made by Issac Winslow of Maine.

1840 - Canned salmon and lobsters appear at St. John, New Brunswick through efforts of Tristram Halliday and Upman Stowers Treat; canned salmon and lobsters at Eastport, Maine.

Oyster canning begun at Baltimore.

1847 - First tomatoes canned commercially by Harrison Woodhull Crosby of Pennsylvania.

1856 - A patent for condensed milk granted to Gail Borden of Norwich, New York.

1867 - George W. Dunbar of Louisiana attempted to can shrimp but did not succeed in canning it commercially until 1875.

1875 - The first tapered can for corned beef was produced by Arthur A. Libby and William J. Wilson in Chicago.

1876 - The first successful sardine canning plant was put into operation in Maine by Julius Wolff of New York City.

(For further details concerning all ramifications of the canning industry consult, The Canning Clan, by Earl Chapin May, The MacMillan Company New York, 1957).

Appendices .....FOODSTUFFS.. 1851-1891

Although the soldier was allowed fresh beef or pork, it was not always forthcoming and when it did, the inexperienced company cooks usually failed to turn out anything very appetizing. Said John D. Billings who commented at length on the army rations of the Civil War and their methods of preparing:

"I have stated that by Army Regulations the soldiers were entitled to either three-quarters of a pound of pork or bacon or one and one-fourth pounds of fresh or salt beef.....If it fell into the hands of the company cooks, it was fated to be boiled twenty-four times out of twenty-five. There are rare occasions when these cooks attempted to broil steak for a whole company, and they would have succeeded tolerably if this particular tid-bit could be found all the way through a steer, from the tip of his nose to the end of his tail, but as it is only local andlimited, the amount of nice or even tolerable steak that fell to the lot of one company in its allowance was not very large".

Billings also commented on the fact that the men frequently accused the cooks of retaining the choicest parts of the meat for themselves and adds: "Sometimes there was foundation for these complaints".

When the meat rations were served out to the men individually there was the usual growling and grumbling over the condition and size of the piece. Old campaigners favored broiling of fresh meat over the open fire, on the end of the iron ramrod, to any other way of cooking. This was particularly true when in the field.

Billings said: "The 'salt horse' or salt beef, of fragrant memory, was rarely furnished to the army except when in settled camp, as it would obviously have been a poor dish to serve on the march when water was often scarce. But even in camp the men quite generally rejected it. Without doubt

"it was the vilest ration distributed to the soldiers.

"It was thoroughly penetrated with saltpetre, was often yellow-green with rust from having lain out of brine, and when boiled, was four times out of five if not nine times out of ten, a stench to the nostrils, which no delicate palate cared to encounter at shorter range. It sometimes happened that the men would extract a good deal of amusement out of this ration, when an extremely unsavory lot was served out, by arranging a funeral, making the appointments as complete as possible, with bearers, a bier improvised of boards or a hardtack box, on which was the beef accompanied by scraps of old harness to indicate the original of the remains, and then, attended by solemn music and a mournful procession, it would be carried to the company sink and dumped, after a solemn mummery of words had been spoken, and a volley fired over its unhallowed grave.

So salty was this ration that it was impossible to freshen it too much, and it was not an unusual occurrence for troops encamped by a running brook to tie a piece of this beef to the end of a cord, and throw it into the brook at night, to remain freshening until the following morning as a necessary preparative to cooking.

Salt pork was the principal meat ration---the mainstay as it were. Company cooks boiled it. There was little else they could do with it, but it was an extremely useful ration to the men served out raw. They almost never boiled it, but as I have already shown, much of it was used for frying purposes. On the march it was broiled and eaten with hard bread, while much of it was eaten raw, sandwiched between hardtack. Of course it was used with stewed as well as baked beans, and was an ingredient of soups and lobscouse".

Appendices.....FOODSTUFFS.....1851-1891

The troops called this salt pork "sow belly". Sometimes rations of bacon or ham were issued but it was usually black, rusty and strong. If the soldiers managed to get good smoked shoulders they were considered a delicacy.

Note has already been made in this report of the complaints of the salt pork received at Ft. Union and the attempts which were made to make it more palatable by smoking it and the bacon.

The frontier army continued to use the flabby "sow belly" for many years after the War. The troops on the trail fried the meat in their "meat cans" (i.e. individual mess kits) and after removing the pork, crumbled hardtack into the grease and fried it. This was called "lobscouse" or "hishy-hashy" or sometimes "skilly galoo". Onions, corn or any other similar food was sometimes tossed into these if available.

Other items were split peas, potatoes, dried apples and rice. Practically all of these were boiled and usually burned by the amateur cooks. Onions were considered a delicacy when they could be obtained and when cooked were generally fried.

Molasses in scanty allowance was sometimes issued with the boiled rice.

The desiccated vegetables were served individually in the form of cubes about 2 by 3 inches weighing about an ounce and as Billings described it....."had been apparently kiln-dried, as sanitary fodder for the soldiers. In composition it looked not unlike the large cheeses of beef scraps that are seen in the markets. When put in soak for a time, so perfectly had it

"been dried and so firmly pressed that it swelled to an amazing extent, attaining to several times its dried proportions". He then went on to say that when in a pulpy state the strata of the various vegetables could be more or less identified. His main complaint was that there was only "a bare suggestion of onions---they were too valuable to waste in this compound". He concluded his description of this part of the ration:

"In brief, this coarse vegetable compound could, with much more propriety have been put before Southern swine than Northern soldiers. 'Desecrated vegetables' was the more appropriate name which the men quite generally applied to this preparation of husks".

Of all the army rations coffee and the slight allowance of sugar were the prime favorites. Hardtack or hard bread was likewise a standby of the army for many years.

Coffee was issued in the bean and unroasted and frequently unground. The men or company cooks roasted or charred the beans in open pans and then either ground it in small mills or, if no other means was available, lapped the coffee in a piece of tarpaulin, placed it on a rock or board and hammered it with a carbine butt or whatever instrument was handy.

One old veteran of the Nez Perces War of 1877 informed me that the usual ration on the trail was a pint of this black "coffee", fried sow belly and hardtack crumbled and fried in the grease. In order to make the latter more palatable the troopers would form a small pool alongside a creek by damming off some of the water. Into this miniature pond they would all pitch their hardtack. The next morning they fished out the

bloated soggy, leathery crackers and broke them into the hot pork grease. With this breakfast in their bellies the men usually went the rest of the day until evening, unless by some stroke of good luck they stopped long enough to fix a hasty lunch.

Billings said that most soldiers cooked their coffee in a pint or quart can, usually equipped with a handmade wire bale. Said this authority:

"His can soon became as black as the blackest, inside and out. This was the typical coffee-boiler of the private soldier, and had the advantage of being easily replaced when lost, as canned goods were in very general use by commissioned officers and hospitals. Besides this, each man was generally supplied with a small tin cup as a drinking cup for his coffee and water.

The coffee ration was most heartily appreciated by the soldier. When tired and foot-sore, he would drop out of the marching column, build his little camp-fire, cook his mess of coffee, take a nap behind the nearest shelter, and when he awakened, hurry on to overtake his company.....Tea was served so rarely that it does not merit any particular description. In the latter part of the war, it was rarely seen outside of hospitals".

When canned milk was available, such as the Lewis or Borden brands which were sold at the sutler's store, and the men had the money to afford such a luxury, some of the men used it. Because of the scarcity and the expense, however, nine out of ten soldiers preferred to drink their coffee black.

At the western posts similar conditions prevailed. Canned goods were available, usually to the officers who bought them out of their pay and to some of the men in the ranks who splurged on pay day, or if they were successful gamblers, were better provided with funds than their less

fortunate comrades.

A sample bid for foodstuffs to be supplied to the U. S. Army, as issued by the Subsistence Office of the Division of the Pacific, San Francisco, January 30, 1867, included:

Hams of different styles of curing.
Extra Family Flour in 100 lb. sacks.
Hard bread in boxes which were 26" x 17" x 11" each, to contain a uniform amount of hardtack. These were wooden boxes with ends 1" thick, while the sides, tops, and bottoms were to be 5/8" in thickness. All boxes to be well strapped.
White or Bayo beans in sacks, 60 lbs. each.
Prime Rio and Costa Rica coffee
OO-Long Tea
Sandwich Islands brown sugar
Sperm candles of various brands
"Navy Plug" tobacco in 1 lb. plugs

Since hardtack, as well as "sow belly", was one of the common denominators of the soldiers' diet, not only during the 1850s and 1860s but also well into the 20th century (when it was used as an emergency ration while en route on troop trains), it should be described more fully.

Billings, who is perhaps the best authority on the minutiae of soldier life during the 1860s, published his well known book "Hard Tack and Coffee, Boxton 1887, has this to say about the army hardtack, hard cracker or hard bread as it was called;

"It was a plain flour-and-water biscuit. Two of which I have in my possession as mementos measure three and one-eighth by two and seven-eighths inches and are nearly half an inch thick. Although these biscuits were furnished to organizations by weight, they were dealt out to the men by number, nine constituting a ration in some regiments and ten in others;

"but there was usually enough for those who wanted more, as some men would not draw them. While hardtack was nutritious, yet a hungry man could eat his ten in a short time and still be hungry. When they were poor and fit objects for the soldiers' wrath, it was due to one of three conditions. First, they may have been so hard that they could not be bitten; then it required a very strong blow of the fist to break them. The cause of this hardness it would be difficult to determine for one not an expert to determine. This variety certainly well deserved their name. They could not be soaked soft, but after a time took on the elasticity of gutta-percha.

The second condition was when they were mouldy or wet, as sometimes happened, and this should not have been given to the soldiers. I think this condition was often due to their having been boxed up so soon after baking. It was certainly frequently due to exposure to the weather. It was no uncommon sight to see thousands of boxes of hard bread piled up at some railway station or other place used as a base of supplies, where they were not only imperfectly sheltered from the weather, but too often not sheltered at all". (N. B. It will be remembered that only too often were the supplies at Ft. Union thus exposed during the early days of the Post's existence.)

"The third condition was when from storage they had become infested with maggots and weevils. These weevils were, in my experience, more abundant than the maggots. They were a little, slim, brown bug an eighth of an inch in length, and were great bores on a small scale, having the ability to completely riddle the hardtack. I believe they never interfered with the hardest variety".

Billings went on to comment upon the laxity on the part of the army inspectors and the Quartermasters in permitting the weevil and maggot infested crackers to be issued to the troops. He said weevils could be driven out of the bread by heating it at the fire but the maggots wouldn't budge.

"But hardtack was not so bad an article of food, even when traversed by insects, as may be supposed. Eaten in the dark, no one could tell the difference between it and hardtack that was untenanted. It was no uncommon occurrence for a man to find the surface of his pot of coffee swimming with weevils, after breaking up hardtack in it, which had come out of the fragments only to drown; but they were easily skimmed off and left no distinctive flavor behind".

The author then continues his dissertation on hardtack saying that it wasn't until after 1861 that these hard crackers or hard bread, as the ration was then termed, became in army parlance hardtack.

A parody of a popular song "Hard Times Come Again No More" was sung by the soldiers of the Army of the Potomac of which I quote one verse and the chorus:

"Let us close our game of poker
Take our tin cups in our hand,
While we gather round the cook's tent door,
Where dry mummies of hard crackers
Are given to each man;
O hard crackers, come again no more!

Chorus:-

'Tis the song and the sigh of the hungry,
Hard crackers, hard crackers, come again no more!
Many days have you lingered upon our stomachs sore,
O hard crackers, come again no more!"

Some of the soldiers referred to these ubiquitous crackers as "B.C." which meant they were made "Before Christ". (From personal experience I can

vouch for the hardness of these hardtack. Many of us who ate them in 1918 along with our cold canned tomatoes, cold canned "willy" or corned beef, believed that the hardtack issued to us had been held over from the Civil War and probably were "B.C." AW).

Fresh, or soft bread, baked from the flour rations was issued to the troops when in a permanent camp or post. In Washington during the latter part of the War, soft bread to the amount of 16,000 loaves was baked daily in the huge ovens constructed in the vaults under the broad terrace on the western front of the Capitol itself. Other bakeries at Alexandria, Fort Monroe and City Point turned out hundreds of thousands of loaves of fresh bread daily for the troops. In the western posts, such as Ft. Union, ovens were erected and soft bread was baked as part of the daily garrison ration.

Billings in his list of foods comprising army rations stated they consisted of:

"Salt pork, fresh beef, salt beef, rarely ham or bacon, hard bread, soft bread, potatoes, an occasional onion, flour, beans, split pease, rice, dried apples, dried peaches, desiccated vegetables, coffee, tea, sugar, molasses, vinegar, candles, soap, pepper and salt.

It is scarcely necessary to state that these were not all served out at one time. There was but one kind of a meat served at once, and this, to use a Hibernianism, was usually pork. When it was hard bread, it wasn't soft bread or flour, and when it was peas or beans it wasn't rice.

Here is just what a single ration comprised, that is, what a soldier was entitled to have in one day. He should have had twelve ounces of pork or

"bacon, or one pound four ounces of salt or fresh beef; one pound six ounces of fresh bread or flour, or one pound of hard bread, or one pound four ounces of corn meal. With every hundred rations there should have been distributed one peck of beans or peas; ten pounds of rice or hominy; ten pounds of green coffee, or eight pounds of roasted and ground, or one pound eight ounces of tea; fifteen pounds of sugar; one pound four ounces of candles; four pounds of soap; two quarts of salt; four quarts of vinegar; four ounces of pepper; a half bushel of potatoes when practicable, and one quart of molasses. Desiccated potates or desiccated compressed vegetables might be substituted for beans, peas, rice, hominy, or fresh potatoes. Vegetables, the dried fruits, pickles and pickled cabbage were occasionally issued to prevent scurvy, but in small quantities.

But the ration thus indicated was a camp ration. Here is the marching ration: one pound of hard bread; three-fourths of a pound of salt pork, or one and one-half pounds of fresh meat; sugar, coffee, salt.

The beans, rice, soap, candles, etc., were not issued to the soldier when on the march, as he could not carry them; but singularly enough, as it seems to me, unless the troops went into camp before the end of the month, where a regular depot of supplies might be established from which the other parts of the rations could be issued, they were forfeited, and reverted to the government----an injustice to the rank and file, who, through no fault of their own, were thus cut off from a part of their allowance at the time when they were giving most liberally of their strength and perhaps of their very heart's blood.

It was possible for the company commanders and for no one else,

"to receive the equivalent of these missing parts of the ration in cash from the brigade commissary, with the expectation that when thus received it would be distributed among the rank and file to whom it belonged. Many officers did not care to trouble themselves with it, but many others did, and----forgot to pay it out afterwards. I have yet to learn of the first company whose members ever received any revenue from such a source, although the name of Company Fund is a familiar one to every veteran.

The commissioned officers fare better in camp than the enlisted men. Instead of drawing rations after the manner of the latter, they had a certain cash allowance, according to rank, with which to purchase supplies from the Brigade Commissary, an official whose province was to keep the stores on sale for their convenience. The monthly allowance of officers in infantry, including servants, was as follows:

Colonel, six rations worth $56, and two servants.
Lieutenant-Colonel, five rations worth $45, and two servants.
Major, four rations worth $36, and two servants.
Captain, four rations worth $36, and one servant.
First and Second Lieutenants jointly, the same as the Captain.

In addition to the above, the field officers had an allowance of horses and forage proportioned to their rank".

In a great measure many of these observations made by Billings on the life of the soldier during Civil War days, although descriptive of the armies in the field east of the Mississippi, were true of the conditions that existed in the field on the western frontier and in the fixed Posts and camps.

When one examines the contracts made by the Commissary-General of Subsistence for the posts in New Mexico, Arizona, Texas, etc., down into the 1870s and 1880s, one finds the same monotonous list of supplies needed such as

Fort ... National Monument
Watrous, New Mexico 87753

pork, bacon, fresh beef, salt beef, flour, hard bread, cornmeal, beans, pease, rice, hominy, coffee green, coffee roasted, sugar, vinegar, candles, soap, salt and pepper.

In 1879 the Depot Commissary at Cheyenne, Wyoming, reported:

"Large quantities of canned beef and tongue are annually consumed by travelers across the plains, ranchmen and others, in addition to the large quantity purchased for the use of the Army by the Subsistence Department." (Report of the Secretary of War, vol. 1, 1879-1880, 2nd Sess. 46th Cong. Washington, 1879, p. 397).

The matter of sales of surplus rations and the depositing of the resultant accumulated money in the Company or Post Funds to which Billings refers, dates back to Army Regulations of 1835. Down the years the manner of spending this money was a matter of debate in military circles. The purpose of the regulation concerning the accumulation of these funds was to enable the soldier to have enough food of the kinds he desired. In the years that ensued, however, the company fund was expended in a variety of ways.

Under General Orders No. 24, Headquarters of the Army, Adjutant General's Office, 1878 and amended by G. O. No. 19,1881 the objects to which a Post Fund might be applied consisted of:

1. Expenses of a bake house
2. Garden seeds and utensils for all troops serving at the post.
3. Post Schools
4. Library and reading rooms
5. Gymnasium
6. Chapel
7. Fruit and shade trees
8. Fruit-bearing vines and bushes
9. Printing Press

Appendices..... FOODSTUFFS 1851-1891

Money from the Regimental Fund might be expended upon:

1. The maintenance of a band
2. When not needed for a band it might be allotted equally to the Companies on Post for the Company Funds.

The Company Funds could be spent for:

1. Enlisted men's mess
2. For garden seeds and utensils
3. For such exercise and amusements as may be, in the judgment of the company commander, for the benefit or comfort of the majority of the enlisted men of the company.

The medical men and the officers of the Commissary Departments at the various Posts believed that the funds thus accrued should be spent only on extra foods.

A survey of a number of regiments, cavalry and infantry, both colored and white, was conducted over a period of seventeen months, January 1, 1879 to May 31, 1880, to determine how the various units had spent their Company funds.

The results showed that the soldiers bought everything from table furniture to firecrackers and the money. Other items listed were aprons, balls, banjos, bats, barrels, basins, shoe blacking, books, bones (for minstrel shows), calico, candle-sticks, can-openers, cigars, coffin-tacks, dishes, dominoes, engines, fish-hooks and lines, silver-plated forks, iron forks, knives of both kinds, guitars, ovens, padlocks, pens of all kinds, mirrors, mouse-traps, pitchers, plates, platters, etc., etc.

Among the "foodstuffs" purchased were other odds and ends of which the investigating committee said:

"The following articles are also reported as paid for from the company fund, whose classification as necessary articles of food is at least

"doubtful: Beer, brandy, candy, candles, garden seeds, nuts, olive oil, soap (Castile and hard) whiskey, wine and expressage on food and other articles; and not always were such articles bought in trifling amounts".

The committee also reported:

"For articles other than food, each colored regiment expended more than any white regiment. Indeed, the thirty-two colored companies expended for such purposes $1,842.29 or $559.94 more than the forty-six white companies, which thus expended $1,282.35".

Thus it will be seen that the system of maintaining a Company Fund continued long after the Civil War and the money thus raised was spent for a variety of items. Judging by the amount of miscellaneous material represented in the debris excavated around Ft. Union, many of these non-military objects might well have been purchased by the troops from their company funds as well as by private expenditures. Whereas the officers and their families did have better furnishings, some of the objects such as stray bits of good chinaware, wine bottles, dominoes, etc., may well have been among the items listed as having been bought by the troops in the report for 1879-1880.

When a company was broken up or ordered to move, it was customary for the mess sergeant to provide a sumptuous banquet for the enlisted men, which was paid out of the company fund. Similar feasts were paid for in the same manner at Christmas, Thanksgiving, New Year's, etc. At these times the men ate the finest foods, drank the best liquors, whiskey, wine, champagne and smoked the most expensive cigars. By company vote the funds could also be expended upon presents for outgoing officers (providing they were popular with the men) and for presents for the Post children at Xmas.

In short, the Company Funds properly administered, afforded the man in the ranks many little luxuries he could not otherwise enjoy. There were times, of course, when the administrating officers and non-coms connived to short-change the boys. By the same token, a non-commissioned officer in charge of the company mess, through a surreptitious agreement with civilian storekeepers in nearby towns, could cash in by selling parts of the rations at reduced prices and pocketing the proceeds. By accepting inferior foodstuffs, at high prices he and the merchant were the only ones who profited. Occasionally some sergeant or officer became too greedy and the men rebelled when their meals fell below even army par.

I have already indicated that during the first years of the establishment of Ft. Union, military cooking was quite haphazard. There were no trained cooks or bakers. The cooks were appointed by the commanding officers of the various companies when the outfits were billeted in permanent camps and posts. In the field it was every man for himself, or by mutual consent a small group of men might form a mess with one of their number assigned to cook the meals for a certain length of time. Only in the hospitals were the meals more or less regulated by the doctors in charge. The best foods went to the sick and wounded.

By the middle 1870s the problems of camp and field cooking were being more seriously considered by the military. In 1876 the Commissary General of the Army writing to the Secretary of War said:

"I am of the opinion that the efficiency of the Army would be materially increased and desertions lessened, were a cook enlisted for each company with extra pay, say $4 in excess of the pay of a private, and

"schools for the instruction of cooks established at the recruiting-depots at Fort Columbus, New York, and Columbus Barracks, Ohio".

The same author likewise said:

"I also think that bakers should be specially enlisted, paid extra-duty pay, say $4 per month, and assigned to posts as commissary-sergeants. I recommend that should schools for cooks be established at recruiting depots, bakers should also be instructed at the same schools".

As a direct result of this recommendation, the Secretary of War called the matter to the attention of the President in the former's report to the Executive of the Nation in 1879. G. O. No. 117 issued by the Adjutant General's Office in 1877 authorized a board to investigate the matter of army cooking and to prepare a manual for Army cooks. The Board Commented:

"The Army needs the enlistment of men who have an aptitude for cooking and the establishment of a school for their education in the economy of the kitchen.

„Extra compensation is allowed to enlisted men when on duty as mechanics, artisans and laborers, when performing such work, but none to the company cook, whose duty is conscientiously done, is the most onerous performed by the enlisted man. Eight hours is the time fixed for the labor of extra-duty men, who are rated and paid as such. The duties of the competent and conscientious company cook commences two hours before reveille, and frequently are not concluded before tattoo.

"An important aid to good soldiering is good cooking. This cannot be obtained without good cooks, and good cooks cannot be obtained without education and adequate compensation, etc. etc".

(Report of the Secretary of War, vol. 1, 1879, op. cit. pp.389-90).

Even with such recommendations matters dragged on and as late as 1886-1887 the authorities at the top had not seen fit to establish the schools for cooks and bakers. Congress as usual was too busy politicking to look after the welfare of the soldiers. R. Macfeely, Commissary-General of Subsistence, in his report to the Secretary of War 1886, said:

"The Army of the United States is provided with a ration ample in quantity, and excellent in quality that has been demonstrated in war as in peace; but the articles composing it are furnished in the raw state and must be further prepared by the cook or the baker. Bake ovens, kitchens, ranges, cooking stoves and utensils are now provided by the Government, but no adequate provision has been made for their use in the best manner.

Everything is provided save one, and that one is the skilled hand absolutely necessary to transform the raw materials into good wholesome, palatable food, the cook or baker".

In his report for the same year the Adjutant-General of the Army reporting on desertions during the year said:

"The number of desertions occurring in the division during the year is less than for many years past. Under the present system of general recruiting, the five year's term of enlistment, and with the present ration too small and illy cooked, it is doubtful if the average of desertions from the Army will ever be much reduced".

(Report of the Secretary of War, 4 Vols. Message and Documents, 2nd Sess. 49th Congress, Washington 1886, pp. 139; 576).

Even at the time of the abandonment of Ft. Union in 1891 there were no specially trained cooks in the garrison kitchens. In 1894, Lieut. C. J. T.

Clarke, 10th U. S. Infantry in an article The Post Mess which appeared in The Journal of the Military Service Institution, May 1894, stated:

"Many of us know from experience how the present method of making cooks by detail works (although a step in the right direction was taken when extra pay was authorized for these artists) and how it is more often 'pot luck' than any other phase of good fortune, which brings a good cook to the kitchen".

I might add that in the 20th Regular Infantry in 1918, although we had regular cooks and a mess sergeant who presided over the kitchen staff, including the K. Ps., there were times when the cooks, exercising their prerogative to drink all of the flavoring extracts in the mess supplies went on roaring drunks. At such times they were hustled off to the guardhouse and the captain, entering the squad room simply pointed his finger at the nearest man and said, "You! Report to the kitchen as cooks". One man was a jeweler, the other had been a plumber, but for the time being they were cooks!

The kitchen paraphernalia used in Ft. Union was the same as that in use in all other Army posts. In the beginning it was very simple and consisted of a few sheet iron pans, iron kettles, frying pans, baking pans, coffee pots, ladles, spoons, cleavers, butcher knives, etc.

The Quartermaster Department supplied these accessories as well as the heavy white ironware and light tin plates and cups used in the company or troop mess halls. In addition of course, each man carried with him in the field his tin plate, tin cup, iron or wood handled knife, fork and spoon. The tin cups held about one pint and were made of a galvanized metal which resisted rust to a fair extent. Such cups were either stamped

"U.S." in the bottom or on the handle. In the field the individual cups and plates became cooking utensils, sometimes supplemented by larger mess pans and kettles carried on mule back or in the company wagon in which the appointed cook prepared the meals for the company or troop.

Mess pans supplied to the Army in 1880s were made of #24 "bloom iron" and the upper edges were turned over on #9 wire to form a rim. These pans were 11" to 12" in diameter at the top, the sides sloped downward, and the bottoms were 8" in diameter. These pans were 5-1/2" deep. The seams on each side were lapped closely and neatly set. They weighed 2 lbs. each.

The camp kettles were made in nests of three and were likewise made of #24 bloom iron while the edge was turned over #7 wire. The handles were of iron and were 1/4" round. The largest size kettle was 12" dia. and 11-1/2" deep. The medium size was 10-1/4" dia. and 11" deep, while the small size was 9" dia. and 10-3/4" deep. Each kettle had a handle hooked onto the outside so as to hang about 2-1/2" from the top. There were seams, and bottom, lapped over, closely and neatly set.

The iron pots were made of the best quality cast iron, bulged shaped, with flaring rims. The handle was suspended from cast iron lugs and the pot was supported by three legs each 3-3/4" long which were cast as part of the pot. The handle was of 3/8" round iron measuring 30" from lug to lug. Each pot weighed 36 lbs.

These pots, pans and kettles were adopted in 1884-1889, but similar ones had been in use since the 1850s.

The table-ware used in the company mess hall was of the type which had been in vogue in the army since the 1850s. The bulk of it was the heavy,

thick walled, white ironstone-ware. Some of it was imported from England.

Among the British wares which were used at Ft. Union were those manufactured by these firms:

WILLIAM ADAMS ..... Turnstall, England.

(This firm began manufacturing as William Adams & Son 1834-1850. The first pieces were usually decorated in light blue but after 1860 they made many of the popular white wares. The Ft. Union specimens marked by the Adams stamp were probably made after 1860 and between that date and 1885).

EDWARD CHALLINOR .....Fenton, England.

(E. Challinor bought a Burslem pottery, the Bourne factory around 1843. His ironstone-wares cover the period 1845----1885. The specimens marked with his name at Ft. Union are probably of the 1870s--1885 period.)

JAMES EDWARDS & SON ..... Burslem, England.

(This firm began making ironstone-ware sometime in 1825. Both James and Thomas Edwards made these wares. In 1842 James established himself at Dale Hall (Fenton) and marked his first wares "Edwards, D. H." Later it was "Edward & Son, D. H." James died in 1882 and his son continued making ironstone-ware under the name "John Edwards" using a trademark featuring three plumes. A serving platter found at Ft. Union bears the printed stamp "James Edwards & Son, Dale Hall" with an anchor trademark below. The Ft. Union specimen probably dates between the 1860-1882 periods.)

J. AND G. MEAKIN ..... Hanley, 1848, England.

(One of the best known British firms manufacturing ironstone-ware was founded at Longlin in 1845. Moved to Hanley 1848. The firm's "eagle works" were built in 1859. The firm became Meakin, Ltd., in 1895 and still manufactures the ware. The Ft. Union specimen noted is part of a plate and is stamped J & G Meakin. Probably between 1860s and 1880s.)

GEORGE JONES ..... Stoke-on-Trent

(Firm established in 1861. The fragment of plate from Ft. Union dates after this period, probably late 1860s or even 1880s. It is also stamped with the name of the American importer, "W. Vollbrecht, Dayton, Ohio".)

Appendices ..... FOODSTUFFS 1851-1891

ANTHONY SHAW ..... Burslem

(The firm of A & J. Shaw were potters at Tunstall and Burslem in the early 1800s. Anthony Shaw was still making ironstone in the 1880s. The specimen at Ft. Union marked "Stone China, Anthony Shaw, Burslem" is probably from the 1870s--1880s.)

LEA, SMITH & BOULTON

No data on this mark.

No doubt other marks will be discovered as the bulk of the specimens is cleaned and restored. These few, however, serve to indicate the amount of imported crockery used by the army during the 1860s through the 1880s. Some of the ware found at Ft. Union are of a more delicate nature than the heavy, utility ironstone bowls, plates, cups, serving platters, saucers, vegetable dishes, etc. A word of warning to those who seek to determine the places of origin of some of this ware. After 1850 some American firms learned to make good ironstone-wares and in order to secure better sales, these companies frequently stamped their wares with pseudo-English marks, accompanied by the initials or name of the firm but omitting the place of origin. At times these imitation British stamps will have an eagle replacing the royal crown. This practise continued until about 1891, the year Ft. Union was abandoned.

In 1885, Bvt. Major William F. Spurgin, 21st Infantry, in his article (How to Feed the Soldier, Journal of the Military Service Institution, June 1888) described the average army mess at a well established post:

"The work of the mess is usually performed by one non-commissioned officer in charge, two (2) cooks, who serve without extra compensation, other than such as their comrades in the company may voluntarily pay them, and one or more men detailed daily to assist the cooks, and denominated "kitchen police".

Appendices .... FOODSTUFFS, ETC. 1851-1891

"The food is served on plain deal tables, the men sitting on benches and eating from tin plates and tin cups, or from ironstone-ware according to the state of the company's finances, the company mess kit, other than the articles furnished by the Ordnance Department, being purchased from the company fund. The rations, owing to the excellent administration of the U. S. Subsistence Department, are invariably good. Sometimes they are excellently, and again, inferiorly cooked and served; the degree of excellence depending upon the ability and carefulness of the cooks for the time being."

Major Spurgin then continued to recount the problems facing the army in connection with the rations, the bakery use of surplus flour to provide money for the Company Fund.... and the "company receiving in lieu thereof a ration of bread for each ration of flour, whilst the profit accruing to the bakery in transforming the flour into bread, and estimated usually at 33-1/3 per cent, goes not to the Company Fund, but to the Post and Regimental Funds----fifty per cent to each, a loss to the company of one-third the value of the flour ration, but a loss under the present system necessary to the end that the companies may be supplied with wholesome bread".

He also commented on the post gardens of those Posts fortunate enough to have good soil and sufficient water to grow crops for the benefit of the troops. He also spoke of the need of an experienced officer to handle properly the company funds accruing from the profitable sale of surplus coffee and bacon rations.

Major Spurgin then outlinedwhat he considered should be the most favorable improvements in the establishment of a garrison mess in lieu of separate company messes at each Post. He said that a sufficiently commodious

mess hall furnished with tables and benches or Army chairs, ample for the accommodation at one sitting of all enlisted men of the garrison with a kitchen of sufficient capacity to do all the cooking, etc., etc.

Furthermore: "The Quartermaster's Department, under the head of Camp and Garrison Equipage, should supply (as it now supplies mess-pans, camp-kettles, ranges, etc.,) all tableware required for the mess, issuing the same on approved requisition to the officer in charge of the mess to be accounted for and disposed of as other Government property.

"The basis of the requisition should be, for each soldier: one quart bowl, one dinner plate, one teaspoon, one knife, one fork, and one tumbler; and for every ten men, one meat platter, two vegetable dishes and one each: water-pitcher, salt-cellar, pepper-box, carving-knife, fork and steel, soup-tureen or large bowl, syrup-pitcher and two tablespoons. The knives, forks and spoons should be of a quality superior to such as are now furnished for field service, whilst the dishes should be of the heaviest American hotel china, firsts, the same being more desirable every way than ironstone-ware, and costing about the same as the best quality of the latter".

Ironstone china at that time (1880s) cost but little, for example, plain 9" plates were 62-1/2¢ per dozen, wholesale; one-half dozen oval vegetable dishes were from 48¢ to $1.04; mugs were 7¢ each; pitchers 10¢ and 15¢ each, etc., etc. The better grades were more expensive but in comparison to the prices charged today they were quite inexpensive.

It is quite evident that much of the ironstone-ware found at Ft. Union which includes cups, bowls, plates, covered tureens, saucers, pitchers, large and small, was all of the heavier ceramic wares.

There were, however, many pieces of pure white ware of a thinner and finer kind in addition to some of the typical colored transfer patterns in blue, pink, yellow, etc., tableware of the 1860s-1880s.

By careful washing, and matching, many nearly complete pieces of tableware can be assembled to provide good examples of the kinds of table furnishing used not only in the company messes but also in the hospital and private residences. A few of those were assembled by the writer in September, 1957. These pieces were widely scattered throughout the cartons and the fragments of the broken dishes, cups, bowls, etc., were seldom found in one box or sack. Hence, in order to make proper restorations these fragments now unassembled, will have to be washed and laid out together, then mended. These items will then provide plenty of good exhibition material and also be surplus for trading or study material. All makers' marks should be recorded. I am certain that by so doing more information on the various manufacturers of ironstone-wares can be compiled than has hitherto been possible.

The knives and forks used in the 1860s--1880s at the army posts, aside from those issued to the troops, which were generally with iron handles, were the same as those used in civilian life. The teaspoons and tablespoons were of double plated tin and also of tinned iron of the simplest pattern. There were the long handle basting spoons with flat handles 8 to 20 inches in length and solid tinned basting spoons with forged handles of the same dimensions.

During the 1870s--1880s the table knives (aside from the more expensive ones of silver and silver plate) had sturdy hafts of moulded iron

or were of wood plain, or inlaid, with german silver or lead composition. These hafts were of black ebony and other hard woods as well as bone. Those with the iron handles were Black Japanned when new. Many of these common items changed styles but little during these years.

There was a tendency in the late 1870s and early 1880s toward over-ornateness in the better class table furnishings. The mess tables of the common soldiers were not set with these articles but one may be certain that the furnishings in the officers' homes were of a different nature. Cherished family heirlooms and new wedding gifts accompanied the army women to their austere and often ugly accommodations in the frontier army posts.

Hence one might expect to find spoons, knives and forks of good quality, thin dinner ware, silver or gleaming Britannia ware, casters holding the vinegar and oil cruets, as well as the salt and pepper shakers, or the wire casters with fancy bottles with either plated or Britannia tops. Portions of these have been found in the Post excavations or on the surface, battered and tarnished beyond all resemblance to their original condition.

There were thin wine glasses, heavy water tumblers and pressed goblets; half of one which was found bears a trailing leaf design on stippled background of the 1870s.

Appendices ..... CAVALRY EQUIPMENT --- 1851-1891

During the early years of the American army our cavalry regiments developed slowly. Prior to the Civil War we had mounted troops but these were known variously as Dragoons and Mounted Rifles and Cavalry. The First Dragoons were organized in 1833 and the Second Dragoons in 1336. The Mounted Riflemen, or Rifles as they were frequently called, were formed in 1846. In 1855 the First and Second Cavalry regiments came into the service and in 1861 the Third Cavalry joined the other mounted units. These were the only regular army cavalry regiments at the outbreak of the Civil War, then came the deluge of volunteers and by the end of the war there were some 80,000 men in the saddle on the Union side. After the war all of the volunteer outfits were mustered out leaving only the regulars. There was, however, a change in nomenclature which came about in the spring of 1861. The two regiments of dragoons were abolished as such and these became the 1st and 2nd U. S. Cavalry, the Mounted Riflemen became the 3d Cavalry, while the old 1st, 2nd and 3d Cavalry became known as the 4th, 5th and 6th Cavalry. During the Mexican War a regiment of 3d Dragoons was formed but was mustered out of service at the close of that conflict and was never reorganized.

Thus, in the opening years of Ft. Union's existence, the only regular mounted troops serving on the western frontiers were the Mounted Riflemen and the 1st and 2nd Dragoons, being joined in 1855 by the 1st and 2nd Cavalry.

Immediately after the war the cavalry forces of the regular army were increased and in July 1866 four more regiments of horses were authorized; these were the 7th, 8th, 9th and 10th. The latter two outfits were all Negro troopers with white officers. The 10th Cavalry received the nickname

"Buffalo Soldiers" because the Plains Indians saw in the curly Negro hair a strong similarity to the equally curly buffalo wool.

Over the ensuing years the cavalry policed the wild lands beyond the Mississippi until at last the buffaloes were gone and the Indians gave in because with the passing of the huge shaggy beasts went all of the old way of living for the free horsemen of the plains.

Naturally every military commander who ever found himself in Indian territory had his own opinions as to the best means of combating the enemy. Consequently the arguments pro and con for the best troops for the job raged for years in the western garrisons. Some authorities maintained that cavalry was the only arm of the service that could do the job properly while others, like General William B. Hazen, writing in April 1878, argued the other way:

"In our present service the horse merely acts as a transport to a foot soldier, as, from the nature of our service, all fighting is done on foot". Being an infantryman, General Hazen naturally stood up for his own branch of the service. After more discussion in which he pointed out the various reasons why the cavalry were not as useful as the infantry, he concluded:

"The Indian is also always known to be mounted, which appears to call for a mounted adversary, than which there could be no greater error, as the Indian holds our mounted soldiers in contempt, while he gives our foot-troops a wide berth".

(Reorganization of the Army, Report of a sub-committee of the Committee on Military Affairs, Washington, 1878, pp. 454-55).

At Ft. Union both kinds of troops were stationed during its forty years of existence. Before the Civil War the regular units were there

including the Dragoons and Mounted Riflemen as well as infantry. During the War volunteer cavalry and infantry used the Post as a base. In later years more regulars called Ft. Union the home fort. Consequently many of the broken, lost or discarded bits of equipment, uniforms, insignia and weapons once belonged to foot slogging infantrymen and hard-tailed cavalry "yellow legs". In discussing the equipment I have divided the section into the various items used by the cavalry over the four decades of activity. As I have remarked previously, it is not possible to divide the uniforms, saddles, bridles, buttons, insignia, etc., into precise chronological sequences by decades. The reason is obvious, many of these items survived for indefinite periods of time. There were minor changes, of course, but where these occur I shall mention them, providing there seems to be a reason for so doing.

SADDLES:

Of all the cavalryman's gear, the saddle was the most important piece of equipment for both mount and rider. Many types of saddles were tested, adopted and later discarded for one reason or another. As with everything used in the army, each saddle that was issued found its adherents and opponents. Men of equal lengths of service in the cavalry argued fiercely, verbally and in print, over the relative merits of the California stock saddle, the Grimsley, McClellan or Whitman. These were the four major types of saddles that saw service with the troops at Fort Union.

THE GRIMSLEY

The inventor of this saddle which bore his name, was Col. Thornton Grimsley, son of Nimrod Grimsley, a Virginian who moved from Fauquier County to Bourbon County, Kentucky, in the late 18th century, where Thornton was

Appendices.... CAVALRY EQUIPMENT 1851-1891

(THE GRIMSLEY CONT'D.)

born August 20, 1798.

Nimrod died in 1805 as did his wife, and left eight orphaned children. Thornton was only seven. Three years later he was apprenticed to a saddle maker for whom he worked eleven years, during which time he only received three month's schooling.

In 1816 he went to St. Louis in charge of some merchandise for his master. He served out his indenture in that city and after his twenty-first birthday, returned to Kentucky for another six months education. Afterward he returned to St. Louis and took charge of his old master's business for a period of fourteen months, at the expiration of which in 1822, he went into business for himself.

As the years went by Grimsley made a decided success of his business and persevered in spite of reverses through fire and weak health. He entered politics and was elected alderman of St. Louis in 1826. He became a member of the State Legislature in 1828 and after his term expired, again ran for alderman and was elected in 1835. In 1832 he had raised a company of volunteers for the Black Hawk War. He was offered a commission as captain in the Dragoons in 1836 but refused it. In 1838 he became State Senator.

