

129.6:G76/1/921



DEPARTMENT OF THE INTERIOR

ALBERT B. FALL, SECRETARY

NATIONAL PARK SERVICE

STEPHEN T. MATHER, DIRECTOR



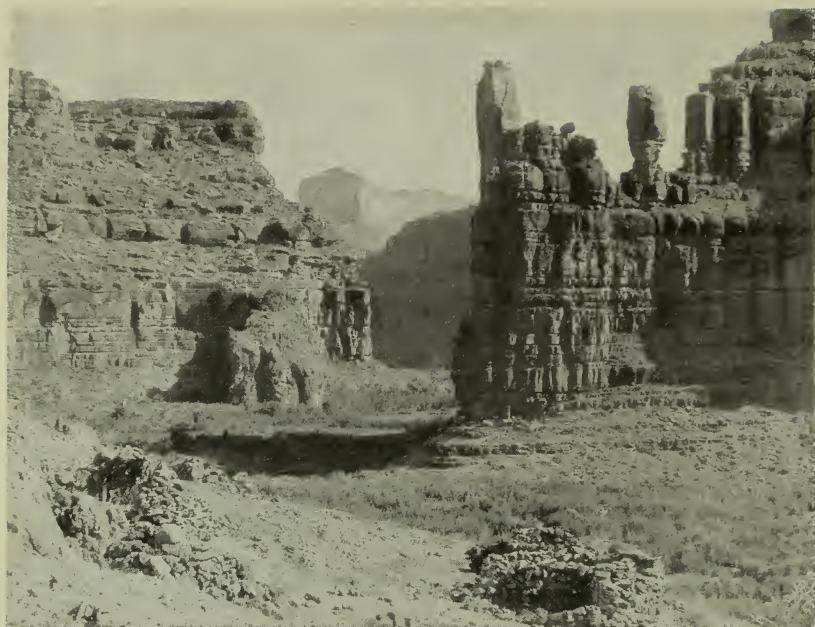
RULES AND REGULATIONS

GRAND CANYON NATIONAL PARK



1921

Open all the Year



Photograph by Pacific Stereopticon Co.

HAVASUPAI INDIAN RESERVATION IN THE CATARACT CANYON.

The walls are deep red sandstone. The older Indians regard the two upstanding rocks as sacred.



Copyright by F. H. Maude.

HAVASUPAI INDIAN WOMAN GRINDING CORN IN A METATE.

These Indians are extremely primitive in their methods and manner of life.

THE NATIONAL PARKS AT A GLANCE.

[Number, 19; total area, 10,859 square miles.]

National parks in order of creation.	Location.	Area in square miles.	Distinctive characteristics.
Hot Springs..... 1832	Middle Arkansas.....	1½	46 hot springs possessing curative properties—Many hotels and boarding houses—20 bath-houses under public control.
Yellowstone..... 1872	Northwestern Wyoming.	3,348	More geysers than in all rest of world together—Boiling springs—Mud volcanoes—Petrified forests—Grand Canyon of the Yellowstone, remarkable for gorgeous coloring—Large lakes—Many large streams and waterfalls—Vast wilderness, greatest wild bird and animal preserve in world—Exceptional trout fishing.
Sequoia..... 1890	Middle eastern California.	252	The Big Tree National Park—12,000 sequoia trees over 10 feet in diameter, some 25 to 36 feet in diameter—Towering mountain ranges—Starting precipices—Cave of considerable size.
Yosemite..... 1890	Middle eastern California.	1,125	Valley of world-famed beauty—Lofty cliffs—Romantic vistas—Many waterfalls of extraordinary height—3 groves of big trees—High Sierra—Waterwheel falls—Good trout fishing.
General Grant..... 1890	Middle eastern California.	4	Created to preserve the celebrated General Grant Tree, 35 feet in diameter—6 miles from Sequoia National Park.
Mount Rainier..... 1899	West central Washington.	324	Largest accessible single peak glacier system—28 glaciers, some of large size—48 square miles of glacier, 50 to 500 feet thick—Wonderful sub-alpine wild flower fields.
Crater Lake..... 1902	Southwestern Oregon.	249	Lake of extraordinary blue in crater of extinct volcano—Sides 1,000 feet high—Interesting lava formations—Fine fishing.
Wind Cave..... 1903	South Dakota.....	17	Cavern having many miles of galleries and numerous chambers containing peculiar formations.
Platt..... 1904	Southern Oklahoma..	1½	Many sulphur and other springs possessing medicinal value.
Sullys Hill..... 1904	North Dakota.....	1½	Small park with woods, streams, and a lake—Is an important wild-animal preserve.
Mesa Verde..... 1906	Southwestern Colorado.	77	Most notable and best preserved prehistoric cliff dwellings in United States, if not in the world.
Glacier..... 1910	Northwestern Montana.	1,534	Rugged mountain region of unsurpassed Alpine character—250 glacier-fed lakes of romantic beauty—60 small glaciers—Precipices thousands of feet deep—Almost sensational scenery of marked individuality—Fine trout fishing.
Rocky Mountain... 1915	North middle Colorado.	397½	Heart of the Rockies—Snowy range, peaks 11,000 to 14,250 feet altitude—Remarkable records of glacial period.
Hawaii..... 1916	Hawaii.....	118	Three separate areas—Kilauea and Mauna Loa on Hawaii, Haleakala on Maui.
Lassen Volcanic.... 1916	Northern California...	124	Only active volcano in United States proper—Lassen Peak 10,465 feet—Cinder Cone 6,870 feet—Hot springs—Mud geysers.
Mount McKinley... 1917	South central Alaska..	2,200	Highest mountain in North America—Rises higher above surrounding country than any other mountain in the world.
Grand Canyon..... 1919	North central Arizona.	958	The greatest example of erosion and the most sublime spectacle in the world.
Lafayette..... 1919	Maine coast.....	8	The group of granite mountains upon Mount Desert Island.
Zion..... 1919	Southwestern Utah...	120	Magnificent gorge (Zion Canyon) depth from 800 to 2,000 feet, with precipitous walls—Of great beauty and scenic interest.

The National Parks Portfolio

(THIRD EDITION)

By ROBERT STERLING YARD

Bound securely in
cloth, one dollar

A presentation of the national parks and national monuments in picture. The selection is from the best work of many photographers, professional and amateur. It contains nine chapters descriptive each of a national park, and one larger chapter devoted to other parks and monuments. 248 pages, including 306 illustrations ❀ ❀ ❀

¶ Sent postpaid, upon receipt of price in cash or money order, by the Superintendent of Documents, Government Printing Office, Washington, D. C.

CONTENTS.

	Page.
General description.....	7
A mighty spectacle.....	7
The first view.....	9
Living at the Grand Canyon.....	10
Free public camp ground.....	10
Seeing it from the rim.....	10
Descending the canyon.....	11
The Hermit Trail.....	12
The Floor Trail.....	12
The Cataract Canyon.....	12
Origin of the Grand Canyon.....	13
History of the canyon.....	14
The canyon as a resort.....	15
The north rim of the canyon.....	15
Altitudes and distances.....	16
How long to stay.....	17
What to wear.....	17
Administration.....	19
How to reach the park.....	19
By rail.....	19
By automobile.....	20
Automobile supplies.....	22
Groceries.....	22
Water.....	22
Public utilities and conveniences.....	22
Post office.....	22
Telegraph.....	22
Telephone.....	22
National Park service stations.....	22
Medical service.....	22
Reaching the north rim.....	23
Lund, Utah, north rim of Grand Canyon National Park special tour.....	24
Marysville, Utah, north rim of Grand Canyon National Park special tour.....	24
Petrified Forest National Monument.....	25
Administration.....	26
Costs of trips and hotel accommodations.....	26
Stopover arrangements.....	26
Rules and regulations.....	26
General regulations.....	26
Automobile and motorcycle regulations.....	30
Maps.....	32
Literature.....	33
Government publications.....	33
Bibliography.....	34
Other national parks.....	36
National monuments.....	36

	Page.
Authorized rates for public utilities.....	37
Hotels and public camps.....	37
El Tovar Hotel.....	37
Bright Angel cottages.....	37
Hermit Camp.....	38
Desert View.....	38
Wiley Way Camp on north rim.....	38
Rest houses.....	38
The Lookout.....	38
Hermit's Rest.....	38
Shops and stores.....	38
Hopi House.....	38
Kolb Brothers Studio.....	39
The Independent Store.....	39
Sight-seeing trips by road.....	40
Regular trips by automobile.....	40
Hermit's Rest.....	40
Hopi Point.....	40
Mohave Point.....	40
Regular summer trips by automobile.....	40
Grandview.....	40
Desert View.....	40
Special summer trips by automobile.....	41
Private conveyance rates.....	41
Garage service.....	41
Trail trips.....	41
Hermit Trail.....	41
Bright Angel Trail.....	41
Hermit-Tonto-Bright Angel Loop.....	42
Dripping Spring.....	42
Camping trips.....	43
Cataract Canyon and Havasupai Village.....	43
Desert View.....	44
Little Colorado River.....	44
Painted Desert and Hopi Land.....	44
Saddle horse trips on the north rim.....	44

MAPS AND ILLUSTRATIONS.

COVER.

Grand Canyon from near Mohave Point.....	Front.
Havasupai Indian Reservation in the Cataract Canyon.....	Inside front.
Havasupai Indian woman grinding corn in a metate.....	Inside front.
Petrified Forest National Monument, Arizona, a portion of the First Forest.....	Inside back.
Root of petrified tree, 7 feet in diameter.....	Inside back.
Coming down a steep stretch on the Hermit Trail.....	Back.

TEXT.

	Page.
Map of Grand Canyon National Park.....	18
Map of Arizona showing railroad connections to Grand Canyon National Park.....	20
Map showing principal automobile routes in Colorado, Utah, Arizona and New Mexico.....	21

GRAND CANYON NATIONAL PARK.

GENERAL DESCRIPTION.

. The Grand Canyon National Park is in northern Arizona. Its 958 square miles inclose 56 miles of the Grand Canyon stretching west of its beginning at the mouth of the Marble Canyon. Through it winds the Colorado River for a distance of 103 miles. From rim to rim the canyon varies from 8 to 20 miles in width; it is more than a mile deep measured from the north rim, which averages nearly a thousand feet higher than the south rim. The eastern boundary includes the lofty painted walls east of which lies the Painted Desert. Its western boundary includes the broad Cataract Canyon, tributary from the south, in whose depths we find the Havasupai Indian Reservation and a group of fine waterfalls markedly different from any in our other national parks.

The park boundaries hug the rim closely. Very little of the country back of the rim is included in the reservation, scarcely enough in places to take care of the great increase of travel which national parkhood will bring to the Grand Canyon during the next several years. These border lands are wonderfully attractive. The northern rim is heavily forested with pine and spruce. The southern rim carries a slender semiarid flowering vegetation of rich beauty and wide variety, and south of the railroad station lie a few square miles of fine yellow pine forest.

The Grand Canyon was made a national park in February, 1919, thirty-three years after Benjamin Harrison, then Senator from Indiana, introduced the first of several bills to give it park status. Politics, local apathy, and private interests, which sought to utilize its water power and to find minerals in its depths, were the principal causes of delay. All efforts failing to make it a national park, in 1908 President Roosevelt made it a national monument. Once a railroad was surveyed through it. A scenic railroad was projected along its south rim. Less than a year before it became a park efforts were making in New York to raise money to dam its waters for power and irrigation.

A MIGHTY SPECTACLE.

There is no doubt that the Grand Canyon is one of the world's very greatest spectacles. It is impossible to compare it with the tremendous white spectacle of the Himalayas, or with the House of Everlasting Fire of the Hawaii National Park, or with the 17,000

feet of snow and glacier which rise abruptly between the observer's eyes and the summit of Mount McKinley, because it has nothing in common with any of these. But of its own kind there is nothing in the world which approaches it in form, size, and glowing color; it is much the greatest example of stream erosion. And in its power to rouse the emotion of the looker-on to stupefy or to exhilarate, it has no equal of any kind anywhere, unless it be the starry firmament itself.

