

THE

Desert

M A G A Z I N E



AUGUST, 1947

25 CENTS



One lady tells another...

Where women are concerned, no feature of a service station is more important than clean rest rooms. That is why the word about Union Oil's clean rest rooms is spreading so fast among appreciative women.

Identified by the blue and white sign of the powder lady, Union Oil rest rooms are checked

hourly for your protection—kept constantly supplied with fresh towels, plenty of soap and furnished with extra-large mirrors. On the road or around your town, the Minute Men invite you to use their rest rooms. Just look for the symbol of the powder lady—your guarantee of cleanliness.

Union Oil Minute Man Service



Desert Calendar

- July, Aug., to Sept. 20—Utah Centennial exposition, State fair grounds, Salt Lake City, Utah.
- July 12-Aug. 3—Exhibits of block prints in color by Gustave Baumann, Santa Fe artist, at Museum of Northern Arizona, Flagstaff, Arizona.
- July 27-Aug. 6—Carbon County Centennial program, Price, Utah.
- July 31-Aug. 1-2—11th Annual Robbers' Roost Roundup, Price, Utah.
- Aug. 1-3—Cowboy reunion and rodeo, Las Vegas, New Mexico.
- Aug. 1-3—Flagstaff rodeo, Flagstaff, Arizona.
- Aug. 2—Annual fiesta and dance, Jemez Pueblo, New Mexico. Photography prohibited.
- Aug. 3—Old Time Banning Residents' picnic, George St. Park, Banning, Calif.
- Aug. 4—Annual fiesta and Summer Corn dance, Santo Domingo, New Mexico. Photography prohibited.
- Aug. 4-7—U. S. Archery Meet, Brighton, Utah.
- Aug. 7-9—Annual Vernal rodeo, Vernal, Utah.
- Aug. 8-10—Spanish Trails fiesta and Four Corners rock club gem and mineral show, Durango, Colorado.
- Aug. 9-31—State-wide annual photographic exhibition of Arizona photographers, with emphasis on the Southwestern scene, at Museum of Northern Arizona, Flagstaff, Ariz.
- Aug. 10—Annual Smoki ceremonial and snake dance, Prescott, Arizona.
- Aug. 10—San Lorenzo day, Summer Corn dance, Picuris Pueblo, New Mexico.
- Aug. 12—Santa Clara day, dances, Santa Clara, New Mexico.
- Aug. 13-16—Cache county fair and rodeo, Logan, Utah.
- Aug. 14-17—Inter-Tribal Indian Ceremonial, Gallup, New Mexico.
- Aug. 15—Assumption day, Green Corn dance, Zia Pueblo, New Mexico. Photography prohibited.
- Aug. 16-24—White Pine county fair and race meet, Ely, Nevada.
- Aug. 21-23—West Millard county centennial celebration, Delta and Desert, Utah.
- Aug. 22—Annual fiesta, Squaw Dance and rodeo, Alamo Navajo community, New Mexico.
- Aug. 22-24—White Pine county "Go Western" days, Ely, Nevada.
- Aug. 22-24—Nevada state open golf tournament, Reno, Nevada.
- Aug. 23-24—League of Utah Writers 12th (Centennial) Roundup, story and poetry forums, banquet, New-house hotel, Salt Lake City, Utah.
- Aug. 25-30—U. S. Horseshoe Meet, State fair grounds, Salt Lake City, Utah.
- Aug. 28-30—Western Open golf meet, Salt Lake country club, Salt Lake City, Utah.
- Aug. 28-30—Utah Indian Days, honoring Ute, Whiteriver and Uncompagne Indians, Roosevelt, Utah.
- Aug. 29-31—Santa Fe Fiesta and Gran Baile, Santa Fe, New Mexico.
- Aug. 29-30-Sept. 1—Annual rodeo and fair, Winnemucca, Nevada.
- Aug. 29-31-Sept. 1—Elko county fair and Nevada state livestock show, Elko, Nevada.
- Aug. 30-Sept. 1—Nevada state fair and rodeo, Fallon, Nevada.



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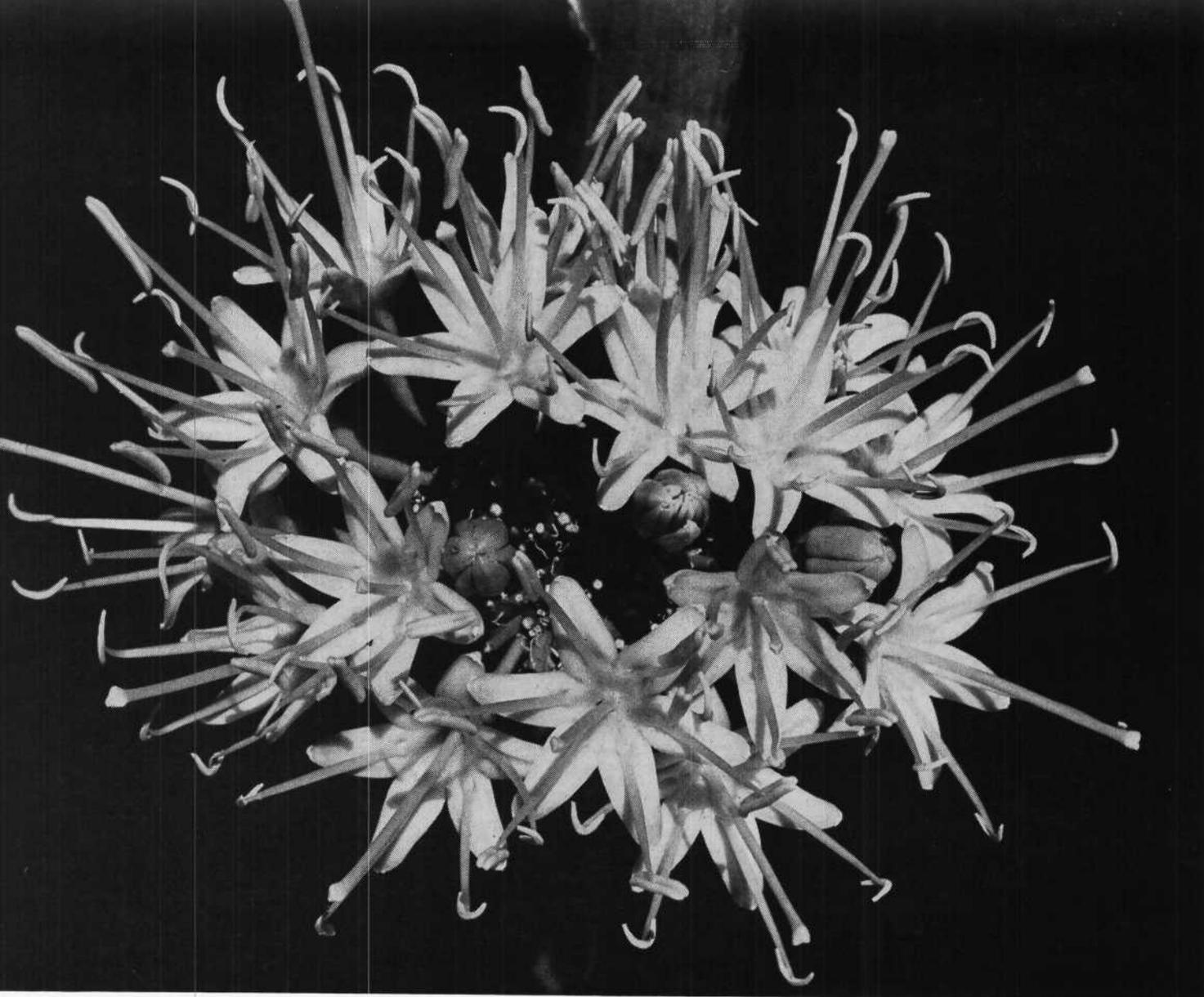
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Prize Winners in the Flower Parade

Agave Blossom

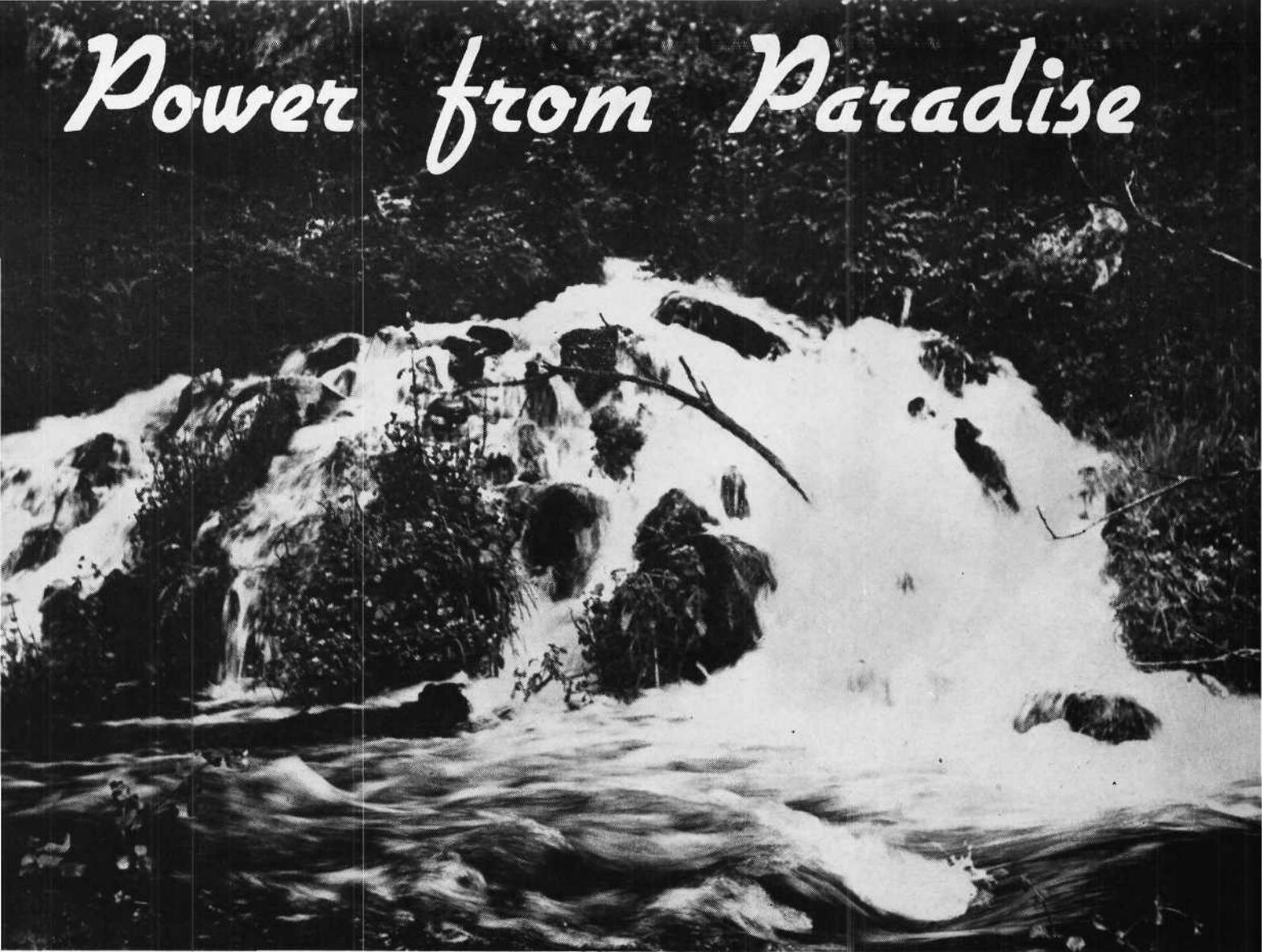
M. L. and M. H. Carothers of La Jolla, California, were the winners of first prize in Desert's flower picture contest in June, with the gorgeous close-up of the agave or mesquite shown above. Photo was taken with a 4x5 Speed Graphic with Super XX film, 1/50 sec. at f.12 at 11:30 a. m.

Hedgehog Cactus

Second place winner in the June contest was Hubert A. Lowman of Southgate, California. The photo was taken with speed panchromatic film, 1/25 sec. at f.19 with K2 filter at mid-day.



Power from Paradise



When the light falls on Fossil springs, they seem to glow with concealed light—like fallen snow.

Rock-hunters who like cool mountain temperatures and pretty scenery with their specimens, will be especially interested in this story of an excursion into the mountain country near Prescott in central Arizona. With Moulton Smith, a modern day mountain-man, as his guide Harold Weight visits a great spring in Arizona—and finds relics of interest to both archeologists and mineralogists along the way.

By HAROLD O. WEIGHT

THE BIG sign warned: "This road has been closed as unsafe to public travel, by order of U. S. Department of Agriculture." It marked a by-way branching west from the graveled Camp Verde-Payson highway where Fossil creek canyon divides Yavapai and Gila counties in central Arizona.

"That," said Moulton Smith, "is the road we take to Fossil springs."

Eyeing the sign dubiously, I turned into the branch. It had been raining—most unusual for May, I was told—and I had just negotiated the Cimarron grade, a clay road thinly coated with gravel which local inhabitants consider a fine highway. I don't mind sand or rocks, but the queasy feel of wet clay under the tires, especially on

winding mountain grades, makes me unhappy.

But my share of the driving was almost finished. Across the creek I could see the buildings of Arizona Power company's settlement of Irving where we were to transfer to a company truck with Moulton at the wheel. From that point we would be on a one-way maintenance road virtually impassable to a low-slung passenger car.

I had never heard of Fossil springs before visiting Ida and Moulton Smith at their Top O' th' Pines lodge near Prescott. But Moulton was so enthusiastic that I was convinced the springs would be worth the 100 mile trip from Prescott to the base of the Mogollon rim to see. Being a rock-hound and knowing that I was one, he

added that he had found chalcedony roses and agate on the trail to the springs.

As Moulton told me more about the springs, among the largest in Arizona, my interest mounted. Seeing giant towers of Hoover dam transmission lines straddlebug their way across so much of the desert, I had assumed all surrounding areas drew electricity from that project. But 20 years before work started on the Colorado river, the Arizona Power company had used horse and wagon, mule and burro for transport, and had built power plants, dams, homes, transmission lines and 15 miles of flume in an almost roadless wilderness.

Today the racing waters of Fossil springs furnish power and light for the cities of Prescott, Flagstaff, Jerome, Clarksdale, Winslow, Holbrook and Williams; for the mines and towns of Yavapai, Coconino and part of Navajo counties.

Power had been developed without marring the natural beauty of the springs, Moulton said. They frothed whitely from tree-shaded bank into the deep, swift-running stream just as they had eight centuries before when the cliff dwellers burrowed into their laboriously hand-



Part of the power company town of Irving—25 miles from a grocery store,
51 miles from a movie.

plastered dens in the surrounding bluffs, and cultivated maize patches beside the clear waters.

As superintendent of transportation for the power company, part of Moulton's job is to rescue trucks which have broken down in spots where no sensible truck willingly would have ventured in the first place. These expeditions have given him an unusual insight into the wonders of central Arizona's little-traveled back country, but it is to Fossil springs that he returns whenever opportunity permits.

Whole days could be spent pleasurably on the journey between Prescott and Irving. The road goes through the precariously-perched old copper camp of Jerome. It winds along the valley of the Verde river where cliff and pueblo ruins, cut into bluffs and crowding mesas, indicate a greater population in pre-Columbian times than at present. It passes close to Tuzigoot, Montezuma Well and Montezuma Castle. At Camp Verde, founded in 1864 as Camp Lincoln, the paving ends, but the road from that point to Irving is good except in wet weather.

On the east side of the road, 16.3 miles beyond Camp Verde, lies a disintegrating, broken-backed log cabin which looks like an exile from the Kentucky hills. Once that cabin was the only white habitation between Camp Verde and Payson. Lying in Apache country, it was the scene of numerous Indian fights. It is a wonder that either it or its inhabitants survived. The rocks behind the cabin show indications of long-time Indian occupation, and there is the site of a big Indian village around the south and west sides of a striking finger of rock nine-tenths of a mile farther along the road.

Before settling in any part of the Southwest, I think I first would make sure that Indians had lived there. Their ability to select spots which combined beauty and utility amounted to genius. At the village site

Road Log

PRESCOTT TO FOSSIL SPRINGS

Mileage

- 00.0—Leave Prescott.
- 34.9—Jerome business district.
- 39.8—Clarksdale. Tuzigoot national monument is across the Verde river, 2.4 miles from Clarksdale.
- 42.5—Cottonwood, at entrance to lower Oak Creek canyon. Cattle, agricultural and mining town.
- 47.5—Turn right (south from U. S. Alternate 89 onto Camp Verde road).
- 51.1—Cornville. Pueblo ruins on bluff near village.
- 60.7—Junction with Beaver creek road to Rimrock. Left (east) on this road is Montezuma Well national monument.
- 62.9—Road to Montezuma Castle national monument, 1.1 miles left (east).
- 67.4—Camp Verde and end of paving. Through town, road passes camp of Yavapai Apache.
- 73.9—Clear creek bridge. Road to Clear creek ranger station and canyon branches left.
- 83.7—Old log cabin, left of road. Scene of early Indian fights.
- 84.6—Site of Indian village on slopes of distinctive butte on right side of road.
- 86.4—Cimarron grade into Fossil creek canyon.
- 90.0—Child's-Verde Hot Springs road branches right (southwest). Continue left.
- 92.6—Road branches left (west) to Irving. Take branch.
- 92.7—Power company town of Irving. Hike up Fossil springs road.
- 93.9—Chalcedony scattered on either side of Fossil springs road. Continues for approximately one mile. Then in scattered places remainder of trip.
- 97.1—End of road at Fossil springs intake. Cross dam and hike up east side of creek for best view of springs, or follow west bank and cross above springs.
- 97.6—Big outlet of Fossil springs.

