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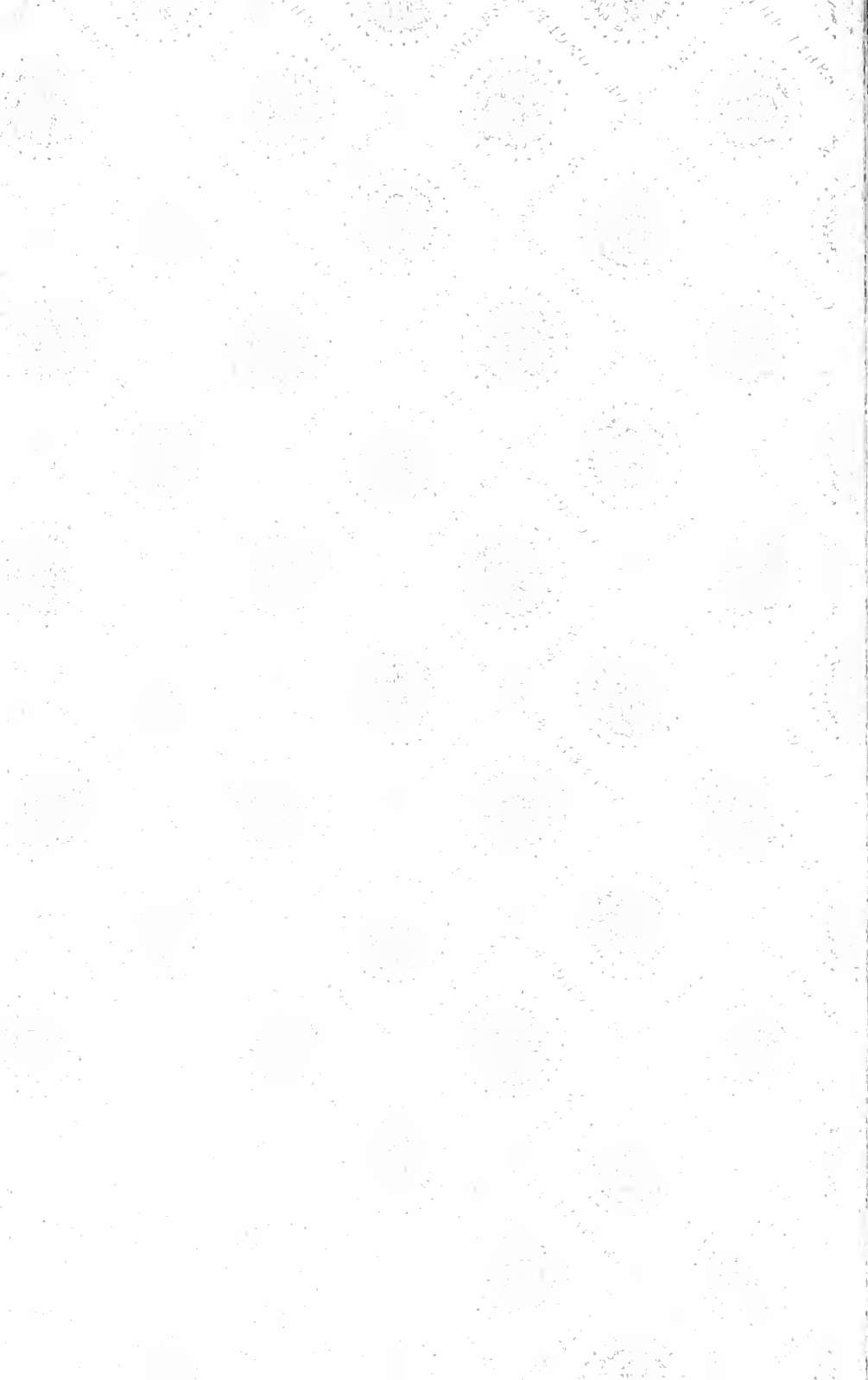
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REPORT ON

WIND CAVE, CRATER LAKE, SULLYS HILL, AND
PLATT NATIONAL PARKS, CASA GRANDE
RUIN AND MINNESOTA NATIONAL
FOREST RESERVE

1908

COMPILED IN THE OFFICE OF
THE SECRETARY OF THE INTERIOR



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REPORT ON WIND CAVE, CRATER LAKE, SULLYS HILL, AND PLATT NATIONAL PARKS, CASA GRANDE RUIN, AND MINNE- SOTA NATIONAL FOREST RESERVE.

WIND CAVE NATIONAL PARK.

By the act of Congress approved January 9, 1903 (32 Stat., 765): a tract of land containing 10,522 acres in the State of South Dakota, 12 miles east of the town of Hot Springs and the same distance southeast of Custer, was reserved and withdrawn from settlement, entry, sale, and other disposition, and set apart as a public park, to be known as the "Wind Cave National Park."

The park is placed under the exclusive control of the Secretary of the Interior, who, among other things, is authorized to prescribe rules and regulations and establish such service as may be deemed necessary in its management and protection, and, in his discretion, to rent or lease the cave from which the park takes its name, and also parcels of land for the erection of buildings for the accommodation of visitors. The fund arising from such rentals is covered into the Treasury and made available for expenditure in the care and improvement of the park.

At the time of the creation of the park there were 10 entries covering lands therein, aggregating 1,549.15 acres, 5 of which, covering 799.76 acres, have since been canceled, and the remaining 5 entries have been found proper in all respects and patents issued therefor, as follows:

NE. $\frac{1}{4}$ NW. $\frac{1}{4}$ and NW. $\frac{1}{4}$ NE. $\frac{1}{4}$, sec. 25, T. 5 S., R. 5 E., Black Hills meridian; Jonathan C. West; F. C. 3003, patented December 31, 1904; 80 acres.

SE. $\frac{1}{4}$ NE. $\frac{1}{4}$ and lots 1 and 2, sec. 2, T. 6 S., R. 5 E.; George A. Stabler; F. C. 2666; patented September 11, 1905; 159.39 acres.

SE. $\frac{1}{4}$, sec. 2, same township and range; Susanna D. McDonald; C. E. 3770; patented December 10, 1895; 160 acres.

NE. $\frac{1}{4}$, sec. 11, same township and range; Kate M. Stabler; F. C. 2600; patented September 23, 1902; 160 acres.

NW. $\frac{1}{4}$, sec. 12, same township and range; Margarette Drenkhahn; F. C. 2434; patented May 8, 1901; 160 acres.

This gives a total of 719.39 acres for patented lands remaining in the park, which, for administrative purposes, should be eliminated through appropriation by Congress for their purchase.

The State of South Dakota has completed making lieu selections of lands outside the park for school sections 16 and 36, located within the reservation, granted by the statehood act of February 20, 1899 (25 Stat., 676).

Mr. Seth Bullock, now marshal for the district of South Dakota, with the consent of the Attorney-General, has been continued in general charge of the reservation, in an advisory capacity, and the

superintendent, Mr. William A. Rankin, confers with him in regard to its administration. This course has aided very much in the effective management during the past season.

A revocable privilege has been granted to the wife of the superintendent, in the absence of other accommodations in the park, to furnish meals to tourists at 50 cents each, which service has proved very satisfactory in the past. The superintendent recommends that the old building heretofore occupied for serving these meals, which was constructed in 1893 by John Stabler and sons, and is now in a very dilapidated condition, be torn down and removed. He suggests that some one willing to construct a good, substantial hotel in the park be given the privilege to do so.

During the season eight permits were granted for the transportation of passengers in and through the reservation, at the rate of \$50 per vehicle, such fee being charged in the case of liverymen, outfitters, and others operating for profit. One of these permits was for automobile transportation.

