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THE UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
REGION ONE — RICHMOND, VIRGINIA
"Directly astern of this boat you will see a bit of land emerging as the tide ebbs. That is the bar which connects Bar Island with Mount Desert Island, giving the island its name of Bar Island and the town we just left the name of Bar Harbor. 'You see the bar, but the harbor isn't,' so the sailors say."

Thus run the opening remarks of the Ranger-Naturalist guiding some seventy-odd tourists visiting Acadia National Park, the only National Park that smells of the sea and has the "Down East" flavor. The Ranger-Naturalist continues: "At high tide the captain can pilot this big boat over that bar, but when we return in three and a half or four hours, one could drive his automobile from one island to the other."

Then follows a story of people who have misjudged the tide and were stranded for several hours on Bar Island, and a story of the woman whose car stalled on the bar between the islands and was completely covered by the tide. The big tidal range of ten or more feet is explained and the white line of high tide barnacles pointed out on the pilings of the town pier.

At this stage a chart is passed around and the course of the Naturalist's Sea Cruise is outlined. The uniformed Naturalist explains that this free Ranger-Naturalist guide service is part of the regular program in all organized national parks. By this time the large roomy boat has passed the metamorphic rock outcrops near the town's sand beach; the origin and structure of such rocks are explained and attention is called to the large glacial erratics along the shore.

"The little cottage just peeking from behind the trees is the first summer cottage ever built in Bar Harbor." This time it is the voice of Captain Parker, a typical old salt with very grey hair and a pair of Frenchman Bay blue eyes made bluer by the tanner complexion. The first mate steers the boat, carefully dodging lobster buoys, while the captain tells about this estate and that estate, many of the owners being of national or international importance. Near Bar Harbor the estates are relatively close together, but after the Dorrance property each commands more shore frontage.

"Far back in the trees is 'Old Farm', the estate of George B. Dorr, father of Acadia National Park. Mr. Dorr is one of the aristocrats who has spent much of his life and part of his fortune establishing the park." Again it is Captain Parker speaking. As soon as the Captain stops, the Naturalist takes up the story with bits of geology, pointing out the mountains, answering questions, or telling about Old Sol, for whom Sol's Cliffs are named.

"Porpoises on the starboard," the first mate sings out, and everyone rushes en masse to the rail to watch them. Fortunately, the craft is so designed that eighty people can stand on one side without upsetting the
boat. In fact, the old Narmada scarcely lists, but keeps an even keel regard­less of where the crowd is. Drinking water, sanitation facilities, comfortable seats and plenty of space in which to walk around are conve­nien­ces for visitors. Three big engines, powerful pumps, a life preserver for every passenger, a big lifeboat, and a skilled crew assure safety.

The boat cruises on past Arthur Train's estate, past Potter Palmer's, Joseph Pulitzer's magnificent place, past Schooner Head. Near Anemone Cave the route swings eastward toward Egg Rock, past Ironbound Island with its bold cliffs and many nesting fish hawks, which fly harmlessly overhead whistling in great anxiety. Ahead of the boat sea pigeons, or Black Guil­lemots, laboriously rise from the water, trailing their crimson legs behind them. Terns, Herring Gulls, Cormorants, occasionally a Great Black­backed Gull or a Loon add to the ornithological interest. On Long Porcu­pine Island is a heronry, where hundreds of Great Blue Herons rear their young, which decorate the tops of the spruce trees like some Christmas tree ornament.

"I see him! I see him!" And another mad scramble follows as all rush to see the big bald eagle which is just taking off for less crowded regions. It is one of the high spots of the trip, because some have made the trip especially to see their national bird in an untamed state. The Natural Bridge is passed and a dozen or more cameras click as the Captain carefully pilots the boat so that the stern swings around just opposite the Bridge.

Now all eyes are searching for the eagle's nest. As the boat cruises past, the Ranger-Naturalist points out the two young eagles perched in a tree close by the nest. They have just left the nest, but are nearly as large as the parents and may weigh more. Again cameras click.
The feature that makes the Naturalist's Sea Cruise delightfully unique among the sightseeing trips is not that the trip lasts twice as long, but the fact that the party lands on Burnt Porcupine Island, one of the uninhabited islands lying in Frenchman's Bay. By sixes and sevens the passengers are rowed ashore in large flat-bottomed boats that slide right upon the sheltered beach.

The tide is low and starfish, sea urchins, crabs, snails, barnacles, mussels, sea anemones, sponges, Isopods, Hydriods, and many other animals and plants crowd the inter-tidal zone. Competition and survival of the fittest are easy to teach to the interested. Problems of food, anchorage, protection are discussed. The lowly organisms take on meaning for the traveler. Starfish are turned upside down and allowed to right themselves in a tide pool before the watchful eyes of many who have never seen a living starfish before.

Old snail shells, crab shells, eagle feathers, rocks, bits of rounded glass join the cruise as souvenirs destined to travel back home to be shown to mother, dad, sister, brother, or friend, who could not come. Of course, these "souvenirs" could not be gathered in the National Park, but burnt Porcupine Island is privately owned and the
supply of old shells is renewed each time by the crows, gulls and ravens which carry the shells ashore where they feast on the contents.

It is 12 o'clock and the cruise is about over. The Naturalist tells about other boat trips, the auto caravan, hikes, campfire programs, all-day sailboat trips, as the Narmada passes private yachts, Coast Guard cutters, and other boats lying at anchor. The passengers pay the Captain a dollar for the all-morning cruise and thank the Naturalist for all the things they have learned. Thus ends one of the most novel trips any National Park offers.

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**APPALACHIAN TRAILWAY PROMOTED**

A forward step in the protection and perpetuation of the Maine-to-Georgia Appalachian Trail was announced in a joint statement issued by the National Park Service and the Forest Service. The two Federal Services have agreed mutually to promote the "Appalachian Trailway" as a distinct type of recreational area devoted particularly to hiking and camping.

Commenting on the agreement, which was worked out in close collaboration with him, Myron H. Avery, Chairman of the Appalachian Trail Conference, said: "This constitutes the first coordinated Federal policy to be adopted in support of the trail project, and apart from insuring protection of the trail now located in federally-owned lands, points the way toward future preservation of the entire trail route."

By terms of the joint agreement, a protective strip will be established along 546 miles of the Appalachian Trail traversing eight national forests and 153 miles in two national parks. Location and marking of the entire route, which extends for 2,050 miles along the broken crestline of the Appalachian Range from Mount Katahdin in Maine to Mount Oglethorpe in Georgia, were completed in 1937 after many years of effort by the 80 outdoor organizations affiliated with the Appalachian Trail Conference.