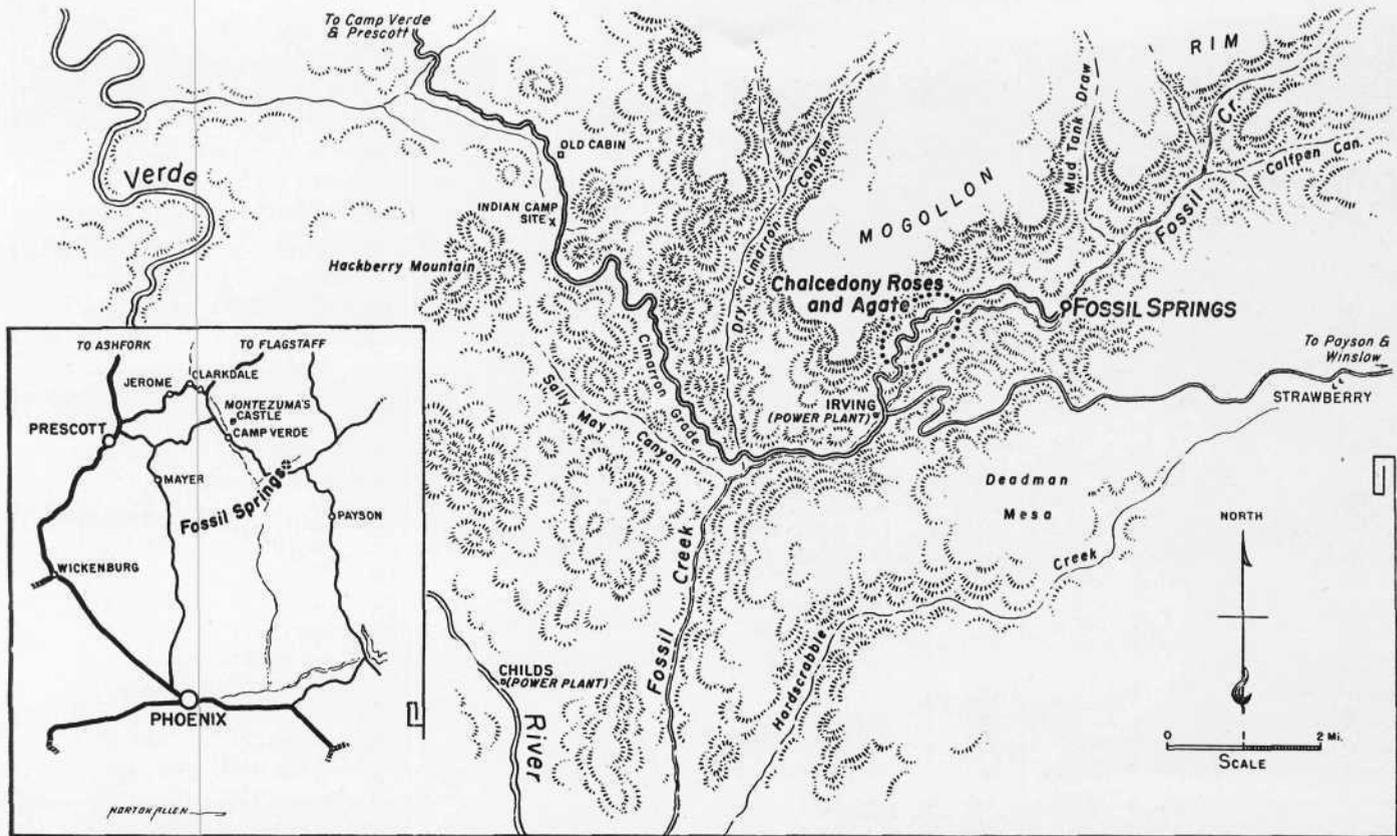
17.2 miles beyond Camp Verde, there were heights on which sentinels could stand guard, piled granite boulders into which the tribe could retreat under attack, and cosy holes and corners where the children could play and the old people keep out of the cold wind. Below, in the little hollow, a spring furnished a permanent water supply, and there was bottom land for planting. The residents had built a series of level terraces up the inhabited slopes, each probably a family homesite. A cattle camp now occupies the hollow.

Fragments of pottery are scattered over the entire area, and here and around the old cabin we found bits and chunks of highly colored jasper. Large pieces will make interesting cabochons. So far as I know, this material has not been located in place in the surrounding mountains. Yet it must have been found fairly near the camp, else it would not have been thrown about so carelessly.

It was Saturday noon when we reached Irving, and most of the 20 residents had departed for town. "Town" is Camp Verde, 25 miles away, where groceries may be purchased, or Cottonwood, 51 miles distant, with the nearest movie. Irving is a pretty place where white wooden houses almost are hidden under spreading trees and roses bloom in front yards. But its isolation makes the employe turn-over high.

The penstock, carrying Fossil springs water on its 560-foot drop from flume to generator, passes down the center of the long street to the power plant where it operates the single 350 KVA transformer. Beyond the plant it enters a flume to be used again at the Child's plant 10 miles south on the Verde river. The Irving plant was built in 1915 when three 350 KVA transformers at Childs were unable to supply sufficient power for Yavapai county's booming mines.

Clinton Winters, flume foreman, came roaring down the one-way Fossil springs



road from Hot Water, so named for the endless grief it has caused maintenance men. The entire mountain slope there is on the verge of sliding into the canyon. Should it go, it will take a large section of the flume with it. Each time it rains hard, more cracks develop and Winters and his men must block up the sagging flume where its supports have slipped with the slope.

"I'm afraid you'll have to take old No. 5," Winters told us. "I'll have to use this truck on Purple mountain this afternoon."

We transferred our equipment to No. 5, a battered V-8 pickup which has spent the ten unhappy years of its life on that chassis-breaking four mile road to the springs. Moulton started the motor. Winters waved his hand and grinned. No. 5, panting noisily started up the twin ruts. It was raining hard, with an occasional dash of hail chattering against the pickup roof. The windshield wiper worked spasmodically and we slewed erratically up-grade. The flume, seven feet wide and four deep, snaked its way along the canyon contours ahead of us, now above the road, now below it. At times the truck barely cleared the wooden supports as we passed under it.

A little more than a mile above Irving, Moulton slapped on the brakes, but as he felt the pull and slither of the road, he shook his head. "There was a perfect chalcedony rose," he mourned, "but we better not stop now. You remember that spot on the way down."

That particular area showed chalcedony along the road for more than a mile. We

did stop on the way back, and Moulton got his rose. We checked the occurrence as thoroughly as the sticky mud would permit. Most of the material we saw was in the form of white chalcedony roses and a mottled white agate with moss and plume effects.

Rockhounds may not find material of spectacular beauty in this field—although it is unexplored and no one knows what lies over the hill. But they will find rock from which pretty cabochons can be cut. Most of my own pleasure in rock collecting lies in the search for the material and the new vistas of desert and mountain which are opened by it. I would rather have one specimen from a new field with a pleasant memory attached, than a dozen beauties from a familiar area.

Anyone collecting in this field or visiting the springs must do so on foot. The power company is willing to have hikers on the road, but vehicles other than its own are not permitted. They are worried principally about the flume, rather than the unpleasant job of fishing some unfortunate out of the canyon. An errant car plunging down the slope almost inevitably would take out enough flume to bring a light and power blackout to a large portion of northern Arizona.

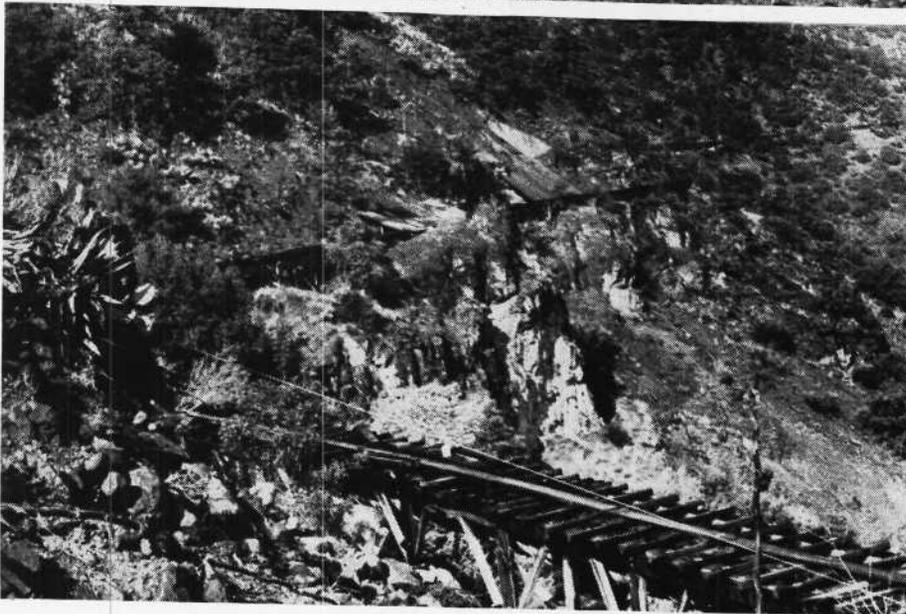
I would prefer walking, at least in wet weather. The direct drop-off is nowhere greater than a few hundred feet. But the blinding rain, the slippery muck and the fact that the deepness of the ruts constitutes the only guard system, made the ride interesting. Descriptive writing which pictures a road as clinging to a surface can be

very apt. At spots this road clung to the hill while the truck clung to the road—and I clung to the truck. Between the three of us, we managed to hold on. Moulton seemed disturbed only once, when No. 5 grunted and refused to take a grade. But he slid back to the bottom, took a running start and we skidded around a curve and over the top. At one point we crossed a wooden bridge built in a curve, so restricted was space in the narrow straight-walled canyon.

Now and then the clouds would lift, and we could see the sharp slopes of the Mogollon rim, towering to the east. Mogollon is a Spanish word and I tried to use a Spanish pronunciation, *Mo-gol-lyone*, with long o's. Moulton smiled. "That's the way I used to say it, but the natives around here laughed at me. So far as they are concerned, it's Mug-ee-yawn."

The road ended at the flume intake, 4.2 miles above Irving. Here, under the branches of a giant weeping willow, Harry Corbett and his wife Gillia live in a large and comfortable wooden house. Harry has to keep the intake free of watercress and weed, regulate the amount of water entering it according to orders phoned from Irving and patrol the flume from the intake to Hot Water each day.

In his free time, he raises chickens, rabbits, vegetables and flowers. Visits to town must be made down the flume road, and Harry reconstructed a Model A which has little trouble with the route. But he and his wife like their isolation, and seldom go out oftener than once a month, when it is necessary to stock up with groceries. Animal



Above—Once this cabin was the only white habitation between Camp Verde and Payson. It was the scene of Apache battles. Below—Flume carrying Fossil springs water to the power plants snakes its way along the side of the canyon.

visitors are almost as common as human ones. Black bears have raided the hen house, and coyotes frequently are seen and heard.

Harry invited us in to drink hot coffee while we dried out. As we steamed in the warmth of the coal fire, the phone rang. Harry took down the receiver and twisted the handle.

"Winters wants me to take out half a spoke," he said when he hung up. "But I think it better be a full spoke." As we left the house with him, Moulton explained that "taking out a spoke" meant turning the spoked wheel which opened a head-

gate and permitted more water to escape the flume and plunge in a man-made waterfall into the canyon.

The power company had webbed a dam across the canyon half a mile below the largest spring outlet, and placed the flume intake there. As we crossed the dam and entered the dripping forest the sky was lighter but rain was drifting down again. We followed a faintly defined trail on the east bank of the stream. Water of the creek was glass-clear, despite a day of rain, running swiftly over a bottom on which long green water grass streamed out with the current.

We walked through uncut forest. About us rose ash and wild cherry, beech, black walnut and hackberry. The towering, unscarred trees, the dead fallen limbs and trunks woven about with beautiful leaves of the poison ivy, showed that no fire had invaded the canyon for many years.

We heard the roar of the lower spring before we saw it. Then opposite us white waters frothed from a bank of fern and wild celery and packed green growth, starred by yellow columbine. The clouds thinned and a pearly light pouring through was picked up by the springs until they seemed to shine with an inner glow like freshly fallen snow.

What human first saw Fossil springs? The answer to that question lies beyond recorded history. Sometime between 1100 and 1300, the cliff dwellers found a small paradise in this valley under the rim. They lived in their cliff-caves, made pottery, tilled the soil and—quite suddenly it seems—went away. The reason for their disappearance is still one of the great question marks of the Southwest's past.

Later, an Apache trail found the canyon and touched the springs. White mail carriers and pack trains followed the Indian trail from Camp Verde to Camp Apache. Then Lew Turner, a Yavapai cattleman, found the springs in a dry season in the late 1870's. Turner had just come from country where cattle were thirsting and vegetation was dying. Here the biggest springs he ever had seen or heard of poured endlessly into the creek.

At Camp Verde, Turner told his partner about the springs. He said that the water from them covered sticks and ferns and roots, and made them look like fossils. So he called it Fossil springs and creek. Another version of the naming, by Will C. Barnes, is that the rocks along the stream were filled with fossils.

Turner read about hydroelectric power in 1896, and remembered Fossil springs. He went back to the springs, filed upon them and built a cabin beside them. The first step in development, in 1902, was to take accurate flow measurements. The first check showed 48 second-feet—about 1,200,000 gallons an hour! Daily gaugings were taken for more than two years, and the springs never varied their 73 degree temperature or their output. In nearly a half-century of recording since—rain or shine, wet year or drouth—flow and temperature have not varied.

Many theories, some of them fantastic, seek to explain the constancy of the great springs. Analysis of the water indicates that it flows through limestone. Samuel F. Turner, underground water expert with U. S. geological survey at Tucson, thinks that Fossil springs and the much-smaller Montezuma Well probably are supplied from rains and snowfall that percolate

through the lava cap of the Mogollon rim, into the underlying limestones and Cocomino sandstone.

Arizona Power company acquired title to the springs in 1907. The company was formed for the purpose of bringing power from the springs to Prescott, and to the growing mining camps of Mayer, Humboldt, McCabe, Bluebell, Crown City and Jerome, and the smelters of the county. And so the first hydroelectric project in Arizona was built with transportation means so crude that old timers still refer to the builders as the Arizona Burro company.

We left the spectacular main springs and wandered upstream. Along the western bank scores of spring outlets joined the creek. Some roared and foamed, some dripped daintily through thick ferns, and some formed exquisite miniature falls recessed in tiny caverns in the bank. Fossil creek diminished rapidly as we passed above the springs which give it life. It shallowed and flowed more softly, forming quiet pools shaded by ancient trees. Soon we were able to cross on rocks to the west side.

As we started back toward the flume intake, I paused to pick up calcite onyx that had been washed down from the caves in the cliffs. Moulton laughed.

"The first time I came up here they sent along an Apache named Dick Lewis, who worked for the company, to see that I didn't get lost," he said. "I started picking up rocks and putting them in my pocket. Lewis watched me for a while, then grunted: 'Lots of rocks down by the car. You don't have to carry them so far.'"

We could hear the roar of the big springs again as we walked down the west bank of the stream. We came to the ruins of an old cabin which once had stood under patriarch black walnuts. Nothing remained but the rotted flooring, scattered boards, scraps of junk—and patterns of stones which once had marked a rock garden.

"This was Lew Turner's cabin," Moulton explained. "When he sold to the power company he left and the cabin was deserted. But legend has it that an outlaw hiding from justice moved in. When the company started construction, he vanished. The story, of course, is that he buried his loot here. See all the holes? You'd be surprised at the number of men who have come here to dig for that treasure. But none of them found it."

I looked at the futile little holes about the cabin site, and wondered how many of the men who dug had paused to see the flashing waters, the green ferns and nodding flowers, the spreading trees and framing cliffs. Had they looked up at the world about them instead of down into the mouldy earth, they would have seen a treasure no outlaw could bury, and no man carry off.