Approaching by rail or road, the visitor comes upon it suddenly. Pushing through the woods from the motor camping ground, or climbing the stairs from the railroad station, it is there at one's feet, disclosed in the sublimity of its templed depths, in the bewildering glory of its gorgeous coloring. There is no preparation of mind and spirit. To some, the revelation is a shock, no matter what the expectation. The rim of the Grand Canyon is one of the stillest places on earth, even when it is crowded with people.

To describe the Grand Canyon is as impossible as it is unnecessary. Few natural spectacles have been so fully pictured, few are so familiar even to the untraveled. Its motionless unreality is one of the first and most powerful impressions it makes. And yet the Grand Canyon is really a motion picture. There is no moment that it does not change. Always its shadows are insensibly altering, disappearing here, appearing there; lengthening here, shortening there. There is continual movement. With every quarter hour its difference may be measured.

There is the Grand Canyon of the early morning, when the light slants lengthwise from the Painted Desert. The great capes of the northern rim shoot into the picture, outlined in golden light against which their shapes gloom in hazy blues. Certain temples seem to rise slowly from the depths, or to step forward from hiding places in the opposite walls. Down on the green floor the twisting inner gorge discloses here and there lengths of gleaming water, sunlit and yellow.

An hour later all is wholly changed. The dark capes have retired somewhat and now are brilliant-hued and thoroughly defined. The temples of the dawn have become remodeled, and scores of others have emerged from the purple gloom. The Granite Gorge, now detailed fully, displays waters which are plainly muddy even at this great distance. And now the opposite wall is seen to be convoluted, possessing many headlands and intervening gulfs.

And so, from hour to hour, the spectacle develops. Midday, with sun high behind the south rim, is the time of least charm, for the opposite walls have flattened and the temples of the depths have lost their defining shadows. But as afternoon progresses the spectacles of the morning creep back, now reversed and strangely altered

in outline. It is a new Grand Canyon, the same but wonderfully different.

And just after sunset the reds deepen to dim purples and the grays and yellows and greens change to magical blues. In the dark of a moonless night the canyon suggests unimagined mysteries.

THE FIRST VIEW.

From the railroad station the visitor ascends to the El Tovar Hotel and the view of the canyon at perhaps its showiest point. Here is where the temples loom their biggest and are nearest by. Opposite this point the greatest of the five great geologic faults which crack the canyon crosswise exhibits itself in the broad purpling of the Bright Angel Creek. Here the Granite Gorge approaches nearest to the south rim. The view of El Tovar is restricted by the extension of Grandeur Point and Maricopa Point on either side. These cut off the view of the great reaches of the canyon east and west. The El Tovar view is a framed picture of limited size. It is better so; better for the newcomer to enter gradually into the realization of the whole which will come when he walks or rides out to the many points which push northward from the south rim; better also to return to after days spent on the rim or in the canyon's depths.

Having studied this view for general outlines and the canyon's conformation, stratification, and coloring, the visitor will find for himself, on foot or by motor stage or coach, many points which will afford him varied outlooks upon the broad reaches of the canyon. It is advisable to see the canyon from end to end from the rim before exploring the trails to the floor and the river.

It is a great mistake to suppose that the Grand Canyon can be seen in one or two days, and yet this is the time which most persons allot in advance for their visits. One day will only permit a confusing view from the rim, confusing because it takes much more than a first day to unravel the enormously complicated topography. Those who spend their only day in descending to the river fail to get much out of that experience because they do not know the canyon from the rim.

Those who allot two days for the visit—one for the rim and one to descend to the river—are much wiser, but still not wise. They get many times as much pleasure and comprehension from their visits as the one-day visitors, but carry away with them little more than the impression of a vast kaleidoscope. There is probably no spectacle in the world which requires so much looking at, so much comparing, studying, absorbing, and dreaming to attain a state of comprehension as the Grand Canyon, and there is no place which so fully rewards comprehension.

When you go to the Grand Canyon leave the duration of your stay open for decision when there. You will probably then remain from

five days to two weeks. Two weeks of fairly steady going will enable you to see the Grand Canyon thoroughly without undertaking trips which are a hardship to persons unaccustomed to trail riding.

LIVING AT THE GRAND CANYON.

Living is pleasant and comfortable. The El Tovar Hotel offers delightful conditions at rates reasonable in these times for its high-class accommodations. Its porches are broad, its garden a collection of rich semiarid vegetation, its rim walks inspiring. There is horseback riding through many miles of yellow-pine forest and out to viewpoints on the rim, but there are no sports. There is neither golf nor tennis. The canyon absorbs the whole attention of its visitors.

Adjoining the hotel there is a most comfortable annex of cottages and tents and café; rates are lower than those charged at the main hotel. There is a comfortable camp on the floor of the canyon at the foot of the Hermit Trail, and there are cottages at Desert View where one may spend a few nights. Camping trips along the rim and down to the Havasupai Indian Reservation and the waterfalls of Cataract Canyon can be arranged. It is possible to take your pack train across the river on the new suspension bridge and ascend the arduous but most interesting trail up Bright Angel Canyon to the excellent public camp on the north rim of the canyon. This trip is a matter of several days.

FREE PUBLIC CAMP GROUND.

From April to November the rim is free from snow and the free public camp ground near Grand Canyon Village is available to campers. Motorists are urged to bring their own camp equipment and make use of this camp. Sites will be allotted free of charge on application to the office of the superintendent of the park. There is a garage in the village where gasoline and oil can be procured. There is also a general store where groceries can be purchased. It is necessary to purchase water in the village, as there is none at the Grand Canyon and it must be hauled from a distance by rail.

SEEING IT FROM THE RIM.

East of the hotel are several points reached by motor roads which afford fine views of the upper half of the Grand Canyon. The most famous of these is Grandview, where still stands the first regular hotel of the canyon, now private property. The eastern terminus of the road is Desert View, which offers a view up the Marble Canyon, and eastward over the famous Painted Desert. West of the hotel the auto stages stop at a succession of fine points, each with its own individual view of the mighty spectacle.

There is much to see also in the neighborhood of El Tovar. Besides the fine walk to Grandeur Point through the pine forest there is a faithful reproduction of a Hopi pueblo, and a camp of Navajo Indians.

DESCENDING THE CANYON.

There are two practicable trails from the south rim to the river. The one commonly used starts from the El Tovar Hotel and descends the deep alcove between Grandeur and Maricopa Points. This is the celebrated Bright Angel Trail, so named because it follows the line of the Bright Angel Fault and emerges on the river nearly opposite the mouth of Bright Angel Creek. This fault was formed by the cracking of the canyon across from rim to rim and the slipping of the western edge of the crack several hundred feet downward. The evidence of it may be seen plainly in the lower elevation of Maricopa Point side of the gorge, and there is a place on the trail where travelers may see that strata once continuous no longer match.

The descent of this trail is usually done on muleback in parties led by guides. It is a sad mistake for persons not in the soundest physical training to attempt it on foot, for the apparent distance as seen from the rim is misleading, and the climb back is most arduous at that elevation. The south rim of the canyon at El Tovar is 6,866 feet above sea level. Nearly every day one or more trampers, overconfident of their endurance, find the way up too arduous and have to be assisted by guides and mules sent down for them from the rim.

The descent is an experience of great charm. The trail is excellently built and kept in fine condition. The traveler passes in review all the strata which form the canyon walls; their close examination will be a source of pleasure. Just under the rim the trail passes through a fine forest of spruce, and from this down to the sage desert of the green floor the traveler will also pass in review a series of vegetation which represents scores or hundreds of miles of surface growths. There are two steep cliffs which the trail descends in series of short hitches of zigzags, one of which, known as Jacob's Ladder, carries the traveler down the famous Redwall formation, which is so distinct a scenic feature of the canyon from every rim view. But there need be no alarm about these descents, for the zigzags, short and numerous though they are, maintain always a uniform safe grade. It may affect the unaccustomed nervously to see his mule hang his head over short abysses at the turns, but the traveler himself does not hang over them, and the mule is sure footed, stolid, and indifferent. There is only one creature with less imagination than a mule, and that is his cousin, the burro.

Indian Garden, which lies on the floor of the canyon, is so named because Havasupai Indians once cultivated the soil through which passes the stream which originates in springs below the Redwall. It is called Garden Creek. The Indian Garden now is a tangle of high brush, principally willow, through which the trail passes out upon the rolling floor, and presently plunges down the rocky gorge which leads to the edge of the muddy Colorado.

THE HERMIT TRAIL.

A much finer trail, from every point of view, than the Bright Angel starts from Hermit Rest, south of Pima Point, and descends the Hermit Canyon. It begins 7 or 8 miles west of El Tovar. This is a two-days' journey, including a night spent in Hermit Camp well down in the canyon. It involves an experience worth many times the additional day which it requires.

The Hermit Canyon is one of extreme beauty; there is probably no other which equals it in gorgeous coloring and the variety of its rock forms. The trail, whose grade is less than that of the Bright Angel, is one of the finest in the world. It is longer than the Bright Angel Trail and leads out upon impressive points overlooking fascinating views. The descent of the Redwall is a masterpiece of trail building, and the only part of the Hermit Trail which gives an impression of steepness; but this may readily be walked down by the unaccustomed rider; its ascent is not nerve racking. The night at Hermit Camp, under a towering crimson gable, with colorful Hermit Canyon on the south and Grand Canyon opening northward over the green shale of the floor is as comfortable as it is fascinating. The trip to the river and back to the camp is usually made the first day.

THE FLOOR TRAIL.

Too few visitors to Hermit Camp combine the two trail trips with a journey between them over the green shale floor. The descent is by the Hermit Trail with a night at its foot. The next morning the journey is made on muleback up the canyon to the Indian Garden, and from there, after lunch by the stream side, up the Bright Angel Trail to El Tovar.

THE CATARACT CANYON.

The Cataract Canyon in the far western end of the national park is rarely visited. The trail begins at the end of a long desert road by descending precipitously to a gorge through which the Havasupai Indian Reservation is reached. There are less than 200 Indians on the reservation. These live by farming the land irrigated from Cataract Creek; corn is their principal product, but melons, figs, and peaches are also produced. The reservation fills a broad amphitheater in the gorge surrounded by lofty red sandstone cliffs. There are no hotels or camps and the heat is intense in summer. The Cataract Creek water is strongly impregnated with mineral and unpalatable, though entirely wholesome. Nevertheless, the visit to the reservation is one of unusual character and charm for those who do not object to a little hardship.

Below the reservation the canyon breaks into a series of waterfalls, two of which are unusual in kind and beauty. These are the Havasu Fall and the Hualapai Fall. Both drop over lofty shelves, which are

plastered on back and sides by richly carved festoons of brown travertine formation, deposited by the river in times of high water. Both the falls occur in the deep red limestone gorges. Bright green cottonwoods, cactus, and other desert vegetation enliven the scene, which is as different as imagination can well paint from anything else in the Grand Canyon National Park.

In the spring, following the melting of the rim snows, there are various waterfalls in the Grand Canyon itself, several of which last for some months. These occur on the north side of the river, where there is a greater supply of water, the south side being arid except for brief periods following meltings and cloudbursts. One of these temporary north-side waterfalls, which has been seen by very few persons, is said to be more than a thousand feet in height. With the crossing of the river by camping-out parties, which surely will be one of the developments of the future, these and many other fascinating spectacles, now little known, will become familiar sights to many. The destiny of the Grand Canyon is to become one of the most used national parks.

ORIGIN OF THE GRAND CANYON.

One of the greatest rivers on the continent cuts the Grand Canyon. The Colorado River is formed in Utah by the confluence of the Green and the Grand Rivers. All three together drain 300,000 miles of Colorado, Wyoming, Utah, and Arizona. Including the Green River, the greater of the confluent, the main stream may be said to be 1,500 miles in length, collecting the drainage of the divide south and east of the Great Basin and of many ranges of the Rocky Mountain system. The Grand River contributes the drainage of the Rocky Mountains in western Colorado. It is the same Grand River which forms, through one of its forks, the western boundary of the Rocky Mountain National Park.