The agreement provides for maintenance of a zone at least two miles wide along portions of the trail passing through national parks and national forests, except where it descends into main valleys, within which zone there will be no new paralleling routes for the passage of motorized transportation or other incompatible developments. Wherever desirable, those portions of the through trail which are now located within one mile of paralleling motor roads will be relocated as funds permit.

Although both Federal agencies have been directly concerned for many years with the growth of the Appalachian Trail, officials of the two bureaus predicted today that the new agreement will clarify its future status and lead to more hiking and camping throughout the mountain areas which it connects.
The need for more museums with a wide popular appeal has long been recognized. Some of the larger museums are meeting this need by taking the necessary steps to bring their exhibits to a level which can be appreciated by the average non-scientific citizen. The smaller isolated institutions, as a rule, however, have not completely met this trend. Too often they are a mere jumble of catalogued specimens having little interest for other than the specialist.

To a mineralogist the structure, formation and characteristics of a crystal of calcite is routine information. To the casual visitor this information, properly set forth on labels in simple language, is a revelation. The average small museum can hope to interest specialists only in that it contains local specimens and data not found elsewhere. No matter how small the collections, it can, and does, interest the layman, if the collections are attractively and sparingly displayed with adequate descriptive labels.

Such a museum is planned for Mound State Monument, Moundville, Alabama. It will be designed to appeal to the visitor of average intelligence and will presuppose no knowledge of archeology. The structure is in the form of one large center section with flanking wings of smaller size.
The central portion will be devoted to a display of type material encountered at Moundville, to a series of cases having the migrations of the American Indians and the progression of their cultural traits, and to dioramas showing how the people lived. Colored labels, animated figures, attractive backgrounds and all the other many devices of good advertising art will be employed in this portion of the building to attract and hold the interest of the visitor.

Each of the two wings contains in situ burial pits just as they were uncovered by excavating crews in the summer of 1926. Temporary shelters have been built over the pits. These will be removed after the building is completed to expose the burials and artifacts, in place, from a walkway around three sides of the rooms.

The building is of fireproof construction throughout with floor, walls and roof of reinforced concrete. Interior walls are furred out with hollow tile and overhead ceiling will be plastered on metal lath. A basement contains a hot air furnace and a forced air ventilating system which will be used both for heating the structure and for keeping the interior free from dampness.

Only one opening in the structure is to be provided. Lighting will be completely artificial and thereby controllable. Prismatic lights in the ceiling will give an even, low foot candle illumination for the entire structure and exhibits will be lighted individually with concealed display case type fixtures. The burial will be lighted with trough lights, concealed in the coping of the parapet walls around the walkways.

Inasmuch as provisions are contemplated for study, restoration and storage in another part of the park, no facilities for these operations are provided in the museum building.

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REDESIGNATION OF HISTORICAL AREAS

Legislation is being considered authorizing the redesignation of historical areas administered by the Department of the Interior. Most of the areas involved were transferred to this Department in 1933 from the Departments of War and Agriculture. In general, the proposals involve combining all the national cemeteries with their related national military parks and redesignating them as national historical parks. For example, Gettysburg National Military Park would be combined with Gettysburg National Cemetery and known as Gettysburg National Historical Park. Three national battlefield sites are recommended as national historical parks and it is proposed to transfer the remaining national battlefield sites to the memorial category. Twenty-nine units are affected by the recommendations.
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THE PLACE OF RADIO IN THE NATIONAL PARKS

By W. C. Hilgedick,
Associate Radio Engineer.

The use of two-way radio sending and receiving sets has been developed in the National Park Service so that there now are 24 radio-equipped areas in the United States and Alaska.

The park having the most extensive radio system of all these areas is the Great Smoky Mountains National Park. That system consists of 33 sets located in the park headquarters, lookout towers, warden stations and CCC camps. The installations include four wind generator stations upon which the Great Smokies is doing valuable research work toward making them applicable to other parks.

Utilization of radio has furnished the parks with highly satisfactory communication during many critical emergency periods, such as forest fires, floods, and searches for lost persons. A fire season has not gone
by in the Great Smokies since radio has been used but that the sets are
taken into the field many times to report to headquarters the status of a
potentially large forest fire. Sometimes the call is for more help—which
is dispatched immediately—thus eliminating those precious moments that
would be used by a messenger running back from the fire to the nearest
telephone to make his report.

Searching parties, consisting of separated groups, have been tied to­
gether by radio, thus making coordination possible. Such an incident as
this occurred in Rocky Mountain Park last June when a search was made for
a lost four-year-old boy.

An odd incident is recalled that happened in the Great Smokies when
the man with the radio set was the one who became lost. Radio Technician
Allen and his party lost their way one rainy day when taking a short-cut
from the Pinnacle Ridge fire near Pickens Gap. He set the radio up, call­
ed the lookout tower, and asked where he was. After describing how he got
there, the tower man, a native of the region, advised him which way to go
The party did this and in a few hours came out on Hazel Creek.

Our new field sets are not difficult to pack. Complete with antenna
and power supply, they weigh only 21 pounds, and are contained in a metal
box about the size of an overnight bag. They can be carried either by a
handle on the top of the case, or by strapping them to a packer-Nelson
type of packboard when it is desired to have both hands free.

Usually, these small sets have a range of 25 or 35 miles. Yet, during
favorable periods such as the early morning hours up to 9 a.m., or the
winter months when no static is present, we communicate 200 miles reliably,
day in and day out.

An outstanding demonstration of long distance communication with
one of these sets occurred when an expedition down the Colorado River talk­
ed each day for two months to the Grand Canyon South Rim headquarters stat­
ion. Our busiest radio stations are two of the headquarters type sets con­
necting Isle Royale headquarters on Mott Island in Lake Superior with the
mainland office in Houghton, Michigan. During the month of August these
stations handled a total of 864 messages, containing 23,472 words.

The last park to be radio-equipped was Mount McKinley National Park in
Alaska to which two of the headquarters type sets were shipped last Febru­
ary.

The larger of our types of sets conforms with standard products manu­
factured by many companies, but the small field set is unique and has been
accepted as one of the best of its type now being made. Radio broadcasting
companies, power companies, expeditions, and others requiring radio
to connect their main station or headquarters with outlying isolated points
have shown a decided interest in acquiring them for their use. Such indi­
cations make field technicians feel that the Service is keeping abreast
with the rapid advance of radio developments.
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BEAVER ALONG THE SHENANDOAH

By Otis B. Taylor,
Associate Wildlife Technician.

Within the last few years much interest has been manifested in reestablishing beaver in Virginia. Successful efforts in restocking have encouraged research in order to determine the former status. The earliest explorers who traveled through the wilderness now included in the Shenandoah National Park, and through the fertile valley beyond, usually mentioned seeing beaver along the streams that form a part of the watershed of the park. In consideration of the known fact that beaver utilize all habitable streams, it may be assumed they established themselves within the present boundary of the park.

