REPORT

OF THE

ACTING SUPERINTENDENT OF THE SEQUOIA AND GENERAL GRANT NATIONAL PARKS

TO THE

SECRETARY OF THE INTERIOR

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SEQUOIA AND GENERAL GRANT NATIONAL PARKS,
OFFICE OF SUPERINTENDENT,
Three Rivers, Cal., October 15, 1910.

SIR: I have the honor to make the following report on the condition of affairs and the management of the Sequoia and General Grant national parks:

GENERAL CONDITIONS.

The rainfall during the winter of 1909–10 was below the average and there was less snow in the parks and surrounding country than there had been for many winters. Repair work on the roads and trails was begun in April, under the direction of Mr. Walter Fry, the ranger in charge, and they were found in good condition May 31, upon the arrival of Troop A, First Cavalry, 3 officers and 50 men, for duty in the parks, except the little-used Halstead Meadow trail and a few others.

The troop was accompanied by a surgeon, and was provided with the usual hospital, supply, and transportation service. Camp was established on the Giant Forest road at the Marble Fork Iron Bridge, a good camp site and altogether the best one in the present state of development of the parks. The War Department has under consideration the building of a temporary post on this ground. It is on private land, which should be purchased by the Government. Outposts of 3 men each (sometimes 2) were put at the five more important entrances to Sequoia Park and at the crossroads in Grant Park. Those on duty at the main gate and on the South Fork trail were located at Rocky Gulch and Clough Cave, at both of which places ranger cabins are available in the summer time. The unfinished road leading to the Mount Whitney Power and Electric Company's dam on the Middle Fork was guarded at the Elk Park gate, which was kept locked. The outposts on the Mineral King road were located up the East Fork, at Cold Spring, on the west line of the park, and at the site of the old Weishar sawmill, near the east line of the park. A similar detachment was maintained at Kaweah as a subsidiary supply and relay station. All of the detachments were under canvas except that at Rocky Gulch. All of the stations were frequently inspected, and all roads and trails were patroled from the several stations, as well as by officers and special patrols from the main camp and by the five rangers. Mr. Decker, in Grant Park, and Messrs. Blossom, in the southwest, with headquarters at Hockett Meadows, Britten, in the southeast, at Quinn, and Grunigen, in the north, at Giant Forest, all performed their duties with zeal, while Mr. Fry rode 500 miles a month in connection with and in addition to his supervision of improvement work. Park service was new to the troopers, except a very few; but all of them, as well as the noncommissioned staff and the civilian employees, entered with spirit and intelligence into the details of field work and camp routine. The

untiring cooperation of all the officers—First Lieut. David L. Roscoe, First Cavalry; First Lieut. Charles L. Baker, Medical Reserve Corps; and Second Lieut. John C. Pegram, First Cavalry—both in the affairs of the parks and in all matters of camp management, was of material assistance in the administration of the parks.

TOURISTS, TRAVEL, AND ACCOMMODATIONS.

In addition to the park employees and the Mount Whitney Company's road crew, a small number of persons entered the parks before the 1st of June, but the 15th of that month marked as usual the opening of the tourist season, Sequoia having in all 415 visitors by the end of June, 681 in July, 1,161 in August, and 150 to September 15, when the troops left the park at the close of the season, a total of 2,407. The figures for Grant Park are 361 in June, 521 in July, 266 in August, and 30 to September 15, a total of 1,178. The total for the two parks was 3,585. Many persons use their own transportation, mostly vehicles of various descriptions, some ride, and a few, very few, walk; more will come afoot when the railroad lays its next 10 or 12 miles of track to Three Rivers and the easy grades of the principal trails become known. Tourists generally throughout the season showed a gratifying disposition to observe the park rules and regulations. They seemed to enjoy the park thoroughly, and took frequent occasion to comment upon the good behavior and courteous attention of soldiers and rangers. There is a hotel at Lemoncove, the present railroad station for Sequoia Park. The River Inn, built last winter at the iron bridge a mile above Three Rivers and opened in May, is also a convenient stopping place. It had 500 guests during the past season, most of them either entering or leaving the park. The Tent Hotel Company entertained as many at Camp Sierra, in the Giant Forest. The transportation company carried 150 persons to Ranger. There is telephone service at Ranger connecting with long distance, and triweekly mail, which should be made a daily service. Hundreds of people enter the park at Cold Spring en route to Mineral King and the country beyond, and at the east line upon their return. A few have built frame or log houses for their summer use at the site of the abandoned Mineral King mining camp. The vicinity of Atwells Mill, on deeded land on the Mineral King road just inside the east line, is also a resort. There are no hotel accommodations and no feed for animals to be had at either of these two places. There is mail service at both, and telephone service at Atwells Mill. An attractive horseback tour with numerous opportunities for side trips is up the South Fork from Three Rivers, past Clough Cave, in sight of Homers Nose, through the magnificent Garfield Grove of Sequoias to the Hockett Meadows, thence through or near Mineral King, past Alta Peak to the Giant Forest, and on to the Kings River country or to Grant Park. Another tour starting from Three Rivers is through or near Quinn into the Kern River country, and on to Mount Whitney. In a great part of this country wagon roads could be made, some of the existing trails need improvement, and new trails should be located. The parks with their present narrow limits cover but a small part of the territory which should be included in one park. There is not as much tourist travel between Grant and Sequoia as there probably would be if the intervening area was park land; then a wagon road could be planned to connect them. Grant Park has telephone, daily

mail, a store, and tent hotel accommodations, and was opened September 6 to automobiles and motor cycles. There is a store at Ranger and also a feed yard. There is no mail contract for the new post-office, General Grant National Park, the mail having been regularly delivered and taken up there for the accommodation of tourists this summer through the courtesy of Mr. M. C. Griggs, the contractor for Badger, Cal.