When the Mexican War broke out in 1846, he enrolled a regiment of 800 men and offered it and himself as leader to the State; but Thornton was on the wrong side of the political fence at the time and he saw his outfit march off with another man of the governor's own political persuasion leading it.

All during these years he had been making saddles and other horse gear. In 1840 he brought out his military saddle which was to be the official

army saddle for the ensuing two decades.

Grimsley's saddle and harness business brought him an income of some $300,000 a year by 1860. He had been in business thirty-seven years. He had sired a family of ten children but when he died in St. Louis, Dec. 22, 1861, he was survived by only two married daughters and his son John.

An army board consisting of Brig. Gen. S. W. Kearney; Q. M. General Thomas Swords, Maj. Philip St. George Cooke of the 2nd Dragoons, Bvt. Lieut. Col. C. A. May, 2nd Dragoons and Capt. H. L. Turner, 1st Dragoons, was appointed in 1847 to pass on the merits of this saddle. Grimsley was not the actual inventor of the saddle. General Kearny is said to have suggested many of the best features which Grimsley, in making the saddle in his St. Louis shop, incorporated along with others. Prior to its official adoption in 1847 the saddle had been tested earlier, and in conformity with the custom of the day, the name of the manufacturer was given to it.

The general features of the Grimsley were given in the Board report:

"Combining strength, durability, peculiar fitness to the horse's back and convenience for military fixtures, this pattern more than any other yet furnished for Dragoon service, gives an erect posture and easy seat to the rider, at the same time little or no injury is done to the horse's back on the longest marches. Some of the members of the board have had the fairest opportunity of testing the merits of this saddle, having used it on marches of more than 2,000 miles in extent.....

In outward appearance this saddle resembles more the French Hussar saddle, than any other with which the board is familiar; ..... the forks of the high pommel and cantle are, in every case; and under all circumstances of reduced flesh, raised above the withers and the back bone of the horse..... Quilted seat, sewed down, and leather skirts to protect the blanket (on which

"the trooper rides on service), and the pantaloons of the rider, from the sweat of the horse. Also small underskirts to protect the sides of the horse from girth buckles.

Stirrups: Brass, and of the same pattern as those furnished the First Dragoons in 1834".

The many features mentioned in the report of 1847 will be noted by referring to the photographs of the Grimsley saddle, formerly the property of Captain James Duncan of the 2nd Artillery who graduated from the U. S. Military Academy, July 1834, served in the Seminole Campaign 1835-1838 and in various other places on the frontier until the outbreak of the Mexican War, during which time he served with distinction and was breveted Colonel for gallant and meritorious conduct in the battle of Monterey. He died at Mobile, Ala., July 3, 1849 at the age of 36.

Here are seen the brass stirrups, the quilted seat and sweat pads and saddle skirt. The Grimsley was characterized by the peculiarly shaped pommel and cantle, features which were altered somewhat about 1855. The rims of the cantle and pommel were bound with brass, the leather was black and the stitching of the quilted seat was ornate with a floral pattern.

A pair of brass bound saddle holsters was slung across the saddle in front of the rider.

To the rear of the cantle were fastened two iron rings and five foot staples, also of iron, to which the officer fastened his black leather valise in which he carried his blanket, spare clothes, etc.

The ordinary trooper's saddle was less ornate in the quilted seat, which was tacked to the wooden frame with large brass headed tacks. There were four iron rings and two iron foot staples with a slender iron bar connect-

ing them and at either side of the pommel were iron rings.

In 1855 certain modifications were made in the tree. The pommel and cantle arches were made less erect. Said one writer:

"Whilst the original model, by the uprightness of the cantle and pommel, confine the soldier to a fixed and more perfect position, the saddles recently received, by the unnecessary sloping of the cantle and pommel, admit a freedom and play in the seat which not only fatigues the rider, but allows him to throw his whole weight at times upon the very slope of the cantle, etc."

Colonel Albert Sidney Johnston, Second Cavalry, 1856, was one of those who defended the Grimsley, saying that the critics who condemned the Grimsley for making the horses' backs sore, might better have been directed to the untried riders and the ignorance of the soldiers as to the proper adjustment of the saddle.

Col. E. V. Sumner, who founded Ft. Union, wrote in 1858:

"I agree with Major Sedgwick in this report but I am convinced from long experience, and close observation, that the Grimsley saddle and bridal (old pattern) are the best and most durable, neatest and cheapest equipment that we can get for the Cavalry. With sufficient care, this saddle will rarely injure a horse's back, and, without care all saddles will injure them. I have used one of these saddles since 1844, and I consider it by far the best saddle I have ever had. The exceptions that are made to the McClellan by those recommending them are sufficient to condemn them".

(Col. Sumner's remark concerning the McClellan in 1858 referred to some of the new equipment then being tested by the army upon the recommendations by Capt. George B. McClellan who submitted his new model saddle in 1856. The Board authorized trial specimens of the saddle to be made for testing in the field in 1857).

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Between the first Grimsley, about 1840, and the first McClellan, 1856-1857, there were several other types of saddles which were tried out experimentally by the army. These shall be taken up in the order of their appearance.

The Grimsley, while finally being gradually ousted in favor of the McClellan, lingered on for a number of years, being favored particularly by the older officers who had become accustomed to it. Many photographs of the Civil War show the Grimsley being used. (The paintings by Carlos Nebel of the Mexican War scenes 1847, also show the Grimsley, one in particular is the Bombardment of Vera Cruz in which a saddled horse with a Grimsley saddle is plainly indicated in the foreground).

Even in the 1870s and 1880s the Grimsley was occasionally seen at the posts in New Mexico, Arizona, and Texas.

Captain Charles King in his novel "A Trooper Galahad", Philadelphia, 1899 describes a scene at Sunday morning inspection at Ft. Worth, Texas, c. 1871, in which he portrays the hero of the tale as appearing:

"On a bright blooded bay, with jet-black, waving mane and tail, and forelock, superb head, shoulders and haunches and nimble legs, all handsomely set off by a glistening bridle with double rein, martingale, glossy breast-strap and polished bits, curb-chain, bosses, rings and heart with the regimental number in silver on the bosses and at the corner of the handsome shabraque of dark blue cloth, patent leather, and yellow edging and trimming of the cavalry.

'The only outfit of the kind at Worth', said Brooks emphatically, 'And yet, gentlemen', he continued, seeing latent criticism in the eyes of

"of the circle, 'it's all strictly in accordance with regulations, and just was we used to have it in the old days before the war. I wish we all had the same now. I haven't seen a Grimsley outfit since '61'.

'Grimsley it is', said a veteran captain of the light battery. 'Mine went to Richmond in '61 with what we didn't save of our battery at First Bull Run'."

The author then continues his comments on the equipment with the officers swarmed around the owner of the Grimsley equipment after the parade. Barclay, the hero: "answered with perfect good humor, that he had ordered the equipments of the old firm of Grimsley still doing business in St. Louis, as it did in the days when Jefferson Barracks and Leavenworth and Riley were the famous cavalry stations in the '50s".

Although the author is writing a novel, his descriptions of army life are drawn from intimate knowledge growing out of long years of service and commenting further King said:

"Very few officers in those days possessed anything better than the regulation troop bridle and raw-hide McClellan saddle, which with their folded blankets satisfied all the modest requirements of the frontier. The light-battery man indulged in a little more style and had the picturesque red blankets to help out.....".(pp. 85-87).

It will be noted that on the saddle of Capt. Duncan there is attached a small brass shield. These were attached giving the number of inches in the seat. One or two of these shields have been found around Ft. Union.

The schabraque mentioned by King was a regular piece of saddle equipment used by the cavalry. It was adopted from the French and was a dark blue woolen covering thrown over the saddle and worn by the officers

only.

This piece of cloth was called the saddle housing. From 1841 to 1858 it was used by staff officers only. It was dark blue and edged with gold galoon, the number of rows of galoon and their arrangement indicating the rank of the rider. Scarlet was for the edging used for Artillery, dark blue for Ordnance, light blue for Infantry, orange for Dragoons and green for the Mounted Riflemen. A plainer schabraque was worn on the saddle of the general officers. It was of the same shape and had the numeral denoting the regiment in the trailing pointed corner of the cloth. The edges of the slits through which the stirrup leathers passed were bound with black leathers.

The troopers of this early period used saddle blankets of plain dark blue cloth "folded in four equal parts, the edges on the left side, the large fold on the withers". The girth or cinch, was single and both it and the surcingle were made of indigo blue worsted webbing. The privates had two holsters of black leather, the left one held the heavy pistol, the right one was for the grooming articles. Even as early as the 1840s the blankets bore the U. S. on them. The Grimsley, as indicated, remained regulation until 1858 but as I have stated previously, it continued in use by some officers until much later.

OTHER EXPERIMENTAL SADDLES:

During the period when the Grimsley was the official saddle, several experimental models were introduced and tried out. Again, there were men who favored them and others who would have no part of them.

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THE HOPE OR TEXAS SADDLE

This saddle was tried out 1855-58 by various officers and men. Captain George Stoneman, Second Cavalry stationed at Camp Cooper Texas, 1857, said:

"Hope's, as compared with Grimsley's fits the horse much better forward, but aft not so well, the withers are relieved from much liability to injury, a very great desideratum..... The cantle, that worse than useless protuberance for short legged men, is dispensed with,.....instead of that quilted, padded, semi-soft hot pile engendering heat, we get a smooth, hard, open, cool locality for that part of the trooper which sufferes most, particularly with tyros in equestrianism, and the dragoon when he is at the end of his first enlistment is little more.

The bars appear very well shaped, and better in front than in rear.....To use a nautical expression, with the present bearing and the usual cargo aboard, the craft is loaded too much by the stern.....Whoever invented Hope's saddle hit very nearly the California vaquero saddle, and wherein he differed from it he has failed".

Apparently the Hope saddle was but a modification of the Mexican or California saddle which indicated it had the slender necked pommel in front. Col. A. S. Johnston, 2nd Cavalry, wrote from San Antonio in 1856 giving his opinions on the Hope:

"The tree conforms generally to the horses' back, and readily adapts itself to his different conditions. Its equipments are simple consisting of two pouches, wooden stirrups and stirrup leathers, the Mexican girth, etc. The saddle with these equipments weighs fifteen pounds and costs $23.00".

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Lieut. Col. J. E. Johnston wrote from Lecompton, Kansas Terr. in 1856 and said that all the officers stationed in the field in Kansas who had been able to secure a Hope, had done so..."except that they have the California tree instead of Hope's.....I think it is better for our service than either of those now furnished by the Government."

Captain Earl Van Dorn, 2nd Cavalry, later to become one of the leaders of the Confederacy, favored the Hope in principle but didn't like "the uncultivated conceit of the Mexicans and attaching a parcel of dangling leathers and strings that can be of little use. The leather hangings to the stirrup are superfluous and ugly. (The captain referred to the trailing pointed flaps of leather of the tapaderos which covered the stirrup AW). The soldiers' boot and thick stockings should be protection enough for his foot. As far as my taste is concerned, I don't like the finish of the saddle at all".

Van Dorn, however, had his own suggestions as to the change in the appearance of the Hope, and his ideas were not much better than the features he had criticized on the Hope saddle. Capt. Van Dorn wished to retain the tree of the Hope but to reduce the height of the cantle. Moreover he thought that, "the pommel should be a massive brass eagle head with beak open to hold the reins, and a fall of horses' hair from a ring around the neck.....the stirrup should be a deep one and made of brass".

Presumably the open beak of the eagle head was to hold the reins while the rider used saber and pistol, but what utilitarian purpose the hair ruff around the base of the neck was intended to serve, is a mystery. Oddly enough during the Civil War a few of these saddles using an eagle head for

the pommel were made and used. The tree, however, in most instances was that of the McClellan, the bronze eagle head, with the beak closed was screwed to the pommel arch of the saddle. It would appear that such saddles were used by individual officers for sheer swank and nothing else. They were not regulation.

The trend toward the California or Mexican saddle having the high slender neck and small flattened circular pommel continued off and on during the 1850s and 1880s. Men who had used the vaquero's stock saddle liked it. This type saddle will be discussed in later paragraphs.

THE JONES SADDLE

Lieut. Wm. E. Jones of the Regiment of Mounted Riflemen who had ridden a Grimsley overland with the regiment from Missouri to Oregon in 1849, hadn't been too impressed by it. He said the mounts started the journey in good condition but before they reached their destination, many horses had been ruined by the saddle in question. Consequently he set about designing a saddle to overcome what he believed to be major defects in the Grimsley. He obtained a patent on his saddle in 1855. He constructed his cantle and pommel arches of two metal pieces riveted at the joints. These arches could be controlled by a rod and moved in or out to permit better fitting of the side bars to the contours of the horse's body. The mechanical crudities of the construction didn't come up to expectations and aside from a few experiments it was soon discarded. However, in 1857 when Jefferson Davis succeeded John B. Floyd as Secretary of War, he authorized the purchase of 300 Jones' saddles for further experimentation.

THE CAMPBELL SADDLE

This was the invention of Daniel Campbell and during 1855-57 the

First and Second Dragoons tested it in the field. Campbell also sought to make the saddle tree adjustable by the use of springs. In addition to the change in construction a saddle pad called a "Moss Rug", probably made of the wiry Spanish moss, was devised to be used with the saddle.

There were some features of this saddle which were liked. It was strong and light and its mechanical features did permit adjustment to the horse's back. It was this latter feature that brought about its downfall. The springs gave way and injured the mounts. Moreover the "Moss Rug" packed down, became hard, and went to pieces. It too was discarded along with the saddle itself.

THE McCLELLAN SADDLE

As previously noted, Captain George B. McClellan was one of a group of officers who went to Europe in the mid-1850s to study military material in Europe. As a partial result of his studies McClellan submitted a model of a new saddle and suggested changes in other articles of equipment. (His saddle lived on but his plan to equip the cavalry with European style lances was short lived).

Writing on December 25, 1856, McClellan said:

"I cannot pretend that this equipment is by any means perfect, but I feel safe in saying that it is an important step in the right direction; that it is not a copy of any European model and that it is superior to any equipment in Europe".

Many authorities have characterized the McClellan saddle as having been "Crimean", "Russian", "Hungarian" or just "European" in origin. McClellan said it was not copied after any one European saddle. One author, Captain Edward Davis, 13th Cavalry USA, in his article, Cavalry Equipment----

Past and Present, Journal of the U. S. Cavalry Ass'n. Oct. 1915, from which much of the historic material on saddles in this report has been drawn, said that "an examination of other statements made by him (McClellan) and a comparison of manufacturing specifications has led to the conclusion that the McClellan saddle tree was suggested by the saddle invented about that time by Captain Cogent, then director of the saddle factory at Saumur".

A Board of Officers convened in 1857, examined the model equipment submitted by McClellan and recommended an issue to the service for experimental purposes. Certain alterations were included, however, to wit: "The saddle tree is not to be covered over the seat with leather;" and "the leather foot guards on the stirrup shall be dispensed with". Likewise, "the sweat leathers to be dispensed with".

Experimental saddles and bridles were made and sent to the various regiments. Most of the comments were favorable but, as usual, some objections from experienced officers were raised. One major defect, that of the method of attaching the bits, was generally mentioned. Other faults were mentioned: "The saddle should be covered with rawhide instead of leather. A light crupper is indispensable especially in a very hilly or mountainous country". Likewise, "The saddle bags, or valises, furnished, were constructed, and also attached in such a manner as to injure the horses' back, and could not be used".

Another Board met in 1859 and the McClellan was again the subject of discussion and recommendations. In the end much of the McClellan equipment was adopted, but not without some changes. A proposed hair girth was changed to webbing, saddle bags were accepted as were also "the wooden stirrups with leather shields".

The bridle was to be of black leather and "the saddle of russet leather throughout". The Secretary of War vetoed the use of the russet leather so black was used. President of the Board, Col. Philip St. George Cooke, disagreed with the main conclusions of his brother officers and wished to retain the Grimsley equipment. He believed that in spite of the Board's recommendations, the cavalrymen as a whole would favor retention of the old Grimsley outfit. His objections were in vain. The McClellan became the official regulation issue for the US Army and, with minor revisions from time to time, continued to be used as long as the cavalry was an important branch of the service. There were certain features of the McClellan which caused dissatisfaction in some instances.

For example, when the California Volunteers were mustered into service and ordered to Arizona and New Mexico, many of the cavalrymen had been accustomed to riding the California stock saddle all their lives. Consequently they were not too happy over having to use either the Grimsley or the newer McClellan. In deference to their wishes the Quartermaster in San Francisco ordered a number of California saddles for the use of these troops. Similarly the Colorado Volunteers rode into New Mexico on virtually the same style of saddle as that demanded by the Californians.
(See next section for discussion on the California saddle).

Captain Frederick Whittaker, writing in 1871 on the relative merits of the McClellan versus other saddles in his book "Volunteer Cavalry, The Lesson of a Decade, said (speaking of Capt. McClellan):

"It is a significant fact that that excellent organizer could find nothing in all Europe, after due examination, worthy to compare, as a cavalry saddle, with our own Mexican or Texan tree.

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"The McClellan saddle, which is a modification thereof, is far better than any in use in Europe".

Captain Whittaker objected to the "toggery" on the McClellan. "The flaps, the seat-leathers, the saddle-bags are all useless dead weight. As for the saddle-bags, they are about as useless and foolish an appendage as I ever saw. Again and again I have seen them thrown away by men whose practical experience had taught them; and the whole reason is that they are too small to hold anything. Take them away and give two light, simple canvas bags of twice or three times their size, and you give a man somewhere to put his food. The prime trouble with all military saddles is the want of room for provisions and forage, whereas that is all they ought to be made to carry.

A man wants no overcoat in summer campaigns. By universal consent it is thrown away before many days out, at the risk of wanting another. I never knew this to fail. All the weight a man carries beside rations and forage is himself and arms, one blanket, a piece of shelter tent or poncho, a shirt, drawers, and socks, a towel, comb, and piece of soap. The sleeping blanket and tent are put under the saddle by all old soldiers, and prevent sore backs instead of making them. But forage and food form the weight. As it stands, the men carry them the best way they know how. All the Government gives them is one haversack. This ought to be changed. Two good-sized canvas saddle-bags, with a girth in connection, would hold eight or ten days provisions with ease. The girth would keep them down to the horses' sides, and save horse and rider from the flapping of his present load. Moreover, a cavalry soldier on his first day's march would no longer resemble a trussed turkey, incapable of motion, and could mount and dismount as easily as he does now with 'light saddles'.

"The bare McClellan is quite light and convenient. It's the leather toggery that weighs it down. The same bare tree is immensely improved in appearance by a brass rim on pommel and cantle. This also preserves the edge of the cover from wearing out. A McClellan saddle goes first at the edge of the cantle, and once the rawhide cover is gone, the saddle soon racks to pieces".

Captain Whittaker was not alone in his estimation of the McClellan's inability to stand hard usage. Six years earlier Lieut. Col. Clarence Bennett, 1st Cavalry California Volunteers, wrote from Ft. Bowie, Apache Pass, Ariz., July 6, 1365:

"The McClellan saddles in the heavy rain storms were damaged. The rawhide soaked and became slack, the wood swelled, and many of the saddles spread and hurt the backs of the horses. The sun drying the rawhide rapidly over the swelled wood cracked the rawhide. The saddles are old and well worn, and will many of them have to be replaced by new ones". (Official Records, War of the Rebellion, Series 1, vol. L, Pt. 1, p. 418).

Reverting to the criticism of the McClellan saddle by Whittaker:

"One thing about the McClellan saddle as issued is radically bad. It has no breast strap, and it has a crupper. This ought to be reversed. It may do with mules who have no withers; but in nine horses out of ten, outside of Indian ponies, the fault lies the other way.

In active service the men universally threw away their cruppers in our war, and many who had slim-bellied horses were forced to buy breast-straps, by hook or crook. Many used their surcingles for the purpose but had to give up. A breast strap to a cavalry horse is almost an indispensable necessity. In ascending hills his load is almost sure to slip back, and

"and much botheration ensues. With a breast-strap the girth can be loosened and the horse much eased. Care must be taken to avoid losing the blankets in this case. More than fifty times I have seen the saddle blankets under a carelessly put-on saddle slide slowly back, till it gently dropped over the croup, the rider being quite unconscious of his loss till warned of it by others. This is most apt to occur with slim-bellied horses. The blanket should be secured to the saddle in such cases.

The stirrups of the McClellan are good and bad. They have good points, but sadly need improvement. The intention of the hood is excellent. It is to keep the foot from slipping through the stirrup, as well as to protect it from the bushes, etc. In practice a man is very apt to get his foot stuck fast between the stirrup and the hood, and to find it worse than the open one for that reason. This part of the objection is easily remedied. A broad strap of leather, nailed across the bottom of the hood, at once removes all the inconvenience. It ought certainly to be done in future in all cases.

The second objection is much more serious. It lies in the material of the stirrup-wood. Wood exposed to rain, wind and weather, soon rots. Especially around rusty iron bolts does it become unsound. Twice has it happened to myself to have a wooden stirrup break down under me, once causing me a heavy fall; and I have seen the same thing happen to others so often that I at one time took a prejudice against it and used the open iron stirrup as safer. But there is no denying that the open iron stirrup gives nothing like so firm a seat as the hooded wooden one. The necessity of pressing upon it in order to keep your feet from slipping forward deranges the seat; whereas in the hooded stirrup the foot hangs as easily as when riding bareback.

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"The McClellan saddle is a very poor one as far as lasting goes. Two years knocks all the glory out of it, and there are so many useless bits of toggery about it, which are constantly getting lost or broken, that it is a wonder it has held its ground so long. But, as in the case of the Colt's revolver, a single excellence has counterbalanced its many defects. It is comfortable to ride in, and if it fits the horse any way near, it never gives sore backs.

Take it all in all, it is the best military saddle yet in use".

In 1851, the weight of dragoon equipment minus the saddle was 73 pounds. This included, musketoon, pistol, sabre, cap and cartridge box, forty rounds of ammunition, holster, curry comb, brush, two blankets, valise containing 1 pair wool overalls, 1 pair drawers, 1 pair stockings and one fatigue frock. Great coat, nose bag, picket pin, rope, spurs, etc.

(House Report, 32nd Cong. Ex. Doc. No. 2, Rept. Gen'l. in Chief of Army, 1851, p. 253).

With all its defects the McClellan won out in the end over all its rivals. There were periods when trial saddles of other designs were tested, some of which found their adherents, but the McClellan was the regulation saddle at Ft. Union until the cavalry left the post forever.

As the years went by the defects of the rawhide covered McClellan were somewhat remedied. Brass strips were added to the pommel and cantle during Civil War days in an attempt to prevent the seams from splitting at the edges. These were only experiments, however. In 1870 additional leather and even rubber were tried but with little success. In 1872 the tree was covered with black collar leather and the skirts were removed.

Superintendent
Fort [illegible] National Monument
Watrous, New Mexico

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In 1874 the McClellan had a blue linen web girth but had neither breast strap nor crupper. The 1874 regulation called for a blanket of dark blue color with a 3 inch yellow border on the ends and a yellow "U.S." in the center of the blanket. This was placed on the horse in a six-fold position.

The earlier 1861 regulation saddle blanket was indigo blue with an orange border 3" from the edge, and when used as a pad it was folded in four equal parts. The saddle had a single girth of blue woolen webbing. "This orange color was used as dragoon trimming and the orange gave way to the cavalry yellow in the spring of 1861). (See The Development of the U.S. Army Saddle, by Stanley J. Olsen, Military Collector and Historian, Spring 1955, pp. 1-7).

In the late 1880s and early 1890s, the regulation McClellan saddle complete with hair cincha, stirrups, stirrup straps, saber straps and coat straps weighed 17.3 pounds. The weight of the average kit and equipment at this time was about 90 pounds. Most of the troopers for the cavalry weighed from 130 to 150 pounds and occasionally a man weighing up to 165 pounds was accepted.

The fittings of the McClellan in the period 1872-1891 were of brass and iron. The two rings 2-1/4" dia. attached to the front ends of the side bars were of brass as were the 6 oval guard plates fastened on the cantle through the slots of which the coat straps were passed, and one in the pommel. The foot staples on the McClellan saddle were of iron from 1859 until about 1880 when they were replaced with brass. Saddle nails were of Japanned black painted wrought iron.

(See Horses, Saddles and Bridles by Capt. Wm. H. Carter, Leavenworth, Kansas, 1895).

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THE CALIFORNIA SADDLE

Under the generic name a variety of saddles flourished. As the title indicates these saddles originated in California and were in a sense the Mexican and Texan saddle as well. However, these saddles were not the Mexican saddles of today, nor those manufactured in Mexico after the 1860s. The huge pommeled Mexican saddle as we know it today did not come into existence until around the time of Maximilian and as such was not copied nor made in California. Hence when the term "California" or "Mexican" or "Texas" saddle is used in connection with the U. S. Army saddles, it indicates the true California--Mexican saddle dating prior to 1850 and which, as a type, continued to be manufactured with many variations from that time to the present.

The California saddle was essentially a stock saddle with an easy "hard" seat, not quilted like the Grimsley, and having a slender neck and small flat pommel. It had fenders of stamped leather to protect the leg of the rider from rubbing against the horse and the wooden stirrups were protected by tapering tapaderos of stamped or plain leather. There were long thongs of leather fastened by leather or metal rosettes to the leather saddle skirts close to the rear of the cantle of the saddle and on either hand of the pommel. The cinch or girth was almost center, which gave rise in later years to the term "center fire saddle".

At the period of which I am writing, 1850s-1860s, the trees of these saddles were made from the forked branch of a tree which served as a pommel. The side boards and cantle were all of light wood. Willow was deemed the best for the fork. The entire tree was covered with rawhide. The saddle covers, the mochila and the coraza were made of stamped or

embroidered leather with slits in them for the cantle and the pommel. These coverings were fitted into place over the saddle, the corasa or under skirt went on first. This was followed by the smaller mochila. The saddle bags were often sewed directly onto the mochila, the number and placing of these bags depending on the taste of the rider. The Pony express mochilas had four bags or pouches sewed on, two behind the cantle, one on each side, and one on either side of the saddle just in front of the rider's legs.

References to these California saddles have been made from time to time by army officers who either favored them or had used them since the 1850s. Modified California saddles continued to be used, mainly in the Southwest and on the Plains, by the U. S. Army until the mid 1870s.

That some of the California saddles saw service at Ft. Union in the 1860s there can be little doubt.

On Sept. 10, 1861, Capt. J. McAllister, of the Ordnance Department, commanding at Benicia Arsenal, wrote to Col. Henry Carleton, First Regiment California Volunteers:

"When I was first ordered to equip your cavalry by the 1st of September it would have been impossible to have done so without using the old dragoon saddles. I could not have obtained the Mexican saddles for all the men in the short time allowed. I explained to you and the general commanding that these saddles had to be repaired, and was ordered to buy Mexican saddles for the California company alone. Major Grier's statement that we could not get the old saddles from Oregon in time rendered it necessary to buy another set of Mexican saddles. Thus you have two companies with Mexican saddles and three with Grimsley's. To fill this requisition I have had to collect everything I had and repair extensively. I expected that the fact of two companies having new saddles and the other three old

"ones would create discontent, but did not see how to avoid it for want of time allowed me and want of money. The saddles for the Second Regiment of California Volunteers will be ready by the 1st Proximo, and if the general sees fit to condemn these saddles because the men would prefer new ones, why I could issue from that lot. But you must wait until their completion". (Official Records op. cit. id. p. 616).

Thus it will be seen that the California Volunteer Cavalry that marched overland from California to Arizona and New Mexico was comprised of at least two companies. Since by law the cavalry companies thus raised consisted of between 79 and 95 men (officers included) the number of California saddles supplied to two companies would total between 158 and 190.

Eleven years later, Captain (now Major) McAllister at Benicia was called upon to furnish California saddles for use of the regular troops in Arizona under General Crook.

General Crook wrote January 30, 1872 requesting the Ordnance Department to supply him with these saddles. "I forward by this mail requisitions for Ordnance for part of the 5th Cavalry. These requisitions call for California saddles. I do hope if there is any possible way of getting them this part of the requisition will be filled. But few of the saddles furnished by the Ordnance Dept. here will stand this climate. I noticed last Summer that most all the saddles had given way at the cantle and pommel and let the weight come directly on the spine & the consequence was that it was an almost impossibility to keep the horse's back well. When upon the other hand I noticed that the California saddles of old pattern which had been in use in this climate for years were just as good as new.

I find it a very difficult matter here to keep up animals under the most favorable circumstances. Great care should be exercised in

rchasing these saddles, for there are some patterns which are worse
a those furnished by the Ordnance Dept.-----Another thing is to have
l strong hair Cinchas".

By return mail Major McAllister acknowledged receipt of the re-
st and said that he had on hand "some four hundred California Saddles
ch I had manufactured in 1861 for issue to the California Volunteers.
of these saddles have been used in Arizona or on the plains".

He went on to relate that most of the trees and rawhide cover-
s were perfectly sound and could be readily repaired. He said these
ddles had been ordered sold, but with the sanction of the General Com-
anding the Pacific Division, he would repair and issue the saddles to
eneral Crook.

He said also that there was one objection to such an issue, mainly
t the Secretary of War would first have to sanction the issuance of the
lifornia style saddles because of regulations.

Said McAllister:

"The Ordnance Department is now effecting a change by removing
skirts and trimmings from the McClellan Saddle, covering the tree with
d stout leather and using a hair cinch instead of a girth.

The saddle thus altered was used by Lieut. Wheeler in his expedi-
n and has been used in Arizona by troops of the 1st Cavalry with perfect
tisfaction. If this change would remove Gen'l. Crooks objection to the
ddles, Cinchas and leather sufficient to cover the saddle trees can be
t immediately to the Company Commanders and the saddles of the different
oops could do the work".

This bid on the Major's part to avoid the trouble of repairing the old California saddles was turned down by Crook, and McAllister was ordered to repair the old California gear and send it into the field. Consequently he wrote on February 28th that he was repairing 310 unserviceable saddles which were of a pattern similar to the one he had forwarded to the Washington Arsenal, October 11, 1861. This number he said would furnish the non-commissioned staff, band and four companies of the 5th Cavalry. On the same date he recorded that he had received an additional requisition from General Crook for 350 more saddles of the same pattern for five additional companies. On March 21, authorisation was given to McAllister to purchase the additional number of California saddles at $12.00 each.

(Correspondence, Office of Chief of Ordnance, year 1872, Old Army Records, Nat'l. Archives, Washington D. C.)

By 1877 most of these California saddles had once more found their way back to Benicia where the Chief of Ordnance authorized the commanding officer at that Arsenal to dispose of the California saddles on hand. The unserviceable ones were to be sold in lots of ten at $2.50 each. Officers were privileged to buy single saddles if they so desired. It is estimated that between 1861 and 1872 there were around 750 California saddles purchased by the army.

It is quite likely that these saddles as ordered for use of the troops were plain, minus the elaborate stamping but conforming in general to the shape of the saddle as it was in use at the time by the California vaqueros and other riders in that state.

In the envelope of photographs attached to this Appendix on Saddles are some showing the types of the California saddle in use in the 1860s---- 1870s. One of these is particularly interesting because it shows a horse

standing in the plaza of the Repair Shops at Ft. Union about 1866. On the animal is a California saddle. It appears to be quite plain, with all of the heavy saddle skirts removed. It has the characteristic pommel of the late 1850s and early 1860s.

In this same envelope will also be found photos of the Grimsley as well as the McClellan saddles and individual modifications of both types.

It may be well at this time to caution the absolute use of army regulations in documenting for display various bits of equipment, saddles, bridles, arms, etc. The bulk of these items were regulation but at Ft. Union, as at all posts, there were officers and men who did not always adhere strictly to regulation issue when they could buy something they felt was better. Then, too, there were weapons, saddles, etc., which were issued as trial specimens. Sometimes these continued in vogue for certain periods and reports were written concerning their serviceability. Others were discarded and if not returned were carried on the property rolls at the Post until "lost" or suffered some "accident", at which time they were relegated to the trash pile.

Hence, there is considerable leeway permissable in the use of specimens for display in the museum. The wide latitude in the use of army material of various models and the survival of obsolete equipment at all the army posts over the entire period during which Fort Union was occupied makes it feasible to accept and place on display almost any object in possible use at this time. For example, the brass scales used by privates and non-commissioned officers from 1854 to 1862, were on hand at these garrisons long after the Civil War. As already indicated in the case of the California

saddle, the mere introduction of a new model piece of equipment did not necessarily cause the immediate abandonment of the old. For that reason it it nearly impossible to establish a strict chronology or stratification of articles found at the Post since an item in use in the 1850s and 1860s might well be still in vogue in the 1870s. Articles bearing an early patent date may well have been used many years after the date of issuance.

THE WHITMAN SADDLE

In 1879 the Equipment Board of the Army again reviewed the saddle situation. Although the Board, "while remembering that the McClellan tree has been of great service, is satisfied that a change is now necessary. This conclusion is due in a measure to the experience of the Board, but chiefly to the opinions of a great number of officers who are riding saddles of various kinds. ..... The Board has endeavored to find a suitable saddle combining the merits of the various trees now in use. This it is believed, has been done in the selection of the Whitman tree".

The Chief of Ordnance opposed the manufacture of any new model saddles, pointing out that there were approximately 42,000 new McClellan saddles on hand, left over from the Civil War. However, General Sherman, commanding the Army recommended the Whitman saddle for general use after "the present stock of McClellans is reduced below 20,000". The Secretary of War then directed the Whitman saddle "in future manufacture be adopted as the model".

This saddle was the product of Col. R. E. Whitman, who rose through the ranks during the Civil War from Sergeant Major of the 23d Maine Volunteers to Colonel by August 14, 1865. He retired March 20, 1879, the year in which

his saddle was officially recognized by the Army. His firm was inaugurated under the name of "R. E. Whitman, U.S.A. (Retired)" and shortly afterward changed to "R. E. Whitman & Co." In 1880 the "Whitman Saddle Company" was organized and succeeded to the business. Colonel Whitman retired from the Company 1881, and he was succeeded by C. C. Melbach, then treasurer of the company, who assumed the entire management of the firm. Mr. Melbach continued in charge until 1896 at which time it became Buck & Melbach. In 1901 this partnership was dissolved and the Melbach Saddle Company was incorporated and purchased all the assets of Buck & Melbach as well as the good-will and the "Whitman" trade-mark of the Whitman Saddle Co. Between 1881 many new patterns of saddles were turned out by the firm and improvements were made upon the original models.

The Whitman as conceived by the Colonel was light and strong and apparently based in structure at least on the California saddle, but minus the high pommel, except in some models.

The cantle of the Whitman somewhat resembled the old Grimsley. (See Pl. XVI, Horses, Saddles and Bridles, by Capt. William Carter, op. cit. p. 204).

Said Carter: "This saddle is intended for the use of the officers, those of the troopers being equipped with packing straps. One model is provided with a large horn pommel for the purpose of carrying the carbine slung across the saddle. Many of the Whitman saddles are used by officers, but the cavalry saddle previously described (i.e. the McClellan) is the only one used by the American trooper".

THE HINT SADDLE

Yet another saddle which some officers favored for their own use was that developed by Capt. T. J. Hint, 4th U. S. Cavalry, during the early 1880s. He based his model upon a principle of mechanical expansion of the cantle and pommel arches to give play to the side boards in order that they might be better adjusted to the horses' back. Since, however, Capt. Hint did not press his saddle it was never officially adopted by the Army. Some officers who tried it liked it. The main trouble was the metal parts of the arches. Over a long period of time and strenuous duty in the field, it was believed that the Hint would not stand the strain.

Since it did not enter into active service no detailed description is necessary.

To recapitulate, the main types of saddles which saw service at Ft. Union were: the Grimsley, 1851-1859. The Hope or Texas Saddle, 1855-1858; the California Saddle, 1862-1876; the McClellan, 1859-1891.

Any of these saddles, either for the officers or the private troopers, may be used in the exhibits at Ft. Union Museum.

BITS

Another adjunct to the equipment used by the mounted man during the period under discussion was the bridle and bit. Like all other parts of the horse gear, these varied somewhat and were known by different names. Even as the saddles were adopted for varying periods of time, so were the bits used.

In general the bits were divided into two classes. These were:

The Snaffle
The Curb-bit

The snaffle was of forged iron or steel. Its parts were; the

mouth-piece (usually divided into two separate bars meeting at the joint), and the two cheek-rings. The snaffle could be used separately or jointly with the curb bit. At times a side-bar was added to the snaffle to prevent the mouthpiece from being pulled laterally through the horse's mouth. The snaffle was used with horses of delicate breed and tender mouth, such as race horses. In military riding the snaffle was used primarily as a training bit to accustom horses, not bridle broken, to the feel of the bit in the mouth. The watering bridle was also a snaffle. In the latter case the snaffle could be attached by the toggle into the rings of the halter headstall; by attaching a pair of reins to the rings, it became a complete bridle. (See photos of the snaffle and curb bits attached to this section).

Some of the earlier bits were known as "Old Dragoon", "Grimsley", "Daniels", "Whitman" and "McClellan". The "Shoemaker Bit", which was the invention of old Captain W. P. Shoemaker, the ancient Ordnance Officer at Ft. Union, was made of shear steel and was recommended by the Equipment Board of 1874. It weighed seventeen ounces which was nine ounces lighter than the old McClellan bit. The latter bit was modified slightly from its original form as far as the curb-strap and mode of attaching it was concerned, but even this modified McClellan was replaced by the Shoemaker after 1874.

(Since the photographs of these various type bits are more graphic than pages of description the reader is referred to the pictures of all type bits attached to this Appendix).

The controversies over the use of the different patterns of bits were as equally heated as those over saddles, weapons, uniforms, etc. Although regulations decreed that certain type equipments should be used, every army post had its individualists who found devious way of evading

regulations. Old soldiers said in fact, "Regulations was made to be ed".

Thus, in the case of bits, men had their own pet patterns made working models and tried them out. They wrote long articles to The ted Service, a military magazine of the 1870s and 1880s as well as to Journal of the United States Cavalry Association, or embodied their s in pamphlets and books.

Parts of the old cavalry equipment, mostly the rusted iron portions the corroded brass, are among the specimens in the Ft. Union collection.

By comparing these fragments with the photographs of the complete items, the parts can be fairly easily identified. In some instances, such as the regulation McClellan of Civil War days, the original bits are on hand in the Museum collection at the Post.

Thus it will be noted that the bronze U. S. ornaments on the early lellan differ in form from those of the modified McClellan No. 2, and Shoemaker ornaments are different than either of the McClellans.

The Shoemaker No. 1 Regulation bit is easily distinguishable from McClellans by the large rings on the bars.

A close study of these bits will also reveal other minor characteristics such as the shape of the slots to receive the bridle straps, etc.

MISCELLANEOUS

In the 1850s-1860s the equipment of a cavalryman was much simpler an during the 1870s-1890s. In 1861 the cavalry trooper carried as a plete set of horse equipment:

1 bridle	1 Watering-bridle	1 halter	1 saddle
1 saddle-blanket	1 pr. of saddle-bags	1 surcingle	1 pr. spurs
1 curry-comb	1 horse brush	1 picket pin	1 lariat

1 link and 1 nose-bag (when specially required)

Appendices ..... CAVALRY EQUIPMENT..... 1851 - 1891

All the leather was black on bridle and saddle. All metal work used was black wrought iron or shear steel blued, except the two bridle rosettes which were bosses of cast brass bearing the number and letter of the regiment and the letter of the company, riveted to the branches of the bridle bit by four rivets.

In addition to this horse gear the soldier had as weapons, a saber, a revolver and a carbine.

He also had a tin, felt or cloth covered canteen, 3 pts., a cup holding about one pint as well as a knife, fork and spoon. Knife and fork combinations were sometimes carried in one case which for the sake of convenience the soldier at times thrust into the top of one bootleg.

The types of weapons varied during the 40 year period. These will be enumerated in the Appendix under WEAPONS.

The system of carrying horse equipments likewise varied from time to time, according to new regulations. During the 1850s when the Grimsley saddle was used, practically all of the army men who discussed the problem of the trooper and his horse, agreed that the methods used in fastening the different items to horse and man were better than in later years.