No applications were received for the driving of cattle or other stock through the park.

The first regulations for the government of the Wind Cave National Park were promulgated June 10, 1908, and provide, among other things, as follows:

1. It is forbidden to remove or injure the specimens or formation in and around the Wind Cave, or to deface the same by written inscription or otherwise, or to injure or disturb in any manner or carry off any of the mineral deposits, specimens, natural curiosities, or wonders on the government lands within the park.

2. No person shall be permitted to enter the cave unless accompanied by the superintendent or other park employee, or by competent guides.

Regulations corresponding to those heretofore issued for the other national parks, providing for the impounding of loose live stock found in the Wind Cave National Park, were also promulgated. Settlers and stock owners in the vicinity have protested against the execution of such regulations, claiming that they have always used the park lands as a free range, and, as the park is not fenced, would find it very difficult to keep their stock outside of the boundaries. Such persons were given a reasonable time to remove the trespassing stock, and the enforcement of the impounding regulations was temporarily suspended.

It will apparently be necessary to construct a fence entirely around the park as a protective measure against trespassing stock, and an appropriation for such purpose is recommended.

There have been no forest fires in or near the park during the year.

Wild animals are quite numerous, especially the prairie wolf. Others are the black-tail deer, white-tail deer, badger, prairie dog, skunks, squirrels, and porcupine, the last named doing a great deal of damage to trees. There are also a few grouse, quail, ducks, and numbers of hawks, eagles, robins, thrushes, woodpeckers, and magpies.

About \$1,500 was expended during the past fiscal year for improvements as follows: Repairing roads and bridges, repairing fences, leveling up trails in Wind Cave and repairing stairs, opening up new chambers in the cave, purchase of flag and flagstaff, etc.

It is reported that the roads to the southern entrance are in good condition, but need widening out to allow room for the passing of

teams. The bridges are also in fair condition, but the superintendent suggests the use of building stone to be found in the park for replacing the piling under the spans with stone abutments.

During the year the registry of visitors to the park showed a total of 3,171, an increase of 420 over the number of tourists in 1907. None of this number camped in the reservation for more than one day.

An estimate for an appropriation of \$5,400 for the protection and improvement of the park has been submitted to Congress. This includes salary of the superintendent and \$2,800, the estimated cost of fencing the park to prevent depredations by live stock.

CRATER LAKE NATIONAL PARK.

By the act of Congress approved May 22, 1902 (32 Stat., 202), the tract of land bounded on the north by the parallel $43^{\circ} 1'$ north latitude, south by $42^{\circ} 48'$ north latitude, east by the meridian 122° west longitude, and west by the meridian $122^{\circ} 16'$ west longitude, having an area of 249 square miles, or 159,360 acres, in the State of Oregon, and including Crater Lake, was reserved and withdrawn from settlement, occupancy, or sale under the laws of the United States, and dedicated and set apart forever as a public park or pleasure ground for the benefit of the people, to be known as "Crater Lake National Park."

The act setting aside these lands for park purposes differed from legislation creating other national parks in that it provided, among other things, that the reservation should be open "to the location of mining claims and the working of the same." It was not believed, however, to be the purpose of this provision to extend the mining laws to the reservation without limitation, but only to authorize the location and working of mining claims therein in such manner as not to interfere with or prejudicially affect the general purpose for which the reservation was established. The regulations for the government of the park, which were reissued June 10, 1908, clearly define the conditions under which this privilege is to be exercised.

The Geological Survey has, at the request of this department, undertaken a topographic resurvey of this reservation, with a view to securing, for administrative purposes, a map which will be authentic in every particular.

Since the date of the superintendent's last report, various improvement work on buildings and fences was completed, also the installation of the hydraulic ram for pumping water to the superintendent's office and residence, and the making of a ditch to carry off the waste water from the ram and for irrigating the surrounding grounds.

Upon the approach of the winter season, in November, the boat on Crater Lake and all tools and implements were properly housed, the flooring was removed from bridges, and the fences braced to withstand the weight of the heavy snows, which commonly fall to a depth of 6 or 8 feet at the south line of the park and from 12 to 20 feet at the superintendent's residence. November 22, 1907, the superintendent and his family left the reservation, but a few visits were made thereto during the winter months.

In May of the present year the superintendent returned to his residence in the park, finding all property in good condition with

the exception of the barn, which had been injured by the wind or lightning. Park Ranger H. E. Momyer was employed to assist in the management of the reservation during the tourist months.

Work was then inaugurated on improvements. Two temporary structures were erected for the use of workmen, roads and trails to a total of about 20 miles repaired and improved, the barn repaired, and about 2 miles of fence constructed to inclose pasture and meadow lands. The roofs of buildings are made with three-fourths pitch in order that the snow may slide off instead of crushing them in.

The road system is as follows: One road entering the park at the southern boundary and running in a northwesterly direction along the Anna Creek Canyon a distance of 8 miles, and terminating at the Crater Lake post-office; a second entering the reservation from the west, running in a due easterly direction, and terminating at the same point; and a third beginning at the post-office and running northeasterly a distance of 5 miles to the rim of the crater. These have been kept in good condition for travel by all kinds of vehicles, but the superintendent reports that further improvements, such as widening, straightening, and providing turnouts, are necessary.

There are four trails in the park at the present time; one leading from the rim of the crater down to the waters of Crater Lake, with a descent of 901 feet in a distance of 2,365 feet; one from the superintendent's headquarters to the pinnacles on Sand Creek and Mount Scott, and trails from headquarters to Union Peak and Bybee Creek. The first-mentioned trail is much used by visitors, and it is important that it be kept continually in a good condition. Iron posts and 2,400 feet of cable were purchased last year for the improvement of this trail, but the small appropriation for the current year would not permit of the utilization of such material, and only temporary repairs could be made. The other trails are at present little more than mere tracks of horses from one point to another.

The superintendent suggests that the trail to Sand Creek and Mount Scott should be speedily converted into a good wagon road, to fill the demand of visitors that the beautiful scenery be made accessible; also that new trails be constructed along the rim of the crater to the Watchman and Glacier Peak, and from the present wagon road to the crater, to Crater Peak, and down along Sun Creek.

At the time of the creation of the park there were 15 land entries, covering 2,395.33 acres, 12 of which, totaling 1,914.22 acres, have been patented; homestead entry No. 2415 (160 acres), of John Fitzgerald, for S. $\frac{1}{2}$ N. $\frac{1}{2}$ of sec. 17, T. 32 S., R. 7 $\frac{1}{2}$ E., was canceled by General Land Office letter of November 13, 1908; homestead entries Nos. 2620 and 2660, of John Wallace Dickey and Louis Stanosheck, totaling 321.11 acres, are still intact upon the General Land Office records pending report from the local land office on adverse proceedings brought against the same. Included in the total of 2,395.33 acres is a considerable portion of homestead entry No. 2415 and timber land entries Nos. 2116 and 2120 (now patented), which extend beyond the park boundary line.

The title of the State of Oregon to school sections 16 and 36 within the park boundaries had been extinguished before the creation of the reservation, by selection of other land in lieu thereof, except a tract containing 192.20 acres in the N. $\frac{1}{2}$ of sec. 16, T. 32 S., R. 7 $\frac{1}{2}$ E., which has since been disposed of by the State to private parties.

The department recommends the condemnation and purchase of all private claims with a view to better administration. The superintendent believes that in the near future summer resort homes may be established upon such lands, which will increase the difficulties of administration and also add to the aggregate sum which the Government will eventually have to pay the owners.