IMPROVEMENT WORK.

The telephone line was extended 10 miles along the Mineral King road to Weishar Mill; as a measure of fire protection it would be well to have additional stations near Stony Creek, Twin Lakes, and Buck Canyon. The whole system is single wire; a second wire should be put up, and in a number of places where it is far from the road and difficult of access the line should be replaced by one along the road. Six miles of the new trail from Cold Spring south and Clough Cave north were completed on good grade up the divide between these two places. Palmer Cave, which is reached by this trail near Surprise Spring, was entered by an exploring party, which had to descend 60 feet from the opening at the surface by means of a spliced fir staff of that length lowered vertically to the rock floor below and fixed to timbers across the mouth of the cave; no extensive chambers or passageways were found; the men climbed out by means of cleats nailed to the staff by the first man up. Two horse pastures, one of 30 acres at Hockett Meadows and one of 27 acres at Quinn camp, were inclosed with a woven-wire field fence so constructed that it can be released from its holdings and laid on the ground to prevent damage from snow. The Round Meadow road in Grant Park was completed by making a culvert at the meadow. This road and the Millwood road form the automobile route between the northwest and the north gates; wagons do not have to use this route except for a short distance west of the crossroads and again near the north gate, both of which places are on good grade and quite safe, though the routes could be made entirely separate by a little additonal road-building. In the same park a post-office building has been erected and 1,100 feet of water pipe have been received, which gives promise of a much-needed water system. The improvement work generally was satisfactory; the working parties fared well, took good care of their camps, and went about their work energetically.

CONCESSIONS AND IMPROVEMENTS ON PRIVATE LANDS.

The several concessions all merit renewal for next year. Mr. Cooksey, at Grant Park, plans putting up more tents, raising the tents on platforms, and increasing the size of his dining-room. Mr. Eddy, the photographer at Ranger, will advertise Sequoia Park with views at his studio in Visalia during the ensuing winter. Mrs. Keller's store and feed yard at Ranger met all demands. The River Inn Hotel Company has built a restaurant and a storehouse on private land at Camp Sierra, and proposes to begin extensive improvements next spring, including a main hotel building, cottages, hot and cold baths, pavilions and amusement features; this company has had a survey made of 120 acres of private land, which, in addition to 20 acres

of park land, it intends to utilize for these improvements. Reservoirs should be built over the springs, which are on park land that is not included in the hotel company's concession, and which furnish all of the water for the camp there, including post-office, ranger's quarters, and the public camp ground. It is recommended that these reservoirs be built of stone, from next year's appropriation. Improvemnts are projected near Oriole Lake on the Ogilvie tract lying just within the park line; this tract, 160 acres, has been surveyed and a company formed to manage a resort there; a sawmill has been hauled in, and it is designed to cut timber on the private land, build there and establish a lumber business as well as a summer and winter resort, to be called Oriole Lodge. A mill is talked of, to be put on private land on the Mineral King road, for the cutting of wood for lead pencils. The Mount Whitney Power and Electric Company has in view two storage reservoirs on the upper waters of the Marble Fork and a diversion dam below the falls; this company has extended its road 7,200 feet to Tharp Creek. The road is excellently constructed on good grades up the north side of the Middle Fork and will eventually prove an important element of the Park road system. Various interests are agitating the construction of four county roads, which would be of great benefit to the park: (1) A new road along the south side of the East Fork to replace the present hilly, rocky, and difficult roadway from the foot of River Hill to Grunigen's, or a reconstruction of the River Hill section, with a convenient extension to the head of Coffee Pot Canyon for the purpose of getting out timber from that locality; (2) a road up the ridge south of Salt Creek to the head of Coffee Pot Canyon, which would probably be the most direct route to the Pinery; (3) a road from Three Rivers on high ground by way of Horn Mountain to the head of Coffee Pot Canyon, which would provide a fine scenic approach to the southern part of the Sequoia Park; (4) a road along high ground from Happy Gap to Grant Park. The Visalia Electric Railway Company contemplates an extension from Lemoncove to Three Rivers.

GRAZING.

The River Inn Company grazed 10 milch cows and 20 beef cattle on private meadows in the Giant Forest for the purpose of supplying Camp Sierra and the military camp. At Cold Spring 655 head of cattle were admitted in five droves between June 27 and July 7, en route to grazing places as far east as the Kern. Tourists in the Kern country find scant feed for their stock; a few thousand head of cattle are driven in there every year from the south, but the grazing is not important, some of the cattlemen themselves being disposed to abandon the ranges, while without the cattle travelers would find plenty of feed for animals. They are attracted there by famous fishing grounds. Until very recent years all the golden trout in the world were there. All the upper country of the Kern, including Mount Whitney to the Inyo County line, ought to be included in Sequoia Park.

WEATHER CONDITIONS.

In accordance with the custom of past years the tourist season closed September 15; a few tourists continued going in on all the roads at intervals during the rest of the month and one party is still

in the Giant Forest. The road has been ditched for winter as far down as the Marble Fork Bridge, where the floor is next to be taken up. Weather conditions continued perfect and travel delightful until October 10, when a general rain, with snow in the high elevations set in, lasting three days and nights with brief intervals. To-day it is clear, with prospects of continued fair weather and moderate temperature. Silliman Crest is white; the snow lies 3 feet deep on the level at Mineral King and 10 feet in drifts, and a hunting party just returned reports the weather bitter cold over Franklin Pass. The nights are always cold at Hocket Meadows, but the days there now are fine. There is 6 inches of snow in the Giant Forest.