The Colorado began to cut the Grand Canyon several millions of years ago, at about the same time that the Merced River began to cut the Yosemite Valley. Both are the results exclusively of stream erosion. The theory that volcanism had to do with the creation of the Grand Canyon is declared by modern science untrue, notwithstanding the fact that volcanic rock is found in the canyon's depths, as it is also found in many other parts of the United States. It is untrue also that the Colorado River assumed its east and west course through the Grand Canyon as the result of an east and west fault. All the faults of the region pass across the canyon north and south.

HISTORY OF THE CANYON.

Don Lopez de Cordenas, of Coronado's expedition, discovered the Grand Canyon in 1540, as a result of stories told by the Hopi Indians to Don Pedro de Tovar. The old records describe a river which seemed to be "more than three or four leagues" below the banks on which they stood. It is next recorded as having been seen by a Spanish priest in 1776. The place which he crossed is still called "Vado de los Padres"—the crossing of the fathers—from which it appears that there were more than one.

For many years the Grand Canyon region was known only to the Indians, Mormon herdsmen, and the trappers, who were among the earliest pioneers of every part of our land. The Sitgreaves expedition crossed the river about 150 miles above Yuma in 1851, and three years later Lieut. Whipple crossed it in surveying a route for a railroad along the 35th parallel. In 1857 the War Department sent Lieut. Ives with an expedition to ascend the Colorado and determine the head of navigation. For this purpose a steamboat was shipped to the Gulf of California in pieces and put together there. Ives steamed upstream to the head of the Black Canyon and then marched to Cataract Creek, and from there around the San Francisco peaks to Fort Defiance.

So nothing really became known until Maj. John Wesley Powell, a one-armed veteran of the Civil War, made his famous passage of the canyons of the Green and Colorado Rivers. He started with nine men and four boats from Green River City, Utah, on May 24, 1869. The huge waterfalls and underground passages described by the Indians were not found, but the trip was one of extreme hardship and danger. Almost daily the boats were upset, and the passage of many of the rapids was perilous to a degree. Often the party would embark upon long foaming slants without knowing what falls lay around the precipitous headlands in front of them. One of the boats, most of the scientific instruments, and nearly all of the food were lost. For weeks the clothing of the adventurers was never dry, and when they entered the Grand Canyon itself in September there was little food left.

There came a time when four men deserted, preferring to risk the dangers of hostile Indians on the rim than face longer the unknown dangers of the canyon. They were killed by the Indians on the rim. The second day after they left, Powell and his faithful five emerged in safety at the end of the Grand Canyon.

Powell's journal of this voyage is one of the most fascinating tales of adventure in literature. He saved his water-soaked notes, but in 1871 he repeated the trip for more complete scientific information. Afterward Powell became the Director of the United States Geological Survey.

THE CANYON AS A RESORT.

The Grand Canyon is very much more than a wonder place or a scientific museum on a titanic scale. It is a pleasure resort of the first order. It may be visited any day in the year. The railroad is always running and the hotel always open. When most other resorts are closed the Grand Canyon is easily accessible.

* During the winter snow falls in the pine forest along the rim; and though the upper portions are snow covered, the trails into the canyon are open and safe; the floor of the canyon is warm and comfortable the year around. When nipping frosts redden cheeks on the rim, the most fragile flowers are blooming in the canyon.

The weather in July and August is warm but not hot on the rim; the altitude takes care of that. There are cool mornings, evenings, and nights no matter how warm it may be at midday.

Arizona is a land of sunshine; the air is dry and the winds are light. While spring and fall are more attractive than midsummer or midwinter, all the seasons have each its special charm. From December to March snow is more or less abundant on the rim and a few hundred feet down the trail. Camping-out parties must then confine themselves to the canyon.

THE NORTH RIM OF THE CANYON.

There is a remarkable difference between the north and south rims. The north rim, a thousand feet higher, is a colder country clothed with thick, lusty forests of spruce and pine with no suggestions of the desert. Springs are found here and deer are plentiful. It is a region which will be frequented, in time, by campers-out.

The views from the north rim are markedly different. One there views close at hand the vast temples which form the background of the south rim view. One looks down upon them, and beyond them at the distant canyon floor and its gaping gorge which hides the river; and beyond these the south rim rises like a great streaked flat wall, and beyond that again, miles away, the dim blue San Francisco Peaks. It is certainly a spectacle full of sublimity and charm. There are those who, having seen both, consider it the greater. One of these was Dutton, whose description of the view from Point Sublime has become a classic. But there are many strenuous advocates of the superiority of the south rim view, which displays close at hand the detail of the mighty chasm of the Colorado, and views the monster temples at parade, far enough away to see them in full perspective.

The trail trip to the north side, which will be perfectly feasible with the completion of a suspension bridge at the foot of Bright Angel Trail, is not for the unaccustomed tourist. It is 30 miles from El Tovar to the Wylie Camp on Bright Angel Point, and the way

up the Bright Angel gorge on the north side is exceedingly difficult. The mules ford the creek eighty-six times, and several times are in it to their middle; however, a new trail soon to be constructed will eliminate the most difficult section.

The best ways of reaching the north rim are described on page 23.

ALTITUDES AND DISTANCES.

From Grand Canyon Village to—	Miles distant from El Tovar and direction.	By—	Altitude.	Attractions and remarks.
			<i>Feet.</i>	
Hermit Rest.....	7½ W....	Road.....	6,650	Interesting Harvey Rest House. Only 5 miles on foot or horseback through woods by cut-off roads and trails.
Natural Bridges.....	9 W....	Road and trail.....		Natural bridges in limestone.
Hermit Basin.....	9 W....	do.....	5,250	Ranger cabin. Water. Pretty valley. Telephone.
Dripping Springs.....	12 W....	do.....	5,500	Beautiful Springs and fine trail.
Sta. Maria Springs.....	10 W....	do.....	5,250	On Hermit Trail. Telephone.
Hermit Camp.....	15 W....	do.....	3,050	Down Hermit Trail to Tonto Plateau. Fine accommodations and beautiful creek. Camp open all year. Telephone.
Colorado River at foot of Hermit Trail.	16 W....	do.....	2,400	Close view of rapids.
Grandview Point.....	14 E....	Road.....	7,406	Auto ride through forest. Magnificent view of Canyon, Painted Desert, and Navajo Mountain.
Desert View.....	32 E....	do.....	7,450	Auto ride through forest. View of Painted Desert, Grand Canyon, Cedar Mountain, and Palisades of the Desert.
Little Colorado.....	65 E....	Road and trail.....	2,750	Auto ride through forest. View of Painted Desert. On trail to Hopi Land.
Painted Desert.....	75 E....	do.....	4,800	Desert extending from Grand Canyon to Petrified Forest, famed for its glowing colors.
Cataract Canyon.....	45 W....	do.....	6,000	Remarkable canyon and waterfalls near village of Havasupai Indians in primitive state.
Suspension Bridge.....	11 NE....	Trail.....	2,450	Via Tonto Trail, east from Indian Gardens 420-foot suspension bridge over Colorado River.
Tram Camp.....	11½ NE....	do.....	2,450	Ranger camp at mouth of Bright Angel Creek, on north bank of Colorado River.
North Rim (at Bright Angel Point).	29 N....	do.....	8,153	Via Tram Camp and Kaibab Trail up Bright Angel Creek.
Kanab, Utah.....	117 N....	do.....	4,750	Kaibab Trail to North Rim and road through forest to Kanab.
Williams, Ariz.....	66 S....	R. R. and auto road.	6,762	Nearest shopping town to Grand Canyon.
Flagstaff, Ariz.....	86 SE....	do.....	6,896	County seat, San Francisco Mountains, Lowell Observatory. Interesting center.
Los Angeles, Calif.....	574 SW....	do.....	293	
Phoenix, Ariz.....	281 S....	do.....	1,090	State capital. Gateway to Tonto and other National Monuments and Roosevelt Dam.
Pictograph Rock.....	½ W....	Trail.....	6,800	Ancient Indian paintings, fine view. Interesting foot trail.
Picnic Rock.....	½ W....	do.....	7,000	Walk through woods. Fine view of San Francisco Mountains, etc.
Bass's Place.....	¾ SW....	Road.....	6,850	On Ash Fork Road, through woods.
Rowes Well.....	3 SW....	do.....	6,681	On Cataract Canyon Road. Ranger station in big pine woods. Good water.
Grandeur Point.....	1½ E....	Road and trail.....	7,000	Fine view of river. Good trail along rim of canyon.
Yavapai Point.....	2 E....	do.....	7,100	View of river. Good trail along rim of canyon.
Yaki Point.....	5 E....	Trail.....	7,250	Do.
Shoshone Point.....	9 E....	do.....	7,250	Sometimes called Inspiration Point. Fine view.
MariCopa Point.....	2 W....	Paved road.....	6,950	Powell Memorial and view.
Hopi Point.....	2½ W....	do.....	7,071	View into canyon. Known also as Sunset Point. Favorite point for sunset views.
Mohave Point.....	3 W....	do.....	7,000	View of canyon.
Pima Point.....	5 W....	do.....	6,750	View of canyon and river. Hermit Camp visible beneath.

ALTITUDES AND DISTANCES—Continued.

From Grand Canyon Village to—	Miles distant from El Tovar and direction.	By—	Altitude.	Attractions and remarks.
Indian Garden.....	3½ N....	Trail.....	<i>Feet.</i> 3, 876	Down Bright Angel Trail. Fine creek of good water.
Lower Indian Garden..	5 N.....	.....do.....	2, 700	Old Indian gardens and dwellings.
Plateau Point.....	5 N.....	.....do.....	3, 750	View into gorge.
Colorado River at foot of Bright Angel trail.	7 N.....	.....do.....	2, 436	Good trail from Rim to the Colorado River.
Havasupai Point.....	26 W....	Road.....	6, 750	Excellent view of canyon.
Bass's Camp.....	24 W....	.....do.....	6, 652	Prospector's camp.
Bright Angel Point....	29 N....	Trail.....	8, 153	On the North Rim. "Wylie Way." Tourist Camp.
Wylie Way Camp.....	29 N....	Trail or auto road from Salt Lake City and Marysville.	8, 153	On the North Rim. (See page 38.)
Point Sublime.....	.....	Trail from Bright Angel Camp.	7, 464	Westernmost point of Kaibab Plateau on North Rim opposite Grand Canyon Village. Commands view of 250°.
Cape Final.....	.....	.....do.....	7, 919	Easternmost point of Kaibab Plateau on North Rim opposite Grand Canyon Village. Commands view up Marble Canyon and down Grand Canyon; also of Painted Desert.

HOW LONG TO STAY.

Time required.—While one ought to remain a week or two, a stop-over of three or four days from the transcontinental trip will be quite satisfactory. The Hermit overnight camping trip requires two days and a night. One day should be devoted to an auto ride along the Hermit Rim Road, and by auto to Grandview. Another day go down Bright Angel Trail and back. A fourth day spent in short walks to near-by points, or on horseback, will enable visitors to get more intimate views. Hermit Loop three-day camping trip, down one trail and up another, is well worth while.

The several trips mentioned above are all well worth while, and the high plateau above the rim affords many delightful horseback or hiking trips. Visitors to the North Rim may well spend as much time as can be spared.

The National Park Service of the Department of the Interior recommends to the traveling public that stop-overs of as long duration as practicable be planned at points within the parks; that Grand Canyon National Park be regarded not alone as a region which may be glimpsed on a hurried trip, but also as a vacation playground for rest and recreation.

WHAT TO WEAR.

If much tramping is done, stout, thick shoes should be provided. Ladies will find that short walking skirts are a convenience; riding trousers are preferable, but not essential, for the horseback journey

down the zigzag trail. Traveling caps and (in summer) broad-brimmed straw hats are useful adjuncts. Otherwise ordinary clothing will suffice. Riding trousers, divided skirts, and straw hats may be rented at El Tovar Hotel.

