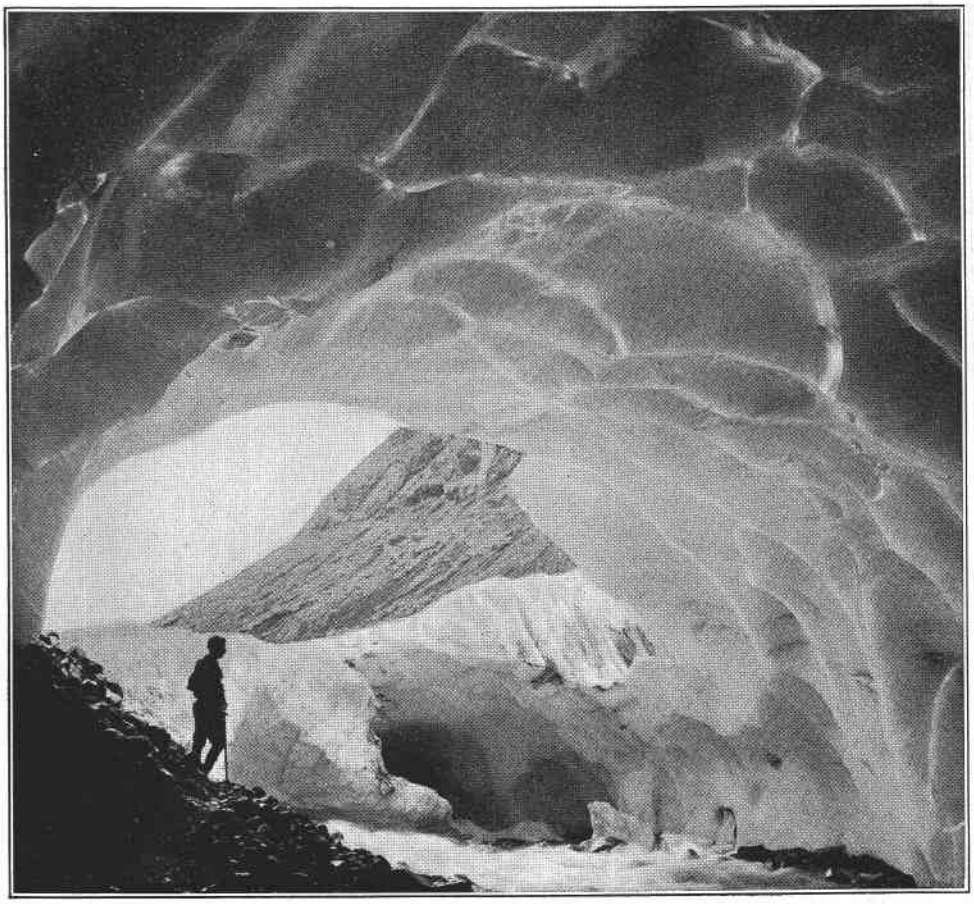
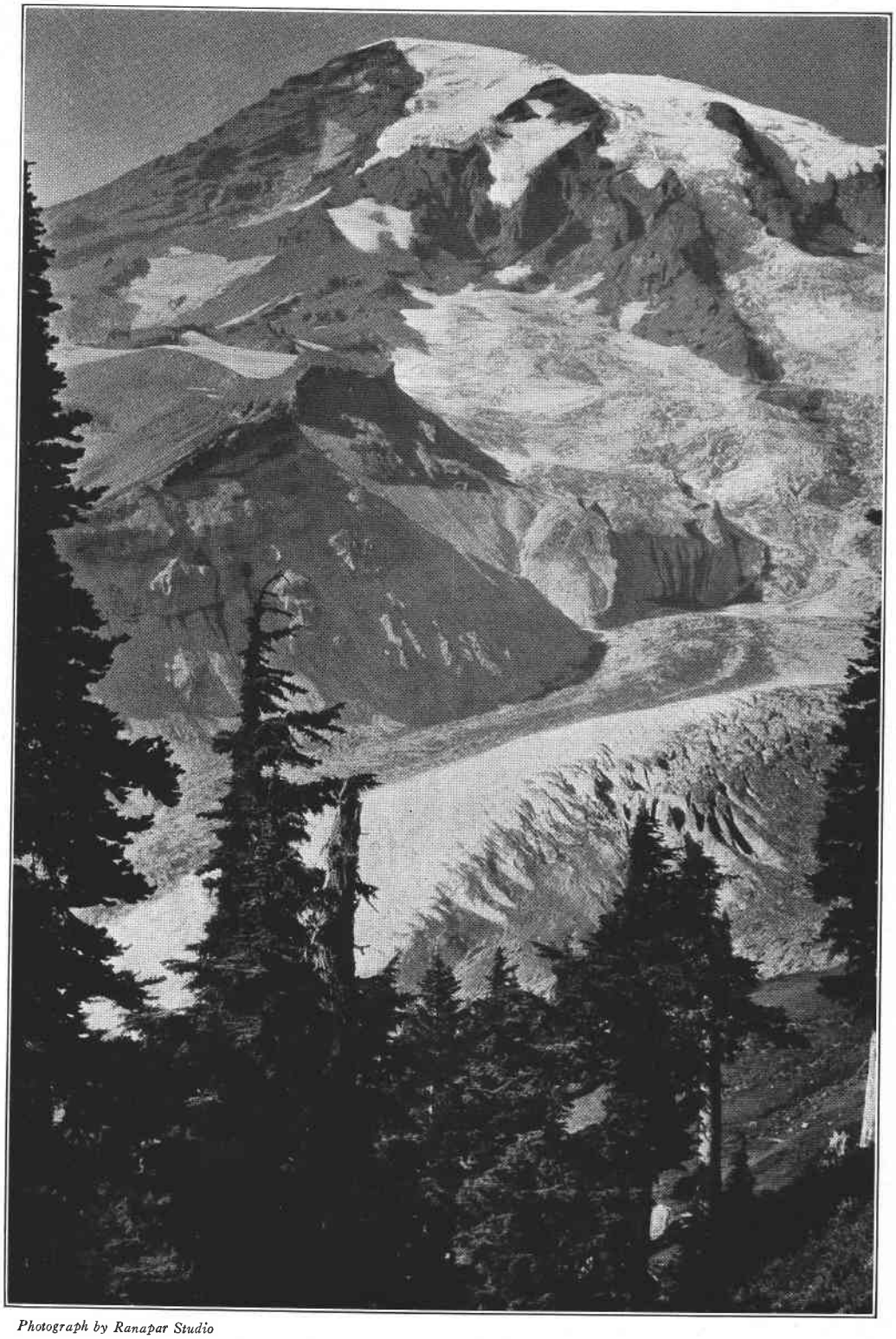


MOUNT RAINIER NATIONAL PARK



Photograph by Ranapar Studio

A River of Ice 400 Feet Thick Flowing from the Shining Summit

Looking from a wild-flower slope down upon the celebrated Nisqually Glacier and up at Columbia Crest

Photograph by Ranapar Studio

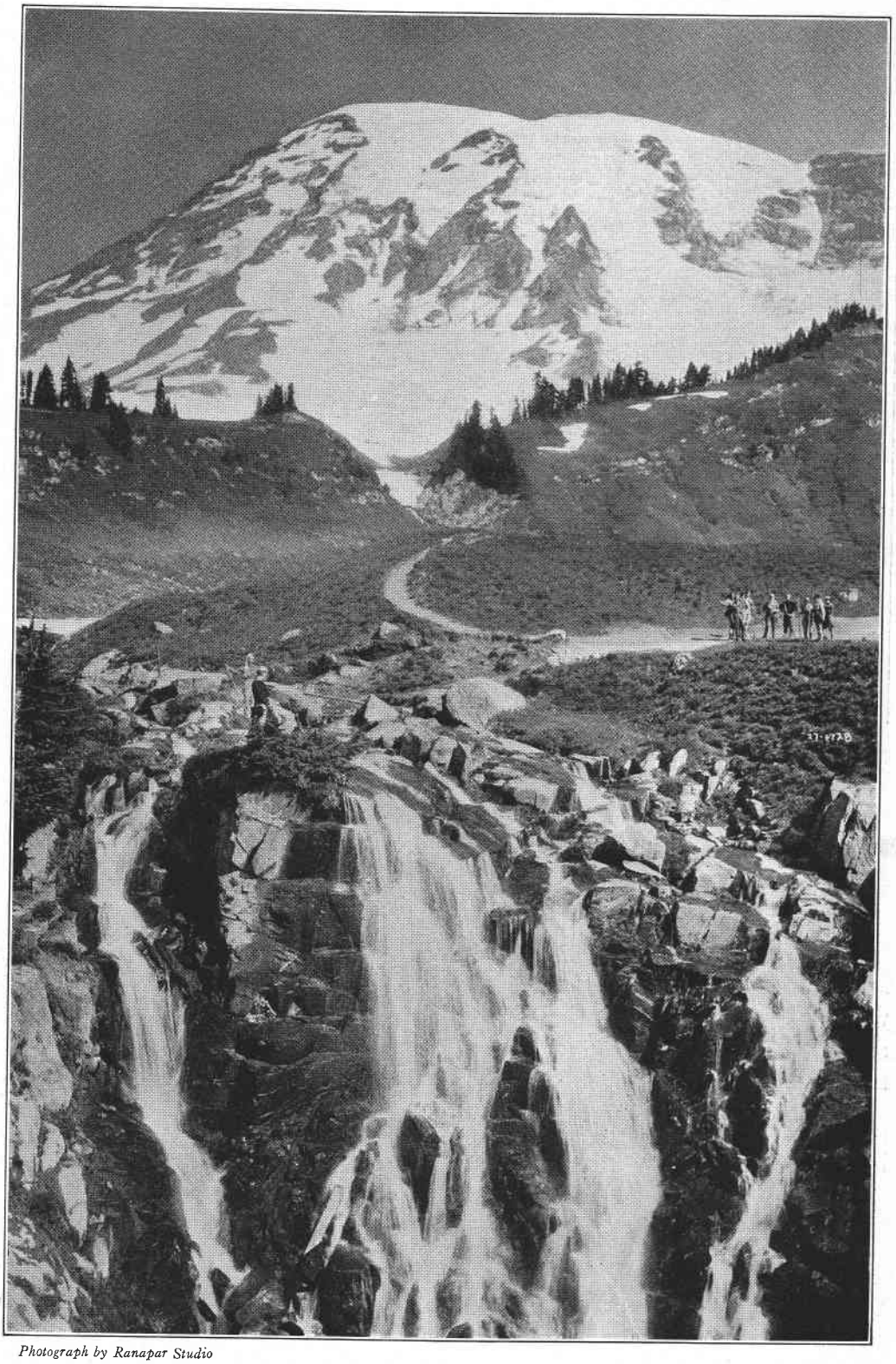
PARTY READY TO START ON SKYLINE TRAIL TRIP

THE FROZEN OCTOPUS

ALONG the western rim of the North American Continent, bordering the Pacific Ocean, rises a series of volcanoes which once blazed across the sea like giant beacons. To-day, their fires quenched, they suggest a stalwart band of Knights of the Ages, helmeted in snow, armored in ice, standing at parade upon a carpet patterned gorgeously in wild flowers.

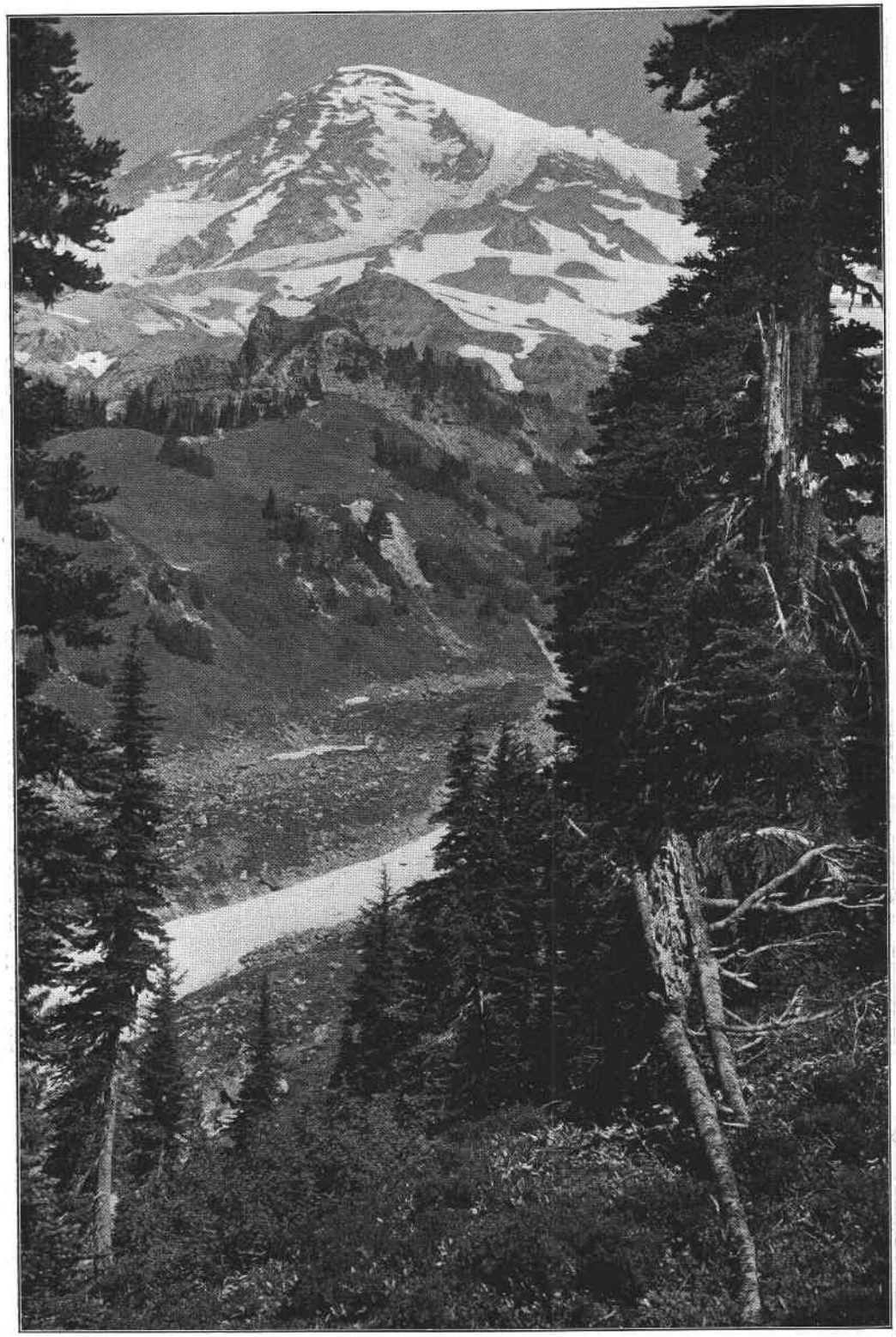
Easily chief of this knightly band is Mount Rainier, a giant towering fourteen thousand four hundred and eight feet above tidewater in Puget Sound. Home-bound sailors far at sea mend their courses from his silver summit.

This mountain has a glacier system far exceeding in size and impressive beauty that of any other in the United States. From its snow-covered summit twenty-eight rivers of ice pour slowly down its sides. Seen upon the map, as if from an airplane, one thinks of it as an enormous frozen octopus stretching icy tentacles down upon every side among the rich gardens of wild flowers and splendid forests of firs and cedars below.



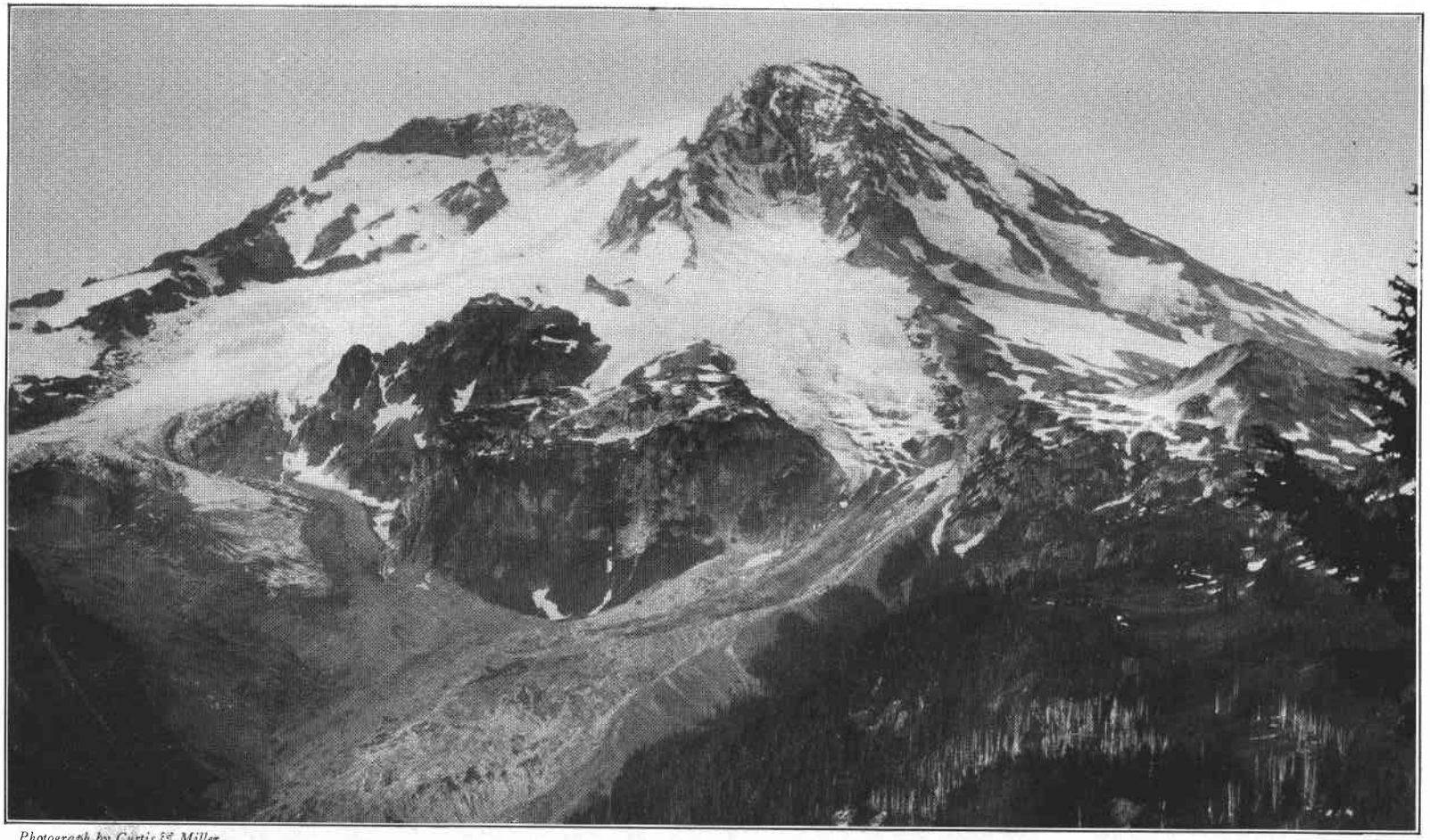
Photograph by Ranapar Studio

GROUP OF HIKERS NEAR EDITH FALLS



Photograph by Curtis & Miller

FROM UNDER THE SHADOWY FIRS OF VAN TRUMP PARK IT GLISTENS STARTLINGLY



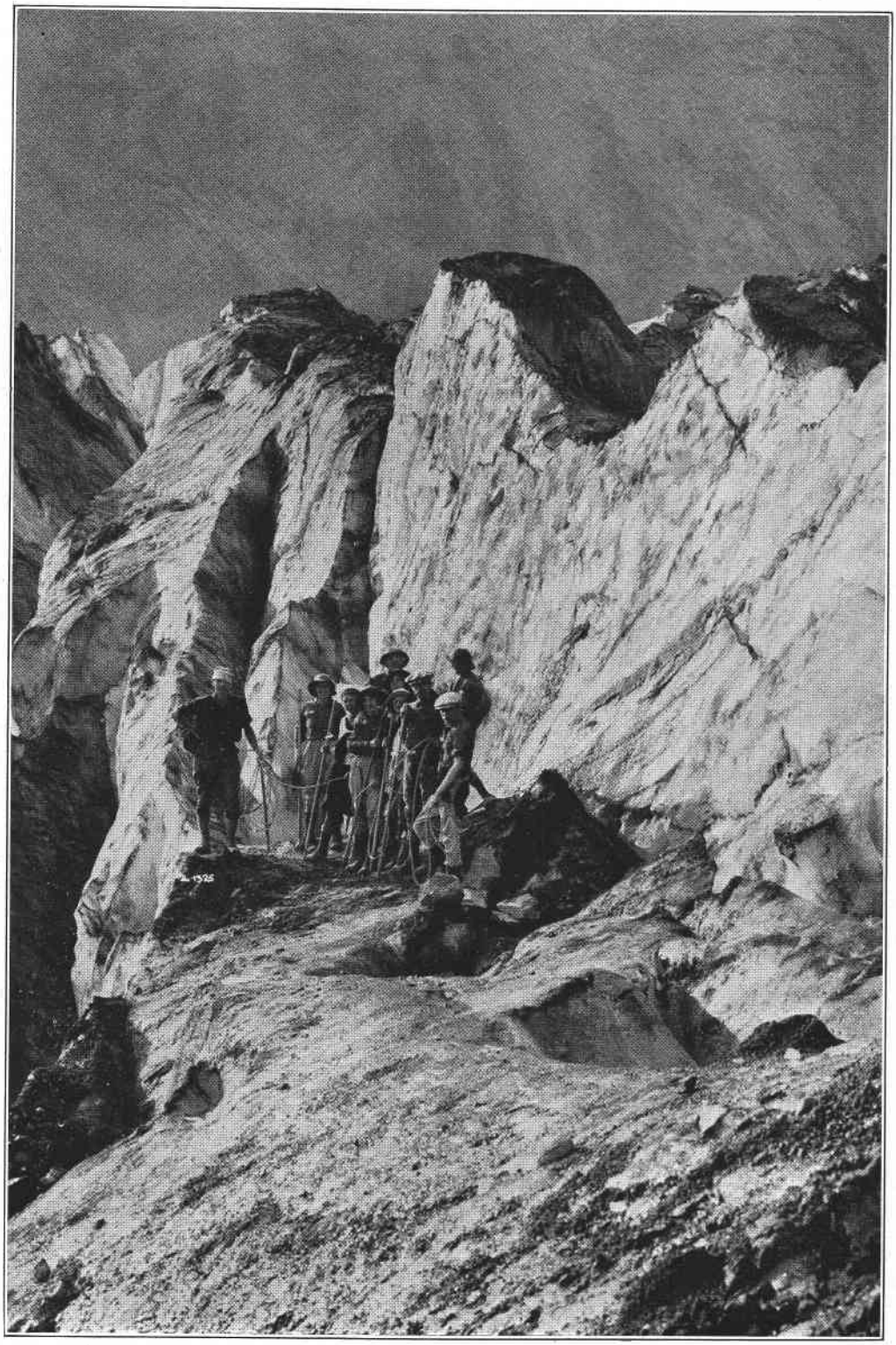
Photograph by Curtis & Miller

THE TWO TAHOMA GLACIERS MAY BE SEEN THROUGH THEIR WHOLE COURSES FROM INDIAN HENRYS HUNTING GROUND

The Tahoma, on the left, begins at the summit; the South Tahoma begins in the cirque just below Point Success, the highest point shown in the picture; they circle in opposite directions around rocky Glacier Island and join in the foreground

Photograph by Curtis & Miller

EVERYWHERE, BETWEEN AND TOUCHING THE ICY GLACIER FINGERS, ARE GORGEOUS GARDENS OF LUXURIANT WILD FLOWERS
"As if Nature," writes John Muir, "glad to make an open space between woods so dense and ice so deep, were economizing the precious ground"



Photograph by Ranapar Studio

PARTY OUT ON THE GLACIAL ICE

The guides who take parties out on the glaciers are familiar with all ridges and crevasses

THE GIANT RIVERS OF ICE

EVERY winter the moisture-laden winds from the Pacific, sweeping inland, cool suddenly upon the slopes of the great mountain and deposit there snow in enormous depths. Summer's sun melts only a portion of this snowfall.

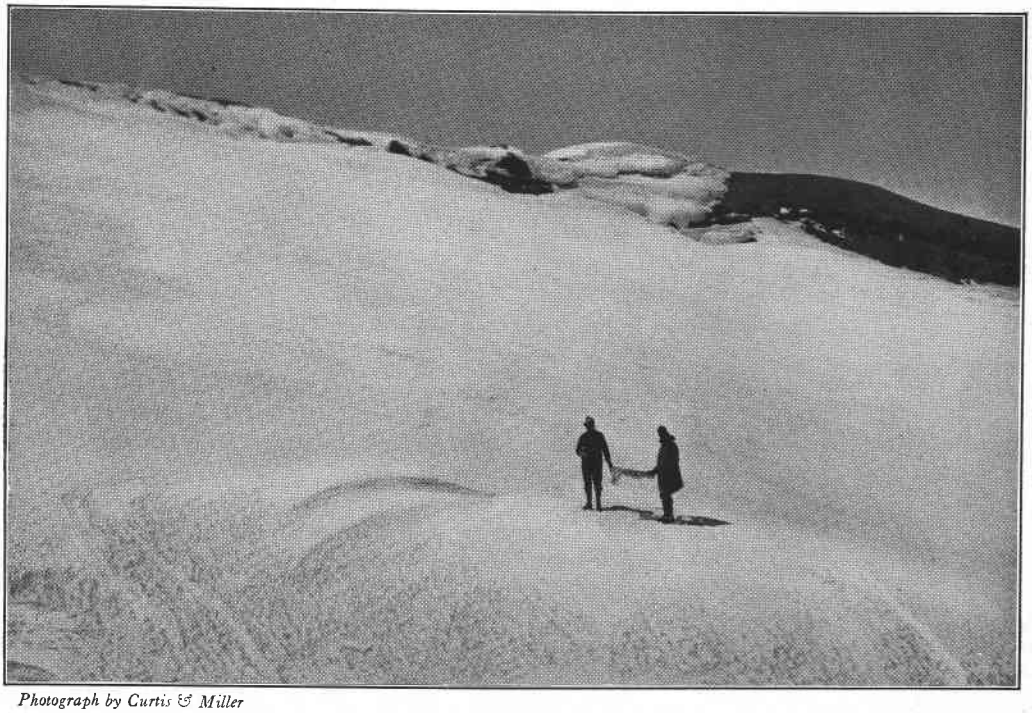
Thus are born the glaciers, for the snow under its own pressure quickly hardens into ice. Through twenty-eight valleys, self-carved, in the solid rock, flow these rivers of ice, now turning, as rivers of water turn, to avoid the harder rock strata, now roaring over precipices like congealed water falls, now rippling, like water currents, over rough bottoms, pushing, pouring relentlessly on until they reach those parts of their courses where warmer air turns them into rivers of water.

There are forty-eight square miles of these glaciers.

Photograph by Curtis & Miller

SNOUT OF THE NISQUALLY GLACIER WHERE THE NISQUALLY RIVER BEGINS

The visitor may park his car at the Nisqually Glacier Bridge and in a few minutes walk along an excellent trail to within a short distance of this point



Photograph by Curtis & Miller

CLOSE TO THE SUMMIT OF MOUNT RAINIER

Photograph by Ranapar Studio

ON THE WAY TO THE SUMMIT OF PINNACLE PEAK, ONE OF THE MOST INTERESTING AND POPULAR CLIMBS IN THE TATOOSH RANGE

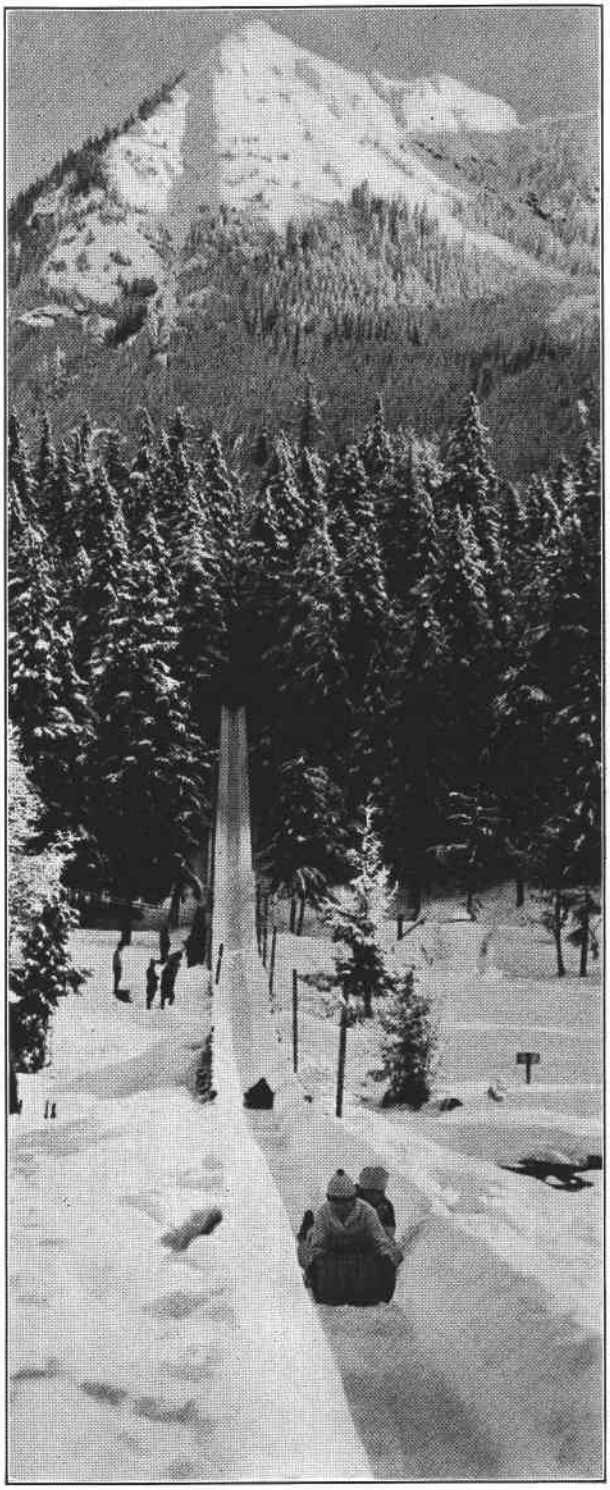
IN AN ARCTIC WONDERLAND

MOUNT RAINIER is nearly three miles high, measured from sea level. It rises nearly two miles from its immediate base. From Puget Sound it seems to rise directly from sea level—a symmetrical volcano cone—but as the mountain is approached its rugged glacial valleys are more easily perceived.

In addition to the twenty-eight named glaciers there are others yet unnamed and little known. Few visitors have seen the wonderful north side, a photograph of which will be found on a later page. It possesses possibilities for the development of a route to Columbia Crest, the wonderful snow-covered summit which is the third highest peak in the United States.

Many interesting things might be told of the glaciers were there space. For example, several species of minute insects live in the ice, hopping about like tiny fleas. They are harder to see than the so-called sand fleas at the seashore because much smaller. Slender, dark-brown worms live in countless millions in the surface ice.

Microscopic rose-colored plants also thrive in such great numbers that they tint the surface here and there, making what is commonly called "red snow."



Photograph by Ranapar Studio

COASTING IN WINTER AT LONGMIRE SPRINGS

Photograph by Curtis & Miller

ONE OF THE GREAT SPECTACLES OF AMERICA IS MOUNT RAINIER, FROM INDIAN HENRYS HUNTING GROUND, GLISTENING AGAINST THE SKY AND PICTURED AGAIN IN MIRROR LAKE

GLACIER *and* WILD FLOWER

PROBABLY no other glacier of large size is so quickly, easily, and comfortably reached as the most striking and celebrated, though by no means the largest, of Mount Rainier's, the Nisqually Glacier. It descends directly south from the snowy summit in a long curve, its lower finger bisecting park-like glades of luxuriant wild flowers to within less than a quarter mile of the highway at the Nisqually Glacier Bridge. From Paradise Valley one may hike over a good trail to the moraine that borders the ice and from that point reach the fissured surface of the glacier itself.

The Nisqually Glacier is five miles long and at Paradise Park is half a mile wide. Glistening white and fairly smooth at its shining source on the mountain's summit, its surface here is soiled with dust and broken stone and squeezed and rent by terrible pressure into fantastic shapes. Innumerable crevasses, or cracks many feet deep, break across it caused by the more rapid movement of the glacier's middle than its edges; for glaciers, like rivers of water, develop swifter currents nearer midstream.

Professor Le Conte tells us that the movement of Nisqually Glacier in summer averages, at midstream, about sixteen inches a day. It is far less at the margins, its speed being retarded by the friction of the sides.

Like all glaciers, the Nisqually gathers on its surface masses of rock with which it strews its sides just as rivers of water strew their banks with rocks and floating débris. These are called lateral moraines, or side moraines. Sometimes glaciers build lateral moraines miles long.

The rocks which are carried in midstream to the end of the glacier and dropped when the ice melts are called the terminal moraine. The end, or snout, of the glacier thus lies among a mass of rocks and stones. The Nisqually River generally flows from a cave in the end of the Nisqually Glacier's snout. The river is dark brown when it first appears because it carries sediment and powdered rock.

But this brief picture of the Mount Rainier National Park would miss its loveliest touch without some notice of the wild-flower parks lying at the base and often reaching far up between the icy fingers of Mount Rainier.

"Above the forests," writes John Muir, the celebrated naturalist, " there is a zone of the loveliest flowers, fifty miles in circuit and nearly two miles wide, so closely planted and luxurious that it seems as if nature, glad to make an open space between woods so dense and ice so deep, were economizing the precious ground and trying to see how many of her darlings she can get together in one mountain wreath—daisies, anemones, columbine, erythroniums, larkspurs, etc., among which we wade knee-deep and waist-deep, the bright corollas in myriads touching petal to petal. Altogether this is the richest subalpine garden I have ever found, a perfect flower Elysium."