John Lederer is credited with being the first European to reach the Blue Ridge Mountains. In The Discoveries of John Lederer, In Three Several Marches from Virginia to the West of Carolina and other parts of the Continent: Begun in March 1669 and ended in September 1670, the author states that on his first expedition from "The Head of the Pamaneonock, alias York River, to the Apalataeon Mountains,----great herds of red and fallow deer I daily saw feeding; and on the hill-sides, bears crashing mast like swine.----Beavers and otters I met with on every stream." Traveling westward from the York River, Lederer is believed to have ascended the Blue Ridge Mountains within the present Shenandoah National Park.

The park includes a portion of Augusta and Rappahannock Counties. The Virginia Magazine of History and Biography mentions the occurrence of beaver in the former county. In Volume 30, page 179, we find the following comment:

"Early suit records of Augusta County, Virginia, show that wolves, deer and elks abounded in the valley, also the beaver, and the black fox, and for many years, the skins and furs of these animals was the source of a considerable revenue. This continued until after the Revolution, and the valley was visited regularly by traders from Pennsylvania who came to purchase skins and furs. The fact that a buffalo hide was worth only 33-1/3¢ in 1730, shows how plentiful the buffalo abounded in the valley."

Tyler's Quarterly Magazine, Volume 1, page 42, published the following comment on the "District of Rappahannock":

"The following is a summary of a report of Charles Heilson, of the Duties received on the Exportation of Skins and Furs within the district of Rappahannock from the 25th. October 1764 to the 25th of April 1769,
to the College of William and Mary. These ships exported within the time mentioned 2250 buckskins, 4497 doe skins, 69 lbs of beaver skins, 112 otter skins, 54 wildcat, 120 mink, 708 fox skins, 1371 raccoon skins, 171 muskrat and 15 elk."

The reference to Rappahannock District may be construed to mean a portion of land now included in Rappahannock County, although this is by no means conclusive. The county was formed from Culpepper County in 1833, taking its name from the river which forms a part of its boundary. Rappahannock River received its name from an Indian tribe which lived along its course.

Samuel Kercheval's History of the valley of Virginia, Fourth Edition, 1925, states on page 30 that the settlement in the valley commenced about 1734 or 1735. His comment on the status of beaver and other wildlife is included, due to the proximity of Shenandoah River to the park. Kercheval said:

"Much the greater part of the country between what is called the Little North Mountain and the Shenandoah River, at the first settling of the valley was one vast prairie and like the rich prairies of the west, afforded the finest possible pasturage for wild animals. The country abound ed in the larger kinds of game. The buffalo, elk, deer, bear, panther, wild cat, wolf, fox, beaver, otter, and all other kinds of animals, wild fowl, etc., common to forest countries, were abundantly plenty."

Note: "These prairies had an artificial cause. At the close of each hunting season the Indian fired the open ground, and thus kept it from reverting to woodland. This was done to attract the buffalo, an animal that shuns the forest. The progressive deforesting of the lowlands of the valley made the settlement by the whites very easy and rapid.

Restoring beaver accomplishes much more than merely reintroducing an animal that builds dams and houses. Their ponds are used by waterfowl, wading birds, blackbirds, amphibians, reptiles, mammals depending upon impounded water, numerous insects and water-tolerant vegetation. The resultant community is unique. In the course of time the food supply of the beaver may become exhausted. It seeks a new home and develops a new biological environment favorable for other animals and aquatic plants. The abandoned pond eventually develops into a low meadow where the trees upon which the beaver exists again become established and to which the beaver may return. An orderly succession is developed whereby beaver becomes the benefactor of many wild creatures and provides an immeasurable interest for man.

Studies conducted by the Service indicate there are today no beavers of the original stock anywhere within the boundaries of Shenandoah National Park. A long-time program of restoration is being launched on a modest scale this season, however, and it is hoped that eventually the animals will be restored as a part of the park fauna.
A CORE DRILL--ITS LIFE AND WORKS

By H. S. Ladd,
Regional Geologist.

Many workers in the Regional Office and in the field who handle job applications have run across the trail of the Regional core drill and the name of its operator, V. C. Mickle. Since core drills are not common-place objects, it is not surprising to learn that many people have a rather vague idea of just what a core drill is and what it is supposed to do for the good of the Service. I shall attempt to show that there is nothing fundamentally mysterious about the apparatus though it is a complicated machine, calling for skillful operation and capable of working wonders underground.

A core drill is a highly specialized piece of equipment patterned on the much larger rigs that are used in drilling deep oil wells. The modern core drill, such as the Failing drill that we have, can bore a hole to a depth of over 1,000 feet and can bring up unbroken cylindrical sections (cores) of the rocks through which it passes. These cores give the geologist and the engineer a true picture of conditions underground and aid them in planning dams and other structures where knowledge of foundation conditions is of the utmost importance. In between jobs of this type, our core drill is kept busy drilling and testing wells and assisting in grouting operations. In the relatively "soft" rocks of the coastal plain areas, the core drill is a highly efficient well drilling rig. Before considering specific jobs, however, it may be desirable to describe the drill briefly and show how it operates.

Some idea of the general appearance of the drill may be gained from the illustration. Its power is supplied by a Ford V-8 motor unit and is used to rotate a string of hollow rods or drill pipe. A bit is attached to the end of the drill pipe and rotates with it. A pump that forms a very important part of the rig forces a stream of thin mud down through the center of the drill pipe and the whole string thus rotates in a mud bath. The mud is forced upward outside the drill pipe, spills over into a pit and is picked up again by the pump. The mud carries up the rock fragments ground off by the bit and they later settle out in the pit, but the most important function of the mud is to seal off water seepage from the walls of the hole and thus prevent caving.

In coring operations, a special apparatus known as a core barrel is attached to the end of the drill pipe. This "barrel" is a double-tube several feet in length. The inner tube is suspended on ball bearings so that it is free to revolve independently of the outer tube. A ring-shaped bit is attached to the lower end of the core barrel. As it cuts an annular hole downward the core is passed upward into the inner tube by a "core lifter." When the core barrel is filled, the drill pipe is pulled out of the hole and the core removed intact.
When cores are not needed—as, for example, in most well drilling operations—the core barrel is laid aside and a "fish tail" bit of some sort is attached to the end of the drill pipe. This speeds up drilling operations for it is then no longer necessary to "come out of the hole" to empty the core barrel at five-foot intervals. Instead, the bit remains in the hole and 10-foot sections of drill pipe are swung upon the mast and added from above as the hole is deepened. If unusually hard layers are encountered, the string is pulled out of the hole and the "fish tail" bit is replaced with a special rock bit.