During the early 1850s, the Dragoons, using the Grimsley saddle, carried their equipment more compactly than did the cavalrymen a quarter of a century later. In a cylindrical leather "valise" strapped to the rear of the cantle, the trooper carried his spare clothing, toilet articles and other personal items. His blanket roll and great coat were rolled and strapped in front of the pommel. Suspended on either side, in front were two shaggy, bearskin covered leather holsters. One, and sometimes two, single-shot pistols were carried in these holsters. When only one pistol was carried,

The other holster held curry comb, brush, etc., for grooming the horse. The carbine was either carried slung from a swivel attached to a broad white leather strap with brass trimmings, at the trooper's right side, the strap crossing his chest, or was secured in a short, leather boot. The muzzle of the weapon was in the boot near the right foot and was secured by a leather strap to the pommel of the saddle. The heavy single or multiple branched guard saber was slung in an iron sheath at the left side. Two small leather pouches were fastened, one to each side and to the rear of the legs of the rider. In these were ammunition, caps, etc.

The 1860s saw an increase in paraphernalia carried by the cavalryman. The items have already been enumerated.

The equipment of the 1870s-1880s to 1891 were more bulky and clumsy. The saddle bags were of heavy leather sewed to a broad leather band which were then hung on the saddle. It was said that the empty saddle bags carried after 1879 were equal in weight to the packed valise of the Grimsley equipment. These, attached to the rear end of the saddle hung down on the flanks of the horse and pounded the animal heavily when the trot or gallop was ordered.

The pack exclusive of the extra ammunition carried weighed eighty-eight pounds, of which nearly forty-one pounds was carried on the cantle and only about six pounds on the pommel.

From the 1850s until the 1890s, the heavy iron picket pins and lariats, used in staking out the horses when in the field, were carried in the saddle bags along with curry comb and brush, watering bridle, meat can and knife, fork and spoon.

Appendices..... CAVALRY EQUIPMENT..... 1351 - 1391

By the 1890s the lariats and picket-pins were obsolete and Capt. Charles E. Nordstrom, 10th Cavalry, writing in 1892 said these pieces of equipment were "relics of the past and should have been relegated to their appropriate realm long years ago. We have never yet seen them prevent a stampede; but we have seen the picket-pin 'whizzing' through the air, assist in many of them."

Sabers, pistols or revolvers and carbines were weapons carried during the entire period 1851-1891. The saber was long considered a nuisance and was seldom if ever used. (See discussion of this and other arms in the Appendix on Weapons).

Following the Civil War various Army Boards made attempts to better the equipment but the large store of surplus material precluded any active efforts along this line. In fact the 1859 saddle-bags, the nose-bag and picket-pin (of Lyon's pattern) continued in use until the late 1870s.

In describing the equipment carried by troopers of the ill-fated 7th Cavalry who rode to their death with Custer, June, 1876, James Hutchins in his article The Cavalry Campaign Outfit at the Little Big Horn, Military Collector & Historian, Winter 1956, pp. 91-101 said:

"The sky-blue mounted overcoat was folded and strapped to the pommel, although some of the men to lighten their horses' loads, abandoned their overcoats the point of commencing the regiment's march up the Rosebud on 22 June. The lariat, rolled or coiled, with picket-pin attached, hung from the near pommel ring while the nose bag was suspended from the ring opposite. Strapped to the cantle was the small, canvas, grain bag about 20 inches long with which the Seventh had provided itself, filled on 22 June with twelve pounds of oats. Sidelines also were probably secured to the

cantle. The tin cup was fastened by its handle to the near saddlebag strap, or possibly to one of the coat straps on the cantle. The canteen hung down the near side, its cloth sling apparently looped about the saddlebag stud on the cantle arc. The covering of the canteen was of grey felt". (This felt covering was very perishable and hundreds of canteens were covered with fragments of blankets rudely sewed on). "Most of the men carried their rations of hardtack and bacon in haversacks, which in many cases were evidently suspended from the saddle".

The troopers of the Seventh carried only their single-shot 45-70 Springfield carbines and a varied assortment of revolvers. The sabers had been boxed and left at Ft. Lincoln. Butcher knives in belt sheathes were carried by most of the men.

This in brief was the appearance of the cavalryman in the field in 1870s and 1880s. Of the uniforms I shall speak later. The weight of all the equipments and the awkward manner of carrying them wore out both horses and men. The various appendages jangled and flopped about as the men spurred their mounts into trots or gallops.

As indicated by Mr. Hutchins, many troopers who took the field unloaded their surplus gear at the first opportunity retaining only the barest necessities, food, water, ammunition and weapons. Even the bed blankets were sometimes eliminated, the men sleeping under the horse blankets.

(See the various photographs of the saddles, bridles, saddle bags, picket pins, meat cans, etc, etc.)

UNIFORMS - CAVALRY

As previously indicated the uniforms worn by the army changed considerably from time to time but there were certain items which continued

in use for varying periods of time. I shall not attempt a detailed breakdown of these articles of wearing apparel. It would require a separate volume to describe in minute detail all of the regulation changes. Only the broader phases and common types of headgear, shoes, blouses, overcoats, etc., will be given.

HEAD GEAR

During the Mexican War and until the middle 1850s the Dragoons wore dark blue, soft woolen caps with prominent vizors. (See photos). At this same period dress helmets of leather, stiff and awkward, were also worn.

Around 1854 the ungainly looking black felt hat, with one side turned up and held in place by a brass eagle or a velvet oval insignia bearing an embroidered eagle was worn. This hat known variously as the "Hardee", the "Kossuth" and the "Jeff Davis" was worn thenceforth and during the Civil War.

During the Civil War the regulations of 1861 provided that three black ostrich feathers were to be worn on the right side of the hat where it was looped up with a gold cord, for all general officers and officers of the Adjutant-General's, Inspector-General's, Quartermaster, Subsistence, Medical and Pay Departments above the rank of captain. For all other departments below the rank of field officers, two feathers were to be worn. Privates and non-coms wore one feather. These feathers were a nuisance and when wet drooped low and looked like the tails of woebegone roosters. The ends of the quills were protected by tiny knitted covers.

The regulations of 1851 provided for dark blue cloth caps which were from 5-3/4" --- 6-1/4" in front and 7-1/4" to 7-3/4" in height along the back seams. The vizor of these caps was of strong neat's leather, black

on upper surface and green on the under side, 2-1/4" wide at the middle, to be horizontal when worn. The strap was of black leather fastened under the chin by a brass buckle and leather slide. Officers wore velvet or cloth bands (according to their ranks) with gold embroidered wreaths surrounding the letters "U. S." in old English embroidered in silver, in front. The officers of the various branches, ordnance, infantry, artillery, dragoons, riflemen wore these same bands on their caps, except that the devices in front were, engineers....gold embroidered wreath of laurel and palm encircling silver turreted castle; topographical engineers....gold embroidered oak leaves encircling gold embroidered shield; ordnance, circle of leaves and gold embroidered shell and flame; artillery.....leaves and gold embroidered cross cannon, with regimental number in silver above intersection of cannon; infantry....gold embroidered bugle with regimental number on silver within bend; riflemen....gold embroidered trumpet, perpendicular, regimental number in silver, within the bend. Dragoons....two crossed sabers (edges upward) embroidered in gold, regimental number in silver in upper angle.

The enlisted men, or the artillery, infantry, riflemen and dragoons had bands of scarlet, light or Saxony blue, medium or emerald green, and orange-colored cloth respectively on their caps in bands two inches up from the lower edge, and in the center (in front) were company letters of yellow metal one inch long. Enlisted men of the engineers wore bands same material and color of cap, edged with yellow with turreted castle in yellow metal. The ordnance men had same band edged with scarlet, with shell and flame insignia in yellow metal in front.

In bad weather were worn black, waterproof cap covers with a cape of the same material extending below the cap ten inches, coming well forward and tied under the chin.

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Fort Lincoln
Bismarck, N

Appendices..... CAVALRY EQUIPMENT... 1851 - 1891

Round worsted pompons, spherical, 2-1/4 inches in diameter, of the colors representing the various branches, already mentioned, were worn by the enlisted men at the tops of the caps in front.

Horse hair plumes were also worn with these stiff, awkward head pieces.

In 1851 the Dragoons were a favored outfit. The troopers were the only ones permitted by regulations to wear mustachios, a privilege in which these tough, hard-riding cavalrymen gloried. As another sign of individualism the dragoons sometimes wore gold earrings.

By 1858 the outfit of the Dragoons had changed. The black felt "Jeff Davis" hats were being worn. The trimmings for the dark blue shell jacket, and trousers were orange instead of cavalry yellow. The hat cord was likewise of orange.

JACKETS, TROUSERS, ETC.

The shell jackets, i.e. short, waist length, straight across the lower edge in back and coming to points in front, were worn from the Mexican War through the Civil War by the Dragoons and Cavalry. In color these short coats or blouses were dark blue. In 1851 the trousers were sky blue and continued so on and off until 1890. Dark blue trousers to match the coats were worn 1858-1861. The troopers had wide orange or yellow stripes running down the outside of each leg. The cuts of the trousers remained about the same. It was only the jackets and coats that varied in length and trimming. (See photos).

INSIGNIA and BUTTONS

In 1854 a type of shoulder ornament known as brass scales came into use. These continued to be worn until the early years of the Civil War. General Anson Mills relates that:

Appendices ..... EQUIPMENT 1851-1891

"When the Civil War broke out, army regulations provided brass mountings for the soldier, retaining many useless and cumbersome impediments for the soldier's person because at one time they were useful..... The soldier's 'scale' represented the last remnant of the coat of mail, and theoretically was useful in warding off strokes of the saber on the shoulder. While many intelligent men knew its uselessness, no one had the courage to advocate its abandonment".

General Mills, however, stated that in November, 1863 while stationed with his troops in Tennessee, he cut the Gordian knot of military red tape by ordering his sergeant to throw all of the scales in his company, a dead weight of about three hundred pounds in a single box, into the latrine. At the following Sunday morning inspection he said:

"All the other companies appeared with their shining 'scales' and other brass ornaments. My scaleless company presented anything but the so-called military appearance".

Mills went on to relate that he was severly reprimanded but nothing ever came of the incident. He concluded:

"Later, out on the plains, where we were less harassed by bureaucracy, one captain after another began to shed, and finally after ten years' defiance of regulations and orders by courageous and sensible captains, the army shed its scales as a snake sheds its skin. No order was ever issued by any authority for their abandonment. It is the only way in which the army can be redeemed from some of its follies, such as continue to this day in wearing the present swords and sabers, as useless for all military purposes as the scales".

These objectionable parts of the uniform were in evidence on the frontier and numbers of pieces of the scales have been found around various abandoned posts, including Ft. Union.

CAP, HAT AND BELT ORNAMENTS AND BUTTONS

During the 1850s the Dragoons and Mounted Riflemen wore brass numbers, brass eagles and various other insignia on their caps and hats to denote their regiments and companies.

The Dragoons wore company letters of "yellow metal", usually brass, 1 inch long, on the orange band of the cap, in front. No crossed sabers were worn with the company letter at this time.

Riflemen wore the same type and size letters on medium or emerald green bands.

At the base of the pompon (worn in the center at top of cap in front) on all caps of enlisted men was a "yellow metal circular ring, two-thirds of an inch in diameter, by one-third deep, with yellow metal spread eagle, one and three-fourths inches between the tips of the wings, and so attached to the base of the pompon as to show in front of the cap below its top".

Buttons worn on the uniforms of the officers of artillery, infantry, riflemen and dragoons of this period were gilt, convex device, a spread eagle with the letter "A" for artillery; I for infantry; R for riflemen; D for dragoons, on the shield; large size seven-eighths of an inch in exterior diameter; small size, one-half inch.

The buttons of the enlisted men were ordinary yellow metal (brass without the gilt) bearing the same devices. Large size 3/4" in exterior diameter; small size, fifty-five hundredths of an inch.

In 1854 the letters used in 1851 were omitted from the buttons worn by enlisted men but the arm letters, C for cavalry, I for infantry, A for artillery, etc., were retained until 1902 on officers' buttons. The buttons without the distinguishing arms letters were known as "General Service" buttons. They are the type most commonly found in the ruins of

EQUIPMENT..... 1851-1891

abandoned army posts.

Sword belt plates of 1851 for all officers and enlisted men were "rectangular, 2" wide, with raised bright rim; a silver wreath of laurel encircling the arms of the United States; eagle, shield, scroll, edge of cloud and rays bright. The motto "E. Pluribus Unum" in silver letters upon the scroll; stars also of silver according to pattern".

These same rectangular belt plates continued to be regulation through the Civil War.

Just prior to 1851 officer's plates for the belts were rectangular of gilt finish with silver laurel wreath encircling the arms insignia in center, thus "I" for infantry, "R" for riflemen, etc.

Likewise the oval brass belt plate with the edge slightly raised and the letters "U.S." embossed in center, was in vogue from the 1840s onward. The 1850 regulation for these belt plates for cavalry and infantry prescribed: "Waist-belt plate, (brass) oval 2.8 in. long by 1.6 in. wide, stamped with the letters U. S. 1 stud and 1 hook (brass)".

The 1861 regulations provided for: "Waist-belt plate, (brass) Oval, 3.5 inches long by 2.25 inches wide, stamped with the letters U.S.; 2 studs and 1 hook, (brass).

In addition to the belt plates worn in 1851 there were two other brass plates used on the accouterments of cavalry and infantry enlisted men. These were the cartridge box plates and cartridge box belt plates. The former were "brass, oval, 3.5 inches by 2.2 inches, with letters U. S. stamped on it.... 2 eyes of iron wire, for fastening the plate to the flap of the box". The cartridge box belt plate was: "(brass), circular, 2.5 inches in diameter, stamped with an eagle; 2 eyes, of iron wire".

These plates of the same dimensions continued in use during the Civil War.

There was a minor change, however, in 1861. The shoulder belt plate was circular like the cartridge box belt plate, except it had 3 hooks instead of eyes.

In studying all of these brass plates, particular attention should be given to the hooks, eyes, studs, etc., on the reverse sides of the plates. Usually these are set in a lead filling. Likewise it will be noted that oval plates of 1861 and after, were longer and wider than the 1850-1861 plates, worn on the belts.

Cavalry saber belt plates of the 1850s were like the waist belt plates of the infantry, i.e. oval, brass 2.8" long, 1.6" wide, stamped with letters U. S., 1 stud and 1 hook (brass).

In 1861 the cavalry saber belt plate worn by the cavalry was cast brass, rectangular, 3.5 inches long, 2.2 inches wide, with an eagle, surrounded by a German silver wreath, 1 slot at one end to receive the sword belt.

Non-commissioned officers' sword belt plates were the same as the cavalry saber belt plates in 1861 et seq. The same applied to the sword belt plates worn by the light artillery, and the foot artillery as well.

In 1855, when the Jeff Davis hat was introduced, it was "looped up on the right side, and fastened with an eagle, the eagle being attached to the side of the hat; three black feathers on the left side; the number of the regiment to be worn in front. The hat will be worn instead of the CAP now used by the other troops".

This description applied to hats worn by field officers. For all other officers, hats were the same except only two black ostrich feathers were allowed.

The regulation for enlisted men provided:

"Same as for Officers, except that there will be but one black feather, a worsted instead of a gold cord, and the letter of the Company substituted for the number of the Regiment".

The brass eagles mentioned were stamped out of thin gauge metal, a number of which have been found at Ft. Union. Regimental numbers in 1861 were five-eighths of an inch in length, while the company letters were one inch, of brass, and arranged separately over the insignia of the corps badge.

The cavalry badge for enlisted men was crossed sabers with the edges up and number of regiment in upper angle.

The infantry badge was a bugle (old style, in circular form) with the company letter worn inside the circle. (Officers wore the regimental number in the same position).

These bugle insignia varied from time to time in size and form, as did the crossed sabers.

All of the brass trimmings were made in such a fashion that they could be detached. However, regulations stated that the eagle, corps badge and company letter were to be worn at all times.

At first these various brass insignia were fitted with thin brass wire loops, soldered to the reverse sides and the soldier sewed the crossed sabers, eagles, bugles, etc., to his hat or cap. These eyes were so flimsy that they broke off easily and were a source of great annoyance to the men. In desperation some of them began filling the concavities with lead and imbedding safety pins therein or setting the loops in lead. Eventually regulations provided for pins or studs for these cap and hat ornaments, but the

liest ones had wire eyes soldered on them.

Examples of these insignia, captioned to indicate the years in ch they were used, will be found in the envelopes containing the photo- ons attached to these Appendices.

Aside from the metallic insignia worn by the enlisted men, the icers of the 1850s and 1860s wore the same ones embroidered in gilt and ver thread combined with small sequins against a black velvet background.

Epaulettes and shoulder knots were also worn by commissioned icers. (See photos attached).

UNIFORMS

The uniforms for the period 1851--1891 can best be explained in photographs. I have attached hereto a number of photos obtained from different sources which portray the cavalry, dragoons, infantry and mounted fles. Likewise there is an authentic example of regulation issue. These ecimens are from private and public collections. The photographs are entified as to period.

The photographs of the Civil War soldier, infantry and cavalry ich depict the accouterments, were obtained from the official Quarter- ster photos made during the Civil War, in the late 1860s, a set of which in the Smithsonian Institution, Washington, D. C. Likewise other photos re secured from the National Archives, Washington, D. C., and still others om the large plates of The Company of Military Collectors and Historians.

A better understanding of the uniforms can be obtained from these ctures than dozens of pages of description.

INFANTRY EQUIPMENT

The foot soldier did not have as much gear to carry as did the valryman. Aside from his personal toilet articles, brush, comb, soap,

toothbrush, towel, etc., the infantryman carried:

1 rifle	1 bayonet
1 haversack	1 canteen
1 knapsack	1 tin plate
1 cartridge box (and ammunition)	1 tin cup
1 cap box	knife, fork and spoon

KNAPSACKS AND HAVERSACKS

The knapsack was carried on the back. This was used for extra clothing, toilet articles, writing paper, etc. In Civil War days the blanket was rolled and strapped to the top of the knapsack. Like the haversack, which was smaller, the knapsack was of a waterproof material, usually rubberized cloth. The soldier detested the knapsack and as the war continued the privates found means of losing this part of their equipment. They also "lost" their great coats and sometimes their blankets. In one instance at least the knapsack figured in a near-mutiny. Col. James H. Carleton (later Brig. Gen'l. Carleton) issued an order to the members of the California column, in camp and en route to Arizona, February 1862, that knapsacks were to be worn at drill. This, the soldiers believed was adding insult to their already aching backs. At Oak Grove, California, all except one man of Company A, 1st California Volunteer Infantry, refused point blank to drill with knapsacks on their backs.

Col. Carleton, when informed of the matter, told the officers to explain why it was necessary for the men to become accustomed to carrying the loaded knapsacks. The recruits were untried men, and the road to New Mexico via Arizona was long and hard. The soldiers would need to carry practically everything they might need on their backs. Hence it was practically a necessity that they become accustomed to the extra weight between their shoulders. Other troops in the Column also rebelled but the recalcitrants were shown the error of their ways, probably by an administration of

the buck and gag, lashes on the bare back, and other illegal modes of punishment. In the end, the troopers of the California column, marched and drilled, sometimes at the quickstep and the run, with loaded knapsacks on their backs.

The knapsack was also used as a means of punishment for minor infractions of military law. The culprit was sentenced to several hours extra duty, usually marching around and around in a circle, the famous "California walk", with his knapsack weighted down with bricks, stones, pieces of iron, anything to make it seem like a ton to the sweating soldier.

The haversack was smaller and was usually carried slung at the ~~right~~ left side. This was one item of equipment which was seldom abandoned by the soldier. In it he carried his rations of hardtack, salt sow belly, extra cartridges and any other odds and ends which he deemed indispensable to his personal comfort.

Prior to the Civil War and in the early stages of the conflict the haversack was not too durable. Capt. Jesse H. Jones, 60th Regt. New York Volunteers, voiced his opinion of the quality of the ~~knapsack~~ haversack issued to the regular and volunteer forces in a letter to General M. C. Meigs, Quartermaster General of the Army, August 17, 1863:

"The Haversacks are of the poorest quality. The unpainted ones of duck, wear the longest, but being only daubed over with boat tar, as the men say, 'they wet right through'. The varnished ones which have been issued have almost always been made of very poor material and with fair honest usage in the field the straps have cracked off or torn out, the glazing has become broken and they have become useless in a short time. A Haversack of good stout canvas well glazed tho costing much more would be cheaper in the end. Men keep their haversacks to the last, so there would be no less by their being thrown away.

Appendices..... EQUIPMENT 1851--1891

"I had a Mass. rubber haversack which was worth for wear a half doz. of those furnished by Govt., and it could be made, I judge, for a dollar.

Alike, tho not quite so severe criticism should be passed on the knapsacks. My men, most of them, got new knapsacks in May last and yet during the many and sometimes severe rains of the late campaign there were few who could keep their extra twenty rounds of ammunition in their haversacks dry. The best article yet furnished for general use is the rubber knapsack thick and stout, furnished by New York to some of its troops. The straps, however, should be made of good leather". (U. S. Archives)

In 1862, W. G. Hensell & Sons of Philadelphia delivered 20,000 unpainted haversacks and 20,000 knapsacks. The contracts stipulated that coal oil, benzine "or any such dangerous material" should not be used in waterproofing these pieces of equipment. The knapsacks had brass trimmings and buckles, furnished to the manufacturer by the Government and charged off in the cost price of $2.13 each.

Many personal accounts written by the soldiers of the Civil War dwell upon the condition and contents of their haversacks. The grease from salt and fresh pork, the dust of the road and the powder from broken paper cartridges mingled together on the inside of the haversacks. I remember my grandfather who was a cavlryman in the 7th Iowa Volunteer Cavalry telling me that the sweetest piece of meat he ever ate was a strip of dried beef jerky which had been "lost" in the bottom of his haversack and when he discovered it while poking through his sack in search for something edible, found it covered with powder grains from a split cartridge. (See photographs of types of haversacks attached to Appendix).

Appendices..... EQUIPMENT..... 1851--1891

CANTEENS

In conjunction with the haversack the tin canteen carried by the soldier during the 1860s-1890s, was a precious object to the infantryman, and cavalryman alike.

In after years the old soldiers spoke fondly of their old canteens and the poem written by the soldier-poet who used as his pen name "Private Miles O'Reilly, "WE'VE DRANK FROM THE SAME CANTEEN", was a prime favorite with the men.

A sample verse will suffice:

"It was sometimes water, and sometimes milk,
And sometimes apple-jack fine as silk
But, whatever the tipple has been,
We shared it together, in bane or bliss.
And I warm to you friend, when I think of this-
We have drank from the same canteen".

These tin liquid containers were round and ovid in cross section. The outside was covered by a shoddy felt which wore out under hard campaigning and was replaced by a more serviceable homemade and home-sewed covering of blanketing or pieces of old canvas wagon covers. The canteen was slung by a narrow canvas strap on the left side.

These canteens held approximately 3 pints. The necks were of pewter or lead, the stoppers were metal capped corks. Although aluminum was suggested as a replacement for the tin canteens as early as the 1880s and 1890s, the transformation did not come about until the early 1900s.

These tin canteens remained the same in general shape and size from the 1850s on to the early 1900s. In 1854 the 3-pint canteens cost 22¢ to 25¢ each wholesale and in 1857, they were 17¢ each and the metallic stoppers used at that time cost 2-1/2¢ each.

Many contracts for the canteens were let at the outbreak of the Civil War to be manufactured by W. B. Watkins, with corks and "black enameled

[illegible]" at 35¢ each; Jacob Koegnle of Indianapolis, canteens and straps at [illegible] each; Albert Hewett, Cincinnati, Ohio, canteens, corks and straps @ [illegible]/2¢ each, etc.

On July 15, 1862, a contract was let to R. H. Gratz & Company to deliver to the Schuylkill Arsenal out of Philadelphia by July 18th, 5,000 corrugated tin canteens and corks at 17¢ each. This marks the first order for the corrugated canteen which I was able to find in the Register of Contracts QMGO, Vol. 14, 1862, National Archives.

These corrugated canteens were stamped in a mould having a series of concentric circles on each side. (See photo of infantry private in full marching gear, official QM photograph of 1860s). Later other contracts for this same type canteen were issued to Haddon, Porter & Booth of Philadelphia; P. J. Magill of Philadelphia; and other contracts to R. H. Gratz & Co. at later dates.

Thus it would seem that the corrugated canteen as a regular issue did not reach the army until the middle of July 1862.

Lieut. Col. Philip Reade stated in 1900:

"In the matter of canteens we have not kept pace with other nations nor yet with the development and improvements made by the inventors and industrial establishments in the United States and which have been made evident by the open air tests made by me. The canteen now, and for many years issued by the Ordnance Department, is a poor affair, inconsistent with the improvements made in other articles of the soldiers' equipment issued by the same Department". (History of the Military Canteen by Lieut. Col. Philip Reade, War Dept. 1900, printed by C. J. Burroughs, Chicago, Ill., p. 9).

Reade went on to enumerate some of the defects. The consistency of the metals used in their manufacture varied in weight, some were No. 10, 20 or 30 gauge tin. They likewise varied in capacity. The chains holding the stoppers frequently slipped off the neck. The canteens rusted easily. The covers, as previously mentioned, were poor grade material and failed to keep the contents cool and palatable. He said the best type covers were wool felt covered with canvas. Old campaigners pulled a cotton sock over the canteen and then pulled a wool sock over the cotton one. They soaked their canteens at every opportunity.

In the 1870s troops in Arizona carried what was known as the "Arizona Canteen". When dry it weighed 40 oz. and when filled and wet, it weighed 82 oz. It was covered with common saddler's felt 3/4" thick over which there was a canvas cover, the edges of which were partly laced, partly sewed, the object being to open the cover to admit moisture. Before days of the railroads in New Mexico and Arizona, the canteens carried by the troopers held 6 pints. The custom was to soak the canteen cover at night and leave it suspended in order that the contents might be as cold as possible for the next day's march.

The Civil War canteens were 7-1/2 inches in diameter, both smooth and corrugated types. The pewter top was 1" long with a 7/8" opening. They were approximately 2-1/2" in thickness. The same size prevailed until 1900 at least. These canteens weighed 12.6 oz. empty.

The larger type canteens mentioned as being in use during the 1870s-1900 in the southwest were not the same shape as the regulation issue, being of greater diameter and with flattened sides and thicker through the center. In fact these canteens were in three pieces, while the ordinary canteen carried by the cavalry and infantry were made in two pieces.

Appendices ..... EQUIPMENT.... 1851--1891

During the 1850s-1880s, the soldier often took an unserviceable canteen apart and used the two halves as dishes, frying pan or improvised intrenching tool. By piercing one of these halves with a nail he also made a corn grater upon which he converted field corn into corn meal when rations were non-existent or scarce.

CUPS, PLATES & MEAT CANS

The tin cup and tin plate were about the only mess gear carried by the soldiers during the 1850s-1860s. Tin or rather sheetiron mess pans of various sizes as well as tin pails and cast iron pots and frying pans were carried in the company wagon or on pack animals along with large heavy gauge tin cofee-pots when the company was in the field. The coffee-pot as such was not necessarily a regular container. The tin pails or cups served equally well for such a purpose.

The cups were of stamped sheetiron covered with tin plating. Those of the 1850s-1870s held about one pint of liquid.

The tin cup carried by the soldier in the 1870s-1880s was of two types. One had straight sides and was cylindrical in shape being 4-1/16" high and 4" dia. at the mouth. The letters US were stamped in the bottom of some of these cups and on the handles of others. Another style cup of this period was shorter, 2-1/4" high with sloping sides and slightly concave bottom, 4-5/8" dia. at top.

The Civil War Cup was cylindrical in shape, straight sides and was, to all outward appearances, the same as the cup which continued in use for twenty years after the war. Some cups held a quart but the average was a one pint cup.

During the Civil War and in the decade preceding it, the soldier did not carry any standardized form of a mess kit as it was termed. The

round tin plate and the tin cup were the only items issued and carried. During this time the individual soldier purchased and used whatever he felt was necessary, and at the outset of the war men bought skillets which they lashed to the outside of their knapsacks. As the war progressed the boys who were recruits at the beginning of the conflict became seasoned veterans after a battle or two and began discarding all unnecessary impedimenta.

In the years immediately succeeding the war, the equipment of the man in the ranks became a bit more elaborate. In the late 1860s a meat can was introduced into the infantryman's pack. The regulations of 1872 indicate this was a square tinned receptacle 6-3/8" long x 5-1/8" high and 1-1/2" wide. It had a close fitting top which fitted inside the can to a depth of 1-1/2". There was a collapsible handle riveted to the top and another handle riveted to one end. The letters "US" were stamped in the center of each side panel.

According to instructions "For Fitting Infantry Equipments, U. S. Army", issued at Watervliet Arsenal, West Troy, N. Y., and printed at the National Army at Springfield, Mass. 1872, this "meat can" was to be used to "contain four days' rations of pork or of condensed meat. This can may be also used if necessary to boil coffee, and the cover for a drinking cup". It was carried in a pocket under the flap of the knapsack.

One suspects that this form of "meat can" was short lived. It was too small, too awkward and too useless to be of any value in a practical infantryman's kit.

At irregular intervals Boards of Officers were ordered to convene and discuss proposed changes in equipment for the army. One such Board met at Ft. Leavenworth, Kansas, July 1, 1874. The subjects under discussion were a new style knapsack, cartridge box, canteen, trowel bayonet and meat

Fort Union
Watrous, N
87753

can with knife, fork and spoon.

The meat can in question, which was adopted, was apparently designed by the Ordnance Department. It was described as being "meat-can and plate combined, consists of two oval dishes made of block-tin, one deeper than the other, which fit together, forming a meat-ration can of the following dimensions:

Length: 8 inches; width, 6-1/2 inches; depth of the whole can, 1-1/2 inches when closed; the lower dish to be 1 inch in depth; the plate 3/4 of an inch in depth.

To the deeper dish or plate is attached a light iron handle, which folds over and holds the two together. The one with the handle may be used to eat soup out of; as a frying pan, or to warm up cold food, and many other purposes that will suggest themselves when it is used."

The Board recommended that the knife, fork, meat-can, and tin cup be furnished by the Ordnance Department and issued at other ordnance-stores.

The canteen submitted by the Ordnance Department meets with approval, and is recommended for adoption with the broad strap and Chambers buckle, as per accompanying sample. (See Plate). (Ordnance Memorandum No. 19, Infantry Outfit, Washington 1875).

Apparently this was the first model meat-can of oval shape, with tight fitting lid and folding handle, to be introduced into the U. S. Army. The same form, with modifications, has continued in use to the present time. As previously noted the tin gave way to aluminum during the early part of the 1900s.

As may be seen in the photographs of equipment in the Robert Miller Collection, a circular meat can or mess kit as it became known just prior to

World War I, was also tried out sometime after the 1870s. This may have been an experimental model because it apparently never outranked the oval type.

Hence it may be assumed that at Ft. Union the troops first carried the heavy tin cups and tin plates, then in the 1870s they obtained the oval mess kits in two parts. The canteen remained essentially the same all during the period of occupation of the Post, except for the larger size "Arizona canteens" mentioned.

The individual knife, fork and spoon varied from time to time. The iron handled knives and forks with Black Japanned handles, of which examples have been found around Ft. Union, were produced in the late 1860s and continued in use into the 1880s and even later. The 1874 regulation knife and fork of the soldier's mess gear were of this type. As indicated previously, during the Civil War the soldier often purchased patented knife, fork and spoon sets which he thrust into his haversack, pocket or boot leg.

Ordinary kitchen knives with straight blade and rounded point, of the 1860s--1880s, had the wooden handles often inlaid with pewter or german silver ornaments.

CARTRIDGE AND CAP BOXES

The "fixed ammunition" of the period under discussion was of two kinds - paper and metallic cartridges. The former were carried and used during the 1850s-1860s, with the metallic shells coming into use during the Civil War and thereafter to the present time.

These cartridges were carried by the soldier in various sorts of containers. Until the close of the Civil War the cartridge boxes were of heavy black leather with either wooden blocks with holes bored in them to

dividual charges, or tin liners which were constructed in several cart-
ges. The capacity of the cartridge box during the Rebellion was usually
rty rounds. In addition to the box carried on a shoulder strap, the
ldier going into battle generally filled his pockets and also put extra
rtridges in his haversack.

The 1861 regulations state that the tin containers (two to each
x) were so made that the lower division open in front contained 1 bundle
10 cartridges and 2 upper divisions held a bundle of 3 and 4 cartridges
spectively. The sizes of these tin liners varied according to the sizes
the cartridges. The standard caliber was .58. Other rifles and carbines
took calibers, .63, .69, .46 and .56. The model 1842 Musket was .69; the
Model 1855 Musket and Rifle was .58, as was the Cadet Musket of 1857. The
Pistol Carbine also used caliber .58. The standard army revolver was a .44
d the Navy revolver was a .38 caliber. The Sharps carbine carried by the
valry was caliber .54. These caliber numbers denoted the diameter in inches
the round balls and conical bullets used in the various pieces. A certain
harge of powder was necessary to propel each size projectile. Thus the .69
l. ball of 1842 took 70 grains of powder; the .58 used 60 grains; the pistol
rbine charge used 40 grains; the army revolver 30 grains; the Navy took 17
d the Sharps carbine used 50.

The paper from which the cartridges were made was of a light grayish
lor although some of the cartridges were made of different colors, and the
xes in which they were shipped to the troops were likewise painted the
lor of the paper. Thus, the 1842 musket cartridges were of ordinary color
were those of the 1855 model. The charges for the Cadet musket of 1857

were wrapped in red paper. The pistol carbine charges were blue paper, as were the cartridges for the Navy revolver. The Sharps carbine was the ordinary color and so were those for the army revolver.

The boxes for the army and navy revolvers held 600 cartridges each, andwhen fully packed weighed 28.5 lbs. and 16.5 lbs. respectively. A box of Sharps ammunition weighed 78 lbs. The wooden packing cases used were of varying sizes also. Musket balls were packed in boxes made of one inch boards and were placed in sawdust or tow to prevent battering in transit. Each box contained 1,000 balls and was of unpainted wood. The covers were screwed in place and the container was hooped with strap iron.

There was some complaint made by the soldiers of the California column that their paper cartridges, carried in the leather cartridge boxes, often split and spilled the powder as the troopers rode along the trail. This was occasioned by the banging of the box against the saddle.

The musket cartridge box was carried over the right hip, suspended by a shoulder belt which passed under the waist belt. This helped to keep the box in place. The box had two flaps, one which was smaller, covered the top of the inner liners, the other a broad flap which fell over the face of the outer covering was held in place on the under side by a strap and brass stud. An oval brass plate of the same shape, but smaller than the belt plate, with the letters US adorned the center of the outer flap. BUT LATER BOTH WERE SAME SIZE

These leather cartridge boxes were of varying dimensions at the outbreak of the War. The inner measurements for the boxes designed to take the various type cartridges mentioned ranged from 6.8", 7.2" and 7.8" in length, by 4.7", 5.0"; 5.2" and 5.8" depth in front and 1.4" to 1.6" in width. The fittings were of brass.

A second but smaller leather box, with rounded bottom and covered with leather flat held in place by a small round brass stud riveted to the bottom of the pouch, was carried at the belt as a percussion cap container. These cap-boxes were also of black bridle leather 3" wide x 3" deep, by 1.25" wide. These like the cartridge boxes had an inner flap to protect the contents. The lining was a piece of sheep-skin with the wood outermost, glued to the inner side of the pouch and sewed to the back. This was to prevent the caps from being jammed against each other by a sudden blow and exploding in the pouch. These caps were made of thin copper in the shape of an old fashioned high-crowned, narrow brimmed hat and were called "hat caps". The Mexican farmer who still uses the old muzzle-loading percussion-lock shot-gun today terms them "capsules de sombreros" or "hat caps". The caps were charged with fulminate of mercury and nitre. To protect the explosive charge from moisture and prevent it from falling out of the cap, a drop of pure shellac varnish coated the inside of the cap. Whenever a piece was discharged these caps frequently split in several places around the edge and at times scratched the skin of the soldier's face, or the face or hands of the man next to him. At times, also, if a charge of powder was damp, the nipple of the piece too tightly packed or the nipple was clogged with powder or fuse, the cap failed to explode the charge. In such cases the soldier was said to have "busted a cap" on a man. The same thing frequently occurred with percussion revolvers and many a man has had his life saved because a cap snapped without igniting the powder in the barrel.

Although there had been experiments with metallic cartridges for some years prior to the Civil War, it was not until the Spring of 1861 that

the seven-shot repeating Spencer carbine using caliber .50 copper cartridges, with ranges bearing up to a mile, began filtering onto the battlefields. This deadly repeater was "Mr. Lincoln's choice" and only the obstinacy and stupidity of the Chief of Ordnance kept the new weapon out of the hands of the Union soldiers until the spring of 1863.

During the last two years of the War more and more of the repeating carbines and rifles made by the Spencer Repeating-Rifle Company of Boston, Mass., appeared on the battlefields and the exasperated Confederates are said to have referred to these weapons as "those damned yankee guns which they wind up on Sunday and shoot the rest of the week".

One unique feature about these new and lethal firearms was the tubular magazine concealed in the butt of the gun. A special carrying case for these tubes was made whereby the soldier could quickly slip out the empty tube and insert a loaded one. The cartridges were rim fire, i.e. the fulminate was in the rim of the cartridge. Later shells had the fulminate in center primers either visible or invisible and the firing pin struck the cartridge dead in the center, thus exploding the charge.

The use of metallic cartridges became almost universal after the close of the Civil War and as long as Ft. Union existed brass and copper cartridges continued in use among the troops stationed there.

The popular muzzle loading rifle during the War had been the "Long Toms" manufactured at the Springfield Armory in Massachusetts. In 1865, many of the old model Springfields, as well as other rifles and carbines used by the army, were returned to the various U. S. armories to be converted from muzzle-loaders into breech-loading single shot weapons using metallic shells.

Appendices... EQUIPMENT..... 1851—1891

In 1873 an Ordnance Board, after testing out a number of rifles and carbines, settled upon the Model 1873 Springfield caliber 45-70-405 as the most ideal single shot breech loading weapon for the army. These became known as the "trap-door Springfields". The ammunition used was center fire although the first cartridges had a smooth base, no indication of the center primer which was embodied in the base of the shell on the inside. Moreover at this time the system of head stamping the cartridges with the numerals signifying the month and year in which the cartridges had been made and the initials of the arsenal producing them had not yet been instituted.

The bulk of the empty casings and unexploded shells found around Ft. Union are the 45-70s and date after 1873. Many of these bear the head stamps.

It will be noted that many of these cartridges bear the letter F (Frankford Arsenal) at the top, and on the lefthand side a numberal 3 (for example) which indicates March and opposite this numeral might be 88 meaning the year. Thus we know this cartridge was manufactured at Frankford Arsenal, March 1888. Apparently most of the head stamped casings manufactured at the Frankford Arsenal were done after 1876. I have examined several hundred casings from various old army posts and have not encountered any earlier than 1877. The majority of the casings date through the late 1870s and 1880s.

Occasionally the letters F and A are both found on the cartridge head; they stand for "Frankford Arsenal".

As a matter of fact, most cartridge authorities have very little to say concerning the system of head stamping of cartridges manufactured by

United States arsenals.

Other shell casings found in the debris of Ft. Union represent ge used in army revolvers and rifles other than the military such as Henry, Winchester, Sharps, etc. Some of these were owned and used by h officers and men. The officers in particular purchased their own vate sporting rifles and hunted with them.

By and large, however, the long, straight jacket empty shell ings are military 45/70s of the 1870s--1880s.

When metallic casings were first introduced an attempt was made convert many of the surplus Civil War leather cartridge boxes into tallic cartridge boxes but without good results. The copper and brass shells clattered too much and surprise attacks on Indian encampments were precluded by the rattle of the casings as the men rode in. Attempts were also made as early as 1866 to introduce leather or woven belts with individual ops for the cartridges but these new innovations were held in abeyance for ny years. A cartridge box known as the McKeever was issued as regulation ipment in the mid 1870s.

The Ordnance Board recommended the adoption of this hinged leather x which held twenty .45-70 cartridges in webbed loops in 1874. A number these boxes were made and sent to troops in the field but ordnance in- ectors who were sent to inspect the equipment of the soldiers on the Sioux mpaign in 1876 said it was virtually impossible to make the soldiers carry eir cartridges in this box. The next step was to manufacture some thirty ousand canvas belts with canvas loops sewed on. The belts were an improve- nt but the loops tended to rip out or enlarge, causing loss of cartridges.