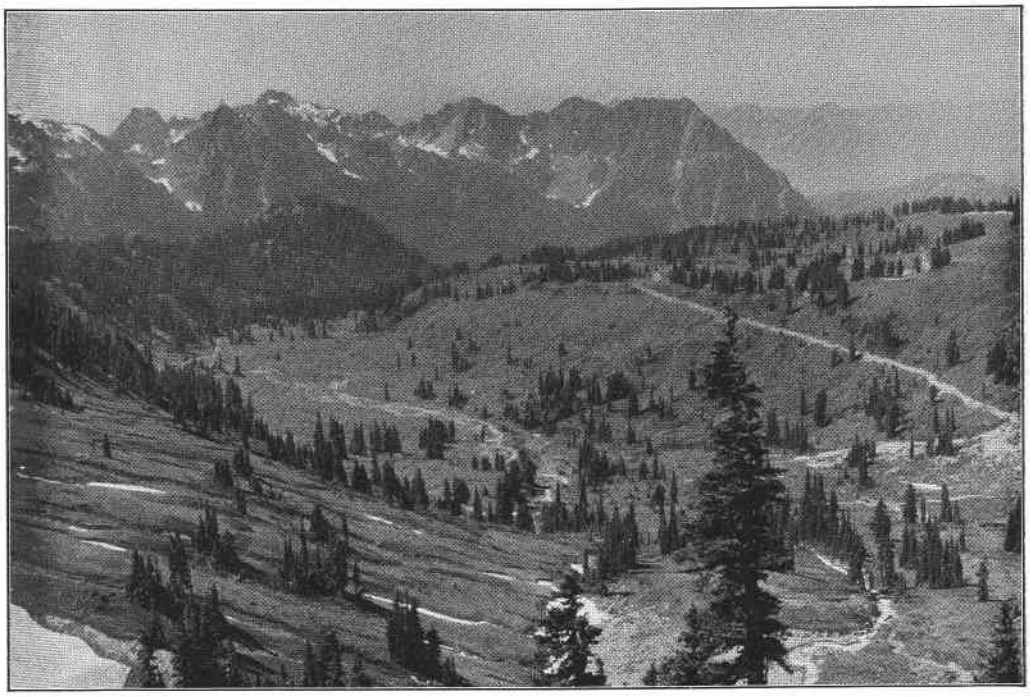
Photograph by Curtis & Miller

MOUNT ADAMS FROM MOUNT RAINIER—FORTY MILES SOUTHWARD

Copyrighted by W. P. Romans, Seattle

SPRAY PARK

The northwest slope of Mount Rainier will soon become the health and pleasure garden of many thousands. This superb slope has been seen by few visitors, owing to its inaccessibility, but a road to this section is under construction



Photograph by Curtis & Miller

BEAUTIFUL PARADISE VALLEY SHOWING THE TATOOSH RIDGE

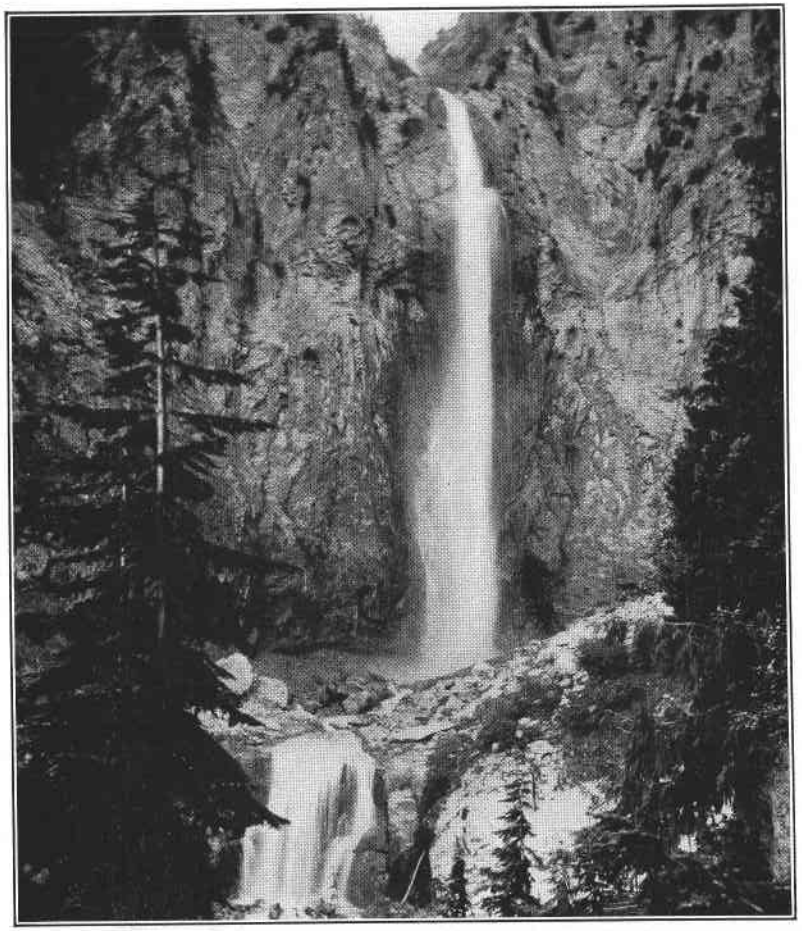
Photograph by Curtis & Miller

TIMBER LINE AND FLOWER FIELDS IN BEAUTIFUL PARADISE VALLEY

Photograph by Curtis & Miller

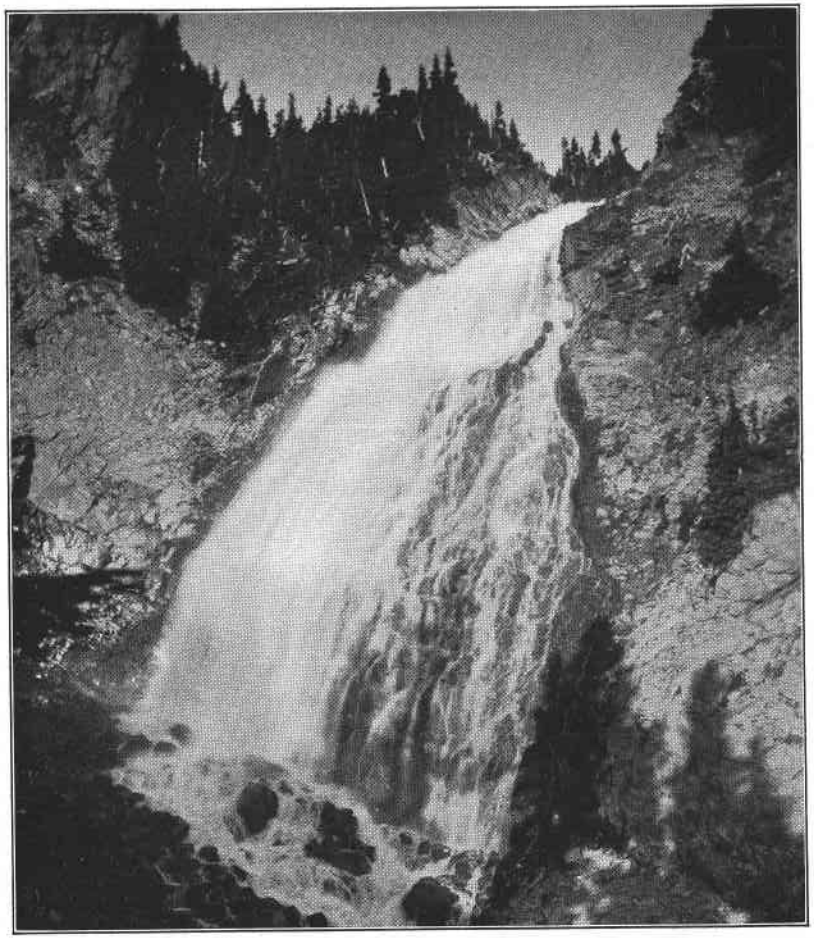
THE MORNINGS OFTEN ROLL TOSSING SEAS OF MIST INTO THE VALLEYS, FROM WHICH EMERGE AT INTERVALS CRAGGY TOPS, GLISTENING GLACIERS, AND FAR-DISTANT MOUNTAIN PEAKS

This photograph was taken from a height at Indian Henrys. Mount St. Helens is lost in the mists forty miles away



Photograph by Curtis & Miller

COMET FALLS



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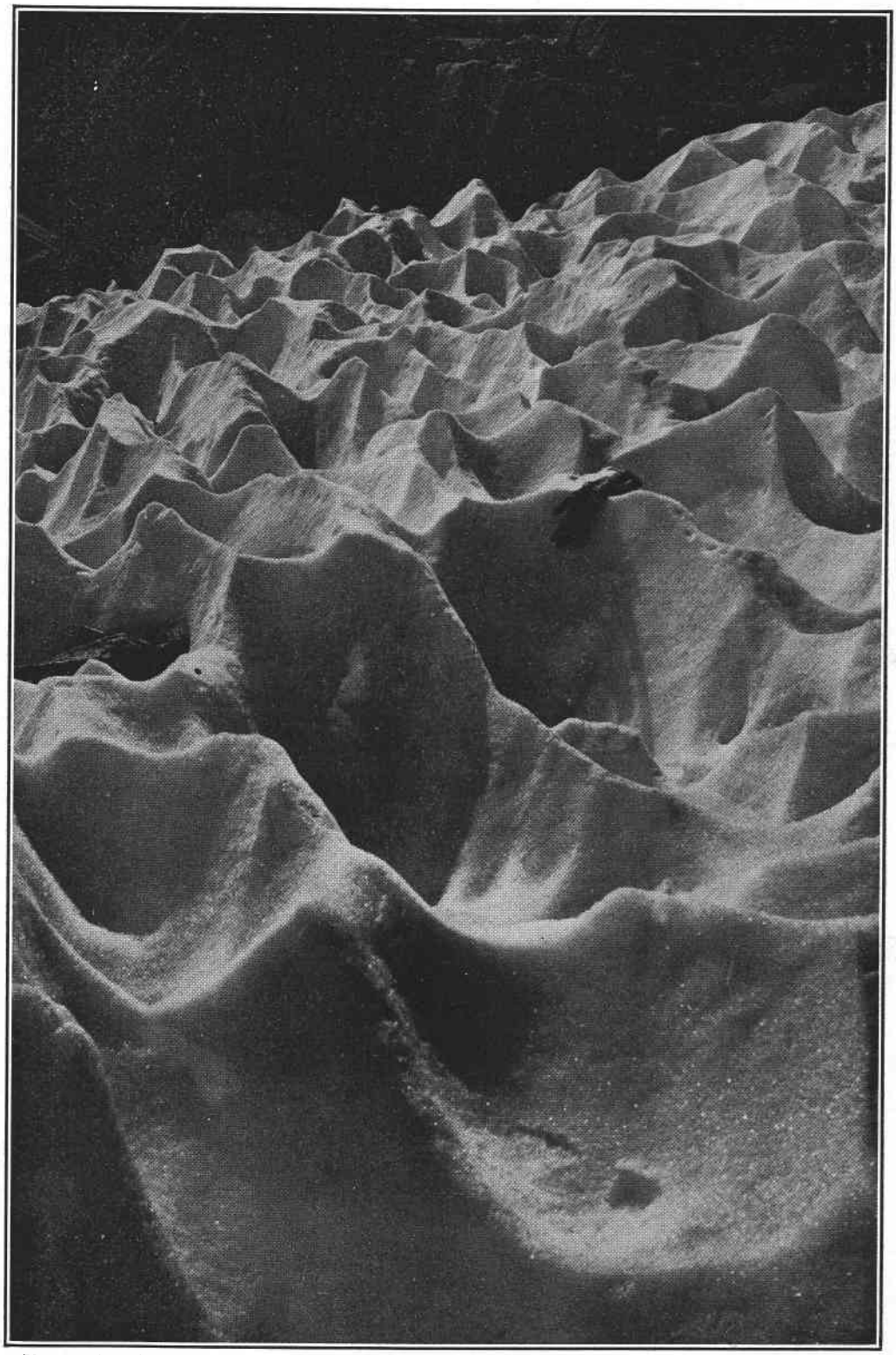
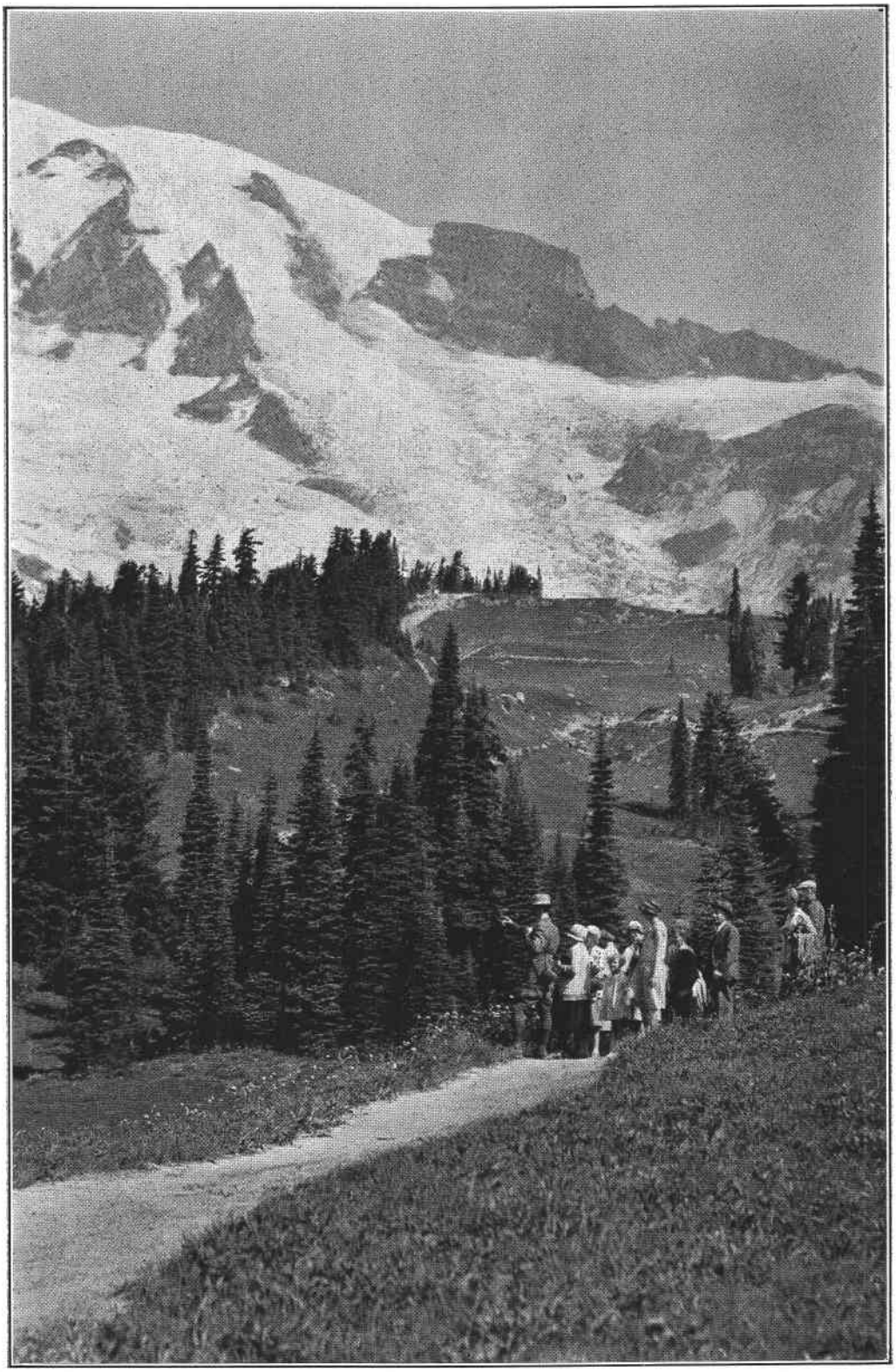
SLUISKIN FALLS



Photograph by A. H. Barnes

SNOW CUPS



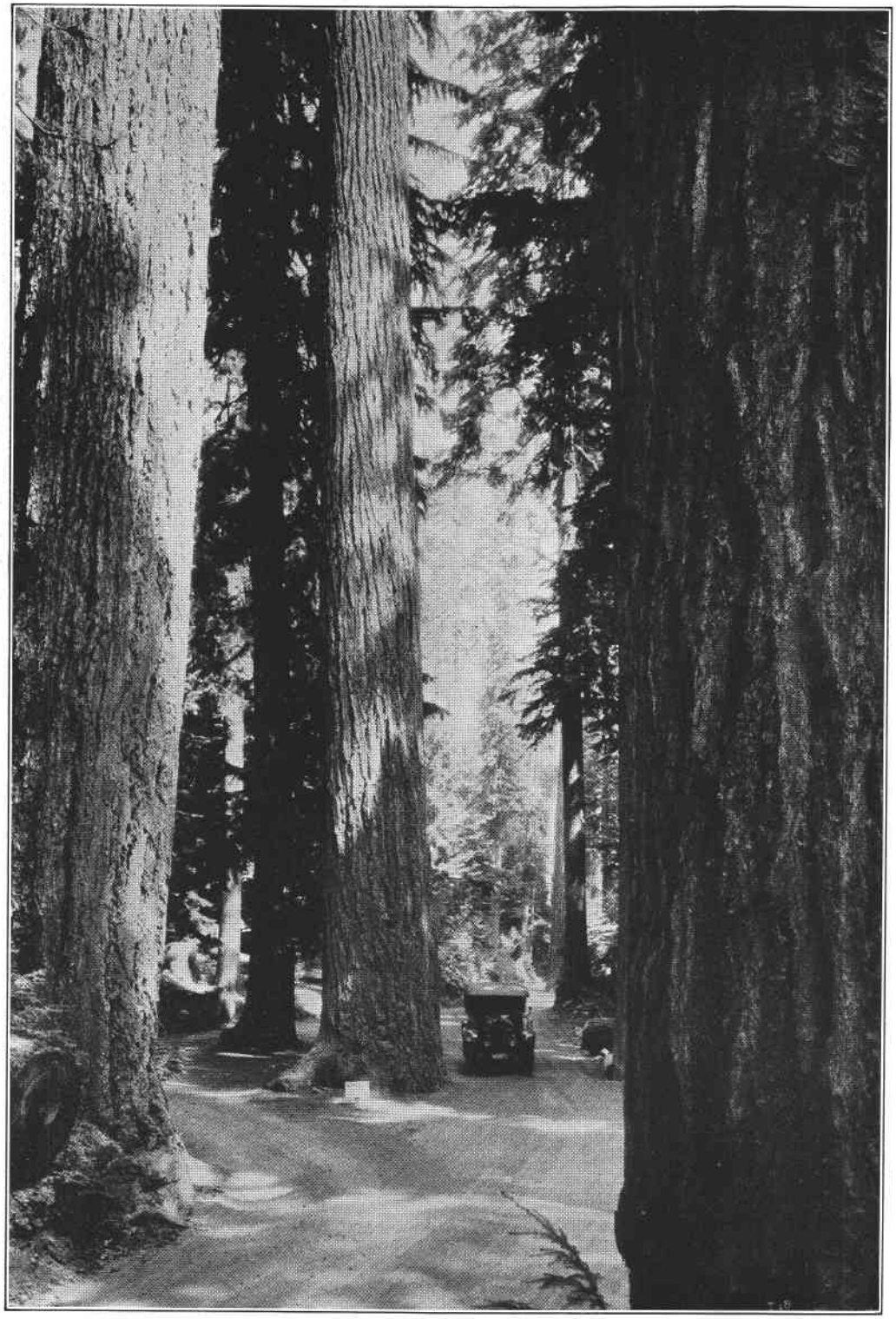
NATURE STUDY

Visitors on trail in Paradise Valley, under the guidance of a ranger naturalist

Photograph by Ranapar Studio

PARADISE INN, IN PARADISE VALLEY

Only 30 minutes' walk from the edge of Nisqually Glacier Canyon, where one may view to best advantage the mountain's third largest glacier



Photograph by Ranapar Studio

THE ROADS LEAD TO THE GLACIERS THROUGH FORESTS OF FIR AND CEDAR

These trees measure 10 and 12 feet in diameter

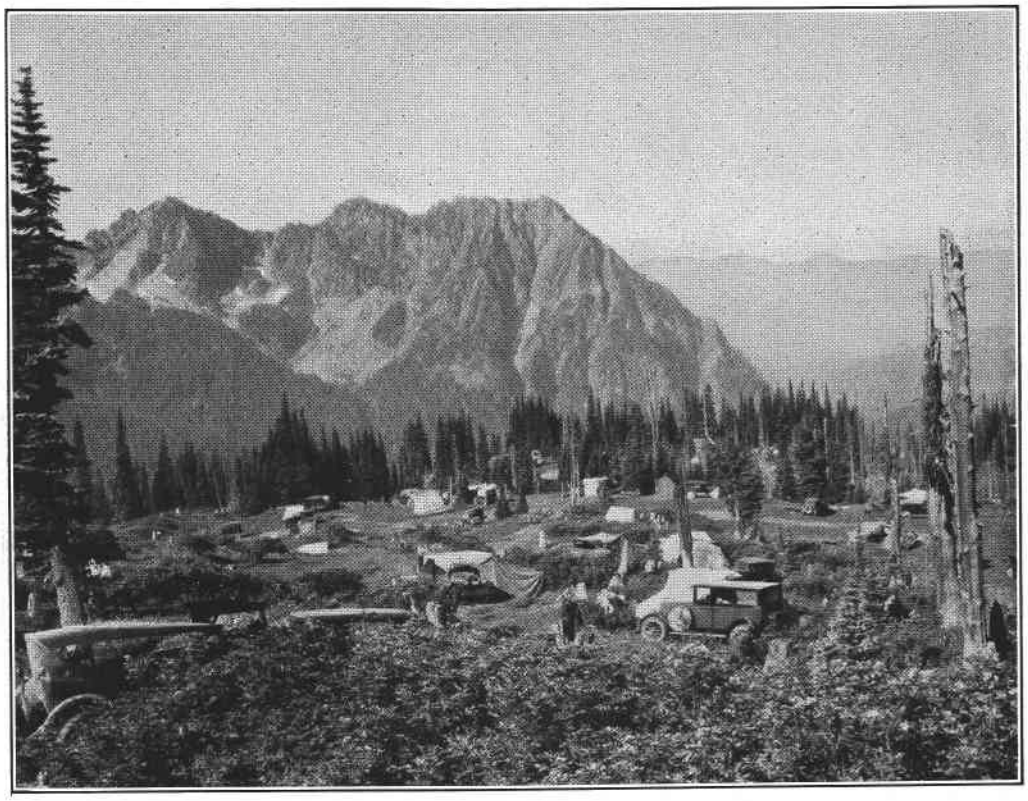
EASIEST GLACIERS TO SEE

THE Mount Rainier National Park is so accessible that one may get a brief close-by glimpse in one day. The railroad slogan, "Four hours from Tacoma to the Glaciers," tells the story.

But no one, unless under dire necessity, should think of being so near one of the greatest spectacles in nature without sparing several days for a real look; several weeks is none too long. Thousands of Americans in normal years go to Switzerland to see glaciers much harder to reach and far less satisfactory to study.

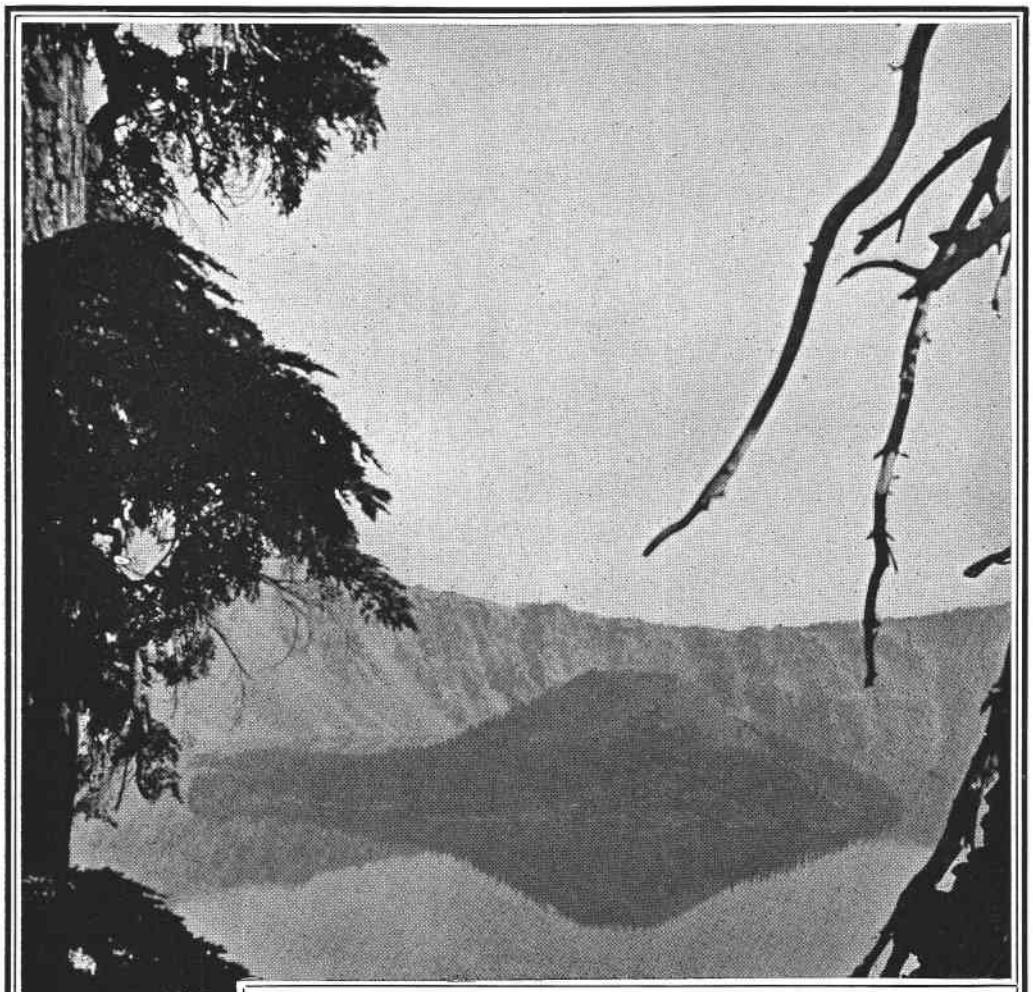
Excellent roads carry the visitor by autostage from the coast cities and railway terminus to the several hotels and camps, which are so located that the principal scenic points on the south side may be easily reached. Other scenic wonderlands of the great playground are being made accessible by new roads under construction.

Pedestrians and horseback riders also follow trails through the gorgeous wild-flower parks, Paradise Valley, Indian Henrys Hunting Ground, Van Trump Park, Cowlitz Park, Ohanapecosh River and its hot springs, Summerland, Grand Park, Moraine Park, Elysian Fields, Spray Park, Natural Bridge, Cataract Basin, St. Andrews Park, and others, developing new points of view of wonderful glory.



Photograph by Ranapar Studio

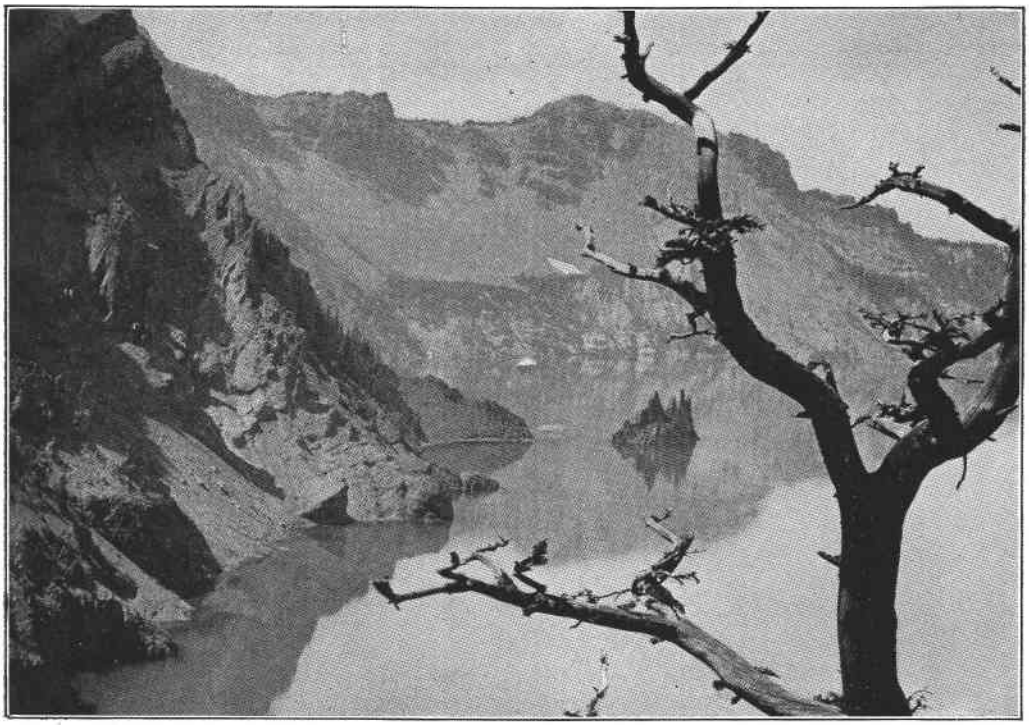
A Section of the Paradise Public Camp Grounds



CRATER LAKE NATIONAL PARK

Photograph by Fred H. Kiser, Portland, Oreg.

LOOKING INTO ITS VAST DEPTHS IS LIKE LOOKING INTO THE LIMITLESS SKY



Photograph by U. S. Reclamation Service

THE PHANTOM SHIP—STRANDED ON A MAGIC SHORE

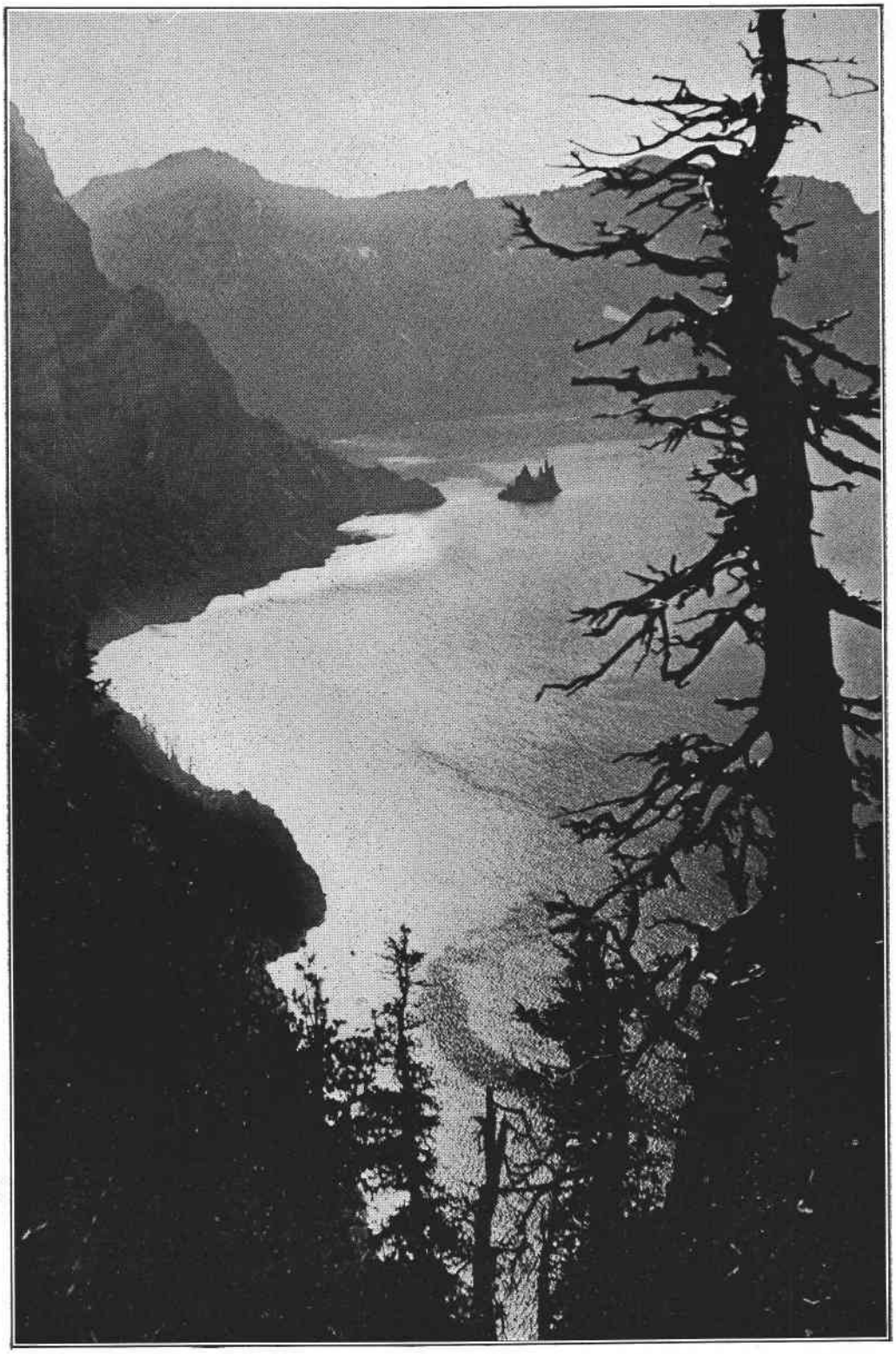
THE LAKE OF MYSTERY

CRATER LAKE is the deepest and the bluest fresh-water lake in the world. It measures two thousand feet of solid water, and the intensity of its color is unbelievable even while you look at it. Its cliffs from sky line to surface average over a thousand feet high. It has no visible inlet or outlet, for it occupies the hole left when, in the dim ages before man, a volcano collapsed and disappeared within itself.

It is a gem of wonderful color in a setting of pearly lavas relieved by patches of pine green and snow white—a gem which changes hue with every atmospheric change and every shift of light.

There are crater lakes in other lands; in Italy, for instance, in Germany, India, and Hawaii. The one lake of its kind in the United States is by far the finest of its kind in the world. It is one of the most distinguished spots in a land notable for the nobility and distinction of its scenery.

Crater Lake lies in southern Oregon. The volcano whose site it has usurped was one of a " noble band of fire mountains, which, like beacons, once blazed along the Pacific coast." Because of its unique character and quite extraordinary beauty it was made a national park in 1902.



Photograph by Patterson

THE SUN PLAYS WONDERFUL TRICKS WITH LIGHTS AND SHADOWS

"THE SEA OF SILENCE"

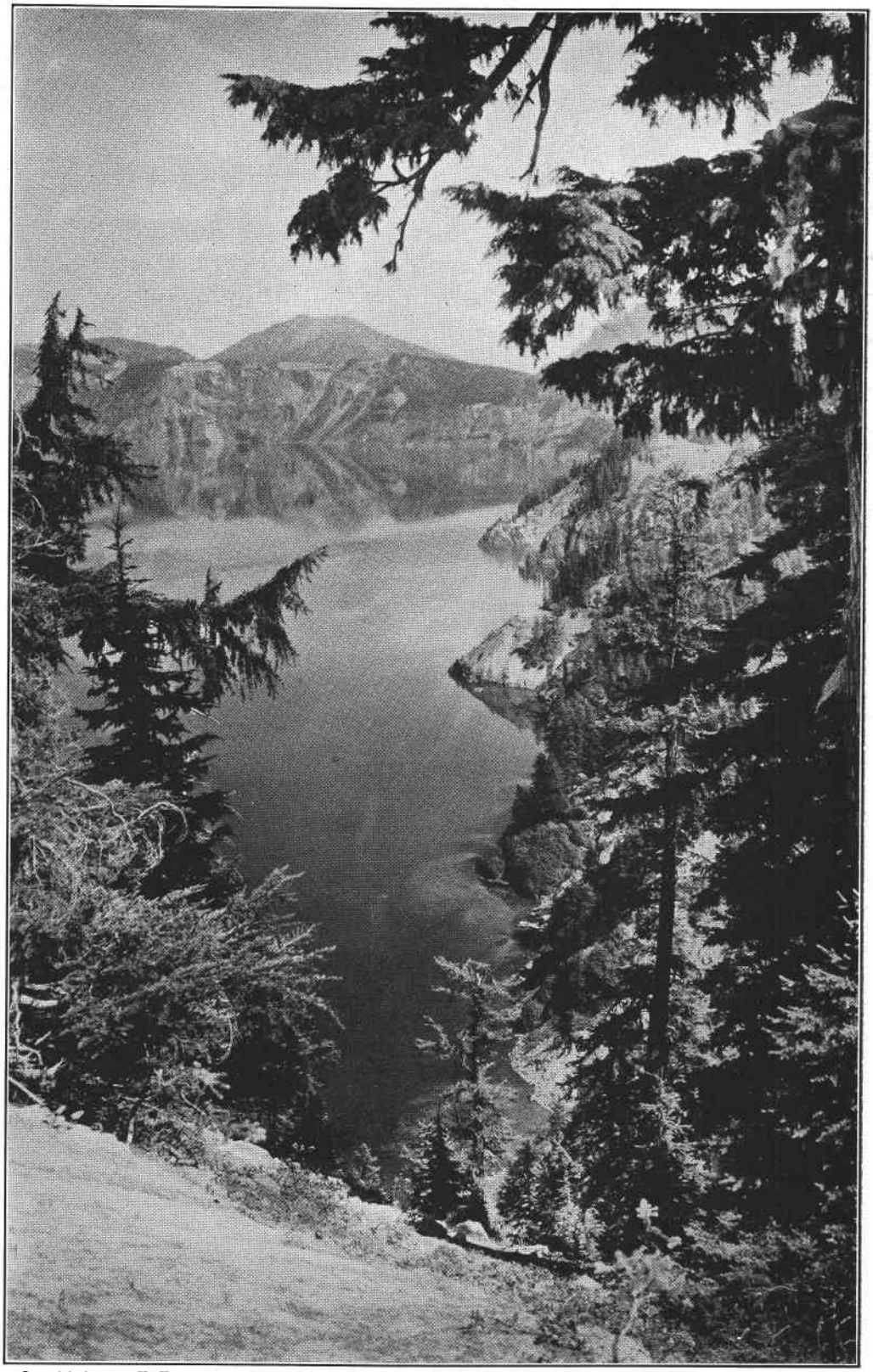
NEARLY every visitor to Crater Lake, even the most prosaic, describes it as mysterious. To those who have not seen it, the adjective is difficult to analyze, but the fact remains.

The explanation may lie in Crater Lake's remarkable color scheme. The infinite range of grays, silvers, and pearls in the carved and fretted lava walls, the glinting white of occasional snow patches, the olives and pine greens of woods and mosses, the vivid, cloud-flecked azure of the sky, and the lake's thousand shades of blue, from the brilliant turquoise of its edges to the black blue of its depths of deepest shadow, strike into silence the least impressionable observers. "The Sea of Silence," Joaquin Miller calls Crater Lake.

With changing conditions of sun and air, this amazing spectacle changes key with the passing hours; and it is hard to say which is its most rapturous condition of beauty, that of cloudless sunshine or that of twilight shadow; or of what intermediate degree, or of storm or of shower or of moonlight or of starlight. At times the scene changes magically while you watch.