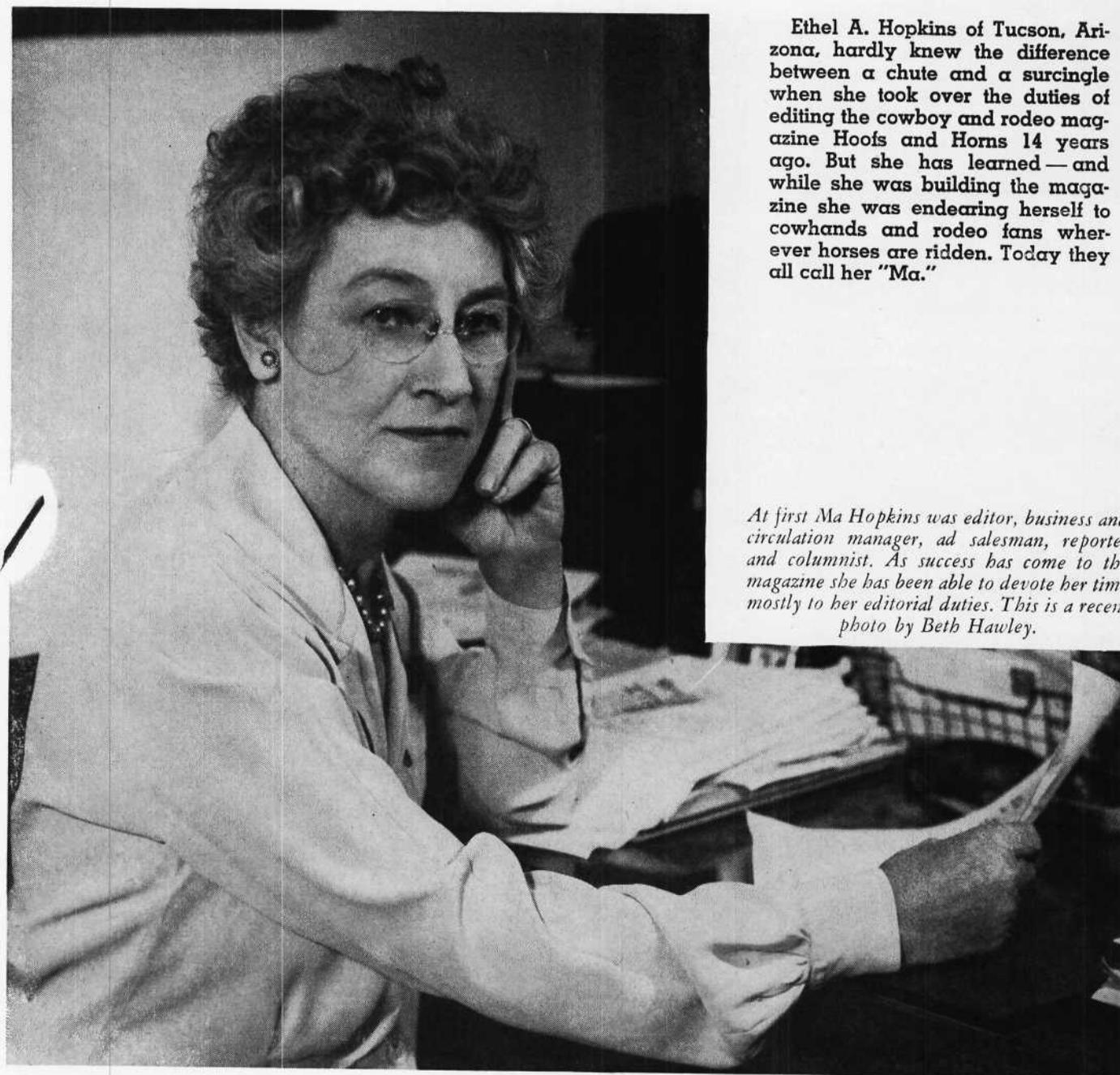
Moulton Smith, in addition to being superintendent of transportation for the Arizona Power company, is an ardent rockhound and officer of Yavapai Gem and Mineral society. Here he displays chalcedony and agate found along the Fossil springs road.

PREHISTORIC RUINS TO BE PRESERVED IN NEW PARK PROJECT

Preservation of the prehistoric ruins south of Manuelito, New Mexico, as a national monument approached realization with the recent announcement from offices of the Indian service in Chicago that the last two Indian allotments are ready for transfer to the state of New Mexico. This brings the proposed monument area to a total of 30,347 acres lying south of the Santa Fe railroad right of way and extending from Manuelito to and a short distance across the New Mexico-Arizona state line.

D. W. VanDevanter and the Gallup

chamber of commerce have been leaders in the movement to have the monument established. In 1939, the New Mexico state legislature appropriated \$20,000 to the state park commission for purchase of lands in the area. After purchase is completed, the park commission will turn the land over to the national park service, and the national monument can be established by proclamation. Land involved in New Mexico was 29,757 acres, including 21,077 acres of unentered public land, 2183 acres of state public school lands, 5186 acres in Indian allotments, 580 acres of railroad land.



Ethel A. Hopkins of Tucson, Arizona, hardly knew the difference between a chute and a surcingle when she took over the duties of editing the cowboy and rodeo magazine *Hoofs and Horns* 14 years ago. But she has learned—and while she was building the magazine she was endearing herself to cowhands and rodeo fans wherever horses are ridden. Today they all call her “Ma.”

At first Ma Hopkins was editor, business and circulation manager, ad salesman, reporter and columnist. As success has come to the magazine she has been able to devote her time mostly to her editorial duties. This is a recent photo by Beth Hawley.

‘Lady with Hoofs and Horns’

By NAT McKELVEY

SHE SAT in the official box, this vivacious, grey-haired woman, eagerly watching the pageant of thrills, spills and danger unfolding beneath her. La Fiesta de los Vaqueros, annual Arizona rodeo, was in full swing. Most of the top-hand performers, including Gene Rambo, world’s champion cowboy, recognized her sitting there, caught her cheery smile, and waved their hats in affectionate greeting.

But across the arena, in the jam-packed audience pavilion, a ruddy-cheeked oldster with binoculars mused aloud: “I wonder who she is.”

Overhearing, a program salesman sidled up. “Say,” he said, “you must be real new around here. That is Ma Hopkins, the lady with Hoofs and Horns.”

For 14 years, Ma—Ethel A. Hopkins of Tucson—has edited and published *Hoofs and Horns*, the cowboys’ Bible. Through it, she has become “Ma” to thousands of saddlebowed punchers and rodeo fans.

Topflight authors and artists, “names” in the field of western writing, expend their talents on *Hoofs and Horns* for the love of it—and of Ma. In its pages have appeared Walt Coburn, L. Ernenwein, Nelson Nye, Chuck Martin, Foghorn Clancy, and the late Clem Yore. Its covers

have come from Jack Van Ryder, Pete Martinez, Lone Wolf, J. R. Williams (the Skull Valley man) and Olaf Wieghorst.

The saga of Ma Hopkins is a success story. It stems from her personality; from her belief that the worthwhile things in life are essentially simple, wholesome and quite apart from material glitter. As a result, Ma has enjoyed friendships with such men as the late Eugene Manlove Rhodes, western novelist, and of Gene Autry, famous cowboy singer.

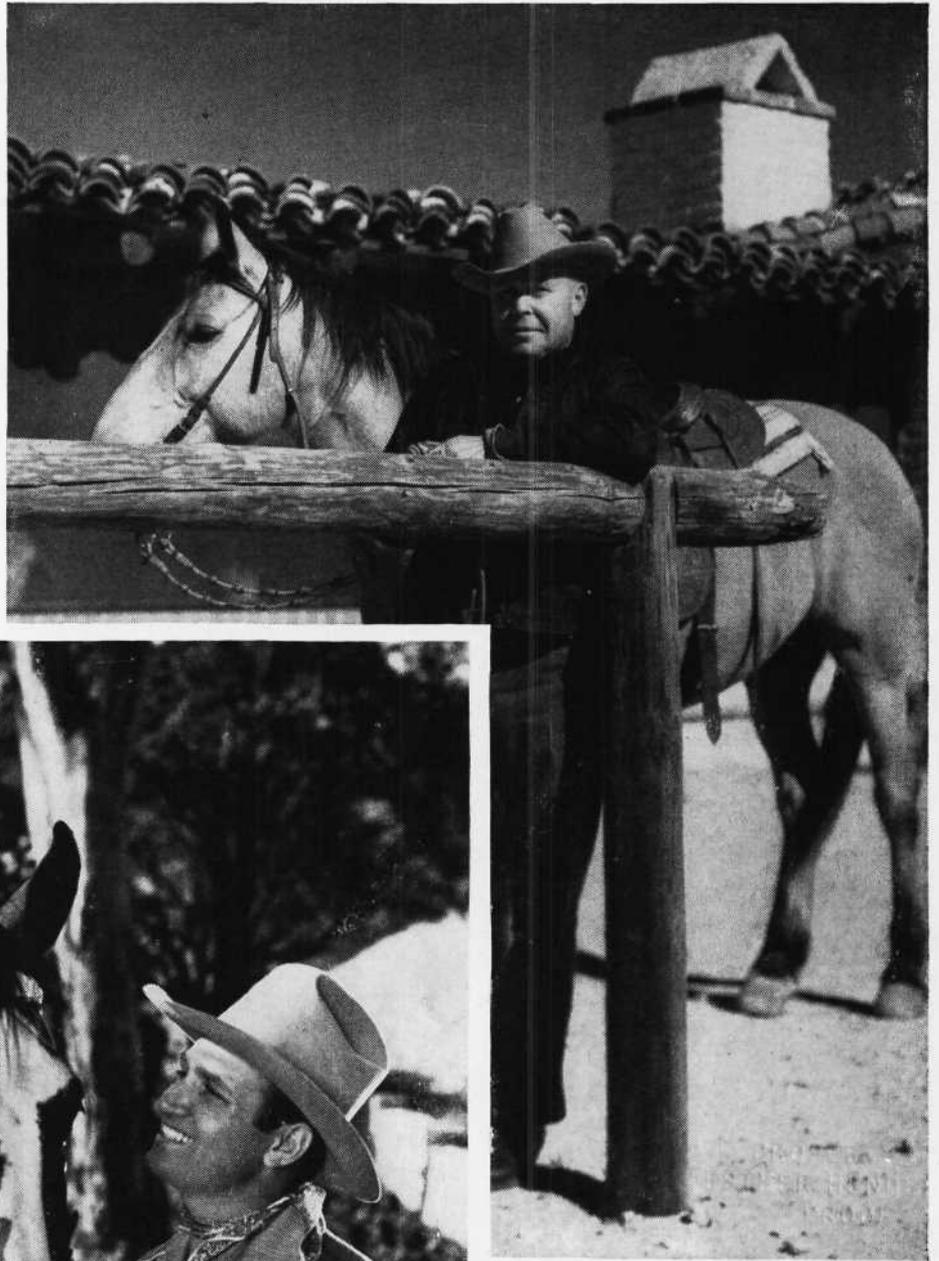
Ma started life on a Missouri farm. Between college years at the University of Missouri, she taught in the grade schools. Following graduation in 1908, she spent a

year in Bartlesville, Oklahoma, teaching handicrafts to children in the first six grades. Adept at basketry, weaving, clay molding and paper work, Ma proved both successful and popular.

From Bartlesville she migrated to Muskogee, teaching primary grades there for another two years. Though busy, she found time to heed the call of ol' Dan'l Cupid. In Muskogee, she married Joe Ikenberry, a lawyer from Sedalia, Missouri.

Ma and Joe—a favorite name with her—went to live in Kansas City. But Ma couldn't keep out of harness. She soon accepted a special job for the University of Missouri. Working with county agricultural agents, her chore was to judge school work and home economics exhibits at township and county fairs.

In 1916, Joe Ikenberry's health broke.

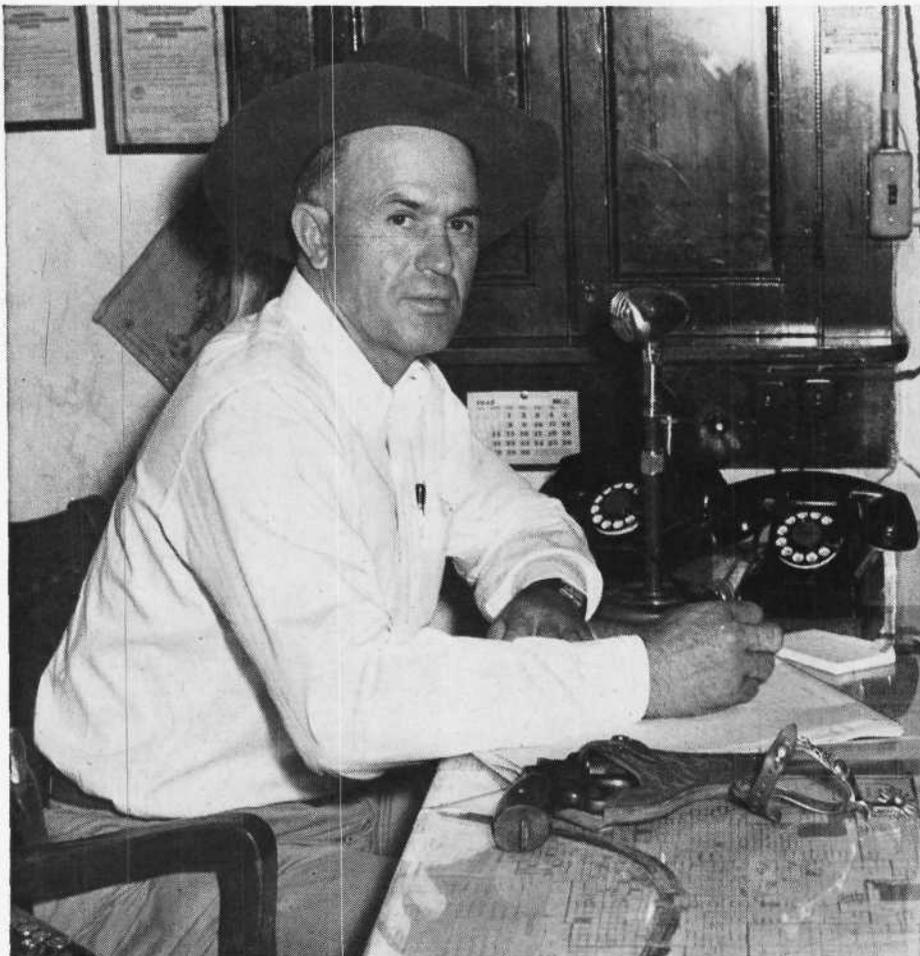


Gene Autry and Champion is another of "Ma's boys."

One of the most popular of western writers, Walt Coburn, often contributes to Hoofs and Horns without thought of compensation because he admires its editor. Photo by Esther Henderson.

Seeking recovery, he and Ma journeyed to Arizona. For Ma, it was back to school teaching. For three years she again instructed primary grades. Then, opportunity called her to the College of Agriculture of the University of Arizona where she worked as stenographer. Shortly, she became personal secretary to the dean, a position she held for six years.

While in the Dean's office she had her first taste of editorial work. She began editing the manuscripts written by faculty members for inclusion in the university's various bulletins. She had a natural aptitude for the work and her excellence boosted her to the full-time job of editor of bulletins and catalogs. Meanwhile, Joe Iken-



Everett Bowman, deputy sheriff of Maricopa county and former president of the Turtle association, of which Ma Hopkins was the first woman member.

berry had died. Alone for seven years she continued her editorial work.

But the depression of the 'thirties, bringing with it the necessity for job conservation, cost Ma her editorship. In 1930, she had married J. W. Hopkins. As a married woman, she found herself released from the University staff to make way for a jobless man.

Ma Hopkins has always been close to the people who, with their hands, wrest a living from the outdoors. Genial, tolerant, kindly, she has an infinite capacity to love mankind. Naturally, she is loved in turn.

Nelson Nye, author of the best seller, "Wild Horse Shorty," dedicated another book: "For that great old gal who edits the Cowboys' Bible, Ma Hopkins!"

Hoofs and Horns reflects Ma's personality and philosophy. It mirrors the spirit of rodeo, the lives and aspirations of simple folk. Its cover is always black and white, its contents informal, friendly, chatty. Ma has resisted every attempt to make it otherwise.

Wherever cowhands gather for rodeos—in all but six of the United States, in England, France, Canada, Australia, and Mexico—Hoofs and Horns is read as an official representative of the sport.

During the war, Hoofs and Horns went

to every part of the world where American troops fought or were garrisoned. Ex-cowboys, riding herd on Japs and Germans, took time out to express their appreciation. Typical is this comment from Cpl. Jack Dupree. While in the Admiralty Islands, he wrote: "I still get my Hoofs and Horns which I enjoy very much. I received the last issue when I was in a fox hole."

Revelatory of the affection this quiet lady engenders is a note from Pfc. Bill Leonard. Stationed in Burma, he wrote: "Dear Ma, I hope you don't mind my calling you 'Ma,' but I've heard a lot about you and feel like I kinda know you personally . . ."

Once, something more unusual than a laudatory letter reached the Hoofs and Horns office. Recently, the arrival of a chipper fox terrier, crated and addressed to her, drew from Ma an expression of incredulity.

"But I don't know anyone who would send me a dog!"