The Regional Office core drill was purchased over two years ago for the specific purpose of obtaining cores from dam sites and it has been used successfully in coring 110 holes on 10 sites in various parts of the Region. Many dam sites, however, do not require the use of a core drill as they can be examined satisfactorily with an auger, sand pump or by simply digging pits. In order, therefore, to keep the drill busy and thus retain the services of our driller, we started drilling wells in the intervals in between dam-testing jobs. To date a total of 28 wells have been completed successfully in 15 different parks. The total footage drilled, counting all types of holes, exceeds three miles. Five of the
completed wells are 800 feet or more in depth, all five of them flowing freely at the surface. In drilling a well at LeRoy Percy State Park, in Mississippi, an eight-inch hole was carried to a depth of 500 feet. When the well was completed, it was tested by pumping its water into the empty swimming pool nearby. It filled the 200,000-gallon pool in $10\frac{1}{2}$ hours. An even larger supply of water was obtained from a six-inch well at Gold Head Branch State Park, in Florida, where tests showed 480 gallons per minute. A survey of all expenditures over a two-year period—allowance even being made for depreciation on the equipment—shows that the drill has been successfully operated at less than $1 per foot. Contract prices on coastal plain wells are at least double that figure.

We were exceedingly fortunate from the start in obtaining the services of V. C. Mickle, an unusually capable driller who had long experience drilling oil wells and who operated a diamond drill on the Boulder Dam for several years. Under ideal conditions the operation of a core drill is comparatively simple, for one who is mechanically minded, but 57 varieties of difficulties can—and do—arise to tax the ingenuity of the driller. The writer has watched our drill on many of its jobs—including one all-night session when, due to caving, the entire string of tools became firmly locked in the hole—and he has been constantly amazed at the number of tricks that Mickle has up his sleeve. When a chosen method fails there seems always to be some other way to solve the difficulty.

Mr. Mickle now has an Assistant Driller, William Sasser, formerly a CCC enrollee at Chehaw, GA-SP-9. Mr. Sasser was assigned to the drill temporarily while it was engaged in drilling a deep well at Chehaw State Park. He liked the work so well that he resigned from the CCC and has been steadily at work with the drill ever since. When, as sometimes happens in drilling deep wells, it is necessary to run the drill continuously for more than 24 hours, Sasser has run one 12-hour shift, Mickle, the other. Recently at Ft. Clinch, when it was necessary for Mickle to make a trip to Georgia, Sasser brought in an 800-foot flowing well unaided.

Plans for obtaining a second drill for the Region are now under way.
'I'LL LIKE REGION ONE,' WRITES NEW REGIONAL DIRECTOR

Although he leaves behind him the associations of 16 years in the "Canyon Country," where he served in various capacities from general foreman to Superintendent of Grand Canyon National Park, MINER R. TILLOTSON, Regional Director-designate of Region One, writes that he expects to enjoy his transcontinental jump from Arizona to Virginia.

"I am very positive," he said, "that I will like Richmond and Region One, that I will find just as congenial friends there, and that I shall like the work, the people and the country immensely." And Mrs. Tillotson, he adds, "is just as much interested in the National Park Service and in Park people as I am."

Superintendent Tillotson, as announced in The Review of last month, will replace DR. CARL P. RUSSELL, Regional Director since the summer of
1937, who will go to Washington as Supervisor of Research and Information. The new Regional Director is expected to assume his duties early in 1939.

Born on October 2, 1889, in Vermillion County, Indiana, Mr. Tillotson received his early education at Lebanon and was graduated in 1908 from the School of Civil Engineering of Purdue University. For the next 11 years he held engineering and administrative posts in the United States Forest Service and was Supervisor of Cleveland National Forest, near San Diego, when he resigned to become construction engineer with the Standard Oil Company of California. He reentered federal service in 1921 and was assigned briefly to Yosemite National Park. The next year he was transferred to the newly established Grand Canyon National Park as General Foreman, soon became Assistant Engineer, later Park Engineer and, from April, 1927 to the present, has been Superintendent.

Mr. Tillotson, co-author with Frame J. Taylor of Grand Canyon Country, is a member of Delta Upsilon, California Academy of Sciences, American Society of Civil Engineers, Rotary, Arizona Public Health Association, American Civic and Planning Association, a 32d Degree Mason, El Zaribah Temple, Phoenix, Arizona, A. A. O. N. M. S., and Al Malaikah Temple (Honorary), Los Angeles, A. A. O. N. M. S.

Mr. and Mrs. Tillotson will bring with them to Richmond a daughter, Miss Winifred Jean Tillotson, who now is a student at the University of Arizona. A son, Wishard Dean, is manager of the Fred Harvey House at Canadian, Texas.

Assistant Wildlife Technician DAN BEARD of Region One has been transferred to the Wildlife Division of the Washington Office to fill the position vacated by Associate Wildlife Technician James O. Stevenson, who recently became Assistant Manager at Aransas Migratory Waterfowl Refuge, Corpus Christi, Texas. Mr. Beard had spent more than eight months in conducting studies in the Everglades.

ERNEST HUYETT, Contract Examiner in the Regional Office, has accepted a Civil Service position with the American Battle Monuments Commission of Washington. Mr. Huyett has been with the Richmond Office since August, 1936.

WILLIS KING has been transferred from his Ranger-Naturalist position at Great Smoky Mountains National Park to that of Assistant Wildlife Technician. The change was effective October 15. Mr. King's headquarters are still at Gatlinburg, Tenn.

DR. LAURENCE M. DICKERSON, who recently filled the Regional wildlife technician position vacated by William J. Howard, has resigned to accept a Civil Service appointment as Regional Biologist, Region III, Soil Conservation Service, with headquarters at Dayton, Ohio. Dr. Dickerson began his new duties November 15.
NEW FEDERAL AREAS

ACKIA BATTLEGROUND NATIONAL MONUMENT

By Presidential Proclamation of October 25, Ackia (Mississippi) Battleground was made a national monument. The lands involved were purchased by condemnation with funds appropriated for the purpose. Arrangements have been made with the Smithsonian Institution for the assignment of an archeologist to direct field exploration and reconnaissance work at the site. In pursuance of legislation enacted in 1935, the Service made studies at Ackia and has selected 50 acres which appear to include the Chickasaw village site on which the battle occurred. This further study to be directed by the Smithsonian Institution will determine conclusively whether the proposed area embraces the entire site of that village, and should offer additional information on the Chickasaw Indian occupation significant as historical background for the Battle of Ackia and the general Natchez Trace Story.