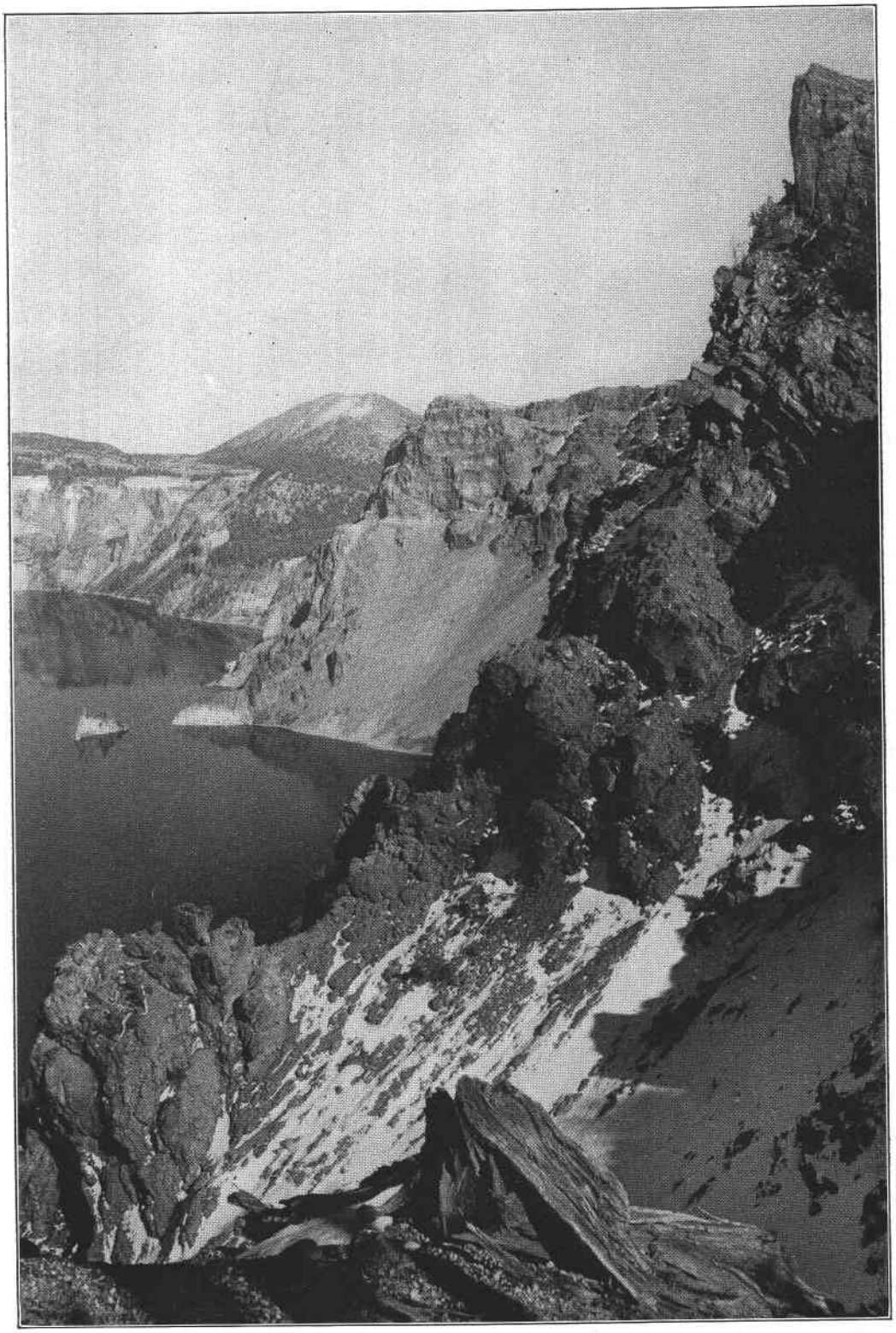
Photograph by Patterson

EVENING SHADOWS



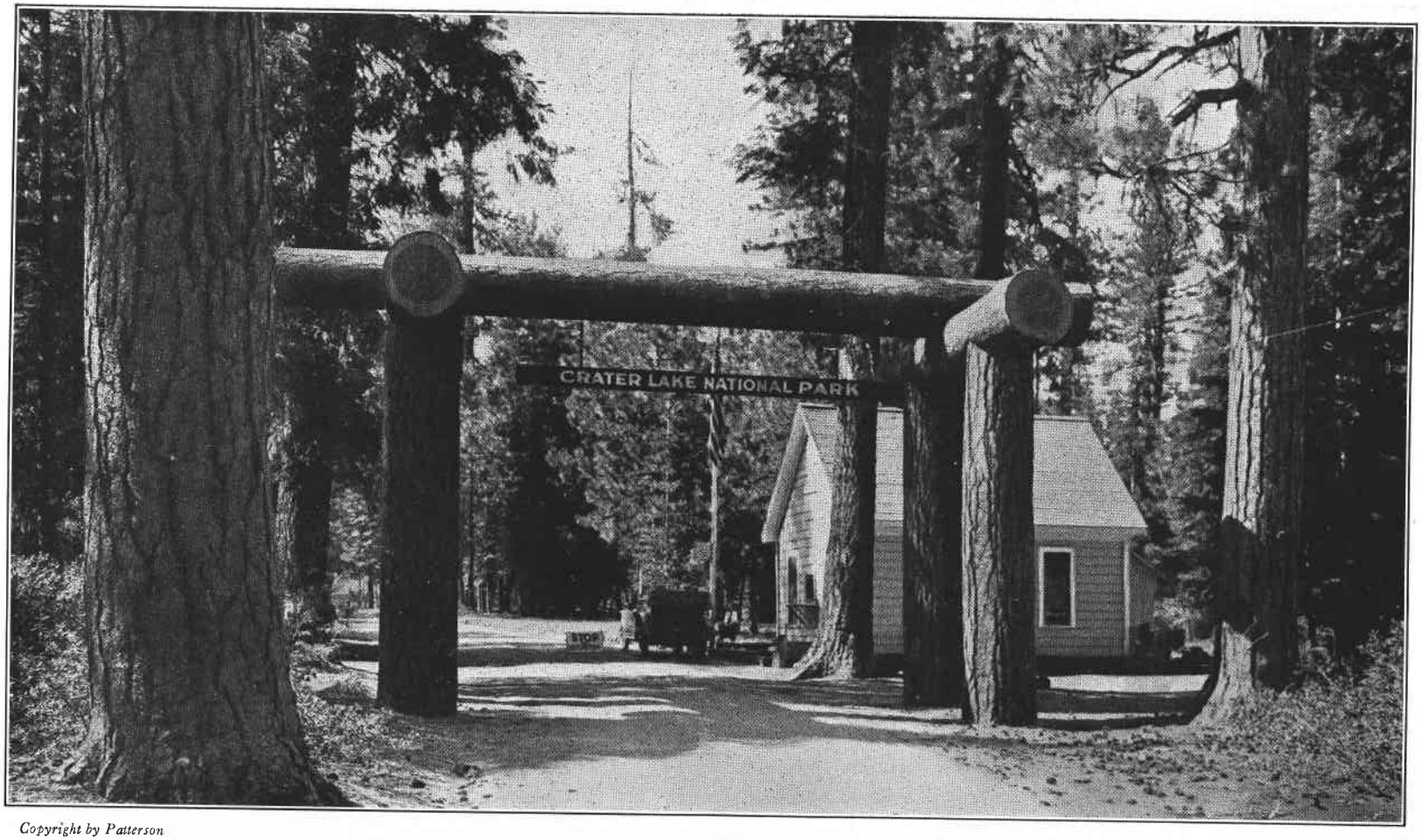
Copyright by Fred H. Kiser, Portland, Oreg.

A Scenic Tapestry Viewed from the Rim Trail



Photograph by Fred H. Kiser, Portland, Oreg.

CLIFFS OF A THOUSAND PEARLY HUES FANTASTICALLY CARVED



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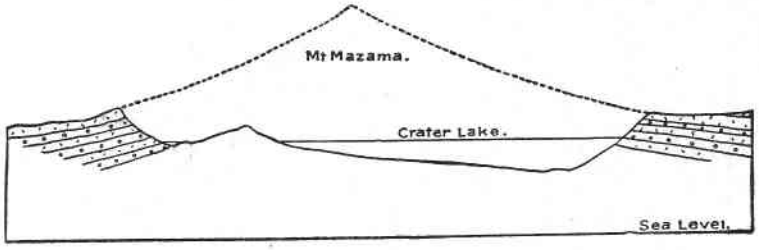
THE KLAMATH ENTRANCE

The park is a wonderful exhibit of typical western forests in a virgin state



STORY OF MOUNT MAZAMA

FEW of the astonishing pictures which geology has restored for us of this world in its making are so startling as that of Mount Mazama, which once reared a smoking peak many thousands of feet above the present peaceful level of Crater Lake. There were many noble volcanoes in the range: Mount Baker, Mount Rainier, Mount Adams, Mount St. Helens, Lassen Peak, Mount Mazama, Mount Hood, Mount Shasta. Once their vomitings built the great Cascade Mountains. To-day, cold and silent, they stand wrapped in shining armor of ice.

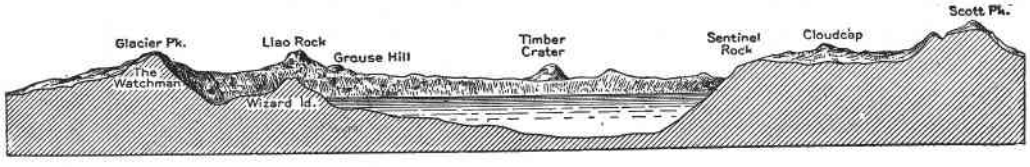
But not all. One is missing. Where Mount Mazama reared his noble head, there is nothing—until you climb the slopes once his foothills, and gaze spellbound over the broken lava cliffs into the lake which lies magically where once he stood. The story of the undoing of Mount Mazama, of the birth of this wonder lake, is one of the great stories of the earth.

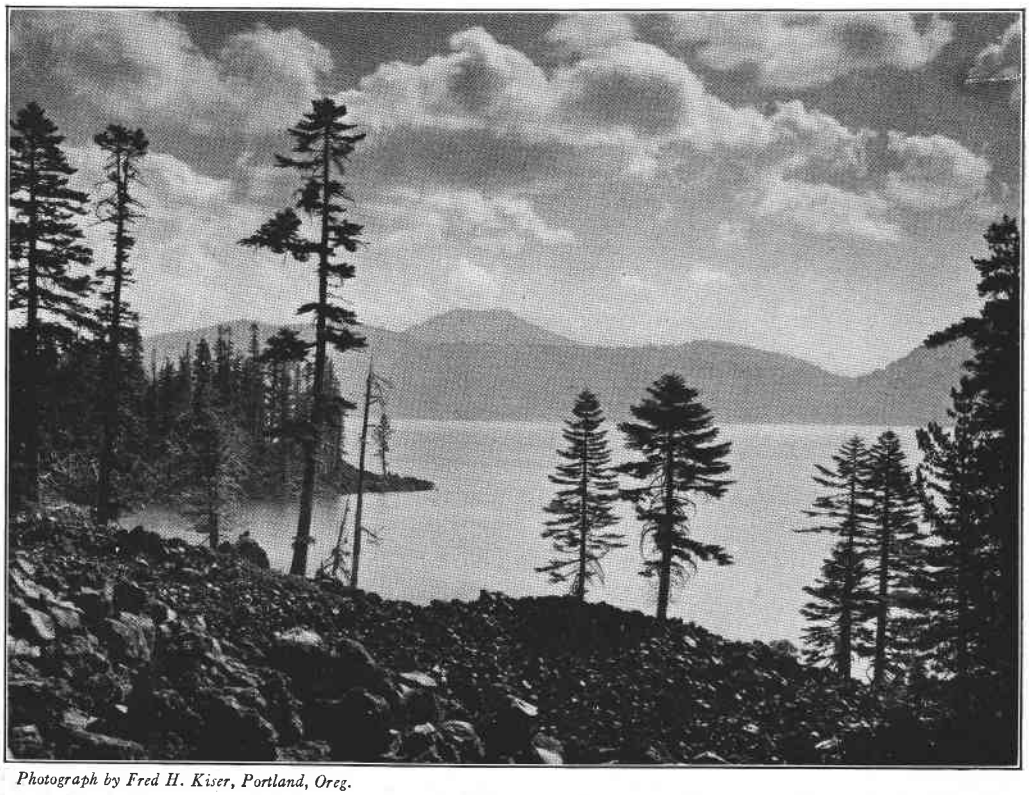
Mount Mazama fell into itself. It is as if some vast cavern formed in the earth's seething interior into which the entire volcano suddenly slipped. The imagination of Doré might have reproduced some hint of the titanic spectacle of the disappearance of a mountain fifteen thousand feet in height.

When Mount Mazama collapsed into this vast hole, leaving clean cut the edges which to-day are Crater Lake's surrounding cliffs, there was instantly a surging back. The crumbling lavas were forced again up the huge chimney.

But not all the way. The vent became jammed. In three spots only did the fires emerge again. Three small volcanoes formed in the hollow.

But these in turn soon choked and cooled. During succeeding ages springs poured their waters into the vast cavity, and Crater Lake was born. Its rising waters covered two of the small volcanic cones. The third still emerges. It is called Wizard Island.





Photograph by Fred H. Kiser, Portland, Oreg.

SUNSET

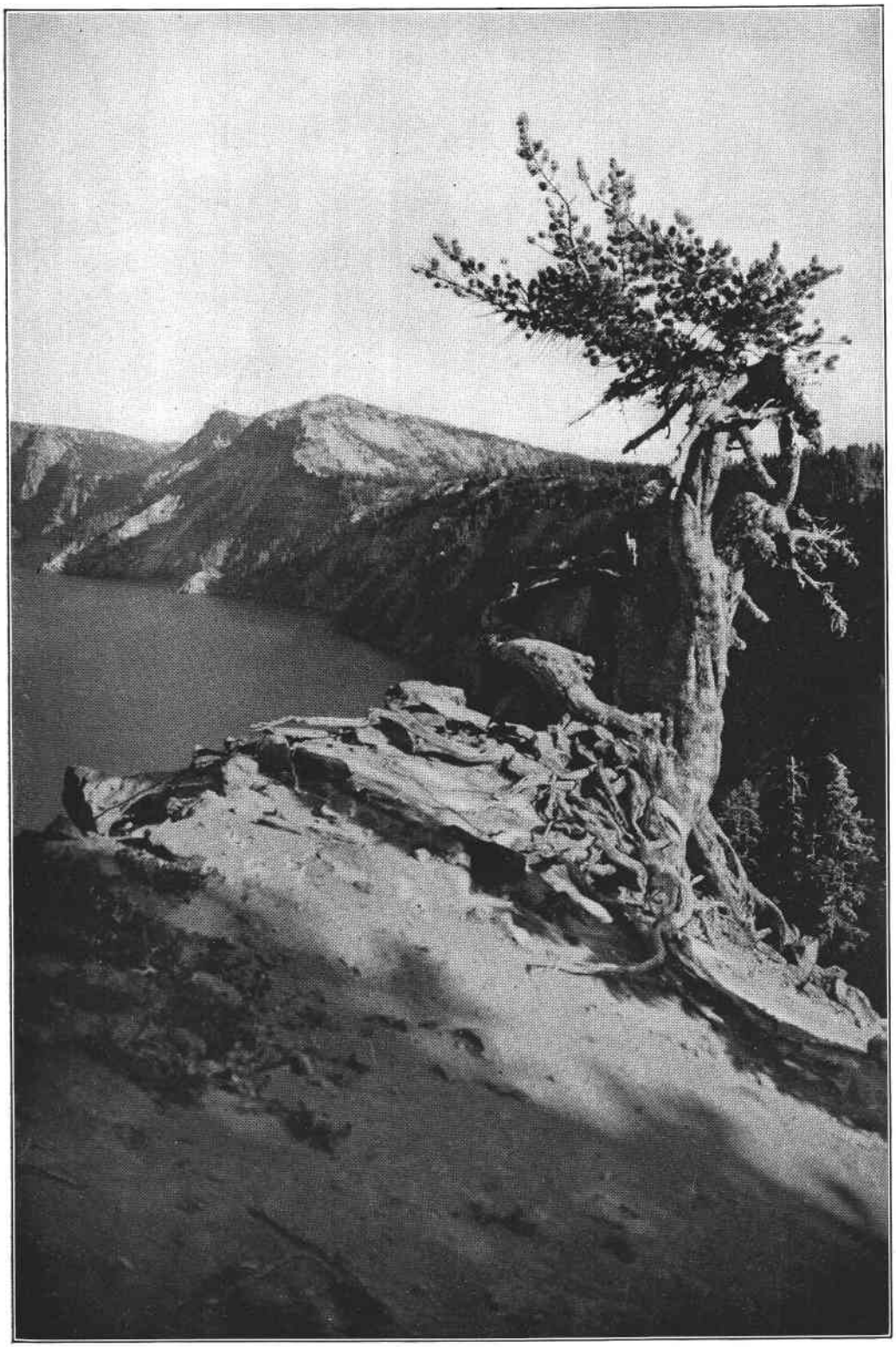
THE LEGEND OF LLAO

ACCORDING to the legend of the Klamath and Modoc Indians the mystic land of Gaywas was the home of the great god Llao. His throne in the infinite depths of the blue waters was surrounded by his warriors, giant crawfish able to lift great claws out of the water and seize too venturesome enemies on the cliff tops.

War broke out with Skell, the god of the neighboring Klamath Marshes. Skell was killed and his heart used for a ball by Llao's monsters. But an eagle, one of Skell's servants, captured it in flight, and escaped with it; and Skell's body grew again around his living heart. Once more he was powerful, and once more he waged war against the God of the Lake.

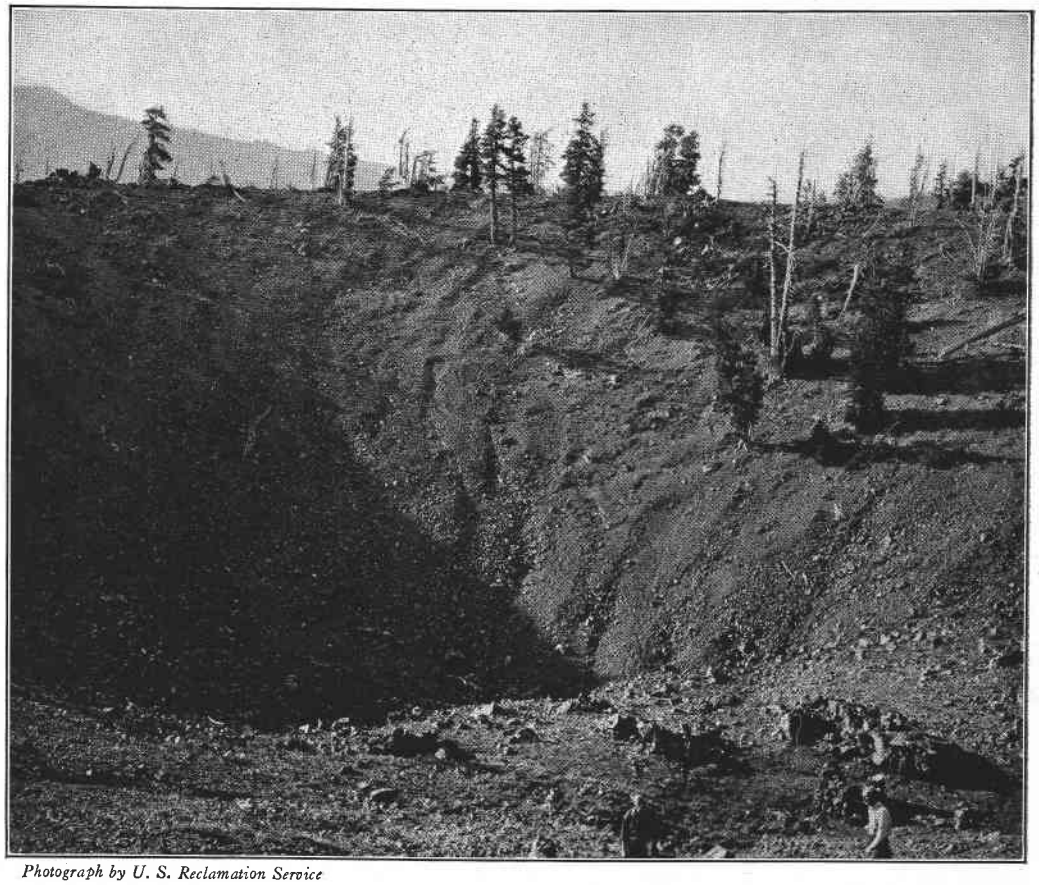
Then Llao was captured; but he was not so fortunate. Upon the highest cliff his body was torn into fragments and cast into the lake, and eaten by his own monsters under the belief that it was Skell's body. But when Llao's head was thrown in, the monsters recognized it, and would not eat it.

Llao's head still lies in the lake, and white men call it Wizard Island. And the cliff where Llao was torn to pieces is named Llao Rock.



Photograph by Fred H. Kiser, Portland, Oreg.

OFTEN THE TREES ARE AS GNARLED AND KNOTTED AS THE CLIFFS THEY GROW ON



Photograph by U. S. Reclamation Service

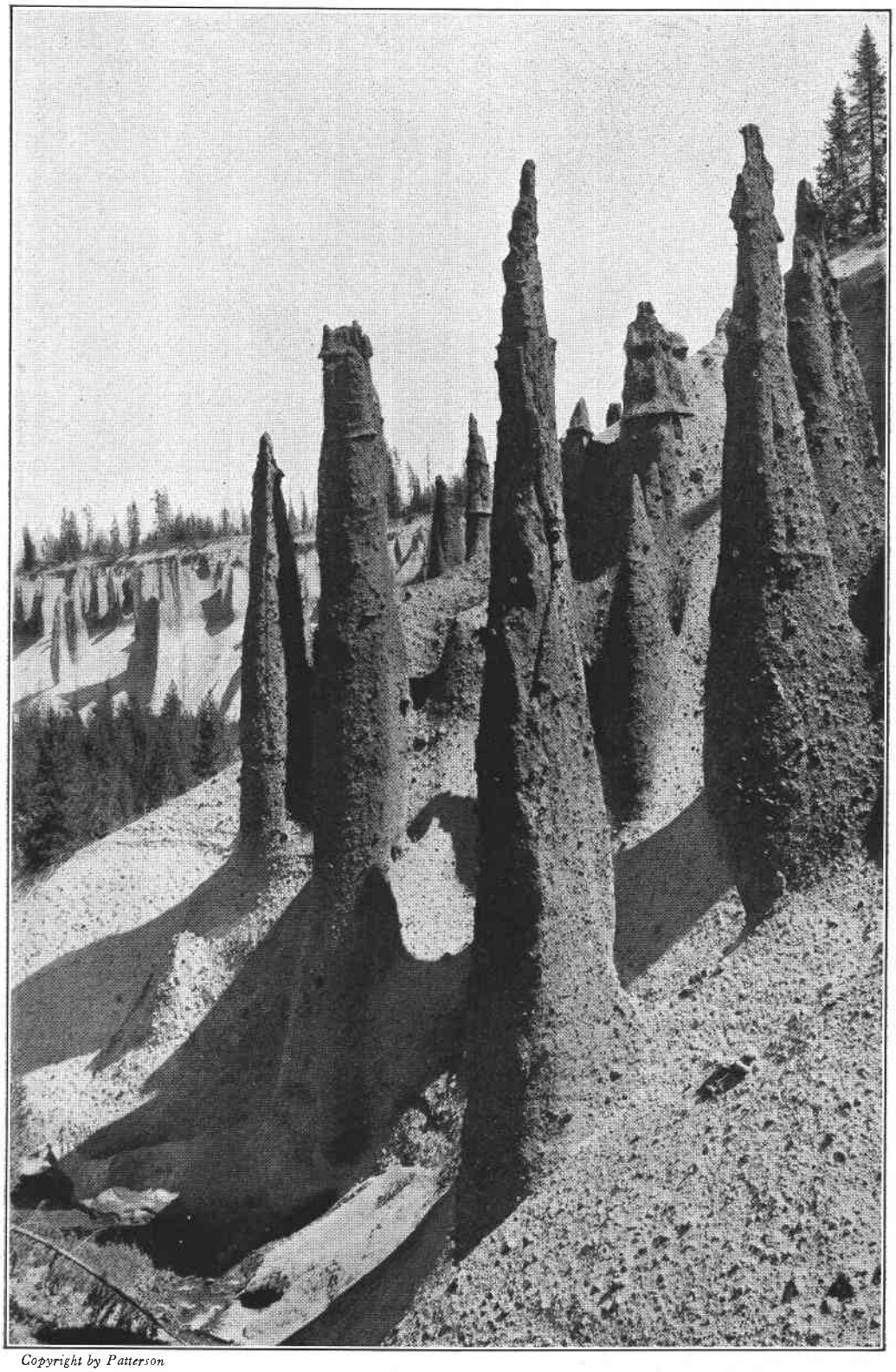
LOOKING DOWN INTO THE CRATER OF WIZARD ISLAND

VIEWED FROM THE RIM

SEVERAL days may profitably be spent upon the rim of the lake, which one may travel afoot, on horseback, or by automobile. The endless variety of lava formations and of color variation may be here studied to the best advantage.

The temperature of the water has been the subject of much investigation. The average observations of years show that, whatever may be the surface variations, the temperature of the water below a depth of three hundred feet continues approximately thirty-nine degrees the year around. This disposes of the theory that the depths of the lake are affected by volcanic heat.

"Apart from its attractive scenic features," writes J. S. Diller of the United States Geological Survey, " Crater Lake affords one of the most interesting and instructive fields for the study of volcanic geology to be found anywhere in the world. Considered in all its aspects, it ranks with the Grand Canyon of the Colorado, the Yosemite Valley, and the Falls of Niagara, but with an individuality that is superlative."



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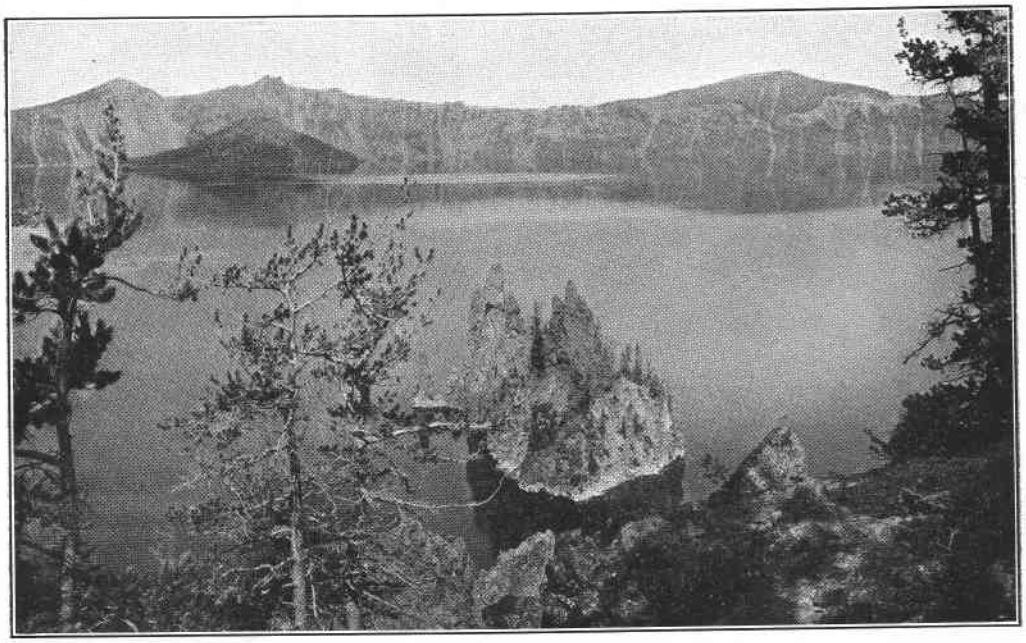
PINNACLE FORMATIONS IN SAND CREEK VALLEY, FORMED BY EROSION



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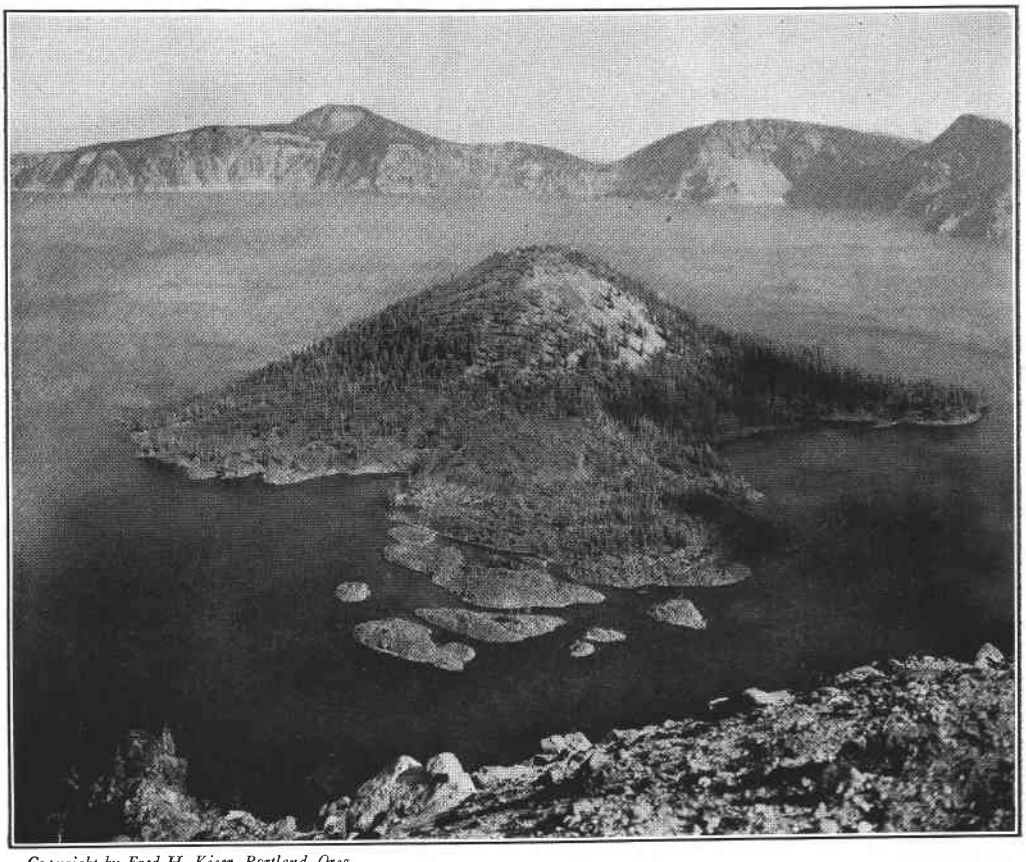
CLOSE-UP VIEW OF PHANTOM SHIP, WITH WIZARD ISLAND IN BACKGROUND



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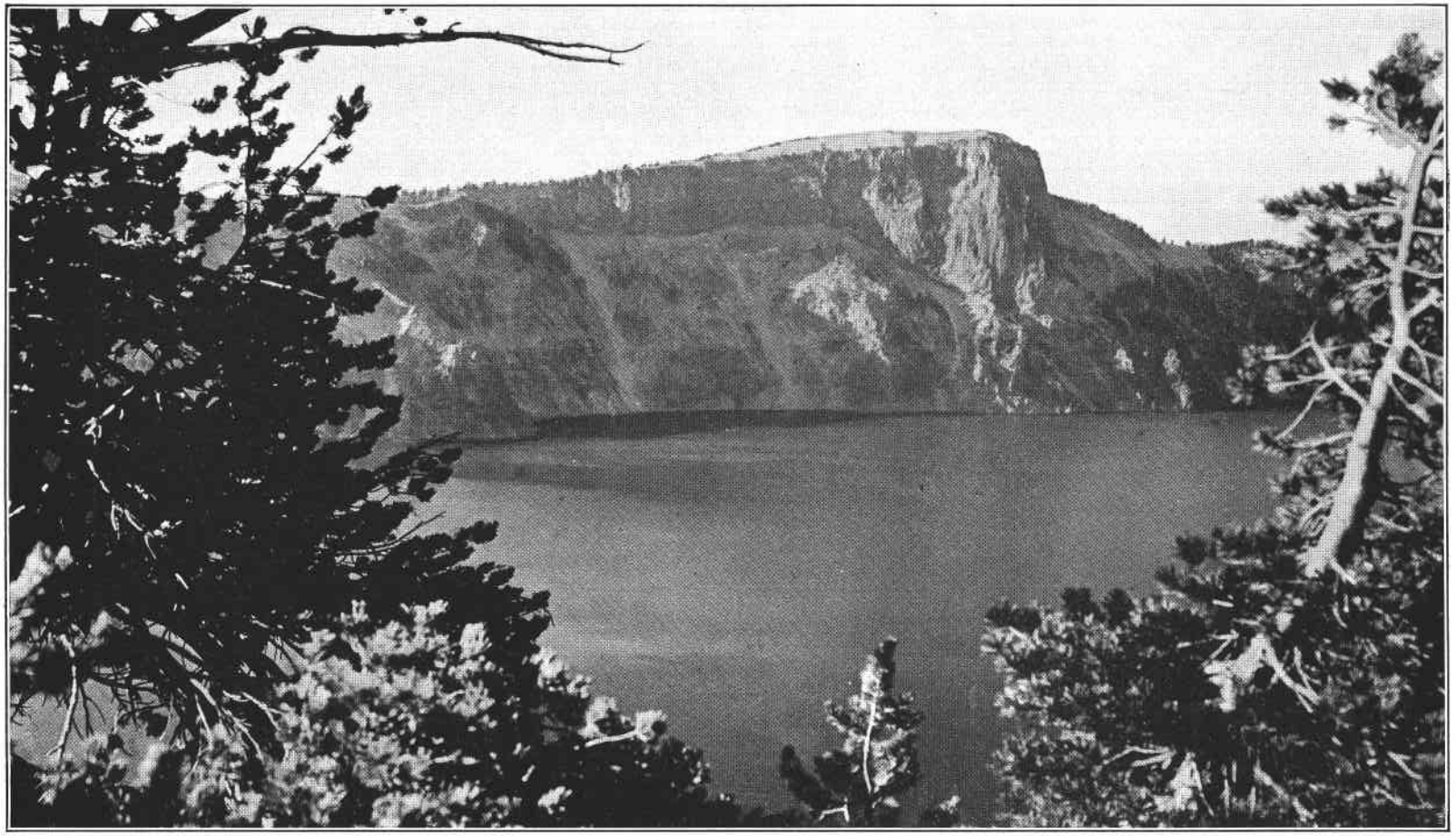
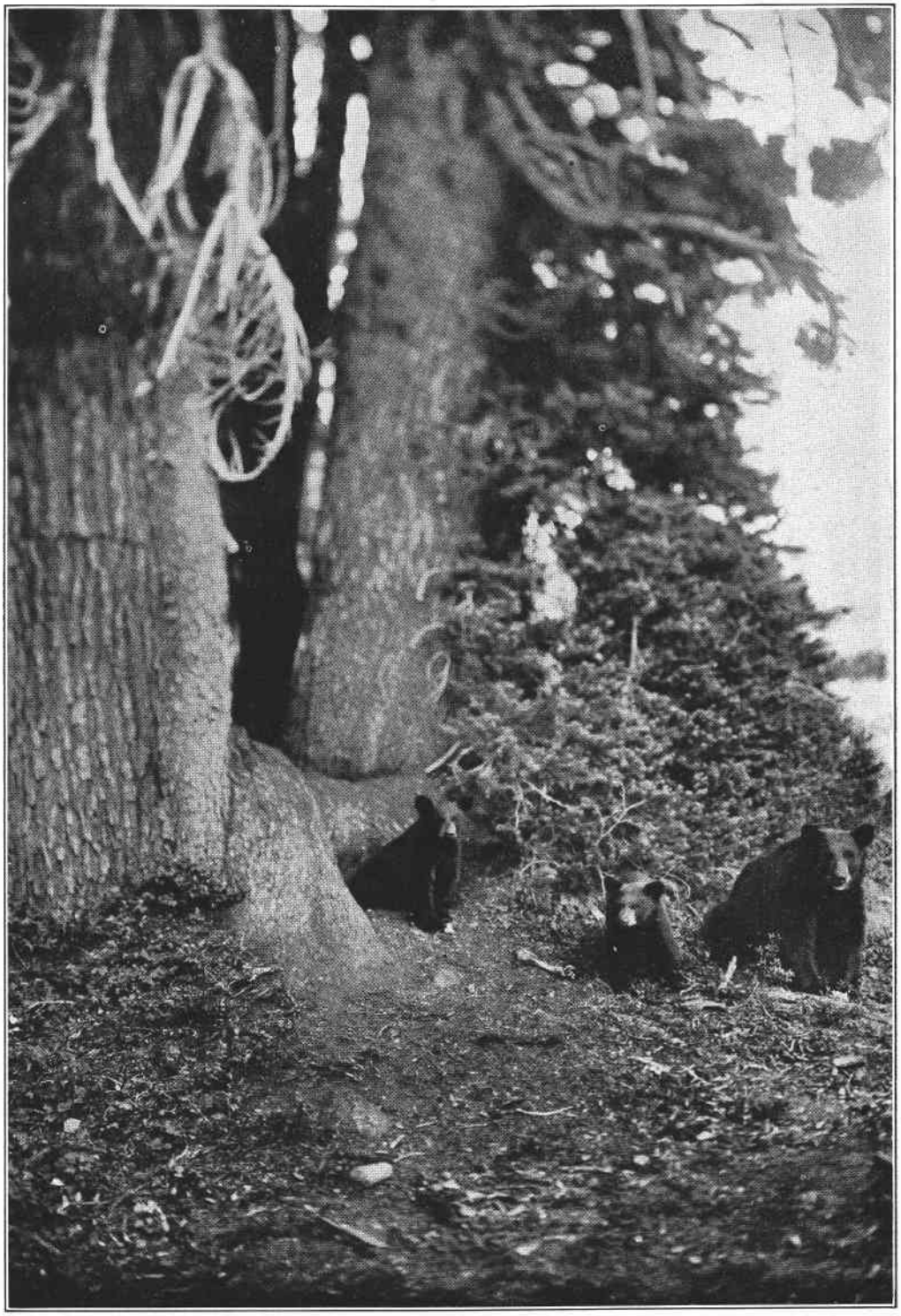
WIZARD ISLAND

