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HOT SPRINGS

Received

AUG 24 1932

NATIONAL PARK - ARKANSAS



UNITED STATES
DEPARTMENT OF THE
INTERIOR

Harold L. Ickes, *Secretary*

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NATIONAL PARK SERVICE
Newton B. Drury, *Director*

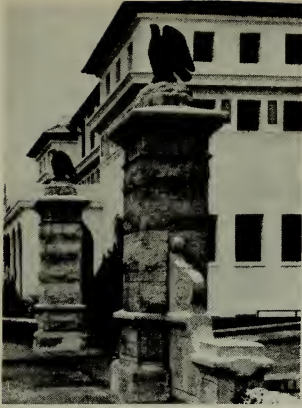
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Historic Events

- 1541 Hot Springs area probably visited by Hernando de Soto and party.
- 1682 Area included in land claimed for France by La Salle.
- 1762 Included in area given to Spain by France.
- 1801 By secret treaty of Madrid, area returned to France by Spain.
- 1803 Included in Louisiana Purchase and became United States property.
- 1804 Visited by Dunbar and Hunter Expedition.
- 1807 Manuel Prudhomme established first permanent settlement.
- 1820 First inn erected.
- 1830 First bathhouse erected.
- 1832 Four square miles of land, including the hot springs, set aside by the Congress, and Hot Springs Reservation created.
- 1874 First railroad line, the "Diamond Jo," reached Hot Springs.
- 1877 Hot Springs Reservation physically and administratively separated from city of Hot Springs, Ark., by Federal Survey and plotting of town site.
- 1884 Arch constructed over Hot Springs Creek where Bathhouse Row promenade walk now is located.
- 1903 Federal Registration Board established to regulate practice of physicians.
- 1921 Hot Springs Reservation made a national park by act of Congress.
- 1932 Centennial Anniversary.

OPEN
ALL
YEAR



Hot Springs

NATIONAL
PARK
ARKANSAS

PEDESTRIAN ENTRANCE
TO HOT SPRINGS MOUNTAIN

THE hot springs of Arkansas, 47 in number, included in the Hot Springs National Park are situated in a picturesque wooded portion of the Ouachita (pronounced Wash-i-taw) Mountains. The park and the city of Hot Springs, adjoining it, are near the center of the State, about 50 miles southwest of Little Rock.

In 1832 the hot springs and the four sections of land surrounding them were, by act of Congress, set aside for the future disposal of the United States, not to be entered, located, or appropriated for any other purpose whatever, thus preserving the waters of the springs in perpetuity, free from monopoly and commercial exploitation. In 1921, by act of Congress, the area was changed from the Hot Springs Reservation to the Hot Springs National Park.

The park contains 1,006 acres and includes Hot Springs, North, West, and Sugar Loaf Mountains, portions of Indian Mountain, and Whittington Park.

ADMINISTRATION

The Hot Springs National Park is under the control and supervision of the Director of the National Park Service. The officer in immediate charge is the superintendent, whose post office address is Hot Springs, Ark.

The superintendent has charge of all general matters connected with the Government's interests, enforces the rules and regulations of the Department, supervises sanitation, hydrotherapy, and the operation of bathhouses, the charge of the Government free bathhouse for the indigent, the instruction and supervision of bath attendants and the determination as to their fitness for employment, and the operation of the auto camp.

HOT SPRINGS—THE CITY

Administration of the national park by the Federal Government does not extend to the city of Hot Springs, which operates under its own municipi-



ADMINISTRATION BUILDING

pal and State laws. Whenever the interests of the two join in promoting community welfare, they coordinate their efforts for the common good.

Hot Springs, with its central location and excellent accommodations, offers peculiar advantages as a convention city. As a result of years of experience, efficient handling of conventions, from both a business and entertainment standpoint, is assured.

There are many hotels in Hot Springs, the largest affording accommodations for more than 1,000 guests and equaling in service and cuisine those of other well-known resorts and watering places in America and Europe. Among the larger hotels, visitors have a choice between those operating on the European plan and those on the American plan. Several hundred boarding places, ranging in price from \$7 per week upward, also are available. Those desiring permanent or light housekeeping quarters will find kitchenette and standard

apartments and cottages, furnished and unfurnished, which may be rented at prices from \$20 per month up. In all, Hot Springs will house comfortably 25,000 visitors at one time.