It was on May 26, 1736, that the Chickasaws, headed by the English, repulsed an attack made by 600 Choctaws under the command of Bienville. The battle of Ackia was one of the numerous Indian battles, supported by Europeans, for the control of the Mississippi Valley, and was particularly significant in that the English victory was responsible for the English colonization of the area.

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GREAT WHITE HERON REFUGE

The proposal to reserve islands within a portion of the Florida Keys group as the Great White Heron Refuge has been approved by the President. The area is a part of the proposed extension to Fort Jefferson National Monument. The creation of the refuge was recommended in accordance with an agreement with the Secretary of Agriculture to provide emergency protection for the white heron pending final arrangements for inclusion of the area in the national monument.

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SANTA ROSA PROGRESS REPORTED

As a result of recent negotiations, new progress has been reported concerning the move to establish Santa Rosa Island National Monument, Pensacola, Fla. The area has had an interesting place in national development. It contains the remains of old Forts Barrancas and San Carlos, representatives of the Spanish period, and is adjacent to one of the early live oak reservations set aside by the United States Navy in 1828. Timbers from the area were used 99 years later in reconditioning "Old Ironsides." In addition to its historical values, the island possesses a charm and appeal of its own. The glistening white sand beach and dunes and the fine possibilities for bathing, boating and fishing offer a constant invitation to the traveler.
A SCIENTIST ON PARK STANDARDS

An interesting opinion on national park standards is expressed in a message to the National Parks Association by Dr. V. E. Shelford, one of its trustees, who holds the chair of zoology at the University of Illinois and long has been identified with national conservation. He writes:

"The biologists of our country have been very derelict in their duties toward the preservation of plants and animals. The zoologists have been particularly lax and have failed to understand some of the necessary things relative to preservation of roaming species.

"Different people appreciate the object of park standards from different angles. I recall very well the terrific letter which I received from a former member of the organization ten years ago when I suggested that the national parks should include areas representing all the different major types of vegetation with their normal attendant animal life. As nearly as I could understand this individual, a national park must have a quality of scenic grandeur and of course these qualities are, in general really very permanent; whereas biological qualities are readily changed by man and slowly restored by natural processes. You will readily see that an attempt to let national parks include various types of the biological nature which possess a grandeur to the biologist and lover of animal nature might involve the making of national parks of the areas not up to standard at the time of establishment. The same areas a hundred years hence will possess the high standard qualities from a biological point of view. The protection of migratory animals often calls for the inclusion of areas far below park standards as part of parks in which these animals occur.

"I read the National Parks Bulletin which referred to the breaking down of standards sometime ago and recently read Mr. Cammerer's letter I considered the letter an admirable statement of the facts in the case and I believe that the Park Service is working along the right lines."

* * * * *

FEDERAL PARK SYSTEM NOW EXCEEDS 19,000,000 ACRES

Recent additions to the national park system have brought to more than 19,000,000 acres the lands administered by the Service, Director Cammerer points out in his annual report submitted this month to Secretary Ickes. The acreage, comprising 144 areas, is distributed in the continental United States and Hawaii and Alaska. Outstanding among the extensions of the system during the last fiscal year was the creation of Salem Maritime National Historic Site, in Massachusetts, and Olympic National Park, in the state of Washington. Saratoga National Historical Park, in New York, was authorized for eventual inclusion among federal reservations and funds were made available for acquisition of lands which, it is hoped will make possible the formal dedication of Great Smoky Mountains National Park within the next year.
Visitation figures for the travel year just ended reveal a national tendency which concerns directly the Service areas of Region One. Visitors to national parks decreased slightly as compared to 1937 totals, but attendance at all areas of the national system moved upward from 15,133,432 to 16,233,638. The gain is accounted for almost entirely through the increase of 1,185,218 (more than 70 per cent) recorded by the national military parks and cemeteries, all of which lie east of the Mississippi.

Gettysburg, with 1,554,234, received more visitors than any other of the 144 areas of the Service. Shiloh was second among the military parks with 346,069, and Vicksburg and Chickamauga-Chattanooga followed closely. Meanwhile, Shenandoah continued to hold first place among the national parks with the Great Smokies second. Acadia was surpassed by only three of the western parks. Tabulations comparing the 1937 and 1938 figures for all reporting areas of Region One will be found on page 26.

Superintendent Tillotson, the newly designated Director of Region One, confides to The Review that "both at high school and in college I was a school mate of our Chief of Engineering, O. G. Taylor; also that Mr. Taylor and I were roommates in college and that I worked for him while serving as transitman in Yosemite in 1921." On second thought he adds: "Perhaps though, it would be just as well not to mention this since he would probably not be as proud of the association as I am." Mr. Tillotson's confessed hobby, by the way, is football.

Field employees of the Service often find imposed upon them the not unpleasant task of delving into the remote repositories of history's lesser facts. And, often enough, they emerge from musty archives bearing those little finds which give them "the common touch" with the life of long ago. So it was with C. L. Johnson, Senior Foreman (Historian) assigned to Tchefuncte State Park, Mandeville, Louisiana, who now footnotes the Revolutionary War with an observation that the struggle for liberty apparently was won, not by those whose polite palates called for claret and other refined beverages, but by those whose untutored throats craved more bracing potions. Mr. Johnson, studying the famous Marigny family, proprietors of old Fontainebleau Plantation, has unearthed a political speech delivered in 1834 by Bernard Marigny, State Senate candidate, who was right roundly cheered when, in the peroration of an address which sided squarely with the "people" against the "aristocrats," declared:

"In the great contest between Great Britain and the United States, who was it that triumphed? the drinkers of Bordeaux and Chateau Margaux, or the drinkers of Whiskey? When the Bostonians repulsed John Bull, was claret or whiskey drank [sic]? Fellow citizens, let us be united for the good cause and we are assured of success!" (Applause).
RECREATIONAL DEMONSTRATION AREAS

GROWTH OF ORGANIZED CAMP USE

Greatly increased use of organized camps developed by the Service on Recreational Demonstration Areas is revealed by newly compiled figures which embrace camping activities for the years 1936-38, inclusive. The number of camper days gained by nearly 1,000 per cent during the three-year period and that of the using organizations by more than 1,500 per cent. Progress throughout the four regions is shown by the following summary:

<table>
<thead>
<tr>
<th></th>
<th>1936</th>
<th>1937</th>
<th>1938</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of camps operated</td>
<td>9</td>
<td>20</td>
<td>49</td>
</tr>
<tr>
<td>Number of camper days</td>
<td>37,310</td>
<td>100,769</td>
<td>376,173</td>
</tr>
<tr>
<td>Number of using organizations</td>
<td>9</td>
<td>41</td>
<td>151</td>
</tr>
</tbody>
</table>

Of the total camper days of the 1938 season, more than 200,000 were provided by the 26 camps and two tent camping sites developed in Region One. (v. The Regional Review, vol. I, No. 4, pp. 13 et seq.).