The following permits were issued during the season for the driving of stock through the park: In May to Henry Gordon, 250 head, en route to Fort Klamath; in August to A. V. Morrison, of Trail, Oreg., 12 head, but the stock has not yet been taken through; and in September to J. C. Pelton & Co., 100 head, en route from Prospect to Fort Klamath, which stock also failed to pass through.

The number of valuable game animals appears to be increasing. Deer and black bears, lynx and coyotes were plentiful during the past summer, and panthers were seen in small numbers. There have been no depredations by these predatory animals. Of the smaller game and birds, there are squirrels, chipmunks, pine martins, fishers, grouse, timber pheasants, oriole, black-headed jay, camp robber or Rocky Mountain jay, and the snowbird. Broods of young ducks have been observed upon Crater Lake, also flocks of wild ducks resting from their migratory flights, but it is thought the elevation of the lake, 6,177 feet above sea level, gives a climate too cold for the natural habitat of wild waterfowl. When the snow falls, all game animals, with possibly the exception of the black bear and small fur-bearing animals, as well as all birds, migrate to a lower and warmer climate. In view of the fact that no wintering grounds are now available in the park, the superintendent recommends the extension of the park boundaries to include a lower section of the country on the slope of the Cascade Mountains, to afford the necessary protection to game.

Fishing has been permitted in Crater Lake from July 1 to September 30 with hook and line, each person being limited to five fish in one day. The only species in Crater Lake are the rainbow and lake trout; there were no fish in the lake naturally, but these were planted about twenty years ago, and the increase has not been encouraging. In Anna Creek, below the falls, there is the Dolly Varden trout. There are no fish in the other park waters, and the Secretary of Commerce and Labor has been requested to investigate the conditions, and if practicable have the Commissioner of Fish and Fisheries supply some good varieties for Crater Lake and all other waters in Crater Lake National Park.

No forest fires have been reported during the past year, with the exception of a small one which started in the vicinity of the Pinnacles on Sand Creek about September 1. This was gotten under control and extinguished before it had gained much headway.

Accommodations are provided for tourists by Mr. Will G. Steel, of Portland, Oreg., under license from this department, at camps maintained near the superintendent's residence and at the lake. Approximately 500 persons were cared for during 1908, but few of this number came into the reservation by the transportation service operated by Mr. Steel, the great majority using private conveyances. In connection with the wagon transportation and camp privilege Mr. Steel was also permitted to place a gasoline launch and a number of rowboats upon the lake.

A registration book was kept to ascertain the number of visitors to the park, but for various reasons not half of the number were registered. The approximate total for the season, including campers and transient tourists, has been placed at 5,275, which would indicate that the popularity of the park is increasing from year to year.

Estimates have been submitted to Congress for the ensuing fiscal year, as follows: Salaries of superintendent and two temporary park rangers, and allowance to superintendent for the keep of one horse, \$1,965; construction and repair of roads and trails, \$15,800; construction and repair of bridges, \$2,500; miscellaneous, \$1,480; total, \$21,745.

SULLYS HILL PARK.

This reservation, set aside by executive proclamation dated June 2, 1904, under the act approved April 27, 1904 (33 Stat., 319), contains about 780 acres. It is located on the south shore of Devils Lake, North Dakota, having about 2 miles of shore line, with its western boundary 1 mile east of the Fort Totten Indian School. Inasmuch as no appropriation has been made for the care and protection of this reservation Mr. Charles M. Ziebach, in charge of the Indian Industrial School, Fort Totten, has been continued as acting superintendent, and required to exercise the necessary supervision and control over the same until appropriation is made therefor by Congress.

The tract is well wooded and has an ample supply of water and many rugged hills, among which, on the western boundary, lies what is known as "Sullys Hill." In the south-western part is a small body of water known as "Sweet Water Lake," west of which the surface is generally level and the soil good.

Approximately 50 persons camped in the park for three days or more during the past summer, and 200 spent one day in sight-seeing.

The steamboat landing is at least 2 miles from the park, and the acting superintendent recommends the building of a dock to allow boats to land within the park limits, to make it more accessible for visitors. Until this is done, as well as repair work upon roads, construction of new ones, the walling up of springs, etc., the reservation is not likely to be patronized to any extent. There are no buildings or improvements of any kind in the park.

An estimate for an appropriation of \$3,000 for the protection and improvement of the park has been submitted to Congress.

PLATT NATIONAL PARK.

By the acts of Congress of July 1, 1902 (32 Stat., 644), and April 21, 1904 (33 Stat., 220), 629.33 and 218.89 acres, respectively, at the town of Sulphur, Okla. (then Indian Territory), were segregated as the "Sulphur Springs Reservation," which designation, by joint resolution approved June 29, 1906, was changed to "Platt National Park."

The park, with a total area of 848.22 acres, extends in irregular form a distance of approximately 3 miles from northeast to southwest along Sulphur Creek, including a portion of Rock Creek, which empties into Sulphur Creek, and has a circuit of 9 miles.

Within the park are 33 known mineral and 2 nonmineral springs. The principal groups are the Bromide and Bromide-Sulphur springs

in the southwestern part of the park. Beach and Pavilion springs in the northwestern corner, and the Wilson group in the southern part. Sulphur springs predominate, but there are also bromide, soda, and iron varieties. The Antelope and Buffalo springs, nonmineral in character, are situated at the extreme northeastern end of the Platt National Park, with an elevation of 1,083 feet above sea level, and an approximate discharge of 5,000,000 gallons daily into Sulphur Creek.

The following is a statement of the mineral springs which have been to some extent developed and improved, together with the estimated daily flow in each case:

	Gallons.
Bromide Springs (3)-----	275
Bromide-Sulphur-----	250
Taff or Black Sulphur-----	500
Hillside-----	129, 600
Pavilion Springs (7)-----	200, 600
Beach Springs (3)-----	125, 000
Wilson-----	1, 000
Jericho-----	200

The amount of water per capita used on the premises, or taken away for individual use, averages one-half gallon daily. This statement applies to all but the Wilson and Jericho springs, from which the amount taken is inconsiderable.

Regulations for the park were promulgated by the department June 10, 1908, those theretofore in force having been found totally inadequate to properly protect the park. Section 5 provides as follows:

No person shall remove from any of the bromide, iron, or soda springs more than one gallon of water in any one day, nor remove from any of the other springs more than five gallons in any one day, nor shall any water be taken therefrom for commercial purposes except in pursuance of a license issued by the Secretary of the Interior. Whenever in his judgment the circumstances warrant, the superintendent may prohibit the use of the waters of any of the springs in the park other than for immediate drinking purposes at such springs, the facts in such case to be reported to the Secretary of the Interior.

In spite of all efforts to prevent it, the superintendent reports that small quantities of water have been taken surreptitiously from the Bromide, Beach, and Pavilion springs. No water has been taken by permission for commercial purposes. On account of the popularity of Bromide Spring, and the small daily flow, it has been necessary to restrict the amount of water which can be taken by each individual, and early in the fiscal year a watchman was placed at this point to oversee the distribution of the water and maintain order in the vicinity.

The number of arrests for all causes was 11, the cases being disposed of as follows: Bound over to await action of grand jury, 2; convictions, 2; expulsions from park, 2; admonished and discharged, 7. The authority given under the new regulations is broader than before, and furnishes the means for punishing or restraining a certain lawless element in the vicinity of the park. The Department of Justice, upon the request of the Interior Department, appointed Mr. G. E. Nicholson as a United States commissioner, to reside at Sulphur, Okla., and persons violating the rules and regulations can now be brought before him and, if the offense warrants, be bound over for the action of the grand jury, which meets only at points remote from the park: this is a great improvement and the effect

should be salutary. The department has been advised of attempts to blackmail persons in the Platt National Park, impersonation of officers and threats against the lives of the rangers because of the enforcement of the regulations, and such cases have been brought to the attention of the United States attorney for the eastern district of Oklahoma.