ADMINISTRATION.

Grand Canyon National Park is under the jurisdiction of the Director, National Park Service, Department of the Interior, Washington, D. C. The park superintendent, Mr. D. L. Reaburn, is located at Grand Canyon, Ariz., and information, maps, and pamphlets may be obtained at the office, where visitors are cordially welcomed. The temporary office of the superintendent is south across the railroad tracks 200 yards from the Grand Canyon Railway depot and on the paved road that passes the El Tovar garage.

The park is accessible throughout the year. The El Tovar Hotel, Bright Angel and Hermit Camps, are always open.

HOW TO REACH THE PARK.

BY RAIL.

The Grand Canyon National Park is directly reached by a branch line of the Atchison, Topeka & Santa Fe Railway extending 64 miles northward from Williams, Ariz. On certain trains through standard sleeping cars are operated to and from Grand Canyon station. Passengers using other trains and stopping over at Williams will find adequate accommodations at the Fray Marcos, station hotel.

Stop-overs, not to exceed 10 days, are granted at Williams on all classes of railroad tickets for a visit to the canyon. Limits of through railroad tickets will be extended if necessary by agent at Grand Canyon. Through tickets may include side trip coupons, Williams to Grand Canyon and return, at an additional charge of \$9.12 plus 73 cents war tax.

Round-trip excursion tickets at reduced fares are on sale daily at practically all stations in the United States and Canada to Grand Canyon, as a destination.

Baggage may be checked through to Grand Canyon station, if required. Passengers making brief side trips to Grand Canyon may check baggage to Williams only or through to destination. Certain regulations for free storage of baggage for Grand Canyon passengers are in effect.

For further information regarding railroad fares, service, etc., apply to railroad ticket agents; or address:

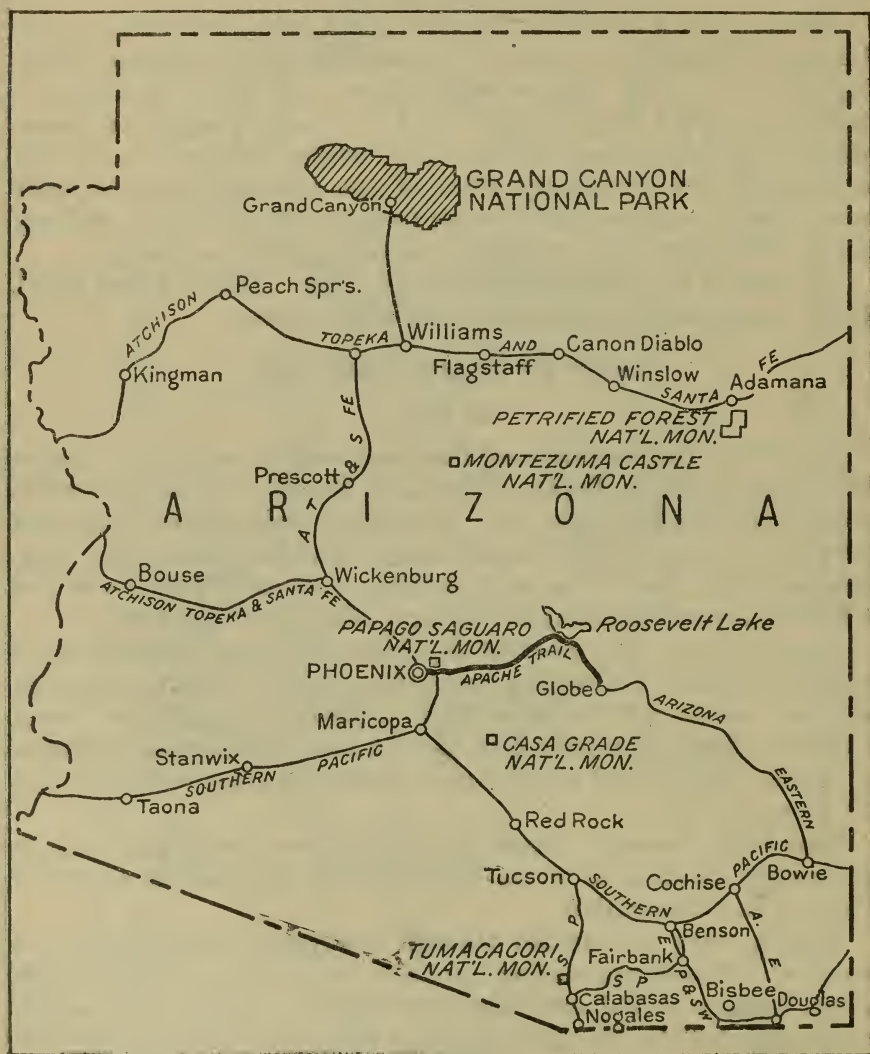
W. J. Black, passenger traffic manager, Atchison, Topeka & Santa Fe Railway system, Chicago, Ill.

J. J. Byrne, assistant passenger traffic manager, Atchison, Topeka & Santa Fe Railway system, Los Angeles, Calif.

BY AUTOMOBILE.

Automobile tourists may leave the main east and west highway through Arizona at either Williams or Flagstaff.

Flagstaff.—It is about 85 miles from El Tovar to Flagstaff, via Grandview, Lockett's Lake, Skinner's Wash, Moki Wash, and San



MAP OF ARIZONA SHOWING RAILROAD CONNECTIONS TO GRAND CANYON NATIONAL PARK.

Francisco Peaks, over a main traveled road, on which a good run is possible most of the year. The round trip requires about two days.

This is a very enjoyable drive through pine forests and across green mesas along the old-time stage route to the canyon. The town of Flagstaff is located in the heart of the San Francisco uplift.

There are good stores and garage facilities in Flagstaff. In this vicinity are prehistoric cliff dwellings, extinct craters, volcanic cones, lava beds, and ice caves. The summit of Humphreys Peak, one of the peaks forming the San Francisco Mountains, is 12,750 feet high.

Williams.—Williams is 34 miles west of Flagstaff, on the main east and west highway through Arizona. It is the nearest shopping



MAP SHOWING PRINCIPAL AUTOMOBILE ROUTES IN COLORADO, UTAH, ARIZONA, AND NEW MEXICO.

center and its stores and garages carry a good stock of everything necessary to the automobile tourist.

The route from Williams passes Bill Williams Mountain, elevation 9,264 feet, which has seven distinct crests, Red Lake, Howard Lake, and Anita, running along the line of the Grand Canyon Railway. No supplies can be purchased between Williams and Grand Canyon.

AUTOMOBILE SUPPLIES.

At Grand Canyon village is an excellent garage under the management of Fred Harvey. Storage, or repair service, as well as gasoline and oil, may be procured here.

GROCERIES.

The Babbitt-Polson general store at Grand Canyon carries a full line of groceries and campers' supplies.

The Independent Store carries a limited supply of groceries.

WATER.

A supply of water for drinking purposes and for radiation, sufficient to last to Grand Canyon, should be brought from Williams or Flagstaff.

PUBLIC UTILITIES AND CONVENIENCES.**POST OFFICE.**

The post office, which does all kinds of postal business, is situated near the Hermit Rim Road about 400 yards west of the railroad depot. It is open from 8 a. m. to 6 p. m. Mail trains arrive at 8.10 a. m. and 4.15 p. m., and leave at 8.10 a. m. and 7.25 p. m.

TELEGRAPH.

The Western Union Office, at the railroad depot, is open for all business from 7.30 a. m. to 8. p. m.

TELEPHONE.

There is telephone connection between the El Tovar Hotel, National Park Service Office, ranger stations, and Hermit Camp. There is no telephone connection outside of the park.

NATIONAL PARK SERVICE STATIONS.

There are ranger stations or camps where assistance and shelter may in emergency be obtained at places here named. These may be unoccupied, and it is well to inquire at the superintendent's office:

Hermit Basin, Tram Camp, at mouth of Bright Angel Creek on north side of Colorado River; Pipe Creek, on Tonto Trail 2 miles east of Indian Garden; Salt Creek, on Tonto Trail 5 miles west of Indian Garden; Grandview Public Camp; Rowe Well; and Grand Canyon village.

MEDICAL SERVICE.

There is no doctor within the park. The nearest doctor is at Williams, Ariz. There is a hospital at Flagstaff, Ariz. There is a trained nurse at the El Tovar Hotel.

REACHING THE NORTH RIM.

To those who enjoy extraordinary scenery and unusual experiences, the trip to the Wylie Way Camp on the north rim, either by rail and motor stage or by private motor, will make a strong appeal.

Coming by rail over the Salt Lake route, the tourist changes to auto stage at Lund; over the Denver & Rio Grande Railroad, at Marysville. Coming by private motor from Salt Lake City or Los Angeles, the Arrowhead Trail is followed to Cedar City, Utah.

From Cedar City the road leads over the plateau to Panguitch in the valley of the Sevier River, where it joins the road from Marysville. From Panguitch, one of Utah's spectacular scenic exhibits, Bryce Canyon is reached. Of Bryce Canyon John A. Witsoe, of the University of Utah, writes:

It is a box canyon 2 miles wide by 3 miles long, cut 1,000 feet into the top of Paunsaugunt Plateau. It drains toward the southeast and overlooks the Colorado River, 75 miles distant. The strata in the canyon are flat, low-lying Tertiary sandstones and clayey sandstones, rather highly indurated. A wonderful variety of erosional forms are painted in every color, shade, and tint of the spectrum, including reds, pinks, creams, tans, lavenders, purples, blues, greens, chocolates, and whites.

This unparalleled array of erosional forms, coupled with wonderful coloring and dotted somewhat profusely with a variety of evergreen trees, constitutes perhaps the most gorgeous spectacle in the world.

The route from Panguitch to the north rim follows the Sevier River to its source, crossing the divide, and then rapidly descends under the vermilion cliffs and down the interesting Johnson Canyon to Kanab, a well-built town of 1,200 inhabitants. The road then leads out over the Kaibab Plateau, whose southern escarpment, at an altitude of 8,000 feet, is the northern wall of the Grand Canyon of the Colorado. The last 50 miles are through Kaibab Forest, a national reserve, which exhibits on a grand scale one of the largest forests of giant pines in the United States. The high, dry, bracing, pine-laden air, the forest aisles, and occasional glimpses of wild deer and white-tailed squirrels, make this ride a fitting prelude to the silent symphony of the Grand Canyon itself.

From Zion National Park a road leads to Fredonia and the north rim of the Grand Canyon via Hurricane. Hurricane is the center of Utah's "Dixie," a garden spot of semitropical vegetation and quaint Mormon settlements. South of Hurricane the road leads across the land of Zane Grey's "Purple Sage" to Fredonia, and thence by the road above described. While the road from Hurricane to Fredonia is being improved, inquiry should be made concerning it before attempting this route.

LUND, UTAH, NORTH RIM OF GRAND CANYON NATIONAL PARK SPECIAL TOUR.

A special tour from Lund to the north rim of the Grand Canyon National Park, Ariz., including a side trip to Bryce Canyon on the going trip and Zion National Park on the return trip, via Fredonia and Hurricane, is in operation. The tour occupies eight days and the fare includes all automobile transportation service and hotel and camp accommodations.

The trip is operated on the following schedule:

Wednesday, Lund to Cedar City for lunch, to Panguitch for over-night; Thursday, Panguitch via Bryce Canyon to Kanab for over-night; Friday, Kanab to north rim of Grand Canyon National Park, arriving for late lunch at Wylie Way Camp; remain at north rim with bus at service of party until noon Sunday; Sunday, north rim to Kanab for over night; Monday via Hurricane to Zion National Park; remain at Wylie Way Camp, Zion National Park, until after breakfast Wednesday; Wednesday, Zion National Park to Cedar City for lunch, to Lund for train. Total mileage for trip 577 miles.

Authorized rate.