Three days later, a Texas cowhand, not previously known to Ma, turned up to claim the terrier.

"You see, Ma'am," he explained, "I was movin' to Tucson an' I didn't know a soul to keep my dog, an' that's a fact. But I'm readin' your magazine, so I think, 'There's

a good woman. I'll just send my dog to her!'"

When Ma Hopkins came to Hoofs and Horns in the depression year of 1933 the magazine was dying. No one thought it could be saved. No one, that is, except Ma and her husband, J. W. Hopkins, a printing company official. When Ma took charge, the monthly had a mail circulation of 1000. Newsstand sales were nil. For two years, in order to preserve a second class mailing permit, Ma sent the magazine to her list of 1000 subscribers without cost.

At the start, she was circulation manager, editor, advertising manager, publisher, advertising salesman, reporter and columnist. From that beginning, Ma has seen her staff increase and the magazine circulation surpass 10,000, tremendous in a highly specialized field.

Rehabilitating Hoofs and Horns was at once unglamorous, arduous, yet a fascinating challenge. Never before had Ma Hopkins sold advertising. She sold it now—tramping endless hours in summer heat and winter cold . . . "I didn't like selling," Ma explains, "but there were moments of triumph."

One bitterly cold rainy day, after walking from early morning to late evening without selling an ad, Ma finally clicked. "It was only a one inch ad for a dollar," she recalls, "but it made that long day a success."

In her second year as editor, she secured the help of Miss Virginia Smith. Still with Hoofs and Horns, Virginia has proved herself an able organizer. She holds the post of circulation chief.

Ma has had other help, some of it bad. Her collection of advertising managers has included a drunkard and a dope fiend. Others wanted to "go Hollywood" with the magazine, put color on the covers, include a fast, racy content. Down went Ma's foot. "It must be a simple magazine," she decreed, "for cow country folk."

In Australia, a Melbourne publisher has accorded Ma's magazine the flattery of imitation. Published for the Australian Rodeo club, a "down under" Hoofs and Horns has, without permission, lifted bodily Ma's copyrighted name plate, featured drawings and a column heading painted by Pete Martinez, his name appearing boldly as in the original.

Without shouting her wares, Ma brought Hoofs and Horns to the attention of the nation. Today, at the great rodeos of the world—Madison Square Garden, the Boston Garden, the Perdleton Roundup, Cheyenne Frontier Days, Calgary Stampede, La Fiesta de los Vaqueros, the Livingston Roundup—Hoofs and Horns is an institution.

Appreciation for Hoofs and Horns, permeated by the spirit and energy of Ma Hopkins, pours in from such men as Olaf Wieghorst whose program covers are

known to thousands of rodeo fans at Madison Square Garden. Unsolicited and without pay, he has sent Ma many covers including a stirring tribute to the late beloved and renowned cowboy artist, Will James.

"Skull Valley" Williams once sent her an original Christmas card featuring Curly, Wes, Stiffy, Cookie and other lovable characters of *Out Our Way*. "Merry Christmas to Ma Hopkins," the Williams folk chorused. This, too, became a magazine cover.

Tempted to befriend all homeless cats, Ma Hopkins has 11 of these pets stalking her home. A mutual love of cats brought her a lifelong friendship with Eugene Manlove Rhodes.

Ma's multitude of friends is endless as the prairie grass. Typical was the late Pete Knight, world's champion bronc rider in 1932, 1933, 1935 and 1936. Thrown off while riding in the rodeo at Hayward, California, in 1937, he was trampled by his horse and died.

In her grief, Ma Hopkins penned this tribute:

"Wherever rodeos are known, the name of Pete Knight means the best there is in bronc riding . . . With his clean sportsmanship, quiet manners, brave spirit, modesty, and kindness, he is firmly entrenched in the hearts of thousands . . . No more will we hear the announcer's voice, 'Watch chute four. Pete Knight coming out on So-and-so.' And no more will the crowd roar its applause when he makes a fine ride.

"Pete Knight has gone out over the Last Trail. And while we who are left are sorrowful at his going, there were smiles to greet him on the Other Side as he came, clear-eyed and brave, to join other great cowboys who have gone before. May our tears not dim his path . . ."

There is the spirit of *Hoofs and Horns*. There is Ma Hopkins.

"Yes, sir, mister," the program salesman repeated. "You must be real new around here. That's Ma Hopkins, the lady with *Hoofs and Horns*."

NEVILLS PARTY TO RUN GRAND CANYON RAPIDS

Norman Nevills, ace boatman of Mexican Hat, Utah, has announced three fast-water voyages on the Green and Colorado rivers this summer including the first run through Grand Canyon since his 1940 expedition.

June 21, Nevills and a party of 12 took off at Green River, Wyoming, on a trip sponsored by Dr. Otis Reed Marston of Berkeley.

Leaving Green River, the party's distribution by boats was Nevill's, Mexican Hat I, as pilot; his 10-year-old daughter, Joan, youngest person ever to make the trip; Rosalind Johnston of Pasadena, California, noted horsewoman, and Al Mil-

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VOL. XVI, No. 8 TUCSON, ARIZONA, FEBRUARY, 1947 TWENTY CENTS PER COPY



Painting by Orren Mixer

Taming A Wild One

Hoofs and Horns, started in 1931, was headed for the journalistic graveyard when Ma Hopkins became its editor in 1933. Today it is read by cowhands and rodeo fans all over the world. The cover on this issue is a reproduction of a painting by Orren Mixer.

lotte, Hollywood, California, Walt Disney cameraman.

Mexican Hat II was piloted by Dr. Otis Reed Marston, Berkeley, California; Garth Marston and his wife, Shirley, Berkeley, and A. K. Reynolds, 17, Green River. In the Joan was Kent Frost, Monticello, Utah, rancher; Willie Taylor, Berkeley, and Misses Loel and Maradel Marston, 16-year-old twin daughters of Dr. Marston.

After the run through Red Canyon and Ashley falls and Lodore canyon with its Disaster falls, the trip was scheduled to end at Jensen, Utah, July 4, from where the boats would be returned by truck to Mexican Hat.

The second section of the summer expedition was to start at Lee's ferry July 12

when Nevills' four especially-constructed cataract boats, the Wen, MH II, Joan and Sandra were to be launched for the run through Marble canyon to Bright Angel trail, reaching there a week later.

Pilots of the boats were Nevills, Dr. Marston, Kent Frost and Archie Morris, and the passenger list included Marjorie and Francis Farquhar of San Francisco, two Walt Disney photographers, Margaret Marston, Rosalind Johnston, Pauline Saylor and Randall Henderson.

At Bright Angel trail the passenger list will change again, the same boatmen having as passengers Joe Desloges and five members of his family from St. Louis, Mo., Margaret Marston and Randall Henderson. After running the rapids through the Granite gorges, the boat party is scheduled to reach Hoover dam August 3.



Desert Iguana or Northern Crested Lizard.

Long-tailed Denizen of the Desert

By RICHARD L. CASSELL

KNOwn also as the pigmy iguana and northern crested lizard, the desert iguana, *Dipsosaurus d. dorsalis*, is another of those elusive little fellows who dart across the desert plain and are very reluctant to have their pictures taken.

The specimen pictured on this page was photographed on a summer afternoon when the temperature was well over the 100-degree mark. In this instance the lizard not only was willing to pose—but remained in position for several exposures at different angles, at considerable discomfort to itself. Before I had finished, its jaws parted showing its thick pink tongue as it panted in the hot atmosphere.

Average length of the desert iguana is 11 inches, more than half of which is tail. When wounded they puff themselves up and may be pulled from a hole only with difficulty.

The body is powerful, but less agile than other lizards of the

same general type. When frightened it runs as though rather muscle-bound, and generally darts for the nearest bush. The long tail is rather brittle, and may pull off without apparent serious injury to the lizard. Eventually a new tail will replace the lost one.

No complete reports have ever been made as to the breeding habits and life history of the reptile, and there remains some doubt as to whether it is herbivorous like the large primitive iguanas, or includes some meat in its diet. Late in October it goes under the sand from a few inches to two feet and remains in hibernation through the winter.

Its range is the Colorado and Mojave deserts of California, southern Nevada, western Arizona, and northwestern Mexico.

The desert iguana, like most of the other lizards of the Southwest is entirely harmless.

In the Kiva of the Snake Clan

By GODFREY SYKES

Late in August the Hopi Snake priests will make their annual pilgrimage out on the desert to gather in their "little brothers," the snakes, for the annual rain-prayer to the gods. Then begins a nine-day ritual which ends on the village plaza when the tribesmen dance with snakes in their mouths to the rhythm of gourd rattles. But before the dance can be held, the snakes must be cleansed. The washing of the snakes is a secret ritual held in the underground kivas of the clansmen. Few Anglo-Americans have ever witnessed this underground ceremony. Godfrey Sykes, through his friendship for the Indians, was invited to participate in it—and here is the story of his experiences.

TODAY visitors from all over the world follow the dirt roads to the Hopi villages in northern Arizona to watch the Snake dances, held annually in August on days announced two weeks earlier by the Snake priests.

But 50 years ago few people other than ethnologists and students of Indian customs and traditions knew about these dances. The mesa-top pueblos of the tribesmen, then called Moqui Indians, were inaccessible except to those hardy travelers who were willing to make the long trek in a buckboard or on horseback. Captain Bourke had written about the dances ten years earlier, but few Anglo-

Americans had seen them. The Indians took their ceremonies seriously—as they do today—and while they were not hostile to visitors, they made no effort to encourage them.

I was living on the reservation at that time, in charge of the trading post of my friend Tom Keam, and was in almost daily contact with the chief men in the nearby villages. Alexander Stevens, ethnologist and a good friend of the Moquis, also made his headquarters at the trading post.

As the time for the Snake dance approached there were two or three stray scientists, artists and literary folk in residence

This photograph of the plaza at Walpi was taken in 1895 just before the annual Snake dance. The ladders in the foreground lead to underground kivas, and in the left center is the kisi—a bower of cottonwood branches where the snakes are confined when the dance starts. Today the Hopis do not permit the taking of pictures during the dance ceremonial.





Close-up of the kisi, or snake bower, where the reptiles are confined when the dance starts. As the dancers file past the kisi a snake priest reaches into the bower of cottonwood branches and pulls out a snake which is banded to the clansmen and the middle of its body placed in his mouth. The "little brothers" include rattlers, sidewinders, gopher snakes, racers—any species found on the desert—and the priest takes 'em as they come.

with us. Keam was abroad, but he had left word with Stevens and myself to treat these strays kindly and help them all we could with their note-taking and investigations.

The full Snake dance is a nine-day affair, the ceremonies being held every other year in one or more villages, but alternated so that generally there are two or three dances each August. At that time the most

elaborate dance was held in Walpi on the odd-numbered years.

Steve, who had lived and worked among the Moquis for a generation or more, had arranged with the chief of the

Antelope clan, which assists the Snake clan in the ceremonial, to adopt me as his acolyte for the ritual, giving me an opportunity to witness, and even take a minor part in some of the jealously guarded rites in the kivas, or ceremonial chambers. Steve had witnessed the washing of the snakes on a previous occasion, but wished to see it done again to make additional notes, although he confessed he was allergic to snakes. He described the ritual as the most spectacular phase of the entire ceremonial program, and I was eager to see for myself.

My foster parent, the Antelope chief, was Supela. He and Wiki, who was hereditary chief of the Snake clan, were both willing that I should accompany Steve into the underground chamber where the rite was to take place. Dr. Walter Fewkes of the Bureau of Anthropology was one of our guests at the trading post, and he also was admitted.

The washing takes place on the ninth day a few hours before the Snake dance ceremony in the plaza above. It symbolizes a purification process preparatory to the return of the snakes to their abode in the Underworld and to the Deities who control the rainfall, for the Snake dance is a prayer for rain.

The final day of the ceremonial is a great day for both villagers and spectators. It begins with a marathon starting at certain springs in the valley below and after a last-lap breath-taking sprint up the trail to the top of the mesa ends at the village plaza. The purpose is to bring up certain *bahos* or prayer-tokens that had been deposited at the water's edge some days previously.

Then the plaza is swept and put in readiness for the dance. The *kisi*, the sacred bower where the snakes are kept before the dancers take them in their teeth, is made ready and the women prepare large quantities of food for the feast which takes place after the dance is over.

It was decided by the priests that Steve, Dr. Fewkes and I would be admitted to the kiva as "snake herders" during the process of the washing, thus giving us official standing. Steve, as a result of his previous experience, knew about the duties of "snake herder," and he made a grimace when the decision was announced. But in the interest of science he was willing to carry on notwithstanding his aversion to reptiles.

So when the appointed time came, we climbed down the ladder into the kiva and found our Indian friends already there. In addition to my personal sponsor Supela, the priests I remember were Wiki, high priest of the Snake clan, Honwi, his nephew and heir-apparent in the hereditary chieftainship, Kopeli, Winuta, and several others.

The kiva used for this ceremony was an underground chamber about 25 feet in length, and the only entrance was the opening in the roof reached by the ladder we had used for descent. This hatchway was also the sole opening for the admission of air. Among 20 or 30 men, some of them smoking ceremonial tobacco, a smoldering fire, and several jars of snakes, we found the atmosphere rather lurid. Steve explained that partial asphyxiation should be cheerfully endured in the cause of science, although he personally objected to the odor of excited snakes.

Snake Dance at Walpi in 1895.



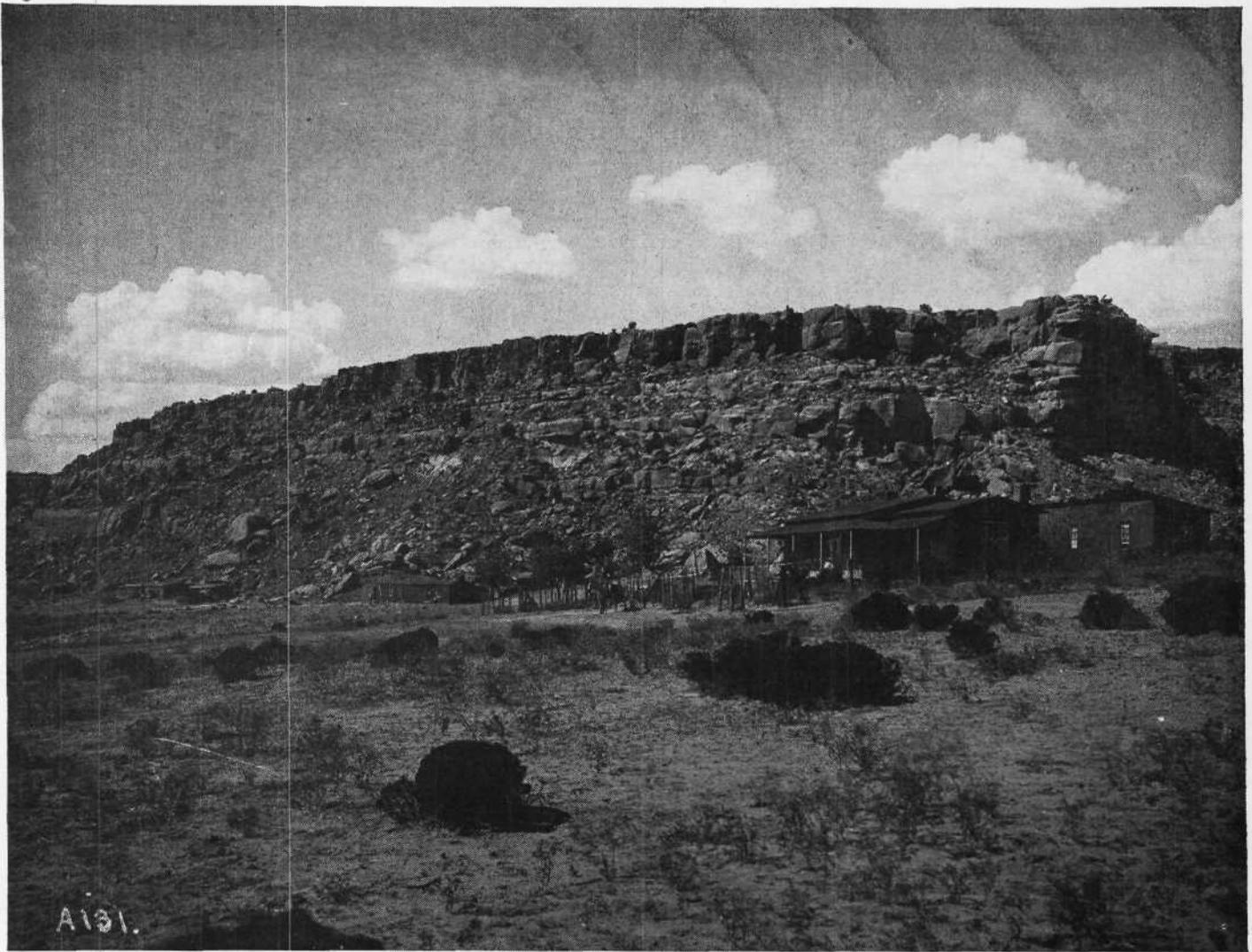
Each snake dancer is accompanied by an Antelope clansman who uses his feathered stick to distract the reptile. This picture was taken in the year before the Hopi put a taboo on photographers.