Lists of hotels, boarding houses, and other accommodations, as well as general information regarding transportation, road maps, and recreation features, may be obtained from the Hot Springs Chamber of Commerce.

PUBLIC CAMPGROUND

For automobile tourists, the Government operates a modern tourist camp in the Gorge, a beautiful valley at the foot of the eastern slope of Hot Springs Mountain. Fireplaces and tables are available for picnic use. A large swimming pool fed by fresh running water is located in the heart of the campsite, with dressing rooms available for both men and women. The camp is 2 miles distant



CENTRAL AVENUE, CITY OF HOT SPRINGS

from the center of the city of Hot Springs.

HOW TO REACH HOT SPRINGS

By railroad.—Hot Springs is served by the Missouri Pacific Railroad and Chicago, Rock Island & Pacific Railway.

Missouri Pacific.—Through sleeping car daily between St. Louis and Hot Springs, and between Chicago and Hot Springs via Chicago & Alton. Through parlor car between Memphis and Hot Springs.

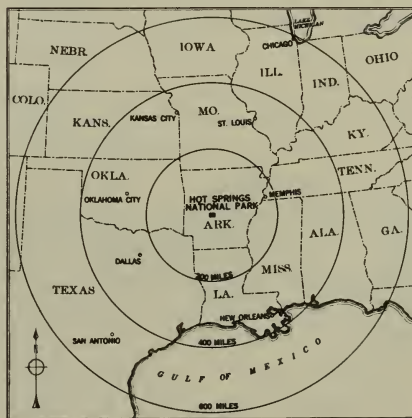
Chicago, Rock Island & Pacific. Through sleeping car daily between Memphis and Hot Springs, and between Chicago and Hot Springs via Illinois Central. Through parlor car between Memphis and Hot Springs.

Passengers en route to other destinations will find stop-over privileges available on both one-way and round-trip tickets for the purpose of making side trips to Hot Springs.

By automobile.—Hot Springs is lo-

cated on two transcontinental motor highways, U. S. Highways Nos. 70 and 270, and State Highway No. 7, which are all-year, hard-surfaced roads. In addition, the State government has provided many hard-surfaced roads throughout Arkansas, some of which afford unusual scenic attractions, and all of which connect with the main arteries of interstate highway travel.

By bus.—The Arkansas Motor



Coaches, Dixie Motor Coaches, Missouri Pacific Transportation Co., Santa Fe Trail System, and Tri-State Transit Co., with their connections, provide bus service to Hot Springs. During the summer months low round trip fares to the park are in effect from practically all points in the United States and Canada. In addition, convenient side trips and stopover privileges may be arranged on bus tickets to or via most points in Arkansas, allowing passengers to include a side trip to the park.

By airplane.—American Airlines, with its connecting services to all points of the United States and its through service from New York, Buffalo, Boston, Cleveland, and Chicago to Los Angeles, has Little Rock, Ark., as a regular stop.

The Hot Springs Chamber of Commerce owns and maintains a conveniently located airport where ships of any type may land and take off and be serviced.

CLIMATE AND RECREATION

Hot Springs has a favorable climate all year. The winters are mild, permitting outdoor recreation in comfort except at infrequent intervals, while the summers are moderated by the elevation of the rugged hills, with their forests of fragrant pine and mixed hardwoods.

The beneficial effects of outdoor life in Hot Springs, with its pure atmosphere and sunshine, are considered important aids to the bath treatments.

As a resort, Hot Springs has a popular appeal throughout the year,



Werner Photo

TRAIL HIKING ON NORTH MOUNTAIN

offering numerous and varied attractions. The majority of persons from the more northerly States make their visits during the autumn, winter, and spring months, while most of the summer visitors come from the Gulf States and those immediately adjoining Arkansas.

Life in the open offers almost every form of diversion. Motoring, horseback riding, and tramping through pine forests of the park are popular. The mountain roads adjacent to the park are numerous and lead through interesting Arkansas mountain-life settings. Many side trips to scenic places of interest and recreation require only a few hours' motor trip. On Catherine and Hamilton Lakes, created through the building of two large hydroelectric dams on the Ouachita River near Hot Springs, motorboating, sailing, canoeing, and fishing are enjoyed. Many streams also are accessible for fly fishing.

Excellent facilities for golf are found at the Hot Springs Golf and Country Club, where there are 3 complete 18-hole courses. At Oaklawn Park there is a 9-hole course.