Eight-day tour (minimum four persons or four fares) per person \$115

Each person will be allowed 25 pounds of baggage on stage. A charge of 10 cents per pound will be made for excess baggage.

MARYSVALE, UTAH, NORTH RIM OF GRAND CANYON NATIONAL PARK SPECIAL TOUR.

Plans are now being made to have available, commencing about July 1, 1921, a special tour from Marysvale, Utah, a station on a spur line of the Denver & Rio Grande Railroad to the north rim of the Grand Canyon National Park, Ariz., including a side trip to Bryce Canyon, one of Utah's spectacular scenic exhibits only recently discovered by tourists. The tour will occupy six days and the fare will include all automobile transportation service and hotel and camp accommodations. A 10-passenger automobile bus of the type used in Yellowstone National Park will be operated in this transportation service. Tickets must be obtained at the Salt Lake Sight-seeing Office, Salt Lake City, Utah.

A weekly trip is planned on the following schedule:

Monday, Marysvale to Bryce Canyon for late lunch at Tours Rest Camp; Tuesday, Bryce Canyon to Kanab, luncheon en route; Wednesday, Kanab to north rim of Grand Canyon National Park, arriving for late lunch at Wylie Way Camp; remain at north rim with bus at service of party until after lunch Friday; Friday afternoon, north rim to Kanab; Saturday, Kanab to Marysvale, luncheon en

route. Hotel accommodations Sunday night and Saturday night at Marysvale included in tour charge.

Authorized rate.

Six-day tour (per person)..... \$100

Each person will be allowed 25 pounds of baggage on stage.

A charge of 10 cents per pound will be made for excess baggage.

Touring cars will be furnished at same rate for same service any day in the week to parties of either 4 or 6; tickets must be obtained for this special service in Salt Lake City.

PETRIFIED FOREST NATIONAL MONUMENT.

Tourists visiting Grand Canyon National Park either by rail or by automobile should plan a stopover at the Petrified Forest National Monument.

There are three groups of petrified trees in this reservation. The first forest lies 6 miles south of Adamana, Ariz., a station on the main line of the Atchison, Topeka & Santa Fe Railway, and the second forest is $2\frac{1}{2}$ miles south of it. The third or Rainbow forest lies 13 miles south of Adamana and 18 miles southeast of Holbrook, Ariz. It is best to approach the third forest from Holbrook; the other two are best reached from Adamana.

This area is of great interest because of the abundance of petrified coniferous trees which lie scattered about in great profusion. None are standing as in the Yellowstone National Park. These trees probably at one time grew beside an inland sea; after falling they became water-logged and during the decomposition the cell structure was entirely replaced by silica derived from sandstone in the surrounding land. Over a greater part of the entire area trees are scattered in all conceivable positions and in fragments of all sizes.

In the first forest may be seen the well-known natural bridge, consisting of a large petrified tree trunk 60 feet long spanning a canyon 45 feet wide, and forming a foot bridge over which anyone may easily pass. The trunks in the Rainbow forest are larger than elsewhere, more numerous and less broken. Several hundred entire trees are found here, some of which are more than 200 feet long. The color of the wood is deeper and more striking than in the other localities.

"There is no other petrified forest," says Prof. Lester F. Ward, "in which the wood assumes so many varied and interesting forms and colors, and it is these that present the chief attraction for the general public. The state of mineralization in which much of this wood exists almost places them among the gems or precious stones. Not only are chalcedony, opals, and agates found among them, but many approach the condition of jasper and onyx. The degree of hardness attained by them is such that they are said to make an excellent quality of emery."

ADMINISTRATION.

Petrified Forest National Monument is under the jurisdiction of the Director, National Park Service, Department of the Interior, Washington, D. C. The Monument Custodian is located at Adamana, Ariz.

COSTS OF TRIPS AND HOTEL ACCOMMODATIONS.

Adamana is a small place, consisting chiefly of hotel, post office, railway station and a small store (does not handle films or other camera supplies). Mr. Wm. Nelson has charge of the hotel and transportation accommodations. The hotel has electric lights, sanitary plumbing, with hot and cold water. Rates: \$5 per day, American plan; 35 guests can be accommodated; in summer. tent houses also are provided for guests.

From Adamana the following auto trips are made: (1) To the First and Second Forests and the Natural Bridge; (2) to the Third Forest; (3) to the Blue Forest; (4) to the Painted Desert and the North Sigillaria Forest.

The round-trip fare on either of the above trips is: \$5 for one person, \$3 per capita for two persons, and \$2.50 per capita for three or more. About one-half day is allotted to each trip, although three trips can be made in a day. For a one-day stop-over the trips numbered 1 and 4 are perhaps best suited to give the widest variety in sight-seeing at this place.

Holbrook, the county seat of Navajo County, has satisfactory hotel accommodations, with prices about the same as at Adamana.

The Petrified Forest may be visited any day in the year, except when high waters make the streams temporarily impassable.

STOP-OVER ARRANGEMENTS.

Stop-overs are allowed at Adamana, not to exceed 10 days, on all one-way railroad tickets, also on round-trip railroad tickets within their limits.

To obtain stop-overs on one-way railroad tickets, notify train conductor and deposit tickets with agent immediately after arrival; on round-trip tickets notify train conductors.

RULES AND REGULATIONS.

GENERAL REGULATIONS.

(In effect Feb. 4, 1921.)

The following rules and regulations for the government of the Grand Canyon National Park are hereby established and made public pursuant to authority conferred by the act of Congress approved August 25, 1916 (39 Stat., 536), as amended June 2, 1920 (41 Stat., 732), and the act of February 26, 1919 (40 Stat., 1175):

1. *Preservation of natural features and curiosities.*—The destruction, injury, defacement, or disturbance in any way of the public buildings, signs, equipment, or other property, or the trees, flowers, vegetation, rocks, mineral, animal, or bird, or other life is prohibited: *Provided*, That flowers may be gathered in small quantities when, in the judgment of the superintendent, their removal will not impair the beauty of the park.

2. *Camping.*—No camp shall be made along roads except at designated localities. Blankets, clothing, hammocks, or any other article likely to frighten teams shall not be hung near the road.

Many successive parties camp on the same sites during the season; therefore camp grounds shall be thoroughly cleaned before they are abandoned. Tin cans, bottles, cast-off clothing, and all other débris shall be placed in garbage cans or pits provided for the purpose. When camps are made in unfrequented localities where pits or cans may not be provided, all refuse shall be burned or hidden where it will not be offensive to the eye.

Campers may use dead or fallen timber only, for fuel.

3. *Fires.*—Fires constitute one of the greatest perils to the park; they shall not be kindled near trees, dead wood, moss, dry leaves, forest mold, or other vegetable refuse, but in some open space on rocks or earth. Should camp be made in a locality where no such open space exists or is provided, the dead wood, moss, dry leaves, etc., shall be scraped away to the rock or earth over an area considerably larger than that required for the fire.

Fires shall be lighted only when necessary and when no longer needed shall be completely extinguished, and all embers and bed smothered with earth or water, so that there remains no possibility of reignition.

Especial care shall be taken that no lighted match, cigar, or cigarette is dropped in any grass, twigs, leaves, or tree mold.

4. *Hunting.*—The park is a sanctuary for wild life of every sort, and hunting, killing, wounding, capturing, or frightening any bird or animal in the park, except dangerous animals when it is necessary to prevent them from destroying life or inflicting 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 birds or wild animals, or in possession of game killed on the park lands under circumstances other than prescribed above, shall be taken up by the superintendent and held subject to the order of the Director of the National Park Service, 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 was not a party to such violation. Firearms are prohibited in the park except on written permission of the superintendent.

Visitors entering or traveling through the park to places beyond shall at entrance report and surrender all firearms, traps, nets, seines, or explosives in their possession to the first park officer and in proper cases may obtain his written leave to carry them through the park sealed. The Government assumes no responsibilities for loss or damage to any firearms, traps, nets, seines, or other property so surrendered to any park officer, nor are park officers authorized to accept the responsibility of custody of any property for the convenience of visitors.

5. *Fishing*.—Fishing with nets, seines, traps, or by the use of drugs or explosives, or in any other way than with hook and line, or for merchandise or profit, is prohibited. Fishing in particular water may be suspended, or the number of fish that may be taken by one person in any one day from the various streams or lakes may be regulated by the superintendent. All fish hooked less than 6 inches long shall be carefully handled with moist hands and returned at once to the water if not seriously injured. Fish retained shall be killed. Twenty fish shall constitute the limit for a day's catch, provided that no more than 20 pounds of trout, bass, crappie, or catfish may be taken in any one day.

6. *Private operations*.—No person, firm, or corporation shall reside permanently, engage in any business, or erect buildings in the park without permission in writing from the Director of the National Park Service, Washington, D. C. Applications for such permission may be addressed to the Director or to the superintendent of the park. Permission to operate a moving-picture camera must be secured from the superintendent of the park.

7. *Gambling*.—Gambling in any form, or the operation of gambling devices, whether for merchandise or otherwise, is prohibited.

8. *Advertisements*.—Private notices or advertisements shall not be posted or displayed on Government lands within the park, excepting such as the superintendent deems necessary for the convenience and guidance of the public.

9. *Mining*.—The location of mining claims on Government lands in the park is permitted only with the prior approval of the Secretary of the Interior.

10. *Patented lands*.—Owners of patented lands within the park limits are entitled to the full use and enjoyment thereof; the boundaries of such lands, however, shall be determined and marked and defined so that they may be readily distinguished from the park lands. While no limitations or conditions are imposed upon the use of private lands so long as such use does not interfere with or injure the park, private owners shall provide against trespass by their live stock upon the park lands, and all trespasses committed will be punished to the full extent of the law. Stock may be taken

over the park lands to patented private lands with the written permission and under the supervision of the superintendent, but such permission and supervision are not required when access to such private lands is had wholly over roads or lands not owned or controlled by the United States.

11. *Grazing.*—The running at large, herding, or grazing of live stock of any kind on the Government lands in the park, as well as the driving of live stock over same, is prohibited, except where authority therefor has been granted by the superintendent. Live stock found improperly on the park lands may be impounded and held until claimed by the owner and the trespass adjusted.

12. *Authorized operators.*—All persons, firms, or corporations holding franchises in the park shall keep the grounds used by them properly policed and shall maintain the premises in a sanitary condition to the satisfaction of the superintendent. No operator shall retain in his employment a person whose presence in the park may be deemed by the superintendent subversive of good order and management of the park.

All operators shall require each of their employees to wear a metal badge, with a number thereon, or other mark of identification, the name and the number corresponding therewith, or the identification mark, being registered in the superintendent's office. These badges must be worn in plain sight on the hat or cap.

13. *Dogs and cats.*—Cats are not permitted on the Government lands in the park and dogs only to those persons passing through the park to the territory beyond, in which instances they shall be kept tied while crossing the park.

14. *Dead animals.*—All domestic and grazed animals that may die in the park at any tourist camp or along any of the public thoroughfares shall be buried immediately by the owner or person having charge of such animals at least 2 feet beneath the ground, and in no case less than one-fourth mile from any camp or thoroughfare.

15. *Travel on trails.*—Pedestrians on trails, when saddle or pack animals are passing them, shall remain quiet until the animals have passed.

Persons traveling on the trails of the park either on foot or on saddle animals shall not make short cuts but shall confine themselves to the main trails.

16. *Travel—general.*—(a) Saddle horses, pack trains, and horse-drawn vehicles have right of way over motor-propelled vehicles at all times.

(b) On sidehill grades throughout the park motor-driven vehicles shall take the outer side of the road when meeting or passing vehicles of any kind drawn by animals; likewise, freight, baggage, and heavy

camping outfits shall take the outer side of the road on sidehill grades when meeting or passing passenger vehicles drawn by animals.

(c) Load and vehicle weight limitations shall be those prescribed from time to time by the Director of the National Park Service and shall be complied with by the operators of all vehicles using the park roads. Schedules showing weight limitations for different roads in the park may be seen at the office of the superintendent and at the ranger stations at the park entrances.