A volcano built up within a volcano—a crater within a crater



Photograph by U. S. Reclamation Service

VIEW OF LLAO ROCK, WHICH STRONGLY SUGGESTS CRATER LAKE'S ATMOSPHERE OF MYSTERY



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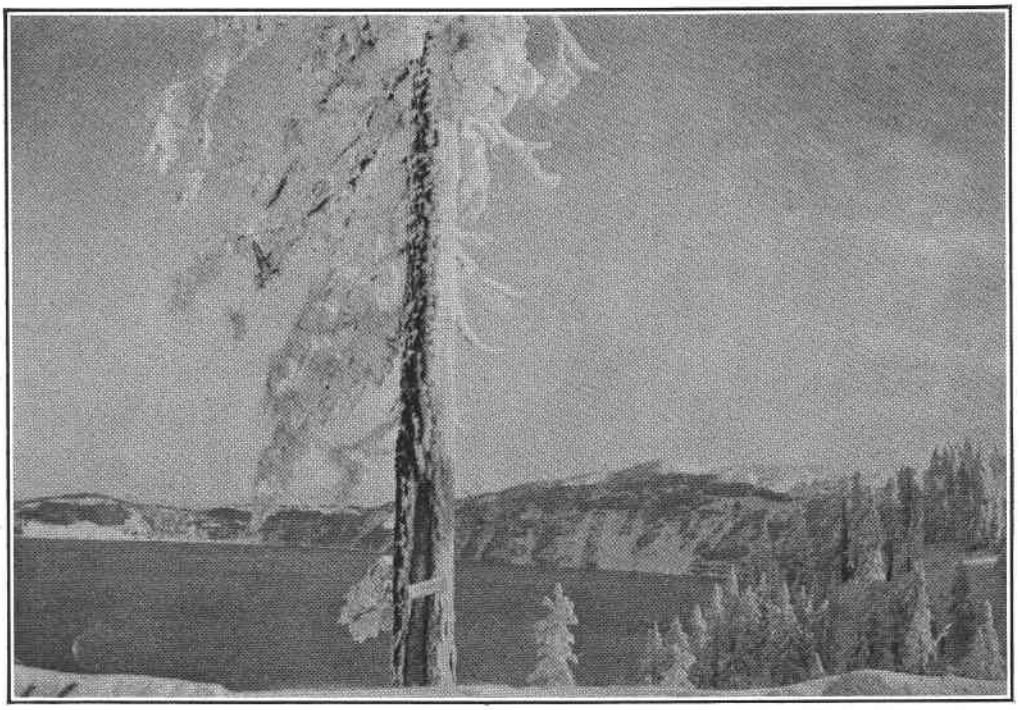
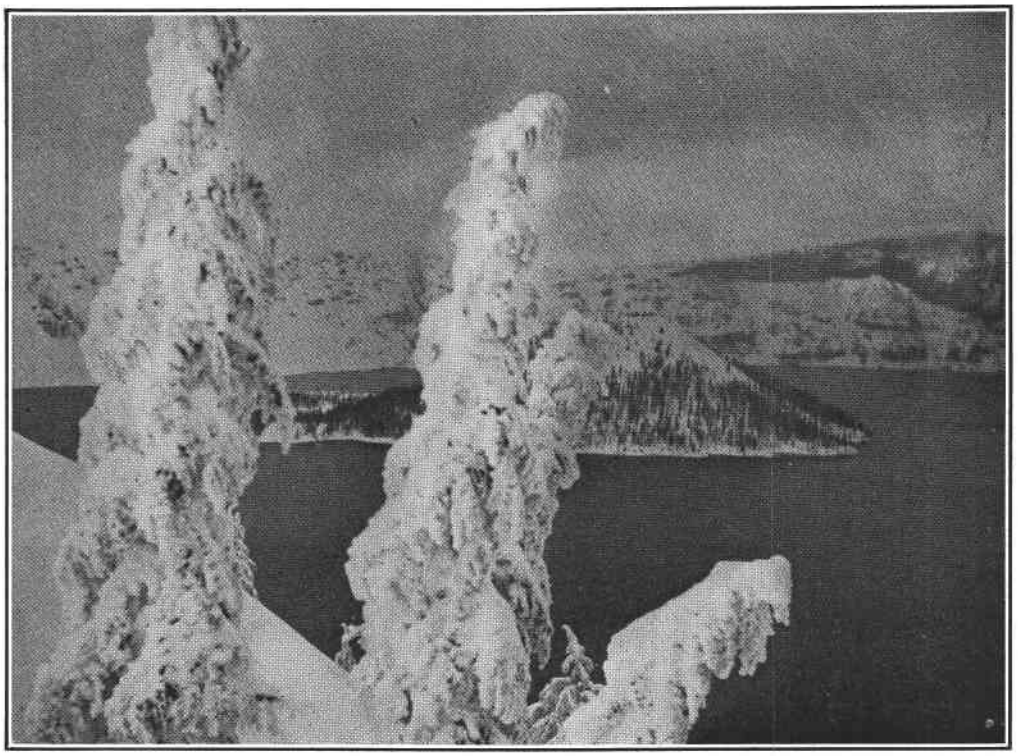
THE BEARS ARE THE MOST INTERESTING OF THE PARK'S WILD ANIMALS

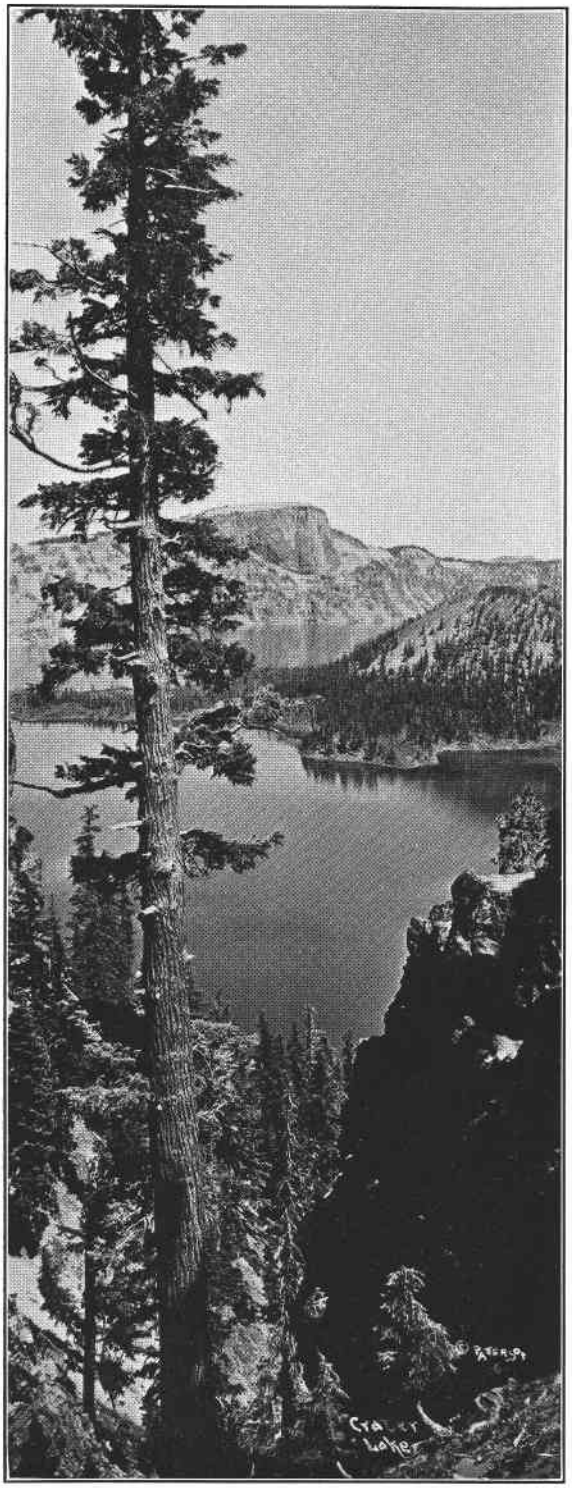


THE MOISTURE-LADEN WINDS FROM THE PACIFIC DEPOSIT THEIR SNOW BURDEN UPON EVERYTHING



THE WINTER CONTRAST BETWEEN THE SNOW-BURDENED CLIFFS AND TREES AND THE DARK WATER IS VERY STRIKING

THE MINE OF BEAUTY



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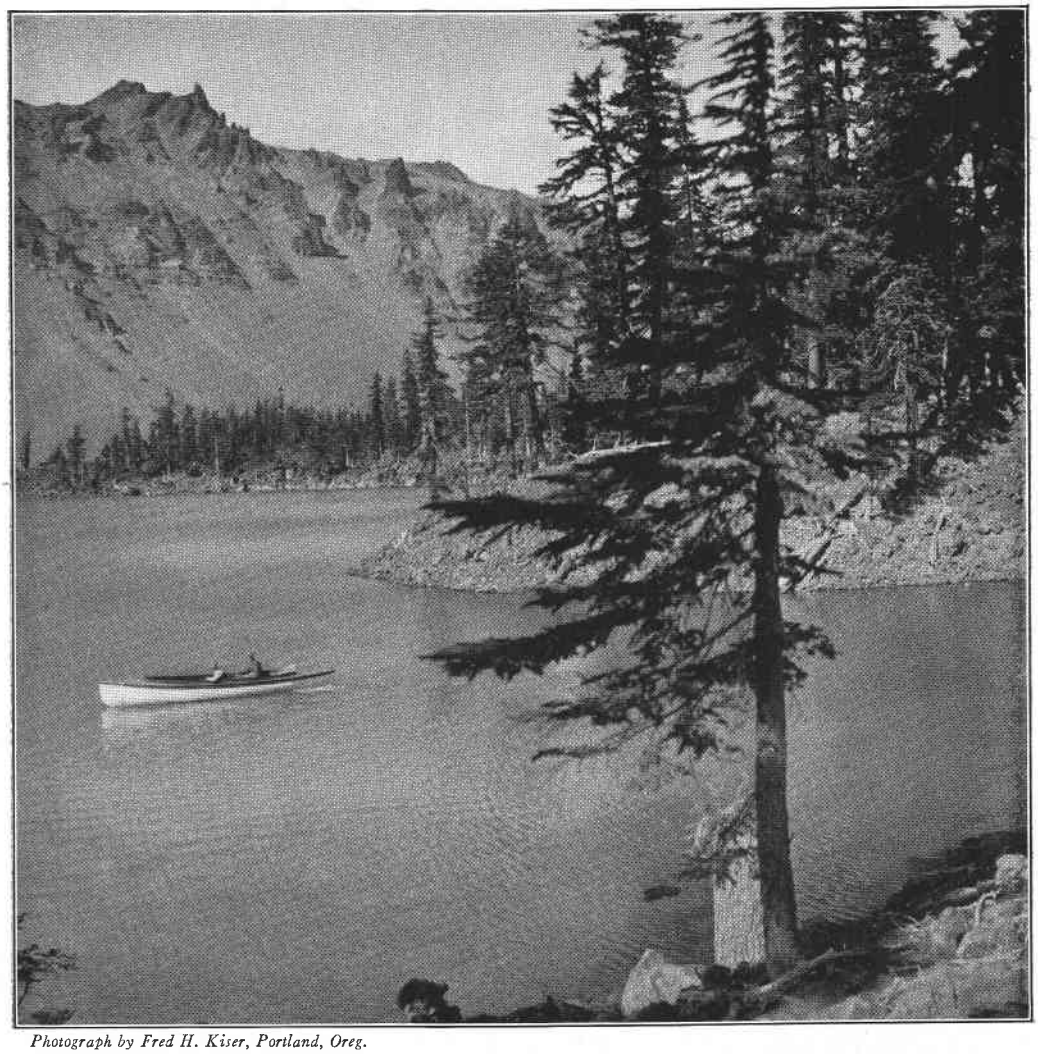
VIEW FROM THE RIM ROAD, WHICH COMPLETELY ENCIRCLES THE LAKE

CRATER LAKE is seen in its glory from a launch. One may float for days upon its surface without sating one's sense of delighted surprise; for all is new again with every change of light. The Phantom Ship, for instance, sometimes wholly disappears. Now it is there, and a few minutes after, with new slants of light, it is gone—a phantom indeed. So it is with many headlands and ghostlike palisades.

This lake was not discovered until 1853. Eleven Californians had undertaken once more the search for the famous, perhaps fabulous, Lost Cabin Mine. For many years parties had been searching the Cascades; again they had come into the Rogue River region. With all their secrecy their object became known, and a party of Oregonians was hastily organized to stalk them and share their find. The Californians discovered the pursuit and divided their party. The Oregonians did the same. It became a game of hide-and-seek. When provisions were nearly exhausted all the parties joined forces.

" Suddenly we came in sight of water," writes J. W. Hillman, then the leader of the combined party; "we were much surprised, as we did not expect to see any lakes and did not know but that we had come in sight of and close to Klamath Lake. Not until my



Photograph by Fred H. Kiser, Portland, Oreg.

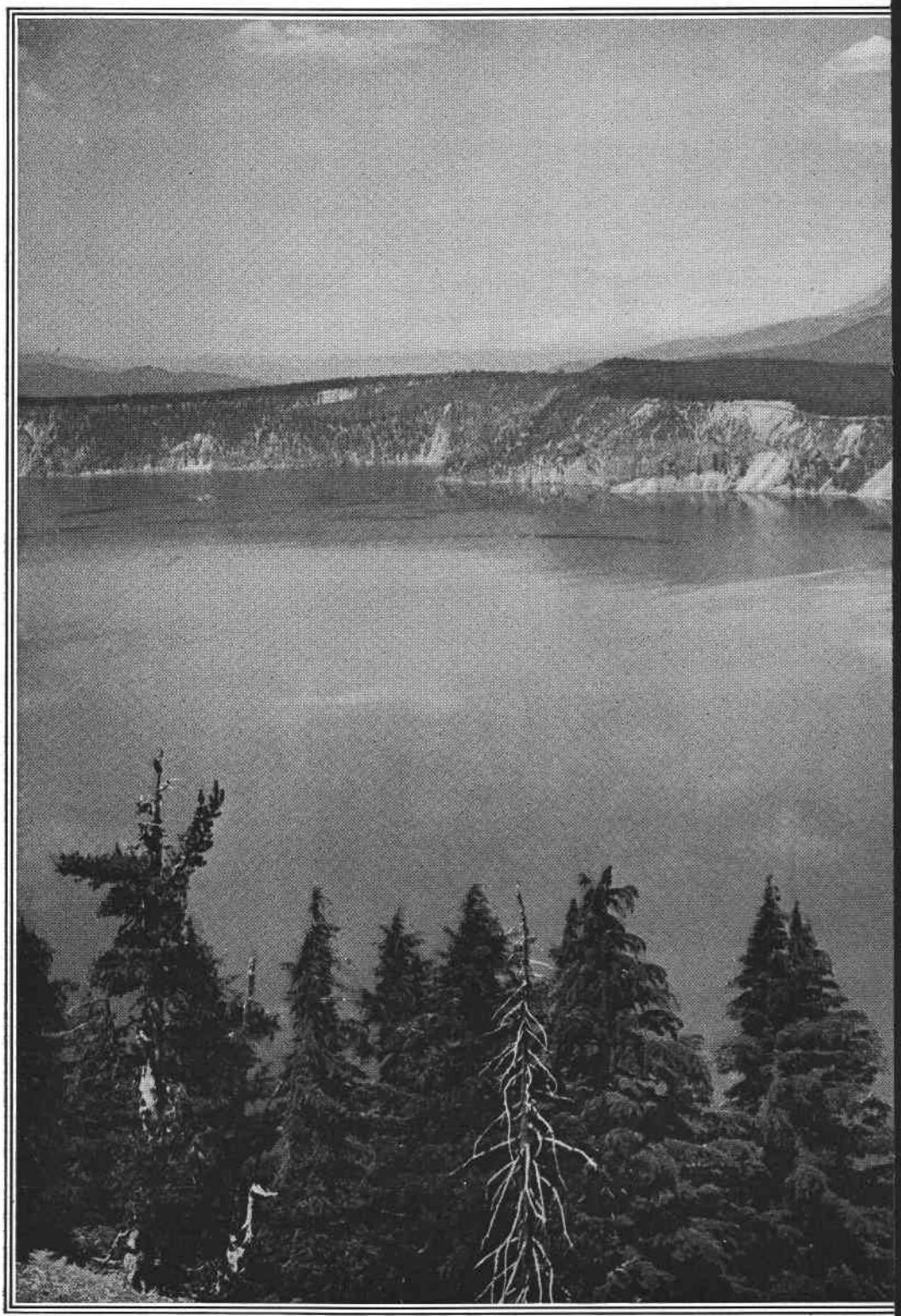
THE FAVORITE WAY TO SEE THE SCULPTURED CLIFFS IS FROM A MOTOR BOAT

mule stopped within a few feet of the rim of Crater Lake did I look down, and if I had been riding a blind mule I firmly believe I would have ridden over the edge to death."

It is interesting that the discoverers quarreled on the choice of a name, dividing between Mysterious Lake and Deep Blue Lake. The advocates of Deep Blue Lake won the vote, but in 1869 a visiting party from Jacksonville renamed it Crater Lake, and this, by natural right, became its title.

HOTELS AND CAMPS

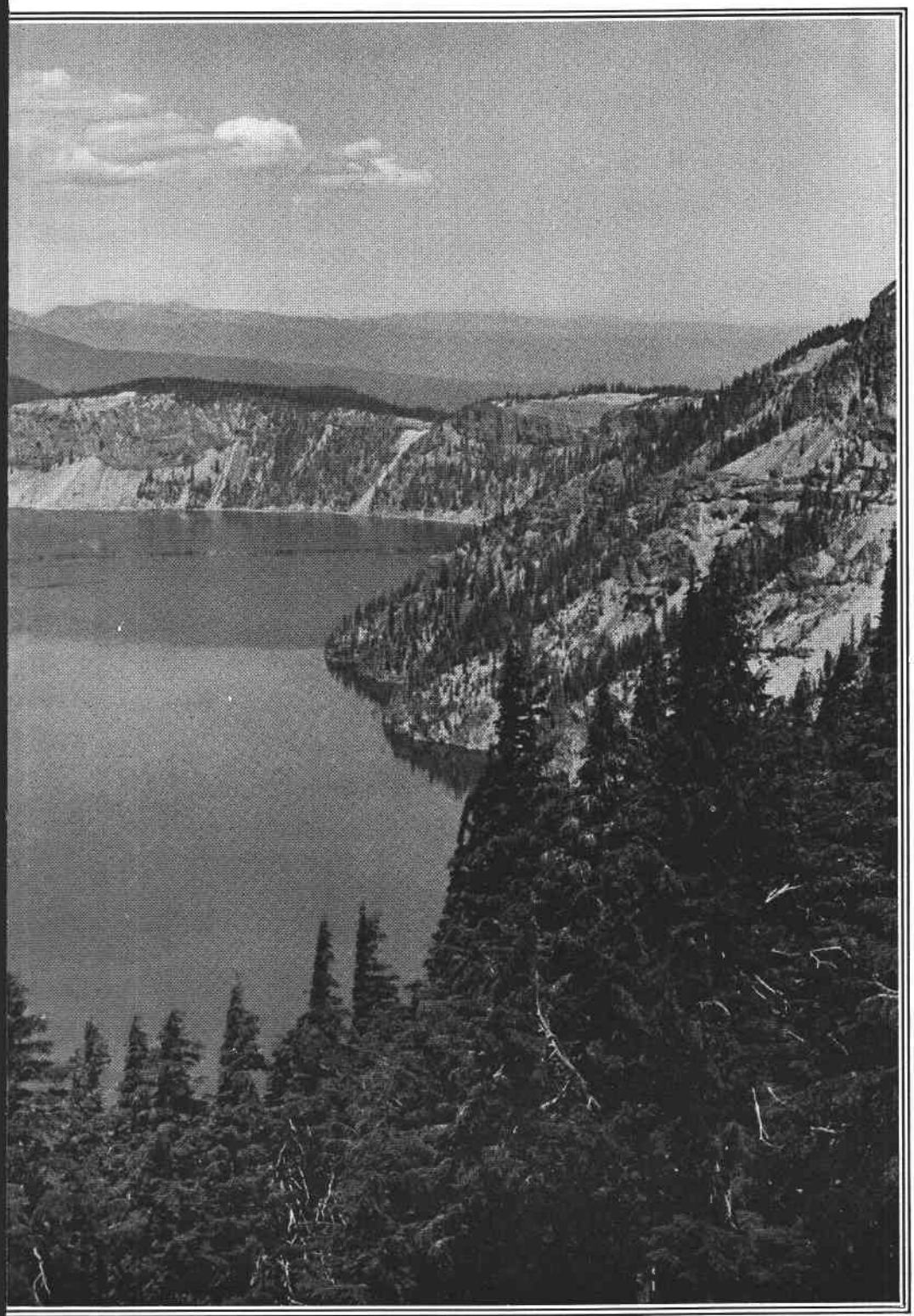
Crater Lake is accessible by both rail and highway. There are three excellent roads coming in the west, south, and east entrances. Comfortable hotel accommodations are available on the rim of the lake, and rental cabins, cafeteria, store, stage line, and boat service are also provided for the comfort of visitors. The Government maintains a free automobile camp ground for the visiting motorist.



Photograph by U. S. Reclamation Service

GENERAL VIEW ACROSS CRATER LAKE NEAR SENTINEL ROCK, SHOWING

These cliffs vary from a thousand to twelve hundred feet high, occasionally rising to two thousand feet.



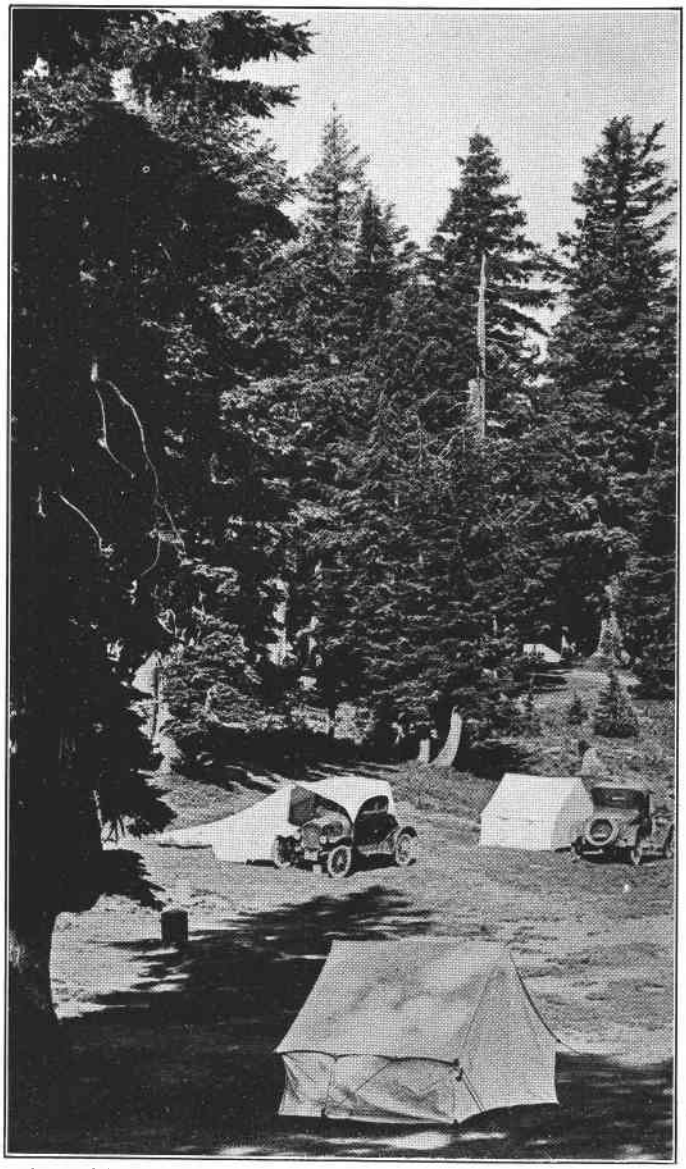
NORTHERN SHORE LINE, WITH RED CONE IN THE MIDDLE DISTANCE

The first effect of a view across the lake is to fill the observer with awe and a deep sense of mystery

HARD-FIGHTING TROUT

THIS magnificent body of cold fresh water originally contained no fish of any kind. A small crustacean was found in large numbers in its waters, the suggestion, no doubt, upon which was founded the Indian legend of the gigantic crawfish which formed the bodyguard of the great god Llao.

In 1888 Will G. Steel brought trout fry from a ranch fifty miles away, but no fish were seen in the lake for more than a dozen years. Then a few were taken, one of which was fully thirty inches long.



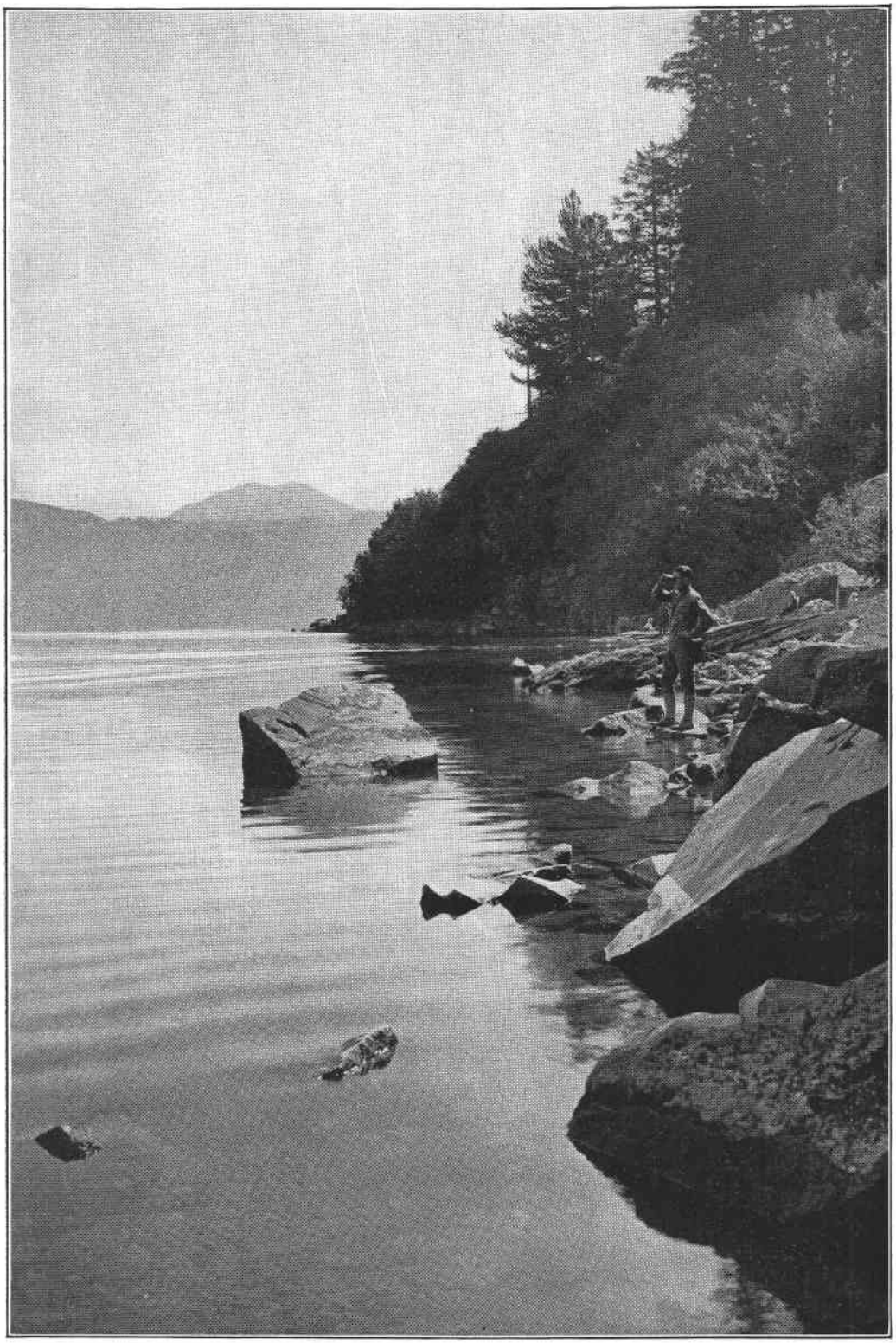
Photograph by Patterson

THERE ARE NINE FORESTED CAMP GROUNDS IN THE PARK

Since then trout have been taken in ever-increasing numbers, both by fly casting and trolling. Rainbow trout vary from one to ten pounds in weight.

The Rogue River, which has its source partially within the park, is one of the most famous trout streams in the world, being the home of the phenomenally game steelhead.

Anglers of experience in western fishing have testified that, pound for pound, the trout taken in the cold deep waters of Crater Lake are about the hardest-fighting trout of all. Some fish may be taken from the shore of Crater Lake, but the best fishing is to be had from boats.

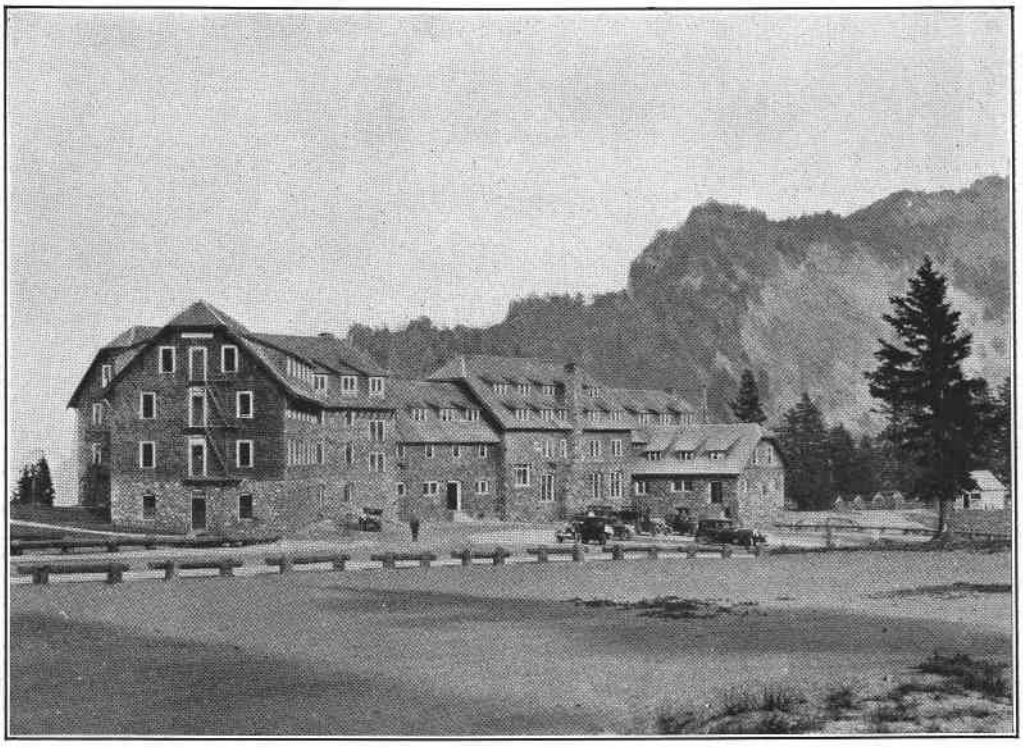


Photograph by U. S. Reclamation Service

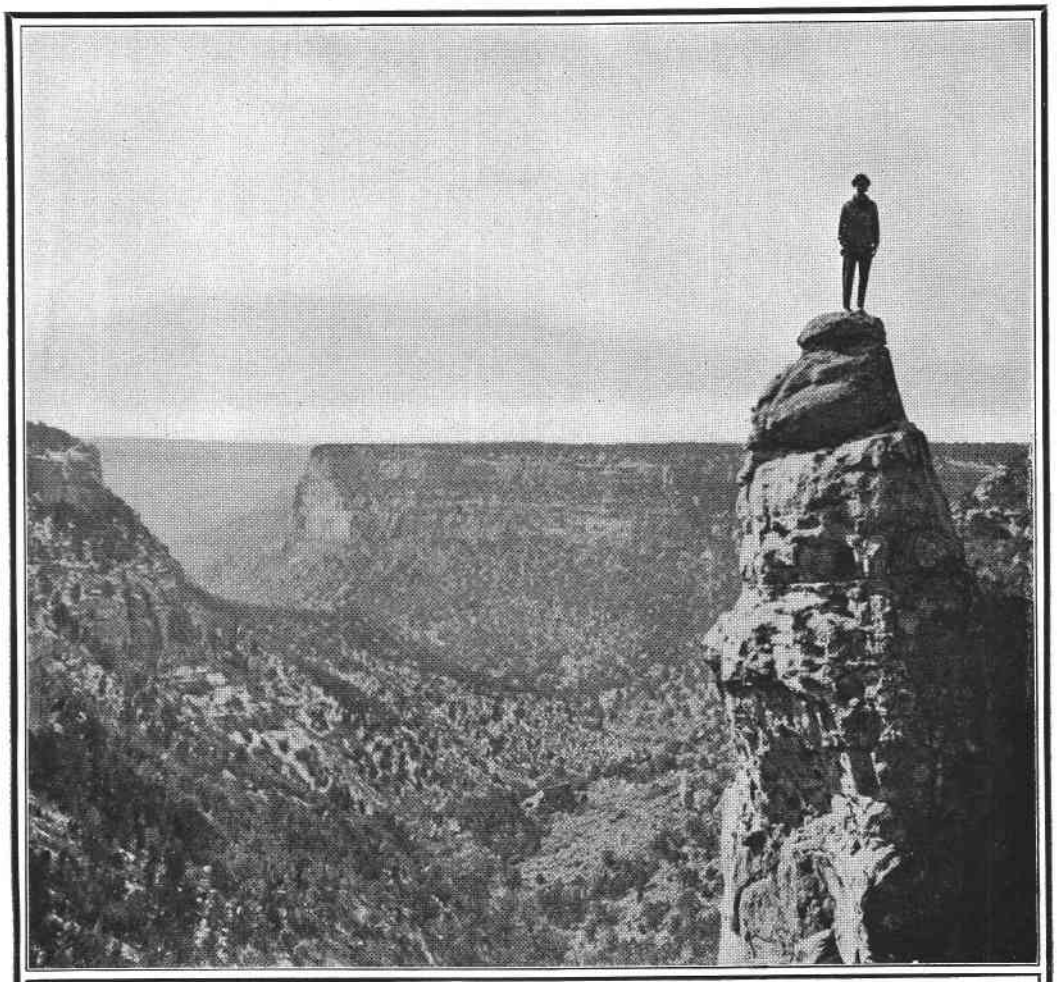
AT THE FOOT OF THE TRAIL FROM CRATER LAKE LODGE

Photograph by Fred H. Kiser, Portland, Oreg.