In 1878 Major Anson Mills of the 10th Cavalry devised a heavy bbed belt with loops. A special loom was devised to weave this tough

ric and thenceforth the Mills' dark blue webbed belt was used by the US
y. There were loops for fifty cartridges on this belt. The Mills equip-
t of 1887 in addition to the waistbelt had a shoulder belt which contained
e cartridges.

The McKeever box was abandoned for field use and was worn only in
rison. It was finally abolished entirely in 1895.

Hence after 1878 or rather after 1879 when the first webbing loom
: out into operation, the Mills' belts began to appear. The remains of
n belts found at Ft. Union will probably date after 1880.

WEAPONS

FIREARMS:

In general four kinds of firearms were used. These were carbines, single shot pistols, revolvers and rifles.

The dragoons and cavalry carried carbines, pistols and revolvers. en Ft. Union was first built the mounted troops carried the Hall breech ading percussion cap carbine and the Aston single shot horse pistol, so lled because it was carried in a holster slung across the pommel.

The dragoons and mounted riflemen in the early 1850s were armed th the improved Hall breech loading carbines and the first percussion sketoons. The last of the musketoons were manufactured in 1856.

At this same period the infantry carried muskets which had been tered from earlier flintlock models (from the 1820s onward). During the te 1850s many of these smoothbore muskets were rifled and altered to per- ssion locks. Numbers of the newly converted pieces were equipped with r. Maynard's patent tape locks. These tape locks carried a roll of orange olored, varnished caps, similar in all respects to the rolls of caps used t the present time in repeating cap pistols.

Appendices ..... EQUIPMENT & ARMS..... 1851--1891

The United States rifled-musket Model 1855 was distinguished by being equipped with the Maynard tape lock. The caliber of .58 of an inch was endorsed for all small arms. In 1858 the rear sight was made smaller with range leaves folding down onto the barrel.

By 1861 the dissatisfaction with the tape lock was nearly universal among army men. The paper caps when damp would not fire and the new model rifle-musket of 1861, and after, was equipped with the regular percussion cone and cap.

In the Fall of 1865 the government began altering some of the muzzle loaders into breech loaders to take a cal. 58 copper cartridge. This was known as the "Allin alteration".

The rifle-musket gave way to the U. S. Model 1866 rifle manufactured upon the plan of Master Armorer E. S. Allin. It was a modification of the model 1865. The copper cartridge of this new breech loader was cal. 50. In August of 1867 this weapon proved its value in the famous Wagon Box Fight when a small detachment of around thirty-two soldiers and civilians held off a superior force of several hundred warriors under the noted Sioux Chief, Red Cloud. It was the first time the warriors of the northern plains had encountered any breech loading weapons and the effect was devastating upon their numbers and their morale.

In 1868 a newer model using the same breech loading principle was issued and thenceforth, until the U. S. Magazine Rifle Model 1892 was brought out with a bolt action, the "trap door" Springfield was the arm in general frontier use. There were attempts in 1878 and 1882 to arm the troops with the bolt action Hotchkiss and Chaffee-Reece rifles but to no avail. The 1873 model Springfield used the first of the .45-70 caliber shells.

Appendices ..... EQUIPMENT & ARMS.... 1851--1891

During the 1860s the troops moving into Arizona from California were armed with the Sharps breech loading percussion carbines. These weapons used both paper and linen cartridges. The cavalrymen also carried Colts Navy revolvers cal. 36 and some of the teamsters were armed with Colts Army revolvers cal. 44. These hand guns were carried in belt holsters.

In addition to these firearms the mounted troops also had the regular cavalry sabers of the "Old Wrist Breaker" type. Unlike the swords carried in other parts of the country the ones carried by the men from California were well sharpened.

The infantrymen shouldered the rifle-musket (probably Model 1855 or 1858). Both ball and buckshot cartridges were used in these rifles. The rifles were equipped with the Maynard locks and regular percussion locks as well. The officers complained that "only about three-fourths of the caps will explode and about the same average with the tape".

In addition to the ball cartridges the troops also carried the conical "expanding cartridges". These were the Minie ball type and have the characteristic cone-shaped concavity in the base of the lead bullet.

The orders to the soldiers of the California Column, Feb. 11, 1862, listed the uniform and equipment of each man:

"The infantry companies which may be required will take to the field in this district, unless otherwise especially ordered, will always march with knapsacks on. Each soldier will carry one greatcoat, one blanket, one forage cap, one woolen shirt, one pair of drawers, one pair stockings, one towel, two handkerchiefs, one fine and one coarse comb, one sewing kit, one piece of soap, one toothbrush.

"Each soldier will wear his uniform hat without trimmings, one blouse, one pair trousers, one pair stockings, one woolen shirt, one pair

drawers, and may wear a cravat in lieu of the leather stock.

"Each soldier, whether of cavalry or infantry, will have one canteen, one haversack, and one tin cup. In his haversack he will carry one fork, spoon and plate. He will wear a good sheath knife.

"Each company, whether cavalry or infantry, will have only enough mess-pans and camp kettles (in nests) for absolute requirements; also a few short-handled frying pans, some large tin plates for the baking of bread, three large tin pans in which to mix bread, one or two strong coffee-mills, a 6-gallon keg for vinegar, a few pounds of black-grained pepper, four axes, four camp hatchets, six spades, six shovels".

This then, was the type of equipment carried to Ft. Union and used by the soldiers of the various volunteer companies at that post and the other forts in Arizona and New Mexico. The small arms were carried in addition to the knapsacks, haversacks, cartridge, cap boxes and bayonets.

ARTILLERY

We know there were at least two sizes of cannon at Ft. Union and sister posts. These were, the 12 pounder bronze or "brass", mountain howitzer and the 6 pounder light field gun which was either of bronze or iron.

The 12 pounder mountain howitzer was a piece of ordnance which had first been introduced into the American army in 1836. Twelve of these guns had been cast as Cyrus Alger & Company, Boston, Mass., in that year and then distributed to the troops operating against the Seminole in Florida and elsewhere. General Stephen Watts Kearny had two of these small stubby cannon with him when he marched to California in 1846. Captain John C. Fremont had a sister gun of the two carried by Kearny, which the "Pathfinder" abandoned in the Sierra Nevada Mountains on Jan. 29, 1844 on what was later the Nevada side of the range. This gun, which, with the howitzer lost by

Kearny to the Californians at the battle of San Pascual, December 1846, became the subject of controversy at Fremont's trial in 1847, was not recovered until 1859. Two prospectors, J. B. Whitton and partner took the gun into Genoa, Nevada Territory in the summer of that year, thence to Carson City. After many vicissitudes, passing from private hands into the hands of the Government at the beginning of the Civil War, going thence to Virginia City where it was placed in custody of the Provost Guard and later back into private hands, the historic howitzer, with the original casting date of 1836 on one trunnion, is now in the Carson City State Museum.

This howitzer was patterned after a French mountain artillery piece and was specially designed to be carried on mule back or wheels on two types of carriages over rough terrain. It was long a favorite in the west because of its mobility. A battery of six of these guns required 33 pack saddles and harnesses and 33 horses or mules for transportation of the guns and their carriages, ammunition, etc.

The gun itself weighed 220 lbs. It was 37.21 inches long. The diameter of the bore was 4.62 inches and the diameter of the powder chamber was 3.34 inches. The maximum range, varying according to the elevation, was from 200 to 1000 yards. The average range when the gun was set at an elevation of 2° 37' was 500 yards. The range was greater when a shell was used than that of a spherical case shot, with the same charge and same elevation.

The diameter of the two wheels on the ordinary carriage was 38", length of the axle tree was 38.25" with the track of the wheels only 30.2". The height of the axis of the trunnions above the ground was 27". The total weight of the gun and its carriage was 515 lbs. The two ammunition chests weighed 238 lbs.

The "prairie carriage" which was the one most commonly used at Ft. Union and on the campaigns in New Mexico and Arizona had four light wheels which were higher and the distance between them greater than the two wheeled carriage. This provided better stability andthere was less chance of overturning the piece.

All through the 1860s the mountain howitzer was the favorite piece of artillery on the frontier.

In 1850 these cannon were marked thus at the foundry: The inspector's initials were on the face of the muzzle with a separate series for each kind and caliber of those made at each foundry. The initial letters of the names of the founder or foundry were on the end of the right trunnion and the year of manufacture on the end of the left trunnion. The foundry number was on the end of the right rim base, above the trunnion; the weight of the piece in pounds on the base of the breech and the letters U. S. on the upper surface of the piece, near the end of the reinforce.

Cannon rejected on inspection were marked XC, on the face of the muzzle and if condemned for erroneous dimension which could not be corrected an XD was added. If condemned for lack of strength by powder-proof the letters were XP and if by water-proof (i.e. water poured into the barrel and subjected to pressure indicated cracks or flaws in the metal) was marked XW.

(See A Course of Instruction in Ordnance and Gunnery prepared for The Cadets of the United States Military Academy, by Bvt. Col. J. G. Benton, Ordnance Department, D. Van Nostrand, N. Y. 1867, p. 207 et seq. Also Ordnance Manual, 1850, 2nd Ed. pp. 8; 19; 131-148. Memoirs of My Life, by John C. Fremont, vol. 1, N. Y., 1887; American State Papers, Military Affairs, vol. 7, pp. 734; 822; 878-79.

The ammunition used in a 12 pounder mountain howitzer consisted of spherical case shot which were hollow iron balls filled with lead balls cal. 69 which were first coated with linseed oil. Melted sulphur was then

poured in through the fuze-hole and when it solidified an augur was inserted into the fuze hole and a hole .75 inch in diameter was bored through the mass, after which musket-powder was tamped into the hole with a wooden drift and a light mallet. Then the iron plug was screwed into the fuze hole with its top flush with the large portion of the fuze hole, with a thin leather washer laid over it and a hole in the center of the washer. The hole in the plug and the washer was then filled with fine rifle powder. A small thin tin disk in which 4 or 5 small holes had been punched was set in the bottom of the fuze, the threads of which were daubed with a little white lead and the fuze then screwed into place. The ring around the fuze hole was painted red.

Another charge for the mountain howitzer was a canister shot. This was a tin cylinder made of sheets of tin 0.02 or .025 inch in thickness, with end pieces of heavier sheet iron. This canister was filled with lead balls. (Canister shot for other artillery pieces were of cast iron balls). A round disk of wood called a sabot was tacked to the bottom of the cylinder. The lead balls were coated with paint or coal tar, as was the outside and inside of the plates. The entire empty tin cylinder, prior to being filled with the charge of powder and balls (the latter set in packed sawdust) was coated with bees wax and turpentine to prevent rusting.

Solid shot were also used in the howitzers.

The powder change used with a spherical case shot was one-half pound, oncased in a twilled woolen bag, or a flannel bag if the better grade cloth could not be procured.

The sponge and rammer combined were fastened to the upper right side of the trail piece of the gun. In loading, the powder bag was thrust home, the ball (attached to a wooden sabot by thin sheet iron straps) was rammed down onto the powder. Then a sharpened iron wire, smaller than the

diameter of the priming hole in the breech of the gun, was thrust into the powder bag and the brass primer inserted.

These cannon primers, of which a number have been found at Ft. Union, were termed friction primers. The tube was filled with powder. The small toothed wire in the cross tube at the proximal end of the primer was pulled quickly through by a lanyard hooked into the eyelet in the brass wire. This ignited the friction compound in the short tube soldered at right angles to the top of the main priming tube. The compound was made of 2 parts sulphuret of antimony and 1 part chlorate of potassa moistened with gummed water. The small toothed and partially flattened brass wire which ignited the friction compound was called a wire rubber. When the primer was finished and loaded, the lower end of the long tube was sealed with beeswax and a bit of pitch. The entire primer was dipped in shellac, varnished, colored with lamp black. This gives the new primers a Japanned finish.

As a rule the howitzers were kept in battery on the post and one piece was usually stationed at the base of the flagpole on the parade where it was fired as the sunset and reveille gun. In most of the posts in New Mexico, and presumably Ft. Union was no exception, one of the 12 pounders with its ammunition chest and limber was kept by the flagpole with a waterproof tarpaulin covering it when the gun was not in use.

The other piece of ordnance used at Ft. Union was the iron six pounder, a gun of smaller caliber, mounted on a field carriage. It had a range of 318 yards point blank and elevated 5° with a powder charge of 1.25 lbs.; it would carry 1523 yards. At 4° elevation with this powder charge it took 5 seconds for a spherical case shot to travel 1200 yards. A mountain howitzer loaded with 1/2 lb. of powder would throw a spherical shot at point blank range 150 yards and elevated to 4° 30' would carry the same

ball to a distance of 1200 yards in 4-3/4 seconds.

As previously noted the number of 12 pounder mountain howitzers and 6 pounder iron or bronze field guns at Ft. Union varied from time to time. The iron guns were lacquered with various weather-proof compositions as were the iron works on the carriages. The color was generally black. One such mixture was black lead pulverized, 12 parts, red lead 12 parts, litharge 5 parts, lampblack 5 parts and linseed-oil 66 parts. A simpler mixture was 2 gallons of coal-tar and 1 pint of turpentine applied hot to a cleaned surface. This same lacquer was applied to cannon balls standing out in the open. (See Ordnance Manual, 1861, Washington, D. C.)

BOTTLES -- 1866--1891

Of all the hundreds of specimens found at Ft. Union, the glass and stoneware bottles are the most numerous and varied. These may be divided into the following major categories:

1. Beer and liquor bottles
2. Patent medicine and other medicine bottles
3. Extract bottles
4. Perfume bottles
5. Miscellaneous such as hair oil, ink, soft drink, etc.

BEER & LIQUOR BOTTLES

Since the area in which these bottles have been found was occupied from about 1861 onward to the evacuation of the troops in 1891, it is reasonable to suppose that few, if any, of these containers will date previous to 1861. Thus we have a range of thirty years accumulation.

The beer bottles are quite numerous. However, when it comes to dating these glass containers the chronology becomes more limited. Since the pasteurization of beer is a prime requisite for the proper bottling of beer

and since Pasteur's process did not come into active use in the brewing business until 1873, we can safely assume that no bottled beer was shipped to Ft. Union or any other place in the United States prior to that year.

Many of the bottles found at Ft. Union indicate that the favorite beer sold in the Post Canteen and Traders' store was Anheuser-Busch, most of it being the well known Budweiser. Here again we have definite dates for the introduction of the latter beer under that trade-name.

The original name of "Budweiser" was owned by Carl Conrad and Co., of St. Louis, from whom Anheuser-Busch obtained the patent right No. 4623 May 8, 1877. Pat. No. 6376 was registered July 16, 1878, and a re-registration of Pat. No. 13,064 in March 1886. Hence, any bottles with the name Budweiser date from 1876 when Conrad and Company owned it. The next date of issue was May 1877. Thus any beer bottles by this name must date after 1876 and may occur anytime within the following 15 years until the abandonment of Ft. Union.

When beer was first shipped in bottles the system of corking was in vogue. The patent bottle cap had not yet been invented.

The pasteurization of the beer prevented it from working after the liquid was bottled but the method of corking was the same as for liquids bottled under high pressure. The corks were driven firmly into the necks of the bottles and a thin tin disk with a row of slight convex indentations around theedge was placed on top of the cork. Then a thin wire was criss-crossed over the disk and fastened securely around the neck of the bottle under the lip which was of a style known as "the brandy finish" to the glass trade. Then the entire neck was covered with silvered paper in imitation of a champagne or wine bottle.

BOTTLES.... Ft. Union..... 1866-1891

A cursory study of some 400 beer bottles from Ft. Union indicates that the soldier drinkers had the habit of rapping the neck of the bottle against the edge of the bar or the table during which process the lip, cork and wire came away clean. This obviated the trouble of removing the wire, lip and cork by a more laborious process. About one bottle in three was treated in this manner.

The beer bottles came in three colors: the clear flint, the amber and darker green. The latter bottles greatly resemble the wine bottles in color and form, with the exception of the heavy base and kick up or deep indentation in the bottom of the wine bottles which is not so pronounced in the beer bottles.

Of the beer bottles which I examined there were approximately 114 unmarked ones in the lot.

In general, the mould marks on the bottoms of the bottles indicate the names of the glass manufacturers by whom the containers were made and sold to the brewing companies. Some of these marks are readily identifiable, others are not. Appended is a list of marks noted on the beer bottles of 11 colors:

L. G. Co.
A & D H Co. (Alexander and David H. Chambers Co., Pittsburgh)
CCC intertwined
I G Co. (Illinois Glass Co.
M G Co.
MGW Co.
B G Co.
S B Co.
D S G Co.
WIS. G Co. (Wisconsin Glass Co.)
MILW.
G & I Co.
C & Co.
M C C

Some of these companies varied their marks thus:

BOTTLES ..... Ft. Union... 1866-1891

$\frac{\text{L. G. Co.}}{2}$ and used various numerals below the line

or added a cross above and below the initials

$\frac{\text{I G CO.}}{\text{K}}$ and in other ways changed the marks slightly

$\frac{\text{M G Co.}}{11}$ A few of the bottles were simply marked:

A, D, E, 3 K, G, 11, H, 4, 8, etc.

The amber colored beer bottles held about 24 oz. of liquid, while the clear flint bottles with the cork pebbled surface were 22 oz.

Many beer bottles during the late 1870s and through the 1880s were manufactured in Belleville and Streator, Illinois. One of these was the American Bottle Co. of Streator. This manufacturing concern as well as the Adolphus Busch Glass Co. in St. Louis, Missouri, manufactured beer bottles for the Anheuser-Busch beer maker, and were owned by Adolphus Busch.

Other concerns which made beer bottles were: Owens-Illinois Glass Co., Toledo, Ohio; Anchor-Hocking Glass Corp'n., Lancaster, Ohio; Obear-Nestor Glass Co., Belleville, Ill., Thatcher Glass Mfg. Co., Elmira, New York, Ball Brothers Co., Muncie, Indiana; Knox Glass, Inc., Knox, Pa., Brockway Glass Co., Inc., Brockway, Pa.

The bottles most commonly used by Anheuser-Busch in the 1870s were those of light-greenish white glass with a cork finish. In 1875 that company bottled beer under sixteen different labels.

LIQUOR BOTTLES

Aside from the beer which was drunk in large quantities at Ft. Union, presumably imported in kegs before the introduction of the glass bottle in or after 1873, whiskey and wine bottles were also imported containing these more potent drinks. These, however, are in the minority.

BOTTLES ..... Ft. Union.... 1866-1891

One brown whiskey flask is marked WHITNEY GLASS WORKS. This company was located at Glassboro, N. J., and was founded in 1835 by Thomas H. Whitney. During the 1860s and 1870s this concern manufactured not only whiskey flasks but many bitters bottles as well. It also made a number of historic whiskey flasks, much sought after by collectors. The Whitney works was acquired by the Owens Bottle Company in 1918.

Another whiskey flask of clear glass is marked I. G Co. on the bottom, probably Illinois Glass Company.

Many of the small whiskey flasks were unmarked.

A brand of whiskey known as "Planet, Sour Mash" made by Ferd. Westheimer & Sons of St. Joseph, Mo., was also imported into Ft. Union.

A local liquor was the whiskey sold by Wm. Carl & Co. of "Santa Fee, NM". The bottles were brown and probably manufactured in the east but filled from bulk supply in Sta. Fe.

Champagne and other wines were also used at the post, probably by the officers. The empty bottles as a rule have no marks.

MEDICINE BOTTLES

Patent medicines of various kinds were used. It is quite possible that many of these were purchased for use by the families of the soldiers since most of the medical treatment, as well as the medicines for the troopers, were administered at the post hospital.

Among the medicines used by the soldiers were bitters and the inevitable essence of Jamaica ginger. These liquors had a high alcoholic content and were taken internally by the soldiers more as beverages than as cure-alls. During the 1850s and 1860s several hundred brands of bitters were on the market. They came under the category of medicinal beverages and as such could be sold by sutlers or post traders when the sale of whiskey,

Wine, Brandy, etc., was prohibited. Consequently men bought and drank bitters (which were only alcohol with a medicinal flavoring) as they would other hard liquors.

The prime favorites were Plantation Bitters, Log Cabin Bitters, Hostetter Bitters, Tippecanoe Bitters, Stoughton Bitters, West India Bitters, and Fish Bitters, although the soldiers would drink any brand they could get.

The bitters were sold in hundreds of different kinds of bottles, many of which are now collectors' items and are eagerly sought after by men and women who collect glass.

The "West India Bitters" sold at Ft. Union were made by G. Lediard of St. Louis in tapering squared bottles dark green in color. Another Lediard bottle was dark brown and hexagonal in shape.

On the whole, however, bitters were not as common a tipple at Ft. Union as the other posts unless there are many more bottles yet to be recovered.

Essence of Jamaica Ginger came in smaller bottles and these were more plentiful. The glass bottles were semi-flask shaped and bore the names of the makers blown on the sides of the clear glass.

Among the names thus observed were those of three different Brown families, at least they were from different parts of the country. These were: "F. Brown's Ess of Jamaica Ginger, Phila"., "N. K. Brown's Aromatic Essence Jamaica Ginger, Burlington, Vt.", and "Brown's Med. & Mfg. Co., Leavenworth, Kas." Another manufacturer was Mellier's Ess. of Jamaica Ginger, St. Louis.

Other patent medicines represented by the bottles in which they were contained were:

Ayers Compound Extract of Sarsaparilla, made in Lowell, Mass.

BOTTLES..... Ft. Union.... 1851-1891

Van Buskirks Fragrant Zozodont
St. Jakobs Oel made by A. Vogeler & Co., Baltimore, Md.
Dr. August Kroenigs Hamburger Tropfen
Davis Vegetable Pain Killer
Burnett's Cocaine, made in Boston
Dr. King's New Discovery for Consumption, made by
H. E. Bucklen & Co., Chicago, Ill.

These, of course, represent only a few of the hundreds of patent medicines "good for man and beast" that inundated the market during the 1870s--1890s.

Most of these balsams, balms, compounds, cordials "cures", drops, emulsions, elixirs, expectorants, liniments, oils, specifics, sarsaparillas, etc., etc., were sold in what was known as the "panel" type flattened bottles with short necks, rounded or semi-rounded shoulders and flat bottoms. The sides were somewhat indented and the name of the medicine as well as the company was blown into the sides. In addition to this identification paper labels and pasteboard boxes carried the name of the contents, place of manufacture, and extolled the merits of that particular remedy.

In addition to the marked bottles there were hundreds of unmarked ones from which the paper labels have long since vanished. Likewise, the bulk of the bottles which were in the post infirmary were unmarked, except for paper labels which denoted the contents, and which in rare instances have survived. Two of the larger size bottles are marked thus ÷ one of light, clear, greenish-blue glass had the molded letters "U. S. A. Med'l. Dep't." on the shoulder. The other, of amber glass, bears the raised letters, "U.S.A. Hospt. Dept." on it. Bottles of the latter type also exist in other collections.

There were standard type bottles used at the Post in which to store the various liquids, powders and pills used in treating the sick and wounded troopers. These bottles ranged from the ordinary round prescription with

wide and narrow mouths which held from 1/4 oz. to 40 oz., through a variety of square shouldered round prescription bottles of 1/4 oz. to 32 oz. capacity. These were in clear flint glass.

Other medicine bottles were the French square prescription, Baltimore oval, various sizes of Short Blake, tall Blake, Hopkins square, plain ovals, oblong prescription, Western oval, Ideal oval, Golden Gate ovals, Union ovals, etc. Chloroform bottles were in either clear or amber colored flint, both plain and stoppered. These were special bottles for morphine ranging from 1/2 to 4 ounces. Fluid extracts were kept in either round or square bottom bottles of 1/2 lb. to 2 lb. contents or from 2 oz. to 16 ounces.

Tablets were kept in either square or oval shaped bottles and vials.

Acids were contained in round bottles with glass stoppers and ranged from 1/2 oz. to 64 ounces. Other styles of medicine and drug bottles were known as wide-mouth salts. Homeopathic tube vials were in clear flint, amber or blue glass and were graduated in size from 1/8 dr. to 8 dr.

Ointments were kept in small jars of clear or opalescent glass, usually with screw tops.

At times old medicine bottles were filled with turpentine or linseed oil. In fact the habit of using empty bottles to hold almost any liquid prevailed then as it does now.

EXTRACT BOTTLES

Flavoring extracts used in the kitchen were lemon, vanilla, etc. In a pinch these also served the cooks and their helpers as beverages when

other alcoholic stand-bys failed. The extract bottles were known to the bottle manufacturing companies as flat, oblong, or by the shape of the indented panels on the front and back such as taper panels, plain oval panels, Dixie panels, Hart panels, etc.

PERFUME BOTTLES

A wide variety of perfume bottles, many of them with fancy or odd shapes, were in use during the 1870s--1890s. Cologne and Florida Waters were among those used by soldiers and civilians alike. Many of these bottles had cut-glass stoppers. When these bottles were originally purchased they bore gaily colored labels. Many perfumes, pomades and brillantines used on hair, beards and mustaches came from abroad. The many products of Ed. Pinaud of Paris found a ready market among the soldiers and their families. There was Eau de Quinine Tonique, Eau de Cologne, Lavender Water, Eau de Toilette, etc., etc. There were extracts for the handkerchief such as White Rose, Violet, Heliotrope, Frangipani, Patchouli, Lily of the Valley, Jockey Club Ylang Ylang, New Mown Hay, and many other scents used by men and women alike.

Likewise there were toilet articles from Lubin "Perfumeur Paris". The assorted odors equaled those of Pinaud Lubin put out such perfumes as Bouquet de Caroline, Mignonette, Mousseline, Damask Rose, Night Blooming Cereus, White Lilac, Widow Machree, Rondeletia, Newport Breeze, Forget Me Not, Opoponax, and the more prosaic, Spring Flowers, White Lilac, Wood Violet, Magnolia or Kiss Me Quick.

Competing with these foreign imports were Rose Bud Hair Oil made by the Standard Perfumery Company of New York, packaged in a very fancy hexagonal shaped bottle, with what the glass companies called an "arch ball neck"; Kathairon by the Lyons Company "For the Hair" made in New York, and

even a New Mexico product called "Amole Hair Dressing" made by the Aztec Laboratory Company at Santa Fe. This outfit used a simple clear glass "Tall Blake" bottle made by Whitehall Tatum & Co. Harrison's Columbian Perfumery was another United States firm represented among the bottles originally filled with the "stinkum sweet" scents as the soldiers referred to their perfumery.

Murray & Lanman of No. 69 Water Street, N. Y., sent their Florida Water to help sweeten the air and hair in the barracks and post boudoirs.

MISCELLANEOUS BOTTLES

In this category may be found ink, glue, preserve, olive, sauce and other odds and ends of bottles. Soft drinks during this period were usually ginger beer, root beer or plain soda water. During the 1870s and 1880s, champagne cider, birch beer, tonic beer, as well as a variety of fruit essences were bottled and sold. The various plain carbonated waters, Vichy and Bitter, were also bottled and sold.

The bottles were of glass and vitreous stoneware, some of them with patented stoppers which made the bottles non-refillable. The soda water bottles were of heavy greenish clear or white glass, such as the one in which C. A. Scheidemantel of Denver used to ship his soft carbonated drinks to Ft. Union, from the middle 1870s well into the 1880s.

The bottoms of these bottles were either flat or rounded and the lips were bulbous and thick. The patent stoppers were usually of hard rubber fastened to a heavy wire.

Ink in bulk was shipped in brown or white glazed stoneware bottles manufactured by J. Bourne & Son, Denby potters near Derby in England. Ginger beer bottles of the same material also came from England.

Ft. Union ..... BOTTLES.... 1851--1891

Small clear ink bottles of uncolored or slightly tinted bluish glass were used and these served both as shipping containers and ink wells. Small glue bottles were of the same approximate size and shape as the former.

Pickle, preserve and olive jars were also shipped to the Post and augmented the rather monotonous diet of the men. These were not issued as rations but were purchased either by individuals or from company mess funds as special treats and were served usually on special festive occasions such as at Thanksgiving, Christmas, New Years, Fourth of July, etc., along with cigars, beer, liquors, etc.

The various brands of popular sauces and dressings were also purchased in the same manner. E. R. Durkee & Co's. Salad Dressing was in use in patented flint glass bottles with plated screw tops during the 1870s and 1880s, as was Lee & Perrins Worcestershire Sauce.

Included in the hundreds of bottles found are many unmarked ones from which the paper labels have long since vanished. One may only surmise that these once held preserves, jams, jellies or pickles which were relished by the men. Vinegar too was a common flavoring, issued as a part of the military ration by which the doctors tried to combat the dread scurvy which appeared at most of the frontier forts and camps, brought on by the poorly balanced diet.

A volume could be written on the bottles alone. I have attempted to indicate some of these type containers as an example of the wide variety of liquids used at Ft. Union during its entire period of existence.

As the modes of transportation improved, more and more items found their way into common usage. New patents and new products made their appearance. The invention of the patented glass tops for fruit jars in the late 1850s and early 1870s made the preservation of fruits and some vegetables

more simple. The Mason jar with the zinc and glass screw top was patented Nov. 30, 1858, and has been in use ever since. The glass screw top was patented February 4, 1873.

The bulk of the material found at Ft. Union accumulated there during the 1870s and 1880s or during the last twenty years of occupation. Everything found tends to confirm this. The bottles, metallic ammunition, buttons, tin cans, parts of equipment, etc., in general fall within these dates. Certain of the insignia, some of the lead balls and conical shaped bullets, as well as fragments of harness, bridles, cannon primers, etc., will date from the early 1860s to early 1870s.

MATERIAL OTHER THAN BOTTLES

A few brass and lead seals bearing the names of manufacturers were recovered. Some of these such as the metal caps for speral cigar containers stamped "Tansil's Punch 5¢ Cigar", indicate the sale of these "long Havanas" during the middle 1880s. Another brand of British snuff, "Hooper's Cachoe Aromatise, London Bridge" was also introduced during the same period.

The brass plaque which was originally attached to a box containing "Harrison Bradford & Co's. Reservoir Pen No. 90, Warranted" indicated that the fountain pen was in use during the late 1880s. As a matter of fact the idea of the fountain pen, using a rubber sack to hold the ink was patented by G. W. Simons of Philadelphia, Apr. 17, 1855, and a pen of this kind was manufactured by H. K. McClelland of Eldersville, Pa., that year. Another fountain pen with a metallic point was patented by George W. White of Mt. Vernon, New York, Sept. 4, 1855. Hence fountain pens could easily have been used at Ft. Union during the 1860s and were certainly being

MATERIAL OTHER THAN BOTTLES.. Ft. Union.. 1851-1891

sold there by the 1880s, although the large firms handling such items were not featuring them until the late 1880s and early 1890s. The early pens of this nature were not too satisfactory. They probably leaked too much and were not popular for that reason.

The tooth brushes, pocket knives, razors, clay pipes, etc., all belong in the 1870s and 1880s. There are some exceptions of course. The glazed clay pipe bowls as well as the common white clays might well date into the 1850s and 1860s, as readily as into the later period. So with some of the pocket knives, wooden handled porte crayon, dominoes, parts of childrens' toys, poker chips, rubber combs, etc. The latter items, straight and folding as well as fine and coarse combs made of hard rubber, were in use during the 1860s and afterward.

WOODWARD REPORT

PART III

PHOTOGRAPHS

FORT UNION N. M. REPORT

PHOTOGRAPHS - FT. UNION N. M. REPORT

1. CIVIL WAR CARTRIDGES

Top: L to R	SPENCER.....brass, 1-5/8" long	
	MAYNARD.....brass, 1-1/2" long...broad base, 3/4" dia.	
Second row: L to R	SMITH.....brass, 2" long	
	BURNSIDE....brass, tapering 2-1/4" long	
Third Row: L to R	SHARPS.....linen, 2-1/8" long	
	POULTNEY (SMITH)...paper and foil...2" long	
	GALLAGHER (?).....linen	

2. U. S. PERCUSSION RIFLE, 1841-1855. Popularly known as "Mississippi Rifle" was used during the Mexican War by the "Mississippi Rifles" commanded by Jeff Davis. Also called "Jagers' Rifles". A total of 25,296 of these weapons were produced at Harpers Ferry Arsenal. Specimen at West Point Museum.

3. U. S. MODEL ~~1861~~, SPRINGFIELD PERCUSSION RIFLE MUSKET. This was popular rifle used during Civil War and had fixed paper cartridges using conical bullets. Many of these 1861-63 model rifles were converted into single shot metallic cartridge breech loaders, 1865-1866, and were the first of the so-called "trap door Springfields". Caliber in these pieces reduced from .58 to .50.

4. SHARPS CARBINE, Cal. 52, used paper cartridge. Pat. 1852. Variations of this carbine, using the vertical breech-block, were the most popular and extensively used carbines with which the Federal troops were armed during the Civil War. Some 80,512 carbines manufactured by the Sharps Rifle Manufacturing Company were purchased by the U. S. Government during the Civil War. In later years the Sharps rifle was a favorite weapon of the buffalo hunters. This particular piece was marked "NEW MODEL" and is in West Point Museum.

5. U. S. CARBINE, Model 1873. Known as "trap-door Springfield" cal. 45-70, center fire metallic cartridge. This carbine, with variations was popularly used by the army from 1870-1890. Most of the fighting on the western frontier carried on by the U. S. cavalry during the twenty year period was done with this carbine.

6. COLTS .36 cal. revolver, percussion, using paper cartridges with black leather holster and ~~cap~~ box of type carried by California Column 1861-1865. (Specimens in Robt. Miller Coll. Arlington, Va.).

7. 1873 MODEL COLTS REVOLVER, using metallic cartridges, .45 cal. This was also known as "The Peacemaker". Some 300,000 Colt revolvers were made for the U. S. Army. This model was extensively used by the cavalry on the plains. (Specimen in West Point Museum).

Photographs--Ft. Union

8. CIVIL WAR REVOLVER HOLSTERS. Holsters at L is made for the Colt Navy Model 1851 and was worn on left side to enable cavalryman to draw with left hand and carry saber in right.

Holster at R with broad flap ~~to protect linen and paper cartridges~~ from weather, was designed to be used with Whitney, Remington and other revolvers. These were for percussion weapons . (Specimens in West Point Museum).

9. REVOLVER HOLSTERS - L. to R.
Broad flap, 1860s-1880s.

Holster used in Civil War, Remington or Colt.

Model 1884 holster in use until 1889.

(James Hutchins Collection, Columbus, Ohio).

10. Model of 12 pounder mountain howitzer (brass). Model is turned out of wood, original gun was made of bronze but was popularly and commonly known as a "brass" howitzer. This little cannon was first made for the U. S. Army by Cyrus Alger & Co., Boston, 1836 and was one of the most popular field guns on the frontier. It saw service in many famous fights all the way from Mexico to Ft. Phil Kearny and from Florida to California. It was part of the armament at Ft. Union and other posts in New Mexico. (See photos No. 70-71 for views of the only two remaining howitzers in Albuquerque, New Mexico, which were part of 8 howitzers buried by the Confederates on their retreat down the Rio Grande in 1861 and later excavated from the site of the old U. S. Quartermaster's corral in Albuquerque in 1889). Consult report on Ft. Union for description of the howitzer.

11. SIX POUNDER BRONZE FIELD PIECE. This is a captured Confederate gun, made by Skates & Co., Mobile, Ala., 1861. Smooth bore cannon of this type hurled a six pound ball or could be charged with shell or ~~cannister, and grapeshot.~~ It was ~~the lightest field piece (wgt. almost 1800 lbs.) and was~~ used by both sides during the Civil War. Such six pound guns mounted on this style carriage were part of the armament of the earthworks at Ft. Union and such pieces were also used elsewhere in the Southwest well into the 1880s. (This gun is now in the West Point Academy Museum).

12. EQUIPMENT USED WITH ARTILLERY PIECES. L to R. Artillery ~~prickers~~ vent pricker used on field pieces. These are of iron, longest is 12".

Two padded soft buckskin thumbstalls used by gunner in thumbing the vent of the cannon while loading.

~~Cannon~~ FRICTION primer.

A six ply cord lanyard with small iron hook in one end to engage loop in primer, and a smoothly turned wooden handle at the other end. The cord is 45" long.

Photographs--Ft. Union

13. Box of metallic Spencer cartridges, cal. 50, packed in original cardboard box lying on flap of leather cartridge waist pounch or box of Civil War period. (Miller Collection). Pouch holds four packages of cartridges. Flap is 6" long.

14. Rifle ~~and carbine~~ cartridge box with shoulder strap showing types of brass plates used during 1840s and 1850s and ~~to a certain extent~~ during the Civil War. (Miller Collection).

15. Obverse of large Civil War cartridge box (upper) for use with rifle carried on waist belt, and smaller (lower) waist belt box for carbine cartridges. (Miller Collection).

16. Reverse of boxes shown in #15.

17. Swivel for carrying cavalry carbine from shoulder belt, Civil War period (Miller Coll.)

18. SWORDS. Saber at L. in steel scabbard is Light Artillery saber based on French pattern and first issued to U. S. troops in 1840. It contined in use for approximately 50 years.

Sword at R. is LIGHT CAVALRY SABER MODEL 1860 distinguished from cavalry saber 1840 model by swell of branches of bronze guard and by lighter blade with rounded back. (West Point Museum Coll.).

19. HEAVY CAVALRY (DRAGOON) SABERS, of pattern adopted by U. S. War Dept. in 1840. It was known to the troops as "Old Wristbreaker" and contined in vogue for nearly 75 years. (West Point Museum Coll.)

20. LIGHT ARTILLERY SABER, 1840 model used during next 50 yrs. (West Point Museum Collection).

21. ENLISTED MENS' SWORDS, INFANTRY, MUSICIAN'S AND KNIGHT TEMPLAR (Masonic order) in West Point Museum Coll.

L to R

Non-COMMISSIONED OFFICERS' SWORD (with guard) partially cut away.. (One-half of the guard was occasionally removed in this fashion by the wearer to make the weapon fit more snugly against the hip). This is patterned on the musicians' sword adopted by the U. S. War Dept. in 1840 and carried by the enlisted non-coms well after the Civil War.

NON-COMMISSIONED OFFICERS' SWORD...carried by infantry, artillery and (after 1840) by signal corps and engi neers. It has the protruding shell guards just below the grip.

KNIGHT TEMPLAR'S SWORD. Dress sword carried by members of the Masonic order.

NON-COMMISSIONED OFFICERS' SWORD and scabbard.

MUSICIANS' SWORD...without guards, otherwise same as others.

22. Grimsley Saddle. This is a good example of a Grimsley saddle invented by Col. Thornton Grimsley of Missouri and adopted by the U. S. War Department in 1840. It continued in active use by the dragoons and and cavalry until 1859 when it was superseded by the McClellan saddle. (Specimen in the West Point Museum Coll.)

23. California saddle of the 1850s and 1860s. There were a number of variations of this "California saddle". In effect it was a Mexican saddle but since the majority of the makers of this saddle worked in California the term is applied to all such types. The firm of Main & Winchester, the old saddle making firm in San Francisco, Calif., which began manufacturing horse gear in 1849, was one of the principal sources of these saddles, and during the Civil War had contracts with the military to furnish saddles to the Federal troops in California and the Southwest. (This specimen is in the New Mexico Historical Society Collection, Sta. Fe).

24. McClellan saddle without equipment. (West Point Museum)

25) Two views of McClellan saddle fully packed for field service as it
26) would have appeared in the 1870s. Note carbine, saber (latter often left at the post when trooper was on field patrol), side lines, picket rope, canteen cup, bed roll, etc. (Specimen in the West Point Museum).

27. Regulation brass spur 1860s-1880s (James Hutchins Coll.).

28. Non-regulation iron spur with horizontal rowel. This type spur has been found on battlefields of the Civil War. It is of British origin and was being made and sold as early as the 1850s, perhaps earlier. It has sometimes been called a "Confederate spur". (Hutchins Coll.) (See also collections from battlefield at Gettysburg and elsewhere).

29. Black leather cavalry boot, 20" high, recommended for U. S. Cavalry use in 1874 and used in early 1880s.

30. Cavalry boot 22-1/2" high, same period as #29.

31. U. S. cavalry bridle, S side plates are of brass. Formerly used by a Federal surgeon from Maine during Civil War. Plain brow band concha. Period of 1860s (Hutchins Coll.).