(d) All vehicles shall be equipped with lights for night travel. At least one light shall be carried on the left front side of horse-drawn vehicles, in a position such as to be visible from both front and rear.

17. *Miscellaneous.*—(a) Campers and others shall not wash clothing or cooking utensils in the waters of the park, or in any way pollute them, or bathe in any of the streams near the regularly traveled thoroughfares in the park without suitable bathing clothes.

(b) Stock shall not be tied so as to permit their entering any of the streams of the park. All animals shall be kept a sufficient distance from camping grounds in order not to litter the ground and make unfit for use the area which may be used later as tent sites.

(c) Campers and all others, save those holding licenses from the Director of the National Park Service, are prohibited from hiring their horses, trappings, or vehicles to tourists or visitors in the park.

(d) All complaints by tourists and others as to service, etc., rendered in the park should be made to the superintendent in writing before the complainant leaves the park. Oral complaints will be heard daily during office hours.

18. *Fines and penalties.*—Persons who render themselves obnoxious by disorderly conduct or bad behavior shall be subjected to the punishment hereinafter prescribed for violation of the foregoing regulations and may be summarily removed from the park by the superintendent and not allowed to return without permission in writing from the Director of the National Park Service or the superintendent of the park.

Any person who violates any of the foregoing regulations shall be deemed guilty of a misdemeanor and shall be subject to a fine of not more than \$500 or imprisonment not exceeding six months, or both, and be adjudged to pay all costs of the proceedings.

AUTOMOBILE AND MOTORCYCLE REGULATIONS.

Pursuant to authority conferred by the act of Congress approved August 25, 1916 (39 Stat., 535) as amended June 2, 1920 (41 Stat., 732), and the act of February 26, 1919 (40 Stat., 1175), the following regulations covering the admission of automobiles and motor cycles into the Grand Canyon National Park are hereby established and made public:

1. *Entrances and roads.*—Automobiles and motor cycles may enter and leave the park by, and travel over, any of the roads therein which are open to motor vehicles.

Careful driving is demanded of all persons using the roads. The Government is in no way responsible for any kind of accident.

2. *Motorcycles.*—Motorcycles are admitted to the park under the same conditions as automobiles and are subject to the same regulations as far as they are applicable. Automobiles and horse-drawn vehicles shall have the right of way over motorcycles.

3. *Motor trucks.*—Motor trucks may enter the park subject to the weight limitations prescribed by the Director of the National Park Service. Schedules showing prescribed weight limitations for motor trucks may be seen at the office of the superintendent and at the ranger stations at the park entrances.

4. *Hours.*—Automobiles shall not enter or leave the park or use the park roads before 5.30 a. m. or after 10.30 p. m. except in case of emergency.

5. *Intoxication.*—No person who is under the influence of intoxicating liquor, and no person who is addicted to the use of narcotic drugs shall operate or drive a motor vehicle of any kind on the park roads.

6. *Distance apart; gears and brakes.*—Automobiles while in motion shall be not less than 50 yards apart, except for purpose of passing, which is permissible only on comparatively level stretches of roads or on slight grades. All automobiles, except while shifting gears, shall retain their gears constantly enmeshed. The driver of each automobile may be required to satisfy park officers that all parts of his machine, particularly the brakes and tires, are in first-class working order and capable of making the trip, and that there is sufficient gasoline in the tank to reach the next place where it may be obtained. The automobile shall carry at least one extra tire. Motorcycles not equipped with brakes in good working order are not permitted to enter the park.

7. *Speeds.*—Speed is limited to 12 miles per hour on grades and when rounding sharp curves. On straight open stretches when no vehicle is nearer than 200 yards the speed may be increased to 20 miles per hour.

8. *Horns.*—The horn shall be sounded on approaching curves or stretches of road concealed for any considerable distance by slopes, overhanging trees, or other obstacles, and before meeting or passing other automobiles, motorcycles, riding or driving animals, or pedestrians.

9. *Lights.*—All automobiles shall be equipped with head and tail lights, the headlights to be of sufficient brilliancy to insure safety in driving at night, and all lights shall be kept lighted after sunset

when automobile is on the road. Headlights shall be dimmed when meeting other automobiles, motorcycles, riding or driving animals, or pedestrians.

10. *Muffler cut-outs*.—Muffler cut-outs shall be closed while approaching or passing riding horses, horse-drawn vehicles, hotels, camps, or checking stations.

11. *Teams*.—When teams, saddle horses, or pack trains approach, automobiles shall take the outer edge of the roadway regardless of the direction in which it may be going, taking care that sufficient room is left on the inside for the passage of vehicles and animals. Teams have the right of way, and automobiles shall be backed or otherwise handled as may be necessary so as to enable teams to pass with safety. In no case shall automobiles pass animals on the road at a speed greater than 8 miles an hour.

12. *Overtaking vehicles*.—Any vehicle traveling slowly upon any of the park roads shall, when overtaken by a faster-moving motor vehicle and upon suitable signal from such overtaking vehicle, give way to the right, in case of motor-driven vehicles, and to the inside, or bank side of the road, in case of horse-drawn vehicles, allowing the overtaking vehicle reasonably free passage, provided the overtaking vehicle does not exceed the speed limits specified for the road in question.

When automobiles, going in opposite directions, meet on a grade, the ascending machine has right of way, and the descending machine shall be backed or otherwise handled as may be necessary to enable the ascending machine to pass with safety.

13. *Accidents, stop-overs*.—If, because of accident or stop for any reason, automobiles are unable to keep going, they shall be immediately parked off the road or, where this is impossible, on the outer edge of the road.

14. *Fines and penalties*.—Any person who violates any of the foregoing regulations shall be deemed guilty of a misdemeanor and shall be subject to a fine of not more than \$500, or imprisonment not exceeding 6 months, or both, and be adjudged to pay all costs of the proceedings, and such violation shall subject the offender to immediate ejection from the park. Persons ejected from the park will not be permitted to return without prior sanction in writing from the Director of the National Park Service or the superintendent of the park.

MAPS.

The following maps¹ may be obtained from the Director of the United States Geological Survey, Washington, D. C. Remittances should be made by money order or in cash.

¹ May be purchased also by personal application at the office of the superintendent of the park, but that office can not fill mail orders.

- SHINUMO**, 28½ by 25 inches, scale about 1 mile to 1½ inches, contour interval 50 feet.
- BRIGHT ANGEL**, 26 by 20½ inches, scale about 1 mile to 1½ inches, contour interval 50 feet. Contains a geologic history of Bright Angel Quadrangle, by L. F. Nobel on reverse side of map.
- VISHNU**, 28 by 21 inches, scale about 1 mile to 1½ inches, contour interval 50 feet.

On the above maps the roads, trails, and names are printed in black, the streams in blue, and the relief is indicated by brown contour lines.

LITERATURE.

GOVERNMENT PUBLICATIONS.

Government publications on Grand Canyon National Park may be obtained as indicated below. Separate communications should be addressed to the officers mentioned.

DISTRIBUTED FREE BY THE NATIONAL PARK SERVICE.

The following publications may be obtained free on written application to the Director of the National Park Service, or by personal application to the office of the superintendent of the park.

Map of National Parks and National Monuments.

Shows location of all of the national parks and monuments administered by the National Park Service, and all railroad routes to these reservations.

SOLD BY THE SUPERINTENDENT OF DOCUMENTS.

The following publications may be obtained from the Superintendent of Documents, Government Printing Office, Washington, D. C., at the prices indicated. Postage prepaid. Remittances should be made by money order or in cash.

Glimpses of our National Parks. 72 pages, including 31 illustrations, 10 cents.¹

Contains description of the most important features of the principal national parks.

The National Parks Portfolio. By Robert Sterling Yard. Third edition. 248 pages, including 306 illustrations. Bound securely in cloth, \$1.¹

Contains nine chapters, each descriptive of a national park, and one a larger chapter devoted to other parks and monuments.

Guidebook of the Western United States, Part C, the Santa Fe Route, with a side trip of the Grand Canyon of the Colorado, by N. H. Darton and others. (Bulletin 613, U. S. Geological Survey.) 1915. 194 pages, 25 route maps, 42 plates, 40 text figures. 50 cents.¹

This guide describes the country along the Atchison, Topeka & Santa Fe Railway from Kansas City to Los Angeles. Although the description of the rocks and their relations and the scenic features form a large proportion of the matter, nearly every page gives information as to notable historic events, industrial resources, plants, and animals. The story of the Indians, past and present, especially the characteristic Pueblo tribes, is told in some detail. Many of the facts regarding the rocks are here presented for the first time. The book contains numerous views of prominent scenic features and pictures of restoration of some of the very remarkable animals whose bones are found in the clays.

Exploration of the Colorado River of the West and its Tributaries, by John Wesley Powell. Explored in 1869, 1870, 1871, and 1872. Pp. 291. Under the direction of the secretary of the Smithsonian Institution. Illustrated. Government Printing Office, Washington, 1875. (Out of print.)

Pre-Cambrian Igneous Rocks of the Unkar Terrane, Grand Canyon of the Colorado, Ariz., by C. D. Walcott. U. S. Geol. Surv. 14th Ann. Rept., pt. 2, pp. 497-524, pls. 60-65. 1894. \$2.10.

¹ May be purchased also by personal application at office of the superintendent of the park, but that office can not fill mail orders.

The Grand Canyon. Senate Doc., No. 42, 65th Congress, 1st session, by Thomas Fulton Dawson, Government Printing Office, Washington, D. C., 1917. 67 pp. Price 10 cents.

An article giving credit of first traversing the Grand Canyon to James White, a Colorado gold prospector.

Tertiary History of the Grand Canyon District, by Clarence E. Dutton. U. S. Geol. Surv. Mon., 2,264 pp., ill. and atlas, 1882. \$10.

BIBLIOGRAPHY.

Bell, William A. "New Tracks in North America" (a journal of travel and adventure whilst engaged in the survey for a southern railroad to the Pacific Ocean during 1867-68, pp. 565). Scribner, Welford & Co., New York, 1870.

Berton, Francis, Membre Correspondent de la Soci  t   de G  ographie de Gen  ve. "Un Voyage sur le Colorado." San Francisco, 1878, pp. 64. Casa Grande, Tumacacori, Grand Canyon.

Bicknell, P. C. "Guidebook of the Grand Canyon of Arizona." A volume of interesting facts and gossip. Pp. 97. Copyright by George U. Young, 1902.

Bowles, Samuel. "Our New West," pp. 524; Grand Canyon, pp. 500-503; Hartford Publishing Co., Hartford, Conn., 1869.

Conklin, Enoch. "Picturesque Arizona." Pp. 380, Grand Canyon, chap. 322-335. The Mining Record Printing Establishment, No. 61 Broadway, 1878.

Coues, Elliott. "On the Trail of a Spanish Pioneer." Translation of the Diary and Itinerary of Francisco Garc  s. 2 vols., F. P. Harper, New York.

Darton, N. H. "Story of the Grand Canyon of Arizona." Pp. 81. Published by Fred Harvey, 1917. (A popular illustrated account of its rocks and origin.)

Dellenbaugh, Frederick S. "A Canyon Voyage." Pp. 277. G. P. Putnam's Sons, New York. Fully illustrated. (The narrative of the second Powell expedition down the Green-Colorado River from Wyoming and the explorations on land in the years 1871 and 1872.) Price, \$3.50.

"Breaking the Wilderness." Pp. 360. G. P. Putnam's Sons, New York, 1905. Fully illustrated. Grand Canyon chapter, pp. 318-327. Price, \$3.50.

"The Romance of the Colorado River." Pp. 401. G. P. Putnam's Sons, New York. Fully illustrated. (A complete account of the discovery and of the explorations from 1540 to the present time, with particular reference to the two voyages of Powell through the line of the great canyons.) Price, \$3.50.

Holmes, Burton. Travelogues. Vol. 6, The Yellowstone National Park, The Grand Canyon of the Arizona, Moki Land. 336 pages, ill., 1908.