This was a dry year. Except a few days in the second week in July there was no rain all summer until the middle of September, when a steady though gentle and warm rain fell from the 13th to the 15th; the roads were very dusty throughout the season except after the July rains, but they were never better than they were late in September. The forest growth did not suffer; here and there were isolated pines dead and dying from some disease, not from the drouth; everywhere the new growth was healthy and vigorous. The streams, however, except a few near Three Rivers and in some other places where there must have been a local excess of precipitation or the moisture better held, ran lower than they had ever been known to do before, and some for the first time ran dry.

FIRES.

There were no fires during the fiscal year ended June 30, 1910. This year there have been seven, three of which, however, did not spread and two were outside of the parks, as follows:

July 8–14.—In the brush and live oaks on the slopes below and east of Moro Rock, caused by blasting on the power company's new road; valuable pine and other timber was saved by hard work day and night by soldiers, rangers, and civilians, and the Giant Forest itself was threatened, but the actual damage to timber was slight, the greatest harm being done, however, is the exposure of the steep slopes to erosion through denudation of a thousand acres of watershed of scrub growth which in a few years will be renewed. This is the first fire of any consequence that has occurred in either of the parks since their creation. The Mount Whitney Power and Electric Company assumed the expense of fighting the fire, except the part borne by the public services, although theretofore fires in the mountains had been fought by volunteers from the neighboring settlements without pay, and the power company had once lost heavily from a fire not attributable to its employees. It appears that all reasonable precautions were taken under the company's published rules to prevent the occurrence and spread of fire and that the fire was accidental and unavoidable. The loss to the company, including wages, meals, and transportation, is reported to be $2,000.

July 18–21.—On the Halstead Meadow trail a log was struck by lightning; no damage.

July 19–25.—In Salt Creek Pinery, 2½ miles west of the park line; cause, lightning; area burned over, about 400 acres; no damage to park timber; soldiers and rangers assisted in fighting the fire.

July 20.—At mouth of Deer Creek; cause not known, probably a cigarette or match dropped by a soldier or civilian employee; extinguished in a few minutes when it had spread over about 80 square yards; no damage.

July 20.—At Big Spring, on the South Fork trail; cause not known; discovered by a chance traveler and put out without further assistance when it had burned a few feet; no damage.

July 22–23.—Near Grant Park, 2 miles west of the line; cause, lightning; no damage; the ranger assisted the fire fighters.

July 24–26.—Near Summit Meadow, on the south line; caused by lightning; burned several hundred small firs; no damage to park timber; discovered and checked by two rangers after a hard fight.

The following instructions for the prevention and fighting of forest fires, prepared July 1 by First Lieut. D. L. Roscoe, First Cavalry, fire marshal, were put into effect:

HOW TO PREVENT FOREST FIRES.

1. Never drop burning matches, cigars, nor cigarettes on the ground, and be careful where you empty your pipes.
2. Never make a larger fire than is necessary and never leave it, even for a short time, until it is entirely extinguished. Watch your sparks carefully; everything is very dry and a small spark may start a great conflagration.
3. Fires should be built in open places, near water, first removing all trash and everything inflammable. Fires should be built in holes, especially in windy weather.
4. Be sure that not a spark remains when you break camp, for fire frequently travels along resinous roots, sometimes a foot or two under the ground.

HOW TO FIGHT FOREST FIRES.

A fire is more easily controlled on top of a hill or ridge than on a hillside.

Streams, roadways, trails, open and rocky places are natural barriers, and such features should be utilized by removing all brush, logs, trash, and other articles that might assist the fire in jumping across them to unburned territory. Such places are useful from which to start back fires. This should be done at night or at other times when the wind is favorable and must be done with great care. It is dangerous to start back fires in the morning or during the heat of the day. Back fires and fire breaks should be patrolled constantly until all danger is past. A new fire frequently springs up after the old one has ceased smoking, and the patrol should be continued at intervals for several days after the fire is believed to have been extinguished.

Explosives used in back firing should be handled by experienced men, and care should be taken that no new fires are started thereby.

If time permits and men and implements are available, an open roadway or trail should be cut through the forest and a ditch deep enough to reach through all inflammable matter dug along this opening. Brush, logs, etc., should be removed from both sides of this ditch. This makes an efficient fire break, but it must be patrolled as long as the least sign of fire is visible. Such a fire break is an excellent place from which to start a back fire.

The best place to dig a ditch is along top of ridges, or follow from open place to rocky ledges, etc. Entirely inclose the fire with either natural or artificial barriers.

Spades, shovels, axes, chains, ropes, and horses provided with harness and packs for carrying food and water are essential in fighting forest fires. Well-filled water bags or canteens are very necessary, for fighting fire is hot work, and much suffering may be prevented by having a supply of drinking water at hand.

Forest fires should be fought vigorously from the moment they are discovered in order that they may not get beyond control. They increase rapidly, and the more men that can be obtained the better. Wet grain sacks are especially useful in beating down grass fires, and green brush may be used effectively for the same purpose.

DUTIES OF CITIZENS, CAMPERS, AND TOURISTS.