The superintendent's office and residence buildings have been connected by telephone with the quarters of the employees in different portions of the park, a chain of incandescient lights was installed in West Central Park, and the work of protecting the park from damage, nuisances, and forest fires has thereby become more effective.

Approximately 6,000 head of domestic animals were driven through the park in the daytime. Stockmen, when marketing their animals during the extreme hot weather of summer, usually make night drives, intending to reach Sulphur in time to ship early the following day. The number given does not include the herds passing at a late hour in the night. The time of the park rangers has been largely taken up in removing trespassing live stock from the park. A few dairymen and stock owners living near by have made a practice for years of allowing their animals to graze therein, and have resented all efforts to prevent them. The number of domestic animals driven off of the reservation was, by actual count, 11,041, and to perform such service the rangers rode 4,398 miles. To overcome this undesirable condition the department recently authorized the construction of a suitable fence to inclose the Platt National Park, at an approximate cost of \$2,500, provision to be made for suitable openings, etc., and lanes crossing the reservation, and work on such improvements is practically completed.

The superintendent reports that special pains have been taken to protect the animals and birds and to prevent abuses of the privilege of fishing in the park. Fishing is now permitted with hook and line, and this privilege appears to have popularized the resort to a considerable extent. The following species of animals, birds, and fishes make the park their home: A few wolves and wild cats, rabbits, squirrels, badgers, porcupines; quail in great abundance, redbirds, larks, doves, blackbirds, and common varieties, blue jays, mocking birds, snipe, pigeons, plover, birds of paradise, robins, yellow-hammers, kingfishers, hawks, and eagles; black bass, a few trout and red horse, sunfish, suckers, and catfish. The pure cold water of Sulphur Creek is reported as especially adapted to the propagation of the more desirable species of edible fish, such as trout and black bass. The stocking of such stream with these species would no doubt add to the attractiveness of the park. The Secretary of Commerce and Labor has been requested to investigate the conditions, and, if practicable, stock Sulphur Creek with some good varieties of fish from the Bureau of Fish and Fisheries.

Besides the office building of the superintendent, there are 5 residence buildings for employees and 5 pavilions, the latter located at Bromide, Hillside, and Seven springs, and at an artificial spring near the "Vendome." There are 10 rest houses near the more frequented springs in West Central Park and on the public camp grounds. Most of the buildings and a few of the pavilions are in need of repairs and painting.

The superintendent has submitted an estimate of \$250 for deflecting the course of the road which now crosses the park at its widest point, so as to give an easier grade, obviate the expenditure of over \$600 for a culvert at Sulphur Run, and abate the dust nuisance at the springs and the residence of the superintendent. The present grade of this road is 6 per cent in certain portions; it washes badly and requires frequent repairs. The construction of the "Brookside" trail, which meanders along Sulphur Creek, crossing and recrossing in the vicinity of the principal falls, has made this the second greatest thoroughfare of the park.

The success of the wire suspension bridge recently constructed at Bromide Springs exceeds the expectations of its most enthusiastic advocates. It carries an average of 500 persons daily, and during the three months of its constant use has not needed a moment's care or attention. The superintendent reports receiving an inquiry from London in regard to it. The Davis Avenue Bridge, upon which certain temporary repairs were made last winter, is again sagging and becoming unsafe. The department has authorized preliminary work on the construction of a suitable bridge to replace this structure, and also to place a stone arch bridge with turret effects across Sulphur Creek, in West Central Park. The estimated cost of these two bridges is from \$10,000 to \$11,000.

The salaries of the park force aggregated \$5,780 for the fiscal year ended June 30, 1908. The following improvements, repairs, etc., were made during the same period: Improvement of springs, creeks, fords, falls, etc., \$1,057.74; construction and repair of bridges, \$1,213.58; surveys for sanitary sewer, \$761.90; domestic water supply, \$674.09; repairs to buildings, \$590.67; filling holes, removing debris and underbrush, mowing weeds, and construction of trail, \$429.89; and miscellaneous service, repairs, etc., \$607.07, a total of \$5,334.94.

The Bland Hotel, which was appraised and paid for by the Government under the act of April 21, 1904, after the segregation of the lands now included in the park, was this year purchased and removed by C. E. Higinbotham, of Sulphur, the contract price being \$7,011. It had become dilapidated and a danger to visitors.

Efforts have been made by the department to secure proposals for privileges in the park, for the convenience of the public, but, although the field appears to be a very promising one for privileges such as rowboats on Rock Creek; refreshment stands, including the sale of cigars, daily papers, souvenirs, etc.; making and selling photographs; and the taking of water from the Beach or other mineral springs for bottling, shipment, or sale; only three licenses have been granted—one for a refreshment stand, to W. O. Bourland, at a nominal rental for the first year, and two photographic privileges, the latter not including the occupation of any ground in the park. These were issued at the beginning of the current fiscal year, and no other meritorious applications for concessions have been received. Within the past two years the mineral waters were shipped from Sulphur in considerable quantities, and fair prices realized, and there is apparently no reason for thinking that the demand has diminished, if we consider the reputation which some of the springs have gained for their medicinal qualities.

The revenues for the year were practically nothing, if the sale of the Bland Hotel be excepted. The balance available July 1, 1908, for protection, preservation, and improvement of the Platt National Park, was \$27,777.36. It is probable that the current year will reduce the available funds to about \$5,000.

Estimates were submitted to Congress last year for the construction of a sewer system, with laterals to intersect others connecting with the city of Sulphur's system to carry off of the reservation the drainage and sewage, which, owing to the topographic conditions, now run into and contaminate the creeks and springs of the park. The approximate cost of the work is \$30,000, of which the city should be required to pay one-half. No appropriation was made, and the matter has again been presented in the estimates for the next fiscal year.

In 1907 the city of Sulphur was granted temporary permission to take water from Sulphur Creek, just below what is known as "Little Niagara," a cascade, for domestic water supply and fire protection, to the extent of 100,000 gallons of water daily. The provision was made that the city should construct a 500,000-gallon storage reservoir outside the park limits, but this requirement has not yet been complied with. It is stated that the city is in financial straits, can not get the money to make such improvements, and will endeavor to have Congress authorize the use of this water permanently and with less restrictions.

Approximately 25,000 persons coming by rail and 1,000 by wagon, the latter camping for three days or more, have visited the park during the past fiscal year. As shown by the records at Bromide Springs, the attendance there was 106,332, and no record was maintained for the first two months of the year. Many of these were citizens of Sulphur, visiting the springs each day, who were counted each time. Although no record was kept at other springs, it is probable that there was a still greater attendance at the Pavilion Springs, which are somewhat closer to the city.

The season opened later than usual, notwithstanding which the number of visitors exceeded all previous records. The park and the city of Sulphur have recognized advantages for the holding of general conventions, religious, educational, fraternal, and other gatherings. These assemblages have been permitted during the past year to occupy suitable grounds for the purpose in East Central Park, after receiving permission from the superintendent, which is granted under certain restrictions imposed by the department for the welfare of the park. The accommodations have repeatedly been taxed to the utmost.