James, George Wharton. "A Little Journey to Strange Places and Peoples." For Home and School Intermediate and Upper Grades. Pp. 269, Grand Canyon Chapter; On to Williams, pp. 238-260. Illustrated. A. Flanagan Co., Chicago, 1911.

"Arizona the Wonderland." Pp. 478. The Grand Canyon, pp. 98-103. The Page Company, Boston, 1917.

"In and Around the Grand Canyon." The Grand Canyon of the Colorado River in Arizona. Little, Brown & Co., Boston, 1900. 341 pp., illustrated.

"Our American Wonderlands." Illustrated. Pp. 290. Containing The Grand Canyon of Arizona, pp. 1-10; The Canyon of Cataracts and the Havasupai Indians, pp. 158-166. A. C. McClurg & Co., Chicago, 1915.

"The Grand Canyon of Arizona—How to See It." Pp. 265, illustrated. Little, Brown & Co., Boston, 1910.

Kolb, E. L. "Through the Grand Canyon from Wyoming to Mexico," with a foreword by Owen Wister; with 48 plates from photographs by the author and his

- brother. The Macmillan Co., New York, 1914. 344 pp., illustrated, maps. Price, \$4.50.
- Laut, Agnes C. "Through Our Unknown Southwest." Pp. 271. Grand Canyon and the Petrified Forest, pp. 137-152. Illustrated. McBride, Nast & Co., New York, 1913.
- Lummis, C. F. "A Tramp Across the Continent." Pp. 270. Grand Canyon Chapter, The Verge of the Desert, pp. 244-254. Charles Scribner's Sons, New York, 1892.
- "Some Strange Corners of Our Country" (The Wonderland of the Southwest). Pp. 270. Grand Canyon Chapter, The Grandest Gorge in the World, pp. 1-19. Illustrated. The Century Co., New York, 1892.
- Mitchell, Daniel Holmes. "God's Country." The Grand Canyon Chapter, pp. 216-222. Illustrated. The Elbert Richardson Co., Cincinnati, Ohio, 1910.
- Muir, John. "The Grand Canyon of the Colorado." Pp. 347-382. Steep Trails, edited by Wm. Frederick Badé. Houghton Mifflin Co., Boston and New York, 1918. Illustrated.
- Munk, J. A., M. D. "Arizona Sketches." Chapter entitled Canyon Echoes, pp. 130-150. Illustrated. The Grafton Press, New York, 1905. Illus., p. 230. Price, \$2 net.
- Peixotto, Ernest. "Our Hispanic Southwest." Pp. 245. Illustrations by the author. The Grand Canyon, an Impression, pp. 129-135. Charles Scribner's Sons, New York, 1916.
- Pepin, S. D., geologist. Origin of Grand Canyon, including Discovery and Brief History. Copyright 1916. Pp. 30. J. A. Alles Co., printers, Los Angeles.
- Popham, William Lee. "Grand Canyon of Arizona Romance." Description being from author's observation. The World Supply Co., Louisville, Ky., 1913. 94 pp. Price, \$1.
- Powell, John Wesley. "Canyons of the Colorado." With many illustrations. Pp. 396. Flood & Vincent, Meadville, Pa. The Chautauqua-Century Press, 1895.
- "First through the Grand Canyon" (being the record of the pioneer exploration of the Colorado River in 1869-70, edited by Horace Kephart, New York). Outing Publishing Co. 1915. 320 pp. Price, \$1. (Outing Adventure Library No. 4.)
- Prudden, Mitchell. "On the Great American Plateau." Pp. 237. (Wanderings among Canyons and Buttes in the Land of the Cliff-dweller and the Indian of to-day.) Illustrated with photographs and with original drawings by Edward Leaming. C. P. Putnam's Sons, New York and London, 1906. Grand Canyon Chapters, "Under the Spell of the Grand Canyon," pp. 36-71; "A Little Story of World-Making," pp. 72-89.
- Robinson, Will H. The Story of Arizona. Pp. 458. Grand Canyon chapter, "Scenic Arizona," pp. 367-378. The Berryhill Co., Phoenix, Ariz., 1919.
- Santa Fe Railway System. The Grand Canyon of Arizona, 1902-1909 (being a book of words from many pens about the Grand Canyon of the Colorado River in Arizona), pp. 150-161. Robert M. McBride & Co., New York.
- Saunders, Charles Francis. "Finding the Worth While in the Southwest." Pp. 231. Grand Canyon chapter, The Grand Canyon of the Colorado River in Arizona, pp. 150-161. Robert M. McBride & Co., New York City, 1918.
- Smith, W. W. "The Grand Canyon of Arizona and the River that made it, the Colorado." Copyrighted 1913 by W. W. Smith, pp. 32.
- Steele, David M. "Going Abroad Overland." Pp. 197, 16 plates, 2 maps. Putnams, New York, 1917.
- van Dyke, Henry. The Grand Canyon and other Poems. 78 pp. Charles Scribner's Sons. 1914. Price, \$1.35.
- Warner, Charles Dudley. "Our Italy." Two chapters on Grand Canyon, The Heart of the Desert, pp. 177-188; On the Brink of the Grand Canyon—The Unique Marvel of Nature, pp. 189-200. Harper & Bros., New York, 1891.

- Whiting, Lillian. "The Land of Enchantment," with illustrations from photographs. Pp. 347. Little, Brown & Co., 1906. Dedicated to the unfading memory of Maj. John Wesley Powell, the great explorer. (Grand Canyon chapter, The Carnival of the Gods, pp. 311-338.)
- Woods, G. K. "Personal Impressions of the Grand Canyon of the Colorado River." As seen through nearly two thousand eyes, and written in the private visitors' book of the world-famous guide, Capt. John Hance, guide, story-teller, and pathfinder. Collected and compiled by G. K. Woods. Illustrations. Pp. 152. The Whitaker & Ray Co., San Francisco, 1899.
- Yard, R. S. "The Book of the National Parks," with maps and illustrations. Pp. 420. Charles Scribner's Sons, New York, 1919. Grand Canyon chapter—A Pageant of Creation. Illustrated, pp. 328-351.
- "The Top of the Continent." Grand Canyon chapter—The Greatest Ditch in the World. Pp. 213-244; illustrated. Charles Scribner's Sons Co., New York, 1917.

OTHER NATIONAL PARKS.

Rules and Regulations similar to this for national parks listed below may be obtained free of charge by writing to the Director of the National Park Service, Washington, D. C.

Yellowstone National Park.

Mount Rainier National Park.

Yosemite National Park.

Mesa Verde National Park.

Sequoia and General Grant National
Parks.

Hot Springs National Park.

Glacier National Park.

Wind Cave National Park.

Rocky Mountain National Park.

Crater Lake National Park.

AUTHORIZED RATES FOR PUBLIC UTILITIES, SEASON 1921.

HOTELS AND PUBLIC CAMPS.

The following hotels, etc., are operated by Fred Harvey:

EL TOVAR.

The El Tovar is located at the railroad terminus, near the head of Bright Angel Trail, at an elevation of 6,866 feet above sea level, and open all the year. It is a long, low structure, built of native bowlders and pine logs. There are 93 sleeping rooms accommodating 175 guests. Forty-six of these rooms are connected with private bath.

There is a music room and rendezvous. In the main dining room 165 persons can be seated at one time.

Hot and cold water, steam heat, and electric light are supplied. El Tovar also has a steam laundry.

Authorized rates at El Tovar Hotel.

American plan:

One person in room without bath, per day.....	\$6. 00
One person in room with bath, per day.....	8. 00

There are few exceptional rooms with bath carrying an additional charge.

Meals only:

Breakfast.....	1. 25
Luncheon.....	1. 25
Dinner.....	1. 50

BRIGHT ANGEL COTTAGES.

Cozy lodgings in cottages or tents at Bright Angel Cottages, adjacent to El Tovar. The accommodations are clean and comfortable. There are four cottages, open the year round and several large tents for summer only. All of the cottages have steam heat and electric light; one cottage also has baths. About 150 persons can be accommodated here. Meals are furnished a la carte at the café. Kitchen facilities are ample for quick a la carte service.

Authorized rates at Bright Angel cottages.

Lodging only, per day, per person.....	\$1. 50-\$2
--	-------------

HERMIT CAMP.

On Tonto Plateau at the foot of Hermit Trail; consists of a central dining room, lounge tent, and 11 sleeping tents, accommodations for 30 persons.

Authorized rates at Hermit Camp.

American plan, per day, per person. \$5

DESERT VIEW.

Overlooking Painted Desert, Marble Canyon, and Grand Canyon, several cottages may be occupied for limited periods. See page 40.

WYLIE WAY CAMP ON NORTH RIM.

At Bright Angel Point on the North Rim is "Wylie Way" Tourist Camp, consisting of a central dining tent and comfortable sleeping tents, with accommodations for 25 persons. Rates are \$6 per day.

REST HOUSES.**THE LOOKOUT.**

The Lookout is a quaint observatory and rest house, built on the edge of the rim near the head of Bright Angel Trail. It is equipped with a large binocular telescope in the tower, for observing the most distant reaches of the canyon by day and for viewing the heavens by night. There is a small library for the layman and scientist. Canyon maps and photos are for sale. The reception room has spacious windows, a fireplace, Navajo rugs, and easy chairs; it is electric lighted and steam heated.

HERMIT'S REST.

Where Hermit Rim Road ends and Hermit Trail begins is a unique rest house, built into the hill, with a roofed-in porch and parapet wall. As the name implies, it is intended to provide rest and shelter for parties who take the Rim Road drive, or the Hermit Trail trip. Guests may sit at the tables outside or sheltered by the glass front inside, according to weather, and enjoy a light lunch in unusual surroundings. Admission is by ticket. Tickets may be obtained at El Tovar or Bright Angel Camp, at 50 cents.

SHOPS AND STORES.**HOPÍ HOUSE.**

Opposite El Tovar is a reproduction of the dwellings of the Hopi Indians and several Navajo hogans.

In Hopi House are installed collections of Indian handiwork. Here also live a small band of Hopis, who are among the more primi-

tive of our Indians. The men weave blankets and the women make pottery.

The homes of the Hopis are on the edge of the Painted Desert, perched on the crests of lofty mesas where they live as did their forebears and cling to their high dwelling place. They are industrious, thrifty, orderly, and mirthful. A round of ceremonies, each terminating in the pageants, called "dances," marks the different seasons of the year. Subsisting almost wholly by agriculture in an arid region of uncertain crops, they find time between their labors for light-hearted dance and song, and for elaborate ceremonials, which are grotesque in the Katchina, or masked dances, ideally poetic in the flute dance, and intensely dramatic in the snake dance. In the three and a half centuries of contact with the white race their manner of life has not materially changed. The Indian tribes that roamed over mountain and plain have become wards of the Government, but the Pueblo Indian has absolutely maintained his individuality.

The Navajo women weave fine blankets and many of the men are expert silversmiths, who fashion bracelets, rings, and other articles from Mexican coin silver. The Navajo Indian Reservation—one of the largest in the United States—borders Marble Canyon on the east. They are a pastoral people, intelligent, and, like the Hopis, self-supporting. They own large numbers of sheep, cattle, and horses. The Navajos are tall, rather slender, and agile. They have been rightly called the Bedouins of the Desert. Nowhere are they gathered into permanent villages. Although "civilized," they still cling to old customs and old religious forms. The medicine man, or Shaman, has a large following, if not a large per cent of cures. Their dance ceremonies are weird in the extreme. The fire dance is a spectacular 10-day ceremony, seldom witnessed by white men, and occurring only once in seven years.

Supai Indians from Cataract Canyon frequently visit El Tovar.

KOLB BROS.' STUDIO.

Kolb Bros.' studio is at the head of Bright Angel Trail. The Kolb Bros. give, each day, an interesting lecture, illustrated with motion pictures and slides, describing their boat trip through the canyons of the Green, Grand, and Colorado Rivers. Admission, 50 cents.