32. Bridle conchas, plain and with USA entwined, used by cavalry 1860s-1870s. Conchas may be brass or brass over lead.

33. Various types of bits used by US cavalry 1860s-1880s. (Hutchins Coll.)

34. U. S. Cavalry bits L to R: Bit invented by Capt. Shoemaker stationed at Ft. Union. This bit was favorably recommended for army use in 1874 but wasn't formally adopted until around 1885. Early Shoemaker bits were stamped "ROCK ISLAND ARSENAL", later ones simply "R.I.A." Other bits are those used during 1860s and 1870s. Ring bit, 4th from L, was

(34. Cont.) adopted in 1863 or rather this is the 1863 pattern. At the proceedings of the Ordnance Board, Dec. 17, 1867 - Feb. 11, 1868, it was recommended that no change be made in the standard cavalry equipments until officers in the cavalry arm had been consulted. At this time, however, the board recommended that all artillery and cavalry bits be tinned and all old bits requiring repairs should also be tinned instead of being blued or replated. This same board recommended the use of side lines for hobbling horses be issued to cavalry companies to replace the usual picket pin and lariat. (Hutchins Coll.)

35. Cavalry officers' gauntlets 1870s-1880s. (Hutchins Coll.). These are white buckskin with light brown stitching.

36. A typical ~~cavalryman~~ of Civil War period (Officer) from Nat'l. Archives, Still Photograph Coll.

37. Watering bits. L to R 1874-1885: snaffle bit 1861.

38. MARTINGALE or BREAST STRAP and PISTOL HOLSTERS, 1860s. In this instance the black leather straps have been painted yellow. The heart shaped ornament with eagle is brass, 3" long. Total length of breast strap is 38". Holsters are also black leather with flap outlined with yellow paint. These holsters are 13-1/2" long. The brass cap at distal end of holster is 2-1/4" long. Such holsters were carried on the saddle bow in front of the rider. (Hutchins Coll.)

39. Side lines used by cavalry in 1870s-1880s. (Hutchins Coll.)

40. Iron picket pins. Pin at L is of Civil War period 12" long. Pin at R is trifle later and has a patented swivel top to replace simple figure 8 loop on earlier style. In late 1880s and 1890s fluted cast iron pins were used. These varied somewhat in shape but were essentially of same general pattern, in that the body of the pin was more or less squared with deep fluting extending from the top to end of the pin.

41. Group of U. S. Cavalrymen, Civil War (Photo from Nat'l. Archives).

42. General U. S. Grant's horse fully equipped, McClellan saddle, Civil War.

43. Civil War Haversack (Miller Coll.), waterproofed canvas.

44. Circular "meat can", heavily tinned, late 1880s-90s. 8-1/2" dia. (Miller Coll.)

45. Oval tinned sheet iron meat can or mess kit, c. 1875, 7-7/8" long x 6-3/16" wide. See Ordnance Memo. #19. Miller Coll.

46. Meat Can, 6-3/4" long x 5-1/8" high x 1-1/2" wide. Top fits closely inside the can. Folding handle on top. First issued 1872. (Miller Coll.).

47. Tin plated sheet iron cups 1870s and 1880s, app. pint size. Knives and forks with iron handles, same period. (Miller Coll.) Cup with US on handle is 4" dia. and 4-1/16" high.

48. Smaller tin cups c. 1874. (Miller Coll.)
N. B. Tin cups of the sizes shown in #47 were also of the approximate shape used during Civil War but were probably unstamped.

49. Two styles of CIVIL WAR TIN CANTEENS. These held approximately 3 pints of liquid. The corrugated canteen L, came after July 15, 1862. These canteens were covered with a poor grade of felt which rotted away so troops found old wool socks a better covering.

50. Cloth covered Civil War canteen. Tin canteens of this type were in use before the Civil War. (Canteens from Miller Coll.)

51. Cloth covered canteens of the 1870s-1890s.

52. Embroidered insignia for use on officers' hats and caps during and prior to the Civil War. Crossed sabers are cavalry, trumpets are mounted rifles and infantry, crossed cannon, artillery and the US and wreath for field officers' hats.

53. Bronze or "brass scales". These were insignia worn by enlisted men and non-commissioned officers prior to and during the Civil War. They came in to use in 1854 and although supposedly discarded during the Civil War remained regulation insignia until after the war and died out during the 1870s. (Hutchins Coll.)

54. Bronze scales. Note differences in construction. Since some scales issued to sergeants differed from the ordinary ones, it may well be that this is a pair of sergeant's scales. Obverse and reverse views are given in both photos.

55. Model wearing leather shako type head gear of 1850s-1860s with brass infantry insignia in front and red-white-and blue metal cockade above eagle. This headpiece was universally hated by the troops. (Hutchins Coll.)

56. Side view of #55.

57.) Black felt hat of type known as "Kossuth", "Jeff Davis", "Hardee"
58.) etc. These hats were worn during 1850s and 1860s, by all arms of the service. Black ostrich feathers were fastened on right side and number of feathers denoted differences in rank. (Hutchins Coll.)

59. Dark blue forage cap relatively high in the crown, known during Civil War as the "Bummer's cap". It differed somewhat from the styles of forage caps that followed during the 1870s-1880s. (Hutchins Coll.)

60. Forage cap with cavalry insignia embroidered on it. 1860s-1870s.

61. Forage cap bearing brass insignia of K Troop, 7th Cavalry, 1870s.

62. Black campaign hat with patented brass ventilator in crown early 1880s. There were minor changes in the helmet fittings during this period but the shape of the helmet and general effect were relatively unchanged. Pith sun helmets covered with tan or white cloth were also used during this period and well into the 1890s.

64. ARMY SUPPLY WAGON reputedly oldest one in the army. Probably made by Wilson & Childs of Phila. in early part of Civil War. Note absence of brakes. (Nat'l. Archives Photo).

65. General Grant's baggage wagon, similar to #64 but of a later date. It has brakes which were an innovation around the middle of the war. (Nat'l. Archives Photo).

66. Army transport wagon for six mules or horses, hooked up and ready to roll. Note position of driver on nigh wheeler. This style was used in latter part of Civil War and thereafter on plains frontier to transport supplies, baggage, etc. (Nat'l. Archives).

67. DOUGHERTY SPRING WAGON, model 1879, used on plains and in Southwest as an ambulance and for transportation of personnel and families between posts. (Nat'l. Archives).

68. Standard buckboard also used for transportation of passengers, mail, etc. 1870s-1890s. (Nat'l. Archives).

69. Standard army dump cart used at military posts during 1860s-1880s (with minor variations in style, shape of side boards, paneling of body, etc.) for hauling light supplies and to carry away trash to the post dump (shafts permitted use of one mule or horse only). (Nat'l. Archives).

70. Bronze, 12 pounder mountain howitzer with reconstructed carriage. This was one of the 8 howitzers of this pattern buried in the U.S.Q.M. corral in Albuquerque by the retreating Texans in 1861 and excavated from their burial place in the summer of 1889.

71. The second of the only two remaining bronze 12 pounder mt. howitzers now in the Plaza old town, Albuquerque, N. M. Photographed in Aug., 1958 by Arthur Woodward.

72. Lt. Bezaleel W. Armstrong, 1st US Dragoons, Class of 1845, USMA in his Mexican War uniform.

73. Brig. Gen'l. (later Maj. Gen'l.), James Henry Carleton, 2d Lt. US Dragoons, 18th Oct. 1839; 1st Lt. Mar. 17, 1845; Capt. Feb. 16, 1847, etc. etc., died Jan. 7, 1873.

74. Gen. Edwin V. Sumner.

75. Maj. Wm. McCleave, served as Captain, Major and Lt. Col. in 1st California Cavalry Volunteers in New Mexico and Arizona 1861-1865. In later years he served in the 8th Cavalry and was retired March 20, 1879.

76. Issue room for small stores, QM Dept., at San Antonio, Tex. Depot, Sept. 22, 1877. This and the following photo were taken at the same time. These pictures indicate the probable appearance of the interiors of the storerooms at Ft. Union.

77. Interior of medical supply storeroom at San Antonio, 1877.

78. U. S. Dragoons, 1851.
The mounted trooper shows enlisted man equipped for active field service. He wears the dark blue blouse and floppy, soft crowned cap with black leather visor, trousers sky blue with yellow stripe. The leggings are non-regulation, patterned after the Mexican bota, made of dressed buckskin, and tied under the flap with a narrow buckskin thong. Around his neck is a colored handkerchief to be brought up around mouth in the dust. The dragoons at this time were the only troopers permitted to wear a mustache and long hair. Some of the men wore large gold earrings. The weapon in the boot is a Hall breech loading carbine. Note blanket roll strapped behind the Grimsley saddle.
The standing rigure is the chief trumpeter in full dress with black leather shako and horsehair plume. His red sash is worn under the white pipe clayed belt. Metallic scale shoulder ornaments.

79. 1st Dragoons, 1836-1851, full dress uniform.
Here the headgear is the black leather shako with horse hair plume and long yellow cord. Dark blue shell jacket piped with yellow. Breech loading Hall carbine slung from shoulder cross belt, black leather cartridge box with yellow oval brass plate worn, at left rear. Trumpeter on horseback wears the scarlet blouse, black leather shako and sky blue trousers, the same as his comrades. Note black leather martingale with brass heart shaped ornament on horse. Company officer at right.

80. U. S. Dragoons, 1847-1851.
These troopers are equipped for field in the usual regulation uniforms. Compare with Photo No. 78. Note Mexican lance and helmet or shako on ground. Figure on left is enlisted man, center figure is company officer, and rear figure is sergeant showing method of cross belts fastened to equipment.

81. U. S. Dragoons, 1853-1854.
Note changes in head gear, stiff leather caps with wool pompon. Shell jackets are sack coats. Hall carbine has been replaced by musketoon. Piping changed from cavalry yellow to orange.

82. 1st U. S. Dragoons, 1858-1861.
Uniform dark blue piped with orange. (Orange gave way to cavalry

82 (cont.) yellow again in Spring of 1861 when dragoons were abolished and only cavalry designation for mounted troops was maintained). Square brass belt buckle with US eagle raised in front. Kossuth or "Jeff Davis" hat, black felt, turned up on right side fastened with thin stamped US coat of arms ornament, crossed sabers with company letter separate in front, one black ostrich plume for enlisted men on left side. Red hat cord or rather orange on hat.

Shell cavalry jackets worn. All trimmings on carbine belt, brass, except swivel which is steel. Note holstered revolvers at belt.

Carbine shown is the Burnside, one of many types carried by mounted troops at this time.

83. Cavalry Sergeant, Civil War, field dress. Dark blue blouse, light or sky blue trousers, Kossuth hat, with "Old Wrist breaker" saber. (Official photos USQMD in Smithsonian).

84. Civil War private in full marching order. Dark blue blouse, light blue trousers, forage cap "bummer style", knapsack on back loaded with spare clothes, toilet kit, etc., and topped by rolled blanket. This is the way the soldier was "supposed" to look. However, he often discarded all spare equipment and carried blanket in roll across back or chest, and frequently pulled his socks up over the outside of the lower ends of his trouser legs. Canteen on left side, cap box on right and cartridge box on back of belt. Rifle is Springfield, M1861. (Official QMD photos taken during Civil War).

85. Civil War private soldier, infantry man in his great coat of heavy wool, light blue in color. Official Civil War photo.

86. Infantryman, 1870s-1880s in buffalo robe overcoat, worn in winter on plains. An original water color sketch by Dr. Charles Alden, US Army, made on the spot in 1870s.

87. First Sergeant, Infantry, in full dress, Civil War. Official QMD photo, made during Civil War.

88. Third U.S. Infantry, 1846-1851. Pl. No. 82, Mil. Coll. & Hist. Company officer at L. in long dark blue frock coat, red blanket roll over shoulder. Dark blue soft woolen cap with black patent leather visor. Standing next to him is a corporal in sky blue uniform, short shell jacket piped in white, oval belt buckle, round brass eagle plate on cartridge belt strap (across chest), flint lock musket. At L. is first sergeant, rear view showing pack, cartridge box, wooden canteen, straight sword, etc. In background, a private. Haversack worn on left side.

89. 2nd U. S. Inf. Regiment. Winter Dress Uniform, 1841-1851. Pl. No. 39, Mil. Coll. & Hist.
Dark blue shell jackets piped with white and white metal buttons. Cross and waist belts white with oval brass plates on waist belt and round brass plate on cartridge box belt. Shakos of black leather with patent leather visors. Brass eagle and white metal bugles on front of shakos. White pompons on enlisted men and white cock feathers on Captain's shako, rear L. Trousers sky blue.

PHOTOGRAPHS....Ft. Union Report

89 (Contd.). Private in center, 1st Sgt. at R. Sgt. wears straight non-com's sword. Officer has straight sword with fancy gilt brass hilt. Epaulettes are silver. Sergeant and Captain wear dark red sashes under waist belts.

90. Regiment of Mounted Rifles, 1847. Pl. 18, Mil. Coll. & Hist. Dark blue trousers, dark blue shell jackets, brass buttons and yellow piping. Black stripe down trouser legs outlined in yellow. Yellow chevrons. Officer on horse has bright red sash under black waist belt. Caps are dark blue wool, black patent leather visors, with single company number, brass, in front.

91. US Cavalry, 1855-1861. L. to R. Musician, Company Officer, Private-fatigue dress, Corporal-full dress. Pl. 87, Mil. Coll. & Hist. Shell jackets all dark blue. Frock coat and trousers of officer, dark blue. Trousers of corporal and sergeant, dark blue. Private, sky blue. Piping yellow, brass buttons, rectangular brass belt plates. Metallic brass scales on enlisted personnel, shoulder strap on lieutenant. Note Kossuth hats and the bummer type forage cap. Hats black, cap dark blue. Private armed with musketoon.

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92. 2nd Regt. U. S. Cavalry, 1861-65. Pl. 60, Mil. Coll. & Hist. L to R. Company Guidon, Musician, Trooper (foreground), Co. Officer background.
All shell jackets dark blue, trousers sky blue. Blanket roll on front of saddle, sky blue. Dark blue saddle blanket with broad orange band. Carbine slings black leather on outside, yellow on inside. Piping on uniforms orange. Darker blue blanket rolled at rear of cantle. Stirrup leathers black.

93. 10th U. S. Cavalry, Negro regiment, 1888-1890. With regimental standards. Yellow with brown US coat of arms.
Troopers: dark blue jackets, sky blue trousers, yellow piping. Brass trim on bridles, brass spurs. Black leather boots and black leather tapaderos on stirrups. Saddles black. Buffalo is regimental crest. These troopers were called the "Buffalo Soldiers" by the Indians because of the kinky hair. Pl. 76, Mil. Coll. & Hist.

94. Capt. Crawford's Battalion of Apache Scouts, 1885-86, Pl. 131, Mil. Coll. & Hist.
This plate shows undress of cavalry on trail in 1870s-1880s. Front foregound, the Apache scouts in mixture of native and military garb. Red breech clouts, white shirts, red headbands, Apache moccasin boots. Men are armed with Springfield carbines.
Company officer at left in rear wears dark blue blouse, sky blue trousers and yellow stripe down leg, Apache moccasin boots, has carbine slung from belt across chest. Grey felt campaign hat, yellow kerchief around neck. White scout in front of officer has on red shirt with gray pullover shirt on top of red undershirt, gray felt hat, brown trousers, rifle, revolver and knife. He also wears Apache boots, Apache scouts have on dark blue blouse (sgt.). Other coated Indian has on brown sack coat with officers soldier strap, bed roll, sky blue trousers with yellow stripe.

95. Infantry Corporal, full dress, Civil War period, rear view. Note position of cartridge box and bayonet. Note also the brass scales on shoulder.
(Photo from Smithsonian Coll. Official photos of QMD, 1860s.)

96. Cavalry trooper in great coat, Civil War period.
(Photo from Smithsonian Coll. Official QMD photo 1860s)

1680 E. Loma Alta Dr.
Altadena, Calif.

Dec.14,1958

D6215

Dr. Erik Reed,
Chief of Interpretation,
Region III, National Park Service,
Santa Fe, New Mexico.

EKK

Dear Erik:

At long last the report on Pipe Spring is typed. I picked up the manuscript yesterday. Likewise the photos and descriptive list of the pictures for the Ft. Union Report are done. I am enclosing both the Pipe Spring report and the three packets of photographs to accompany the Ft. Union Report in this package.

You will note that No. 91 in the list of photographs was omitted. I had the photograph included originally but decided that the same uniforms, equipment, etc. had been fairly well covered in the other photos so I forgot to remove it from the list before sending the manuscript to the typist.

I am including two other photos which I have appended to the list(i.e.) the last two Nos. 95 and 96.

You will note some of these pictures have been hand colored. This was quite a chore but Mrs. Woodward elected herself colorist and did most of them. She also made the copies in her dark room.

I trust they will prove satisfactory.

I have included only one set of sketches with the Pipe Spring Report because I felt that the men in the field would of a necessity have more use for the details than the main office in Sta. Fe, particularly if these items were to be constructed on the ground.

The one photo of the section of telegraph pole and insulator with the wooden sheathe is an original of the old military telegraph line of 1878 which was constructed from Ft. Whipple to Ft. Yuma and thence to San Diego in that year. Since this line was contemporary with the Pipe Spring line I [illegible] that the type pole bracket might well serve as a model. [illegible] not as certain about the insulator, although it was of the [illegible] used during that period but is not of the same shape [illegible] at Pipe Spring.

I am not certain whether the Pipe Spring line had the [illegible]den sheathes over the glass insulators. This protective device was used in various places, on the Plains ,in Arizona and elsewhere during the 1860s and 1870s,and it is possible that the insulators on the poles were thus protected against the weather.

I am including prints of the insulator and sheath which are in the Serra Museum, San Diego Historical Society Collection.

The source of my information on the telegraph instruments, prints of which are also included, as well as the battery used, is "A Manual of Signals for the Use of Signal Officers in the Field" by Bvt. Brig. Gen. Albert J.Myer, Washington 1879, pp. 426, 431,432, 453.

Incidentally, I have confirmed my surmise that the odd shaped zinc object which was excavated at Ft. Union is a part of a telegraph battery. This was immersed in the blue vitriol-water solution in a glass jar,similar to the photo of the battery (Fig.16,Pipe Spring Report).

The Ft. Union specimens were part of the so-called Crowfoot battery and the zinc was suspended from the lip of the [illegible]ss jar 5½" x 5" in size, by the hook at the top of the six pronged zinc plate.

I suspect that the type battery (photo enclosed with Pipo Spring Report) was also used at Ft. Union since the triangular connection which rested on top of the glass battery jar has been found in various stages of disintegration at Ft. Union.

(These batteris are illustrated in the "Illustrated Catalogue of Chemical Apparatus, etc" Eimer & Amend Co. NY. 1907. This outfit began operations in 1851. I have the 1907 catalogue in my library.

Referring to the letter by L.Robert Hakala, of the Western Lab. Div. Nov.21, 1958 concerning the differences in the freight wagons used in the western trails and the Conestoga wagons of early Pennsylvania, I thought that I had provided that information in the Ft.Union Rept. To recapitulate however, the main differences were in the size and the shape of the wagon beds. The Conestoga were boat shaped, those used on the western plains were flatter in the [illegible] different in their ironing,not as elaborate as the Conestoga.

The photographs of the army supply wagons used in the
)s-1880s indicate in a more graphic manner these distinctions, see
tos, Nos. 64-65-66. If the museum experts in the Lab. will consult
"Conestoga Six-Horse Bell Teams, 1750-1850" by John Omwake, Cincinnati
0, they will see the pronounced curvature of the Conestoga bed
33,36, et. seq. Likewise see quotes on p.73 same vol. for these
ferences. There isn't any mystery about it. I believe that this
nfusion has arisen in times past by artists, inexperienced in research,
o have used the Conestoga as their model for the western freight and
rm wagons and in some cases have exaggerated the curvature of the bed
t of all proportion. I trust the technicians in the Lab will get
raightened out on this point. Further west the freight wagons
anged even more in form, in that the wagon box assumed a different
ape than those used on the plains, moreover "trailer" wagons for
rrying feed, supplies for the teamsters, extra parts, etc. were
ed. However, since these wagons are not a part of the picture in
w Mexico I have not given any detailed descriptions of them.

This has been a long job, Erik, and I am happy to have it
inished. Needless to say I shall be on tap for any additional data that
ay be needed.

I am glad to note that some of the room furnishings for
ipe Spring can be purchased. If I am not in Mexico by the end of
bruary or first of March I'll be only too happy to run over to
pe Spring. My plans to head south haven't jelled as yet. We shall
to Oaxaca however sometime in the spring, when the west coast highway
not in danger of being flooded.

I want to do some research on Spanish-Colonial craft
rvivals in Mexico, including old time cow boy gear(Sinaloa);
ire work making, ox plough and ox carts, sand paintings in Oaxaca, etc.

I have added to the photos for Pipe Springs, some prints
f types of furnishings from the Daughters of Utah Pioneer Museum. These
n be used as a guide in obtaining such items for the Castle.

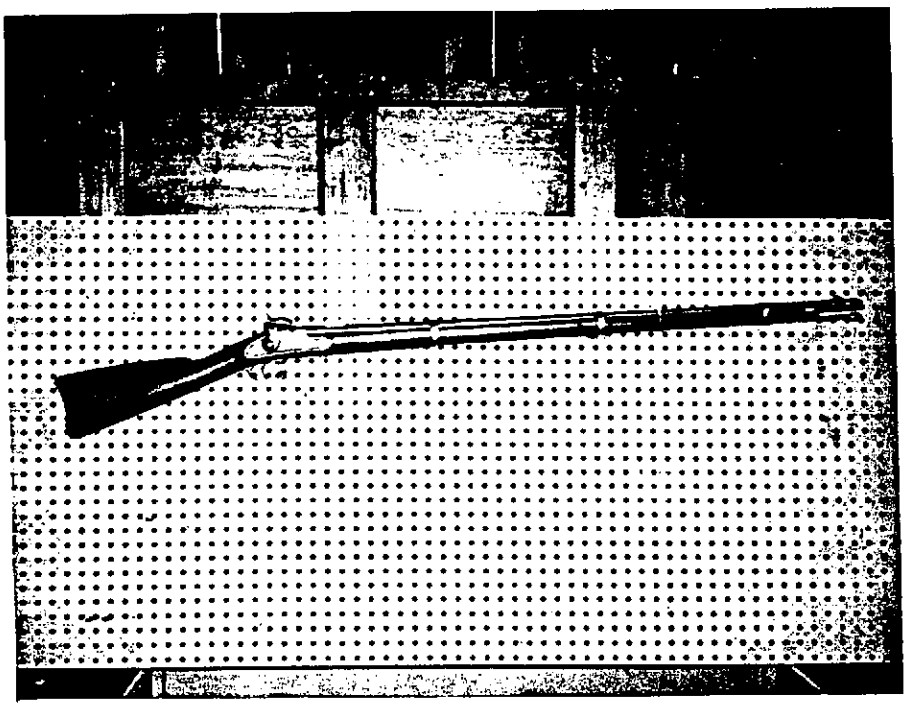
Trusting these reports and pictures will prove satisfactory,

Sincerely,

Art Woodward

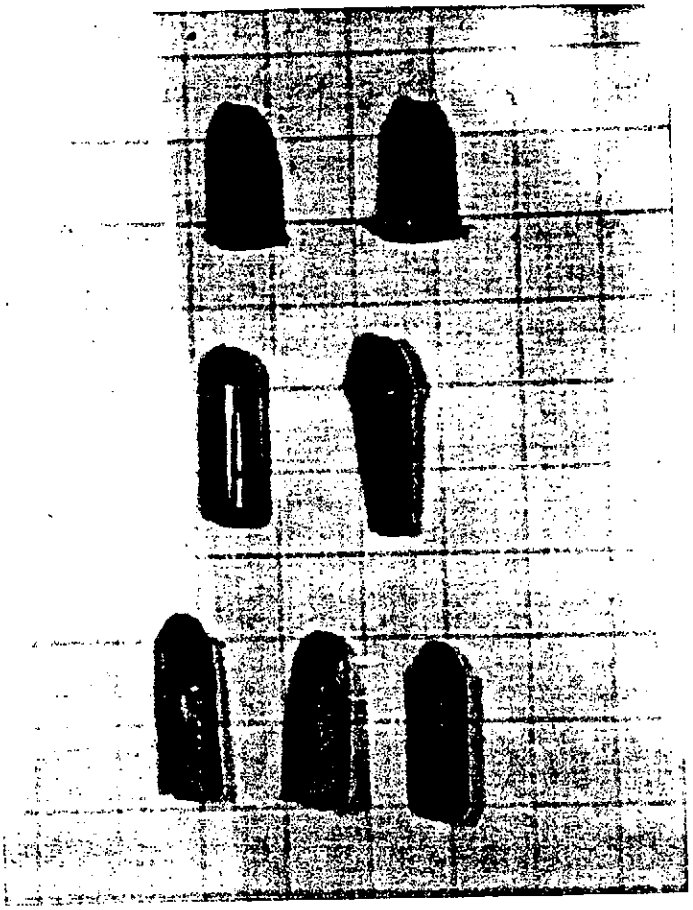
PLATE 3 --

The example in the photograph is not a Model 1861 Rifled-Musket. Rather, it is the Model 1863, a pattern which embodied improvements on the earlier design.



No. 3. U. S. MODEL ~~1861~~ 1863, SPRINGFIELD PERCUSSION RIFLE MUSKET.

This was popular rifle used during Civil War and had fixed paper cartridges using conical bullets. Many of these 1861-63 model rifles were converted into single shot metallic cartridge breech loaders, 1865-1866, and were the first of the so-called "trap door Springfields". Caliber in these pieces reduced from .58 to .50.



No. 1. CIVIL WAR CARTRIDGES

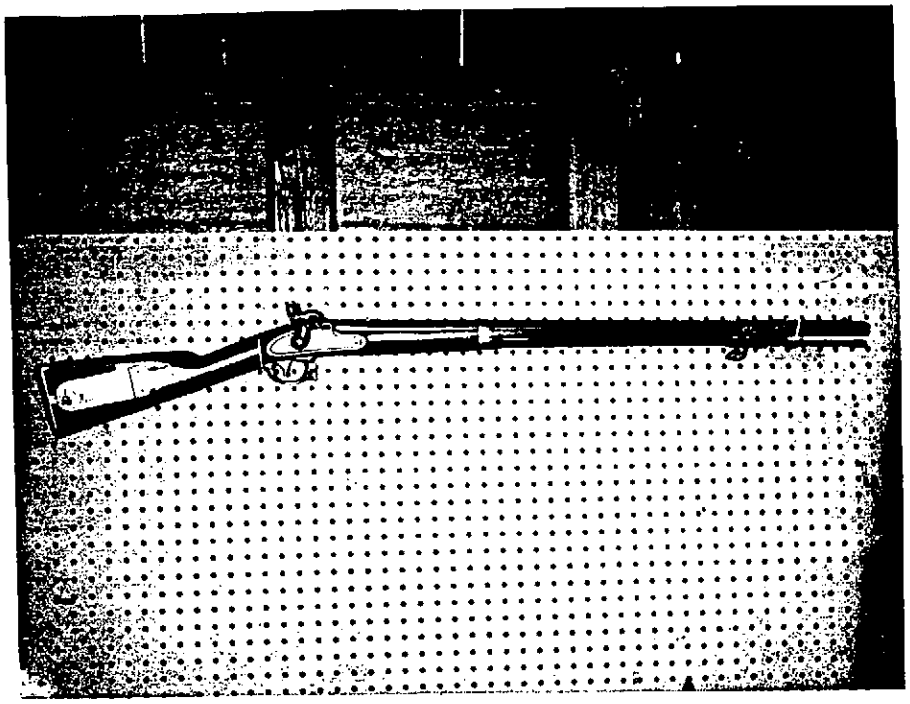
Top: L to R SPENCER.....brass, 1 5/8" long
MAYNARD.....brass, 1 1/2" long
GALLAGHER broad base, 3/4" dia.

Second row: ~~SMITH~~.....2" long
L to R BURNSIDE....brass, tapering 2 1/4" long

Third row: SHARPS.....linen, 2 1/8" long
L to R POULTNEY (SMITH)...paper and foil....
2" long
GALLAGHER (?).....linen

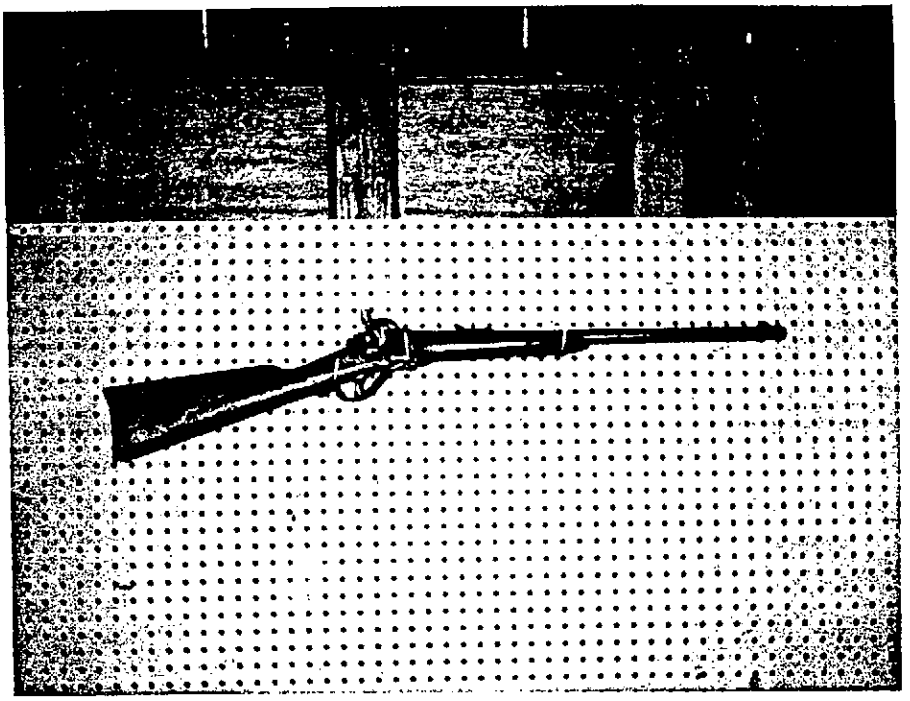
PLATE 2 --

Additional Model 1841 rifles were contracted for and manufactured by private concerns, among whom were Eli Whitney, and Robbins, Kendall and Lawrence.



No. 2. U. S. PERCUSSION RIFLE, 1841-1855.

Popularly known as "Mississippi Rifle" was used during the Mexican War by the "Mississippi Rifles" commanded by Jeff Davis. Also called "Jagers' Rifles". A total of 25,296 of these weapons were produced at Harpers Ferry Arsenal. Specimen at West Point Museum.

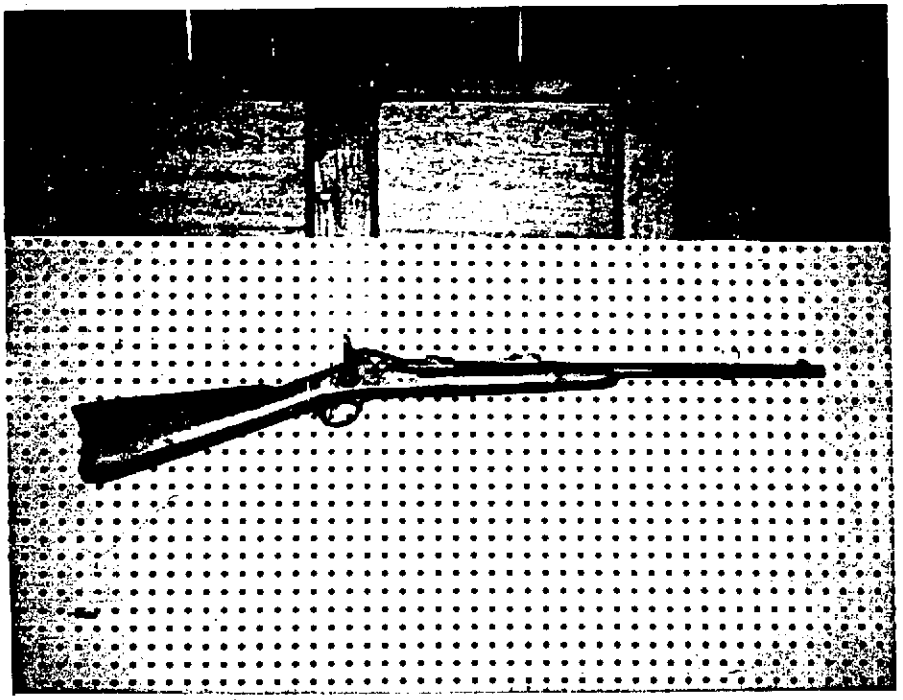


No. 4. SHARPS CARBINE, NEW MODEL 1863

Cal. 52, used paper cartridge. Pat. 1852. Variations of this carbine, using the vertical breech-block, were the most popular and extensively used carbines with which the Federal troops were armed during the Civil War. Some 80,512 carbines manufactured by the Sharps Rifle Manufacturing Company were purchased by the U. S. Government during the Civil War. In later years the Sharps rifle was a favorite weapon of the buffalo hunters. This particular piece was marked "NEW MODEL" and is in West Point Museum.

PLATE 5 --

The carbine depicted is not a true Model 1873. It retains features which indicate it to be a sub-type introducing changes in the earlier design.



No. 5. U. S. CARBINE, Model 1873.

Known as "trap-door Springfield" cal. 45-70, center fire metallic cartridge. This carbine, with variations was popularly used by the army from 1870-1890. Most of the fighting on the western frontier carried on by the U. S. cavalry during the twenty year period was done with this carbine.

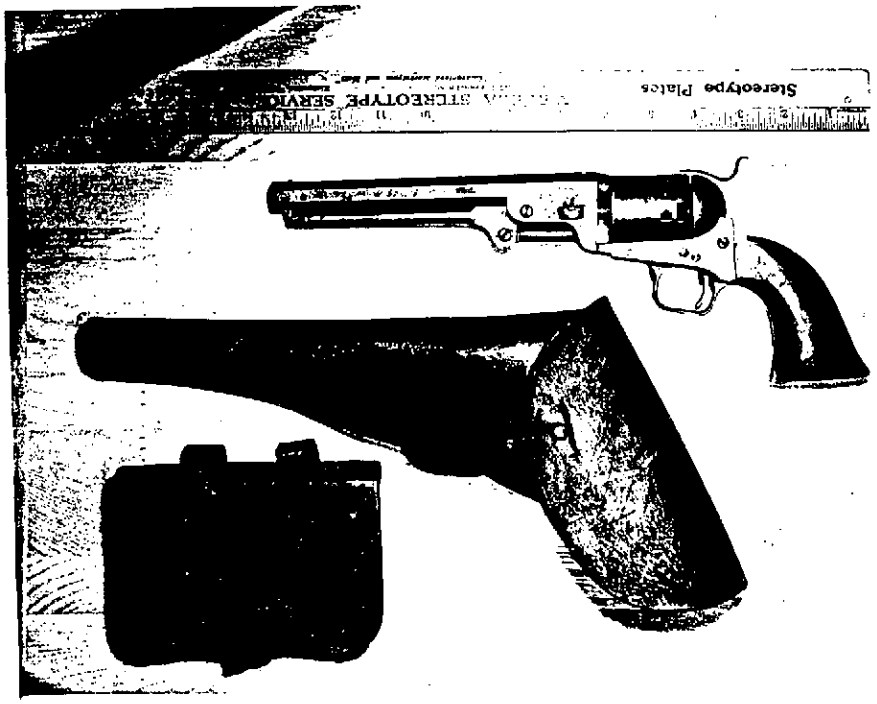
PLATE 6 --

As a point of further description, the revolver is the Model 1851 Colt Navy, of the third pattern produced in the Navy series. It has been manufactured for the U. S. government under contract: (Note the "U. S." below the "Colts Patent" on the lower left side of the frame.)

Superintendent

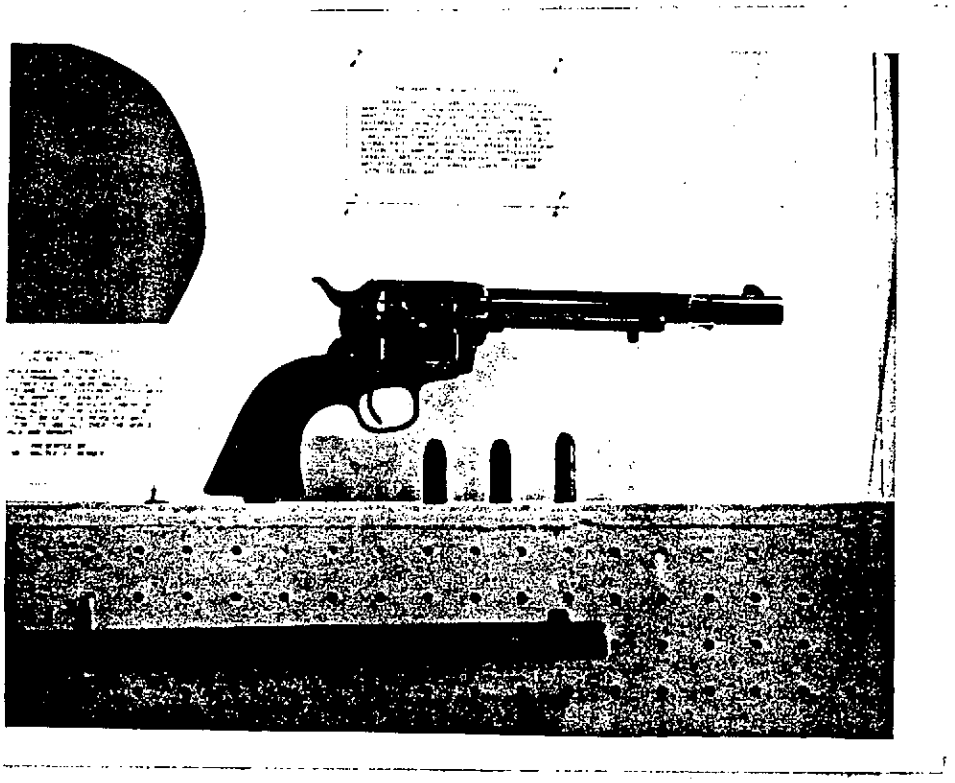
Fort [illegible] ument

Wa[illegible] New Mexico 8/753



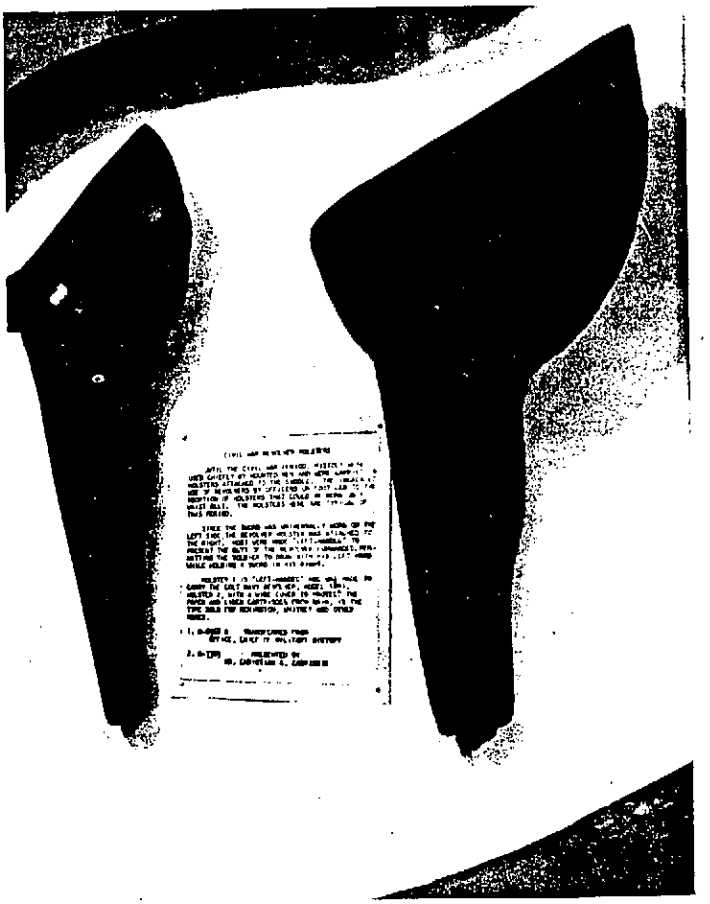
No. 6. COLTS .36 Cal. Revolver.