A topographic survey of the Platt National Park, which will show the location of springs, the drainage, etc., has been inaugurated by the Geological Survey at the instance of the department, with a view to the production of complete and authentic maps of the reservation for administrative purposes. The name of Sulphur Creek has, by authority of the United States Board on Geographic Names, been changed to "Travertine."

In addition to matters heretofore covered, the superintendent makes the following recommendations:

A stone and iron building of two rooms near the superintendent's office for a calaboose, or holdover, for men and women arrested and awaiting trial before the United States commissioner.

An electric-light plant for the park, operated by water power from Antelope and Buffalo springs.

A fish hatchery near the head of Sulphur Creek.

The employment of a scientific forester for the reforestation of denuded portions of the park.

The establishment of a summer camp for a squadron of cavalry from Fort Sill or some other convenient military post.

The expenses attendant upon the management of this reservation, and the carrying into effect of necessary improvements to springs and roads, and the construction of bridges, etc., have so depleted the park revenues that an appropriation by Congress in the near future will be absolutely necessary. No appropriation has heretofore been made for the park, but an estimate for the protection and improvement thereof for the fiscal year ending June 30, 1910, in the sum of \$20,000, has been submitted to Congress.

CASA GRANDE RUIN.

This reservation is located near Florence, Ariz., about 18 miles northeast of Casa Grande station, on the Southern Pacific Railroad, and contains about 480 acres. It was set aside by executive order dated June 22, 1892, under the act approved March 2, 1889 (25 Stat., 961).

Casa Grande is an Indian ruin of undetermined antiquity, which was discovered in 1694 by Padre Kino, a Jesuit missionary. This great house is said to be the most important ruin of its type in the Southwest, and as such it has strong claims for archaeological study, repair, and permanent preservation. It is built of puddled clay, molded into walls and dried in the sun, and is of perishable character. The main building was originally five or six stories high and covered a space 59 feet by 43 feet 3 inches. The walls have been gradually disintegrating, owing to the action of the elements. A corrugated iron roof has heretofore been erected over this building to protect it, so far as practicable, from further decay.

Surrounding Casa Grande proper is a rectangular walled inclosure or "compound," having an area of about 2 acres. In this inclosure, which has been called "Compound A," there have recently been excavated a number of buildings or clusters of rooms, and others are known to exist which have not yet been excavated. Two other compounds have been discovered and designated, respectively, "Compound B" and "Compound C." The former has been the scene of operations during the past year, but the latter has not yet been excavated and is still in the form of a mound. The three compounds together constitute what is known as the "Casa Grande" group of ruins.

The custodian, Mr. Frank Pinkley, who resides on the reservation, reports that the ground plan of the ruins was increased by some 57 or 58 rooms, a number of large plazas, and surrounding walls, making the total number of rooms now open on the ground floor over a hundred, and as the result of the last two winters' work by Doctor Fewkes, of the Bureau of Ethnology, the points of interest to visitors have been materially increased.

Mr. Pinkley recommends that appropriation be secured for the erection of a museum building near the Ruins to shelter the results

of future excavations, and to place the household utensils, war and agricultural instruments, and other objects belonging to the prehistoric people in proper relation to the architecture and environment, to facilitate the study, from a scientist's point of view, of any one phase of the aboriginal life.

There are to the east of the Casa Grande Ruin two other groups of ruins, which the custodian reports are on land thrown open to settlement, and one of which is endangered by the proposed construction of a railroad, and he suggests that such ruins be added by Congress to the reservation now existing.

An appropriation of \$3,000 was made in the sundry civil act of March 4, 1907, for the excavation of the Casa Grande Ruin, to be expended under the supervision of the Secretary of the Smithsonian Institution.

The following excerpt has been furnished by the Secretary of the Smithsonian Institution, from the report of Dr. J. Walter Fewkes, on the excavation and repair work at Casa Grande Ruin, in 1907-8:

During the last year the appropriation for the continuance of the excavation and repair of Casa Grande, in Pinal County, Ariz., was disbursed by the Smithsonian Institution, through Dr. J. Walter Fewkes, of the Bureau of American Ethnology. A technical report on the scientific results of this work will be published later by the institution. A few general results that are of popular interest from the educational point of view are here briefly considered.

The excavation and repair work at this ruin was done mainly by Pima Indians living on the adjacent reservation. The distribution of an appropriation of this size among Indian laborers was important in its economic as well as its educational aspect. It not only gave them employment, but also increased their self-respect by stimulating a lasting interest in their land and history.

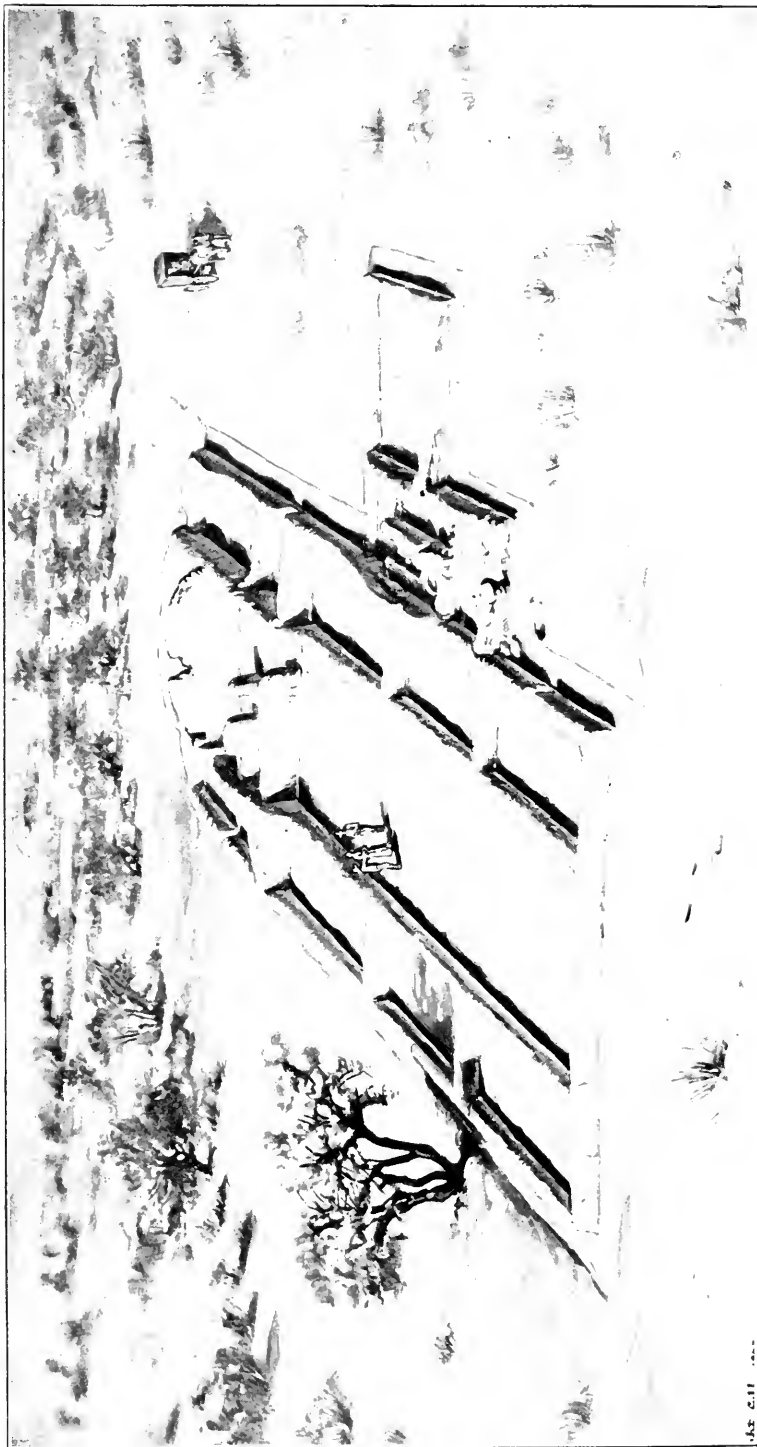
The work at Casa Grande revealed the important fact that there were many more prehistoric buildings on the reservation than were suspected when it was set aside for the protection of the ruin. The facts discovered by excavations point to a large ancient population and to the great antiquity of some of the buildings lately brought to light. The plain around the historic Casa Grande was once dotted with large buildings constructed by a prehistoric race, scattered among which were clusters of houses like Mexican jacales, in which the people lived. Habitations with walls supported by upright legs apparently formerly lined the banks of a network of irrigation ditches and fringed the large reservoirs or wells. The humble dwellings of the people once inhabiting Casa Grande are now represented for the greater part only by mounds that rise a few feet above the plain, while of the art remains of the ancient occupants there are few traces except fragments of pottery strewn over the surface of the plain. This condition of prehistoric human life about Casa Grande appears to have been not unlike that found in ancient Mexico. Large pyramids, foundations of temples, and massive walled buildings devoted to public purposes towered above the lowly habitations of the people. These latter have disappeared; the very massive character of the former has led to their preservation.