It is the duty of all citizens, campers, and tourists not only to obey these regulations implicitly, but to report all fires, however small, promptly.

To extinguish such fires as are not beyond their control and to lend a willing hand to check and prevent in every way possible the tremendous annual wastes in the national forests and parks. Whoever shall prevent the destruction of a single tree will have performed a distinct service to the country and to each and every citizen thereof.

DUTIES OF FIRE WARDENS.

All fire wardens have powers of peace officers to make arrests without warrant for the violation of any state or federal forest law, and no fire warden is liable to civil action for trespass committed in the discharge of his duty.

All fire wardens who may become possessed of any information that shows with reasonable certainty that any person has violated any provisions of the forest laws will immediately take action against the offender and will obtain all possible evidence pertaining thereto.

When practicable, soldiers and rangers will first report offenders to the park superintendent, but if such report is not practicable they will enforce the law, using such force as may be necessary, and report their action to the superintendent as soon thereafter as possible.

The names of all persons violating any of the park rules will be taken, the nature of the offense committed set opposite their names, and they will be barred from again entering the park without permission, in writing, from the Secretary of the Interior or the superintendent of the park.

Both sides of the road for a distance of 150 feet, the trails and ground around the big trees, both standing and down, should be cleared of logs, twigs, leaves collected in the gulches, and such sorts of grasses and shrubbery as easily catch fire. Because this very work is attended with danger to the forest, besides being a tremendous undertaking and necessarily slow of accomplishment, is the best of reasons for taking it up soon and pushing it systematically and unremittingly. All progress in this labor will be real gain in the fire control that it assures, besides contributing to the beauty of the parks and convenience of travel. All such clearings serve also to check the spread of fire set by lightning and other causes and have their proper place in the general scheme of fire breaks. Some clearing has been done in Grant Park to good effect, yet there largely and throughout Sequoia Park exist great fire traps, resulting from the natural conditions of forest growth, which should be met and remedied if they can not be turned to good account. Wild oats all over the lower slopes, and everywhere logs, vines, and leaves in all stages of decay, the resinous witch hazel, and other shrubs and growing brush invite the flames. All these should be cleared beyond the probable reach of the ordinary causes of fire. Only the sequoia logs are not in themselves a menace to the forest; their soundness is of a quality that renders them exceedingly resistant to decay, to the attack of insects, or to destruction, though scorched by fifty fires, but they may be kindled by brush heaps piled close about them, and once fairly set afire are difficult to manage, and they should therefore be protected as the growing trees.

PROTECTION OF THE BIG TREES.

Seven years ago fences were put around the two trees, General Grant and General Sherman. The fence was removed from the General Sherman tree last year, and a falling limb of the General Grant

tree has broken down a large part of its fence. Both of these trees have been made the useless signposts of that witless vandalism that sometimes impels even sensible travelers to carve their names or otherwise leave their cards by means of tin tags, nail driven into the head, and other devices where they may do harm without benefit to themselves or interest to others; and the trees have suffered the occasional loss of a piece of bark not likely to be put to a better use than it served on the living tree from which it was torn; but visitors should not be prevented from approaching near the trees, and it is better to rely upon signs bearing information that may be desired and warning "Hands Off."

CARE OF THE FOREST.

The sequoias require little attention beyond clearing the ground around them and leaving them alone. The other forest growth would be improved by the removal of dead, decaying, and diseased timber. Although the importance of not unnecessarily disturbing the natural conditions is always to be considered as a general feature of the national-park plan, yet a desirable thinning out of trees of all kinds in selected places could be accomplished in connection with the reforestation of tracts now barren of timber or growing less desirable sorts. This matter should be taken up under advice, with a view to the greatest ultimate economy of ground and means as well as success in the benefits to accrue.

The absence of trees of any size on the slopes and cañons extending from the Ash Peaks to Buck Cañon, which stretch thousands of feet below Moro Rock and Panther and Alta peaks, strikes the attention at once. These slopes are covered with scrub growth of all sorts; experiments with both pine and sequoia have shown that they will thrive in such localities as this. The South Fork country, both low and high, affords opportunity in many places for the setting of groves that would be both useful and beautiful to look upon. Similar opportunity exists in the northeastern part of the park. In all development of this character it is important to approach the work with unity of plan. Just beyond the entrance to the main gate of the park is an area that would be improved very much if it were reforested. The first impression of the tourist entering the park and his last view of the park comprises a monotonous, scrub-oak hollow, unrelieved by shade or diversity in the landscape.

FUTURE IMPROVEMENT WORK.

The roads generally should be macadamized; in some places oil could be used to advantage, and in Grant Park there is coarse granite sand that could be used for topping. The main road in Sequoia Park should be widened to 18 feet throughout; several of the existing trails, notably the one leading through the Black Oaks to Muir Grove and farther on to the region of the rare Fremont moss, should be converted into wagon roads, and many new roads and trails laid out. There should be a stairway and hand rails on Moro Rock. Twin Lakes should be improved by the construction of boathouses and bath houses. In the present unimproved state of the park it matters comparatively little what new routes may be opened up and other

work undertaken, because every improvement will fit into the eventual plan, but this fact in nowise diminishes the importance, from every practical point of view, of having a comprehensive scheme of park improvement. Over several areas where the undergrowth is dense, and a present obstruction to reforestation, cattle could be grazed advantageously to clear the ground, or herds of buffalo could be maintained. There are two classes of ground that would be benefited by the introduction of cattle for a limited time under suitable restrictions, those where the cattle would clear the brush and trample the débris and hasten its decay, and those areas that now have all the trees they can support.