Here, too, visitors may view the canyon through a telescope and obtain reliable information. Photographic views and other pictures, representing their many years' exploration of the Grand Canyon, are for sale.

The Independent Store, which is situated on the Rim just east of the Hopi House, carries a stock of Indian handiwork and curios.

SIGHT-SEEING TRIPS BY ROAD.**REGULAR TRIPS BY AUTOMOBILE.**

The following trips are available every day in the year by automobile:

Hermit's Rest.—Stopping en route at Maricopa, Hopi, Mohave, and Pima Points. First trip starts at 10 a. m., returning to El Tovar and Bright Angel about 12 noon. Second trip starts at 2 p. m., returning to El Tovar and Bright Angel about 4 p. m. Third trip starts at 4 p. m., returning to El Tovar at 6 p. m. Rate, \$3. This rate includes use of facilities and light refreshments at Hermit's Rest. This drive is 15 miles round trip along the Rim Road. There is also a sunset trip to Hopi or Mohave Points, leaving El Tovar and Bright Angel Camp at 6.30 and returning about 7.45.

Hopi Point.—El Tovar to Hopi Point, 2 miles west; rate, \$1.50.

Mohave Point.—Three miles west; rate, \$2.

REGULAR SUMMER TRIPS BY AUTOMOBILE.

The following trips are available through the summer season (approximately from Apr. 15 to Nov. 15).

Grandview.—Through forest of tall pines via Long Jim Canyon and Thor's Hammer, 13 miles each way; time about 3½ hours. Leave El Tovar 9.30 a. m. and 2 p. m. daily. Rates, \$4. From Grandview may be seen that section of the canyon from Bright Angel Creek to Marble Canyon, including the great bend of the Colorado. On the eastern wall are Moran, Zuni, Papago, Pinal, Lipan, Navajo, (Desert View), and Comanche Points; and the mouth of the Little Colorado River. Still farther beyond is the Painted Desert and Navajo Mountain—the latter plainly seen, though 120 miles away. The rim trail to Moran Point is interesting. Grandview Trail enters the canyon near Grandview Point.

Desert View.—Thirty-two miles each way via Long Jim Canyon, Thor's Hammer, Grandview, Hull Tank, Trash Dam, Tanner Tank, Old Aztec Ruin, Lipan Point, and head of Tanner Trail. Two round trips a day, leaving El Tovar about 9 a. m., and returning by 1.30 p. m. Rate for one person, \$20; for two persons, \$10 each; for three or more persons up to capacity of car, \$8 each. Special auto for parties of six persons or less, \$48; lunch extra, except for El Tovar guests.

At this point there is a far outlook not only into the canyon above the Granite Gorge, where the river valley widens, but also across the Painted Desert, toward Hopi Land, and along the Desert Palisades to the mouth of the Little Colorado. At sunset and sunrise it is a glorious sight. For that reason one preferably should arrange to stay overnight—a camping trip elsewhere referred to. One and one-half miles west of Desert View is Lipan Point, affording an excellent view of this whole region.

SPECIAL SUMMER TRIPS BY AUTOMOBILE.

These trips depend upon condition of roads and may be at times discontinued.

Bass's Camp, 24 miles, and *Havasupai Point*, 1 mile beyond. Rate same as *Desert View* trip.

Yavapai and Grandeur Points.—This drive extends 2 miles east of *El Tovar*. Rate, \$1.

PRIVATE CONVEYANCE RATES.

Where special cars are desired, an extra charge of \$2 is made for entire party, besides the individual rate for regular service.

As an example: The rate for regular trip to end of *Rim Road* is \$3 each person. If one person desires to make this trip in a special conveyance, that person would pay \$5; if two persons go, the entire expense would be \$8; for three persons, \$11; and so on up to six. The \$2 extra is collected for the party as a whole, and not individually.

Other rates for special autos vary with service performed.

NOTE.—If the demand for regular-trip drives is so heavy as to require use of all conveyances available, private trips will be discontinued temporarily.

GARAGE SERVICE.

There is at *Grand Canyon* a large stone garage with ample facilities for repairing and supplying automobiles. The rate for storage of automobiles is \$1 per day.

TRAIL TRIPS.

Hermit Trail, stopping at Hermit Camp overnight.—Time, two days and one night. *Hermit Road* by auto. Down *Hermit Trail*, stay overnight at *Hermit Camp*; go to river at mouth of *Hermit Creek*; return up *Hermit Trail* to *Rim*; thence to *El Tovar* over *Hermit Rim Road*. Trips leave *El Tovar* and *Bright Angel Cottages* at 10 a. m. and return next afternoon. Rates, \$18.25 each person, including guide, overnight accommodations, and meals en route and at *Hermit Camp*. Private guide, \$5 per day extra.

Bright Angel Trail.—The trail here is generally open the year round. In midwinter it is liable to be closed for a day or two at the top by snow, but such blockade is not frequent. The trail reaches from the hotel 7 miles to the *Colorado River*, with a branch terminating at the top of the granite wall immediately overlooking the river. At this latter point the stream is 1,272 feet below, while *El Tovar Hotel* on the *Rim* is 3,158 feet above. The trip is made on muleback, accompanied by a guide.

Those wishing to reach the river leave the main trail at Indian Garden and follow the downward course of Indian Garden and Pipe Creeks.

Leave at 8.30 a. m. for the river trip, 7 miles; return to Rim 5.30 p. m. Rate, \$6 each person. Leave 10.30 a. m. for trip to plateau, 5 miles; rate, \$5 each. Rates quoted above are for each person in parties of three or more. For special trips with less than three persons there is a party charge of \$5 extra for guide. Lunch extra, except for El Tovar room guests.

It is necessary that visitors who walk down Bright Angel Trail and desire that guide and mules be sent to meet them, be charged full price and special guide fee of \$5. This is unavoidable, as the mules and guides are not available for any other trip.

Hermit-Tonto-Bright Angel Loop.—This trip takes two days and one night. Hermit Rim Road to head Hermit Trail; down Hermit Trail; stay overnight at Hermit Camp; go to river foot of Hermit Creek; return along Tonto Trail to Indian Garden; thence up Bright Angel Trail.

Start from El Tovar or Bright Angel Cottages at 10 a. m., and return next afternoon. Round trip charge is \$23.25 for each person; private guide is \$5 a day extra; rate quoted includes regular guide, overnight accommodations, and meals en route.

NOTE.—This trip can be lengthened to three days and two nights by spending an extra night in the canyon, also going to river at foot of Bright Angel Trail—a 34-mile journey. Rate, \$14 a day, one person; \$8 a day extra each additional person; provisions extra; includes guide.

Dripping Spring.—This trip is made on horseback all the way, or auto to Rim, and saddle horses down trail; 10 miles west, starts at 8.30 a. m. Rate, \$5 each for three or more persons; for less than three persons, \$5 extra for guide. Private parties of three or more persons, \$5 extra for guide.

Recently many new bridle paths along the Rim and through the pines of Tusayan have been opened up, so that horseback riding now is possible for all. The animals are well trained and dependable. Saddle horses cost \$4 a day, or \$2.50 a half day. English, McClellan, Whitman, or Western stock saddles furnished as requested. Side-saddles not provided. The rate for special guides is \$5 a day, or \$2.50 a half day. Horseback trips over any of the trails into the canyon are only permitted when accompanied by guide. This is necessary to avoid risk in meeting trail parties and pack trains.

There are several interesting foot trails near Grand Canyon village. Information as to these may be obtained at the superintendent's office.

CAMPING TRIPS.

Camping trips with pack and saddle animals, or with wagons and saddle animals, are organized, completely equipped, and placed in charge of experienced guides.

For climatic reasons it is well to arrange so that camping trips during the season from October to April are mainly confined to the inner canyon. For the remainder of the year, i. e., April to October, they may be planned to include both the canyon itself and the rim country.

The rates vary from \$10 to \$15 a day for one person; \$6 to \$8 a day each additional person. Such rates specially include services of guide and camp equipment; provisions extra; figures quoted are approximate only, varying with different outings.

Cataract Canyon and Havasupai village.—The best time to visit this place is from May to October. A journey of about 50 miles, first by wagon or auto, 35 miles across a timbered plateau, then on horseback down Topocobya Trail, along Topocobya and Cataract Canyons, to the home of the Havasupai Indians.

The home of this little band of 200 Indians is in Cataract Canyon, a tributary of the Grand Canyon, deep down in the earth two-fifths of a mile. The situation is romantic and the surroundings are beautified by falls of water over precipices several hundred feet high, backed by grottoes of stalactites and stalagmites. This water all comes from springs that gush forth in surprising volume near the Havasupai village.

The baskets made by the Havasupai women consist of the burden basket, a shallow tray, and a water bottle of willow. Those made by the older weavers are of fine mesh, with attractive designs, and bring good prices. Havasupai means people of the blue water. Padre Garces was the first white man to visit their canyon home. In early days the Havasupais undoubtedly were cliff dwellers. They built nearly all the Grand Canyon trails, or rather their rude pathways were the advance guard of the present trails. Their summer homes resemble those of the Apaches. The winter homes afford more protection against the weather.

The round trip from El Tovar is made in three days, at an expense of \$15 a day for one person, \$20 a day for two persons, and \$25 a day for three persons. Each additional member after party of three, \$5 a day; provisions extra. These rates include service for party of one or two persons, also cost of horse feed, but do not include board and lodging at Supai village.

For parties of three to six persons an extra guide is required, whose services are charged for at \$5 a day.

NOTE.—At the western end of the Granite Gorge is a trail down to the Colorado River and up the other side to Point Sublime and Pow-

ells Plateau, the river being crossed by ferry. Reached by team from El Tovar, a distance of 24 miles, or it can be seen as a detour on the Cataract Canyon trip; rates on application.

Desert View.—Elsewhere reference is made to Desert View auto trip. When taken by wagon it occupies three days, leaving El Tovar morning of first day and returning afternoon of third day, with all night camp at destination. Rate, \$10 for one person and \$5 each additional person; provisions extra; rate named includes one guide; an extra guide costs \$5 a day.

Little Colorado River.—The trip to the mouth of the Little Colorado is a most interesting one. Leaving El Tovar in the morning by wagon, camp is made the first day at Deer Tank. The next day the cliff dwellings are visited and the plateau overlooking the Canyon of the Little Colorado is reached by midday. From the edge of the plateau to the bottom of the canyon is a straight drop of 2,500 feet. Rates on application.

Painted Desert and Hopi Land.—The trip is made with saddle and pack animals. The first night the camp is at Saddle Horse Tanks. Hopi Crossing of the Little Colorado is reached the next afternoon and Tuba City the third day. The Hopi village of Moenkopie is seen en route.

The Painted Desert country affords a most interesting study of a phase of Indian entertainment, little known to white people. Rates on application.

Other camping trips are being arranged for by the National Park Service. Information may be obtained at the Superintendent's Office.

SADDLE-HORSE TRIPS ON THE NORTH RIM.

From the camp arrangements may be made for saddle-horse trips to various points of interest on the North Rim and in the canyon. Time required and rates are as follows:

Side trips and rates therefor from "Wylie Way" Camp, Bright Angel Point:

To Point Harris, 1-day trip.

To Point Sublime, 2-day trip.

To Cape Royal, 2-day trip.

Saddle horses for these trips or for special trips on the plateau, \$3 each per day.

Down Bright Angel Trail to river, a three-day trip, the rate is \$5 per day for each horse.

Guide for all trips, \$5 per day.

For all overnight trips one or more pack horses must accompany the party, the rates for these being the same as for saddle horses.

Bedding and provisions, \$2.50 per day for each person.



A PORTION OF THE FIRST FOREST.

The profusion of petrified wood is clearly shown.



Photographs by Wm. Nelson.

ROOT OF PETRIFIED TREE, 7 FEET IN DIAMETER.

The profile resembles a dog's or lion's head.

PETRIFIED FOREST NATIONAL MONUMENT, ARIZONA.



Copyright by Fred Harvey.

COMING DOWN A STEEP STRETCH ON THE HERMIT TRAIL.