Meanwhile, final tabulations on use of the newly developed day area at Swift Creek Recreational Demonstration Area, in Chesterfield County, near Richmond, disclose that during July and August more than 100,000 persons—a figure approximating the total for all Virginia state parks—utilized the facilities provided there.

***

FUNDS ASKED FOR RDA MAINTENANCE AND PROTECTION

An item of $249,950 has been included in Estimates of Appropriations, fiscal year ending June 30, 1940, for the administration, protection and maintenance of Recreational Demonstration Areas. This is a new item in the Estimates and is considered of vital importance to the Service.

***

SERVICE OUTING AT CATOCTIN

About 60 Service officials and their wives participated in an overnight outing arranged recently at Catoc tin Recreational Demonstration Area, Thurmont, Maryland. Making use of the accommodations provided for children and adults of Baltimore, Washington and surrounding communities, the National Park Service party gained first-hand knowledge of the Catoc tin organized camping facilities and took opportunity to drive and hike over some of the new roads and trails that serve the 10,000-acre reservation. Among officials from outside the Service who enjoyed the outing were A. V. Keene, Bureau of the Budget; John Harvey, Chief of the Classification Division, Interior; Robert Fechner, Director of CCC; Carlos Zinser, son of the Chief Conservationist of Mexico; C. C. Davison, Interior and Floyd E. Dotson, Chief Clerk, Interior.
EXPERIMENTAL CAMP RECORD ENCOURAGING

Successful correction of speech defects in a group of children by the use of physical facilities provided by the Service is described in a report made by the directors of the California Experimental Camp operated during the vacation season at Laurel Hill Recreational Demonstration Area, Pennsylvania, where the California State Teachers College cooperated with the Pennsylvania State Convention of the Brethren Church.

"Much more was accomplished in the past season due to the added time and excellent facilities of this government camp," says an excerpt from the report. "The camp is ideal for such /speech rehabilitation/ work as well as for nature study, which was also a part of our program for college students and teachers. This summer we had 16 cases, ranging in age from seven to 24. Ten of these were stutterers, four were characterized by sound substitutions and omissions, one had a bad voice condition, and one retarded speech. Ten campers remained the full seven weeks, and three for three weeks. Twelve different communities were represented. Of the ten children remaining the entire season, eight were satisfactorily and completely readjusted. The other two made very definite improvement. Those remaining shorter periods showed improvement in direct proportion to the time they stayed and the nature of their difficulty.

"Why is the camp plan a good way of treating speech disorders? Speech retraining involves breaking down wrongly established habits and setting up others until the new habits are stronger than the wrong ones and can supplant them. It means removing the fears, inhibitions, complexes, and feelings of inferiority which have been brought on the children as a result of not being able to communicate as others in their social group. In camp life the group lives speech correction from the time they get up until they go to bed. Much is done while playing tennis, volley ball, horseshoes, in swimming, and at the table, as well as in the regular periods of instruction. The camp atmosphere, free from the social repressions and inhibitions to which the child has been accustomed, is conducive to a rapid adjustment to normal speech. The help from those prospective teachers in addition to the work of the speech clinician permits much more thorough supervision and more individual help than would otherwise be possible.

"Every case receives three hours of individual instruction daily in the retraining of his own particular difficulty — all under the close supervision of the speech clinician. In addition, three periods of group instruction are held daily. Speech cases, clinicians, and teachers live, work and play together. All activities of the camp are planned with the purpose of developing personality and character together with the habits of normal speech.

"Boys and girls are assigned to separate units of the camp a considerable distance apart. They are further grouped according to age and type of defect."
CCC-BUILT VACATION CABIN, SAVOY STATE FOREST, MASSACHUSETTS
C.C.C.

Sixty-eight educational advisers in New England CCC Camps have organized the First Corps Area Guidance Association. The Association has become a chapter of the National Vocational Guidance Association. In studying the guidance approach the research committee will attempt solution of the following problems:

1. What are the best specific techniques of the interview?
2. What tests shall be included in the ideal testing program for CCC enrollees?
3. Which of the available mechanical aptitude tests is best adapted to CCC enrollees?
4. Intelligence as related to mechanical ability.
5. Intelligence as related to clerical ability.
6. Possible relationship between physical fitness and ability.
7. What follow-up system for discharged enrollees if feasible?
8. How can available opportunities for vocational exploration be better utilized?

** ** **

Good fishing in Gilbert Lake State Park, Laurens, New York, probably will be possible next year as a result of conservation activities of the CCC camp assigned to the area. In the summer of 1935 the enrollees, cooperating with state game authorities, took a large number of black bass from an area that was overstocked and released them in Gilbert Lake. Fishing then was prohibited and the plentiful food available has brought an increase in the size and number of the fish. The state ichthyologist recently conducted studies to determine the practicability of an open season in 1939.

** ** **

Director Robert Fechner, of the CCC, was a guest this month of Westmoreland State Park, Baynesville, Virginia. With a party of six, he had luncheon with Company 2352. George Washington Birthplace National Monument also was included in the Virginia visit.