These great buildings devoted to public purposes, as temples, granaries, or chapels, in this "prehistoric city of the desert" belong to characteristic structures of the Gila Valley called "compounds." A typical compound is a rectangular area generally oriented about north and south, surrounded by thick walls built of concrete (adobe) inclosing plazas, courts, large houses, and, as we now know, from excavations of the last year, small fragile walled habitations like "jacales," in which the common people lived. Casa Grande had at least five, possibly six, of these compounds in its neighborhood, scattered over the reservation a few hundred feet apart. Each of the different compounds has its characteristic arrangement of rooms, so distinctive that one is tempted to ascribe to these buildings separate functions, to people them with sociological divisions of the tribe, or to refer them to priest-hoods having somewhat different rituals. Near these larger compounds there have been discovered smaller buildings with many rooms, faintly designated as "clan houses," evidently constructed for specific purposes, possibly ceremonial in nature.





CASA GRANDE, COMPOUND B.



CASA GRANDE, CLAN HOUSE A.

The work at Casa Grande in 1907-S began with the excavation and repair of compound B (Pl. I), situated over 800 feet north of compound A (Pl. II), the scene of archaeological activity in the previous year. The general appearance of compound B before work on it began suggested to several observers two pyramidal mounds resting on a more or less rectangular platform. These mounds and platform were surrounded by other mounds, which investigation has determined to be piles of debris, chance accumulations of earth, possibly refuse of the prehistoric buildings of the neighboring compound.

The mounds were supposed to cover houses like Casa Grande, the rooms of which were filled with fallen walls and drifting sand, but this supposition could be proven only by excavations. The results (Pl. I) show that the pyramidal mounds were artificial foundations for rooms, and that they were formed by accumulations of earth deposited during many years.

The discovery that the pyramidal mounds of compound B were stratified, or that they were built up in stages, as the presence of parallel floors alternating with debris clearly shows, is regarded as an important contribution to our knowledge of their antiquity. It appears from the evidence that the pyramids were formed in the following manner: In the earliest epoch houses occupied part of the areas now covered by the two great pyramids. These houses had cement floors and walls supported by upright logs. After a time the walls of these habitations fell, covering their floors to the height of 2 or 3 feet. Upon this fallen mass later was built another series of houses, each with a cemented floor, fireplace, and upright logs supporting walls. In course of time these walls, like their predecessors, fell, covering the second tier of houses. This process went on for years, and we are now able to trace five well-plastered floors one above the other, separating by hardened clay the fallen remains of the house walls. Toward the top of the pyramids the thickness of the deposit between successive floors diminishes, but the floors at this altitude are better preserved.

If we had some time standard by which the ages of the successive strata of fallen debris between the floors could be measured, it would be possible to calculate the age of these pyramids, but at present no criterion of this kind is available. Serving as borders of these pyramids there is a double wall, or rather one massive wall within another, forming a terrace reminding one of a step in an ancient Mexican temple foundation.

Two kinds of rooms occur in compound B—those with massive walls and others with fragile walls supported by upright logs. The latter type of rooms may be still further divided into two groups, those above ground and those below, dugouts or subterranean in construction.

The rooms with massive walls in this inclosure, as in compound A, served as temples, granaries for storage of corn, or citadels for protection from foes: the houses with fragile walls resemble in construction some of the historic habitations of Pimas and Papagos. Previous to the excavation work last winter rooms of this kind had never been recognized within the Casa Grande compounds, or in their neighborhood. It is probable that clusters of these habitations dotted the whole extent of the plain now embraced in the Casa Grande Reservation.

Both thick-walled rooms and those with more perishable walls supported by upright logs are found mainly in the plazas, but the latter occur also on top of the pyramids.

The typical habitation of the common people of Casa Grande was rectangular in form. Midway in the length of the cemented floor is a circular depression filled with wood ashes and called the "fire hole." Nothing remains of the walls of these rooms but their foundations, imperfectly held together by more or less decayed vertical logs, the mud or clay with which the interstices between the logs were filled having fallen on the floor. As one or more of the logs belonging in front of the fireplace are generally missing, it is thought that this indicates a break in the wall, and that the entrance of the room was situated about the middle of the long side. When these houses were deserted their walls fell as soon as their supports decayed, but the former positions of the supporting logs are indicated by holes containing sand or decayed wood.

That the outlines of the ancient dwellings might not be lost, new logs were substituted for these in their former holes.

The discovery that the habitations of the ancient people of Casa Grande were to all intents culturally the same as modern Pimas and Papagos is believed to be an important contribution to the problem of the kinship of the former inhabitants of the Casa Grande compounds. The objection has always been raised to the theory that the Pimas were descendants of the inhabitants of Casa Grande, that the former when discovered lived in small buildings like jacales, while

the latter, from what archaeology taught, dwelt in massive houses. Evidence was unearthed at Casa Grande that the people of compound B had dwellings not unlike the Indians of Pima stock who inhabited the Gila Valley at the advent of the Spaniards.

The discovery of subterranean rooms in compound B is a novel and most instructive one. These rooms were made by excavating a square or rectangular hole in the ground, plastering its sides for the walls and its bottom for a floor. One of these rooms lies directly under the foundations of the east wall of the compound a short distance from the northeast angle. This room has a smoothly plastered floor in which is a fire hole. Evidently this subterranean room was built, inhabited, and deserted before the wall of the compound above it was constructed. In order to preserve the evidence of subterranean rooms under walls of the compound, supports were built below the wall and a roof was placed above it to protect it from the rain. This roof is shown in Plate I near the right-hand angle of the bird's-eye view of the compound.

On the west side of compound B, where the bounding wall is highest, a row of shallow pits was discovered at a depth of 7 feet below the original surface. From their appearance there can hardly be a doubt that the caliche or clay used in the construction of the walls was mixed in these pits, and their occurrence below the foundations of the west wall shows that it was constructed after the remaining boundary of the compound.

The terraced form of the pyramids recalls that of the foundations of Mexican temples, and is one of many indications of a southern relationship of the builders of the desert cities of the Gila.