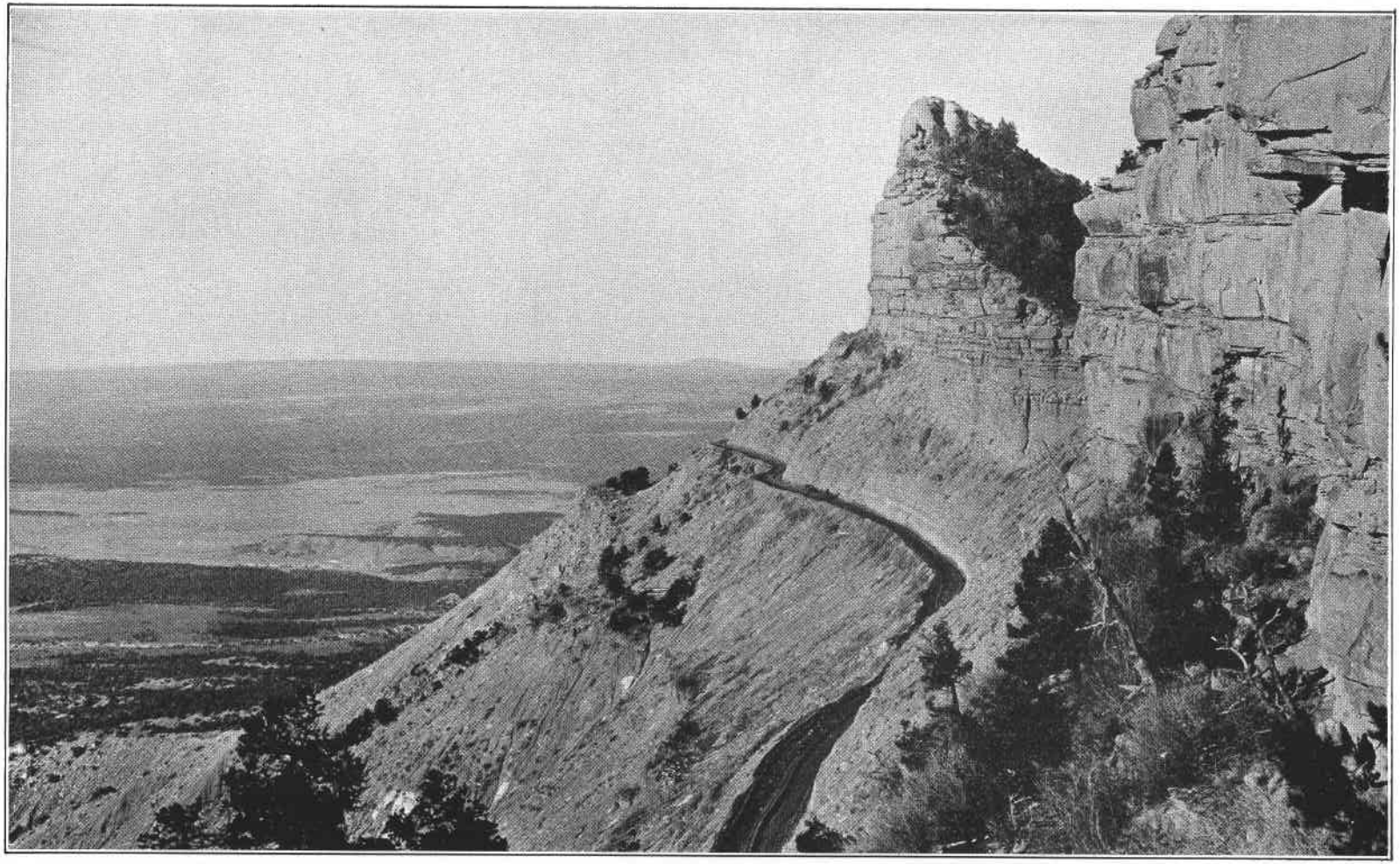
ACROSS THE LAKE FROM THE RIM ROAD



CRATER LAKE LODGE ON THE RIM, 1,000 FEET ABOVE THE LAKE



THE MESA VERDE NATIONAL PARK



KNIFE-EDGE SECTION OF NORTH ENTRANCE ROAD

This road skirts the north face of the Mesa Verde, 1,800 feet above the Montezuma Valley

Photograph by F. C. Jeep

YESTERDAY AND TO-DAY

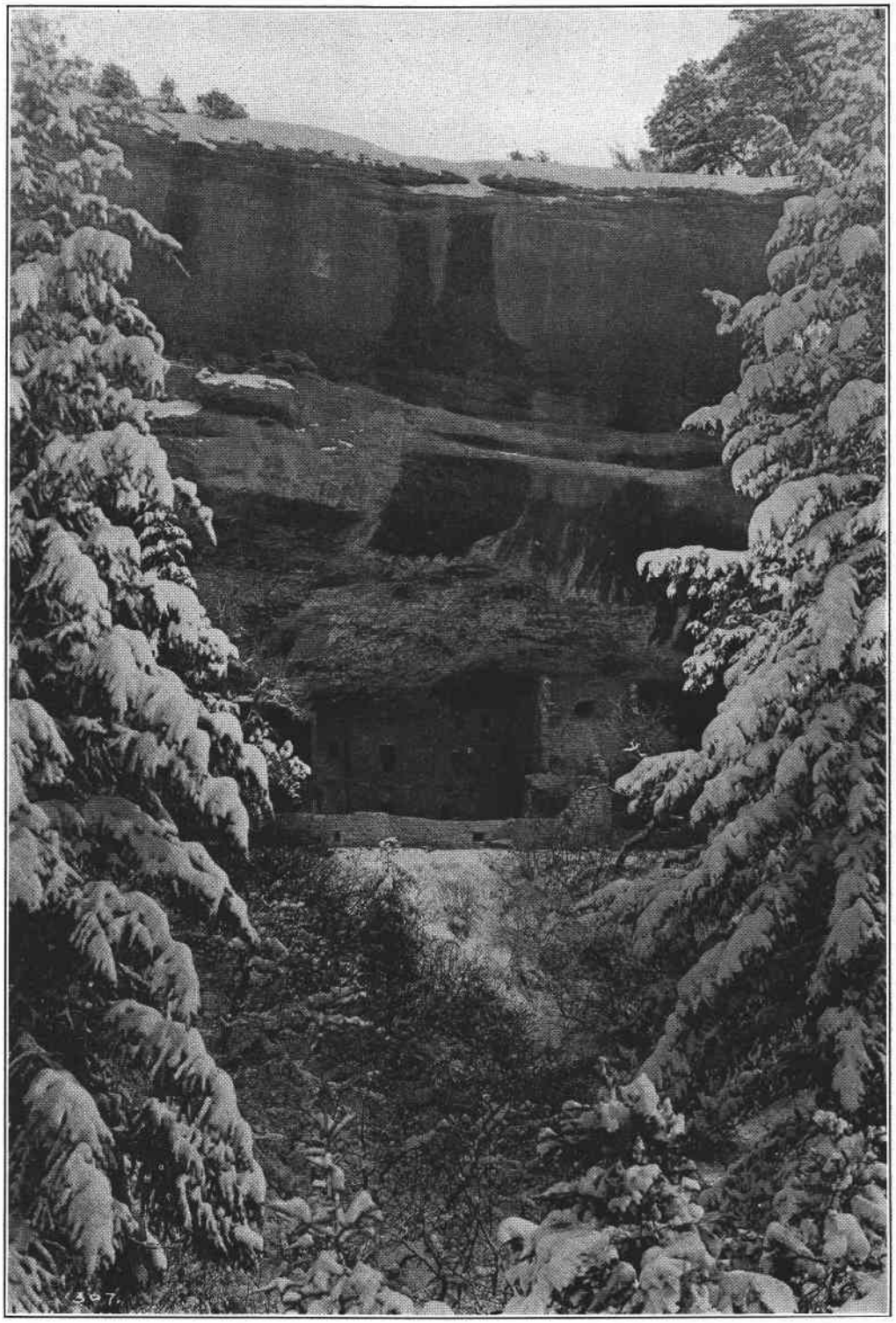
COMMUNITIES *of the* PAST

ONE December day in 1888 Richard and Alfred Wetherall, searching for lost cattle on the Mesa Verde southwest of Mancos, Colorado, pushed through dense growths on the edge of a deep canyon and shouted aloud in astonishment. Across the canyon, tucked into a shelf under the overhanging edge of the opposite brink, were the walls and towers of what seemed to them a palace. They named it Cliff Palace.

Forgetting the cattle in their excitement, they searched the mesa in all directions. Near by, under the overhanging edge of another canyon, they found a similar group, no less majestic, which they named Spruce Tree House because a large spruce grew out of the ruins.

Thus were discovered the most elaborate and best-preserved prehistoric cliff-dweller ruins in America, if not in the world.

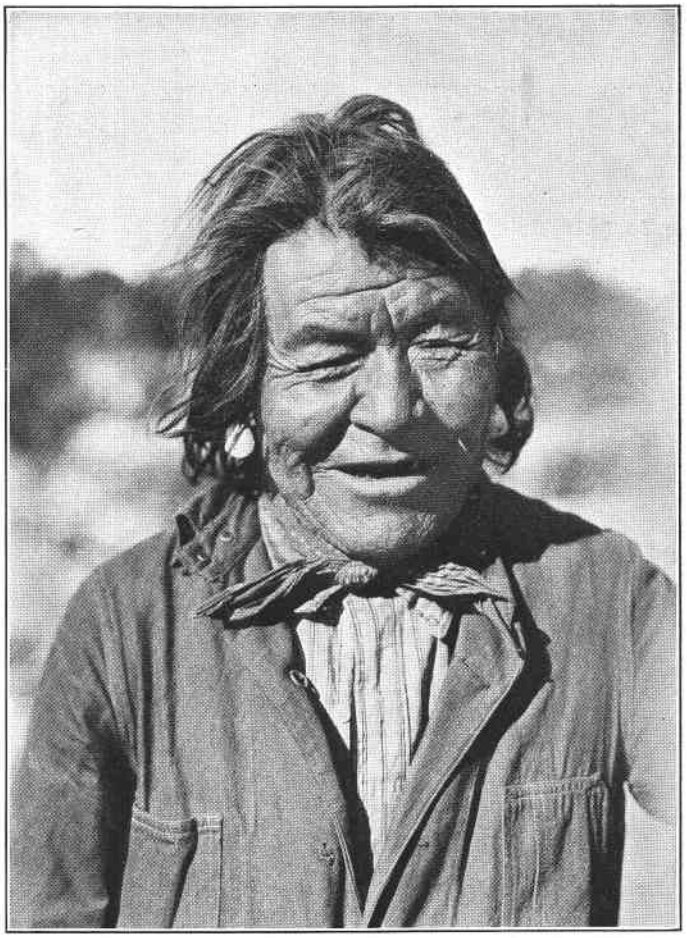
A careful search of the entire Mesa Verde in the years following has resulted in many other finds of interest and importance. In 1906 Congress set aside the region as a national park. Even yet its treasures of antiquity are not all known. A remarkable temple to the sun was unearthed in 1915.



SPRUCE TREE HOUSE WAS AMPLY PROTECTED FROM THE HEAVY WINTER SNOWS

THE STORY OF THE MESAS

THOSE who have traveled through our Southwestern States have seen from the car windows innumerable mesas or isolated plateaus rising abruptly for hundreds of feet from the bare and often arid plains. The word "mesa" is Spanish for table. Once the level of these mesa tops was the level of all of this vast southwestern country, but the rains and floods of centuries have washed away the softer earths down to its present level, leaving standing only the rocky spots or those so covered with surface rocks that the rains could not reach the softer strata underneath.



NAVAJO INDIANS CONSTITUTE THE BULK OF THE PARK'S LABORING FORCES. AT THE EVENING CAMP FIRE THEY GIVE THEIR YEBECHAI DANCE

The Mesa Verde (called verde or green because of the heavy forest cover) is one of the great mesas, being approximately fifteen miles long and eight miles wide, and perhaps the most widely known in the Southwest. The surface of this great tableland, rising abruptly one thousand to two thousand five hundred feet above the surrounding valleys, is gashed by a great series of precipitous canyons, and in the great caves in the sheer canyon walls the ruins of the ancient cliff dwellers are found. The most important ruins are located in Rock, Long, Wickiup, Navajo, Spruce, Soda, Moccasin, and tributary canyons.

IN THE CLIFF DWELLINGS

LIFE must have been difficult in this dry country when the Mesa Verde communities flourished in the sides of these sandstone cliffs. Game was scarce and hunting arduous. The Mancos River yielded a few fish. The earth contributed berries or nuts. Water was rare and found only in sequestered places near the heads of the canyons. Nevertheless, the inhabitants cultivated their farms and raised their corn, which they ground on flat stones called metates. They baked their bread on flat stone griddles. They boiled their meat in well-made vessels some of which were artistically decorated.

Their life was difficult, but confidently did they believe that they were dependent upon the gods to make the rain fall and the corn grow. They were a religious people who worshipped the sun as the father of all and the earth as the mother who brought them all their material blessings. They possessed no written language and could only record their thoughts by a few symbols which they painted on their earthenware jars or scratched on the rocks.

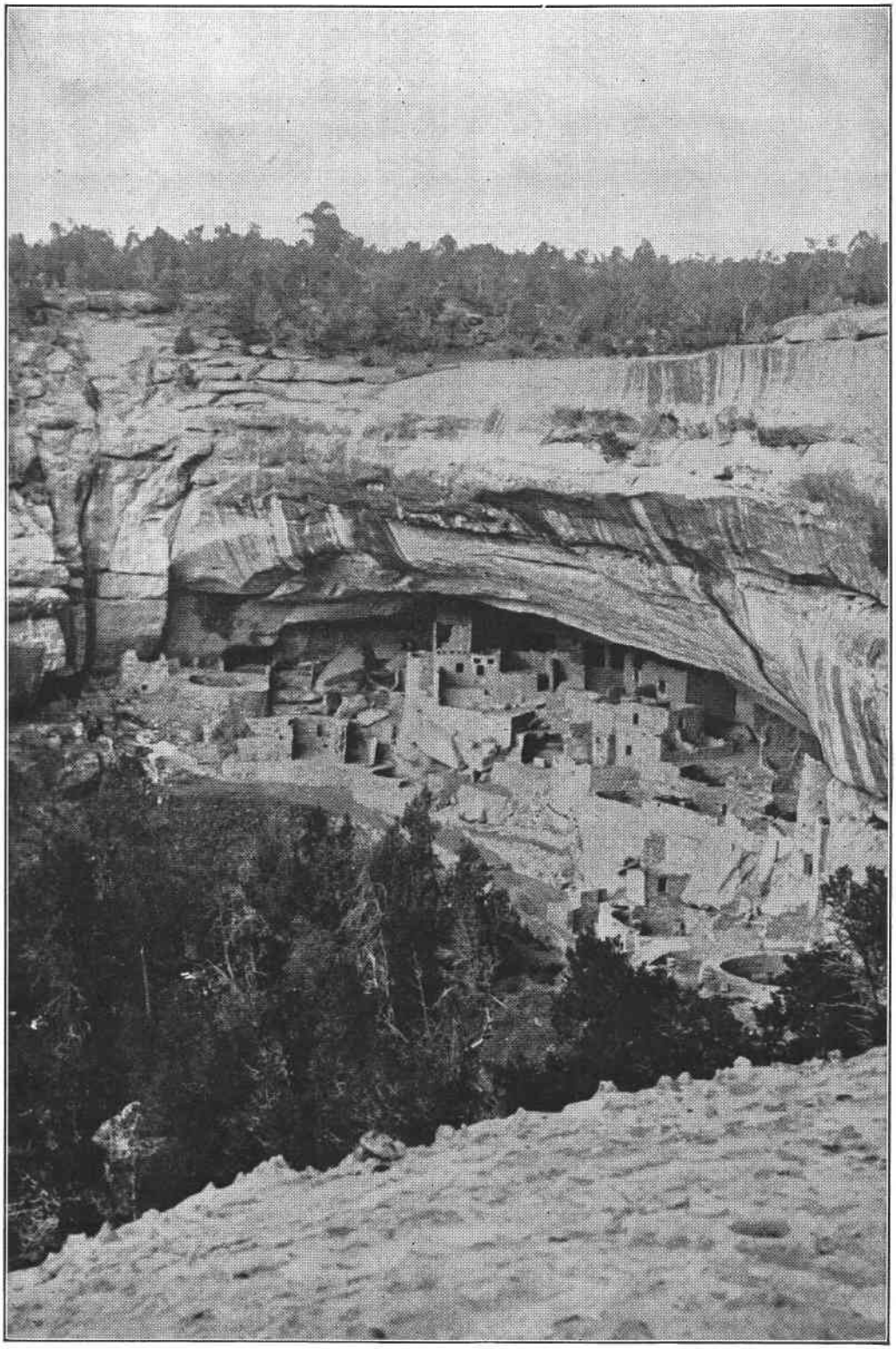
As their sense of beauty was keen, their art, though primitive, was true; rarely realistic, generally symbolic. Their decoration of cotton fabrics and ceramic work might be called beautiful, even when judged by the highly developed taste of to-day. They fashioned axes, spear points, and rude tools of stone; they wove sandals and made attractive basketry.

They were not content with rude buildings and had long outgrown the caves that satisfied less civilized Indians farther north and south of them.

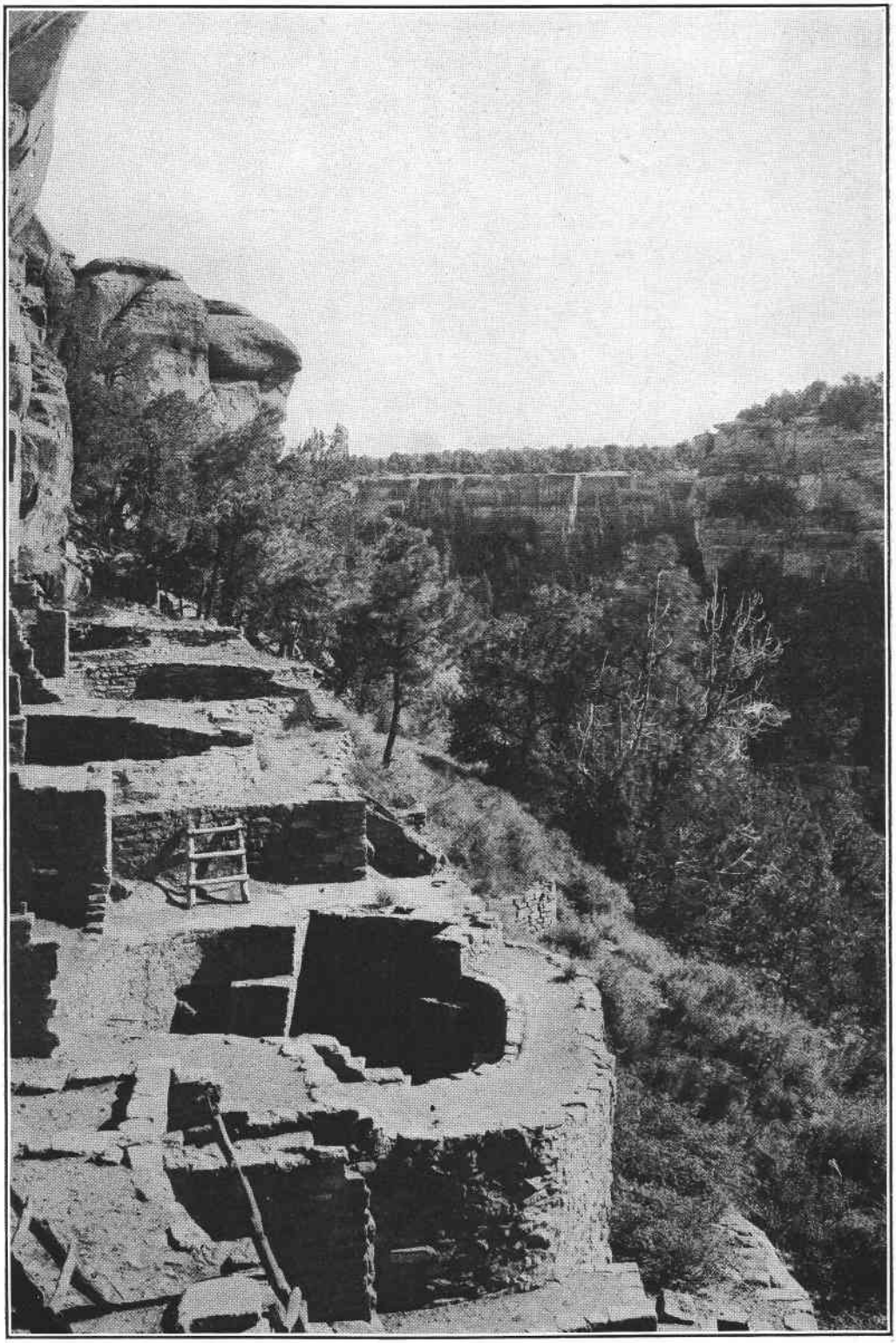
The photographs of Cliff Palace on the following three pages will show not only the protection afforded by the overhanging cliffs but the general scheme of community living.

The population was composed of a series of units, possibly clans, each of which had its own social organization more or less distinct from the others. Each had ceremonial rooms, called kivas. Each also had living rooms and storerooms. There were twenty-three social units or clans in Cliff Palace.

The kivas were the rooms where the men spent most of the time devoted to ceremonies, councils, and other gatherings. The religious fraternities were limited to the men of a clan.

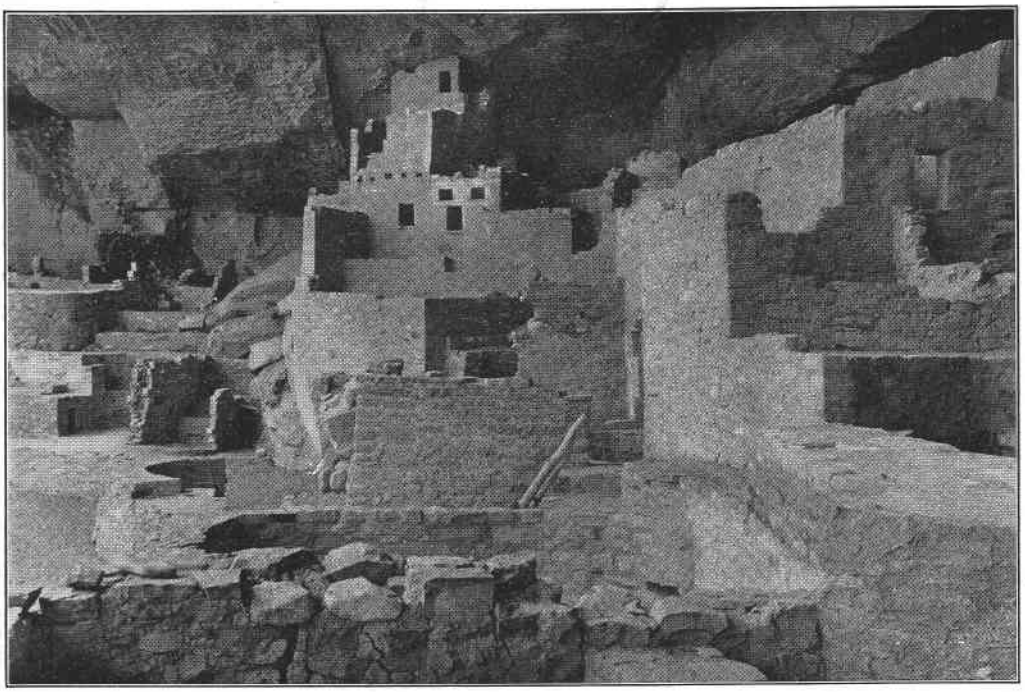


CLIFF PALACE WITH ITS TWO HUNDRED AND TWO ROOMS AND TWENTY-THREE KIVAS IS THE LARGEST AND BEST PRESERVED OF THE KNOWN CLIFF DWELLINGS



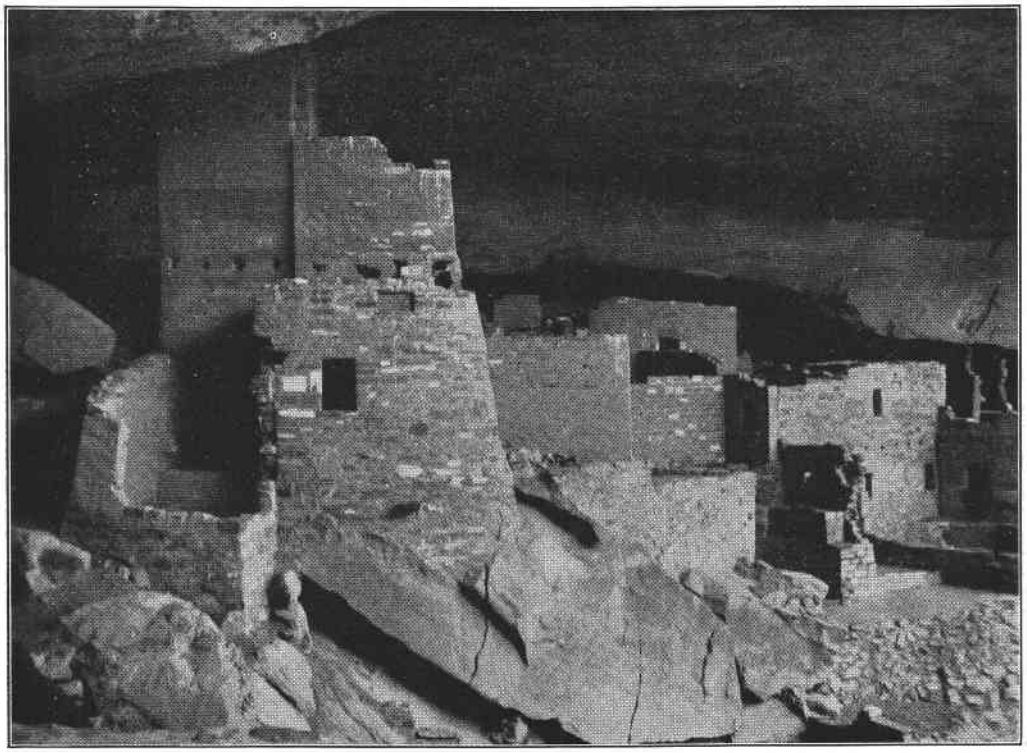
Photograph by Geo. L. Beam, Denver, Colo.

LOOKING ACROSS CLIFF CANYON FROM CLIFF PALACE; SUN TEMPLE ON EXTREME RIGHT IN DISTANCE ON TOP OF CLIFF



Photograph by Arthur Chapman

THE SPEAKER CHIEF'S HOUSE OCCUPIES A COMMANDING POSITION IN CLIFF PALACE



Photograph by Arthur Chapman

NORTHEAST QUARTER OF CLIFF PALACE

Photograph by T. G. Lemmon

STONES FROM SUN TEMPLE COVERED WITH GEOMETRICAL AND EMBLEMATICAL DESIGNS

THE MESA'S LITTLE PEOPLE

MANY Indians to-day shun the ruins of the Mesa Verde. They believe them inhabited by spirits whom they call the Little People. It is vain to tell them that the Little People were probably their own ancestors; they refuse to believe it.

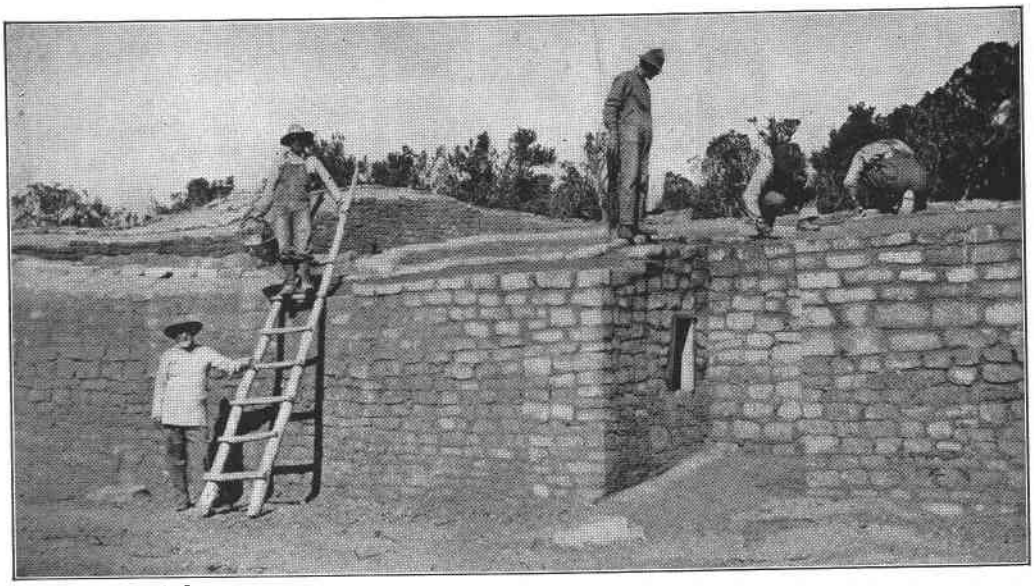
When the national park telephone line was building in 1915 the Indians were greatly excited. Coming to the Superintendent's office, they shook their heads ominously.

The poles wouldn't stand up, they declared. Why? Because the Little People wouldn't like such an uncanny thing as a telephone.

But poles were standing, the Superintendent pointed out. All right, the Indians replied, but wait. The wires wouldn't talk. Little People wouldn't like it.

The poles were finally all in and the wires strung. What was more, the wires actually did talk and are still talking.

Never mind, say the Indians, with unshaken faith. Never mind. Wait. That's all. It will come. The Little People may stand it—for a while. But wait. The Superintendent is still waiting.



Photograph by F. C. Jeep

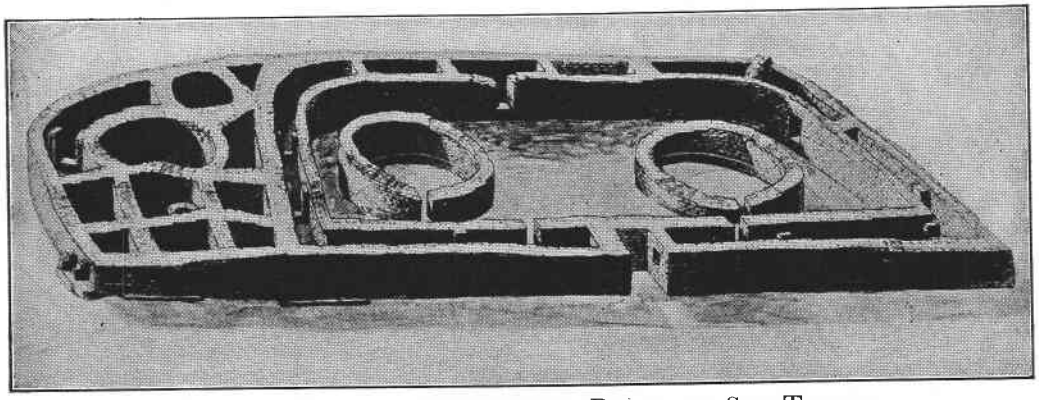
CONSTRUCTIVE DETAIL OF SOUTH WALL, SUN TEMPLE

DISCOVERY OF SUN TEMPLE

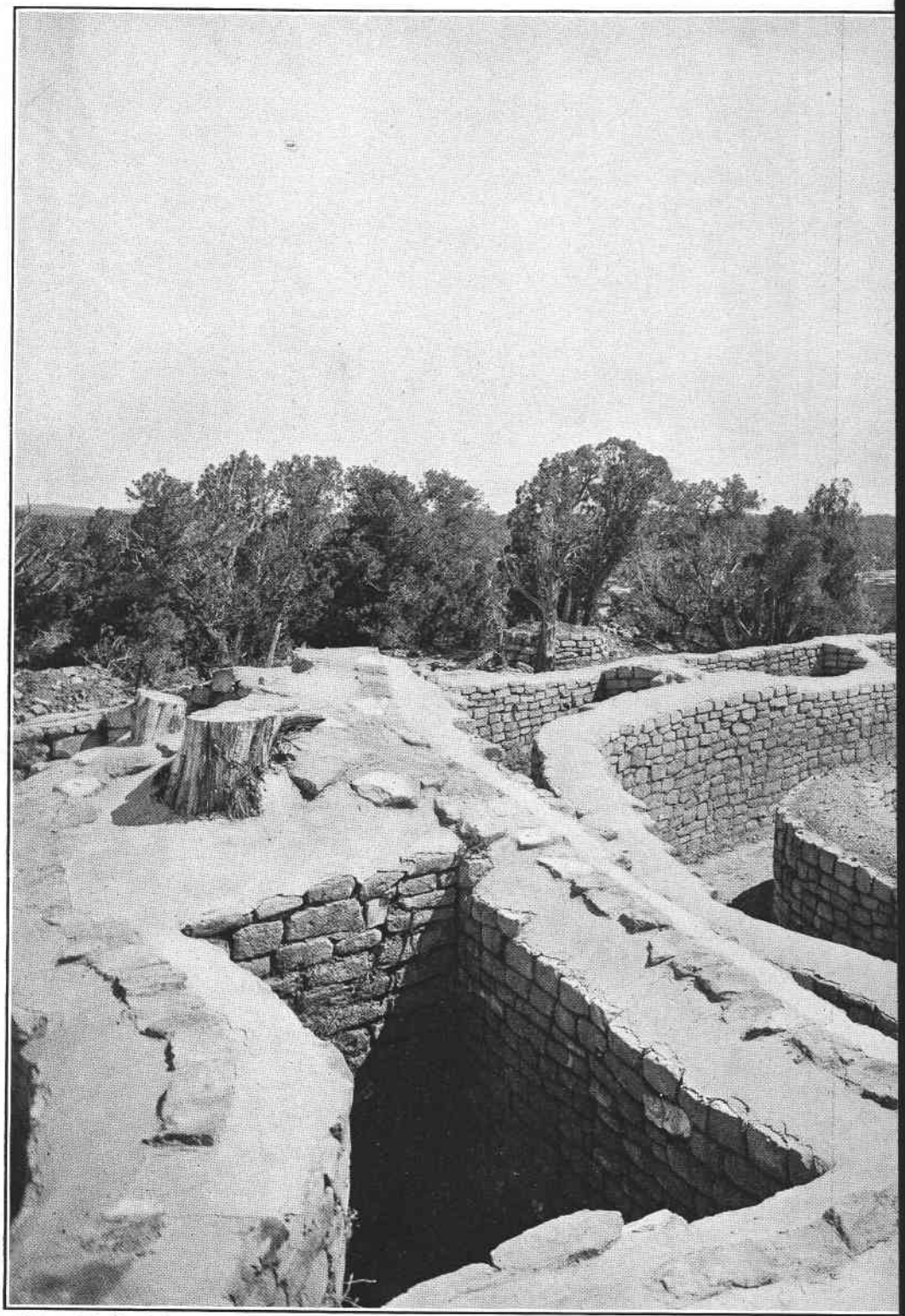
UNTIL the summer of 1915 no structures had been discovered in the Mesa Verde except those of the cliff-dwelling type. Then the Department of the Interior explored a mound on the top of the mesa opposite Cliff Palace and unearthed Sun Temple. Dr. J. Walter Fewkes who conducted the exploration, believes that this was built about 1300 A. D. and marks the final stage in Mesa Verde development.

Sun Temple was a most important discovery. It marked a long advance toward civilization. It occupied a commanding position convenient to many large inhabited cliff dwellings. Its masonry showed growth in the art of construction. Its walls were embellished by geometrical figures carved in rock.

New types of ruins antedating by centuries those of the Cliff Dwellers have been found more recently. The new park museum contains exhibits of the artifacts of all these cultural types.