GEOLOGY

The rocks exposed in the park are all sedimentary, so-called because they were deposited as sand and mud in horizontal layers on the floor of a sea, since disappeared. Thereafter intense horizontal pressure from the southeast in Coal Age (Pennsylvania) time compressed, fractured, and folded the rocks into wave-like mountain ridges, with faults (breaks) developed along lines of great strain. This elevated land was eroded over long ages of time until it became a low plain. Then followed another uplift, another period of erosion, and another uplift. Erosion since has produced our present topography.

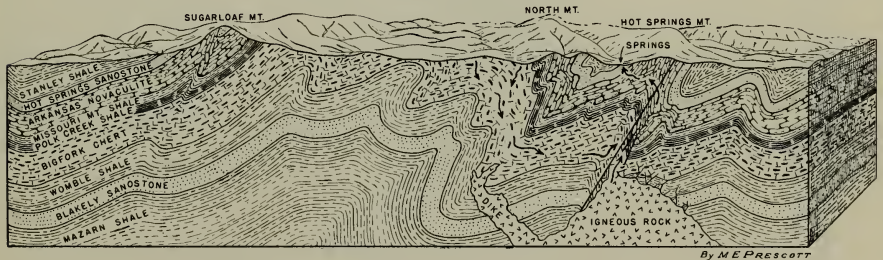
The 47 hot springs are located along a fault-line in a small area at the southwestern base of Hot Springs Mountain. In this area is an abundance of porous rock, called tufa, which was deposited from the hot water.

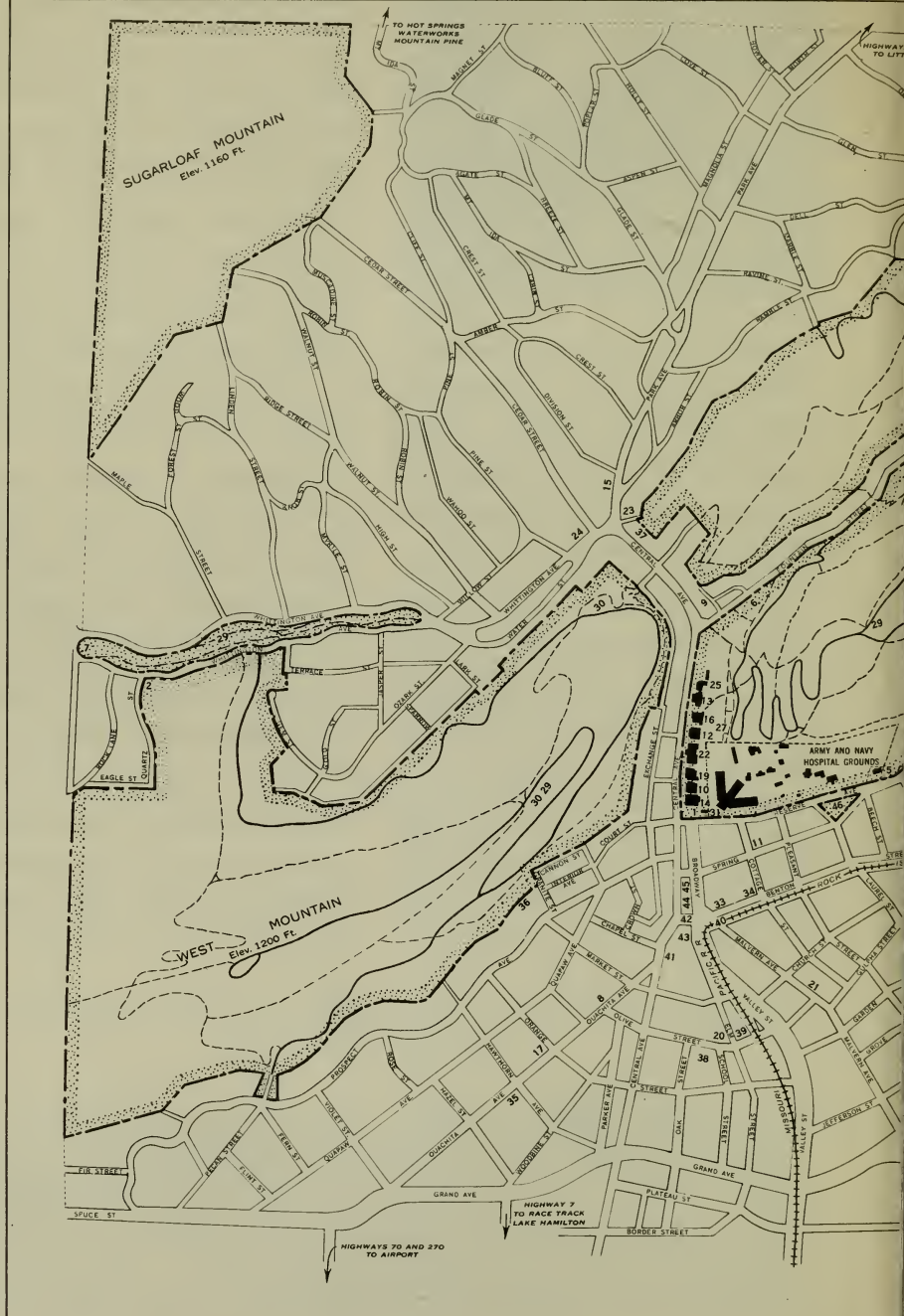
Although the exact mechanism of the hot springs is unknown, several theories have been advanced. The most favored is the meteoric theory which supposes that the rain water