** ** **

The CCC camp assigned formerly to Pymatuning State Reservoir, Westford, Pennsylvania, has begun its new work program after transfer to the Trexler-Lehigh County Game Preserve, near Allentown. Enrollees, supervisory personnel, equipment and materials were transported across the state to reoccupy the area where a previous camp had been at work until last fall. The major feature of the development program will be improvement of a road system designed to permit visitors to observe safely and conveniently the interesting herds of elk, deer and buffalo which roam over the 1,100 acres of the reservation. The planting of cover also will occupy a part of the energies of the enrollees.
<table>
<thead>
<tr>
<th>National Areas</th>
<th>1937</th>
<th>1938</th>
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<tbody>
<tr>
<td><strong>National Parks</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Abraham Lincoln</td>
<td>118,840</td>
<td>121,144</td>
</tr>
<tr>
<td>Acadia</td>
<td>383,036</td>
<td>394,319</td>
</tr>
<tr>
<td>Ft. McHenry</td>
<td>219,159</td>
<td>283,822</td>
</tr>
<tr>
<td>Great Smoky Mountains</td>
<td>727,243</td>
<td>694,634</td>
</tr>
<tr>
<td>Mammoth Cave</td>
<td>75,434</td>
<td>72,913*</td>
</tr>
<tr>
<td>Shenandoah</td>
<td>1,041,204</td>
<td>954,967</td>
</tr>
<tr>
<td><strong>National Monuments</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ft. Jefferson</td>
<td>706</td>
<td>1,130</td>
</tr>
<tr>
<td>Ft. Marion</td>
<td>256,087</td>
<td>280,165</td>
</tr>
<tr>
<td>Ft. Matanzas</td>
<td>------</td>
<td>20,726</td>
</tr>
<tr>
<td>Ft. Pulaski</td>
<td>12,500</td>
<td>45,170</td>
</tr>
<tr>
<td>George Washington Birthplace</td>
<td>57,109</td>
<td>61,530</td>
</tr>
<tr>
<td>Meriwether Lewis</td>
<td>6,754</td>
<td>9,266</td>
</tr>
<tr>
<td>Ocmulgee</td>
<td>35,000</td>
<td>36,302</td>
</tr>
<tr>
<td>Statue of Liberty</td>
<td>319,042</td>
<td>248,999</td>
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<tr>
<td><strong>Historical Parks</strong></td>
<td></td>
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<tr>
<td>Colonial</td>
<td>663,971</td>
<td>590,903</td>
</tr>
<tr>
<td>Morristown</td>
<td>106,390</td>
<td>137,157</td>
</tr>
<tr>
<td><strong>National Military Parks</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chickamauga and Chattanooga</td>
<td>208,755</td>
<td>310,940</td>
</tr>
<tr>
<td>Ft. Donelson</td>
<td>22,588</td>
<td>25,780</td>
</tr>
<tr>
<td>Fredericksburg and Spotsylvania</td>
<td>92,094</td>
<td>98,732</td>
</tr>
<tr>
<td>Gettysburg</td>
<td>622,384</td>
<td>1,554,234</td>
</tr>
<tr>
<td>Guilford Courthouse</td>
<td>6,043</td>
<td>33,920</td>
</tr>
<tr>
<td>Kings Mountain</td>
<td>11,449</td>
<td>22,259</td>
</tr>
<tr>
<td>Moores Creek</td>
<td>4,858</td>
<td>6,218</td>
</tr>
<tr>
<td>Petersburg</td>
<td>110,217</td>
<td>150,486</td>
</tr>
<tr>
<td>Shiloh</td>
<td>320,240</td>
<td>346,069</td>
</tr>
<tr>
<td>Stones River</td>
<td>4,905</td>
<td>4,387</td>
</tr>
<tr>
<td>Vicksburg</td>
<td>285,704</td>
<td>317,120</td>
</tr>
<tr>
<td><strong>National Battlefield Sites</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Antietam</td>
<td>88,949</td>
<td>30,927</td>
</tr>
<tr>
<td>Brices Cross Roads</td>
<td>2,500</td>
<td>2,700</td>
</tr>
<tr>
<td>Chalmette</td>
<td>2,378</td>
<td>15,592</td>
</tr>
<tr>
<td>Fort Necessity</td>
<td>105,643</td>
<td>107,533</td>
</tr>
<tr>
<td>Kennesaw Mountain</td>
<td>4,306</td>
<td>4,314</td>
</tr>
<tr>
<td>Tupelo</td>
<td>7,000</td>
<td>7,500</td>
</tr>
<tr>
<td><strong>National Memorials</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kill Devil Hill</td>
<td>82,188</td>
<td>80,911</td>
</tr>
<tr>
<td>New Echota Marker</td>
<td>------</td>
<td>6,085</td>
</tr>
<tr>
<td><strong>Totals for Region One</strong></td>
<td>6,027,264</td>
<td>7,078,854**</td>
</tr>
</tbody>
</table>

*Actual admissions to Cave. **The totals for the entire National Park System were 15,133,432 and 16,233,688 for the two years.
"The Official Bulletin of the United States Travel Bureau, National Park Service," made its debut in October as No. 1. Notes on broadcasts, Inter-American Travel Congress, general activities in the three offices of the organization and a report on travel promotion conducted by the states fill the four pages of the multilithed Bulletin.

Associate Director Demaray, in an introductory note, writes:

"WHY A TRAVEL BUREAU? Travel, whether international or interstate, materially increases commerce, trade and good will. It is, therefore, fitting that the Federal Government should assume leadership in coordinating the efforts of the States and of private industries in stimulating this valuable source of revenue, and in assisting the travel industry to meet the problems now hindering its expansion.

"Accordingly, the United States Travel Bureau has been established in the National Park Service of the Department of the Interior to furnish the instrumentality whereby the travel industry may be coordinated. Private industries, State governments, and the various departments of the Federal Government are invited to cooperate with the National Park Service in developing these activities.

"It is proposed to develop an international program, not conflicting with travel agencies in any way, which will place the United States on a par with other nations in the field of travel promotion. The successful completion of that program will make substantial cultural and financial contributions to the welfare of the Nation."

* * * *

DESCRIPTIVE BROCHURE ALSO PLANNED

The Bureau meanwhile has planned the production of a descriptive brochure of the United States. Funds for its publication will be procured through donations and its distribution will be handled by the Travel Bureau as a Government publication.

In order that this brochure might be outstanding, it is proposed to invite leading Americans in the fields of music, art, literature,
sports, and recreation to contribute, without cost, a statement regarding their particular subject. For instance, Walter Damrosch would be asked to contribute a page on American music, operas, and composers. Two or three outstanding artists would be invited to submit a painting suitable for the brochure for reproduction. A preface to be written by President Roosevelt would be requested, and Secretary Ickes would be asked to prepare a statement to Americans inviting them to travel and see their own country.

Representatives of the United States Maritime Commission have indicated that if such a brochure is prepared they would be willing to contribute up to $20,000 for its translation into Spanish for distribution in South American countries. The Pan-American Union also has indicated that it could defray cost of distribution of such a brochure in South American countries.

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SERVICE TO DISTRIBUTE MONTHLY REPRINTS

It has been decided to issue a monthly leaflet from Washington for the purpose of giving a reprint of leading published articles on subjects relating to planning and recreational work. Accompanying the article will be a comment by someone selected each month as best qualified to interpret the particular subject. These leaflets will be of uniform size, punched for binding, and will be numbered according to volume and issue. They will be issued the second Monday of each month.

********

REPORT SHOWS DECREASE IN PARK FIRES

A Branch of Forestry report covering the first nine months of 1938 records a total of 311 fires occurring in national parks as against 346 during the corresponding period of 1937. Of the fires this year, 105 were caused by lightning and 206 by human activities. A total of 1,095 acres, including 809 acres of grass land, was burned over. The CCC contributed 5,860 man days to fire-fighting.