Each of us had been handed a small "snake whip," a short stick fashioned somewhat after the traditional baho except that its tuft of feathers is somewhat longer. Also we were given small gourd rattles.

A low monotonous chant was being led by Wiki, and when we had seated ourselves as directed on a row of flat stones facing a bed of clean sand, we took up the rhythm of the chant with our rattles. This was followed by other songs for a half hour.

Wiki then rose, holding his baho in his left hand while he thrust his right into one of the jars and brought out a lively squirming rattlesnake. Making a few ceremonial passes over it with his baho, as he held it aloft, he dipped it into the jar containing the baptismal water and tossed it on to the sandbed in front of us. This procedure was followed with three other snakes, and Wiki then gave place to his understudy, Honwi, who also fished out, washed, and tossed down several snakes.

In the meanwhile the tempo of the chant was increasing and the excitement obviously growing. As other performers began to crowd around the jars, snakes were fished out by the handful, given



This picture of the old Kean's canyon trading post was taken by Vroman in 1895. Godfrey Sykes was running the post for Tom Kean the summer he witnessed the snake-washing ceremony.

very brief and sketchy dip and then thrown violently in the general direction of the sandbed, but without any great accuracy of aim.

The result was that the air surrounding us and above our heads seemed to be literally alive with snakes. Not only that but we were kept increasingly busy, in common with the other snake guards who sat upon the line of stones with us, in confining the rapidly increasing number of reptiles to the sand bed and herding in strays which had missed it through poor aim. The priests who sat beside us maintained their dignity and calmness and we, of course, tried to appear equally oblivious to the snake shower surrounding us.

Upon comparing notes afterward, however, we reached the conclusion, purely as a matter of scientific interest, that there was a fundamental difference between a cat and a snake. Toss a cat in the air and it never loses control over its movements but alights neatly upon its feet. A snake, on

the other hand merely squirms aimlessly while in transit and reaches the ground as an untidy heap. Our snakes also appeared to be distinctly annoyed at the treatment they were receiving, and were in an angry and restless mood as we assisted in herding them into a squirming heap. In fact, the final ten minutes of the orgy have always lingered in my memory as being more exciting than any similar period that I have ever experienced. But it was a highly interesting episode to have witnessed.

I have purposely omitted many details of the ceremonial as being rather technical matters of interest mainly to ethnologists. These include a description of the sand altar in the kiva, the placing of the tiponis on this altar, and the *sipapu* or symbolic entrance to the Underworld, and above all the general air of sincerity and religious earnestness on the part of the participants.

We left the kiva while the tribesmen were still gathering up the snakes, in order to witness the sprinkling of the thresh-

olds of the houses in the village with the remains of the baptismal water.

The public ceremony in the plaza—the Snake dance—has been described so often it is well known to those Americans who are interested in Indian customs. The ceremonial is now witnessed by hundreds of visitors who crowd around the plaza and occupy the tops of the surrounding houses. There are some who suggest that the rain prayer has become merely a public spectacle, and that it has lost much of its original significance. However, if there is levity present today it is entirely on the part of the spectators, for the Indians carry on their chanting and dancing with all the seriousness of a sacred ritual. For that is what it is. Humans do not dance with rattlesnakes in their mouths just for the fun of it.

It is worthy of note that these efforts were effective in this instance, for a copious rain fell on the Moqui mesas the day following the close of the ceremonies.

It is the clothes people wear—and not the people themselves—which cause the denizens of the wild to flee in terror when a human approaches. At least, this is the theory advanced by Marshal South this month in the first of a new series of stories he will write for *Desert Magazine*. You may not agree with Marshal's philosophy of life in every detail—but you must respect them as honest opinions from a man who lives what he believes. This world would be a dull place if we all had the same ideas.

Desert Trails

By MARSHAL SOUTH

MY FRIEND Bob Crawford had told me about the Elephant tree which grows on a steep sidehill within sight of the camp ground at Mountain Palm Springs canyon in California's San Diego county.

Elephant trees are not especially rare or remarkable—except to people who have not seen them. Their habitat is always the desert and they are a common species in Sonora and Lower California. Occasionally they are found in the foothills along the western edge of the Colorado desert, and there is a lovely natural park containing several hundred of them in the Borrego area south of Highway 78 at Ocotillo. (*Desert*, Nov. '37)

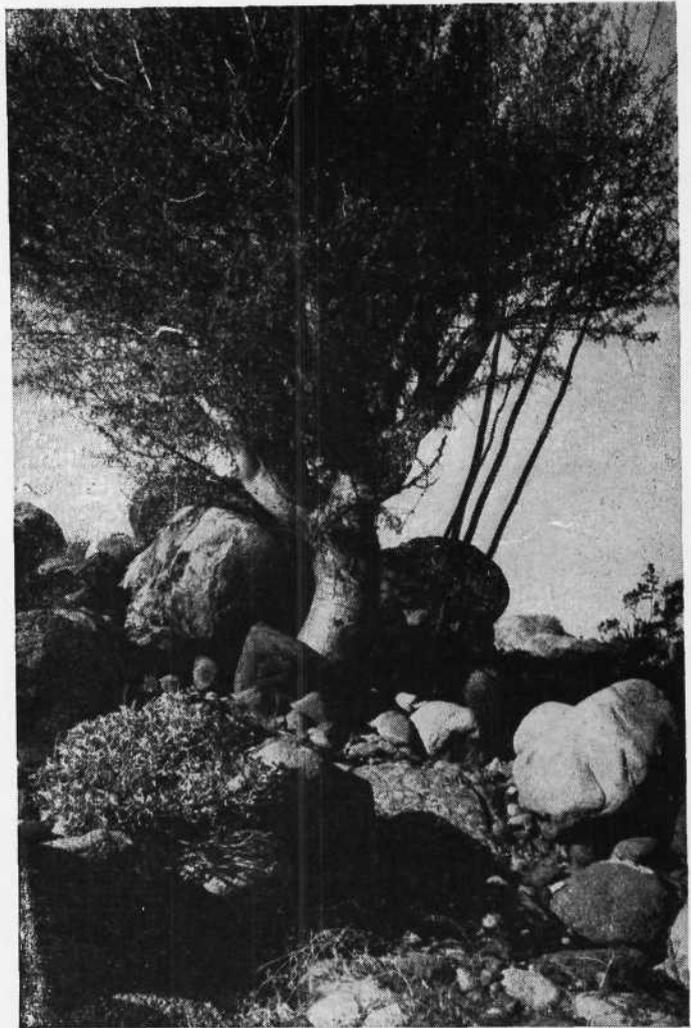
And so I had driven my aged jalopy out to the secluded cove at Mountain Palm Springs to spend a night on the good earth—and look for the Elephant tree.

Next morning, not long after the sun had blazed into a clear sky to make hot patterns across Carrizo wash, I found it. It took a little scrambling and some searching. But after I had located it I was astonished that I had not seen it from the first. It is visible a quarter of a mile away, north of the improvised fire-place at the camp ground where the road ends.

It isn't a big tree as trees usually are reckoned. Below the border it is said to grow occasionally to a height of 30 feet. But the specimens to be found in the arid region of the United States rarely exceed 15 feet. The one growing on the rocky slope at Mountain Palm Springs is about eight feet high, with a branch spread equal in diameter to its height.

Scientifically, Elephant trees belong to the *Burseraceae*, the Torchwood family, from which division of plants the aromatic product known as frankincense—often mentioned in religious writings in connection with myrrh—is obtained. The copal, which is burned as incense by various tribes of American Indians in religious ceremonies is a product of the Elephant tree, the resinous properties of which are very marked. The tree is credited with having a blood-like juice, or red sap, in the bark at certain seasons. But curiosity in this respect should be sternly repressed. For anyone who wanders round with a hatchet gashing Elephant trees to see them "bleed" is a type of human who does not belong in the desert—or any place else.

Like many others—before I had seen my first Elephant tree—I was curious as to the reason of the name. But after you have studied the growth the designation is readily understandable. The swollen, tapering branches suggest very strongly the trunks and the general characteristics of elephants. Although an equally apt definition might have been "Octopus" tree—because the smooth, tapering, writhing limbs suggest equally well a sprawling marine monster, upside down and waving its tentacles toward the desert sky. The tree, in many ways, carries a resemblance to some weird growth from the ocean depths. The tips of the branches are reddish brown, giving the tree, when seen from a distance the appearance of a brown blur on the des-



This isn't the Elephant tree described by Marshal South in the accompanying text—but it is a good illustration of the species, found rarely in California, but common in Sonora and Lower California.

ert or rocky slope. The rest of the bark, however, which clothes the limbs and low trunk, is a mixture of white, whitish-yellow and green. This coloration is due to the construction of the bark, the outer layers of which are white. These, peeling off in thin sheets, expose inner layers that are green. The bark layers below are thick and red.

There were only a few leaves on this Elephant tree when I visited it in late May. But the crevices of the rocks surrounding it were thick with a rust red deposit of fallen dead ones. The leaves on the tree are an almost perfect reproduction, in miniature, of the frond of a date palm. But they are very tiny "fronds." The tree does not assume its full dress of leaves until after the flowers appear, which usually is sometime in June. The fruit, a tiny berry about the size of a pea which turns from green to dark reddish-brown as it matures, ripens along in October.

The wood of the Elephant tree is hard, close-grained and yellow. In places across the Mexican border the trees are reported to be so numerous they are used for firewood. But it is my sincere hope that my brothers of the desert who may come after me to view the tree whose location I have revealed, will refrain from any clipping of souvenirs. The guardian spirits of the desert—and especially of Mountain Palm Springs—will not look with approval on such vandalism. You may not be superstitious and you may laugh it off. But it won't help you. I have enough of the redman in me to be wholesomely convinced as to the fate of people who work thoughtless mischief.

The day was still young when I got through checking up on

the Elephant tree—not even forgetting the delicate remains of a tiny nest which some trustful little desert bird had built in a fork of the aromatic brown twigs. The hot beat of the sun upon bare skin and the low croon of a warm, gentle wind coming down the canyon were too strong a lure to be resisted. I kicked off my sandals, dumped them into my dunnage sack and started 'appily, barefoot, up the wash.

The crunch of the warm, yielding sand underfoot was electric. And I was glad to discover that a sojourn in civilization hadn't tendered the soles of my feet too much. Civilization—which is a badly used word—does things to you. Especially to your feet. The construction of the human foot is perfect, for ease of movement and for health—if it is only let alone. The moment you fetter it and tie it up and "protect" it, you start trouble—corns and fallen arches and shortened tendons, and a whole host of similar ills from which foot specialists wax fat. Even a light sandal—though it is the least harmful of all footwear—is bad for the foot. Feet were meant to be worn bare. But humanity—which values form, convention and elegance more than health has never ceased arguing with God on that subject. So far humans have lost every round.

Several canyons radiate from Mountain Palm Springs—like the diverging fingers of a hand. And all of them are worth exploring. Some of the palms have been trimmed by fire but there are others still in natural full dress of brown, dead leaf skirts without which, to me, a desert palm never looks just right. In a clump of these unspoiled queens of the wasteland solitudes, grouped as if for worship in a cathedral-like rock-walled pocket of the canyon, I sat down to rest.

It was quiet there. Quiet with a peace which is encountered, I think, only in such desert sanctuaries. The silence, save for the faint rustle of the wind in the fronds of the palms, was complete. And the wind rustle didn't detract from the silence. Rather it added to it.

I lay there quite a while, soaking up the sunshine and the magnetic strength of the warm earth. I lay perfectly still, and I thought I was alone. But I wasn't. For presently a pair of doves dropped out of emptiness and lit not five feet away. They were utterly unconcerned, merely cocking their heads at me once or twice, in appraisal, and then going quietly about their business of searching and picking for food among the grass stems of the damp spots near the roots of the palms, following each other back and forth and across-ways, in the methodical manner of stepping which doves have.

I was enjoying their company, and their confidence, when I saw another visitor. It was a red-diamond rattlesnake. It came gliding past like a shadow through the dry weeds not six inches from my extended bare foot. He looked at me too. But it was only a glance of languid interest, and I watched him until he slid from sight beneath a big rock on the other side of the glade. Whether the doves saw him or not I do not know. But neither snake nor doves took the slightest notice of each other. There was a truce in the glade—and Peace. Even the representative of that greatest enemy of all living things—man—who lay there, was tolerated and respected. Perhaps because he wore few clothes. And that is a strange and significant thing. For it has been my observation that the unclad human body is accepted by the creatures of the wild as friendly, in most cases. Whereas they will flee in fear from a human arrayed in the unsightly, choking collection of rags which most of us worship as clothing.

The doves flew away after a bit, and once more I thought I was alone. But no. From up the canyon there came a soft click and shuffle, and the clatter of a stone rolling down a slope. From around the brown skirts of a palm there stepped into view a little grey burro. He was obviously young. But also, obviously, he was wild. No galling fetters of human service had ever circled that wiry little body or dimmed with weariness those big, bright eyes. He stopped when he glimpsed me. Stopped dead. His whole body stiffened as though a powerful spring in it suddenly had gone taut and poised. He sniffed, and his nostrils

twitched wide. What was this two-legged thing that lay there on the dry grass?

But I lay quiet, scarcely breathing. For a long minute our eyes held, each to each. Then, once again, the passport of natural bare skin won. My little visitor lowered his tautly raised head. His big ears twitched in a flick that might have been a friendly salutation. Unconcernedly he continued on his way, threading between the palms and disappearing from view around the angle of the canyon. I lay listening until the crunch and click of his daintily picking little hoofs faded away into nothingness.

Evening shadows were closing down across the desert when I woke the foothill silence with the stuttering exhaust of the old car and headed away from Mountain Palm Springs on the back trail. All the wastelands were greying with the loneliness of night and far across the wash the gaunt flanks of the Fish Creek mountains, pitted with vast, hobgoblin shadows, stood up stark and mysterious as a painted scene from Grimm's Fairy Tales. The road beneath the speeding car tires was lonely and sandy and white in the gloom. It was a very different and much more traveled trail than the one over which I had come when I had last visited Mountain Palms. And, for a space, that thought, and the realization that everywhere the desert was being furrowed by new trails, brought me sadness.

But it was only a temporary sadness. For I remembered suddenly that all the hills and washes were patterned with far older trails. Trails that in their day were well traveled, even though they were traversed only by bare or by crudely sandaled feet. And those trails today are dim—ghost threads that, in the loneliness, are crumbling to oblivion amidst the mists of dying memories and the dwindling glow of romance.

So, also, will these new, raw, modern trails pass—and the hurrying makers of them. And in the years to come the desert will cover them with its mantle, and forget. The feet come. The feet go. But the desert remains.

NEW SEED CROP IMPORTED FROM INDIA MAY RIVAL SOY BEAN

Guar, a member of the bean family which shows chances of rivaling the soy-bean in variety of uses, is being grown in increased quantities in the desert area. There are 2000 acres of the plant in Imperial Valley, California, 1000 acres in Salt River valley, Arizona, and additional amounts near Yuma, Arizona. Pronounced goo-are, the bean came originally from India and first was grown experimentally in this country by L. G. Goar at the Imperial Valley field station at Meloland, near Holtville, California. Crops have been grown at the station every year since 1921.

At the present time the principal value of the plant lies in a vegetable gum which is extracted from the seeds. The Institute of Paper Chemistry undertook some of the first experimental work with the gum, and large quantities have been used for sizing paper and other purposes in paper manufacture. The gum also is replacing beans formerly imported from the Mediterranean and other foreign sections for the manufacture of mucilage.

Experimenters are working out uses for the flour left when the gum is extracted. Cheese companies are using it in cheese spreads and it is being tried in the manufacture of ice cream and as food for livestock. The plant itself can be used as a forage crop and a green manure for soil improvement. It can be grown cheaply, as it is a summer annual which can be raised and harvested between other crops.

Meloland experimental station has grown as much as 1700 pounds of guar seed on an acre, but the average is below 1000 pounds. Commercial yields in Imperial Valley have been as high as 1000 pounds, sold at the price of 7½ cents per pound. In the past there has been a high loss due to shattering of seed pods during harvesting. The new General Mills variety is supposed to be less subject to shattering.

Deeds for 5-Acre Cabin Builders . . .

5-Acre Lessees May Soon Become Owners

Jackrabbit homesteaders — of whom there are now 8000 in Southern California and hundreds more in other desert states — may soon acquire deeds from Uncle Sam for their 5-acre tracts.

Announcement of the interior department's decision to grant titles to lands now held under lease, was made by Secretary Krug June 4.

However, no deeds will be issued until after a one-year lease period, and not until a cabin or other permanent improvements are made on the property. The sale price of the land will be determined by federal appraisers. The Small Tract Act of 1938 under which any American citizen may acquire five acres of vacant public land provides, however, that the sale price in no event will be less than the cost of surveying the land.