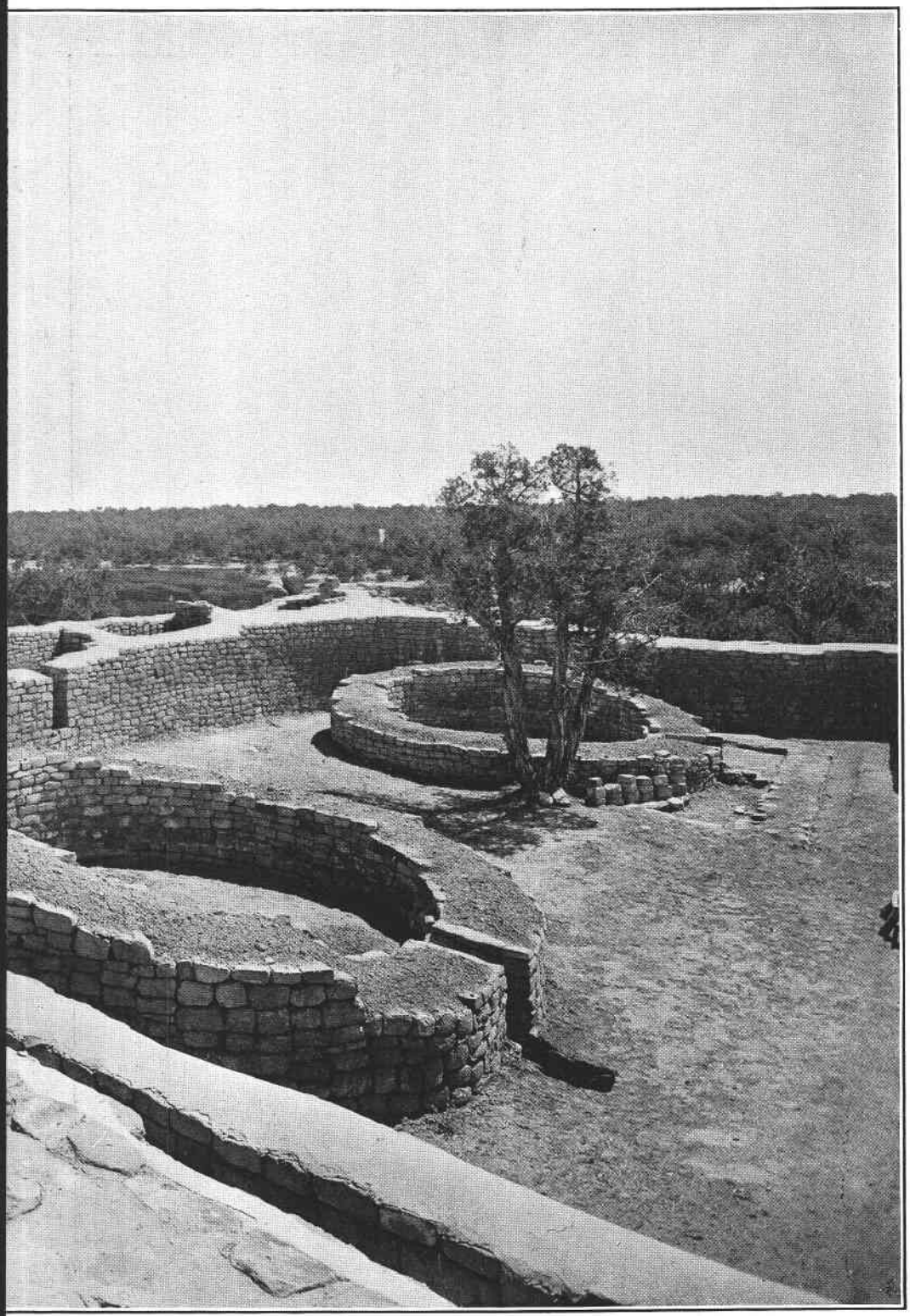


DRAWING SHOWING CONSTRUCTIVE DETAIL OF SUN TEMPLE

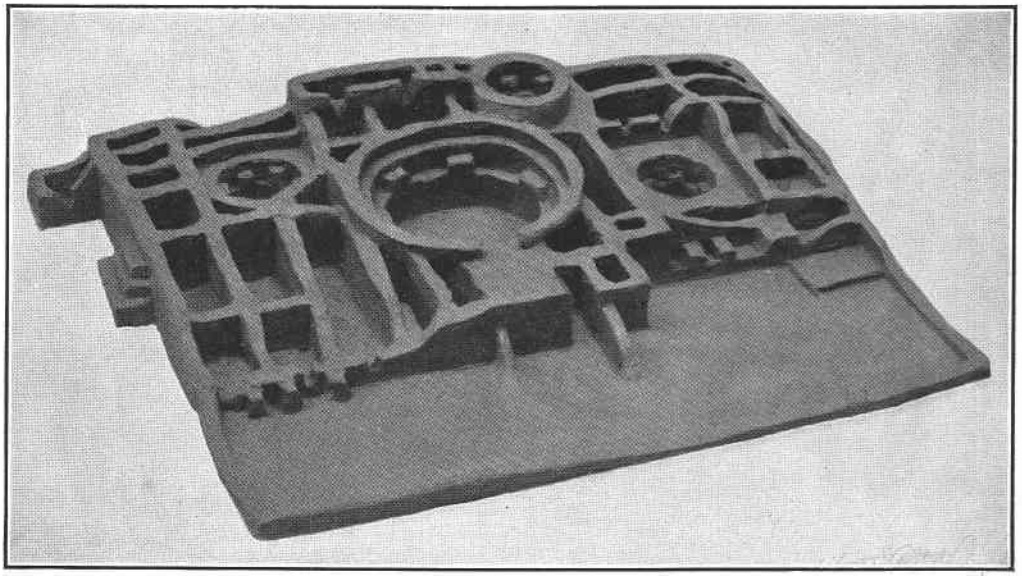


Photograph by Geo. L. Beam, Denver, Colo.

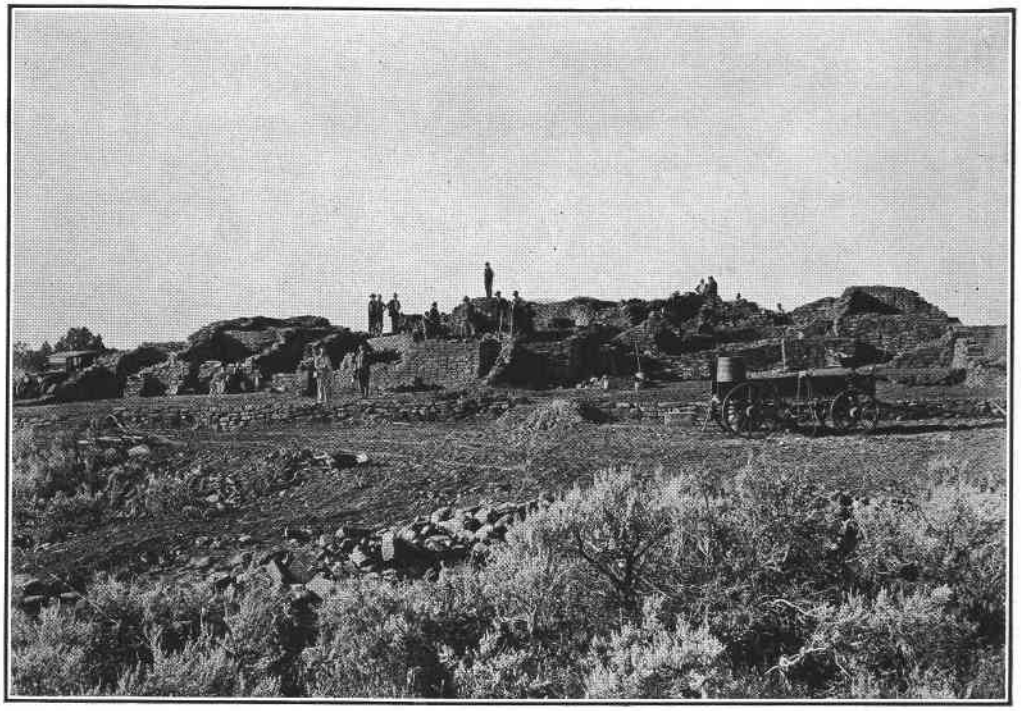
THE SUN TEMPLE, LOOKING NORTHEAST. AT LEFT THE STUMP OF CEDAR



Tree with 360 Annular Rings Which Was Cut Down During Excavation

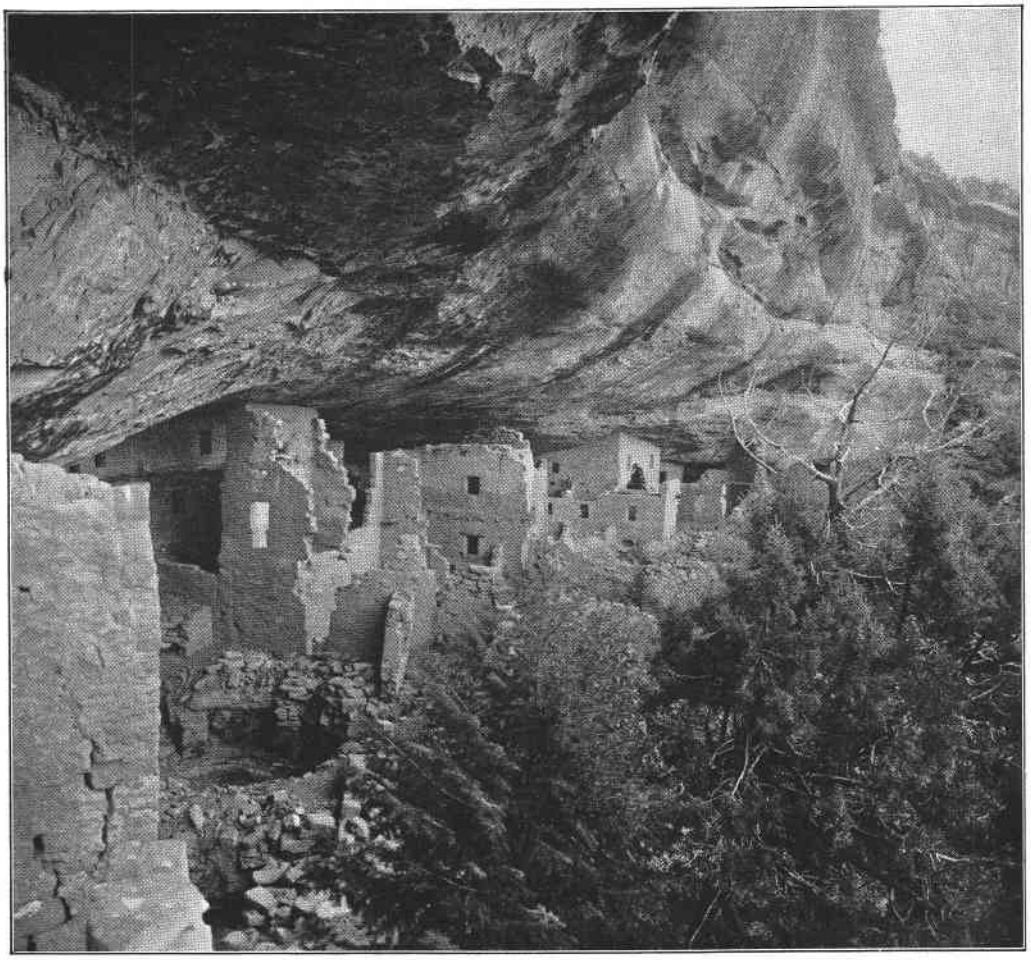


MODEL OF FAR VIEW HOUSE



Photograph by George L. Beam

EXCAVATING FAR VIEW HOUSE ON THE TOP OF THE MESA



SPRUCE TREE HOUSE HIDES UNDER A HUGE OVERHANGING CLIFF

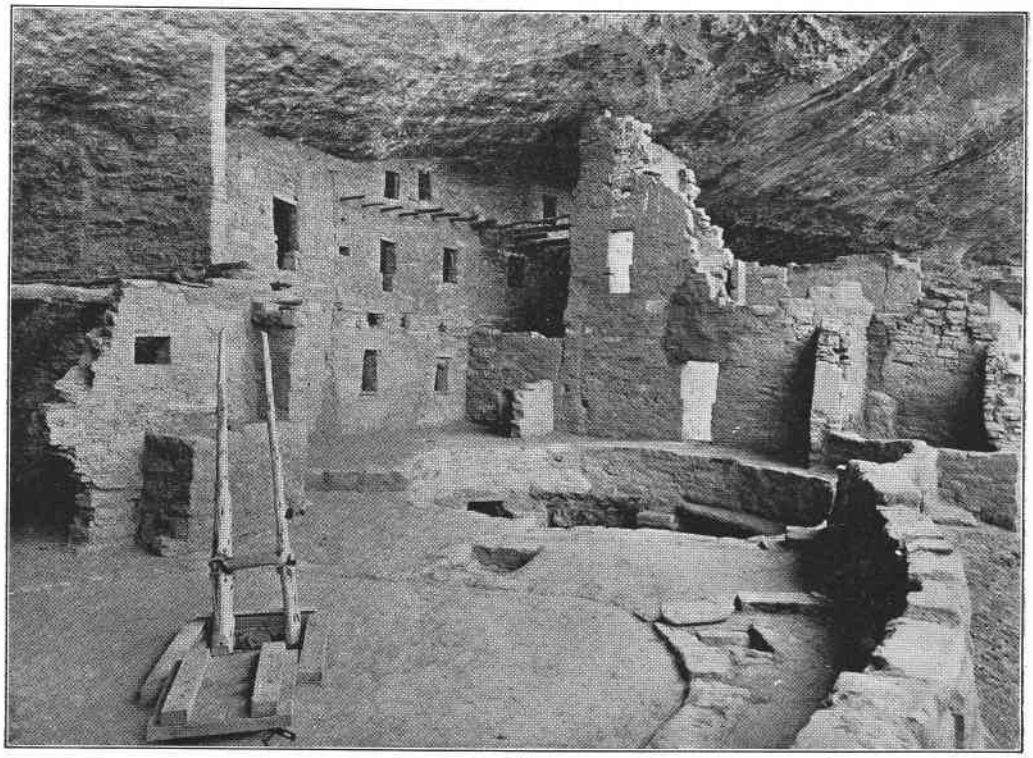
THE PRINCIPAL DWELLINGS

CLIFF PALACE is the most celebrated of the Mesa Verde ruins because it is the largest and most prominent. Others are no less interesting and important. Spruce Tree House is next in size; Balcony House and Square Tower House are equally well preserved. There are hundreds of others, some of which have yet to be thoroughly explored; probably some are still undiscovered.

Cliff Palace is three hundred feet long; Spruce Tree House two hundred and sixteen. Cliff Palace contained over two hundred rooms; Spruce Tree House a hundred and fourteen. Spruce Tree House originally had three stories. Its population was probably three hundred and fifty.

The Round Tower in Cliff Palace is an object of unusual interest.

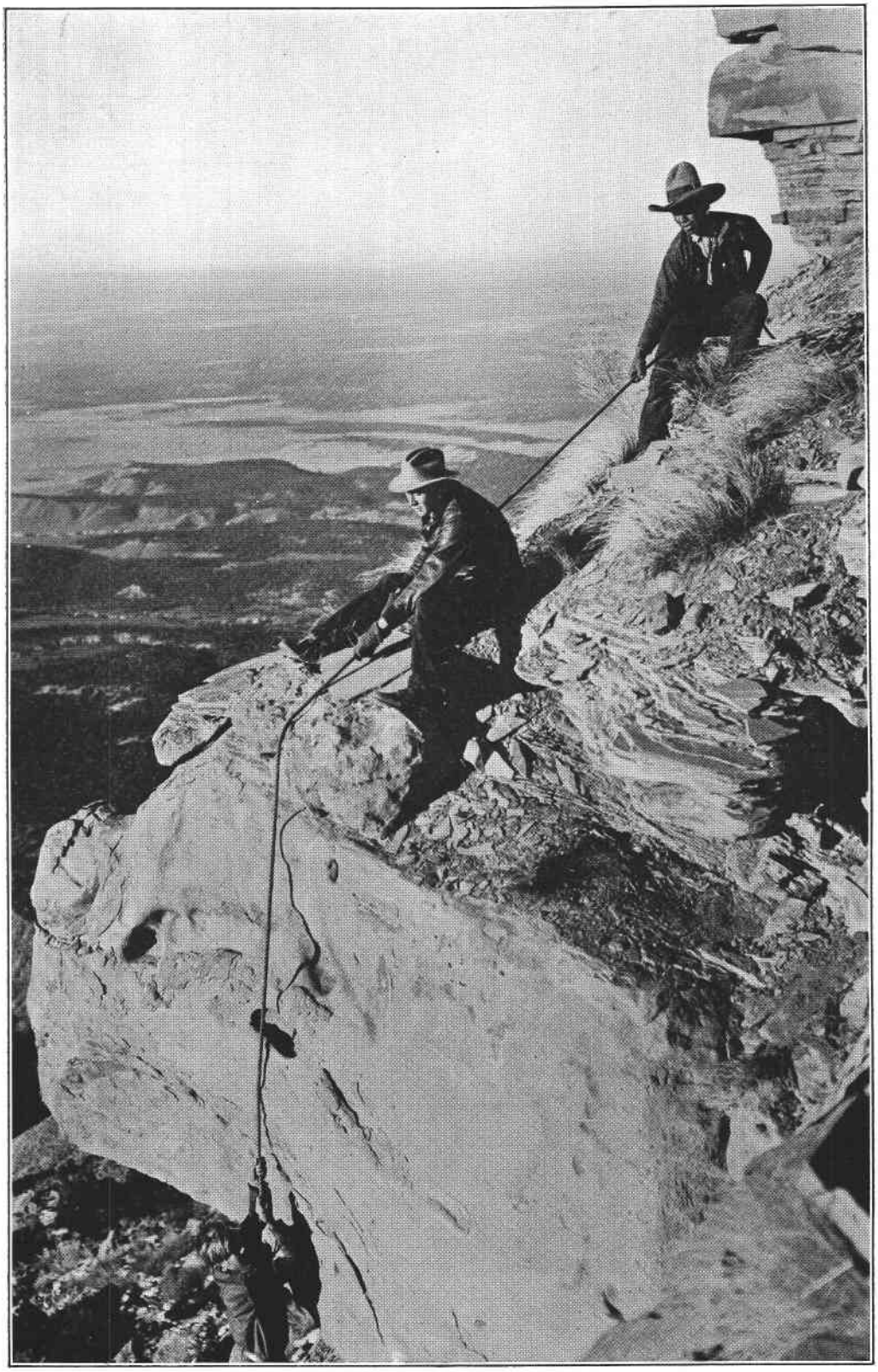
The kivas or ceremonial rooms were usually round, subterranean rooms of more or less uniform size, construction, and arrangement. Except in a few notable cases they were entered by means of a ladder through the roof or hatchway.



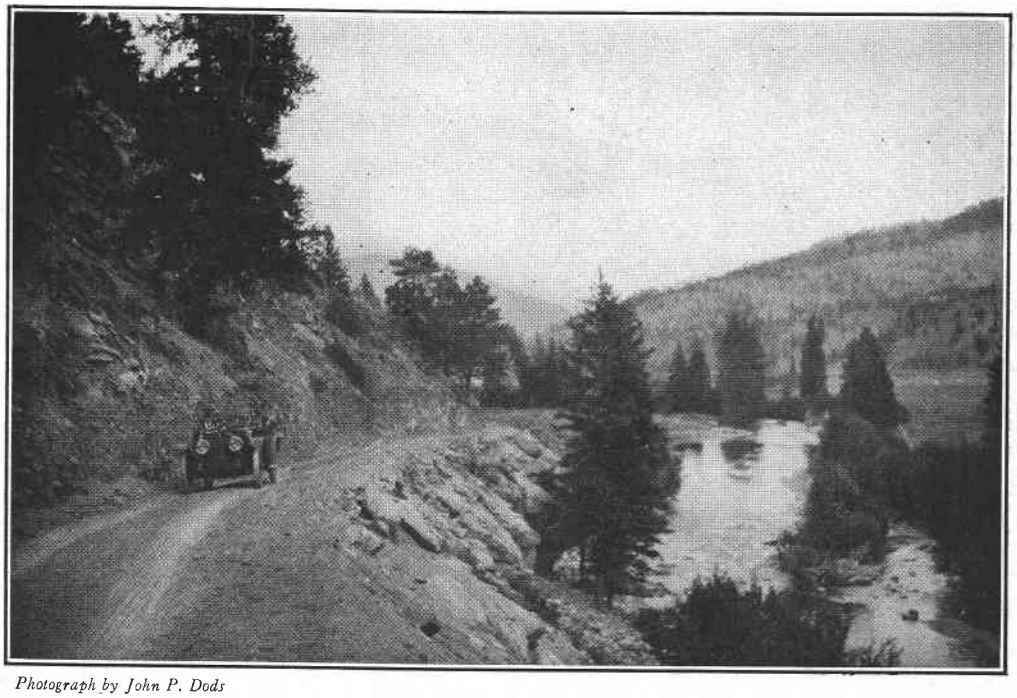
NORTH COURT OF SPRUCE TREE HOUSE

Photograph by Arthur Chapman

FRONT FAÇADE OF SPRUCE TREE HOUSE



DESCENDING THE KNIFE-EDGE CLIFF TO PHOTOGRAPH A GOLDEN EAGLE'S NEST

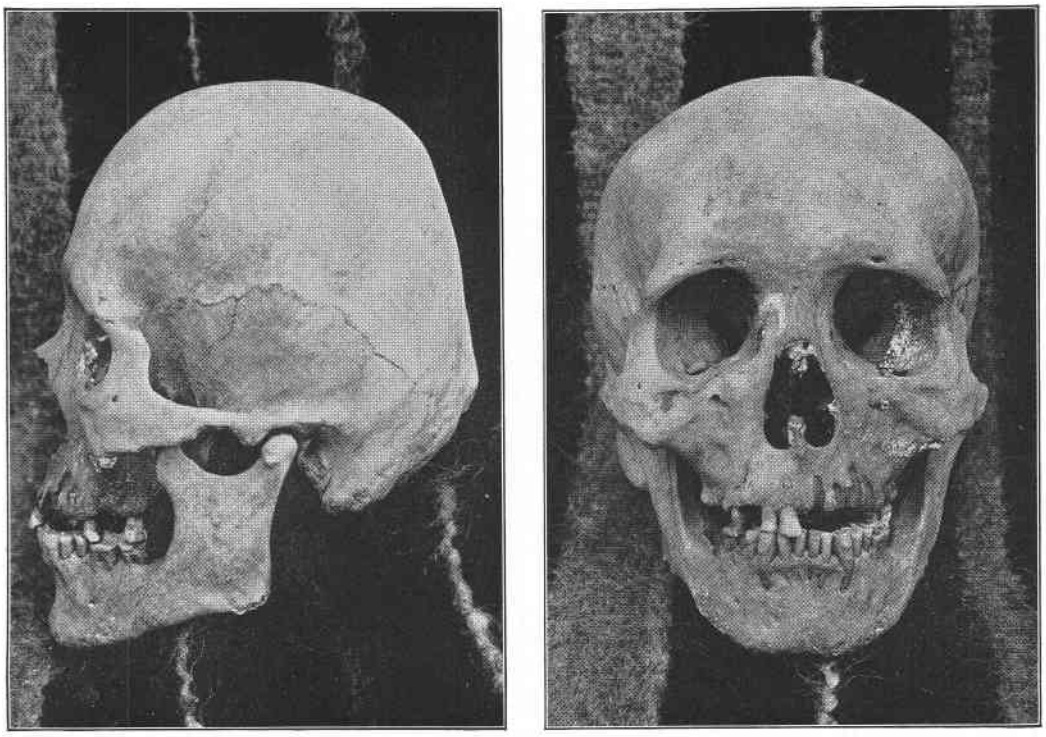


Photograph by John P. Dods

MOST OF MESA VERDE'S TRAVEL IS BY MOTOR

Photograph by John P. Dods

NAVAJO WEAVERS COME TO THE PARK TO TRADE



Photographs by J. L. Nusbaum

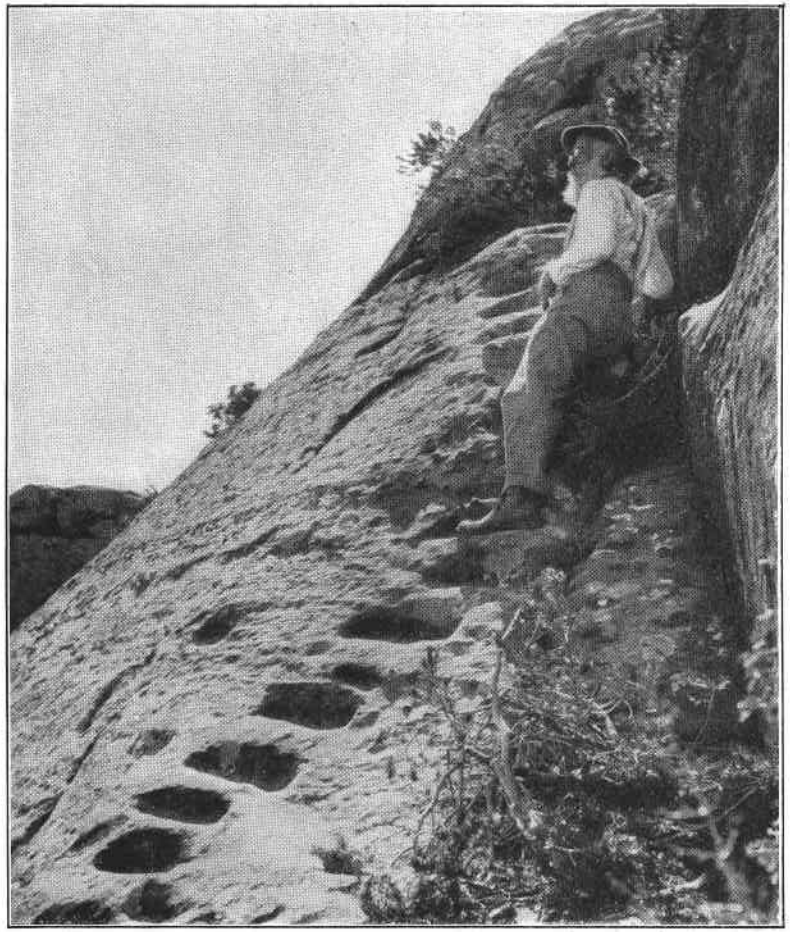
TYPICAL SKULLS OF PREHISTORIC MAN FOUND IN THE MESA VERDE

The use of an unpadded cradle-board in childhood flattened the rear of the skull, giving unusual breadth to the face. Nordenskiöld concludes that the race was fairly robust, with heavy skeletons and strong muscular processes. The facial bones are well developed and lower jaw heavy

THE NATURAL SCENERY

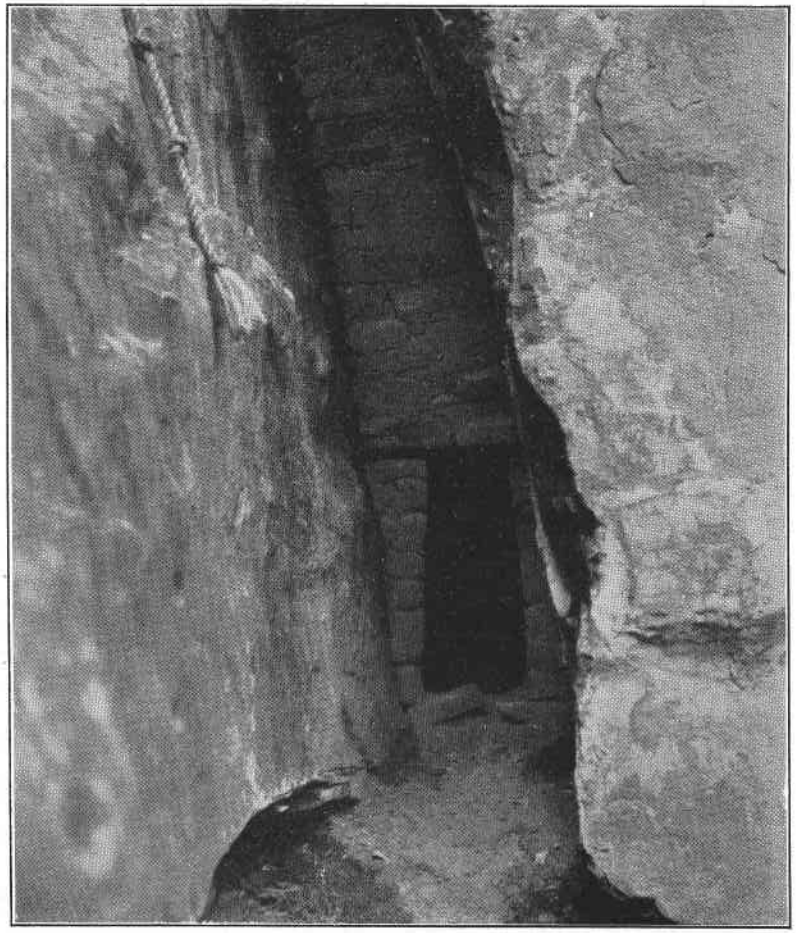
MESA VERDE NATIONAL PARK is in the extreme southwestern corner of Colorado and is reached from the rail points of Mancos, Colorado, and Gallup, New Mexico, by motor stage or private automobile. The finest of the scenic mountain highways of Colorado invite the motorist visiting this area, and the highway from Gallup across the Navajo Indian Reservation is excellent.

Apart from the ruins the country is one of spectacular beauty and weird charm. As one ascends the mesa tremendous expanses of the diversified terrain of the adjacent corners of the States of Colorado, Utah, New Mexico, and Arizona come into view—the snow covered La Platas, San Juans, and Ricos, of Colorado; the La Sals and Blues of Utah; the Carrizos of Arizona, and the Lukachukais, Tunichas, and Chuskas of the Navajo Reservation of New Mexico, with the great monolith of Shiprock, fifty miles distant, basking in the foreground, like a windjammer under full sail.

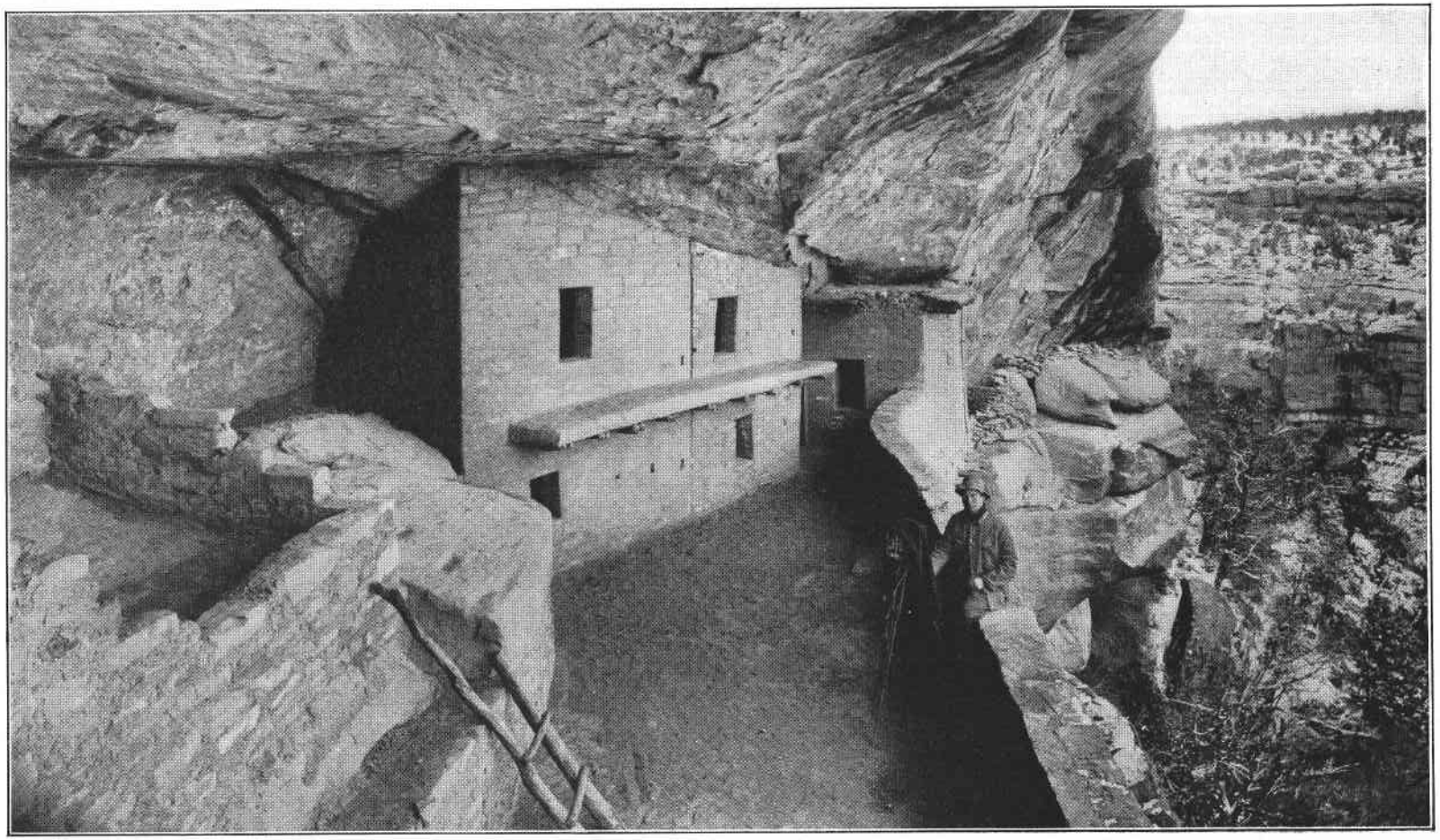


Photograph by F. C. Jeep

THE TRAIL TO BALCONY HOUSE

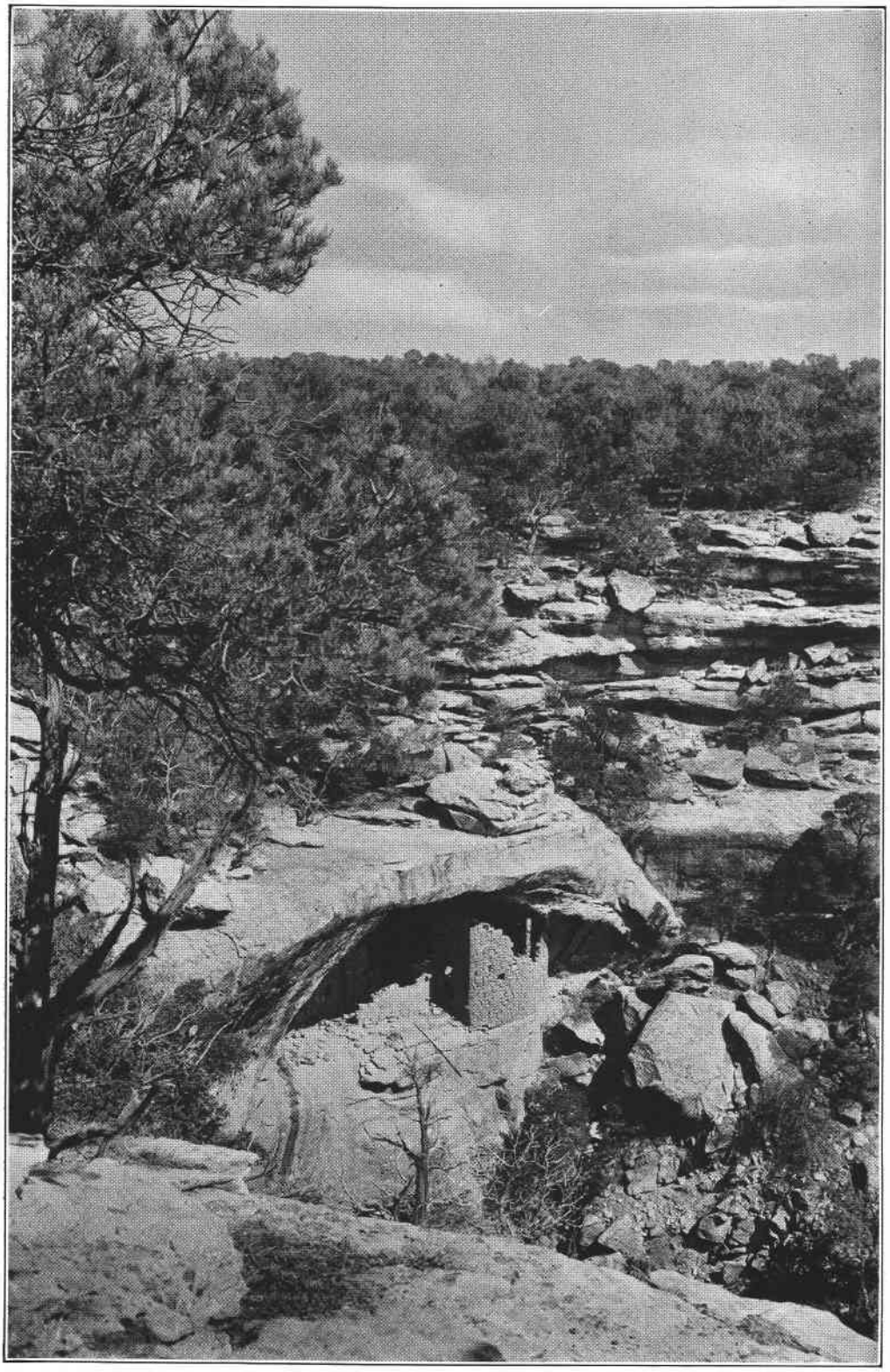


THE ENTRANCE TO BALCONY HOUSE



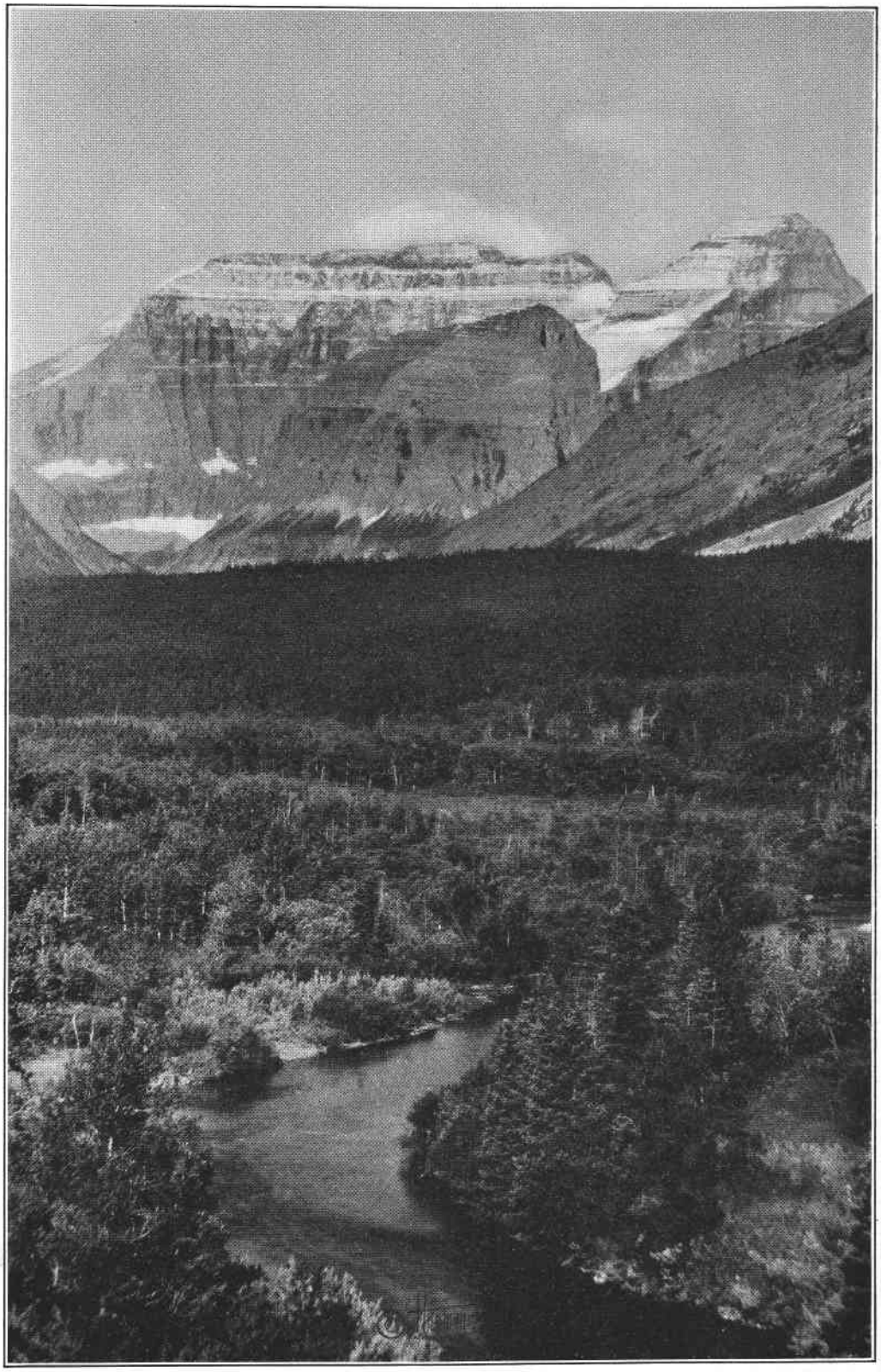
Photograph by Pen Dike Studio

BALCONY HOUSE IS ONE OF THE MOST INTERESTING AND BEST PRESERVED



THE CLIFF DWELLERS UTILIZED ALL PROTECTED SPACE WITHIN THE CAVES

GLACIER NATIONAL PARK



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MOUNT CLEVELAND, HIGHEST SUMMIT IN GLACIER

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GUNSIGHT PASS FROM SHORE OF GUNSIGHT LAKE