which sinks into the valley floor between Sugar Loaf and West Mountains finally emerges in the hot springs. The rain water follows the downward slope of the rocks under North and West Mountains to the southeast, being confined between impervious beds of shale. Somewhere in its underground path the water is believed to be heated by passing close to a mass of hot rock. Since the rocks overlying the water-bearing strata are quite impervious, the heated water reaches the surface along a line of weakness, presumably the fault.

According to another theory, the hot springs water has never before been at the surface of the earth, but comes from heated rocks of the earth's interior. Such magmatic or juvenile water escapes from molten rock that is cooling and rises to the surface. Other sources of heat have been suggested to explain the temperature of the water, among which are the following: (1) Heat from chemical reactions taking place near the water; (2) heat of friction from rock masses sliding along each other; (3) heat of compression due to over-

BLOCK DIAGRAM OF THE AREA ABOUT HOT SPRINGS, ARK., SHOWING THE PROBABLE ORIGIN OF THE SPRINGS AND THE INFLUENCE OF THE ROCKS AND THEIR STRUCTURE ON THE UNDERGROUND ROUTE OF THE WATER





MAP OF HOT SPRINGS NATIONAL PARK AND PORTION OF CITY SHOWING LOCATION



LEGEND

- ROADS
- - - TRAILS
- · - · - · PARK BOUNDARIES
- + + + + + RAILROADS

1. Administration Building and Museum
2. Park Service Utility Buildings
3. Gulpha Gorge Campgrounds
4. U. S. Gov't Public Swimming Pool
5. Superintendent's Residence
6. Ass't Superintendent's Residence
7. Foreman's Residence
8. Alhambra Bath House
9. Arlington Hotel Bath House
10. Buckstaff Bath House
11. Eastman Hotel Bath House
12. Fordyce Bath House
13. Hale Bath House
14. Lamar Bath House
15. Majestic Hotel Bath House
16. Maurice Bath House
17. Moody Hotel Bath House
18. Observation Tower
19. Ozark Bath House
20. Ozark Sanitarium Bath House
21. Pythian Bath House (colored)
22. Ouapaw Bath House
23. Rockafellow Hotel Bath House
24. St. Joseph's Infirmary Bath House
25. Superior Bath House
26. Novaculite Quarries
27. Open Hot Springs
28. Iron Spring
29. Comfort Station
30. Shelter
31. Army and Navy General Hospital
32. U. S. Public Health Service Medical Center
33. U. S. Forest Service
33. U. S. Post Office
34. City Hall and Auditorium
35. Garland County Court House
36. Levi Hospital
37. Chamber of Commerce
38. Public Schools
 - a. High School
 - b. Junior High School
 - c. Oak St. Grade School
39. Mo. Pacific R. R. Station
40. Rock Island R. R. Station
41. Arkansas Motor Coaches Depot
42. Oxie Motor Coach Depot
42. Mo. Pacific Bus Depot
43. Tri-State Transit Co.
44. Western Union Office
45. Postal Telegraph Office
46. U. S. Gov't Free Bath House
46. U. S. Public Health Service Clinic



BATHHOUSES AND PUBLIC BUILDINGS

lying rock burden; (4) heat from radioactive minerals.