Percussion, using paper cartridges with black leather holster and ~~cap~~ box of type carried by California Column 1861-1865. (Specimens in Robt. Miller Coll. Arlington, Va.).



No. 7. 1873 MODEL COLTS REVOLVER.

Using metallic cartridges, .45 cal. This was also known as "The Peacemaker". Some 300,000 Colt revolvers were made for the U. S. Army. This model was extensively used by the cavalry on the plains. (Specimen in West Point Museum).



No. 8. CIVIL WAR REVOLVER HOLSTERS.

Holster at L is made for the Colt Navy Model 1851 and was worn on left side to enable cavalryman to draw with left hand and carry saber in right.

Holster at R with broad flap ~~to protect linen and paper cartridges from weather~~, was designed to be used with Whitney, Remington and other revolvers. These were for percussion weapons. (Specimens in West Point Museum).

PLATE 9 -- The identification of the right holster as a "Model 1884" is questioned. This pattern has been present in photos of an earlier date, and, the double slots for the finial are intended to provide interchangeable use of the holster with two revolvers which were issued arms of the period from 1874 to the 1890's: The Colt Single Action Army, Model of 1873; and the Smith and Wesson Schofield First and Second Models, which appeared around 1874 for field trial, and then remained as secondary issue arms. The Schofield was secured in the holster in question with the flap placed over the finial through the lower slot, since the dimensions and pattern of the arm were different from those of the Colt, (which was secured with the flap over the finial through the upper slot). The correct date of appearance of this holster, however, has not been established at this writing.



No. 9. REVOLVER HOLSTERS - L. to R.

Broad flap, 1860s-1880s.

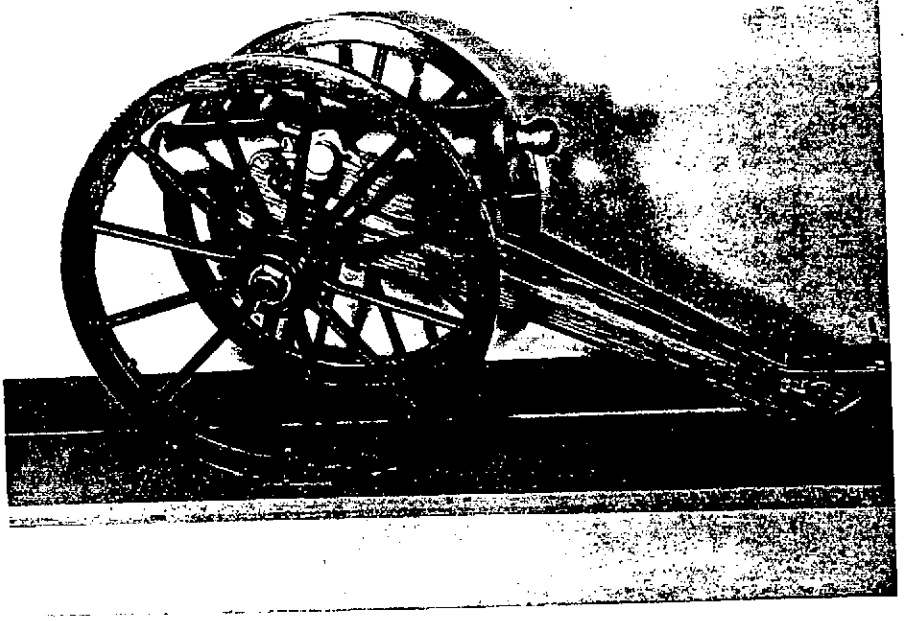
Holster used in Civil War, Remington or Colt.

Model 1884 holster in use until 1889.

(James Hutchins Collection, Columbus, Ohio).

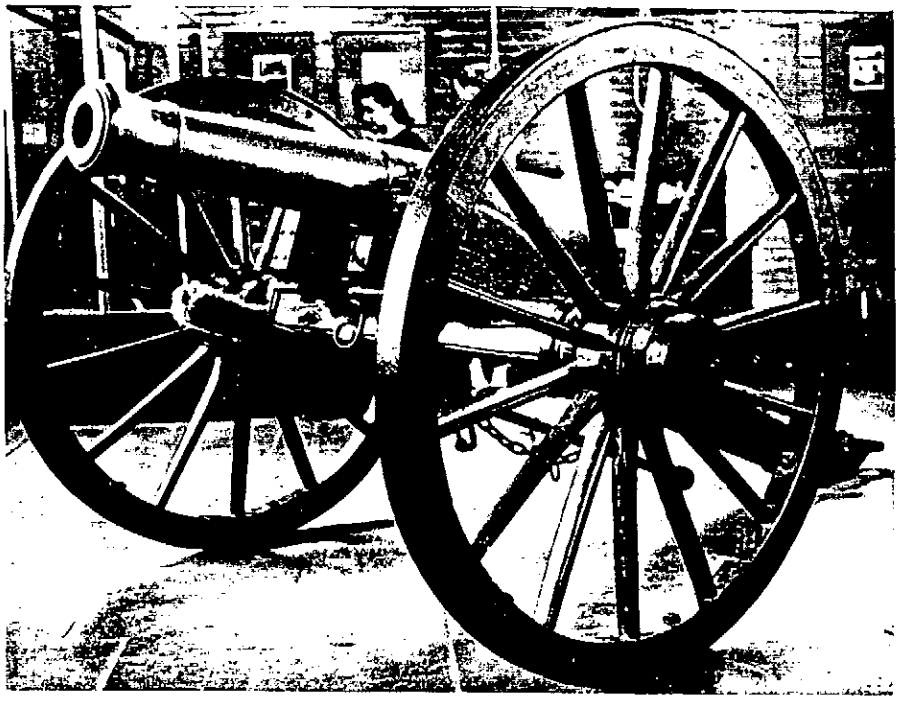
PLATE 10 --

The tube on the model depicted is that of the 1841 pattern, and is mounted on the earlier carriage featuring the narrow wheel-base.



No. 10.

Model of 12 pounder mountain howitzer (brass). Model is turned out of wood, original gun was made of bronze but was popularly and commonly known as a "brass" howitzer. This little cannon was first made for the U. S. Army by Cyrus Alger & Co., Boston, 1836 and was one of the most popular field guns on the frontier. It saw service in many famous fights all the way from Mexico to Ft. Phil Kearny and from Florida to California. It was part of the armament at Ft. Union and other posts in New Mexico. (See photos No. 70-71 for views of the only two remaining howitzers in Albuquerque, New Mexico, which were part of 8 howitzers buried by the Confederates on their retreat down the Rio Grande in 1861 and later excavated from the site of the old U. S. Quartermaster's corral in Albuquerque in 1889). Consult report on Ft. Union for description of the howitzer.



No. 11. SIX POUNDER BRONZE FIELD PIECE.

This is a captured Confederate gun, made by Skates & Co., Mobile, Ala., 1861. Smooth bore cannon of this type hurled a six pound ball or could be charged with shell canister. ~~and grapeshot.~~ It ~~was the lightest field piece~~ (wgt. ~~almost~~ 1800 lbs.) ~~and~~ was used by both sides during the Civil War. Such six pound guns mounted on this style carriage were part of the armament of the earthworks at Ft. Union and such pieces were also used elsewhere in the Southwest well into the 1880s. (This gun is now in the West Point Academy Museum).

PLATE 12 --

The correct term for "artillery prickers" is "vent picks". "Thumstalls" is misspelled: "Thumbstalls" is the correct spelling. And, the "cannon primer" is perhaps more correctly termed a "friction primer".



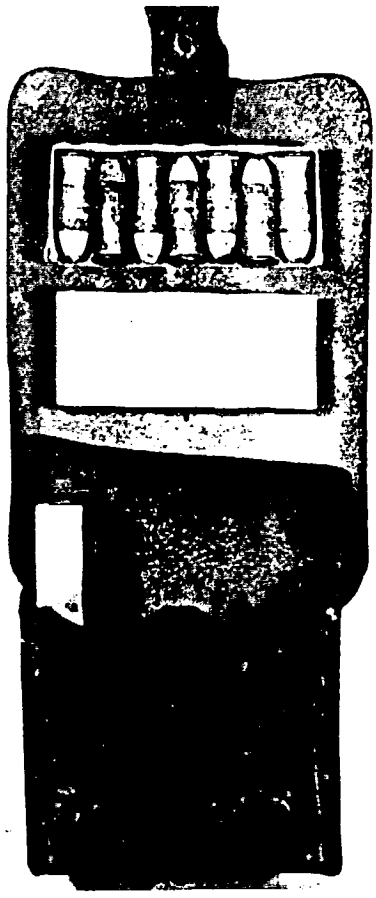
No. 12. EQUIPMENT USED WITH ARTILLERY PIECES. L. to R.

Artillery ~~prickers~~ Vent Picks used on field pieces. These are of iron, longest is 12".

Two padded soft buckskin ~~thumstalls~~ thumbstalls used by gunner in thumbing the vent of the cannon while loading.

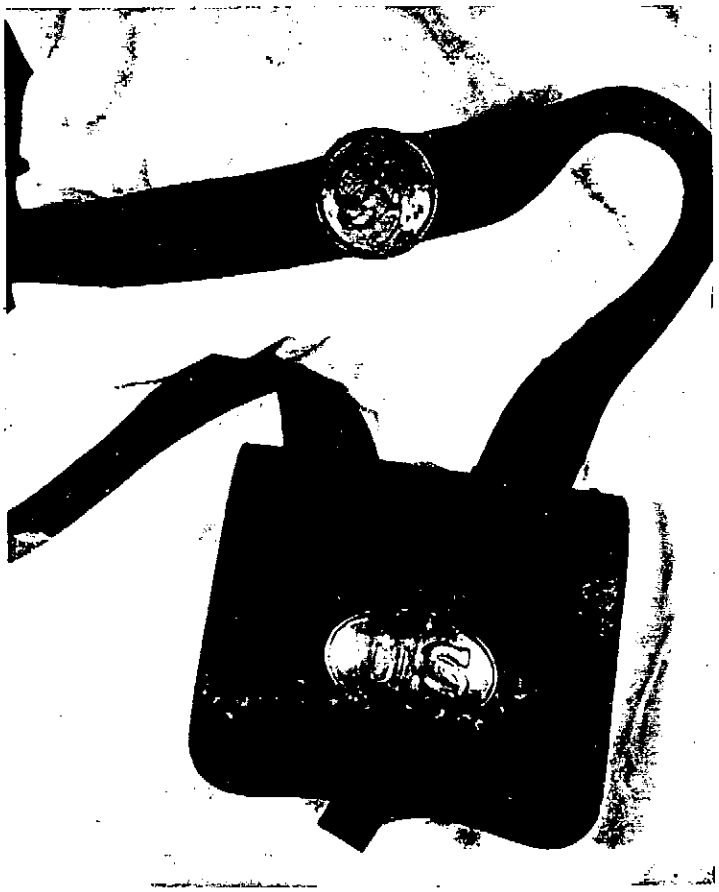
~~Cannon~~ Friction primer.

A six ply cord lanyard with small iron hook in one end to engage loop in primer, and a smoothly turned wooden handle at the other end. The cord is 45" long.



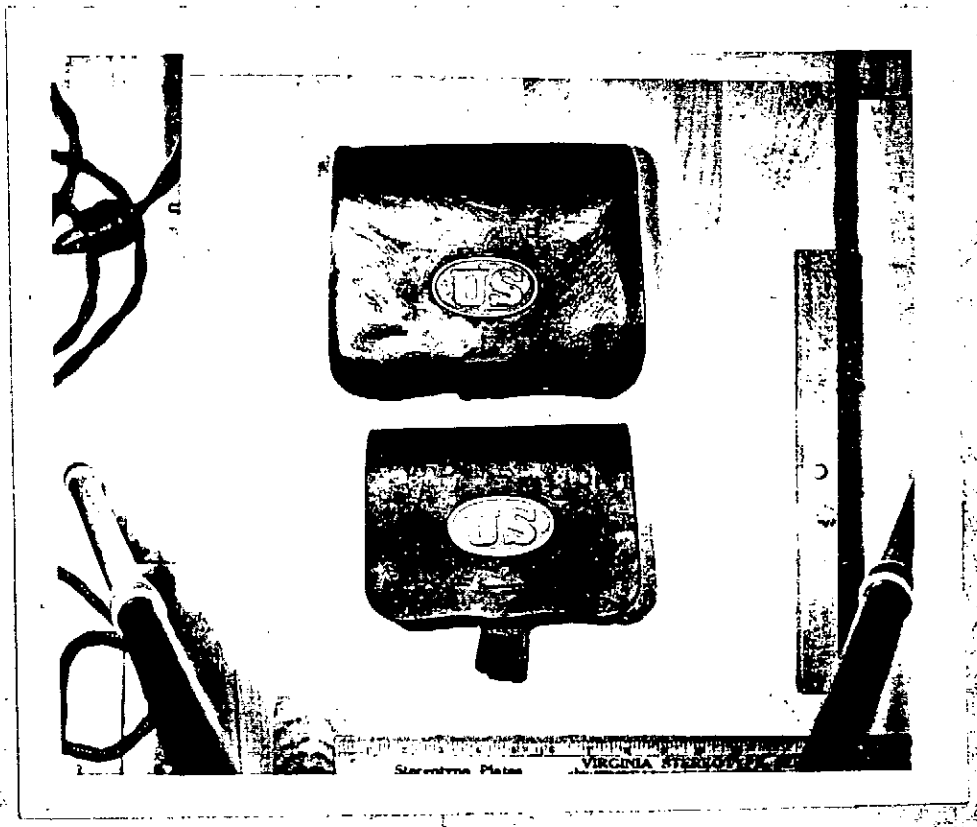
No. 13. SPENCER CARTRIDGES

Box of metallic Spencer cartridges, cal. 50, packed in original cardboard box lying on flap of leather cartridge waist pouch or box of Civil War period. (Miller Collection). Pouch holds four packages of cartridges. Flap is 6" long.



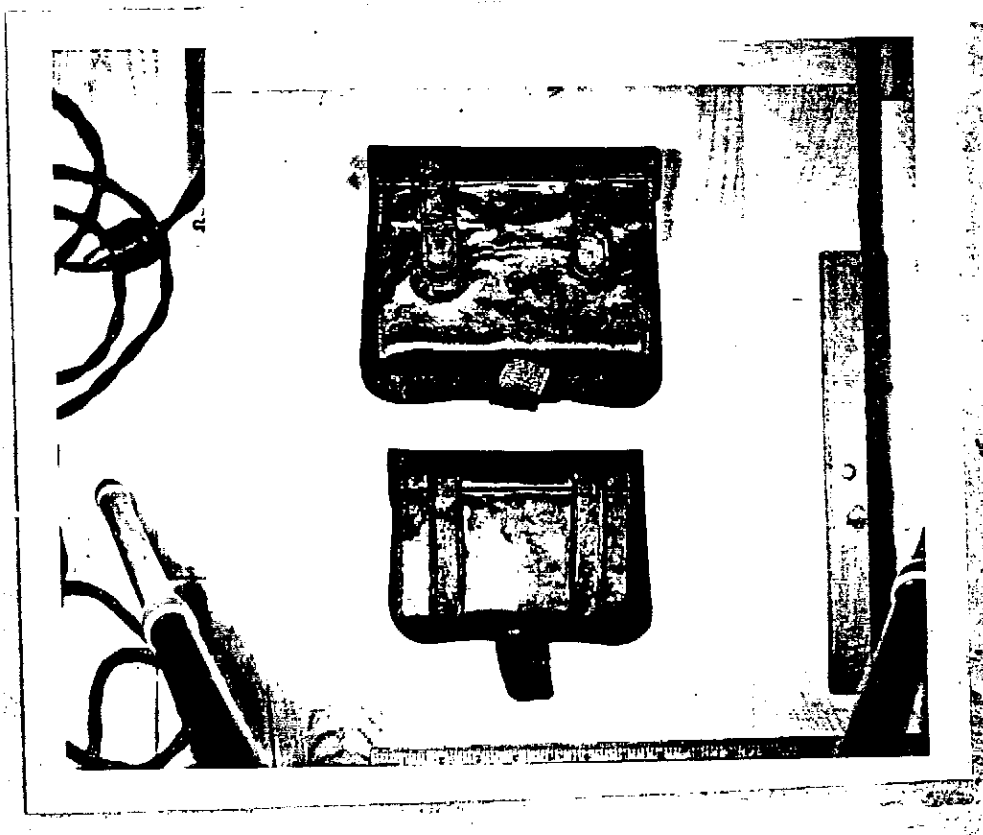
No. 14.

Rifle ~~and carbine~~ and rifle-musket cartridge box with ~~shoulder strap~~ ctge. box sling strap showing types of brass plates used during 1840s and 1850s ~~and to a certain extent~~ and during the Civil War. (Miller Collection). UPPER: EAGLE PLATE FOR SLING
LOWER: BOX PLATE



No. 15

Obverse of large Civil War cartridge box (upper) for use with rifle carried on waist belt, and smaller (lower) waist belt box for carbine cartridges. (Miller Collection).

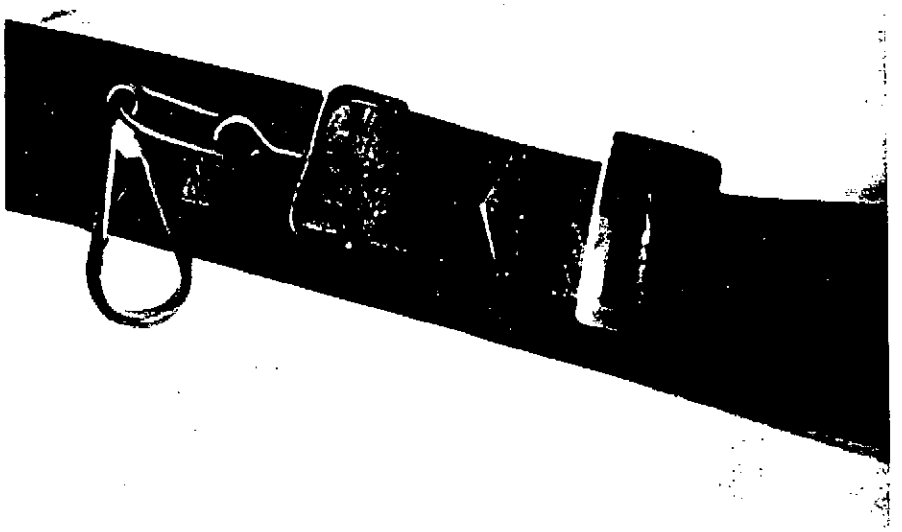


No. 16

Reverse of boxes shown in no. 15.

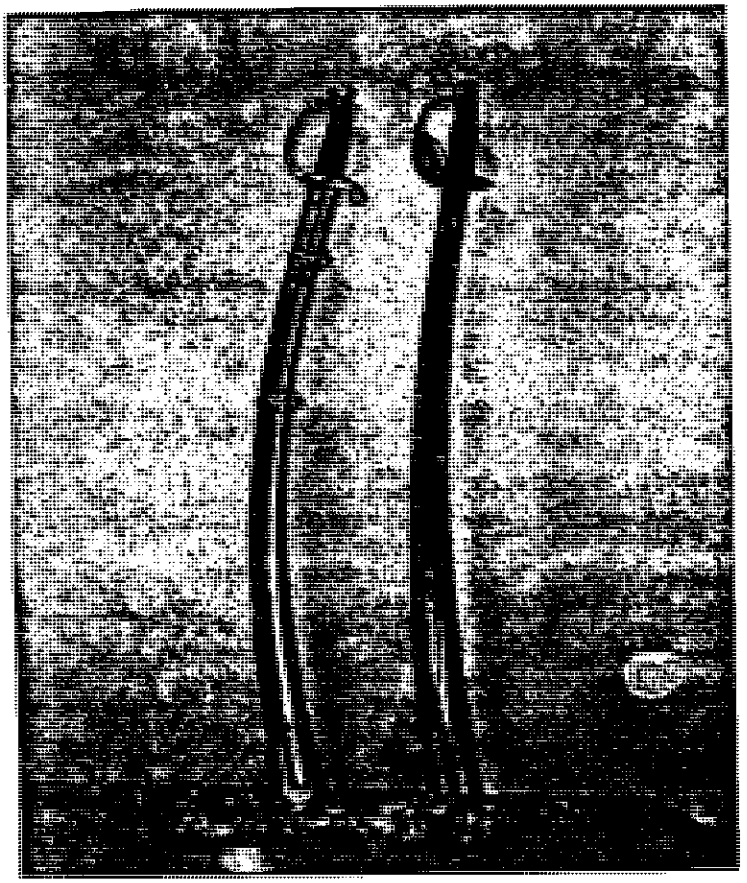
PLATE 17 --

This pattern of carbine harness and swivel-hook attachment was in use until the mid-1880's.



No. 17

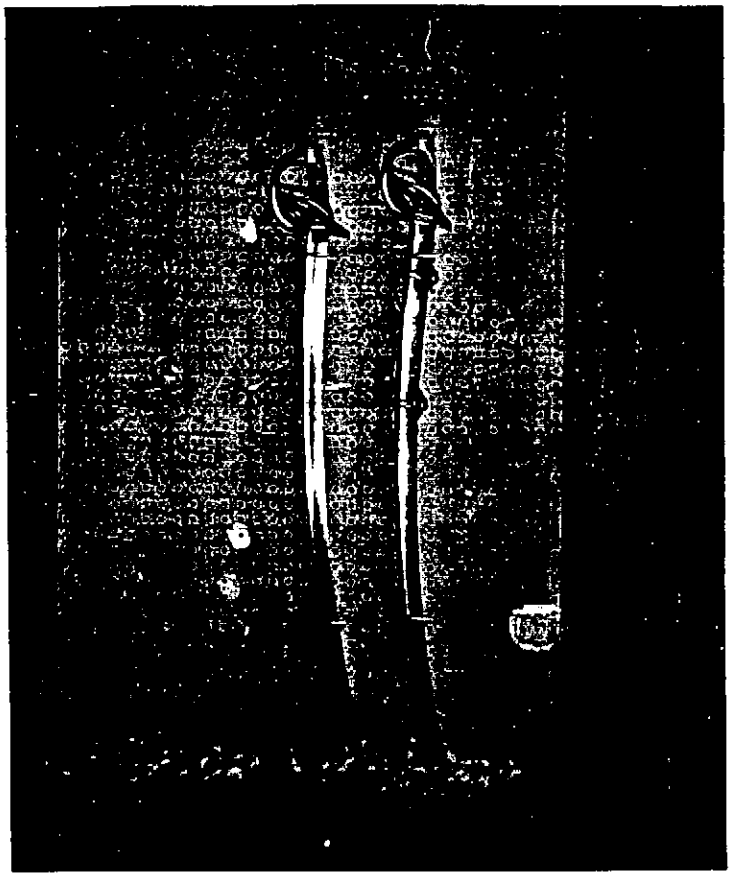
Swivel for carrying cavalry carbine from shoulder belt, Civil War period (Miller Collection).



No. 18. SWORDS

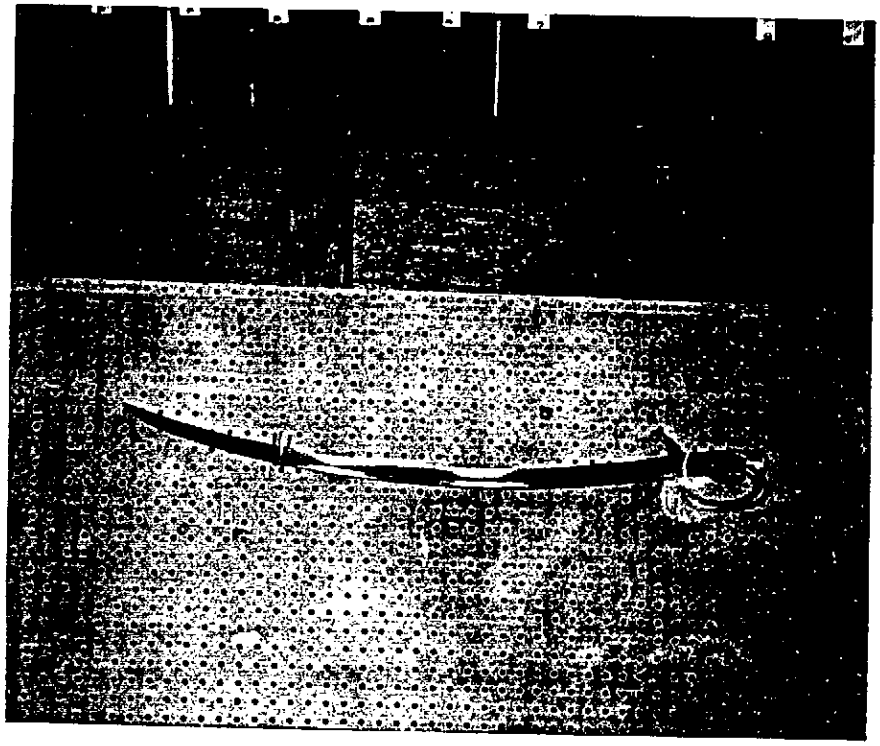
Saber at L. in steel scabbard is Light Artillery saber based on French pattern and first issued to U. S. troops in 1840. It continued in use for approximately 50 years.

Sword at R. is LIGHT CAVALRY SABER MODEL 1860 distinguished from cavalry saber 1840 model by swell of branches of bronze guard and by lighter blade with rounded back. (West Point Museum Collection).



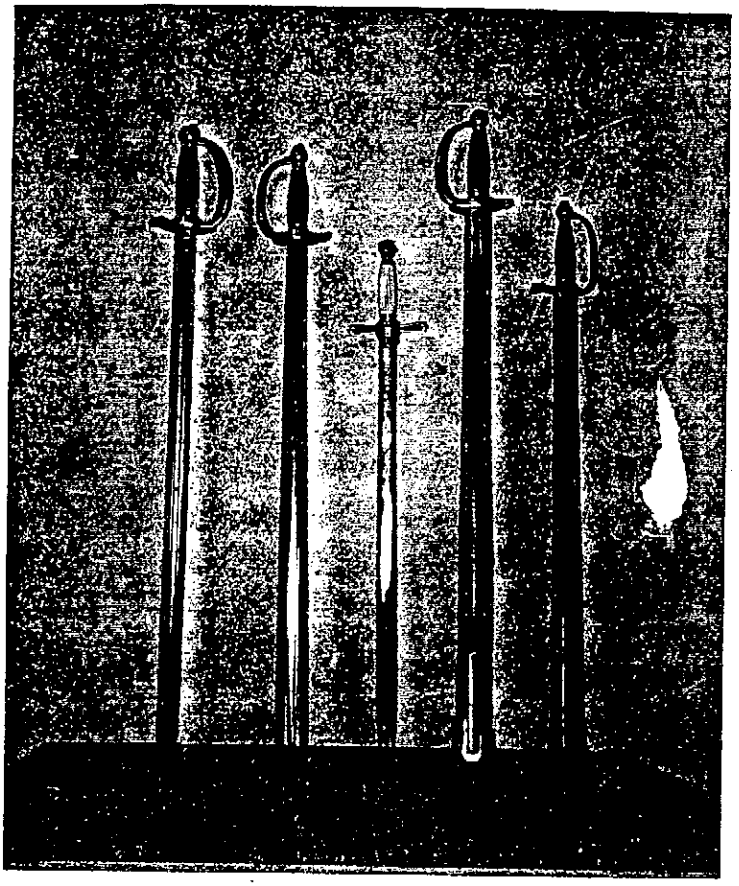
No. 19. HEAVY CAVALRY (DRAGOON) SABERS.

Of pattern adopted by U. S. War Department in 1840. It was known to the troops as "Old Wristbreaker" and continued in vogue for nearly 75 years. (West Point Museum Collection).



No. 20. LIGHT ARTILLERY SABER.

1840 model used during next 50 years. (West Point Museum Collection).



No. 21. ENLISTED MENS' SWORDS, INFANTRY, MUSICIAN'S AND KNIGHT TEMPLAR (Masonic order)

L to R

Non-commissioned officers' sword (with guard) partially cut away. (One-half of the guard was occasionally removed in this fashion by the wearer to make the weapon fit more snugly against the hip). This is patterned on the musicians' sword adopted by the U. S. War Dept. in 1840 and carried by the enlisted non-coms well after the Civil War.

Non-commissioned officers' sword, carried by infantry, artillery, and (after 1840) by signal corps and engineers. It has the protruding shell guards just below the grip.

Knight Templar's sword. Dress sword carried by members of the Masonic order.

Non-commissioned officers' sword and acappard.

Musicians' sword, without guards, otherwise same as others.

(In West Point Museum Collection)



No. 22. GRIMSLEY SADDLE

This is a good example of a Grimsley saddle invented by Col. Thornton Grimsley of Missouri and adopted by the U. S. War Department in 1840. It continued in active use by the dragoons and cavalry until 1859 when it was superseded by the McClellan saddle. (Specimen in the West Point Museum Collection).

Superintendent
Fort Union National Monument
Watrous, New Mexico 87753



No. 23. CALIFORNIA SADDLE OF THE 1850s and 1860s.

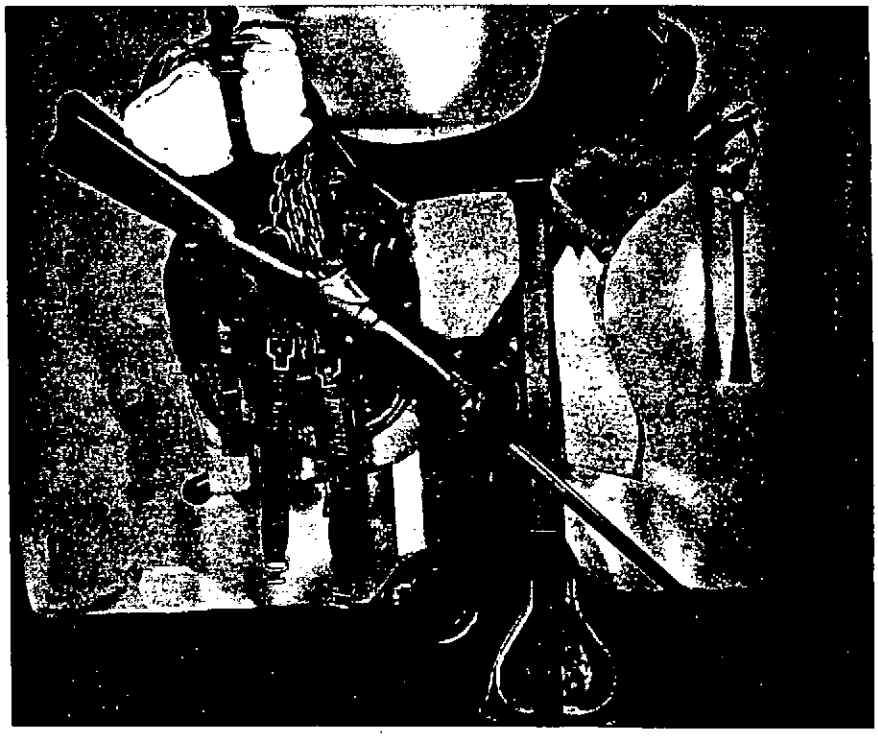
There were a number of variations of this "California saddle". In effect it was a Mexican saddle but since the majority of the makers of this saddle worked in California the term is applied to all such types. The firm of Main & Winchester, the old saddle making firm in San Francisco, Calif., which began manufacturing horse gear in 1849, was one of the principal sources of these saddles, and during the Civil War had contracts with the military to furnish saddles to the Federal troops in California and the Southwest. (This specimen is in the New Mexico Historical Society Collection, Santa Fe).



No. 24

McClellan saddle without equipment. (West Point Museum).

PLATE 25 AND 26 -- The presence of certain articles in this assemblage, which is stated to be representative of the 1870's, (while close to patterns is use during that period), are nevertheless incorrectly incorporated. (1) The scabbard of boot is of the pattern which appears in the mid-1890's; (2) The cinch is of a pattern manufactured during the First World War, as is the saddle itself, and the saddle bags; the drinking cup is of the type encountered in the very late 1880's; the canteen is of a pattern issued during the mid-to late 1890's; the ~~lariat~~ is more properly associated with the type issued during the Spanish-American War. (One might also question the authenticity of the saddle blanket, the overcoat or cape, the shelter half rolled into the feed bag, the proper model or sub-type of the carbine; and the date of the sidelines.



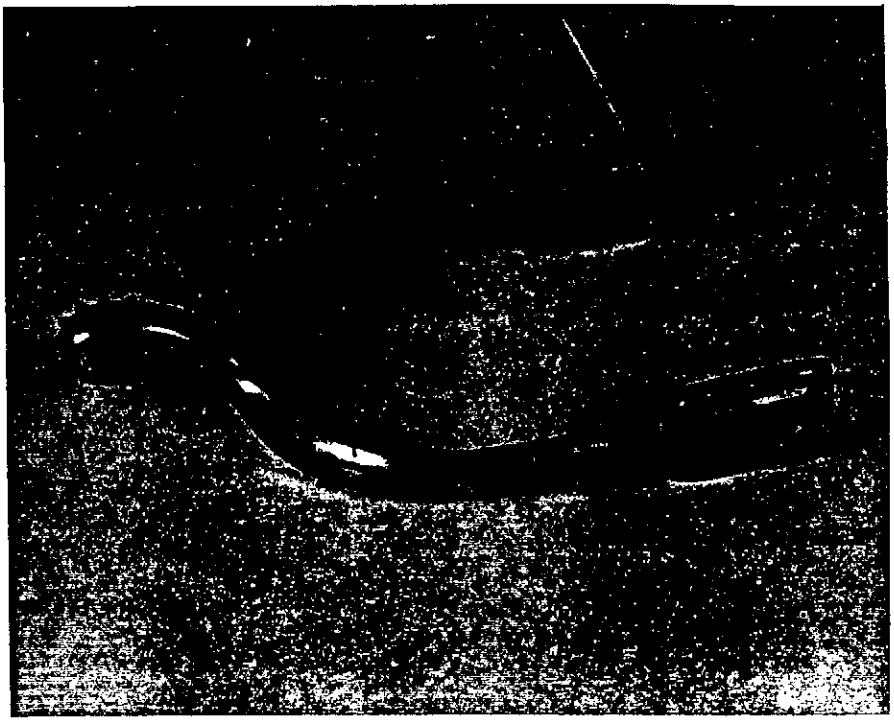
No. 25.
No. 26.

Two views of McClellan saddle fully packed for field service as it would have appeared in the 1870s. Note carbine, saber (latter often left at the post when trooper was on field patrol), side lines, picket rope, ~~canteen~~ cup, bed roll, etc. (Specimen in the West Point Museum).



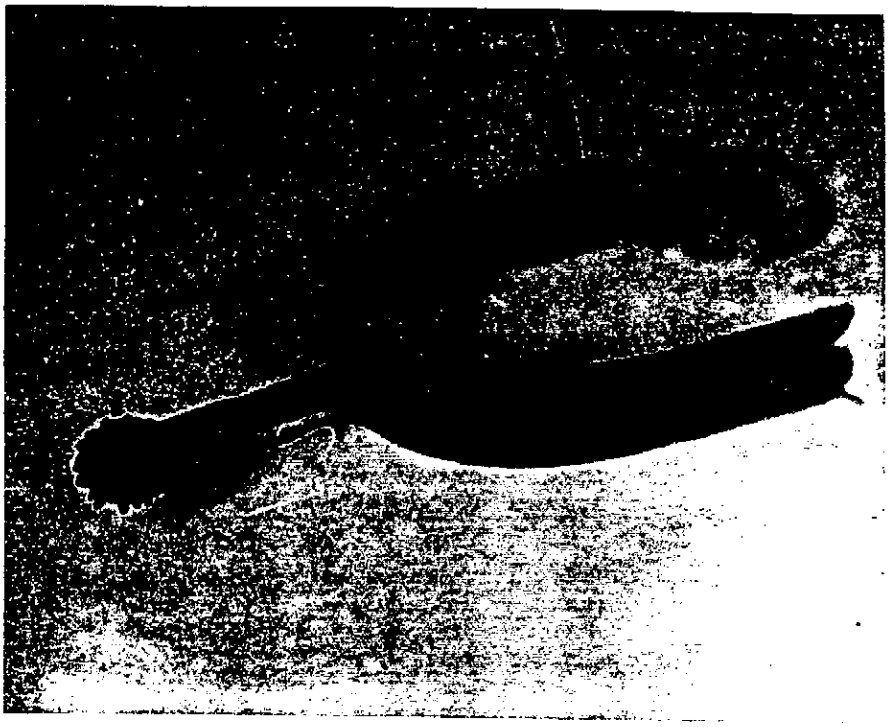
PLATE 27 --

Other variations, of both arsenal and contract manufacture, are known.



No. 27.

Regulation brass spur 1860s-1880s. (James Hutchins Collection)



No. 28.

Non-regulation iron spur with horizontal rowel. This type spur has been found on battlefields of the Civil War. It is of British origin and was being made and sold as early as the 1850s, perhaps earlier. It has sometimes been called a "Confederate spur". (Hutchins Collection). (See also collections from battlefield at Gettysburg and elsewhere).



No. 29.

Black leather cavalry boot, 20" high, recommended for U. S. Cavalry use in 1874 and used in early 1880s.



No. 30.

Cavalry boot, 22 1/2" high, same period as no. 29.

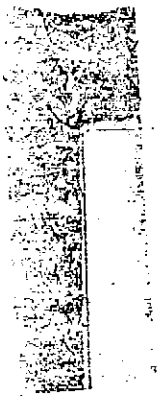
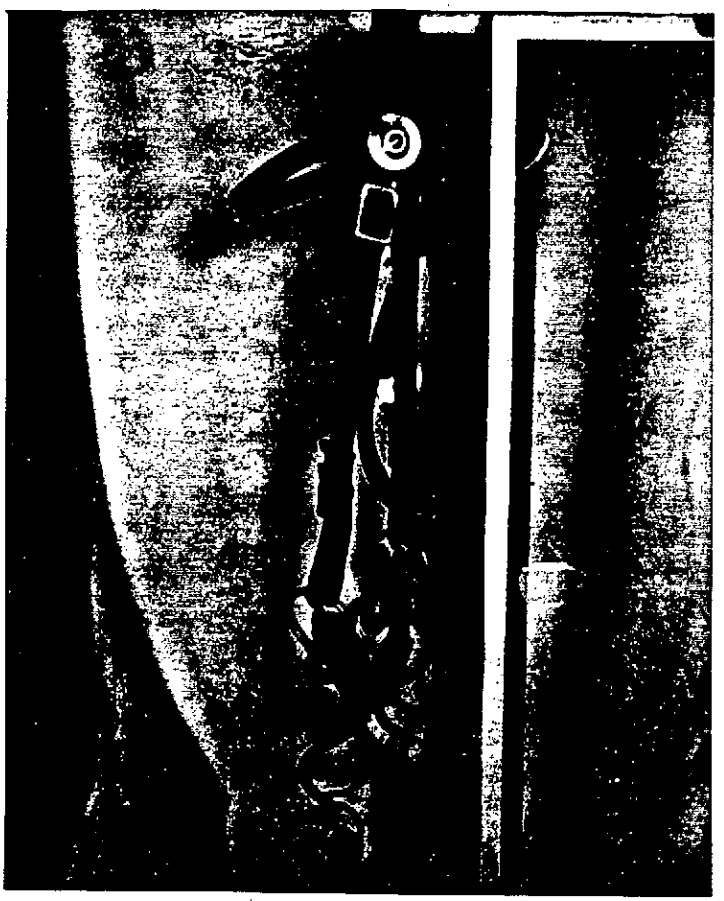


PLATE 31 --

The historical association projected to be related to this unit, ("Civil War"), is confused or the result of someone's misinformation. The headstall is the Model 1874, and the bit is the Shoemaker, which also does not appear until 1874. Neither were extant during the "Period of the 1860's".