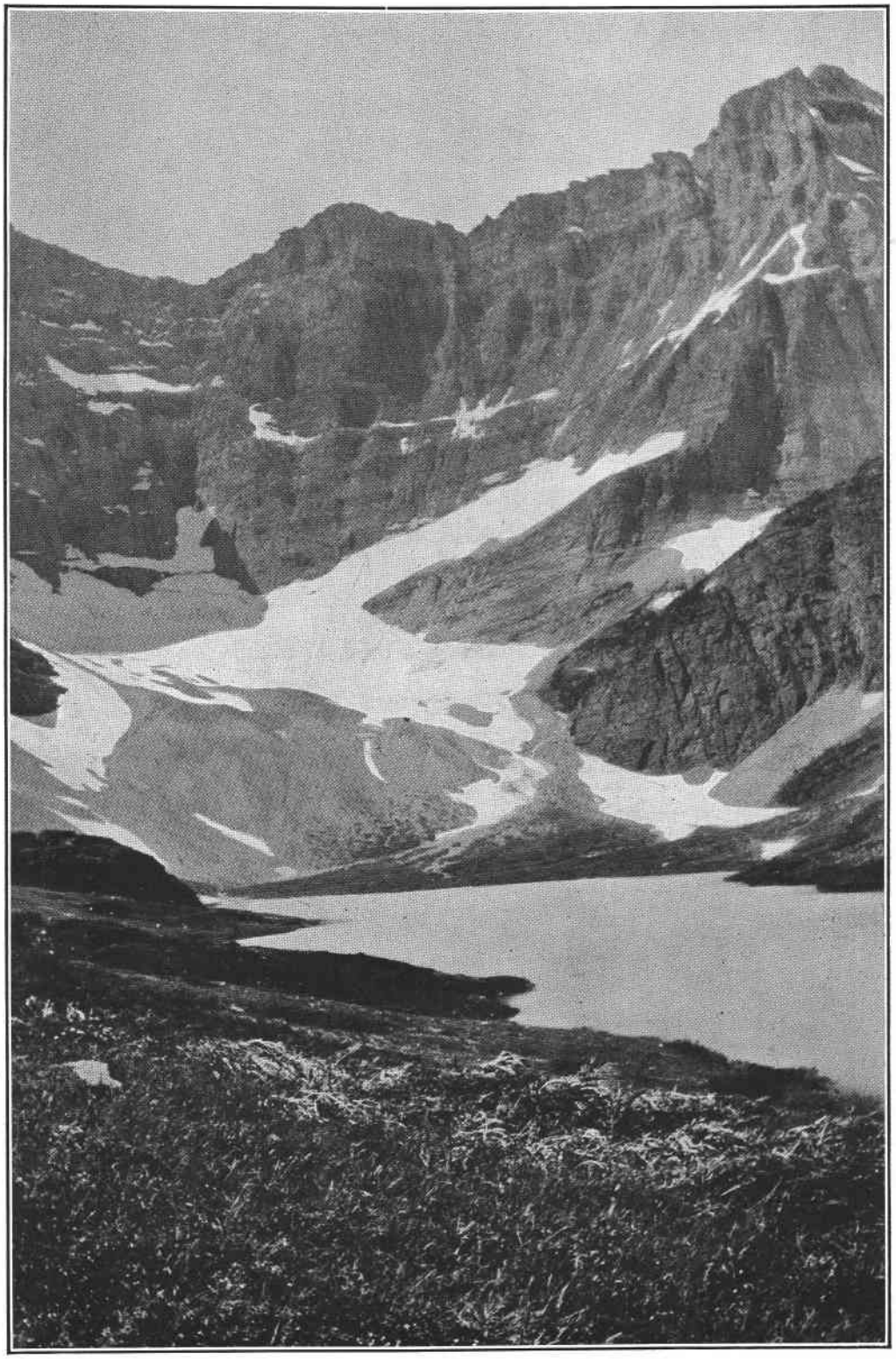
AN ALPINE PARADISE

NOTWITHSTANDING the sixty glaciers from which it derives its name, the Glacier National Park is chiefly remarkable for its picturesquely modeled peaks, the unique quality of its mountain masses, its gigantic precipices, and the romantic loveliness of its two hundred and fifty lakes.

Though most of our national parks possess similar general features in addition to those which sharply differentiate each from every other, the Glacier National Park shows them in special abundance and unusually happy combination. In fact, it is quite extraordinary, almost sensational, massing of these scenic elements which gives it its marked individuality.

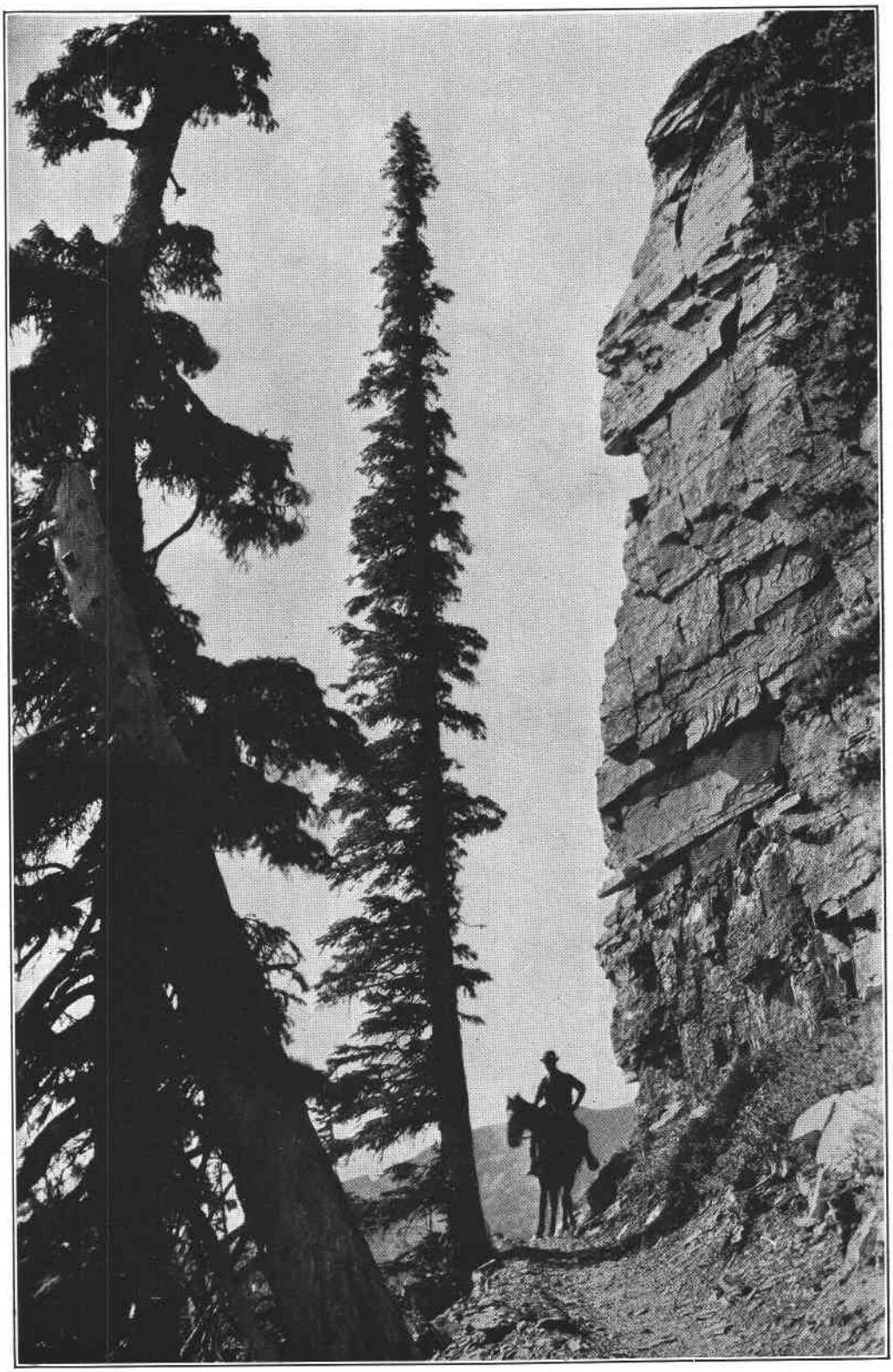
The broken and diversified character of this scenery, involving rugged mountain tops bounded by vertical walls sometimes more than four thousand feet high, glaciers perched upon lofty rocky shelves, unexpected waterfalls of peculiar charm, rivers of milky glacier water, lakes unexcelled for sheer beauty by the most celebrated of sunny Italy and snow-topped Switzerland, and grandly timbered slopes sweeping into valley bottoms, offer a continuous yet ever changing series of inspiring vistas not to be found in such luxuriance and perfection elsewhere.

Glacier National Park lies in western Montana, abutting the Canadian boundary. Waterton Lakes Park joins it on the Canadian side.



Photograph by Beatrix Barber

CRACKER LAKE AND SIYEH GLACIER



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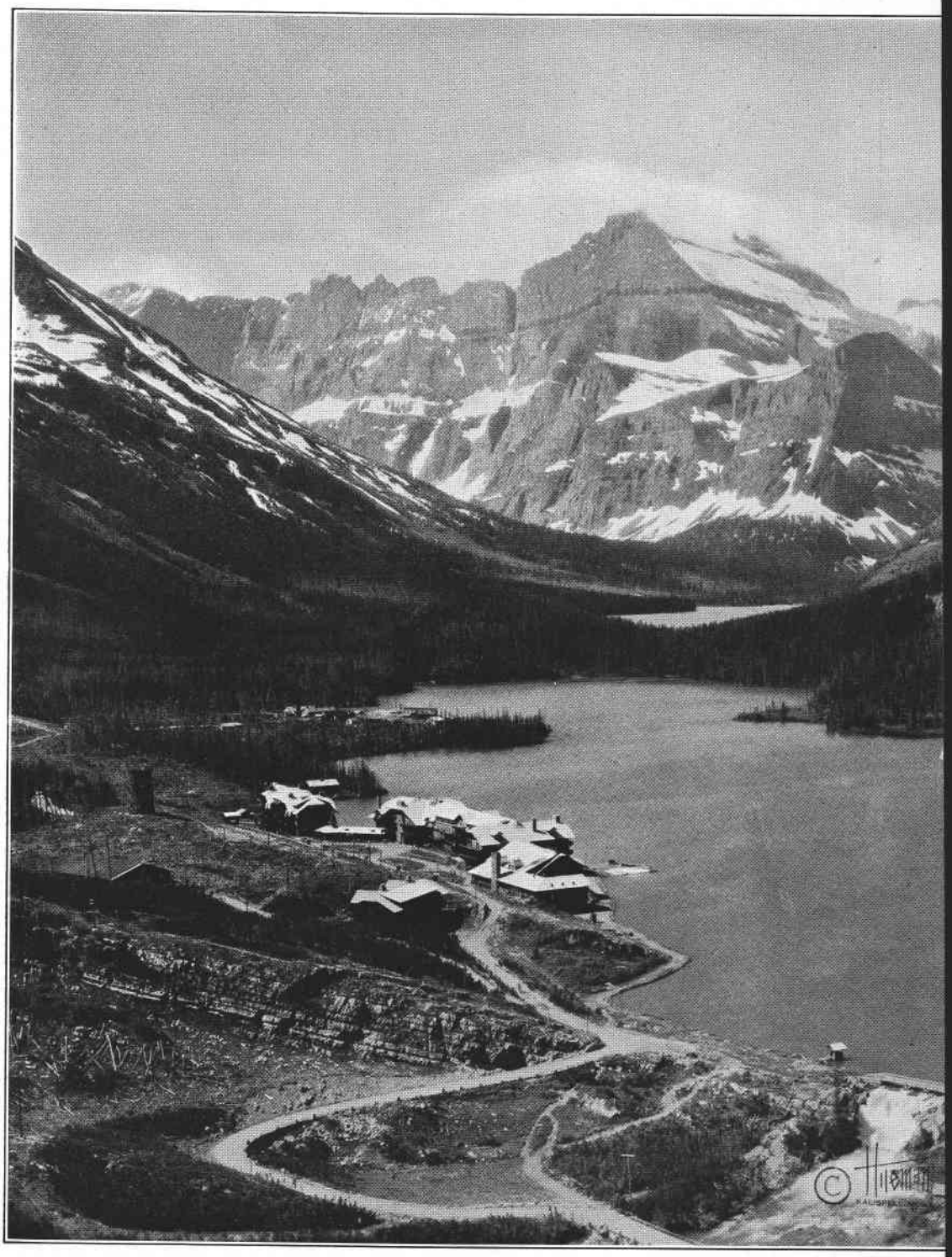
SCARFACE POINT, ON THE GARDEN WALL TRAIL



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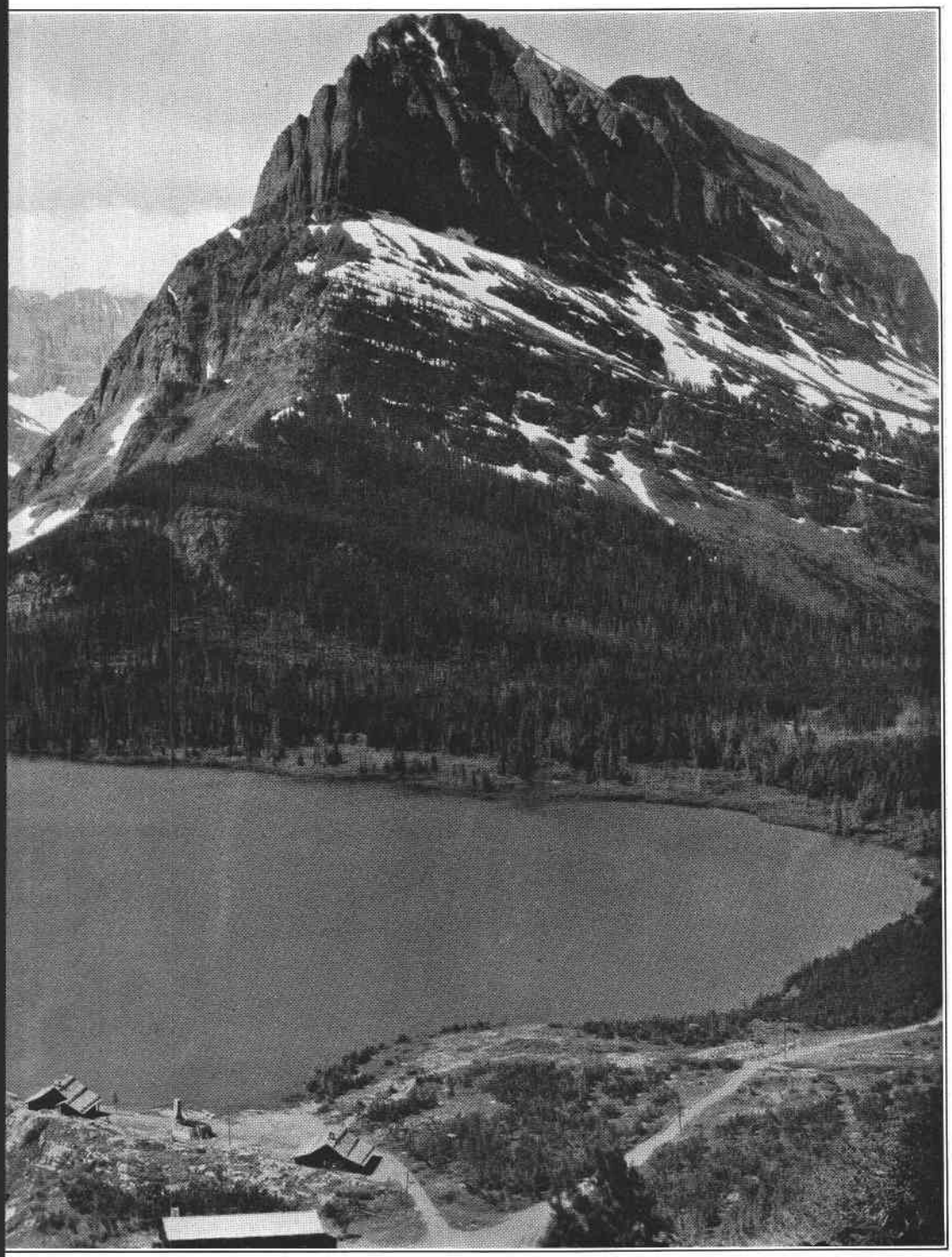
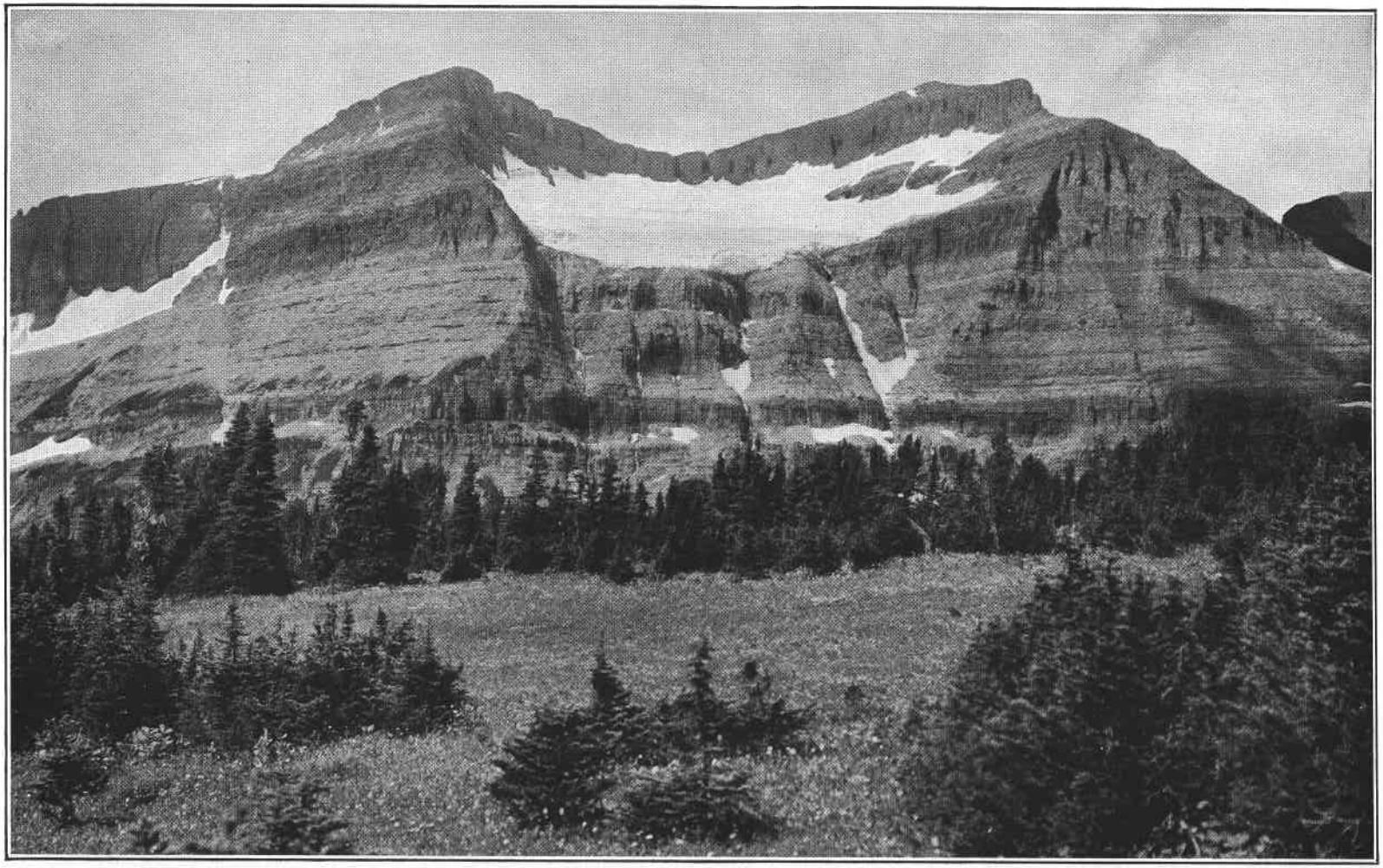
IT IS THE ROMANTIC, ALMOST SENSATIONAL MASSING OF EXTRAORDINARY SCENIC

Beautiful Swiftcurrent Lake, in Many



ELEMENTS WHICH GIVES THE GLACIER NATIONAL PARK ITS MARKED INDIVIDUALITY
Glacier region, Many Glacier Hotel to the left



PIEGAN MOUNTAIN NEAR PIEGAN PASS, FROM THE FLOWER GARDENS OF SIYEH BASIN

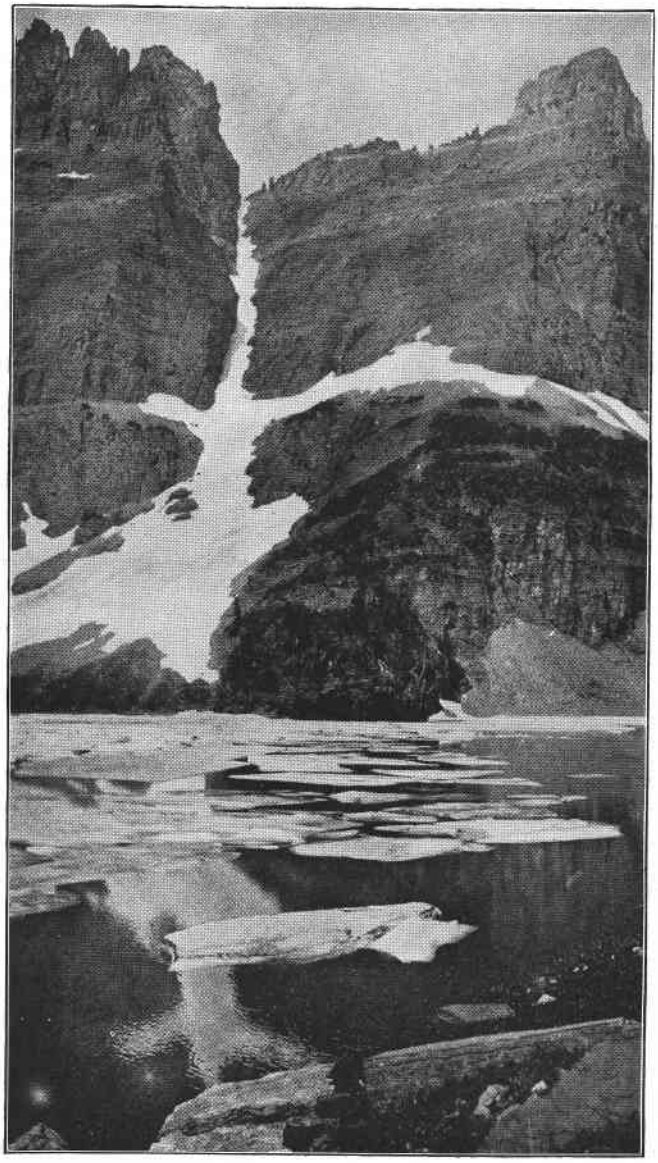
Photograph by Fred H. Kiser, Portland, Oreg.

FAMOUS GRINNELL LAKE, FED BY THE PICTURESQUE GRINNELL GLACIER ABOVE

On the left is Gould Mountain. Grinnell Mountain, on the right, is one of the noblest in America. This region is a favorite haunt of Rocky Mountain goats

MAKING A NATIONAL PARK

HOW nature, just how many millions of years ago no man can estimate, made the Glacier National Park is a stirring story. Once this whole region was covered with the prehistoric sea. The earthy sediments deposited by this water hardened into rocky strata. If you were in the park to-day you would see broad horizontal streaks of variously colored rock in the mountain masses thousands of feet above you. They are discernible in the photographs in this book. They are the very strata that the waters deposited in their depths in those far-away ages. How they got from the seas' bottoms to the mountains' tops is the story.

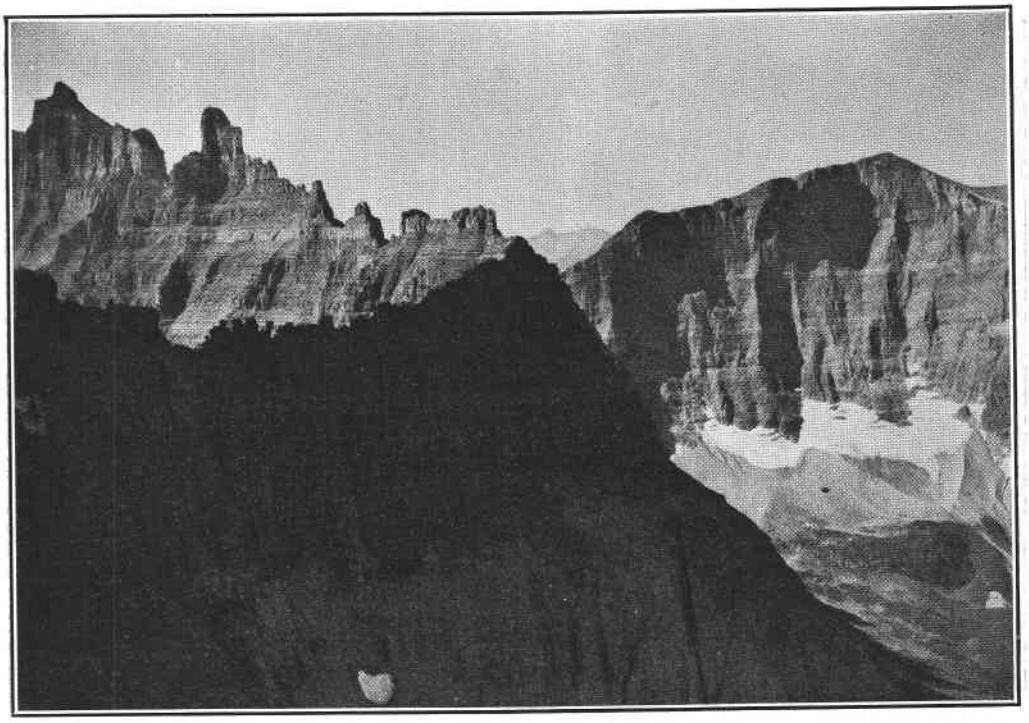


Photograph by Ellis Prentice Cole

ICEBERG LAKE WHERE FLOES DRIFT IN AUGUST

In the settling of the earth's masses into their present shape, mountain ranges have arisen from the sea by internal pressures. Just as the squeezed orange bulges in places, so this region was forced upward. Then it cracked and the western edge of the earth's skin was thrust far over the eastern edge.

The edge thus thrust over was many thousands of feet thick and disclosed all the geological strata which had been deposited at that time. In the many centuries of centuries since all these strata have been washed away except the bottom layer of the overthrust skin. The rock thus disclosed is at least eighty millions of years old. It is the same rock as the Grand Canyon. Glacier National Park is the Canadian Rockies done in Grand Canyon colors. Frost and rains and glaciers have marvelously carved it.



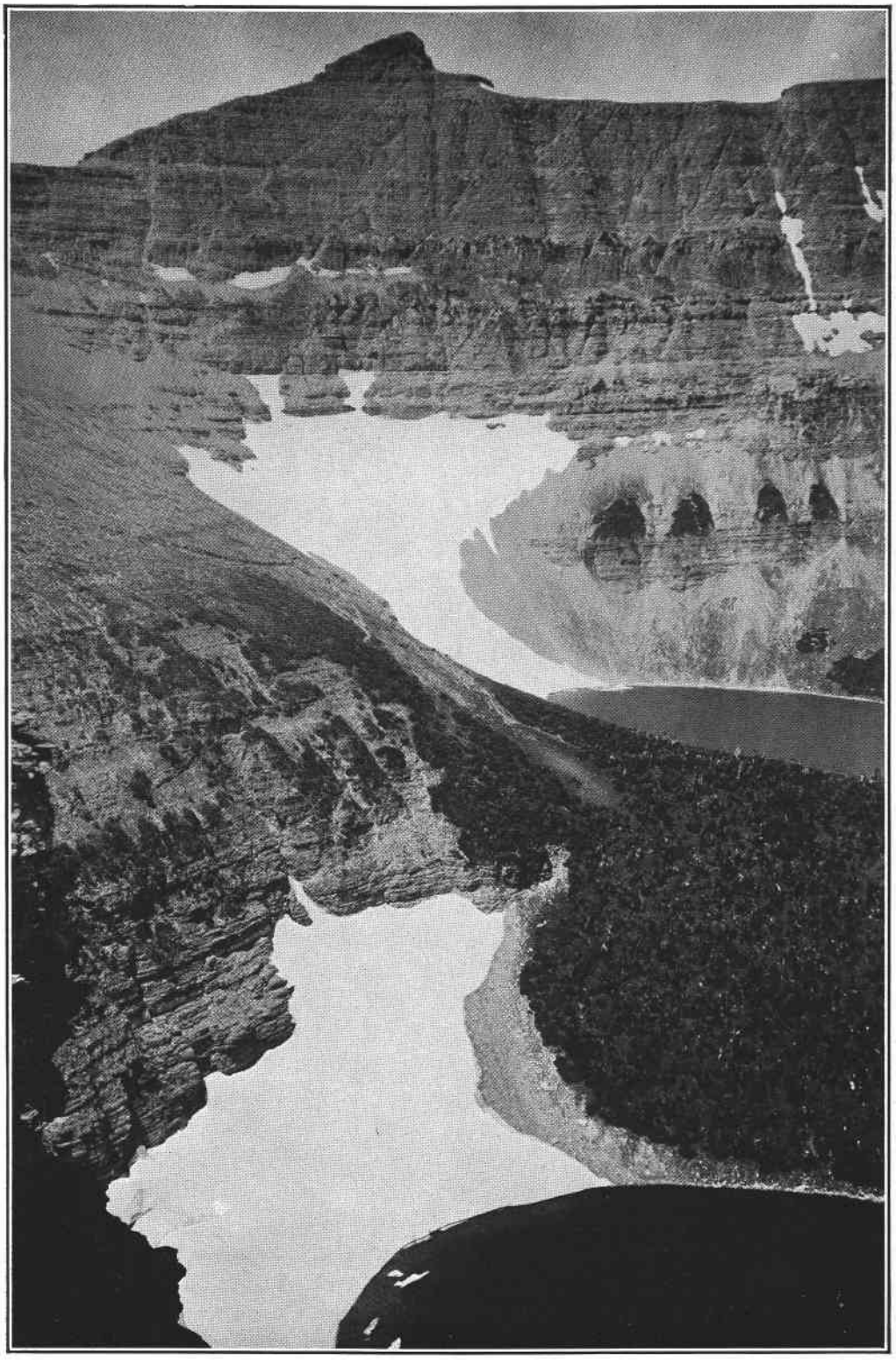
Photograph by A. S. Thiri

THE CIRCULAR WALL ON THE LEFT INCLOSES ICEBERG LAKE. THE ENORMOUS CIRQUE ON THE RIGHT, WITH LAKE HELEN SHOWN IN THE LOWER RIGHT-HAND CORNER, IS THE SOURCE OF THE SOUTH FORK OF THE BELLY RIVER

THE CARVING OF GLACIER

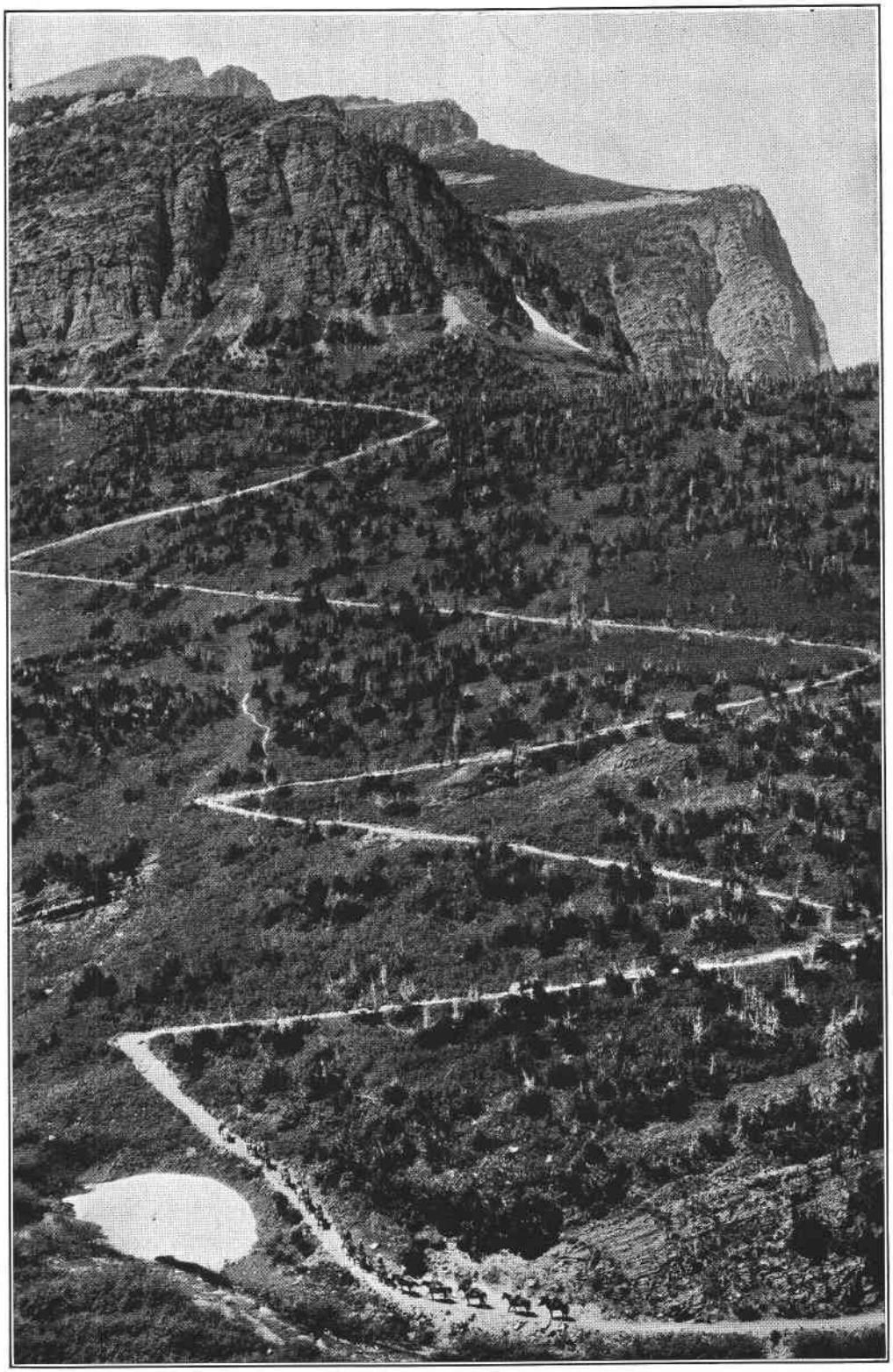
THE titanic overthrust which makes Glacier what it is was not accomplished all at once. The movement covered millions of years; change might even have been imperceptible in the life of one living there—though this was long before man. And during these same many millions of years frost and water and wind and glacier erosion were wiping off the upper strata and carving the ancient rocks that still remain into the thing of beauty that Glacier is to-day. To picture this region, imagine a chain of very lofty mountains twisting about like a worm, spotted with snow fields and bearing glistening glaciers. Imagine them flanked everywhere by lesser peaks and tumbled mountain masses of smaller size in whose hollows lie the most beautiful lakes you have ever dreamed of.