Whatever the source of water and its heat, the springs continue to have a constant daily flow of almost a million gallons of water, with a constant average temperature of more than 140° F.

PLANT AND ANIMAL LIFE

A dense forest covers the steep rocky hills of the park. Oaks, pines, and hickories occur in great abundance. Huckleberries predominate in the thick forest understory. Many of the trees have attractive flowers and leaves, the autumn foliage being particularly colorful.

Wild flowers bloom every month of the year. Goldenrod, aster, bitterweed, coreopsis, and black-eyed susan make particularly noticeable natural displays. Lichens, mosses, ferns, grasses, and sedges occur abundantly.

The animal life consists of a few common mammals, several species of lizards, snakes, turtles, salamanders, and frogs, and over 90 species of birds.

PARK INTERPRETATION SERVICES

A modern museum is housed in the Administration Building at the corner of Central and Reserve Avenues, including displays depicting geologic history; mechanism of the hot springs; rocks, minerals, and fossils; prehistoric culture; early and recent history; development of bathing; interesting plants and animals; and scientific studies of the hot waters.

Self-guided nature trails, with interesting trees, rock exposures, and other natural features labeled at the wayside, are maintained for hikers and nature lovers. Seasonally, illustrated lectures upon a variety of subjects pertaining to Hot Springs and other national parks are offered, free of charge, to the public.

THE CHARACTER AND ACTION OF THE WATERS

Analyses of 47 hot springs have shown the waters to be practically identical in chemical composition.

SCENIC ROAD ON WEST MOUNTAIN

Grant Photo





SUN-BATHING ON BATHHOUSE ROOF

Werner Photo

The waters from all these springs are impounded in reservoirs and all bathhouses receive exactly the same water. The water temperature in the central collecting basin is always over 140° F.

The water from the hot springs is generally considered to have definite favorable therapeutic effects. It is used exclusively in the bathhouses at Hot Springs National Park, with satisfactory results in the approved methods of modern water treatment. This includes full and partial immersion baths of different types, and also by means of vapor cabinets, in the equivalent of the well-known Russian baths. This form of treatment is of service where increased elimination is desired, as in obesity, chronic rheumatism, and mild Bright's disease.

The full immersion warm spring water bath is used in several forms. The customary or "standard" bath is a neutral bath for about 15 minutes. The bather is advised to drink freely of hot water during the bath,

and a free perspiration results. While submerged, the bather is given a vigorous massage by the attendant. The attendant also rubs the bather down with a fiber mitt and concludes the bath with a short graduated shower. The bather, while reclining in a cooling room, then enjoys a rest period. This bath, in addition to the usual eliminative effect, is followed by relaxation and a sedative effect. It is the form of bath customarily taken by visitors to the park who desire relaxation or seek recuperation and may be taken without a physician's directions.

Partial immersion baths at Hot Springs National Park are often prescribed. Various bathhouses are equipped for the sitz bath, leg bath, and hand-and-arm bath given by properly trained attendants.

Besides the different forms of baths, showers, sprays, and douches are given with modern apparatus and following the directions of the bather's physician.

In conjunction with each of these types of treatment, drinking the hot water is considered a great aid. Several fountains at convenient locations in the park furnish free hot water direct from the springs.

Increase in bodily resistance in bathers availing themselves of the Hot Springs water has long been noted in the improved general health, strength, and vitality in persons in a run-down or debilitated condition. It has also been noted that chronic joint troubles (arthritis) so often seen in cases of slow absorption of poisons of bacterial origin almost invariably improve.

The thermic physiotherapy pool at Hot Springs is used primarily for muscle reeducation in cases of paralysis. The buoyant effect of the water enables the patient to exercise and hence develop muscles impossible to use when not submerged. These voluntary or resistive movements are much more effective in muscle reeducation and development than are passive or assistive movements given them by a physiotherapist when the part is not submerged. This treatment is materially aided by the readily regulated temperature of the water of Hot Springs. Caution is taken to prevent overwork or fatigue, a result often following submerged exercises. Only qualified physical therapists give these treatments.

This form of therapy is particularly used in various paralyses following anterior poliomyelitis (infantile paralysis) and other nerve lesions leading to weakening and nonuse of muscles still capable of development.