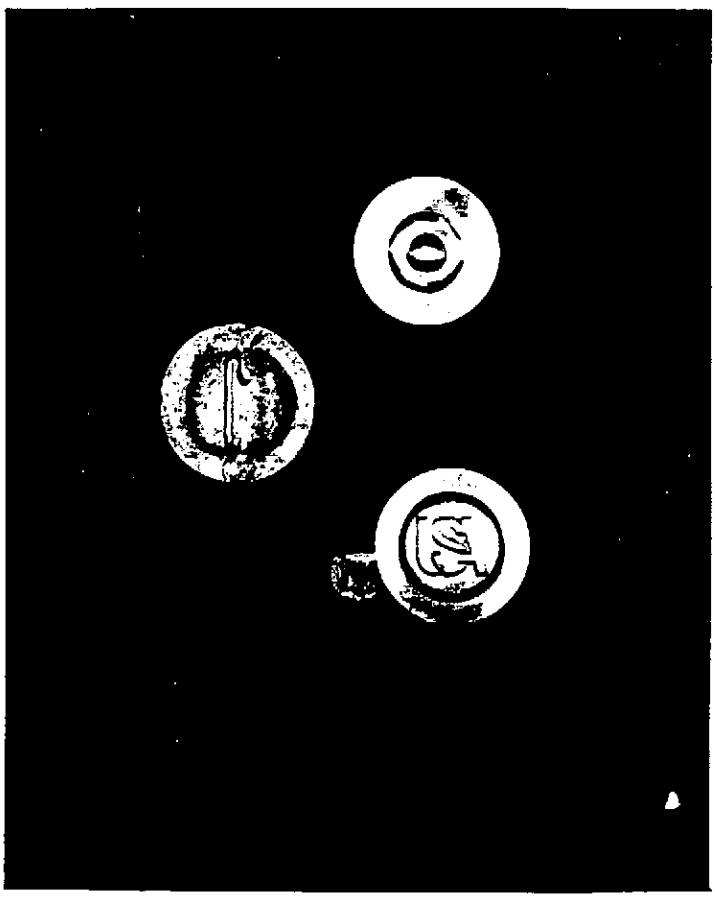


No. 31.

U. S. cavalry bridle, S side plates are of brass. ~~Formerly used by a Federal surgeon from Maine during~~ Civil War. Plain brow band concha. ~~Period of 1860s.~~ (Hutchins Collection)

PLATE 32 --

The upper rosette or concha is furnished on the Model 1874 headstall, and the lower on the Civil War-period headstall.

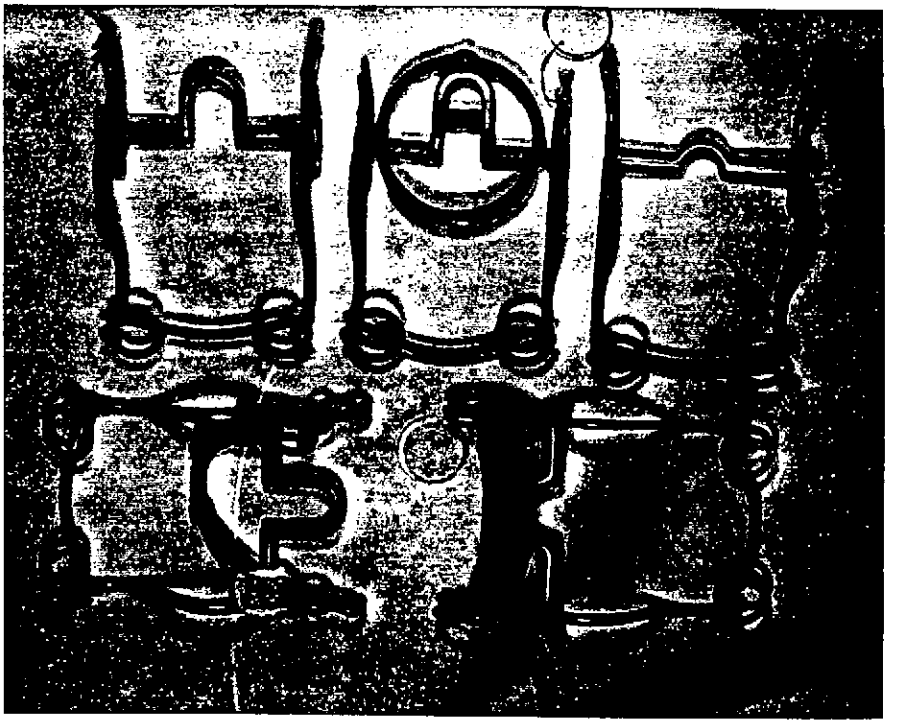


No. 32.

Bridle conchas, plain and with USA entwined, used by cavalry 1860s-1870s. Conchas may be brass or brass over lead.

PLATE 33 --

The top three bits and the bit on the lower left are of Civil War-period design and manufacture. The lower right bit is the Shoemaker, appearing in 1874 and used well into the 1890's, including a period of time after the 1892 bit was adopted.



No. 33.

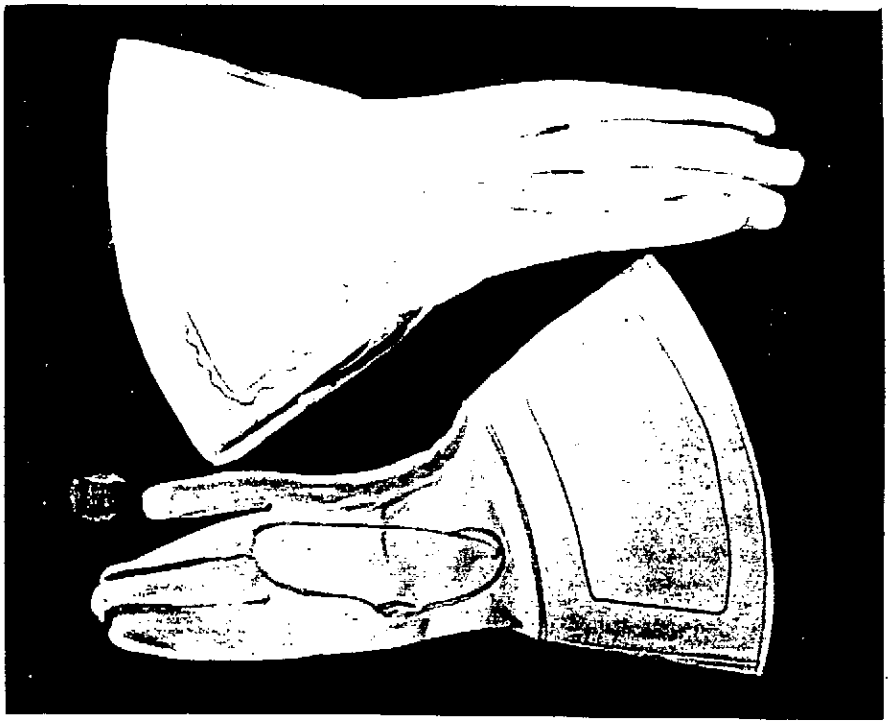
Various types of bits used by US cavalry 1860s-1880s.
(Hutchins Collection)

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Fort Union National Monument
Watrous, New Mexico 87753



No. 34.

U. S. Cavalry bits L to R: Bit invented by Capt. Shoemaker stationed at Ft. Union. This bit was favorably recommended for army use in 1874 but wasn't formally adopted until around 1885. Early Shoemaker bits were stamped "ROCK ISLAND ARSENAL", later ones simply "R.I.A." Other bits are those used during 1860s and 1870s. Ring bit, 4th from L, was adopted in 1863 or rather this is the 1863 pattern. At the proceedings of the Ordnance Board, Dec. 17, 1867 - Feb. 11, 1868, it was recommended that no change be made in the standard cavalry equipments until officers in the cavalry arm had been consulted. At this time, however, the board recommended that all artillery and cavalry bits be tinned and all old bits requiring repairs should also be tinned instead of being blued or replated. This same board recommended the use of side lines for hobbling horses be issued to cavalry companies to replace the usual picket pin and lariat. (Hutchins Coll.)



No. 35.

Cavalry officers' guantlets 1870s-1880s. (Hutchins Collection) These are white buckskin with light brown stitching.

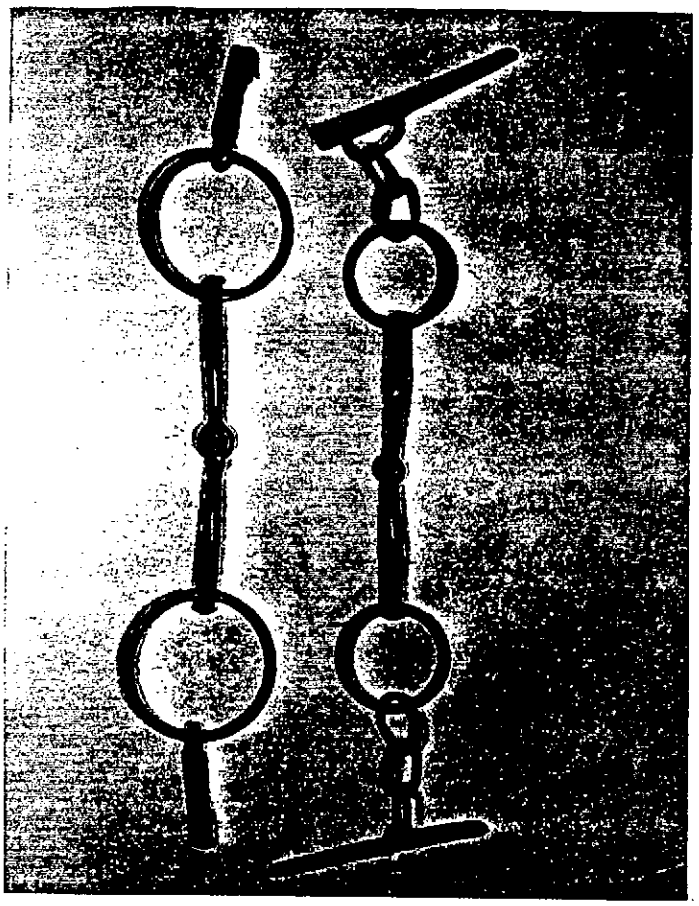


No. 36.

INF. OFFICER

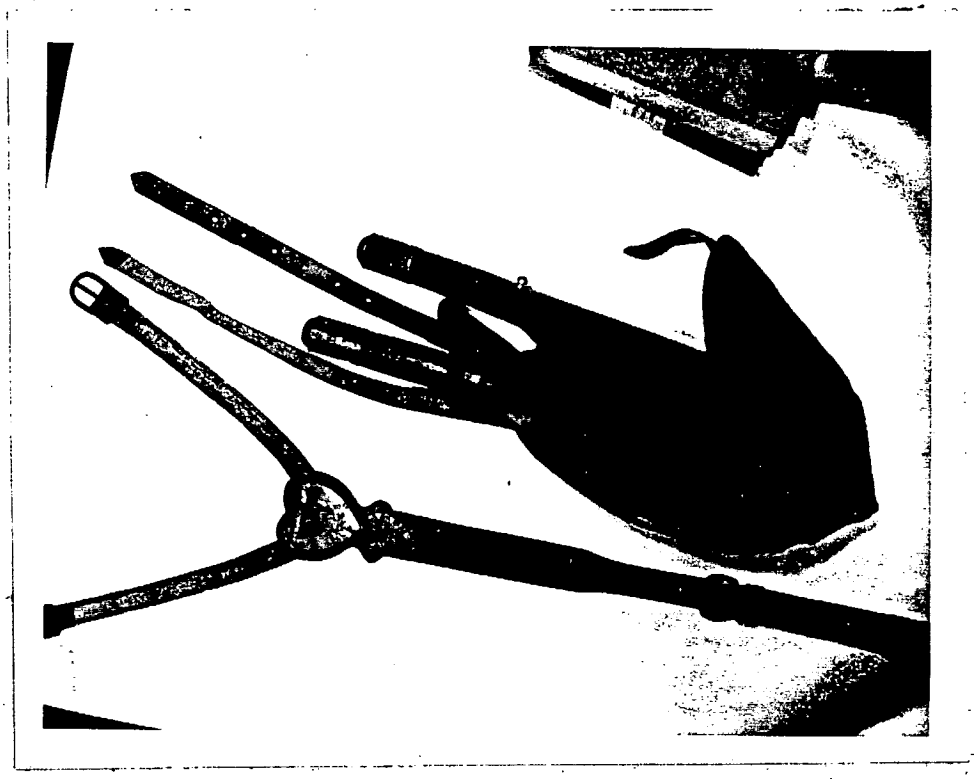
A typical cavalryman of Civil War period (Officer) from Nat'l. Archives, Still Photograph Collection.

NOTE: INFANTRY SWORD (LEATHER) SCABBARD & CAPE



No. 37.

Watering bits. L to R 1874-1885: snaffle bit 1861.



No. 38. MARTINGALE or BREAST STRAP and PISTOL HOLSTERS, 1860s. OFFICERS

In this instance the black leather straps have been painted yellow. The heart shaped ornament with eagle is brass, 3" long. Total length of breast strap is 38". Holsters are also black leather with flap outlined with yellow paint. These holsters are 13 1/2" long. The brass cap at distal end of holster is 2 1/4" long. Such holsters were carried on the saddle bow in front of the ~~rider~~ officers. (Hutchins Collection)

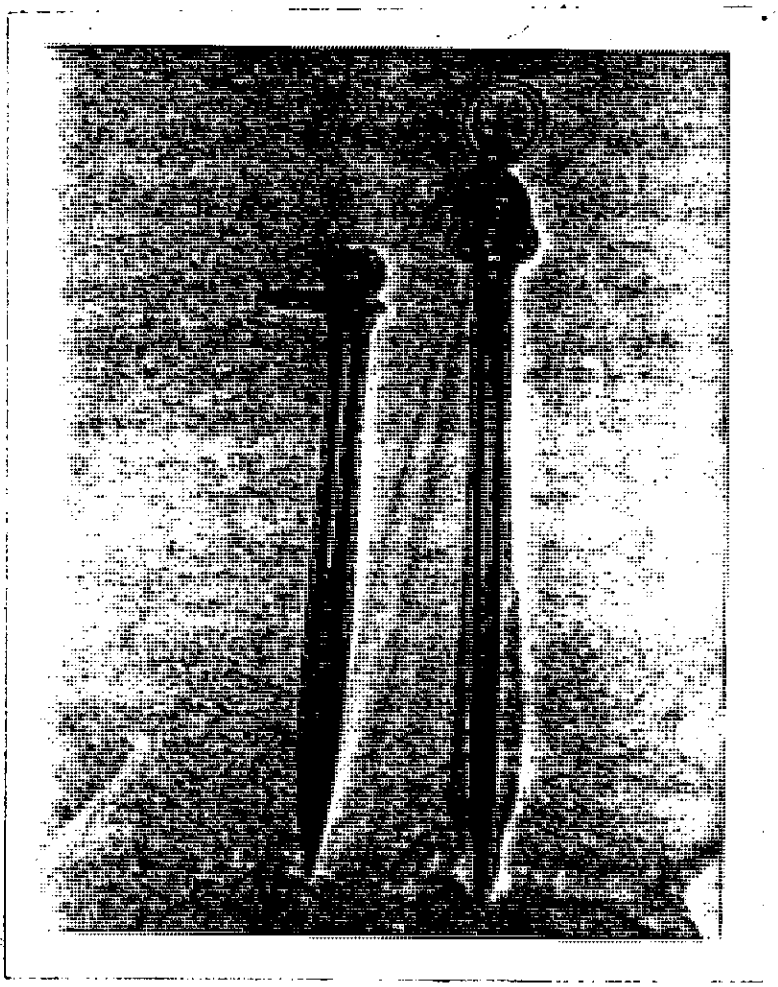


No. 39.

Side lines used by cavalry in 1870s-1880s. (Hutchins Collection)

PLATE 40 --

The right-hand picket pin is the Model 1874.



No. 40.

Iron picket pins. Pin at L is of Civil War period 12" long. Pin at R is trifle later and has a patented swivel top to replace simple figure 8 loop on earlier style. In late 1880s and 1890s fluted cast iron pins were used. These varied somewhat in shape but were essentially of same general pattern, in that the body of the pin was more or less squared with deep fluting extending from the top to end of the pin.

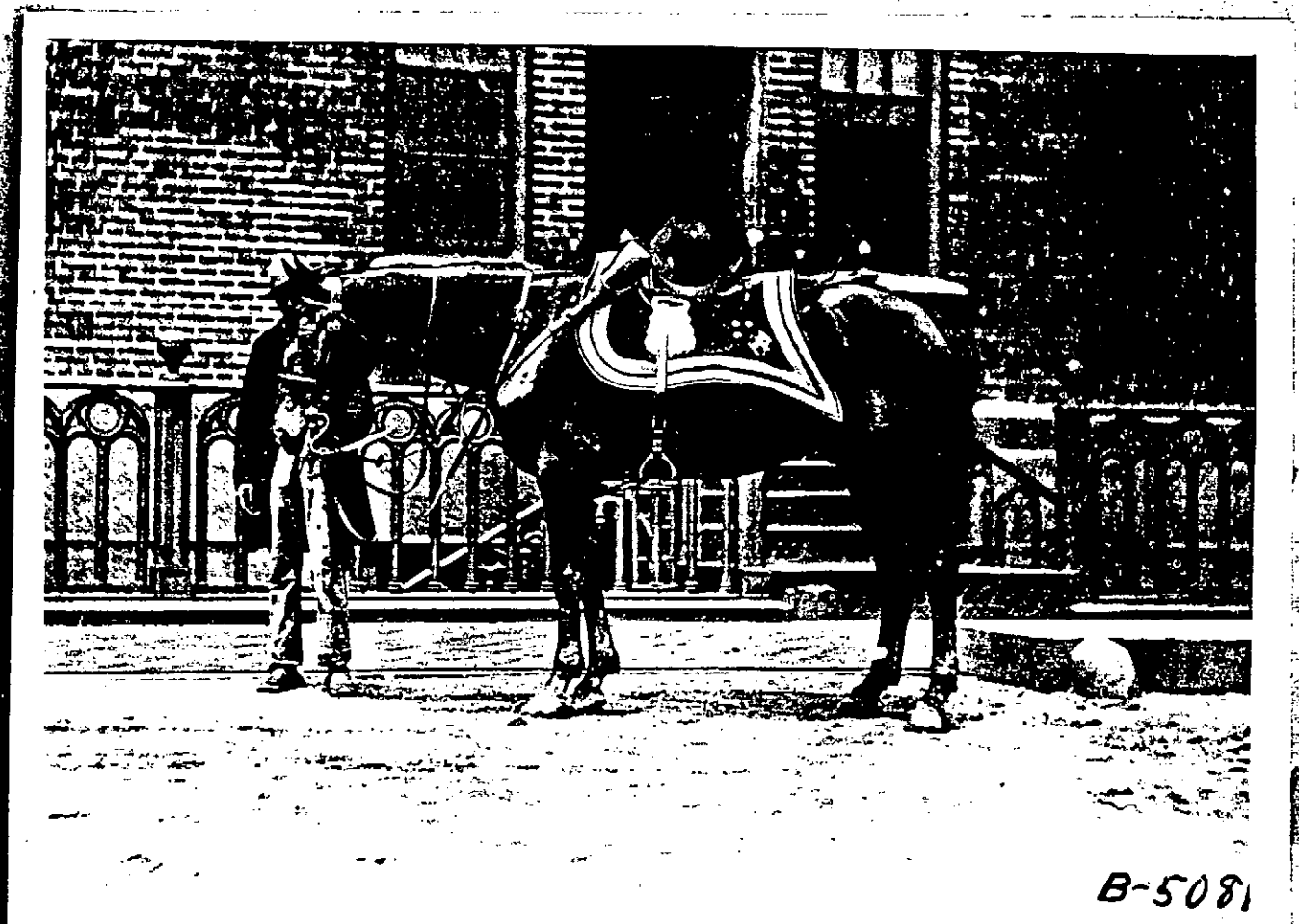
PLATE 41 --

The identification of this group as "cavalrymen" may be erroneous, since the Model 1840 Light Artillery Saber is present. (However, this suggestion is not stressed in view of the great variety and hodge-podge of arms issued to units during the period.)



No. 41.

Group of U. S. ~~Cavalrymen~~ ARTILLERYMAN, Civil War (Photo from Nat'l. Archives).



B-5081

No. 42.

General U. S. Grant's horse fully equipped, McClellan saddle, Civil War.

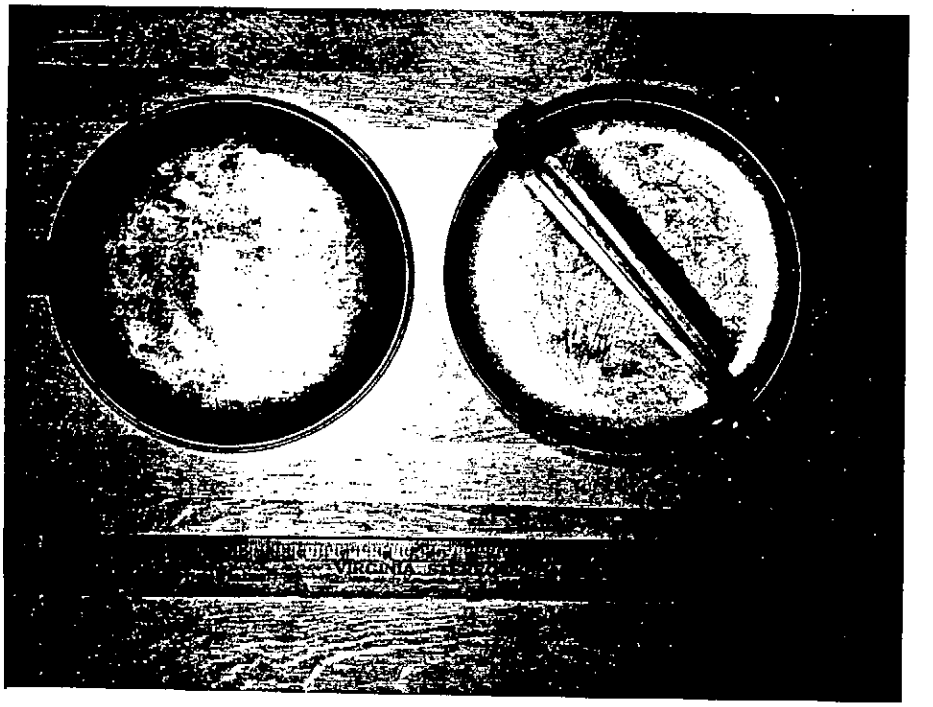


No. 43.

Civil War Haversack (Miller Collection), waterproofed canvas.

PLATE 44 --

This is an unusual pattern. Its more precise date of design and use, and its degree of use, (experimental or long-term issue), should be investigated.

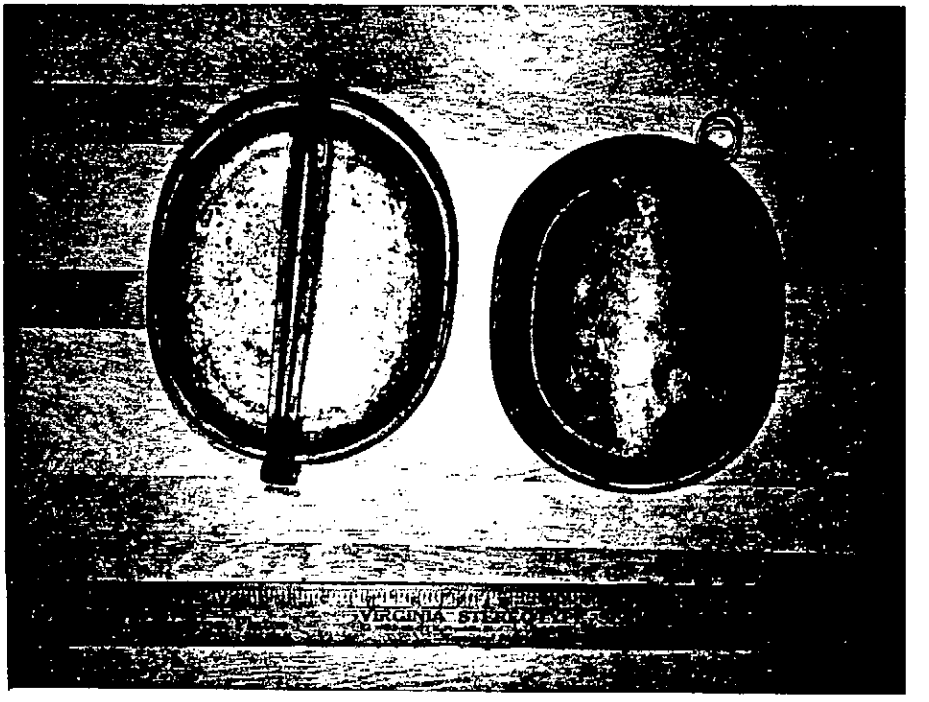


No. 44.

Circular "meat can", heavily tinned, late 1880s-90s.
8 1/2" diameter. (Miller Collection)

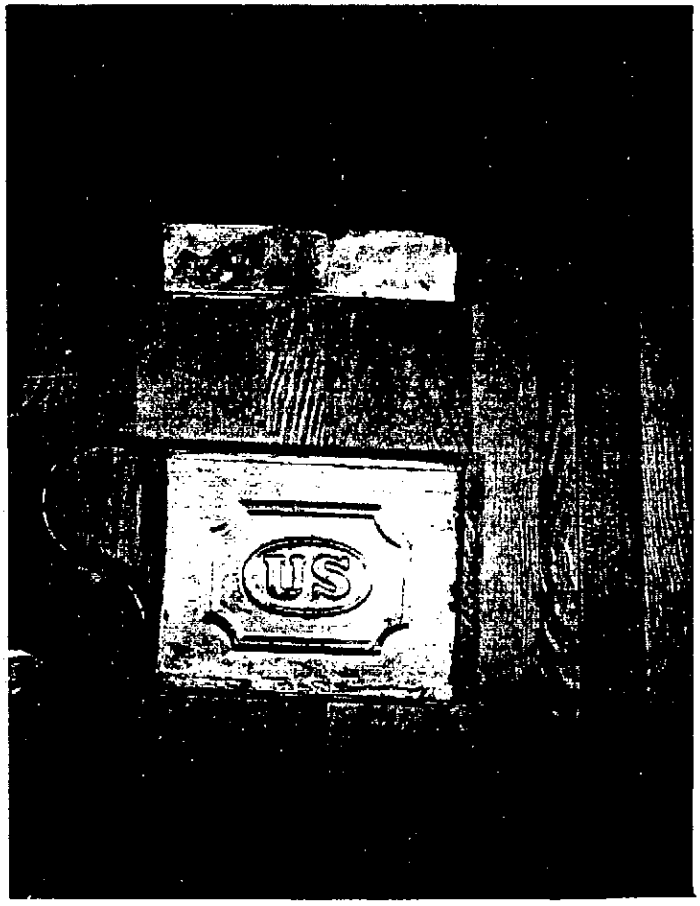
PLATE 45 --

Slightly varing patterns of this model meat can are extant.



No. 45.

Oval tinned sheet iron meat can or mess kit, c. 1875, 7 7/8" long x 6 3/16" wide. See Ordnance Memo. #19. Miller Collection.

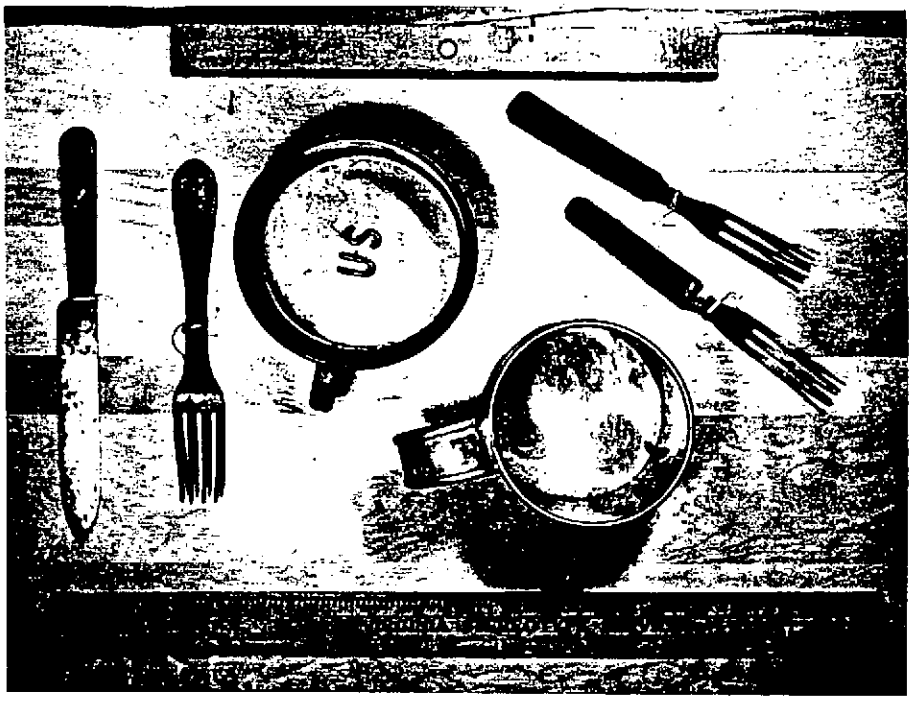


No. 46.

Meat Can, 6 3/4" long x 5 1/8" high x 1 1/2" wide. Top fits closely inside the can. Folding handle on top. First issued 1872. (Miller Collection)

PLATE 47 --

Neither cup is of the 1870-period, and only one, on the lower right, appears at the very latter part of the 1880's. The utensils are also later than the period stated, appearing in the early to mid-1880's.

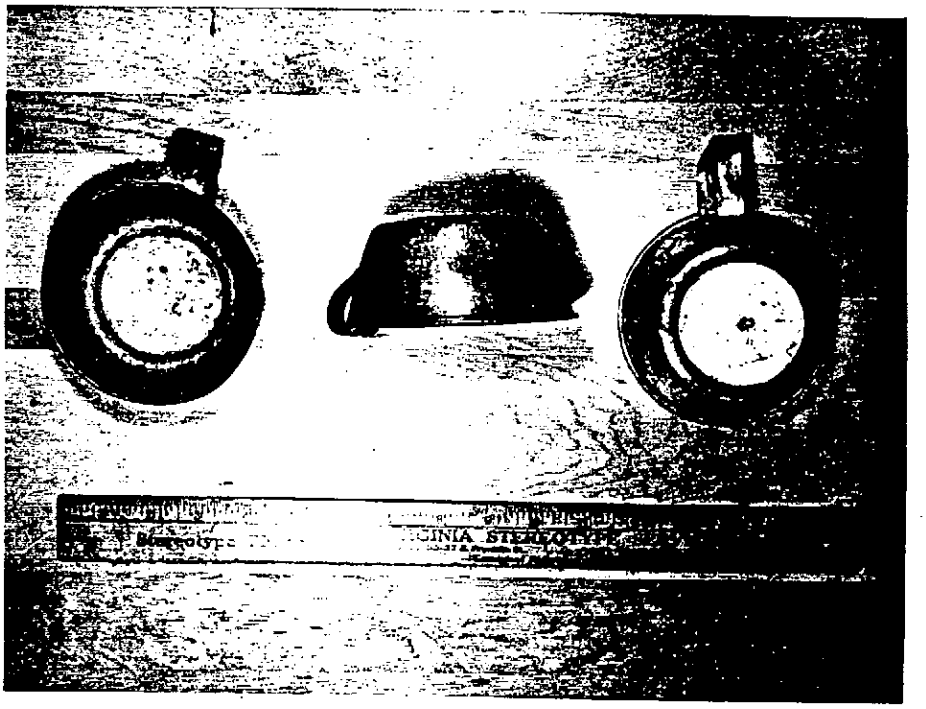


No. 47.

Tin plated sheet iron cups 1870s and 1880s, app. pint size. Knives and forks with iron handles, same period. (Miller Collection) Cup with US on handle is 4" dia. and 4 1/16" high.

PLATE 48 --

These are not regulation issue cups. They are of the endless variations sold by sutlers or purchased for volunteer units as a result of the critical supply shortages during the Civil War.

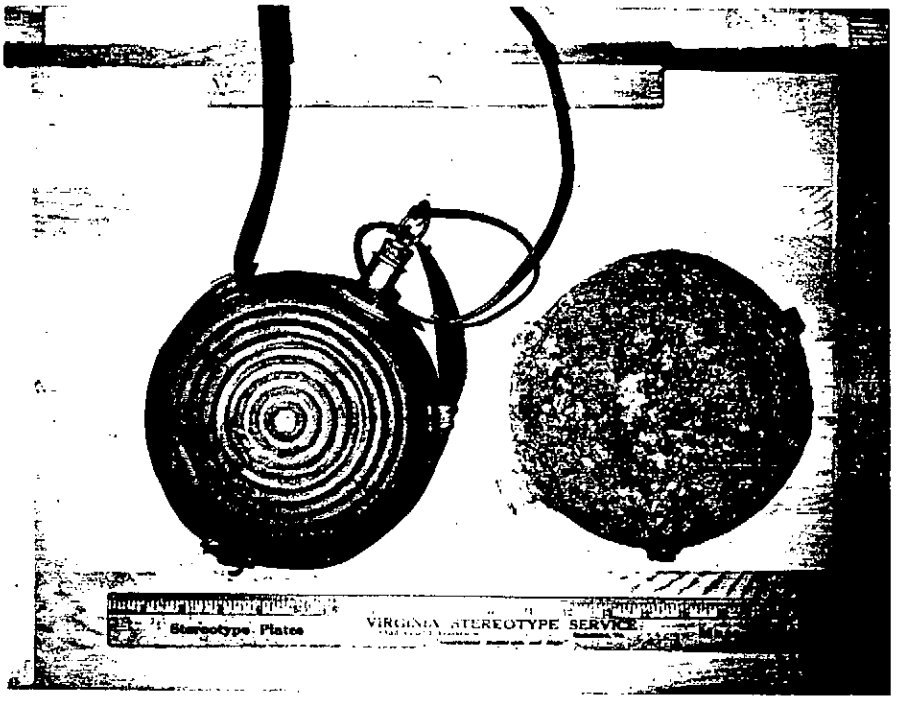


No. 48.

Smaller tin cups c. 1874. (Miller Collection). N. B. Tin cups of the sizes shown in #47 were also of the approximate shape used during Civil War but were probably unstamped.

PLATE 49 --

The date of the canteen on the left should be checked. Other reliable accounts describe it as the Model 1851. The specimen on the right is a Model 1861. This pattern saw use in a number of alterations through the Spanish-American War and beyond.

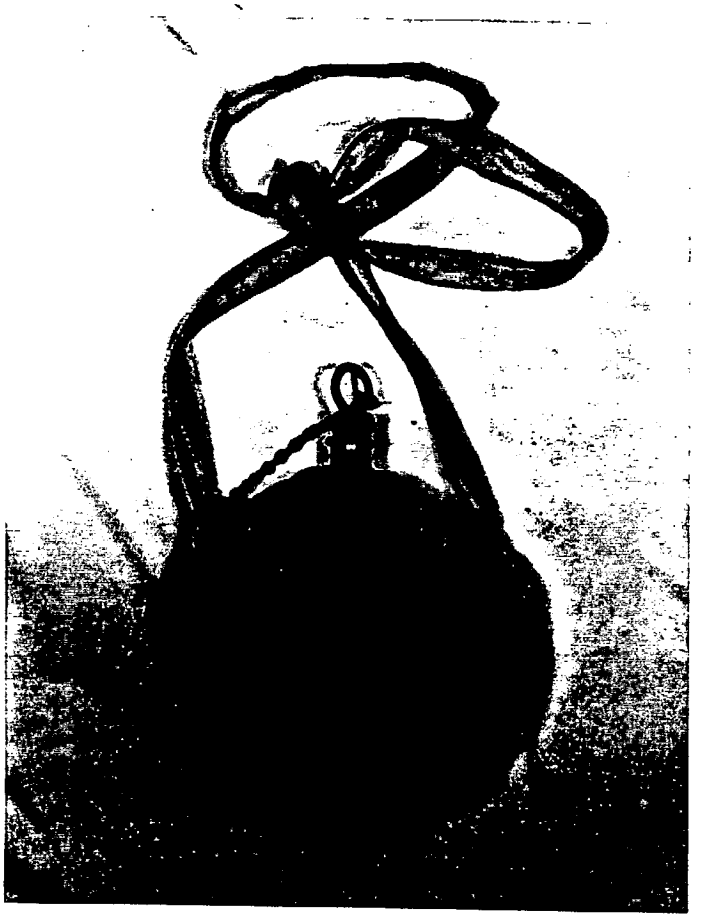


No. 49. CIVIL WAR TIN CANTEENS

Two styles. These held approximately 3 pints of liquid. The corrugated canteen L, came after July 15, 1862. These canteens were covered with a poor grade of felt which rotted away so troops found old wool socks a better covering.

PLATE 50 --

A complete Model 1861 canteen and sling; the pattern saw service in this form into the 1870's.

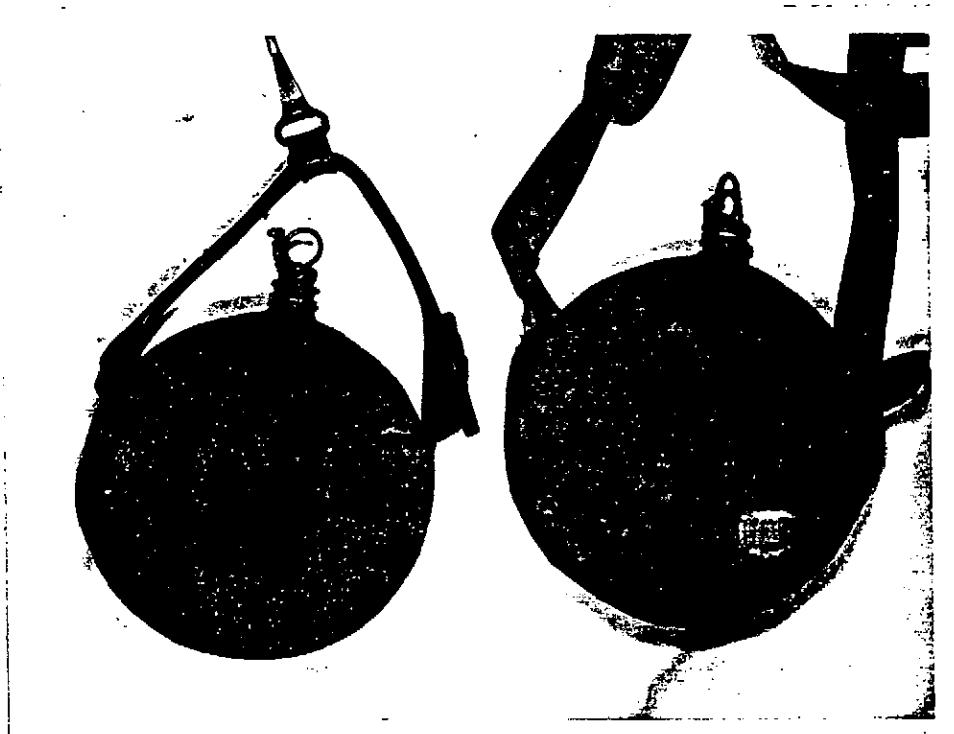


No. 50.

Cloth covered Civil War canteen. Tin canteens of this type were in use before the Civil War. (Miller Coll.)

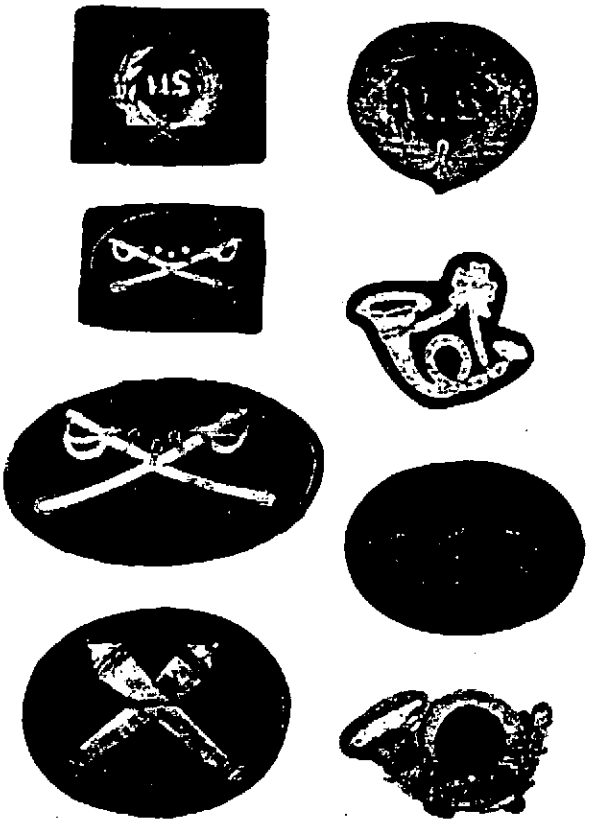
PLATE 51 --

The canteen on the left, intended for use by cavalry, appears in the mid-to late 1880's. The canteen on the right is a Model 1861 which has been altered to accept the web sling. This and similar alterations took place in the 1870's through the 1890's.