In making his announcement of the new regulations, Secretary Krug said: "It is the policy of the Secretary in the administration of the Act of June 1, 1938, to promote the beneficial utilization of the public land subject to the terms thereof and at the same time to safeguard the public interest in the lands. To this end applications for sites will be considered in the light of their effect upon the conservation of natural resources and upon the welfare not only of the applicants themselves but the communities in which they propose to settle.

"No direct sales will be made of lands under the act. Use and improvement under lease will be required before it will be sold. Leases of lands which are classified for lease and sale will contain an option permitting the lessee to purchase."

Explaining the procedure under the new regulations, Paul B. Witmer, acting manager of the District Land office in Los Angeles stated that as soon as forms are available, new lease contracts will be made with 5-acre claimants in which the option-to-purchase clause will be inserted. This clause will provide that after one year, a lessee who has made substantial improvements on his tract will be given the privilege of buying the land at a figure set by the appraisers.

Witmer added, "I hope all the 8000 5-acre lessees in Southern California will not rush up to this office and ask for new contracts containing the option-to-buy clause immediately. We do not even have the new lease forms yet. And with our limited personnel, many months time will be required to convert the old leases to the new forms.

"Those who have already made im-

Following is the complete text of the Small Tract Act of 1938.

AN ACT

To provide for the purchase of public lands for home and other sites.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Secretary of the Interior, in his discretion, is authorized to sell or lease, to any person who is the head of a family, or who has arrived at the age of twenty-one year, and is a citizen of the United States, or who has filed his declaration of intention to become such a citizen, as required by the naturalization laws, a tract of not exceeding five acres of any vacant, unreserved, surveyed public land, or surveyed public land withdrawn or reserved by the Secretary of the Interior for any other purposes, or surveyed lands withdrawn by Executive Orders Numbered 6910 of November 26, 1934, and 6964 of February 5, 1935, for classification, which the Secretary may classify as chiefly valuable as a home, cabin, camp, health, convalescent, recreational, or business site in reasonably compact form and under such rules and regulations as he may prescribe, at a price to be determined by him, for such use: *Provided,* That no tract shall be sold for less than the cost of making any survey necessary to properly describe the land sold; that no person shall be permitted to purchase more than one tract under the provisions of this Act, except upon a showing of good faith and reasons satisfactory to the Secretary, and that patents for all tracts purchased under the provisions of this Act shall contain a reservation to the United States of the oil, gas, and other mineral deposits, together with the right to prospect for, mine, and remove the same under such regulations as the Secretary may prescribe: *Provided further,* That this Act shall not apply to any lands in the Territory of Alaska.

Approved, June 1, 1938.

provements on their land will be given first consideration. My suggestion to the others is that they continue their dollar-an-acre-a-year lease payments until they are ready to start their construction work, and then make application to this office for the new form."

Southern California is leading all other regions of the United States in the number of applications for 5-acre tracts under the modified homestead law of 1938. Acting Manager Witmer states that nearly 12,000 applications have been received in his Los Angeles office in the last eight years.

Several thousand acres of land on the Colorado and Mojave deserts have been made available for these applicants. The largest concentration of "jackrabbit homesteaders" is in the Twentynine Palms area. However, sections have been classified as available also near Victorville, in Morongo and Coachella valleys and in the Vallecitos area.

Here's Guide for 5-Acre Applicants

Your name is John Smith or Betty Jones, and you think you want to become the owner of five acres of Uncle Sam's public domain, of which there are 169 million acres in the United States.

Your first step is to select your site. Then you go to the U. S. District Land office in the state where the site is located to determine whether or not it is vacant public land, and if it has been surveyed. Most of the accessible public land in the United States has been surveyed—that is, iron posts have been set at the section and quarter-section corners marked with the section, township and range of that parcel of land. Sometimes those posts are hard to find, but it will simplify matters if you will search the terrain until you locate one of them.

If you can locate the survey posts and obtain a legal description of the site, you may carry on your dealings with the District Land office by mail. But do not write to the Land office and tell them you are interested in a 5-acre tract two miles west of Humpity-Dumpity peak, or a mile south of Hobgoblin spring. The chances are the clerks in the Land office never heard of those places. Unless you can obtain a legal description of the land you'll have to make a personal visit to the Land office where you will have access to detailed maps of every section of land in the district.

Perhaps the land you want has not been classified yet. Go ahead and make your application anyway. And get some of your friends and neighbors who are also interested in jackrabbit homesteads to make applications. The more applications there are, the sooner Uncle Sam's inspectors will get around to the task of classifying that land.

Your application is made in duplicate on forms supplied by the District Land office—one tract to each adult single person or head of a family—no more. With the application you enclose a fee of \$5.00 as evidence of good faith.

There are some lands in Southern California already classified and ready for leases. You can learn the location of these lands at the District office. You may even file your application without inspecting the land—but it isn't advisable unless you know others who already have filed on adjoining tracts and are willing to act on their recommendation.

It may require many months before you get action on your application, even after the land has been classified. But just take it easy, for while Uncle Sam is sometimes

very slow, he also is very trustworthy. In Los Angeles applications are being made at the rate of 50 to 100 a day—and the limited staff can process only about 25 a day. They are nearly 4000 behind—but they will catch up eventually.

Your lease, when it finally arrives, will be for five years. Then you have to remit another \$5.00—a dollar an acre—for the first year's lease. Thereafter you send \$5.00 each year for the renewal. Uncle Sam doesn't mail out statements—you have to remember about that lease payment. But if you overlook the payment your lease will not be cancelled until you have been sent a registered notice of your delinquency. If you decide to drop the lease, there is no further obligation, except that as a matter of courtesy you should advise the Land office—so the tract will be available for another person.

Probably your lease will stipulate that you must spend \$300 for a cabin or improvements on the land. But you will have five years to make the improvements, unless you want to obtain a deed sooner. Under new regulations, deeds will be issued upon payment of the appraised value of the land anytime after one year if the required improvements are made.

Applicants should understand that good agricultural lands available for homesteading are no longer available—they've long ago been taken up under the homestead laws. Remaining lands which are now available under the Small Tract Act are mostly arid terrain without water or soil suitable for intensive cultivation. As a source of livelihood they have little or no value. As stated in the Act they are classified "chiefly valuable as home, cabin, camp, health, convalescent, recreational or business." There is no requirement as to continuous residence on the tract. After government patent is issued they may be bought and sold the same as any other real estate, but mineral rights are reserved to the federal government. However, if the lessee discovers minerals on the property, he has the same privilege as any other American citizen of filing on the mineral rights.

The intent of the law is to open the remaining public domain for any legitimate use the people of United States desire to make of it.

Formerly these lands were under the jurisdiction of the U. S. Land office, with a registrar in charge of each regional office. More recently the term "U. S. Land Office" has been abolished and its functions taken over by the Bureau of Land Management. Regional offices have become District Land offices, and the registrars have become "acting managers." The location of these offices in the five southwestern states is as follows:

Southern California, as far north as Kern county: U. S. District Land office, Postoffice building, Los Angeles.

Northern California, Kern county and

north: U. S. District Land office, Sacramento, California.

Arizona: U. S. District Land office, Phoenix.

Nevada: U. S. District Land office, Carson City.

Utah: U. S. District Land office, Salt Lake City.

New Mexico: U. S. District Land office, Las Cruces.

In Arizona, lands near Ajo recently were classified as suitable by the Phoenix District Land office, and there has been a rush of applicants to obtain tracts in that section.

The progress with which additional lands will be made available in all western states depends on two factors, (1) the interest of local people in obtaining these tracts, and (2) the interest and initiative of the acting manager of the District Land office in that region.

DESERT QUIZ

It is too hot to do much poking around on the desert these days, but in your imagination you may travel far and wide across the scenic areas of Nevada, Utah, Arizona, New Mexico and California—and that is what you will be doing when you tackle these quiz questions. They cover a wide range of desert subjects and places, all of them fairly well known. Don't be discouraged if you get a low score—you'll do better after you have read *Desert* a few months. Ten is a passing score. Fifteen qualifies you as an expert. Occasionally a reader scores 18—and that is super. The answers are on page 37.

- 1—A metate was used by the Indians for— Killing game..... Grinding meal..... Storing food..... Ceremonial purposes.....
- 2—Kayenta, Arizona, is remembered as— The burial place of Kit Carson..... The former capital of the state..... The place where Geronimo was captured..... The home of the Wetherill family.....
- 3—Highest peak visible from the Colorado desert of Southern California is— San Geronio..... San Jacinto..... Tahquitz..... Santa Rosa.....
- 4—A javelina is— A species of bird..... A lizard..... An animal resembling a wild hog..... A poisonous insect.....
- 5—Going west through Daylight Pass the motorist would arrive in— The Valley of Fire in Nevada..... Death Valley..... The Tonto basin of Arizona..... Albuquerque, New Mexico.....
- 6—The famous Nevada "Bottlehouse" is located at— Goldfield..... Tonopah..... Rhyolite..... Searchlight.....
- 7—In New Mexican history the date 1680 marks the— Discovery of the Seven Cities of Cibola..... Annexation of New Mexican territory to USA..... Founding of Santa Fe..... A general revolt of the Pueblo Indians against the Spaniards.....
- 8—The Epitaph is the name of a famous frontier newspaper published at— Yuma..... Tombstone..... Nogales..... Virginia City.....
- 9—The mineral, azurite, belongs to one of the following groups— Copper..... Zinc..... Iron..... Tin.....
- 10—According to legend, the Enchanted mesa of New Mexico formerly was occupied by— The Zuñi Indians..... The Hopi..... The Acoma..... The Apaches.....
- 11—The region known as the Great Basin occupies the western part of the state of— Nevada..... New Mexico..... Utah..... Arizona.....
- 12—Leader of the first known party to navigate the Colorado river through Grand Canyon was— Dellenbaugh..... Powell..... Wheeler..... Bill Williams.....
- 13—The University of Arizona is located at— Tucson..... Phoenix..... Flagstaff..... Tempe.....
- 14—Saltton Sea maintains its water level despite rapid evaporation as a result of— Seepage of water from the Gulf of California..... Storm water drained from surrounding mountains..... Drainage from the Imperial irrigation system..... Periodic overflow from the Colorado river.....
- 15—Director of the National Park service is— Collier..... Drury..... Straus..... Brophy.....
- 16—Walpi is the name of an Indian village in the reservation of the— Papago..... Navajo..... Paiute..... Hopi.....
- 17—Most conspicuous cactus on the landscape in Arizona is— Saguaro..... Cholla..... Prickly Pear..... Bisnaga.....
- 18—Chief product of the mills at Geneva, Utah, is— Copper..... Magnesium..... Lead..... Steel.....
- 19—To reach Jacob's lake you would take the road to— Zion park, Utah..... North rim of Grand Canyon..... Taos, New Mexico..... The White mountains of Arizona.....
- 20—Roosevelt dam was built to impound the waters of— Gila river..... Bill Williams river..... San Pedro river..... Salt River.....



Sierra club bikers on the Buckskin mountains overlooking Bill Williams river north of Parker, Arizona. Photo by Dick Freeman.

High Upon a Desert Hill

By WILLIAM CARUTHERS
Ontario, California

If you'll give me a desert trail that leads to
God-knows-where,
I'll find some twisting canyon's end and spread
my blanket there.
I'll give to you the brick-lined gorge and danc-
ing neon lights
If you'll give me the big still skies and silvered
desert nights.
I'll give to you the fevered thrills, the salvos
and the gain;
I'll let you beg a free man's chance and get a
master's chain.
If you'll give me a yellow road with rusty hills
beyond,
I'll find the altars of the gods that bless a
vagabond.
I'll let you pay a Christian's tithe to call your
soul your own,
And get instead, a pagan's dole and gnaw a
meatless bone.
But not for me the vassalage, the Gods of Grab
design,
For high upon a desert hill, all this world is
mine.

• • •

SIREN CALL

By NELL MURBARGER
Costa Mesa, California

There's gold, yellow gold,
In the streams and the mountains;
There's gold in the rocks and the sand;
There's gold in the desert—
The cactus-bound desert —
There's gold in the frigid Northland.
There's gold in the jungles—
The serpent-filled jungles—
There's gold at the mighty earth's core;

There's gold where the snows
Of one winter descend,
On the snows of the winter before.

There's gold, precious gold,
That's been steeped in deep crimson,
The blood of adventuresome men,
Who fared forth, full of courage,
Determined to conquer,
And paid with their lives for it, then.
But there's gold—yellow gold—
That's still free for the taking,
And somehow it beckons me on . . .
So I'll load up a pack
On the back of my burro,
And be off on the trail with the dawn!

• • •

NEW HORIZON

By KITTIE RISTINE
Galveston, Texas

What joy possessed the starving soul,
When it found both meat and drink,
In the nourishing air of the desert rare,
In a place where man could think.

How fast, grew the beat in the aching heart,
Unfettered, at last, and free,
Free to expand in a spacious land,
In a land where man could see.

How soon came a vision and courage
To that spirit, bleeding and worn,
Worn by the strife of a workaday life,
Where seldom a hope was born.

Ah, such ecstasy, vigor, and courage,
The desert alone could give,
It gave in full measure, its natural treasure
To man, and again he could live.

For peace had come, to that shattered soul
Which had found life hard to face,
As it found repair in the nourishing air
Of God's great open space.

DESERT IMPRESSIONS

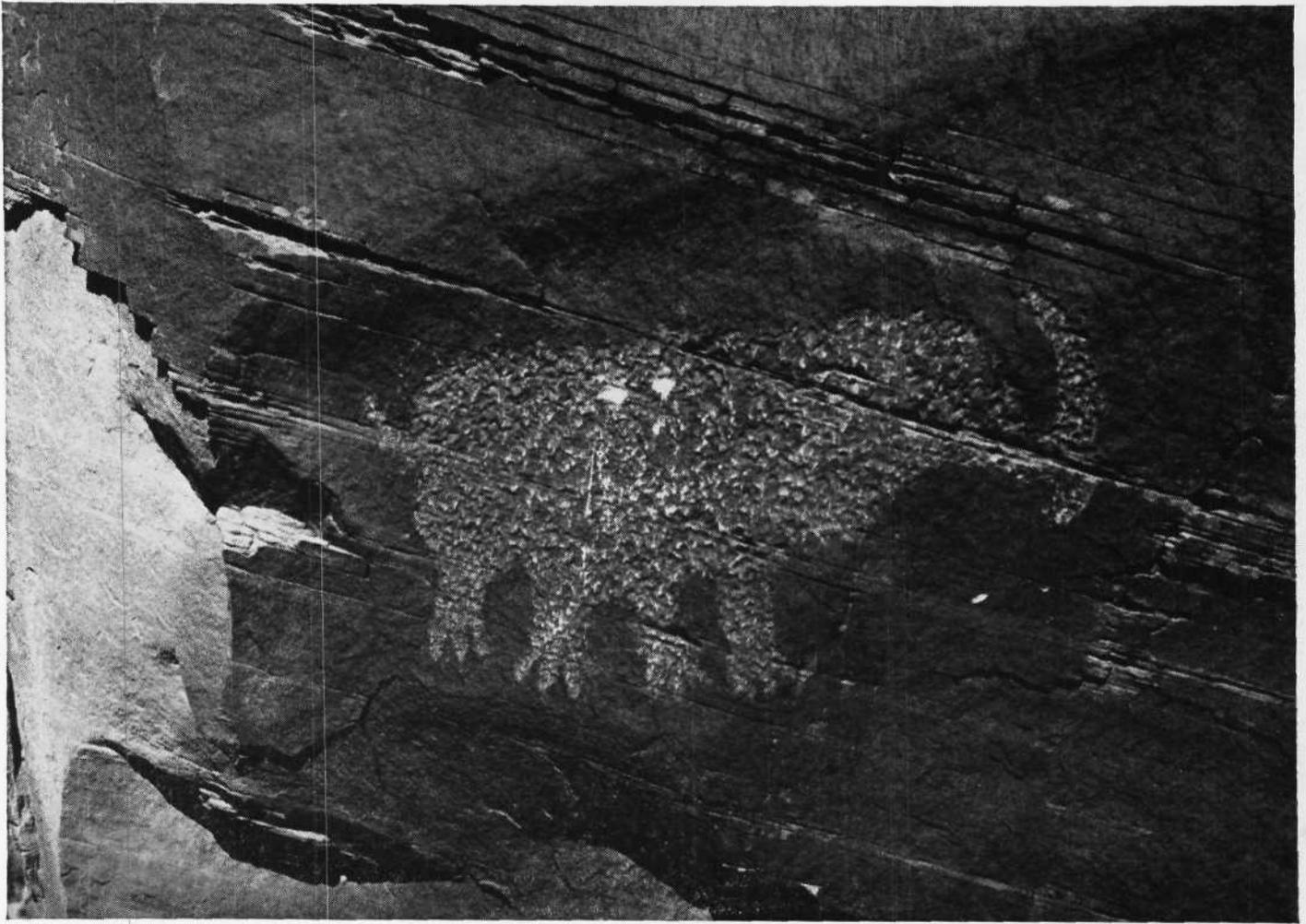
By CHARLES V. POWER
Desert Hot Springs, California

Out on the desert where the sun sets red,
Got a rock for my pillow—sand for my bed.
The whine of the wind and the coyote's call
Are the vagaries of nature—I can't sleep at
all.
There's the hoot of the owl—the rattling snake,
An' I know it's not fever that makes my
knees shake.
The mosquitoes, the ants, and the pestiferous
bats
Put bumps on the spots that were missed by
the gnats.
There's no water here when I suffer with thirst
But get me right neighbor—that wasn't the
worst;
It came just at daybreak when I first closed my
eyes
It was the glare of the sun in the bright des-
ert skies.
It was a beautiful spot—but I wanted to roam
And that's why I took—the shortest road
home.