A second class successfully treated in the thermic hydrotherapeutic pool is that comprised under the term "arthritis of joints." The stiffness, pain, and spasm common in these joints are reduced when the patient is submerged in the warm, spring water of the pool. Motions of wide range, painful and often impossible when attempted under ordinary conditions, may be given by the physiotherapist in the pool.

*Approximate chemical composition of the
Hot Springs waters*

[Parts per million]

Silica (SiO ₂)	45
Iron (Fe)	.05
Manganese (Mn)	.26
Calcium (Ca)	46
Magnesium (Mg)	5.8
Sodium (Na)	5.1
Potassium (K)	1.6
Bicarbonate (HCO ₃)	165
Sulphate (SO ₄)	9.1
Chloride (Cl)	2.1
Fluoride (F)	0
Nitrate (NO ₃)	0
Total dissolved solids	197

Gases in cubic centimeters per liter at 0°

C. and 760 millimeters pressure: Nitrogen (N), 8.8; oxygen (O), 3.8; free carbon dioxide (CO₂), 6.9; hydrogen sulphide (H₂S), none. Radioactivity, 0.45 milli-microcurie per liter.

PHYSICIANS

While the baths may be taken without the advice of a physician by procuring a permit at any of the bath-houses receiving water from the hot springs in the park, this practice is not recommended. Patients who assume to determine the nature of their ailments and to prescribe for themselves often fail to obtain the desired relief. The waters are not beneficial

in all diseases and in some are harmful, such as tuberculosis and cancer. In many ailments the baths will not afford material benefit unless taken in connection with proper medicines prescribed by physicians.

The only physicians allowed to prescribe the waters of the hot springs are those licensed practitioners of the State of Arkansas who have been examined by a Federal board of medical examiners appointed by the Secretary of the Interior. Physicians who have not passed the Federal board and been registered in the office of the superintendent are not permitted to make use of the baths in the treatment of their patients. This rule is for the protection of visitors who, if they desire the baths, should secure a copy of the registered list of qualified practitioners at the Information Desk in the Park Administration Building before employing a physician.

Physicians' fees for examination for the baths are from \$5 to \$10.

PAY BATHHOUSES

There are 17 pay bathhouses operated under rules and regulations approved by the Secretary of the Interior, 8 in the park and 9 at various points in the city. The water is the same in all, but prices charged for the baths vary according to equipment and accommodations furnished. Rates are fixed in each instance by the Secretary of the Interior. Charges for services of attendants are the same in all. Towels, mitts, blankets, and bathrobes, laundering bathrobes and blankets, and services for handling helpless invalids are not included in rates quoted. Bath tickets are redeemable according to the redemption scale for baths fixed by the Department, a copy of which is posted in each bathhouse.

Any dissatisfaction relative to administration of the baths or treatment of patients should be brought to the attention of the park superintendent.

VISITORS ENJOY THE NOVELTY OF SEEING HOT SPRINGS FROM THE HORSE-DRAWN CARRIAGE
Werner Photo



*Scale of rates for bathhouses receiving water from Hot Springs
National Park*

[Including fee of bath attendant, \$0.20 for single bath and \$4 for a course of 21 baths]

Bathhouse	Single bath	5 baths	10 baths	21 baths
Arlington	\$1.40	\$6.60	12.60	\$24.00
Fordyce	1.30	6.10	11.60	22.00
Buckstaff	1.25	5.85	11.10	21.00
Eastman	1.25	5.85	11.10	21.00
Maurice	1.25	5.85	11.10	21.00
Lamar	1.20	5.60	10.60	20.00
Majestic	1.20	5.60	10.60	20.00
Quapaw	1.20	5.60	10.60	20.00
Hale	1.15	5.35	10.10	19.00
Moody	1.15	5.35	10.10	19.00
Ozark	1.15	5.35	10.10	19.00
St. Joseph's Infirmary	1.15	5.35	10.10	19.00
Superior	1.15	5.35	10.10	19.00
Ozark Sanatorium	1.10	5.10	9.60	18.00
Rockafellow	1.10	5.10	9.60	18.00
Alhambra	1.05	4.85	9.10	17.00
Pythian (colored)	1.00	4.60	8.60	16.00

Pool rates

[All pool treatment requires a physician's prescription]

Single treatment with services of physiotherapist	\$2.25
Course of 10 treatments with services of physiotherapist	21.00
Course of 20 treatments with services of physiotherapist	35.00

Rates for massage

[The maximum charges for general massage, including all necessary accessories,
at all bathhouses]

21 treatments	\$30.00
10 treatments	14.75
5 treatments	8.00
Single treatments	2.00

GOVERNMENT FREE BATHS

The Government free bathhouse for the indigent was established pursuant to act of Congress of December 16, 1878. Legislation requires that an applicant for free baths shall make

oath that he is without and unable to obtain means to pay for baths, and a false oath as to his financial condition makes him guilty of a misdemeanor and subjects him, upon conviction

thereof, to a fine of not less than \$25 or more than \$300, or 60 days' imprisonment.