FISH.

The Kaweah River system is composed of the South Fork, the North Fork, the Middle Fork, the East Fork, and the Marble Fork. The park includes a large part of all these streams except the North Fork, but not all the headwaters. Its boundaries should include the whole watershed of the Kaweah; and, because nothing in the park plan can work injury to the water, either through pollution, diminution of flow, or otherwise, they may well be extended to include also some of the trout streams tributary to the Tule River, the upper Kern rivers, Mount Whitney as far as the divide, and the South Fork of the Kings River. This would secure to the people the best care of the fishing grounds, which are now yearly resorted to in uncertainty of the sport to be found there or of the possibility of finding feed for their stock.

Fish were planted in a great many places this year throughout this region, and some were planted in the park waters, chiefly by Mr. S. L. N. Ellis, representing the State Board of Fish and Game Commissioners. Fishing with bait was prohibited in the park, and in some of the adjacent waters was prohibited entirely, yet numbers of places were quite fished out. The fish should not all be taken from the streams every season, as is now the tendency. The mad rush to clean up the fishing grounds can be partially checked by prohibiting fishing on selected streams at and near the bridges and at crossings of roads and trails. A valuable contribution to the park's usefulness would be the establishment of a hatchery on the Middle Fork, and an estimate has been made for an appropriation for this purpose.

ANIMALS.

Predatory wild beasts are increasing and provision should be made for their destruction. Six deer were found this summer killed by lions near the roads or trails in various parts of Sequoia Park and the footprints of lions can be daily seen in the road, though beasts of prey themselves are rarely seen. Many applications are received to hunt and trap the harmful animals. It is recommended that this be made a part of the park service by the employment of a man to do the work, or by contract. In this connection it is respectfully suggested that the department consider the propriety of arranging for organized lion hunts. Guides, hunters, trappers, packers, and cooks can be engaged in this vicinity on short notice. Lions, badgers, coyotes, foxes, wolverines, wildcats, civet cats, and skunks are increasing and their destruction of the deer and other smaller animals and game birds is a matter of serious concern. Bears give little trouble when they are

not fed and encouraged to prowl around camp kitchens. The small herd of elk is increasing.

The deer are increasing and are very tame.

For the park fairly to fulfill its present purpose, especially as a suitable and ample game preserve, its boundary lines ought to be changed. As the boundary follows straight township divisions, it has no relation to the topography, and deer frequenting the edge of the reserve in security on the thirty-first of August fall at dawn on the first of September wherever they chance to set foot over a line which is crossed so easily. A military camp could not desire a line of outposts more watchful and effective than the hunters that surround this park on the eve of the open season. It is a bad condition that puts these close-to-the-liners at such an advantage over their quarry, for it must be expected that hunters of all degrees will come as near as the bounds permit.

A national park should not be made a game preserve to set up standing living targets on its borders. There would be no deer in the country if it were not for the park, and the park is not large enough to stock the surrounding hunting grounds with deer to meet the demands of hunters. Tulare County recognizes the scarcity of deer by prolonging the closed season to August 31. Not only should the park lines conform to the natural limits of animal ranges, but the ranges ought to be far wider and unhindered, and provision ought also to be made for the protection of the winter ranges in the low country west of the park. Does have been shot on the hillsides west of the North Fork. Some of the elk have this year broken through their fence and ranged several miles down the Middle Fork. The park has an area of 12 miles square in the northern part with an L at the south 18 miles by 6, a mere spot in the midst of a large territory available for such use; hunters are crowded around it now and have been coming and going these six weeks; they also shoot bears, swans, wild turkeys, and small game, both animals and birds; though the state law protects swan and wild turkey, as well as elk, mountain sheep, and Japanese and Mongolian pheasants.

The wild turkeys thrive, though when first introduced some of the younger ones became the prey of foxes. Two lots of these birds, donated by the California board of fish and game commissioners, were liberated this summer, 55 at the mouth of the Marble Fork and 29 at Salt Spring.

Buffalo would find plenty of feed, and there are several suitable ranges in the park ready for them. The introduction of a small herd is recommended.

Antelope would probably do well in the upper reaches of the South Fork; though the meadows there have not the extensive character of "plains," the experiment is worth a trial.

EXTENSION OF PARK.

Several trips of the nature of exploration were made by officers of the troop. Lieutenant Pegram marched a small detachment to Mount Whitney in the latter part of July, ascending to the monument on the topmost point of the mountain, and including in his itinerary the superb cañon of the Kern. He made the round trip in record time, returning with useful information and many photographs, taken by Hospital Sergeant Bitourney. A few weeks later Lieu-

tenant Roscoe conducted a party into the regions north and east of the park, visiting the headwaters of Roaring River and the vicinity of Elizabeth Pass. Captain Wright, in the latter part of August, went to Kearsarge Pass by way of the Kings River Cañon and tributaries and lakes of that river. All of this outlying country holds much that is of interest to the tourist, however far he may have traveled, and possesses great possibilities for fostering wild life of many kinds, afoot and on the wing, providing both refuge and wide places over which to roam, eye, ear, and scent untroubled. Conditions are ideal for mountain sheep and mountain goats. The bald and golden eagles and the almost extinct California condor have in these crags and skies their native range.