YOU STILL ARE YOU

By TANYA SOUTH

Laugh and feel merry! Grief and sorrow
Will still await you on the morrow,
Never fear. Laugh and feel free!
The bars of Destiny shall be
Still there, howe'er your spirit soars
To farthest heights and lands and shores.
Whate'er the evil luck you drew,
Whate'er the terror, pain or hate,
You still are *you*, vital and warm,
Alive, aware, filled with desire!
With hope that shall outlast all storm,
And wing you higher!



The Moab mastodon, incised in a cliff along the Colorado river raises an unanswerable question—What did the Indian artist of long ago use for a model?

Mastodon of Moab

Deep in the canyon of the Colorado below Moab, Utah, there is a strange carving of an extinct mastodon, placed there by an Indian artisan whose people left numerous other evidences of their passing. Although only a few miles from a traveled highway, these relics are seldom visited. Beej and Paul Averitt who have paid many visits to the desert country of southeastern Utah, here record the results of an interesting expedition.

By BEEJ and PAUL AVERITT

WE ARRIVED at the mastodon carving at noon, and after rubbing our fingers inquisitively across the roughened surface, relaxed in the shade of a juniper to eat and to study its crude outlines. Here, unquestionably, was an authentic, primitive carving of an extinct animal—an eerie tie with the past that conjured visions of a period when monsters and reptiles roamed prehistoric forests.

We had been on the trail of the Moab glyph since our first visit to southern Utah several years ago, but in spite of the most persistent inquiry had never been able to obtain directions for reaching it. Except,

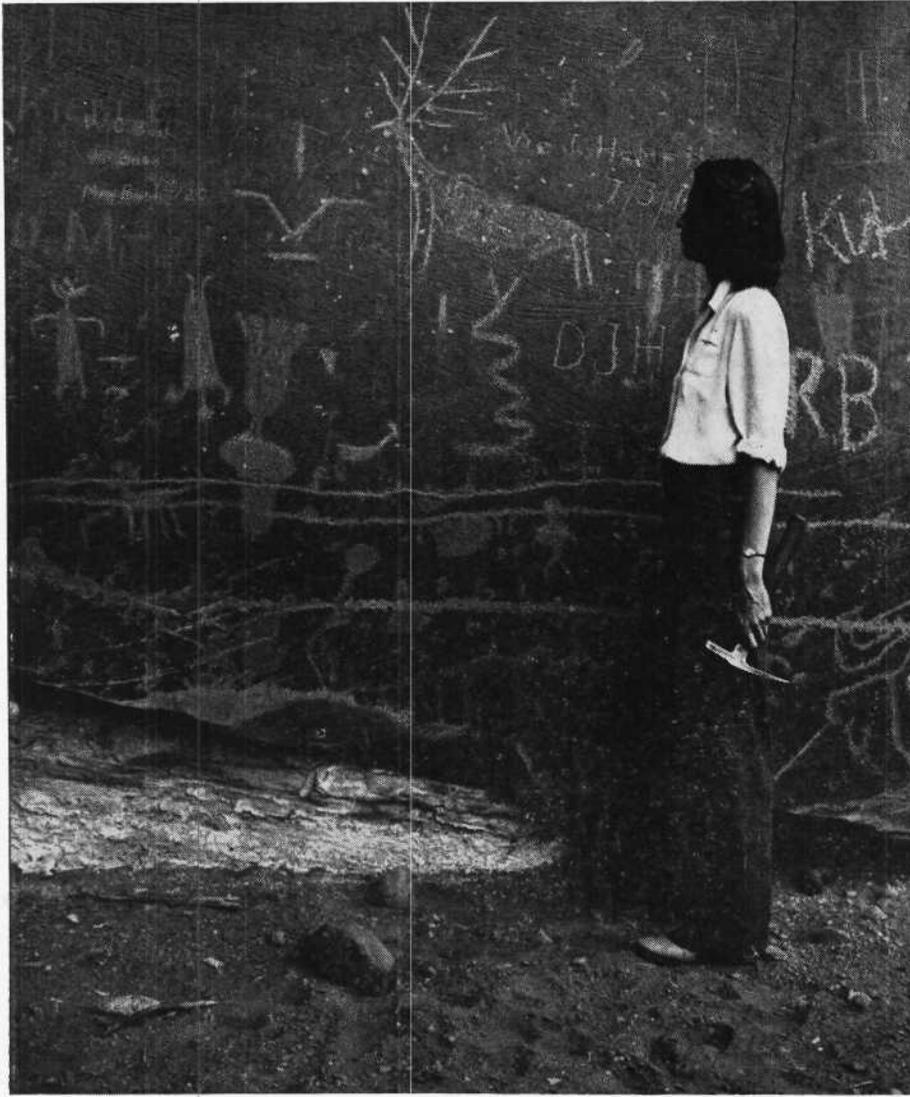
of course, for the typically vague statement, "It's several miles down the river and up on the cliffs left-handed."

So, we had very little to guide us as we drove into Moab one afternoon last fall. The sun was just setting behind the massive orange and red cliff that borders the Moab valley on the west, and we stopped a moment to watch the shadows rush across the valley floor and climb up the flank of the snow-capped La Sal mountains on the other side. Winding across the valley in a graceful sickle-like curve was the young and vigorous Colorado river, here strangely out of place in a pastoral setting. At the end of the curve the river surged through

a yawning portal in the middle of the cliff and disappeared from view in tortuous canyons. With the sun setting behind it, the portal loomed invitingly as the entrance to a bright and colorful land.

In town after dinner we looked up Wayne McConkie, to whom we had been referred as the local authority on the natural history of the Moab region. He grinned understandingly at our rush of questions, and when we had subsided, produced the stub of a pencil and started to draw a rough map on the back of an old envelope. As we had anticipated, the trail he sketched began at the portal and continued down the canyon. As the sketch grew Wayne warmed to his work and inserted directions for locating several hidden granaries, an interesting collection of petroglyphs, and finally, the mastodon carving. All of this, we subsequently discovered, was neatly compacted into a short distance of two miles in a setting of majestic beauty. Although immediately accessible by car, the trail to the mastodon carving is off the line of tourist travel, and the Indian relics have not been damaged by vandals.

We started in a thin, early-morning sun that threw long black shadows across the



Beej Averitt wishes the vandals had not defaced this panel of ancient petroglyphs.

valley floor. The air was crisp and still, and the giant cliffs seemed only a short distance away. The road to the portal begins where U. S. Highway 160 makes a right angle turn in downtown Moab, and at the start is simply a southward extension of Main street. After leaving town it crosses two small streams, and then turns northwestward along the base of the cliff. The end of the road, which is 2.4 miles from the turn-off on U. S. Highway 160, is marked by a terminal loop that affords parking space for several cars.

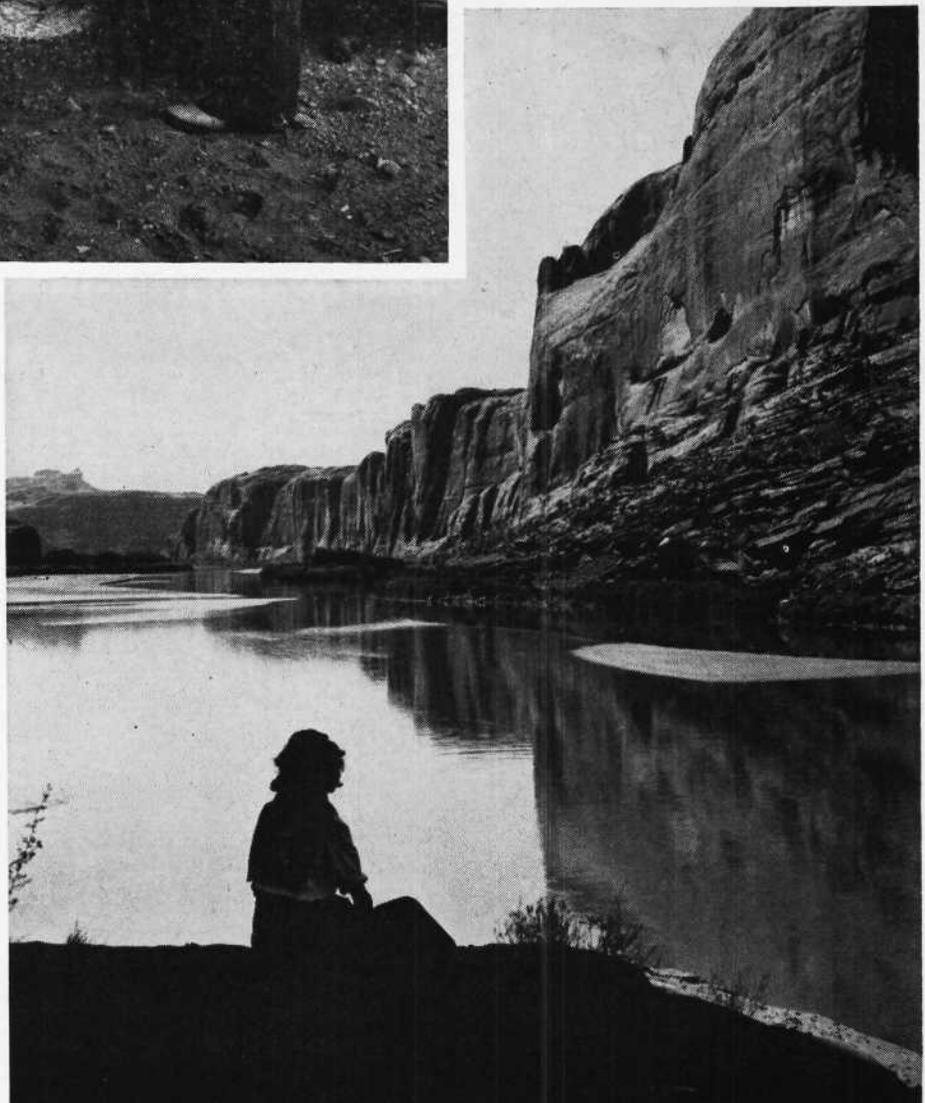
Continuing on foot on a well-traveled horse trail that takes off from the end of the road, we soon rounded a point and turned into the portal. Now we were submerged in the cool gloom of the canyon. In the distance the top of the cliffs was rimmed with morning sunlight, which here and there was beginning to seep down the sculptured walls in fantastic patterns. And just ahead a tiny patch of blue gleamed under a stubby natural arch high on the cliff across the river. The trail undulated over ledges and talus slopes, now

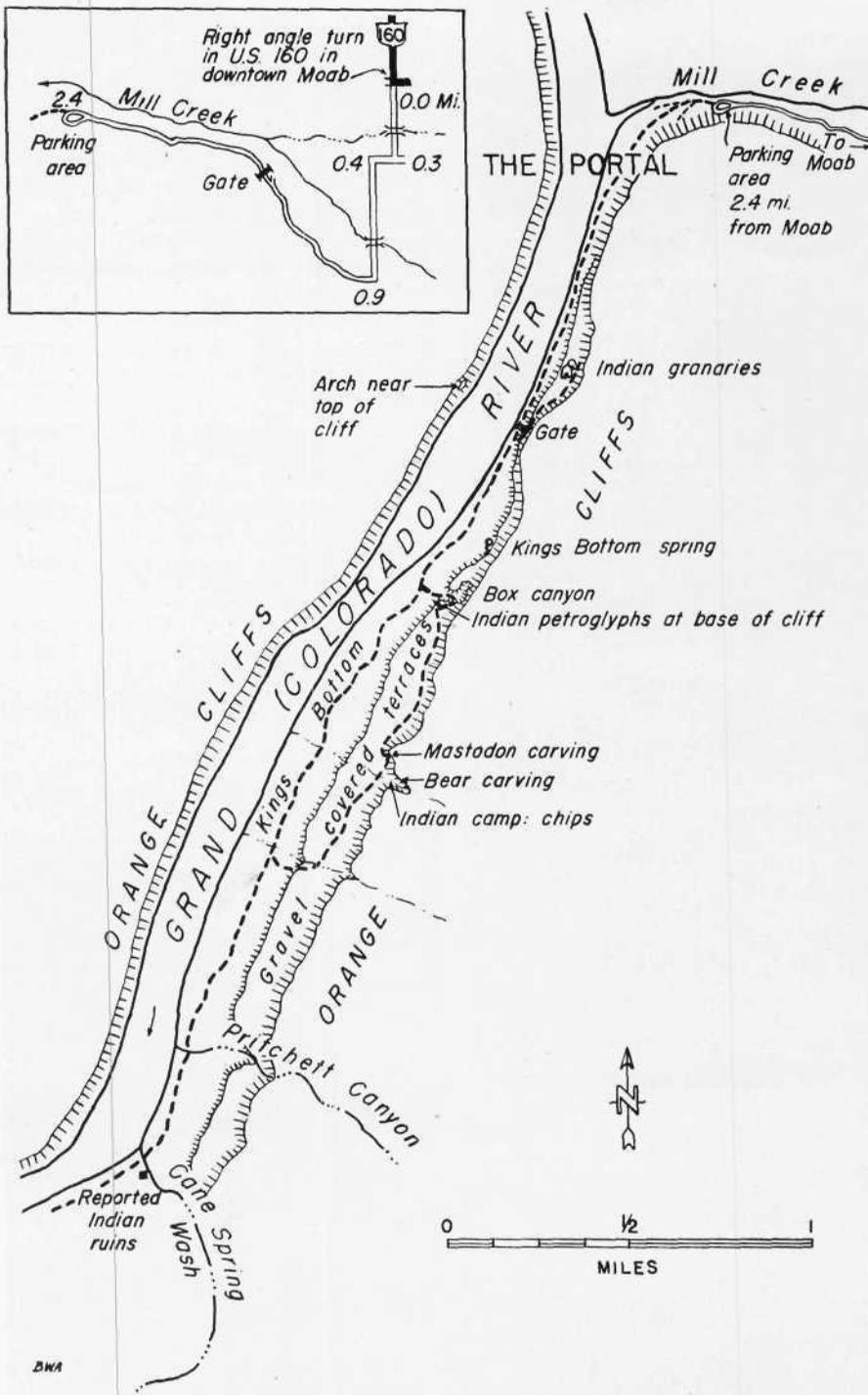
climbing as much as 150 feet above the river, now disappearing in the narrow forest of cottonwoods and rabbit brush that hugged the water's edge.

As the morning was yet young and the air cool, we resolved to deviate from our main objective and include the Indian granaries in the traverse. According to the pencil sketch provided by McConkie, these were hidden in a niche under a particularly prominent ledge overlooking the river. This ledge, fortunately, sloped down and intersected the river trail at a point opposite the natural arch, and upon reaching it we doubled back on our tracks, following the ledge instead of the trail. It was an easy climb up the flat sloping surface, though the way was obstructed locally by great piles of slumped boulders, individually as large as automobiles. One felt quite small scrambling through and over these monsters.

As we ascended we took advantage of every opportunity to drop over and explore the zone just below the main ledge in order to avoid any chance of missing the

Looking down the Colorado from the river trail below Moab.





granaries. But in the end we almost missed them, for at a point about 300 feet vertically above the river where a promising bit of a ledge jutted out just below us, the descent could be made only by jumping down about five feet while overlooking the entire 300-foot drop to the river. After considerable debate we took this exhilarating leap, and were immediately rewarded.

Tucked in under the overhang of the main ledge were three granaries in various stages of preservation. The largest, which excited immediate admiration, is as fresh and clean as the day it was built. It is nearly circular with an inside diameter of about six feet, and the inside walls are lined with smooth, flat slabs set in a plaster of mud and ashes, which still render it nearly ro-

dent proof. Here and there, especially around the tiny entrance, finger prints may be observed in the plaster. These, somehow, engendered a feeling of warmth and friendship for the hunter-farmer who built so well.

Climbing up on the main ledge again, we back-tracked to the river trail, and continued the traverse downstream. At King's Bottom spring, in a setting obviously chosen for its beauty, we passed the ruins of an abandoned homestead, and a short distance beyond came to a small box canyon, the entrance to which was guarded by a grove of ancient cottonwoods. Here, on a provocatively smooth, vertical sandstone cliff at the right of the entrance was a very good panel of petroglyphs, somewhat

edited to be sure, but completely legible.