Wooden steps were conveniently placed at certain places, so that a visitor can easily mount the pyramids and examine the various rooms. A bridge connecting the top of the west wall of the compound and the neighboring refuse heap enables one to see the many ancient pits used for mixing concrete found along the foundation of the west wall. Labels were placed at certain places to guide visitors, and a large placard containing historical data was also posted for their information.

The inhabitants of Casa Grande disposed of their dead in two ways—by cremation and by inhumation in their rooms. Both methods of burial occur in compound B. Skeletons of infants were found in rooms on top of the larger pyramids, and bones of adults occurred under a few feet of soil at the southern end of the compound. In the level space between the extramural mound and a few feet from the north wall of the compound there was brought into view by the spade a vase covered with a thin saucer or plate. This vessel was full of calcined human bones, some of which were well enough preserved to enable one to determine that they belonged to an adult.

Compound C lies due west of compound B, and is oriented in the same general direction. It has a massive surrounding wall but no central temple or citadel. Apparently the whole inclosure was occupied by perishable dwellings of late construction.

To the east of compound B, about equidistant with compound C, where was formerly a low mound on which grew scrubby greasewood bushes, there was discovered a rectangular building, the central temple or citadel of compound D. On excavation the mound resolved itself into a massive walled building not unlike some of the buildings in compound A. On one of the highest walls black paintings of human hands were still visible.

The most successful excavation and repair work of the winter was done on the mounds which have been given the name "clan house A," situated 750 feet east of compound A. When work began in this vicinity two large mounds were visible among the mesquite trees, but there were no walls above ground.

The excavations at this point revealed the foundations and walls of a rectangular building (Pl. II) 113 feet long by 50 feet wide, containing 11 rooms, a central plaza, and annex on the south side. This annex is composed of 2 rooms, one of which contained a tomb made of concrete placed on a raised platform. In this receptacle were bones and mortuary offerings, indicating a man of importance, possibly a chief priest. The adjacent walls were decorated with colored figures representing birds. The main part of the building extended east and west and contained 11 rooms, the same number that originally existed in the historic building, Casa Grande. On the south side there were 5 rooms, on the north 4, and on the west 1. The most centrally placed room, which had the highest walls, differs from all others in this particular: In the middle there stood a high-backed seat made of concrete. It is suspected that this seat was occupied by the chief priest during ceremonies.

Fragments of a low wall were brought to light near this great building in such positions that it is suspected that this was the citadel of another compound, the boundary wall of which is yet to be traced.

The base of all walls, both inside and outside, of compound A and clan house A were carefully protected with Portland cement and ditches were dug to carry away the excess of water from their foundations.

A few hundred feet north of compound A is an oval depression surrounded by a low bank which has been the cause of some speculation. Some archaeologists suppose this bank covered walls of a building, others that it is an oval ruin with hidden rooms. The theory that it was a place for thrashing wheat with horses has had advocates. The excavations of the past year show that the bank is constructed of sand and is without walls, indicating that the depression was a reservoir or well.

It was a custom of the Papagos and Pimas a generation ago, and even now in the southern part of the Territory of Arizona, to roast mescal plants in huge subterranean pits by means of stones heated in great fires. This custom was not unknown at Casa Grande and several of these roasting places have been excavated and labeled for the information of visitors.

The aim of all excavation and repair work at Casa Grande was to increase the educational value of the ruin. It was the hope to make it more attractive to visitors and at the same time to protect its walls for posterity.

Casa Grande in its present condition is a type ruin illustrating the architectural features of the great houses of the Gila and Salt River Valleys. By an examination of the repaired structures one can get a good idea of the main characteristics of the architecture prevalent in one of the great prehistoric culture areas of the Southwest.

No appropriation for improvements or excavations was made for the fiscal year 1909, but an estimate of appropriation in the sum of \$2,500 has been submitted to Congress, for the construction of a building for custodian's quarters and the exhibition of archaeological specimens, to cover the fiscal year 1910, expenditures thereof to be under the supervision of the Secretary of the Interior.

MINNESOTA NATIONAL FOREST RESERVE IN MINNESOTA

The act of January 14, 1889 (25 Stat., 643), entitled "An act for the relief and civilization of the Chippewa Indians of Minnesota" provided for the sale of the lands ceded by the Indians as "pine lands" and "agricultural lands" for the benefit of the Indians.

The act of June 27, 1902 (32 Stat., 400), amendatory of the act of January 14, 1889, makes provision for the examination and classification of the lands and for the sale of timber on the pine lands, in connection with which are the following provisos:

That in cutting the timber on two hundred thousand acres of the pine lands, to be selected as soon as practicable by the Forester of the Department of Agriculture, with the approval of the Secretary of the Interior, on the following reservations, to wit, Chippewas of the Mississippi, Leech Lake, Cass Lake, and Winnebigoishish, which said lands so selected shall be known and hereinafter described as "forestry lands," the purchaser shall be required to leave standing five per centum of the pine timber thereon for the purpose of reforestation, as hereinafter provided, said five per centum to be selected and reserved in such manner and under such rules and regulations as may be prescribed by the Forester of the Department of Agriculture and approved by the Secretary of the Interior: *Provided further*, That there shall be reserved from sale or settlement the timber and land on the islands in Cass Lake and in Leech Lake, and not less than one hundred and sixty acres at the extremity of Sugar Point, on Leech Lake, and the peninsula known as Pine Point, on which the new Leech Lake Agency is now located, which peninsula approximates seven thousand acres, and in addition thereto ten sections in area on said reservations last aforesaid, to be selected by the Forester of the Department

of Agriculture, with the approval of the Secretary of the Interior, in lots not less than three hundred and twenty acres each in contiguous areas, and nothing herein contained shall interfere with the allotments to the Indians heretofore and hereafter made. The islands in Cass and Leech lakes and the land reserved at Sugar Point and Pine Point Peninsula shall remain as Indian land under the control of the Department of the Interior.

After prescribing certain conditions to be imposed upon purchasers of such timber, and laying down rules for scaling the timber cut, it is provided as follows:

After the merchantable pine timber on any tract, subdivision, or lot shall have been removed, such tract, subdivision, or lot shall, except on the forestry lands aforesaid, for the purposes of this act, be classed and treated as agricultural lands, and shall be opened to homestead entry in accordance with the provisions of this act: *Provided*, That on the forestry lands aforesaid, as soon as the merchantable pine timber now thereon shall have been removed from any tract, subdivision, or lot, as herein provided, such tract, subdivision, or lot shall, without further act, resolution, or proclamation, forthwith become and be part of a forest reserve, the same as though set apart by proclamation of the President in accordance with the act of Congress approved March third, eighteen hundred and ninety-one, and subsequent laws amending and supplementing the same, and shall be managed and protected in accordance with their provisions and the rules and regulations made and to be made in furtherance thereof; *And provided further*, That on said forestry lands aforesaid said pine timber shall be cut clean, except as to the five per centum as hereinbefore provided, and removed under the supervision and direction of the Forester of the Department of Agriculture, in accordance with rules and regulations to be prescribed by him and approved by the Secretary of the Interior, and the said Forester shall have power at all times to patrol and protect said lands and forests, and to enforce all rules and regulations made by him as aforesaid.