The Kern-Kaweah-Kings country with its abundant water supply, good natural feed, wide range of altitudes and wild and varied conformation practically inaccessible in many places, is well suited to the propagation of game, and all this mountain country should be included in the park by reason of its comparative unimportance as a cattle range, its scant indications of valuable metals or other minerals, its extensive areas without merchantable timber or with such timber scant or inaccessible, its unsuitability for settlement or agriculture, its importance in conserving water, its groves of big trees now standing outside the parks, its unrivaled trout streams, numerous beautiful lakes, and magnificent scenery, including Mount Whitney, long held to be our highest mountain. Twenty ranches occupy a narrow strip along the North Fork from its mouth at the iron bridge to the mouth of Colony Mill Creek, to which point the course of the stream and its tributaries is through rough and dense brushy country, except at Eshom Valley and a few other open places. There is a good deal of patented land in the Redwood Mountain district and there is a movement on foot to cut timber there and flume or track the lumber to Three Rivers. There are ranches in the open places below the park along the East Fork, Middle Fork, South Fork and its tributaries, and all along the main river, and some on the North Fork of the Tule River, and cattle graze over the country (much of it private land) extending from Roaring River to the west and south around the park to the Tule. A large lumber company is operating at Hume and in the surrounding timber, but all these things do not make an insuperable obstacle to extending the park.

It is recommended that the park boundaries be changed so that they will follow the divides as far as practicable. The northern boundary of the park should be the summit of the divide between the South and Middle forks of Kings River. Thence the boundary should run along the divide west and northwest of Boulder Creek and Bearskin Meadow to the northern boundary of the General Grant National Park; thence along the present northern and western boundaries of General Grant National Park to the southwest corner of that park; thence along the summit of the divide west of the North Fork of Kaweah River to Kaweah River; thence along the divide south of the South Fork of Kaweah River to Sheep Mountain; thence south along the divide that separates the northernmost headwaters of Tule River from Pecks Canyon and Mountaineer Creek to the divide south of Mountaineer Creek; thence along the summit of this divide to a point on Little Kern River 6 miles south of the present boundary of the park; thence due east to the western boundary of Inyo County; thence north and northeast along the western boundary

of Inyo County to the divide between the South and Middle forks of Kings River.

It is recommended that the following work be done as soon as possible:

Remove logs, brush, inflammable material, and the largest trees from the roadsides and trails.

Clear the fire-break along the General Grant Park boundary.

Extend the Giant Forest road and widen it to 18 feet.

Macadamize the roads.

Place surface dressing of granite sand on the roads in General Grant Park.

Oil the roads in places where the dust is troublesome.

Survey a wagon road to connect the Giant Forest with Middle Fork road.

Allow cattle to graze in selected localities, in order to clear the way for reforestation and open new territory for development.

Complete the Cold Spring-Clough Cave trail.

Cut new trails to the more important points in the park.

Build a stairway and place hand rails on Moro Rock.

Build pier, bath houses, and boathouses at Twin Lakes.

Erect gates at entrances to the park.

Have the caves in the park fully explored.

Construct two stone reservoirs over the springs at Ranger.

Erect a water pipe and public drinking fountain at Ranger.

Install water pipe to the tourist camp ground in the General Grant Park.

Fence the tourist camp ground in General Grant Park.

Repair the fence around General Grant Park.

Fence horse pasture for the use of rangers near Ranger and near Rocky Gulch.

Build a ranger's cabin in the Giant Forest and another one on the north line of the Sequoia Park.

Install telephone lines in new cabins.

Build four ranger barns, one each, at Grant Park, Hockett Meadow, Quinn Camp, and Ranger.

Improve and paint the rangers' cabins.

Paint the Marble Fork Iron Bridge.

Erect a post-office building at Ranger.

Build three gateways at General Grant Park.

Place signboards at the Grant, Sherman, and other big trees, showing the dimensions, age, and other data regarding the trees.

Make a collection of sequoia and other seeds for the purpose of testing.

Plant experimental young trees and seed and locate a tree nursery.

Erect a fish hatchery.

Plant fish fry in order to preserve the varieties unmixed.

Place a herd of buffalo and a band of antelope in the park.

Make arrangements for the systematic destruction of harmful wild animals.

Organize lion-hunting parties under the supervision of competent guides.

Respectfully submitted.

E. S. WRIGHT,
Captain, First Cavalry, Superintendent.

The SECRETARY OF THE INTERIOR.

RULES AND REGULATIONS.

SEQUOIA NATIONAL PARK.

General Regulations of March 30, 1907.

1. By act of Congress approved September 25, 1890, the tract of land in the State of California described in township 18 south and ranges 30 and 31 east, and also sections 31, 32, 33, and 34, in township 17 south and range 30 east, and by act of Congress approved October 1, 1890, the adjoining tract described as townships 15 and 16 south, ranges 29 and 30 east, and also township 17 south, range 30 east, except above-mentioned sections 31, 32, 33, and 34, have been set apart for a public park, and the same shall be known as the "SEQUOIA NATIONAL PARK."

2. The park by said act is placed under the exclusive control of the Secretary of the Interior, and these rules and regulations are made and published in pursuance of the duty imposed on him in regard thereto.

3. It is forbidden to injure or disturb in any manner any of the mineral deposits, natural curiosities, or wonders on the government lands within the park.

4. It is forbidden to cut or injure any timber growing on the park lands. Camping parties will be allowed to use dead or fallen timber for fuel.

5. Fires shall be lighted only when necessary and completely extinguished when not longer required. The utmost care must be exercised at all times to avoid setting fire to the timber and grass.