No. 51.

Cloth covered canteens of the 1870s-1890s.

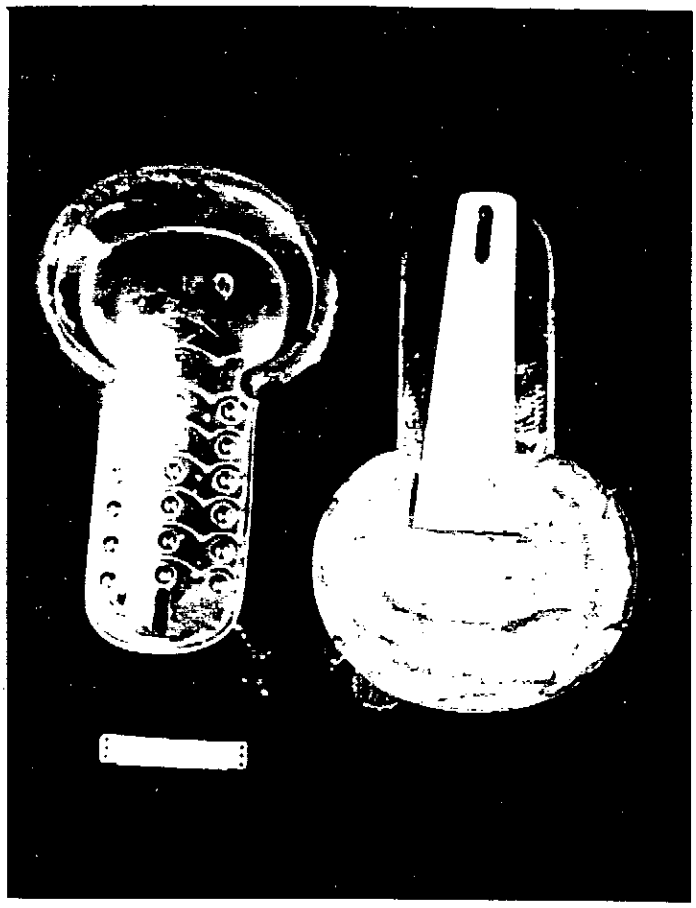


No. 52.

Embroidered insignia for use on officers' hats and caps during and prior to the Civil War. Crossed sabers are cavalry, trumpets are mounted rifles ~~and infantry,~~ hunting horn for INF. crossed cannon, artillery and the US and wreath for field officers' hats.

PLATE 53 --

This pattern, with the fake rivets on the scales, is of the type appearing prior to and during the Civil War. Other patterns appear prior to and in contemporary times with this pattern, but which delete the "Rivets".

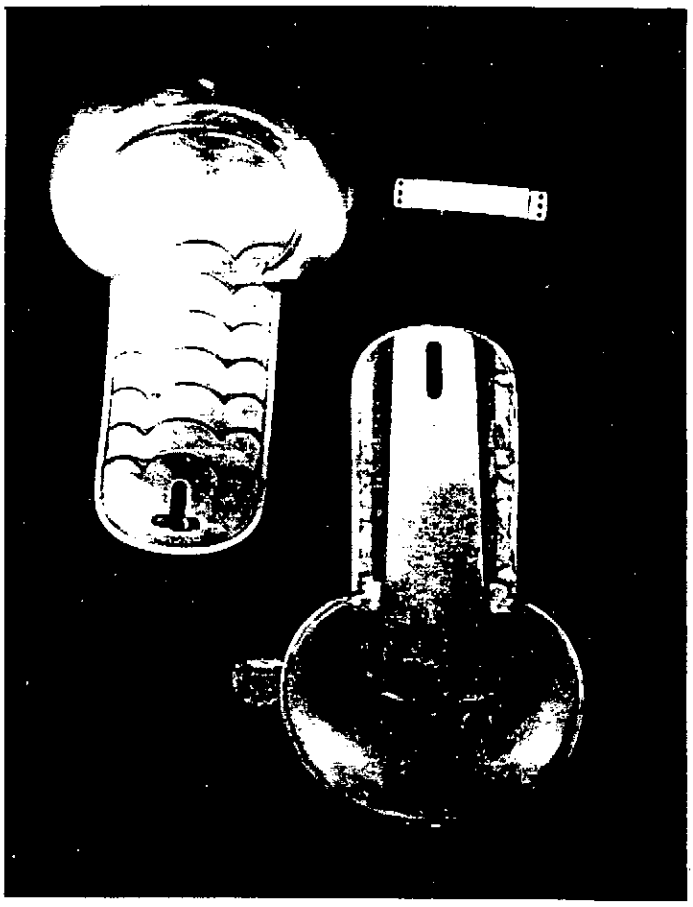


No. 53.

Bronze or "brass scales". These were insignia worn by enlisted men and non-commissioned officers prior to and during the Civil War. They came in to use in 1854 and although supposedly discarded during the Civil War remained regulation insignia until after the war and died out during the 1870s. (Hutchins Collection)

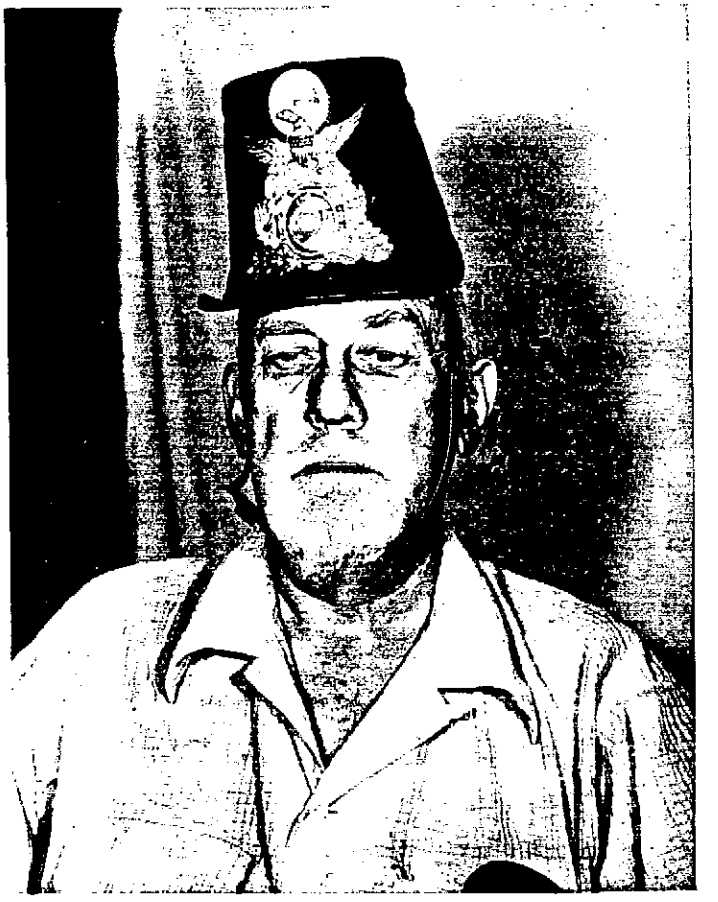
PLATE 54 --

This pattern epaulette appears contemporarily with the type in the previous plate, but is apparently supplants the earlier patterns almost exclusively in the late 1860's. It is not intended to be for issue to sergeant only. (The writer has noted that this pattern appears as the exclusive type on post sites dated from the mid-1860's to 1872, when the epaulette is discarded as an item of regulation dress for enlisted men.)



No. 54.

Bronze scales. Note differences in construction. Since some scales issued to sergeants differed from the ordinary ones, it may well be that this is a pair of sergeant's scales. Obverse and reverse views are given in both photos.



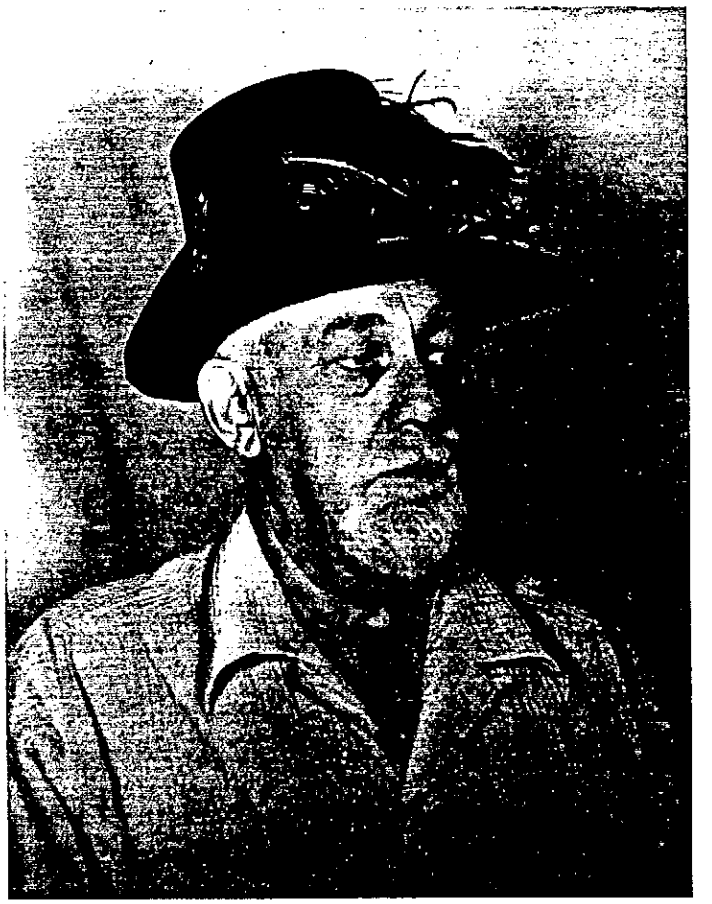
No. 55.

Model wearing leather shako type head gear of 1850s-1860s with brass infantry insignia in front and red-white-and blue metal cockade above eagle. This headpiece was universally hated by the troops. (Hutchins Collection)



No. 56.

Side view of no. 55.



No. 57.
No. 58.

Black felt hat of type known as "Kossuth", "Jeff Davis", "Hardee" etc. These hats were worn during 1850s and 1860s, by all arms of the service. Black ostrich feathers were fastened on right side and number of feathers denoted differences in rank. (Hutchins Coll.)



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No. 59.

Dark blue forage cap relatively high in the crown, known during Civil War as the "Bummer's cap". It differed somewhat from the styles of forage caps that followed during the 1870s-1880s. (Hutchins Collection)



No. 60.

Forage cap with cavalry insignia embroidered on it.
1860s-1870s.



No. 61.

Forage cap bearing brass insignia of K Troop, 7th Cavalry, 1870s.



No. 62.

Black campaign hat with patented brass ventilator in crown early 1880s. There were minor changes in the helmet fittings during this period but the shape of the helmet and general effect were relatively unchanged. Pith sun helmets covered with tan or white cloth were also used during this period and well into the 1890s.

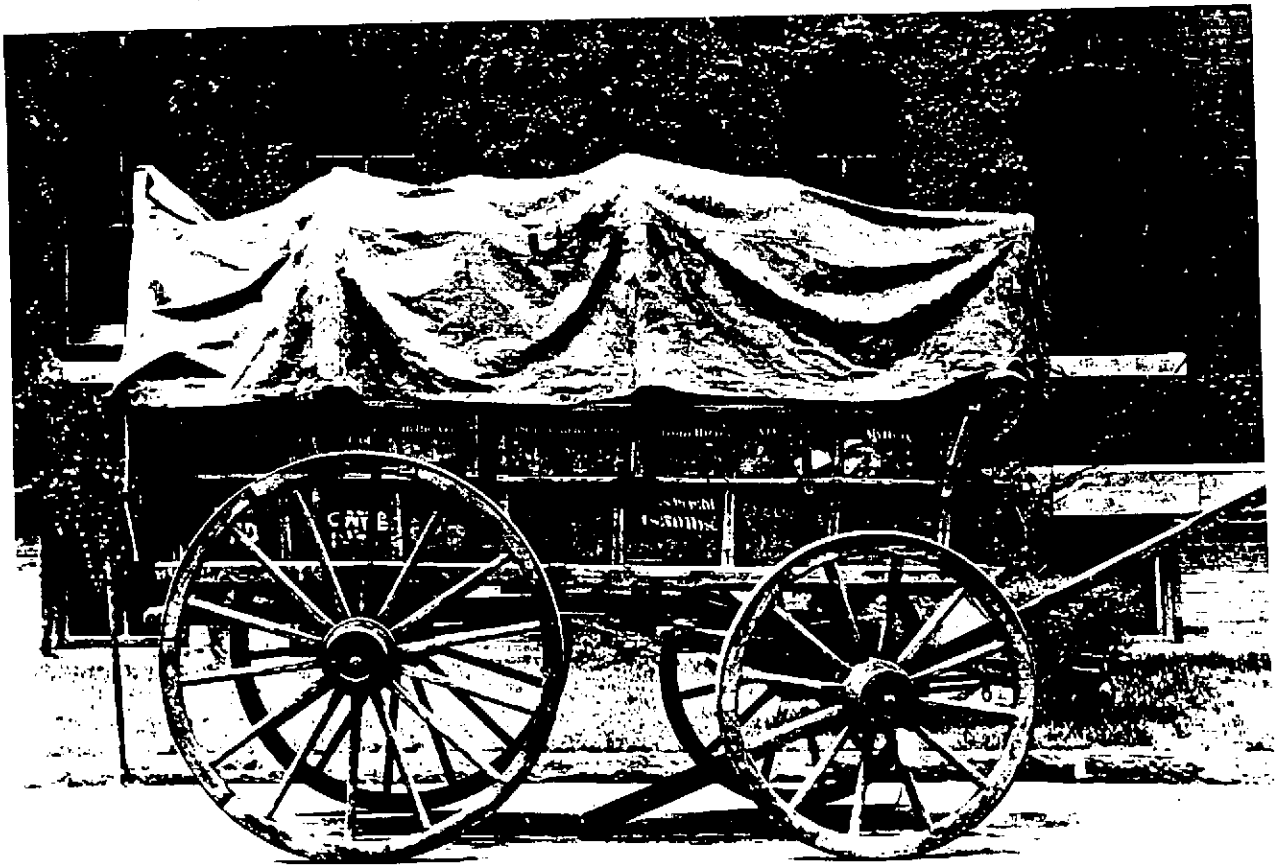
PLATE 63 --

This is the Model 1881 dress helmet, and is in the form for a line officer of the 17th U. S. Infantry.



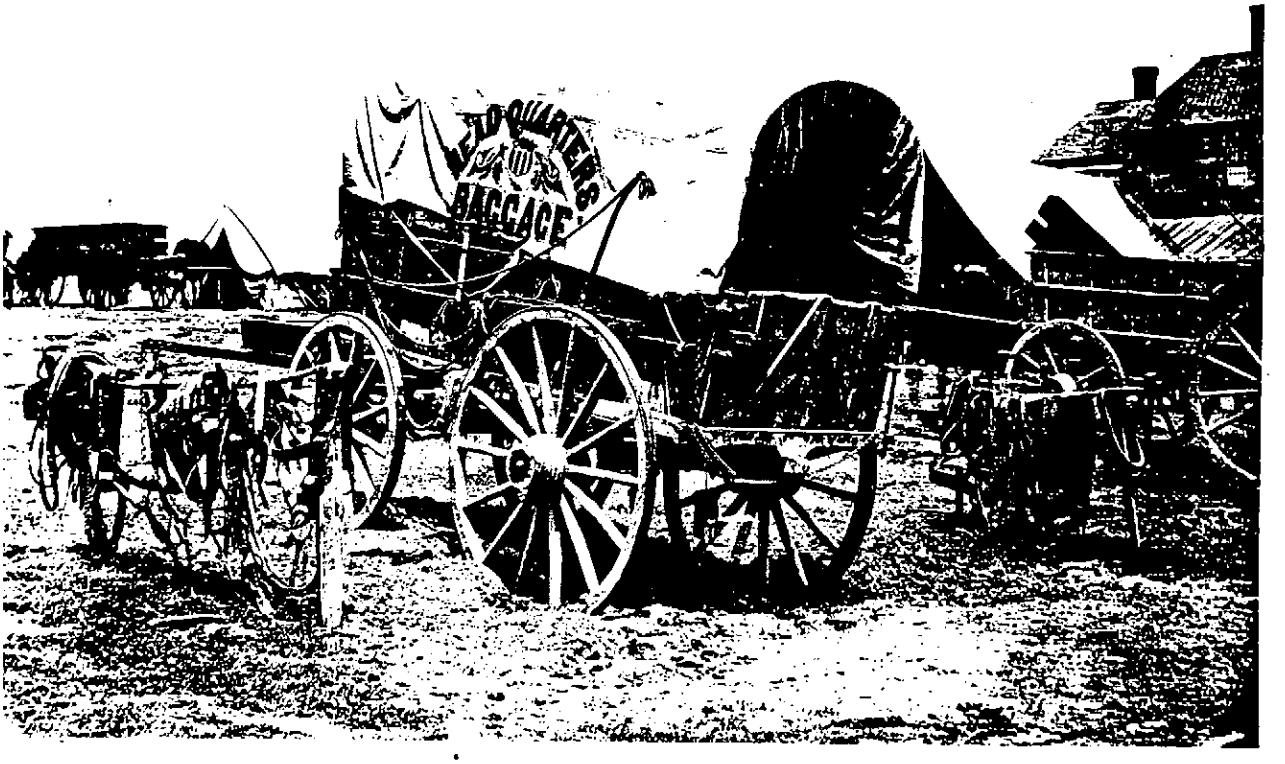
No. 63

The black felt dress helmets, issued to officers and men alike, were adopted as regulation in 1872. The officers' helmets had leather chin straps until 1881 then they were replaced with brass chain straps. Enlisted mens' helmets carried the leather strap clear through. The helmets were in use when Fort Union was abandoned in 1891. The particular helmet in the photograph is in the James Hutchins Collection, Columbus, Ohio.



No. 64. ARMY SUPPLY WAGON

Reputedly oldest one in the army. Probably made by Wilson & Childs of Phila. in early part of Civil War. Note absence of brakes. (Nat'l. Archives Photo)



No. 65.

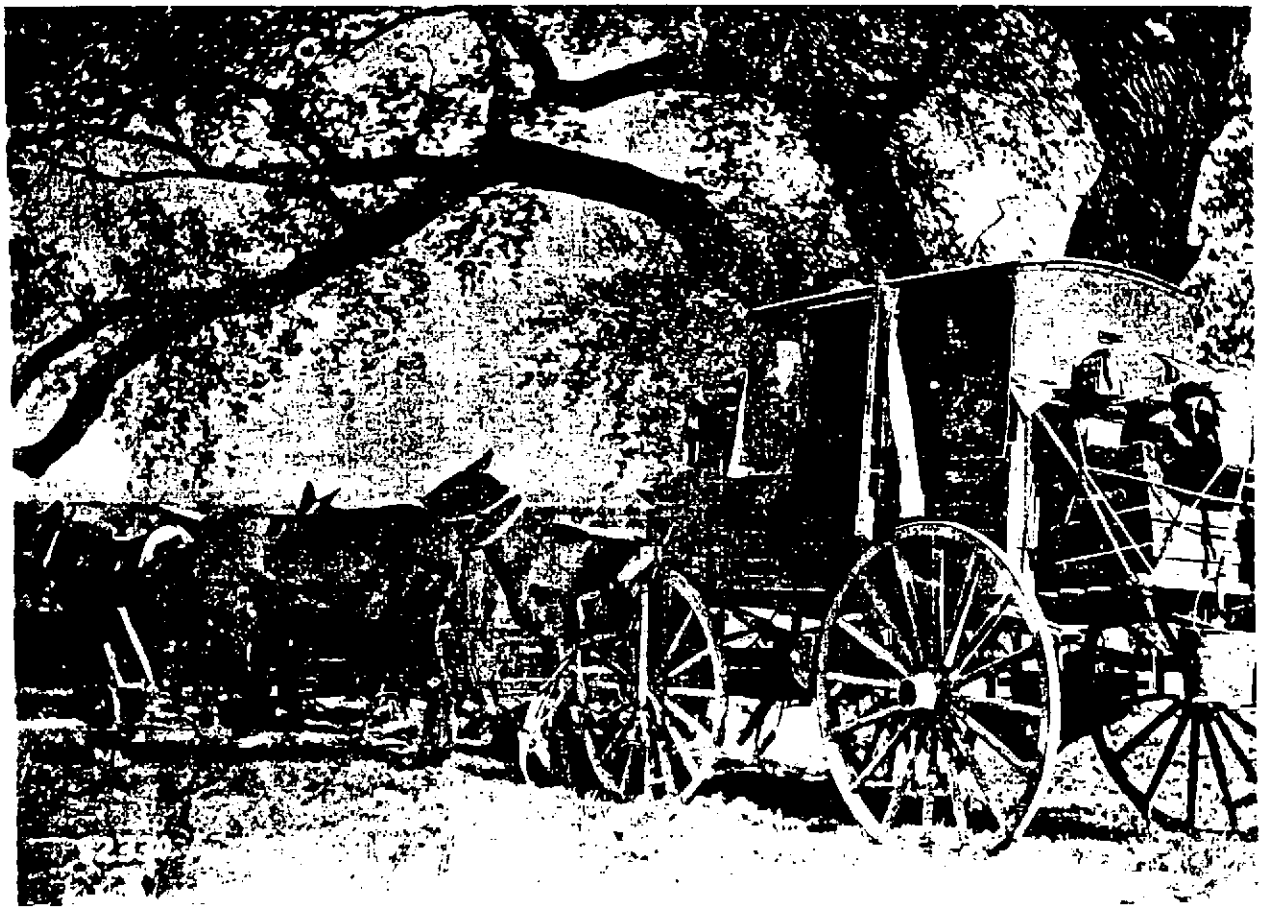
General Grant's baggage wagon, similar to no. 64 but of a later date. It has brakes which were an innovation around the middle of the war. (Nat'l. Archives Photo)



The Army Wagon.
This is the old type "Army Wagon", six-mule, jerk line, and is the old-time freighter wagon. It is now obsolete, having been replaced by the Escort Wagon.

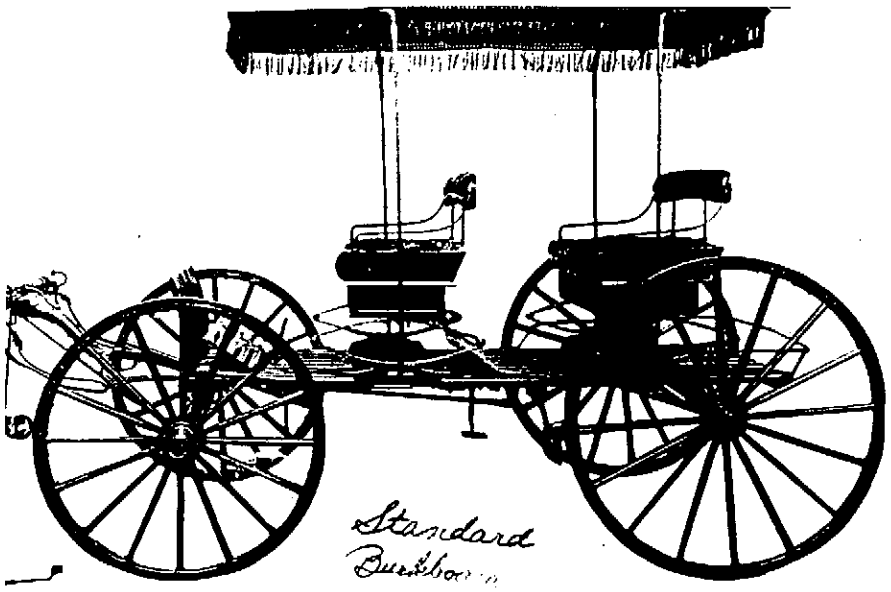
No. 66.

Army transport wagon for six mules or horses, hooked up and ready to roll. Note position of driver on nigh wheeler. This style was used in latter part of Civil War and thereafter on plains frontier to transport supplies, baggage, etc. (Nat'l. Archives)



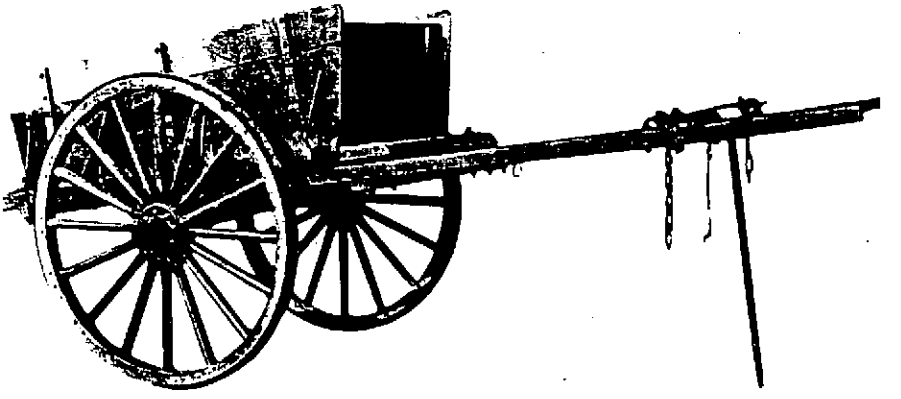
No. 67. DOUGHERTY SPRING WAGON, MODEL 1879

Used on plains and in Southwest as an ambulance and for transportation of personnel and families between posts. (Nat'l. Archives)



No. 68.

Standard buckboard also used for transportation of passengers, mail, etc. 1870s-1890s. (Nat'l. Archives)



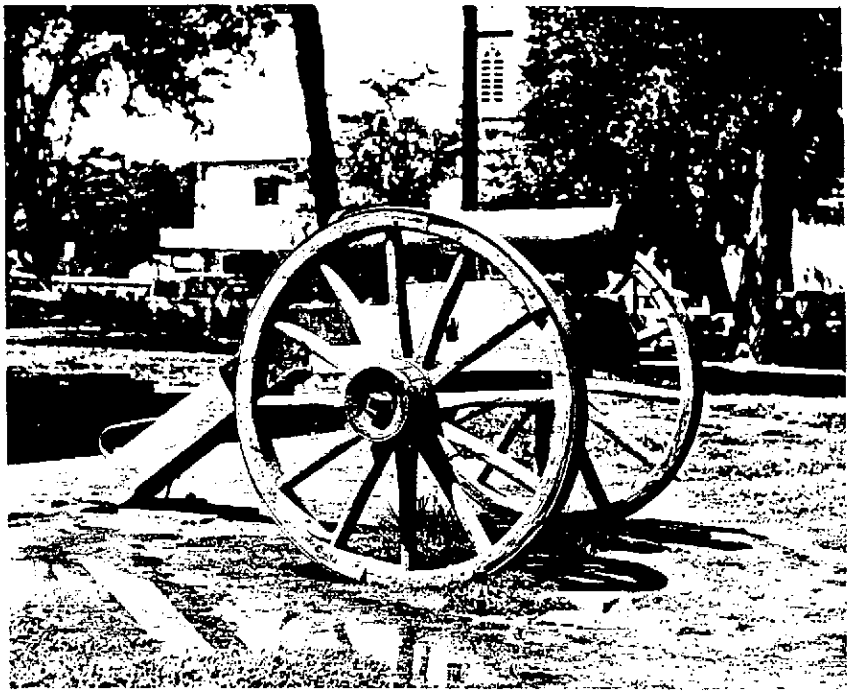
Dump Cart:
This is a two-wheel, one-horse vehicle, with heavy body mounted on rear escort wagon axle and wheels. It is equipped with dump cart irons, rest stick, dump sticks and extension side boards. Its carrying capacity is about [illegible] pounds.

No. 69.

Standard army dump cart used at military posts during 1860s-1880s (with minor variations in style, shape of side boards, paneling of body, etc.) for hauling light supplies and to carry away trash to the post dump (shafts permitted use of one mule or horse only). (Nat'l. Archives)

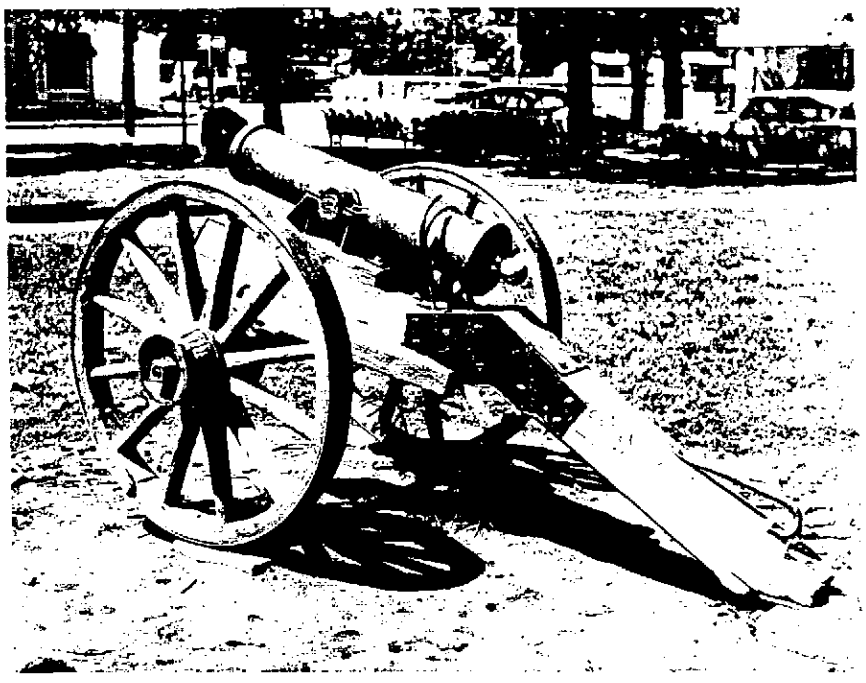
PLATE 70 --

The "reconstructed" carriage is not of the ordnance pattern for either the Model 1836 or the 1841 mountain howitzers. It is apparently serving merely as a means of supprot and hazily-representative display for the tube.



No. 70.

Bronze, 12 pounder mountain howitzer with reconstructed carriage. This was one of the 8 howitzers of this pattern buried in the U.S.Q.M. corral in Albuquerque by the retreating Texans in 1861 and excavated from their burial place in the summer of 1889.



No. 71.

The second of the only two remaining bronze 12 pounder mt. howitzers now in the Plaza old town, Albuquerque, N. M. Photographed in Aug., 1958 by Arthur Woodward.



No. 72.

Lt. Bezaleel W. Armstrong, 1st US Dragoons, Class of 1845, USMA in his Mexican War uniform.



No. 73.

Brig. Gen'l. (later Maj. Gen'l.), James Henry Carleton, 2nd Lt. US Dragoons, 18th Oct. 1839; 1st Lt. Mar. 17, 1845; Capt. Feb. 16, 1847, etc. etc., died Jan. 7, 1873.



No. 74.

Gen. Edwin V. Sumner.



No. 75.

Maj. Wm. McCleave, served as Captain, Major and Lt. Col. in 1st California Cavalry Volunteers in New Mexico and Arizona 1861-1865. In later years he served in the 8th Cavalry and was retired March 20, 1879.



No. 76.

Issue room for small stores, QM Dept., at San Antonio, Tex. Depot, Sept. 22, 1877. This and the following photo were taken at the same time. These pictures indicate the probable appearance of the interiors of the storerooms at Ft. Union.



No. 77.

Interior of medical supply storeroom at San Antonio, 1877.

775 1954



No. 78. U. S. DRAGOONS, 1851

The mounted trooper shows enlisted man equipped for active field service. He wears the dark blue blouse and floppy, soft crowned cap with black leather visor, trousers sky blue with yellow stripe. The leggings are non-regulation, patterned after the Mexican bota, made of dressed buckskin, and tied under the flap with a narrow buckskin thong. Around his neck is a colored handkerchief to be brought up around mouth in the dust. The dragoons at this time were the only troopers permitted to wear a mustache and long hair. Some of the men wore large gold earrings. The weapon in the boot is a Hall breech loading carbine. Note blanket roll strapped behind the Grimsley saddle.

The standing figure is the chief trumpeter in full dress with black leather shako and horsehair plume. His red sash is worn under the white pipe clayed belt. Metallic scale shoulder ornaments.



1st U. S. Dragoon Regiment
[illegible], 1836-1851

No. 79. 1st DRAGOONS, 1836-1851, FULL DRESS UNIFORM

Here the headgear is the black leather shako with horse hair plume and long yellow cord. Dark blue shell jacket piped with yellow. Breech loading Hall carbine slung from shoulder cross belt, black leather cartridge box with yellow oval brass plate worn, at left rear. Trumpeter on horseback wears the scarlet blouse, black leather shako and sky blue trousers, the same as his comrades. Note black leather martingale with brass heart shaped ornament on horse. Company officer at right.



No. 80. U. S. DRAGOONS, 1847-1851

These troopers are equipped for field in the usual regulation uniforms. Compare with Photo No. 78. Note Mexican lance and helmet or shako on ground. Figure on left is enlisted man, center figure is company officer, and rear figure is sergeant showing method of cross belts fastened to equipment.



No. 81. U. S. DRAGOONS, 1853-1854

Note changes in head gear, stiff leather caps with wool pompon. Shell jackets are sack coats. Hall carbine has been replaced by musketoon. Piping changed from cavalry yellow to orange.



No. 82. 1st U. S. DRAGOONS, 1858-1861

Uniform dark blue piped with orange. (Orange gave way to cavalry yellow again in Spring of 1861 when dragoons were abolished and only cavalry designation for mounted troops was maintained). Square brass belt buckle with US eagle raised in front. Kossuth or "Jeff Davis" hat, black felt, turned up on right side fastened with thin stamped US coat of arms ornament, crossed sabers with company letter separate in front, one black ostrich plume for enlisted men on left side. Red hat cord or rather orange on hat.

Shell cavalry jackets worn. All trimmings on carbine belt, brass, except swivel which is steel. Note holstered revolvers at belt. Carbine shown is the Burnside, one of many types carried by mounted troops at this time.



No. 83. CAVALRY SERGEANT, CIVIL WAR, FIELD DRESS

Dark blue blouse, light or sky blue trousers, Kossuth hat, with "Old Wrist breaker" saber. (Official photos USQMD in Smithsonian).



No. 84. CIVIL WAR PRIVATE IN FULL MARCHING ORDER

Dark blue blouse, light blue trousers, forage cap "bummer style", knapsack on back loaded with spare clothes, toilet kit, etc., and topped by rolled blanket. This is the way the soldier was "supposed" to look. However, he often discarded all spare equipment and carried blanket in roll across back or chest, and frequently pulled his socks up over the outside of the lower ends of his trouser legs. Canteen on left side, cap box on ~~left~~ hip and cartridge box on right back of belt. Rifle is Springfield, m1861. (Official QMD photos taken during Civil War).



No. 85.

Civil War private soldier, infantry man in his great coat of heavy wool, light blue in color. Official Civil War photo.

PLATE 86 --

That the sketch was made in the 1870's is perhaps questionable if the color scheme is to be taken as a faithful rendition. It will be noted that the stripe on the infantryman's trousers is white, not a light or dark blue. White facings, stripes for nco's trousers, etcetera, did not appear until 1883, and then only to be replaced by the blue again. Moreover, the muskrat cap and buffalo coat patterns are of the early 1880-period/



No. 86.

Infantryman, 1870s-1880s in buffalo robe overcoat, worn in winter on plains. An original water color sketch by Dr. Charles Alden, US Army, made on the spot in 1870s.



No. 87.

First Sergeant, Infantry, in full dress, Civil War.
Official QMD photo, made during Civil War.



Winter Campaign Uniforms

Campaign Officer *Corporal* *First Sergeant*

3rd U. S. Infantry Regiment, 1846-1851

No. 88.

Third U. S. Infantry, 1846-1851. Pl. No. 82, Mil. Coll. & Hist. Company officer at L. in long dark blue frock coat, red blanket roll over shoulder. Dark blue soft woolen cap with black patent leather visor. Standing next to him is a corporal in sky blue uniform, short shell jacket piped in white, oval belt buckle, round brass eagle plate on cartridge belt strap (across chest), flint lock musket. At L. is first sergeant, rear view showing pack, cartridge box, wooden canteen, straight sword, etc. In background, a private. Haversack worn on left side.



2nd U. S. Infantry Regiment. Winter Dress Uniform. 1841-1851

No. 89. 2nd U.S. INF. REGIMENT. WINTER DRESS UNIFORM, 1841-1851. Pl. No. 39, Mil. Coll. & Hist.

Dark blue shell jackets piped with white and white metal buttons. Cross and waist belts white with oval brass plates on waist belt and round brass plate on cartridge box belt. Shakos of black leather with patent leather visors. Brass eagle and white metal bugles on front of shakos. White pompons on enlisted men and white cock feathers on Captain's shako, rear L. Trousers sky blue. Private in center, 1st Sgt. at R. Sgt. wears straight non-com's sword. Officer has straight sword with fancy gilt brass hilt. Epaulettes are silver. Sergeant and Captain wear dark red sashes under waist belts.



1st Regiment of Mounted Riflemen, Mounted Companies, 1847

No. 90. REGIMENT OF MOUNTED RIFLES, 1847.

Pl. 18, Mil. Coll. & Hist. Dark blue trousers, dark blue shell jackets, brass buttons and yellow piping. Black stripe down trouser legs outlined in yellow. Yellow chevrons. Officer on horse has bright red sash under black waist belt. Caps are dark blue wool, black patent leather visors, with single company number, brass, in front.



2nd U. S. Cavalry Regiment, 1861-65

No. 92. 2nd Regt. U. S. CAVALRY, 1861-65.

Pl. 60, Mil. Coll. & Hist. L. to R. Company Guidon, Musician, Trooper (foreground), Co. Officer background. All shell jackets dark blue, trousers sky blue. Blanket roll on front of saddle, sky blue. Dark blue saddle blanket with broad orange band. Carbine slings black leather on outside, yellow on inside. Piping on uniforms orange. Darker blue blanket rolled at rear of cantle. Stirrup leathers black.



Standards of the 10th U. S. Cavalry, 1888-1890

No. 93. 10th U. S. CAVALRY, NEGRO REGIMENT, 1888-1890

With regimental standards. Yellow with brown US coat of arms. Troopers: Dark blue jackets, sky blue trousers, yellow piping. Brass trim on bridles, brass spurs. Black leather boots and black leather tapaderos on stirrups. Saddles black. Buffalo is regimental crest. These troopers were called the "Buffalo Soldiers" by the Indians because of the kinky hair. Pl. 76, Mil. Coll. & Hist.



Captain Crawford's Battalion of Apache Scouts, 1885-86

No. 94

Capt. Crawford's Battalion of Apache Scouts, 1885-86, Pl. 131, Mil. Coll. & Hist. This plate shows undress of cavalry on trail in 1870s-1880s. Front foreground, the Apache scouts in mixture of native and military garb. Red breech clouts, white shirts, red headbands, Apache moccasin boots. Men are armed with Springfield carbines. Company officer at left in rear wears dark blue blouse, sky blue trousers and yellow stripe down leg, Apache moccasin boots, has carbine slung from belt across chest. Grey felt campaign hat, yellow kerchief around neck. White scout in front of officer has on red shirt with gray pullover shirt on top of red undershirt, gray felt hat, brown trousers, rifle, revolver and knife. He also wears Apache boots, Apache scouts have on dark blue blouse (sgt.). Other coated Indian has on brown sack coat with officers soldier strap, bed roll, sky blue trousers with yellow stripe.



No. 95.

Infantry Corporal, full dress, Civil War period, rear view. Note position of cartridge box and bayonet. Note also the brass scales on shoulder. (Photo from Smithsonian Coll. Official photos of QMD, 1860s).