In July of 1903, the Department of Agriculture called attention to the necessity for the patrol and protection of the ten sections of land reserved from sale and expressed doubt as to which of the two departments, Agriculture or Interior, had jurisdiction in the matter. Subsequently it was determined that the Secretary of the Interior was charged with administration and protection of said lands and accordingly, under date of August 28, 1903, the Commissioner of the General Land Office was advised as follows:

These lands were ceded by the Indians charged with a trust for their own benefit and, by the act of January 14, 1884, were to be disposed of for their benefit pursuant to the terms of the cession. In so far as the amendatory act of June 27, 1902, operates to divert either the lands or the timber thereon from the uses contemplated by the agreement of cession, it must receive a strict construction, as being in derogation of the express dedication of the lands to a specific trust. These ten sections are not a part of or classed with the two hundred thousand acres of land specifically designated to constitute a forest reserve. There is no declaration or provision bringing them within the descriptive phrase "forestry lands," used in the act. They are a part of "the timber and land" which are "reserved from sale or settlement." It is not specified that they "shall remain as Indian land under the control of the Department of the Interior," as is done in respect to the islands in Cass and Leech lakes and the tracts at Sugar Point and Pine Point, but, as pointed out, they are not within the forest reserve provision of the act, and no other disposal of them is made or direction given for their care or protection. The mere reservation of these lands from sale for an indefinite period and for an undeclared purpose does not take them out of the class of Indian trust lands, nor does it transfer the care and control of them from this department.

Neither the manner of their selection, which is to be "with the approval of the Secretary of the Interior," nor any other provision of law relating to these lands can be construed as implying an intention to remove them from the control of this department. The jurisdiction over these lands remains where it was before their reservation from sale or settlement.

If it be deemed necessary that special precaution be taken for the protection of these lands you will consider the matter and submit a plan with a draft of rules and regulations, if that be necessary. If upon consideration your office is of opinion that additional legislation is needed, you will so report with recommendation as to the form of such legislation.

You submit a further question, not referred to by the Forester of the Agricultural Department, as to jurisdiction over the "forestry lands" after they shall have become a part of the forest reserve. As soon as the timber is removed from any tract of these lands that tract becomes at once a part of the forest reserve, the same as though set apart by proclamation of the President under the act of March 3, 1891 (26 Stat., 1095, 1103), and subsequent laws amending and supplementing the same, "and shall be managed and protected in accordance with their provision, and the rules and regulations made and to be made in furtherance thereof." Forest reserves set apart under said act are under the jurisdiction of and managed and protected under rules and regulations prescribed by this department. This provision clearly devotes the management and protection of tracts that become a part of a forest reserve upon this department. Immediately following that is a further proviso which prescribes that the timber on the forestry lands shall be cut and removed under the supervision and direction of the Forester of the Department of Agriculture "in accordance with rules and regulations to be prescribed by him and approved by the Secretary of the Interior, and the said Forester shall have power at all times to patrol and protect said lands and forests, and to enforce all rules and regulations made by him as aforesaid." The rules and regulations the Forester is thus authorized to enforce are those relating to the removal of timber from said land which are subject to approval by the Secretary of the Interior, and the whole tenor of this proviso shows that it was intended to relate to the time during which the timber is being cut and removed and that it was not intended to interfere with the preceding proviso, placing said lands in a forest reserve subject to the control of this department. This conclusion is further supported by a subsequent paragraph of said act which provides for the appointment by the Secretary of the Interior of a superintendent and assistants and defines their duties as follows:

"Whose duties shall be to supervise the cutting and scaling of the timber sold under the provisions of this act and to see that the rules and regulations prescribed by the Forester and the Secretary of the Interior are complied with, and generally to perform such services in and about the sale of the pine timber on said lands, and the cutting of the same therefrom, and the care and protection of all timber on said lands, as may be required of them by said Forester and said Secretary."

After a careful consideration of the various provisions of the law in question, the department is of opinion that the *duty of managing and protecting these forestry lands after they shall have become a part of a forest reserve rests with this department*. Whatever is to be done by the Forester of the Department of Agriculture in respect to the timber on these lands, both as to the cutting and removal thereof and as to the care and preservation of that left standing for the purpose of reforestation, is to be done in cooperation with this department and with the approval thereof.

Mr. Henry Page, custodian of the Minnesota National Forest Reserve, or the "Ten Sections National Forest," Minnesota, as it is otherwise known, submits the following report of operations during the fiscal year ended June 30, 1908:

Number fires covering more than one acre.....	5
Number fires covering less than one acre.....	12
Total number fires.....	17
Estimated number of acres burned over.....	170
Total expenses incurred for assistance in extinguishing forest fires on the Ten Sections National Forest.....	\$20.00

In addition to this, much valuable assistance was given in extinguishing fires above enumerated by the available forces under the supervision of William O'Neil, superintendent of logging, and Supervisor G. E. Marshall, of the Forest Service. There were also many fires put out just as they had started to burn by forest-

service patrol along the Great Northern Railway right of way between Cass Lake and Cuba, not enumerated above.

Under authority of the act of June 21, 1906 (34 Stat., 351), bids were called for covering the sale of all merchantable down pine timber and firewood on the "Ten Sections." No bids were received for the firewood. Bids were received for the merchantable down timber as follows, viz:

- (1) Burlington Lumber Company, \$9.20 per M for white pine, \$8.20 per M for nory pine. Bid was for all merchantable down timber on the "Ten Sections." Certified check for \$3,445.62.
- (2) H. R. King, \$6 per M for white pine, \$6 per M for nory pine. Bid was for all merchantable down timber on the "Ten Sections." Certified check for \$2,436.60.
- (3) J. Neils Lumber Company, \$9.10 per M for white pine, \$9.10 per M for nory pine. Bid was for all merchantable down timber on the "Ten Sections." Certified check, \$2,711.01.

The bid of the J. Neils Lumber Company was accepted, and on January 20, 1908, said company, through its contractor, George Cochran, commenced logging operations on said purchase, and operations are still in progress, but will be completed before the expiration of the contract, which allows until September 1, 1908, in which to complete the cutting and removal of the down timber. One scaler has been employed on this work since January 23, 1908, at a salary of \$90 per month and his actual necessary traveling expenses. In addition to scaling, he has been required to remain with the sawyers to see that no green timber was cut.

There has been cut and scaled on this purchase, to June 30, 1908:

	Feet.
White pine -----	522, 390
Nory pine -----	2, 630, 840
Total -----	3, 153, 230

Average number logs to the thousand feet, 12.9+.

Total value of timber to June 30, 1908, was \$28,694.42, of which all has been paid in, except the scale bill for June, 1908, amounting to \$3,806.71, which amount is not due until August 14, 1908.

The salary of scaler employed, January 23, 1908, to June 30, 1908, amounts to \$390, with no traveling expenses so far as reported to me.

Owing to the fact that stubs and rampikes were not included in the estimate of the down timber on the "Ten Sections," also to the fact that the purchaser contracted the cutting and delivery of this timber at a stipulated price per log, instead of per thousand, the usual way of letting contracts, which brings in every piece of timber with 10 feet or more of merchantable timber in it, a considerable portion of which would not be considered merchantable timber by any lumberman, there will be quite a large overrun. The contract as let by Mr. Neils has resulted in the removal of a large quantity of stuff which would not have been removed if under a contract by the thousand feet, and has helped materially in cleaning up the land. In order to get the logs out to the lake or railroad, it was necessary to brush out roads, and it is now possible, as a result, to travel with a horse and buggy on every subdivision included in the Ten Sections National Forest, except two, as far as the work has progressed up to this time.

The work so far has been done in a satisfactory and creditable manner by the contractor, and I believe he is endeavoring to live up to all the provisions of his contract.

By the act of March 3, 1908, entitled "An act amending the act of January 14, 1889, and acts amendatory thereof, and for other purposes," the land embraced in the Ten Sections National Forest, above mentioned, was made a part of a national forest in Minnesota, established by said act, and the supervision thereof transferred to the Secretary of Agriculture.