6. Hunting or killing, wounding or capturing any bird or wild animal on the park lands, except dangerous animals when necessary to prevent them from destroying life or inflicting an injury, is prohibited. The outfits, including guns, traps, teams, horses, or means of transportation used by persons engaged in hunting, killing, trapping, ensnaring, or capturing such birds or wild animals, or in possession of game killed on the park lands under other circumstances than prescribed above, will be taken up by the superintendent and held subject to order of the Secretary of the Interior, except in cases where it is shown by satisfactory evidence that the outfit is not the property of the person or persons violating this regulation and the actual owner thereof was not a party to such violation. Firearms will only be permitted in the park on written permission from the superintendent thereof.

7. Fishing with nets, seines, traps, or by the use of drugs or explosives, or in any other way than with hook and line, is prohibited. Fishing for purposes of merchandise or profit is forbidden. Fishing may be prohibited by order of the superintendent of the park in any of the waters of the park, or limited therein to any specified season of the year, until otherwise ordered by the Secretary of the Interior.

8. No person will be permitted to reside permanently, or to engage in any business on the government lands in the park without permission, in writing, from the Secretary of the Interior. The superintendent may grant authority to competent persons to act as guides and revoke the same in his discretion, and no pack trains shall be allowed in the park unless in charge of a duly registered guide.

9. Owners of patented lands within the park limits are entitled to the full use and enjoyment thereof; such lands, however, shall have the metes and bounds thereof so marked and defined as that they may be readily distinguished from the park lands. Stock may be taken over the park lands to patented lands with the written permission and under the supervision of the superintendent.

10. The herding or grazing of loose stock or cattle of any kind on the government lands in the park, as well as the driving of such stock or cattle over the same, is strictly forbidden, except in such cases where authority therefor is granted by the superintendent.

11. The sale or use of intoxicating liquors on the government lands in the park is strictly forbidden.

12. Private notices or advertisements shall not be posted or displayed on the government lands within the reservation, except such as may be necessary for the convenience and guidance of the public.

13. Persons who render themselves obnoxious by disorderly conduct or bad behavior, or who may violate any of the foregoing rules, may be summarily removed from the park and will not be allowed to return without permission, in writing, from the Secretary of the Interior or the superintendent of the park.

14. The superintendent designated by the Secretary is hereby authorized and directed to remove all trespassers from the government lands in the park and enforce these rules and regulations and all the provisions of the act of Congress aforesaid.

Regulations of March 30, 1907, Governing the Impounding and Disposition of Loose Live Stock.

Horses, cattle, or other domestic live stock running at large or being herded or grazed on the government lands in the Sequoia National Park without authority from the superintendent of the park, will be taken up and impounded by the superintendent, who will at once give notice thereof to the owner, if known. If the owner is not known, notices of such impounding, giving a description of the animal or animals, with the brands thereon, will be posted in six public places inside the park and in two public places outside the park. Any owner of an animal thus impounded may, at any time before the sale thereof, reclaim the same upon proving ownership and paying the cost of notice and all expenses incident to the taking up and detention of such animal, including the cost of feeding and caring for the same. If any animal thus impounded shall not be reclaimed within thirty days from notice to the owner or from the date of posting notices, it shall be sold at public auction at such time and place as may be fixed by the superintendent after ten days' notice, to be given by posting notices in six public places in the park and two public places outside the park, and by mailing to the owner, if known, a copy thereof.

All money received from the sale of such animals and remaining after the payment of all expenses incident to the taking up, impounding, and selling thereof shall be carefully retained by the superintendent in a separate fund for a period of six months, during which time the net proceeds from the sale of any animal may be claimed by and paid to the owner upon the presentation of satisfactory proof of ownership, and if not so claimed within six months from the date of sale such proceeds shall be turned into the Sequoia National Park fund.

The superintendent shall keep a record in which shall be set down a description of all animals impounded, giving the brands found on them, the date and locality of the taking up, the date of all notices and manner in which they were given, the date of sale, the name and address of the purchaser, the amount for which each animal was sold and the cost incurred in connection therewith, and the disposition of the proceeds.

The superintendent will, in each instance, make every reasonable effort to ascertain the owner of animals impounded and to give actual notice thereof to such owner.

GENERAL GRANT NATIONAL PARK.

General Regulations of March 30, 1907.

1. By act of Congress approved October 1, 1890, the tract of land in the State of California described as sections 5 and 6, in township 14 south, range 28 east of Mount Diablo meridian, and also sections 31 and 32, of township 13 south, range 28 east of the same meridian, have been set apart for a public park, and the same shall be known as the "GENERAL GRANT NATIONAL PARK," "General Grant" being the name by which the Great Tree therein is so widely known.

All other provisions of the General Grant Park regulations are the same as those for Sequoia National Park.

Regulations of August 17, 1910, Governing the Admission of Automobiles and Motorcycles into the General Grant National Park, California, during the Season of 1910.

Pursuant to authority conferred by the act of October 1, 1890 (26 Stat., 650), setting aside certain lands in the State of California as a public park, the following regulations governing the admission of automobiles into the General Grant National Park are hereby established and made public:

1. No automobiles will be permitted within the metes and bounds of General Grant National Park unless the owner thereof secures a written permit from the acting superintendent or his representative. Permits may be obtained from the acting superintendent at Three Rivers, Cal., or his authorized representative at the rangers' headquarters on the government road in the General Grant National Park.