Tickets are issued only to those who, after examination, are found to be suffering from diseases that may reasonably be expected to be benefited by the baths. Children are not allowed in the bathhouse unless they themselves are patients.

The Government free bathhouse is a modern concrete building fully equipped for bathing large numbers of people under sanitary conditions. In connection with the bathhouse the United States Public Health Service, with the cooperation of the National Park Service, is operating a clinic for the examination and treatment of indigents taking the free baths.

All applicants for free baths and treatment for disease must be prepared to provide and pay for their own board and lodging and have return railroad fare. There are no hospitals in the city of Hot Springs to which patients can be admitted, nor any funds available from which relief can be afforded or railroad transportation furnished.

This statement appears to be necessary, as many destitute invalids come each year from other and distant States in the belief that the Government maintains a public institution at which they will be cared for free of charge.

THE ARMY AND NAVY GENERAL HOSPITAL

The Army and Navy General Hospital is also supplied with water from the springs. It is administered

by the War Department for the benefit of officers and enlisted men of the military and naval service of the United States, cadets at the United States Military and Naval Academies, officers of the Revenue Cutter Service, now forming part of the Coast Guard, officers of the Public Health Service, and honorably discharged soldiers and sailors of the Regular and Volunteer Army and Navy of the United States, who are suffering from such diseases as the waters of the hot springs of Arkansas have an established reputation in benefiting.

In the case of veterans whose service was rendered since 1897, application for admission to this institution should be made to the Veterans' Administration, Washington, D. C., or to a district office of the Administration. The nearest district office to the hospital is at Little Rock, Ark. In all other cases applications should be submitted to the Surgeon General, United States Army, Washington, D. C. No local applications can be considered.

Visitors are advised that soliciting for hotels, boarding houses, or doctors on the trails and busses running into Hot Springs is in violation of law, and are warned against heeding the advice of irresponsible and unknown persons. In the interest of the public it has been found necessary to prohibit the bathing of anyone stopping at a hotel or boarding house in which the solicitation of patronage for doctors (commonly known as "doctor drumming") is allowed.



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Rules and Regulations

[Briefed]

*Let no one say, and say it to your shame,
That all was beauty here until you came.*

Preservation of natural features.—

Destruction, injury, defacement, or disturbance in any way of public buildings, signs, trees, flowers, shrubbery, rocks, animal or bird life is prohibited.

Fires.—Fires are one of the greatest perils to the park's existence. They are not permitted to be kindled anywhere but in designated sites. Extreme care should be taken that all cigarettes or cigars have been completely extinguished before they are thrown away at the side of roads or trails.

Hunting.—No hunting whatever is permitted within the park boundaries.

Private operations.—To solicit or sell anything, no matter how minor, except by persons holding contract with the United States, is prohibited. The excepted activities are those restricted to the bathhouses and the Hot Springs Mountain Observatory.

Advertising.—No advertising or distribution of placards or advertising matter is permitted in the park.

Automobiles and motorcycles.—All roads are of mountain type, and care should be taken at all times while driving through the park area. There is no need of high speeds, as park roads are altogether recreational in character. Muffler cut-outs must always be closed. Speed of motor vehicles in campground must not exceed 15 miles an hour.

Horses and horse-drawn vehicles.—

Horses have the right-of-way at all times and must be given the inside of roads when they desire it. Drivers of automobiles and motorcycles should be careful not to frighten horses.

Camping.—Visitors using the public campgrounds on Gorge Creek must first register in the office of the caretaker and obtain permit for campsite. Automobiles and trailers must be placed in assigned areas and not moved to other sites without permission of caretaker. No structure of poles, lumber, or sheet metal may be erected. Campgrounds must be kept clean and sanitary and are closed between the hours of 10 p. m. and 5 a. m.

*Park rangers are always in uniform and
are glad to answer inquiries at all times.*