********

'LOW DAMS' PUBLICATION EXPECTED IN DECEMBER

The publication Low Dams, in preparation of which the Service participated in cooperation with a subcommittee of the Water Resources Committee, will be ready for issuance early in December. The cost is expected to be approximately $1.50 a copy, the moderate price having been made possible through a contribution of $2,000 by the water resources group. It is believed sufficient copies will be obtained by the Service to permit distribution to Regional Directors and Park Authorities.
Mr. Stevenson, who wrote his article as a Service technician before his recent transfer to the Bureau of Biological Survey, describes in considerable detail the conditions under which Sooty and Noddy Terns nested during the 1937 season on Garden and Bush Keys, a part of the area embraced by Fort Jefferson National Monument. Bird Key, historic breeding grounds for thousands of Terns, was destroyed by a hurricane in 1935, and the birds now have chosen nesting sites adjacent to the moat of the old fort. When all the ground there is occupied by serried ranks of Terns, the later arrivals select sites on nearby Bush Key. Eggs were laid on the concrete floor of an abandoned coal bunker, on and under corrugated iron, on top of the moat wall, and in other unusual places. It was estimated that, altogether, about 64,000 Sooty Terns and slightly more than 400 Noddies were present.

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The research undertaken by Mr. Friedlander, while thorough in the portions completed, is not intended to be comprehensive in scope. The report makes a definite estimate concerning the period when the trading post first was established in Ocmulgee Fields, however, within the latitude of the years 1690 to 1715. The author, a student technician assigned to the monument, points out many interesting facts relating to Indian trade and migration during the period.

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Acting Superintendent Luckett, of Shiloh National Military Park, presents an interesting picture of the resourcefulness, daring and leadership of Nathan Bedford Forrest in what was perhaps his most outstanding battle—that fought at Brices Cross Roads at an area now included in a national battlefield site. Forrest clearly demonstrated there on June 10, 1864, the great tactical value of using all his available forces simultaneously. Keeping a close watch on the maneuvers of Union troops, he was able to accomplish the feat of routing a force almost twice the size of his own even though the Gray soldiers were armed with rifle-muskets and their Blue foemen carried Colt revolving rifles and Spencer repeaters. Forrest's record as a commander is the more remarkable in consideration of his complete lack of military training when he volunteered as a private in June, 1861, in the Tennessee Mounted Rifles. Mr. Luckett's report contains a complete list of the Confederate and Federal organizations which participated in the battle.
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VIRGINIA BATTLEFIELD HISTORIANS BEGIN MEETINGS

The historical staff of the Virginia Civil War Battlefield areas has begun a series of monthly meetings which will be continued throughout the winter. The program, planned and supervised by Assistant Research Technician Edward Steere, will combine indoor conferences and field trips.

Late in October the staff assembled at Richmond National Battlefield Park and heard a lecture by Colonel Bryan Conrad on the Seven Days Battles. Assistant Research Technician Joseph M. Hanson later conducted the group over the Gaines' Mill and Malvern Hill battlefields. Plans provided for a session in November at Manassas where Colonel Oliver L. Spaulding, Chief of the Historical Section of the Army War College, was to speak.

The meetings are designed to offer practical opportunities for members of the historical staff to visit areas other than those to which they are assigned. Coordinating Superintendent Branch Spalding supervises the Civil War reservations.

* * * *

STATES TO DRAFT MISSISSIPPI PARKWAY PROPOSAL

Four states of Region One are members of the Mississippi River Inter-State Parkway Committee which will draft a bill, for presentation at the next session of Congress, authorizing creation of a scenic parkway following the great river from source to mouth. Secretary Ickes met last month with representatives of states bordering the west side of the river and gave approval to the principle of the proposal. He indicated that representatives of the National Park Service and the National Resources Committee would cooperate with the states and that in due course broad surveys would be undertaken for determining the best parkway route.

* * * *

ALBERT PAUL BROWN, who had been for more than eight years a landscape architect of the Service until illness forced him to withdraw recently for treatment, died this month in Roanoke, Virginia. A native of Tunbridge Wells, Kent, England, he came to the United States in his youth and was naturalized. He entered the Service in San Francisco and was transferred to Richmond during the reregionalization of 1936. Miss Mary Young, a cousin, of Hythe, England, is the nearest surviving relative.

* * * *

DONALD C. HAZLETT, Assistant Inspector assigned to Cape Hatteras National Seashore (Project), has been elected to membership in the American Association for the Advancement of Science. A geologist, he will be affiliated with the Association's branches of geology, geography, engineering, botany and zoology.
GREAT NEW PASSAGE FOUND IN MAMMOTH CAVE

Existence of a new section of Mammoth Cave, which bore no evidences of prior human exploration, was revealed last month as a result of an investigation trip made by three guides of the national park. Two small "crawl-ways" and a larger passage led the group to "a large avenue that will compare with Broadway." Early exploration of about three miles of the great avenue disclosed numerous cross passages.

"I consider it the most beautiful portion of the cave that has been discovered," reported Acting Superintendent R. Taylor Hoskins. "There are large quantities of gypsum formations, stalagmites and stalactites. . . . The cave is in its natural state and prior to its discovery there were no signs of its having been entered before. The walls are highly colored and show no signs of smoke from torches as in the historic portion of the cave."

Mammoth Cave National Park contains the longest known caverns of the United States, discovered about 1798. The Review plans to offer in its next issue a special article on the caverns written by a geologist who has explored their depths.

* * * * *

SERVICE CONTINUES STORM REHABILITATION AID

An extra allotment of funds has been made to provide for Civilian Conservation Corps camps assigned to the Service which are carrying forward greatly needed rehabilitation operations in the states of the northeast where the storm of September inflicted widespread damage. Camps in New Jersey and New York, as well as in New England, are sharing in the funds.

A carefully detailed report, copiously illustrated, has been prepared by Inspector Gerald Hyde who presents a clear picture of the extent of the damage inflicted by the flood and hurricane in Massachusetts, Connecticut and Rhode Island. Landslides, demolished or undermined homes, washed out roads and bridges, destroyed woodlands and human fatalities are pictured by Mr. Hyde at widely separated localities of the three states. Describing the scene at Goddard Park, Rhode Island, he wrote:

"I had previously been told of the destruction here, but it was unbelievable even when seen. This once beautiful area was a shambles. The entrance road was once lined with 18-to-24-inch pine trees. Of these, there are only one or two left standing and they are completely brown. In the area around the office and administration building the beautiful speci­ men trees are broken, twisted or uprooted. There is a mass of tangled timber on the ground. Acres of pine plantations are flat. It is esti­ mated that 25,000 trees were blown down in this park. . . . Great fire hazard exists throughout the state, probably more than in any other place due to the fact that every leaf is dead. There is no green to be seen."