2. Applications for permits must show: (*a*) Name of owner, (*b*) number of machine, (*c*) name of driver, and (*d*) inclusive dates for which permit is desired, not exceeding one year, and be accompanied

by a fee of $1 for a single round trip through the park or a fee of $5 for each machine per annum. Permits must be presented to the acting superintendent or his authorized representative at the rangers' headquarters on the government road. The permittee will not be allowed to do a transportation business in the park without a special license therefor from the Secretary of the Interior. All permits granted at any time when automobiles can enter the park will expire on December 31 of the year of issue.

3. The use of automobiles will be permitted only on the Millwood road, the Round Meadow road, the North road north of its junction with the north end of the Round Meadow road, and the tourists' camp grounds, and return, between the hours of 6.30 a. m. and 10.30 a. m. and between the hours of 3.30 p. m. and 6.30 p. m.

4. When teams approach, automobiles will take position on the outer edge of roadway, regardless of the direction in which they are going, taking care that sufficient room is left on the inside for the passage of teams.

5. Automobiles will stop when teams approach and remain at rest until teams have passed or until teamsters are satisfied regarding the safety of their teams.

6. Speed will be limited to 6 miles per hour, except on straight stretches, where approaching teams will be visible, when, if no teams are in sight, this speed may be increased to the rate indicated on signboards along the road. In no event, however, shall it exceed 15 miles per hour.

7. Signal with horn will be given at or near every bend to announce to approaching teams the proximity of an automobile.

8. Teams have the right of way, and automobiles will be backed or otherwise handled, as necessary, so as to enable teams to pass with safety.

9. Violation of any of the foregoing rules or the general regulations for the government of the park will cause revocation of permit, will subject the owner of the automobile to any damages occasioned thereby and to ejectment from the reservation, and be cause for refusal to issue a new permit to the owner without prior sanction in writing from the Secretary of the Interior.

10. All persons passing through the park with automobiles should be required to stop at the rangers' headquarters and register their names.

11. These rules are also applicable to motorcycles, which may use only the roads herein mentioned on payment of a fee of $1 for each machine per annum. Permits issued therefor shall expire on December 31 of the year of issue.

PENALTIES FOR DEPREDATIONS ON TIMBER AND FOR NOT EXTINGUISHING FIRES ON THE PUBLIC LANDS.

[Excerpt from an act entitled "An act to provide for determining the heirs of deceased Indians, for the disposition and sale of allotments of deceased Indians, for the leasing of allotments, and for other purposes," approved June 25, 1910 (36 Stat., 857).]

SEC. 6. That section fifty of the act entitled "An act to codify, revise, and amend the penal laws of the United States," approved March fourth, nineteen hundred and nine (Thirty-fifth United

States Statutes at Large, page one thousand and ninety-eight), is hereby amended so as to read:

"SEC. 50. Whoever shall unlawfully cut, or aid in unlawfully cutting, or shall wantonly injure or destroy, or procure to be wantonly injured or destroyed, any tree growing, standing, or being upon any land of the United States which, in pursuance of law, has been reserved or purchased by the United States for any public use, or upon any Indian reservation or lands belonging to or occupied by any tribe of Indians under the authority of the United States, or any Indian allotment while the title to the same shall be held in trust by the Government, or while the same shall remain inalienable by the allottee without the consent of the United States, shall be fined not more than five hundred dollars, or imprisoned not more than one year, or both."

That section fifty-three of said act is hereby amended so as to read:

"SEC. 53. Whoever shall build a fire in or near any forest, timber, or other inflammable material upon the public domain, or upon any Indian reservation or lands belonging to or occupied by any tribe of Indians under the authority of the United States, or upon any Indian allotment while the title to the same shall be held in trust by the Government, or while the same shall remain inalienable by the allottee without the consent of the United States, shall, before leaving said fire, totally extinguish the same; and whoever shall fail to do so shall be fined not more than one thousand dollars, or imprisoned not more than one year, or both."

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DEPARTMENT OF THE INTERIOR
ADMINISTRATIVE MAP

SEQUOIA AND GENERAL GRANT NATIONAL PARKS CALIFORNIA

SIERRA NATIONAL FOREST

SEQUOIA NATIONAL PARK

GENERAL GRANT NATIONAL PARK

SEQUOIA NATIONAL FOREST

LEGEND

Park Limits

RELIEF
(printed in brown)

7659
Figures
(showing heights above mean sea level instrumentally determined)

Contours
(showing height above sea, horizontal form, and steepness of slope of the surface)

DRAINAGE
(printed in blue)

Springs

Canals and ditches

Intermittent streams

CULTURE
(printed in black)

Roads and buildings

Churches and school houses

Private and secondary roads

Trails

Railroads

Telephone lines

Bridges

U.S. township and section lines

Section corners found

County lines

Reservation lines

Triangulation stations

B.M. 8555
Bench marks

R. U. Goode and E. M. Douglas, Geographers.
E. C. Barnard and R. B. Marshall, Topographers in charge.
Topography by E. C. Barnard, R. B Marshall, A. I. Oliver, Geo. R. Davis, R. B. Oliver, and W. C Guerin
Triangulation by E. T Perkins.
Surveyed in 1902-1903

ENGRAVED JULY 1904 BY U.S.G.S.

APPROXIMATE MEAN DECLINATION 1902

SURVEYED BY THE U. S. GEOLOGICAL SURVEY IN COOPERATION WITH THE STATE OF CALIFORNIA

Scale 1/125000
1 ½ 0 1 2 3 4 5 Miles
1 ½ 0 1 2 3 4 5 Kilometers

Contour interval 100 feet.
Datum is mean sea level.

Edition of June 1909.