Those who have seen the giant glaciers of Mount Rainier or the Alps will here see what glaciers of much greater size accomplished in ages past. Iceberg Lake, for example, is a mighty bowl shaped like a horseshoe, with sides more than two thousand feet high. A glacier hollowed it. Just north of it, the Belly Glacier hollowed another mammoth bowl of even greater depth; the wall dividing them is seen in the photograph on this page. Vast pits such as these were dug by prehistoric glaciers into both sides of the mountains. Often they nearly met, leaving precipitous walls. Sometimes they met; thus were created the passes.



Photograph by A. J. Baker

CIRQUE AT THE HEAD OF CUT BANK RIVER, SHOWING MOUNT MORGAN



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SWITCHBACKS ON SWIFTCURRENT MOUNTAINS

ITS LAKES AND VALLEYS

Photograph by Fred H. Kiser, Portland, Oreg.

THE supreme glory of the Glacier National Park is its lakes. The world has none to surpass, perhaps few to equal them. Some are valley gems grown to the water's edge with forests. Some are cradled among precipices. Some float ice fields in midsummer.

From the Continental Divide seven principal valleys drop precipitously upon the east, twelve sweep down the longer western slopes. Each valley holds between its feet its greater lake to which are tributary many smaller lakes of astonishing wildness.

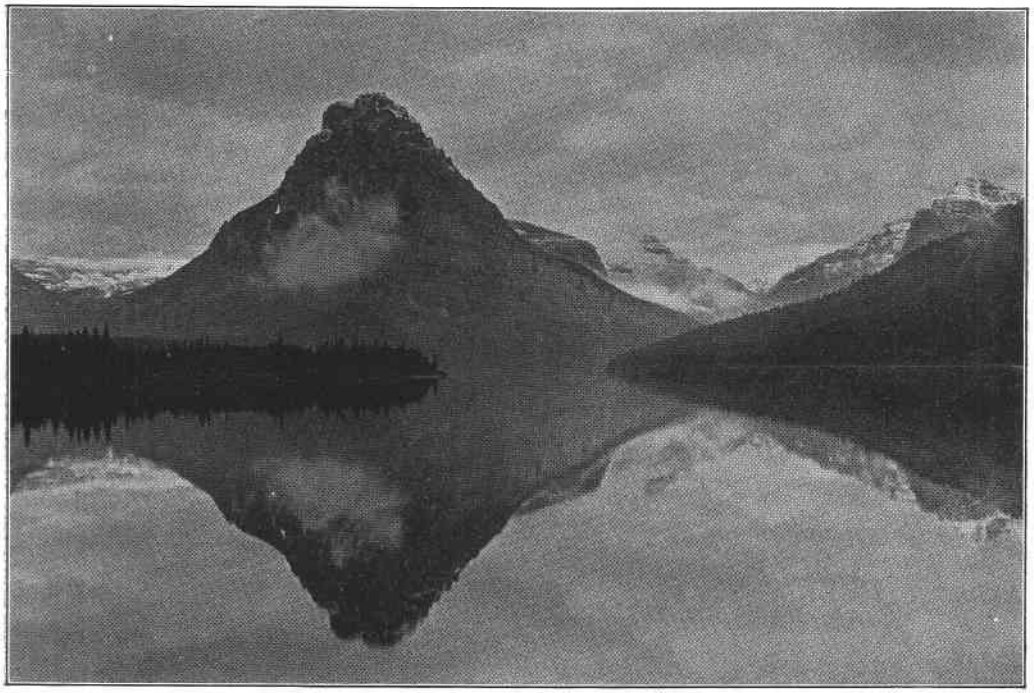
On the east side St. Mary Lake is destined to world-wide celebrity, but so also is Lake McDonald on the west side. These are the largest in the park.

But some, perhaps many, of the smaller lakes are candidates for beauty's highest honors. Of these, Swiftcurrent Lake with its minaretted peaks stands first—perhaps because best known, for here is one of the finest hotels in any national park and a well-equipped camp.

Upper Two Medicine Lake is another east-side candidate widely known because of its accessibility, while far to the north the Belly River Valley, difficult to reach and seldom seen, holds lakes, fed by eighteen glaciers, which will compare with Switzerland's noblest.

The west-side valleys north of McDonald constitute a little-known wilderness of the earth's choicest scenery, destined to future appreciation.

The Continental Divide is usually crossed by the famous Gunsight Pass Trail, which skirts giant precipices and develops sensational vistas in its serpentine course.



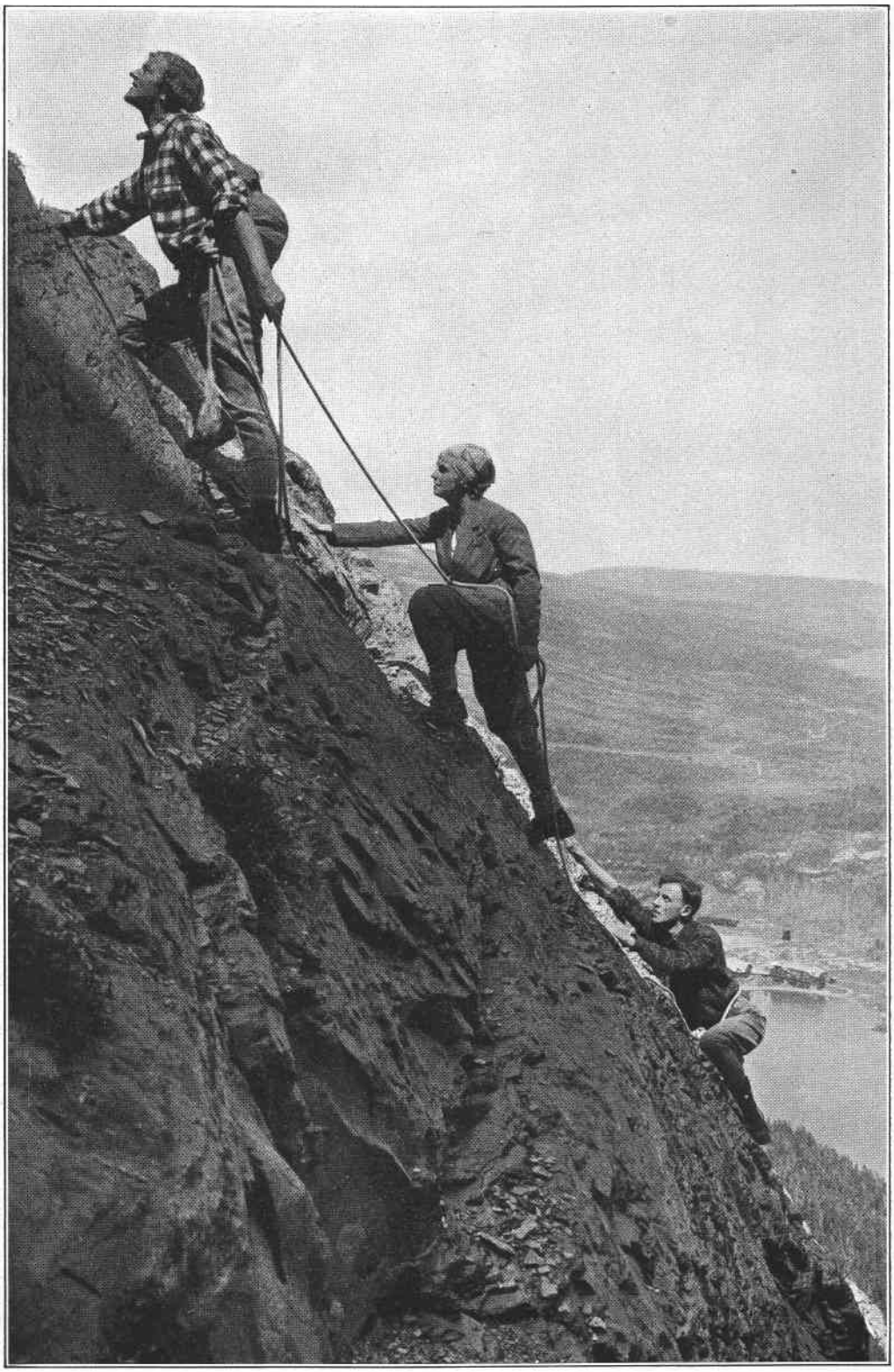
Photograph by U. S. Reclamation Service

BIRTH OF A CLOUD ON THE SIDE OF MOUNT ROCKWELL, TWO MEDICINE LAKE

Photograph by U. S. Reclamation Service

EARLY MORNING CLOUD EFFECTS AT TWO MEDICINE LAKE

Romantic Rising-Wolf Mountain is seen in middle distance



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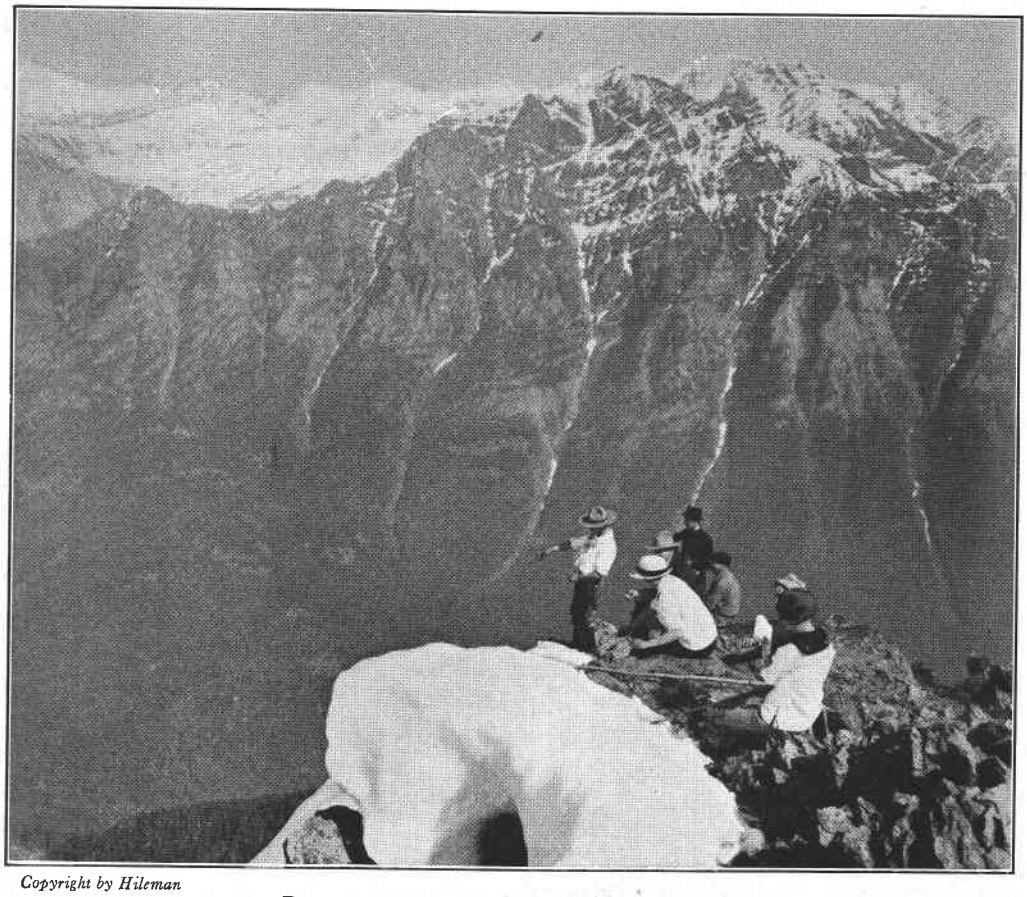
CLIMBING STARK PEAK WITH GUIDE



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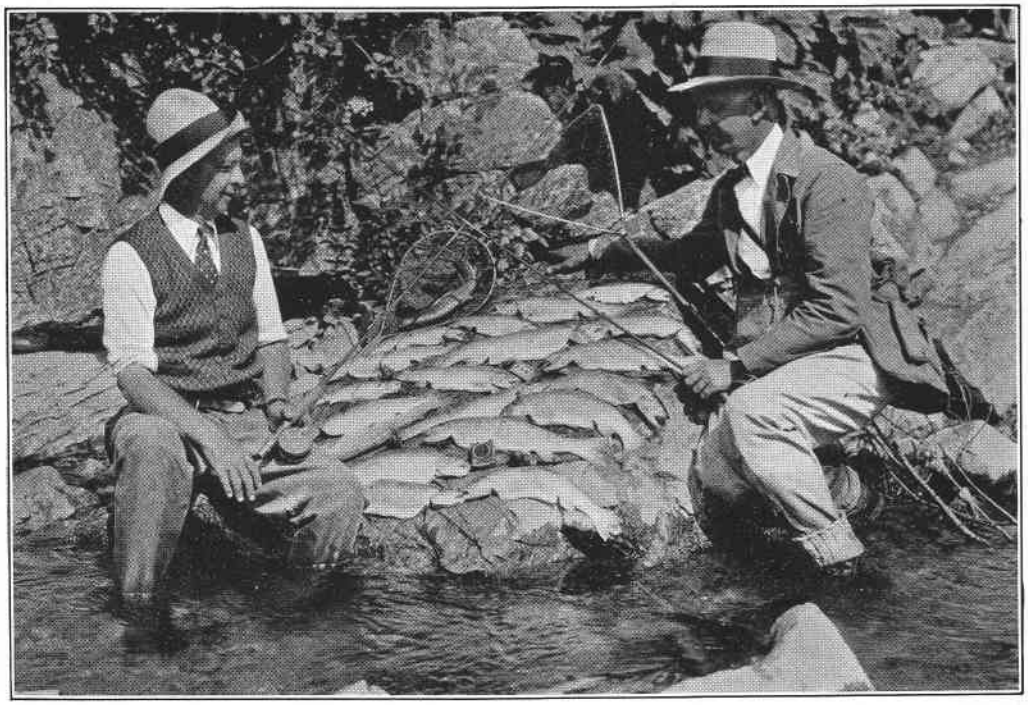
PARTY ON MOUNT STARK WITH GUIDE

COMFORT AMONG GLACIERS

GLACIER NATIONAL PARK has two railroad entrances. From Glacier Park, the eastern entrance, auto stages take the visitor to Two Medicine, Swiftcurrent, and St. Mary Lakes, where launch rides may be taken. Glacier Park Hotel at the railway station, and Many Glacier Hotel at Swiftcurrent Lake, are modern hotels. At Two Medicine Lake, Cut Bank Creek, St. Mary Lake, and Swiftcurrent Lake are comfortable chalets reached by auto or by auto and launch. Granite Park and Sperry Chalets are reached only by horseback or hiking, as are the camps at Crossley Lake and Waterton Lake, and Fifty Mountain Camp on Flat Top Mountain.

The visitor choosing the west entrance, at Belton, will find camps and chalets there, and auto service to the hotel at the head of beautiful Lake McDonald. This trip also may be made by a combination of automobile and boat. Lake McDonald Camp and Skyland Camps, both reached by auto, provide comfortable accommodations. Motor travel will not be possible between the east and west sides until the Transmountain Road is completed, probably about 1933.

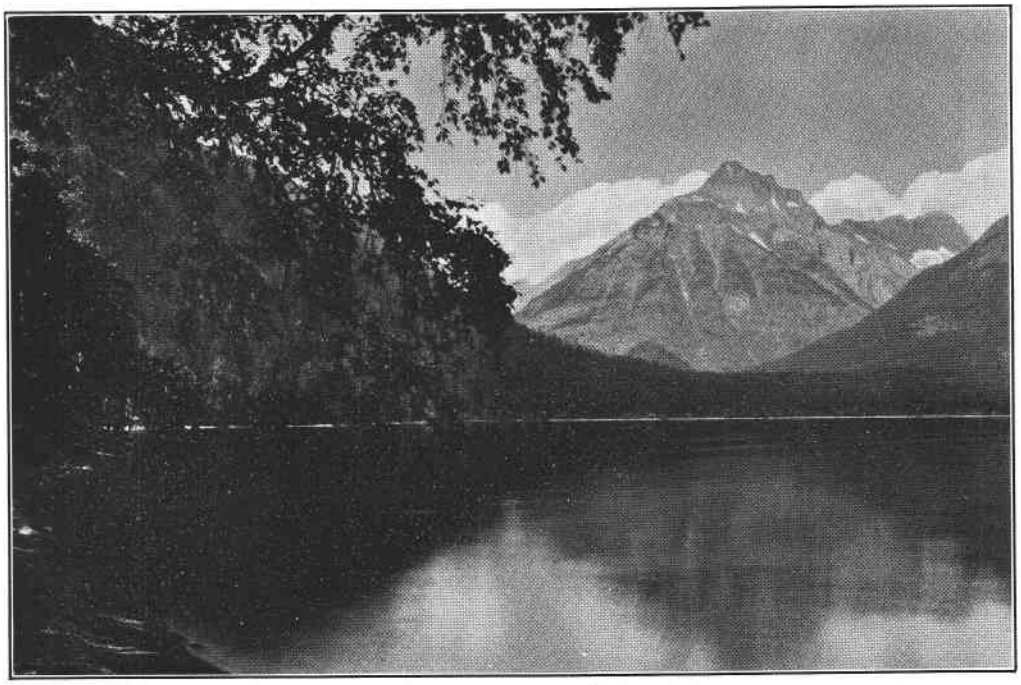


THE FISHERMAN'S PARADISE

Photograph by U. S. Reclamation Service

TO THE VICTOR BELONG THE SPOILS

Mary Roberts Rinehart lunching after a morning's trouting on Flathead River



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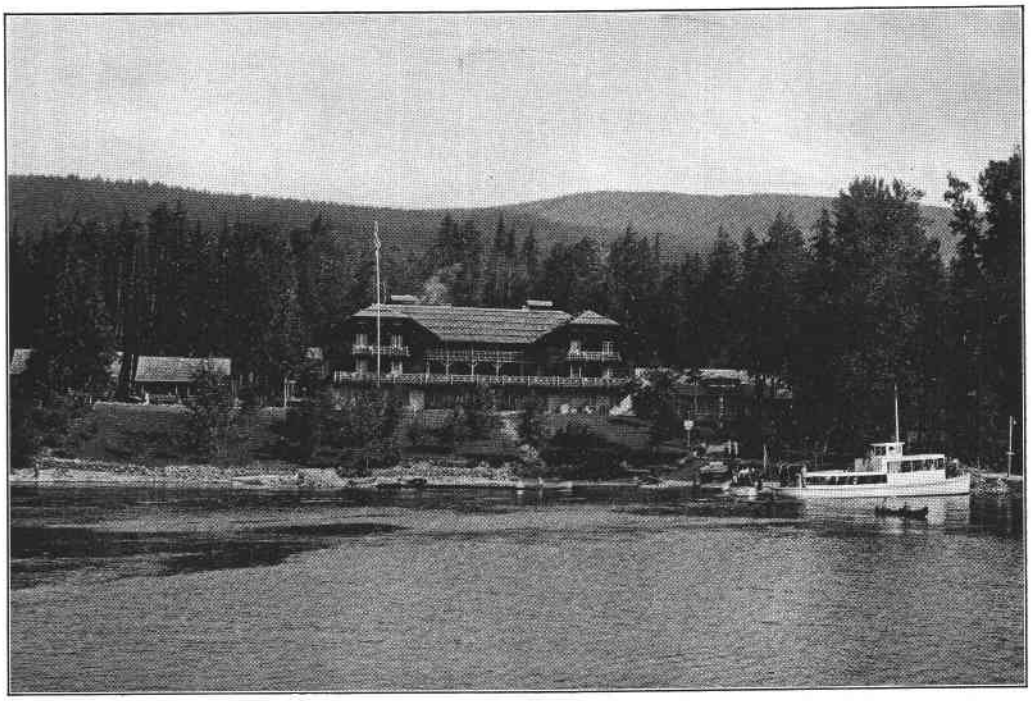
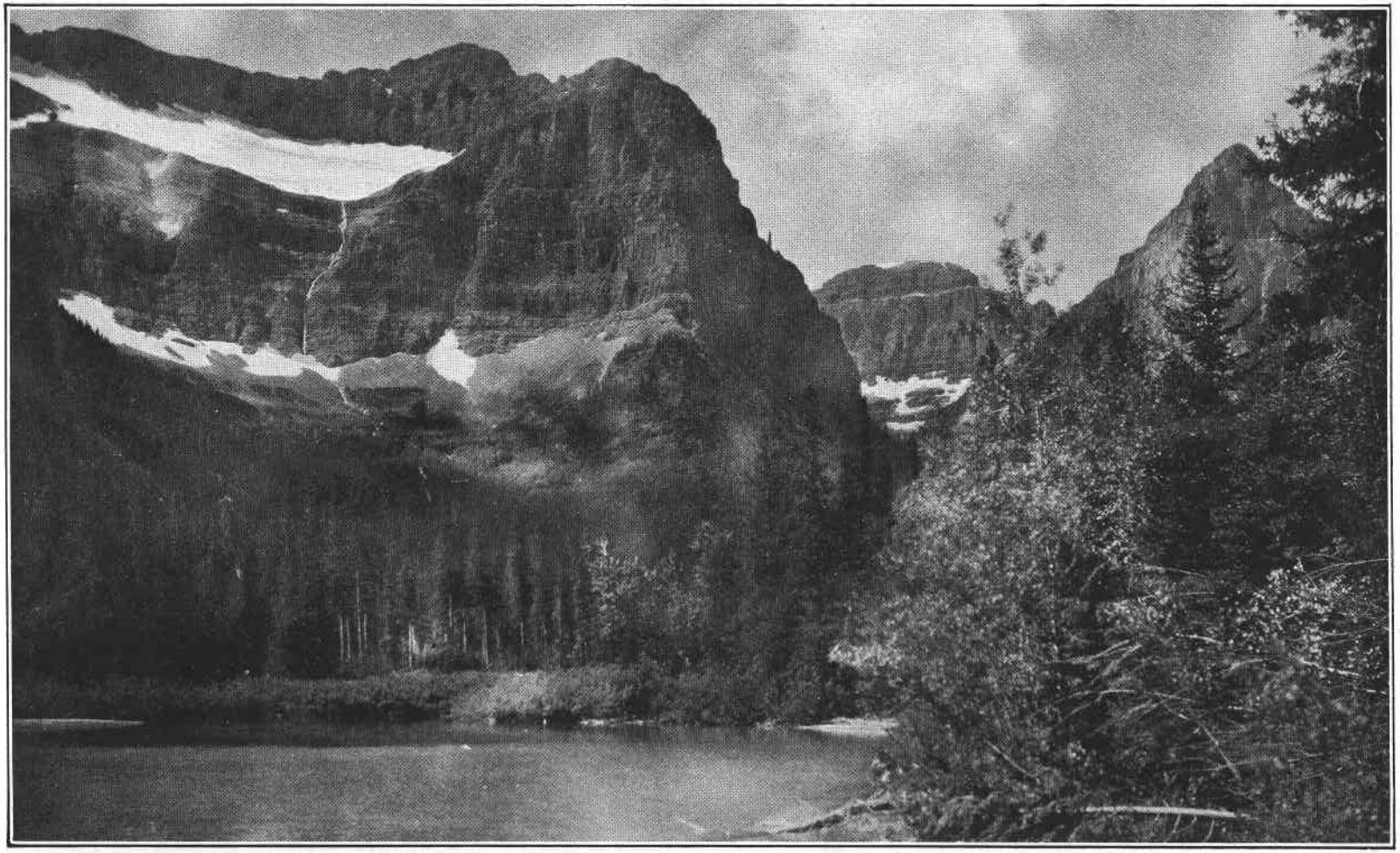
BEAUTIFUL LAKE McDONALD, LOOKING NORTHEAST—MOUNT CANNON IN THE MIDDLE DISTANCE



Photograph by U. S. Reclamation Service

THE COMFORTABLE HOTEL NEAR THE HEAD OF LAKE McDONALD



Lake Janet and Porcupine Ridge

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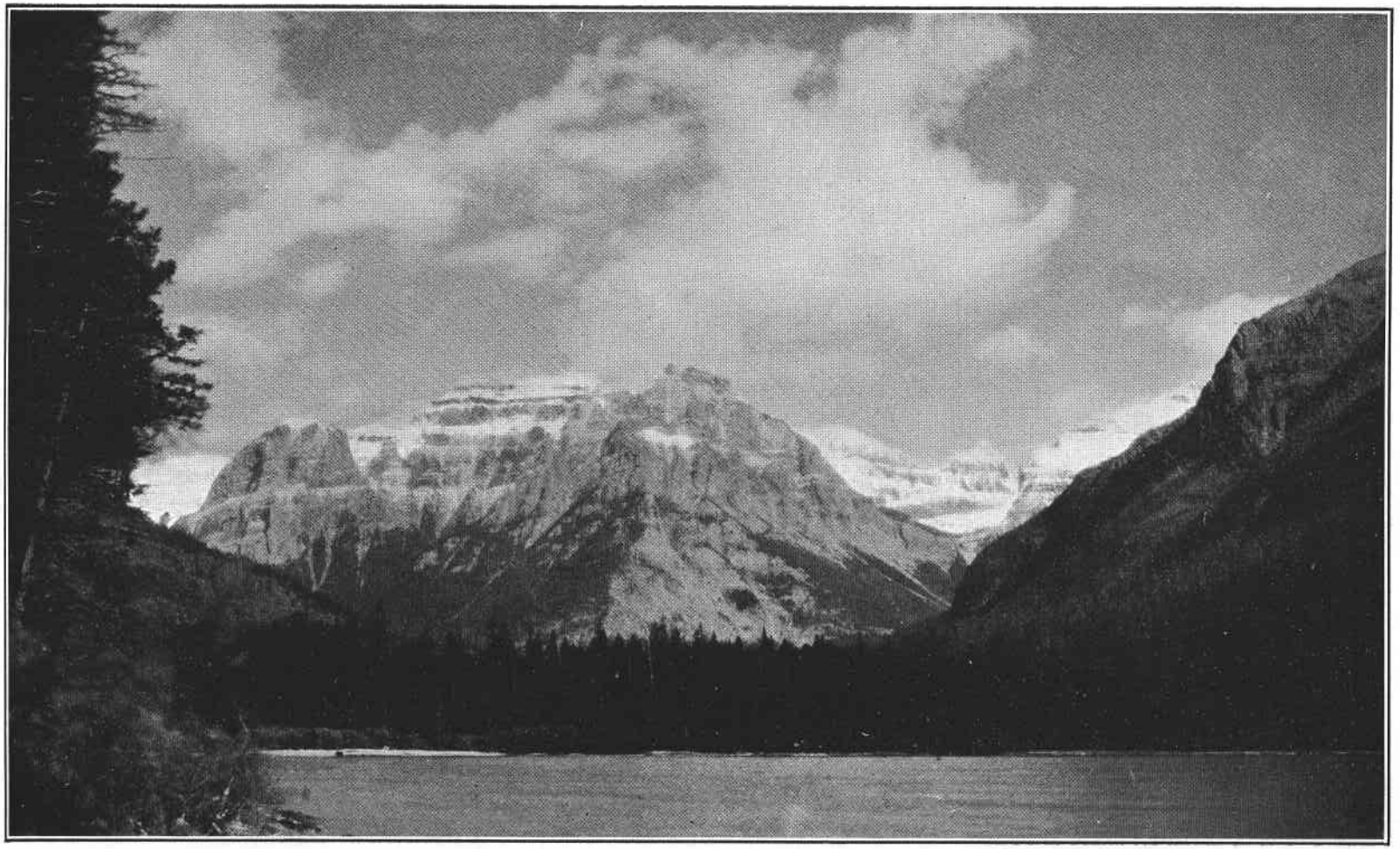
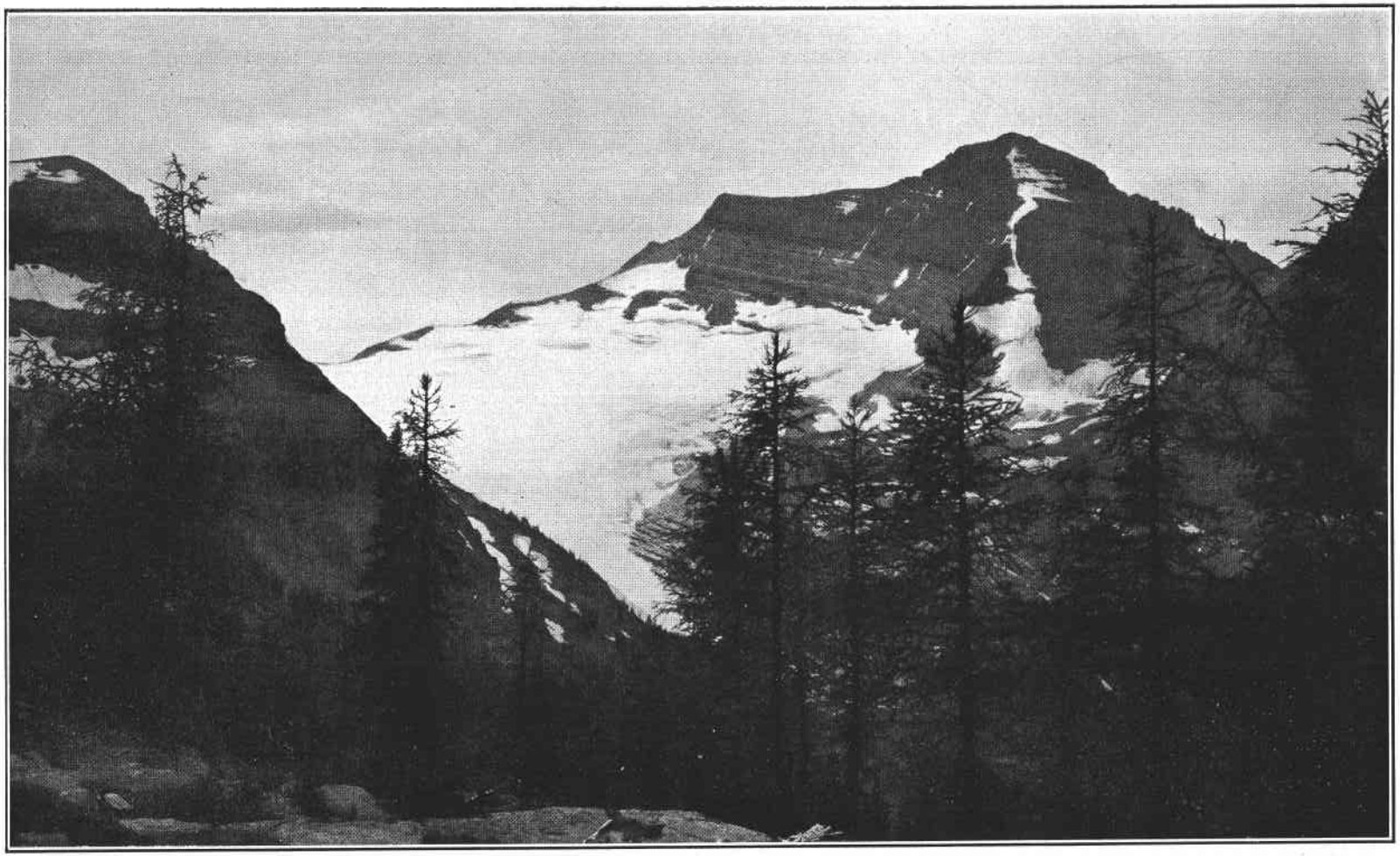
AVALANCHE LAKE, FED FROM SPERRY GLACIER, LIES IN A CIRQUE WHOSE PRECIPICES ARE THOUSANDS OF FEET DEEP



Photograph by U. S. Geological Survey

HEAD OF BEAUTIFUL BOWMAN LAKE



Photograph by U. S. Geological Survey

KINTLA GLACIER ON THE FLANK OF KINTLA PEAK

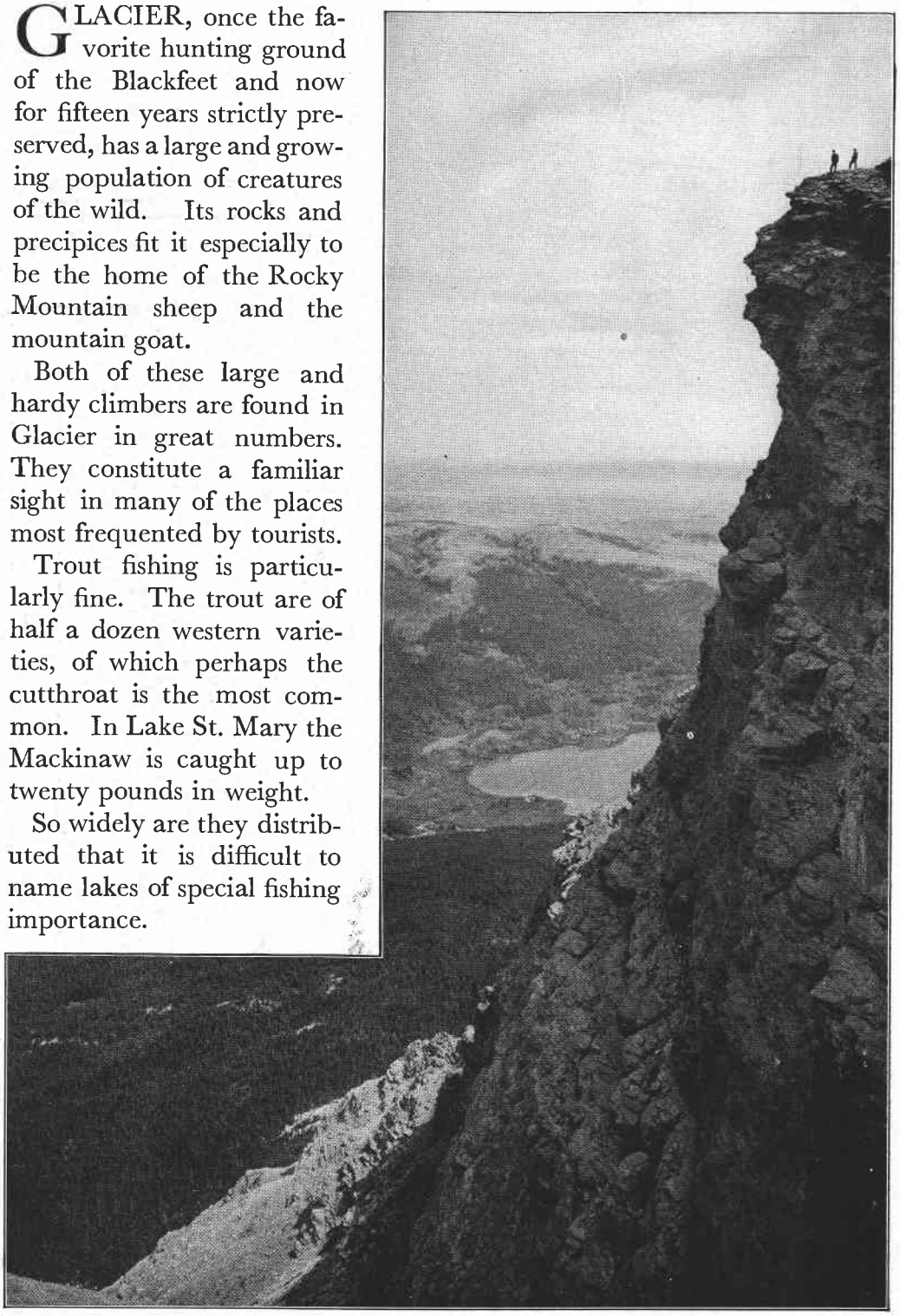
CREATURES OF THE WILD

GLACIER, once the favorite hunting ground of the Blackfeet and now for fifteen years strictly preserved, has a large and growing population of creatures of the wild. Its rocks and precipices fit it especially to be the home of the Rocky Mountain sheep and the mountain goat.

Both of these large and hardy climbers are found in Glacier in great numbers. They constitute a familiar sight in many of the places most frequented by tourists.

Trout fishing is particularly fine. The trout are of half a dozen western varieties, of which perhaps the cutthroat is the most common. In Lake St. Mary the Mackinaw is caught up to twenty pounds in weight.

So widely are they distributed that it is difficult to name lakes of special fishing importance.



Photograph by Fred H. Kiser, Portland, Oreg.

SUMMIT OF APPISTOKI MOUNTAIN