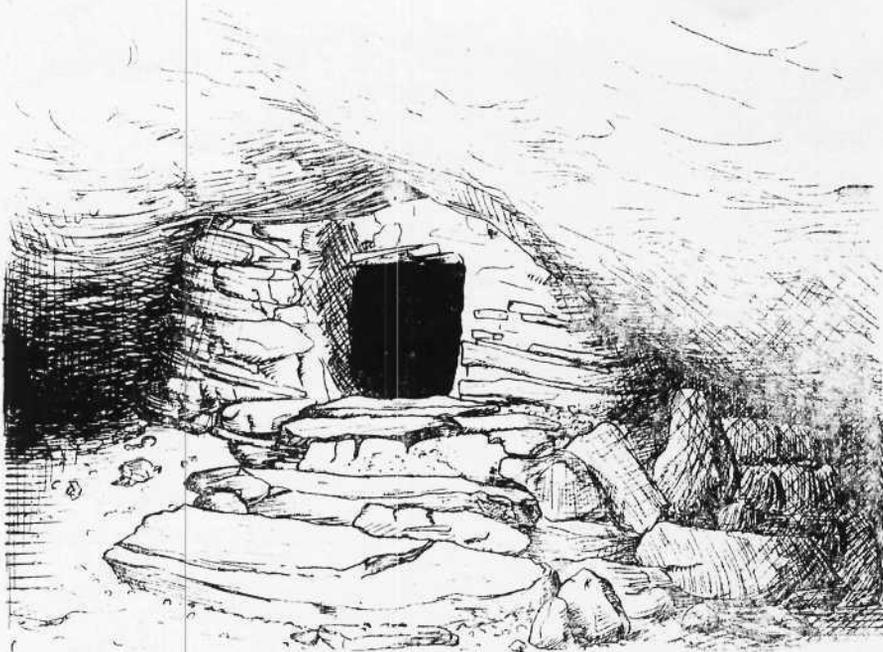
To reach the mastodon carving one may abandon the river trail at either of two points. We took the most direct route and turned into the box canyon. Before we had gone 100 yards it was apparent that the vertical walls were closing in just ahead, and the route continued up one wall across a slick, water-scoured surface, and over a series of step-like ledges. Following the line of least resistance we emerged shortly on a broad, gravel-covered terrace about 150 feet above the river flats.

This terrace extended uninterrupted for several miles downstream, and formed a mighty step on the side of the canyon. On one side was a vertical drop to the river flats. On the other rose impassable sandstone cliffs, which had been weathered into an endless variety of columns and spurs. It was difficult to believe that in the distant past the Colorado had flowed across this high gravel surface, but the evidence was unmistakable. Every pebble was smooth and water worn, and among the many varieties present was the peculiar speckled grey trachyte from the La Sals, and beautiful chalcedony and flint nodules that occur typically in tributaries of the Colorado upstream.

Hugging the cliff on our left and following a faint deer trail, we headed downstream on the terrace. In about ten minutes we reached the most prominent spur in the distance, which was readily identified as the one we sought by the presence of numerous petroglyphs. The mastodon carving, however, was not immediately visible. We searched frantically, and found it finally in plain sight on a flat surface facing downstream.

The mastodon figure, which is about 14 inches high, had been incised in the sandstone by many blows from a pointed instrument. All of the pick marks were clearly visible, and contrary to what might be expected, the figure was not badly weathered. It appeared that the Indian artisan was trying to depict some one of the elephant-like animals that were contemporaneous with early man on the North American continent, but it is equally true that his model was not a living animal. In the first place, his figure has toes, which certainly never were observed on a living specimen, and the amount of weathering the figure has undergone does not suggest great antiquity. It is more likely the artisan was copying from memory some older carving he had seen, or had been told about. Or possibly the story of the huge beasts, told in accompaniment to crude sketches drawn in sand before many generations of camp fires, as part of the folk-lore of his people.

Following the base of the cliff from the mastodon carving into a small amphitheatre, we passed numerous other petroglyphs, including a small, faint bear. In the sand nearby were numerous white



Author's pensketch of one of the Indian granaries. With slight repairs it could be put back in use.

Hard Rock Shorty of Death Valley . . .



"No, ma'am, I wouldn't give one corner o' this here desert for a whole forest o' ferns an' evergreenery. Not me!" Hard Rock Shorty was addressing his remarks to a persistent young lady in slacks who obviously was amused by the odd "character" she had found on the porch at the Inferno store.

"Why take one little item," continued Shorty. "The mos' interestin' vegetable in the hull kingdom is this here jumpin' cactus."

"Does it really jump?" one of the tourists asked.

"Does it jump! Why o' course it does! Better'n Mexican jumpin' beans."

Shorty gazed thoughtfully at his corncob pipe.

"You should o' seen the pipe I made outa a joint o' that cactus. That was onct when my ol' corncob wore out just when our stock o' corn cobs wuz gone. I wuz walkin' along thinkin' how to git me a pipe when I come to one o' them chaw-ya bushes, and one o' the joints jumped out at me. Quick as a flash I seen the likeness between a corncob an' a joint o' that cactus. It wuzn't no time 'til I hollered it out and fitted it onto

the stem—an' it made as good a pipe bowl as yu ever seen.

"Wal, ma'am, that pipe was jes like one o' them magnets. All I had to do wuz reach out an' that durned cactus joint'd jump right into my hand. Trained good too. Jumped further an' further the more practice it had.

"But they wuz one drawback. No'm it didn't hurt my hand. I got plenty o' callouses workin' over in my gold mine. But the pipe would jump at my ol' chuckerwaller houn' whenever it came sniffin' around.

"A chuckerwaller houn'? Wal, that's a special built dog. Yu see he has one fang long and sharp so he can puncture a chuckerwaller when it runs into a crevice in the rocks and blows itself up. An' his nose has t' be extra sensitive—so o' course he couldn't have no cactus jumpin' at him. So, on account o' my ol' houn' I had t' git rid of that pipe as soon as some corncobs come in.

"But I like t' go out an' watch them cactuses jump around. Especially when it gits hot. On them warm days they jump around on the ground like a litter o' kittens—if it's hot enough."

chalcedony chips, evidence of a former campsite of considerable size. We spent almost an hour searching for artifacts, and were rewarded finally with a fair arrow point. This site, we thought, would be a good one to explore at greater length.

Leaving the campsite we continued downstream on the terrace towards a point where the cliff overlooking the river flats appeared quite low. Here we found several easy means of descent to the river trail. So, reluctantly, as the sun dropped behind the canyon wall we turned towards home. As we passed the King's Bottom spring on the back trail, we stopped at the ruins of the old homestead, and for a few moments indulged ourselves in a magnificent plan for its reconstruction and alteration, for after all this might be the spot we would return to.

. . .

PROMOTED . . .



William E. Warne, a Californian, and a veteran of the Reclamation Bureau, where for more than three years he has been assistant commissioner, has been appointed Assistant Secretary of the Department of the Interior. On Secretary J. A. Krug's recommendation, President Truman sent Warne's nomination to the senate where it was confirmed.

Raised on an irrigated farm in the Imperial valley, Warne graduated from the Holtville, California, high school and the University of California at Berkeley in 1927. He worked on newspapers in Brawley and Calexico and for the Associated Press in Los Angeles and San Diego before going to Washington where, in 1935, he joined the Reclamation staff as an editorial assistant to the late Dr. Elwood Mead, then commissioner, who was also a Californian.

WHEN THE INDIANS DANCE... at Gallup

IN THE Pueblo of Jemez in New Mexico there is intense activity in the early days of this month of August. From old trunk lockers and boxes the young men of the tribe are bringing forth colorful costumes and beadwork and feathers—and last but not least the rawhide covered hoops with which in perfect rhythm they perform one of the most graceful dances on earth.

For August is the month of the grand fiesta—the annual Inter-Tribal Indian Ceremonial at Gallup, New Mexico, and

the hoop dancers must vie with the fire dancers of the Navajo, the devil dancers of the Apache, and the pottery maidens of Acoma, for the plaudits of the thousands of *Bilakana*—the white folks who will throng the great amphitheater where the dance festival is held.

The Taos Indians will be there—in costumes that combine the beauty of both plains and desert Indians. The Navajo medicine men will come to perform their weird magic. There will be the buffalo dancers from Acoma, eagle dancers from

Laguna—every tribe will have its representatives, in costumes that are a source of wonder and envy to Hollywood.

This year's ceremonial is to be held August 14-15-16-17. On Friday, Saturday and Sunday there will be daily parades through downtown, and each evening the grand spectacle is presented before the grandstand.

For the information of those who may want to witness the Ceremonial this year, the following data has been furnished by M. L. Woodard, secretary of the association which sponsors the event:

For hotel, motor court, pullman or private home reservations write to Miss Patricia King, housing chairman, Inter-Tribal Indian Ceremonial association. The policy of Gallup is to charge regular rates for accommodations, although full capacity rates may be assessed for quarters not fully occupied. Pullman berths will be available at a charge of \$3.50 for one person in a lower berth or \$4.00 for two. Upper berths are \$2.50.

Admission to the grandstand for each program is \$2.50 for adults, \$1.25 for children. Reserve box seats are \$3.00 and \$3.50. A general admission ticket also includes admittance to the Exhibit hall where all manner of Indian crafts are on display and may be purchased. Admission to the exhibit building is 25 cents for those not holding grandstand tickets.

A tip for visitors: Accommodations are more plentiful on the last evening of the program, Sunday night, and the last show generally is one of the best in the Ceremonial.

Gallup has an elevation of 6514 feet and enjoys the mild summer temperatures of the plateau region. It is a rare day when the thermometer goes over 90 degrees and the nights generally are comfortable.

The Ceremonial association invites visitors to take pictures, both daytime shots of the parade, and flashes of the dancing events at night. And since this is one of the few opportunities a photographer has to secure pictures of the Indians in full regalia most of those who attend bring their cameras.

It is said that within a radius of 400 miles of Gallup there are more Indian reservations, national parks and monuments than in any other area in the United States of similar size.

The ancient tom-tom still sounds at Gallup when the Indians from all over the Southwest assemble for their annual dance festival, sponsored by the Inter-Tribal Indian Ceremonial association. This aged drummer is a member of the San Ildefonso pueblo, located near Santa Fe. Photo, courtesy New Mexico State Tourist bureau.





Sylvia and "Slim" Winslow in the Turtle mountains of California. Their pickup has been outfitted not only to carry camp and artist's supplies, but serves as sleeping quarters at night.

LETTERS . . .

Arch Was There—But No Gold . . .

Bodfish, California

Dear Mr. Henderson:

Ever since reading Walter Ford's story about the Lost Arch mine (Desert, Nov. '44) we have wanted to go into the Turtle mountains and paint and explore. A few weeks ago we did just that, and thanks to Desert Magazine we saw some wonderful country and did some exploring on our own.

After what seemed like endless driving along old jeep trails we found the road that led into Mopah springs where the two palms are located. We had a lovely camp under two palo verde trees, a quarter of a mile from the spring. We followed a dim trail to the palms. They stood side by side like twin sisters holding hands, and below them a tiny pool of what proved to be excellent water. My husband cleaned it out and removed the largest scorpion I have ever seen.

One day we took the long hike to the Lost Arch. We found the lone Saguaro tree pictured by Ford, but its broken and splintered trunk lay on the ground. I wondered how a Saguaro came to be growing so far from its native habitat, only to be splintered by machine gun fire—for that is my husband's version of its fate. We stood by the fallen giant in reverence, feeling helpless to prevent the slow death that was enveloping it.

Nearby was the gem field John Hilton had found, and then we climbed the slope to the arch—but did not find the gold

which legend has located in this area. Later we tried to find the road that leads in to Castle butte among the maze of trails left by army vehicles. When we finally located what appeared to be the main trail, it led to an old target range. But we found some very pretty flower agates.

SYLVIA WINSLOW

Who Wants Ornamental Rock? . . .

Darwin, California

Desert Magazine:

I am appealing to you as the one probably most qualified to give me information concerning the most reliable markets for "beauty" rock and possible gem stones. My partner and I have taken a lease on some copper-silver-gold property near here, and the type of ore is such that it seems a shame to ship it all to the smelter. I used to be in the garden masonry business, building retaining walls, fish ponds, fireplaces, etc., and have traveled many miles to find ornamental rocks that hardly approached the beauty of much of our ore. It is a hard quartz highly impregnated with bornite, malachite, chrysocolla, azurite, hematite, the mixture being best described as "Christmastree-ite." Now and then we run into bunches of jewelry rock, and specimens worthy of mineral display. We intend setting the best of this aside for sale to such collectors as will give us a fair price. I would rather ship all of it to some wholesaler in the ornamental rock business than see it melted up for its metal content.

We will appreciate an early reply to this, as we expect to start ore shipments soon, and have nearly a carload out as it is. Out of the ten carloads or more in sight we could sort a few truckloads for the ornamental market, and several hundred pounds of material suitable for gem-cutting. All of the coloring in the ore appears as solid crystalline substances and not just stains. We will be glad to send you some samples for your own specimen shelves.

WILLIAM M. McKEEVER

NOTE: Messrs. McKeever and Ditmore are miners—not mail order dealers. Hence they are interested only in wholesaling their material.

—Editor.

Water in the Barrel Cactus . . .

Los Angeles, California

Dear Editor:

In regard to L. B. Dixon's letter which you published in the June Desert Magazine, in which he discounts the idea of getting water from Bisnaga cactus: I would suggest that he read *Campfires on Desert and Lava* by Wm. T. Hornaday. Pages 217-218 give a very accurate account of the Bisnaga or barrel cactus.

I can truthfully say from experience that the water contained in the barrel cactus has saved the lives of many a desert wanderer.

J. O. OSWALD

Rights of the Indian . . .

Santa Ysabel, California

Dear Mr. Henderson:

In the article "Tsianina Speaks for the Indians" in the July issue of Desert, Hope Gilbert quotes Tsianina as saying:

"Not one of the Indians (reservation Indians) may sell a cow, bequeath property, hire a lawyer, go to court, or engage in any kind of business without express permission from an agent of the Bureau."

I must take issue with this statement. The Indians who have organized under the Act of 1934 (the Wheeler-Howard bill) are authorized by Congress to perform all the aforementioned acts without permission of the agent, except to hire a lawyer (and that, my 40 years' experience in defending Indian rights, tells me is a very wise prohibition).

Furthermore, it is not correct to state that "the effect (of the Indian reorganization bill) has been to regiment them even more completely under the paternalistic thumb of the Indian Bureau." Where such "thumbing" occurs, it is nothing else but usurpation of power by local officials, against the rulings of the Act. To this same disregard of the Act must be attributed the saddling of too many government employes on the Indians.

The Act does emphasize segregation as Tsianina asserts, but this segregation does not make a concentration camp of the reservation, but rather it gives effective back-

ing to the Indians' plea: "Please stranger, keep off my property and let me run my house the way I want."

Finally, the phrase "to force upon them a collectivist system" would seem to imply that the U.S.A. is trying to make a Soviet out of the Indian community. But this is not at all the case. The collectivism of the Act is only in the matter of title-in-fee to the land. The title-in-fee to all the lands of the community is held by the government in trust for the community. But the individual member has the exclusive right to use the land occupied by him or her. This is tantamount to a title-in-fee without the right to sell or lease to anyone outside

the community. The reason for this restriction is that since everyone in the community is the owner, the consent of every member would be needed to alienate the land.

This idea of land ownership did not originate in the mind of John Collier, but embodies the concept all major Indian nations, who practiced agriculture, had, ages before the White man approached these shores.

It is the full observance of the provisions of the Reorganization Act of 1934 that will give the Indians, in the words of Tsianina "the right education to live as a free citizen, responsible for the conduct

of his own affairs . . . and let him grow up and take his rightful place in the land of his birth."

FR. BONAVENTURE OBLASSER,
O.F.M.

Let's Forget the Palms . . .

Three Rivers, California

Sirs:

We are all hoping that Randall Henderson will get all the palms counted pretty soon. It's getting to be the part of the magazine that is a waste of good newsprint, and could be used to good advantage for anything else, as there are many of us who don't give a darn how many palms there are in a wash. But I still think it is a good magazine so don't let me miss any copies.

L. P. JORDAN

Maybe you've got something there, partner. Anyway, if things go according to schedule I am going to give the palms a recess while I spend a month in a boat with Norman Nevills counting the rapids in Grand Canyon. I'll tell you about it later. Maybe it'll be more exciting than palms.—R.H.

Fetishes for the Medicine Men . . .

Guam, Guam

Dear Mr. Henderson:

Some time ago I read in Desert the Indians over in Arizona needed a few bones of fallen enemies to make some dance or ritual authentic.

Today I came across a lot of Jap bones in good order. I could send some if I knew where to send the things. If you figure they want them please send your reply air mail as ship sailings are infrequent.

F. D. O'KEEFE

Protection for Agua Caliente . . .

Riverside, California

Dear Mr. Henderson:

After the Agua Caliente article in your last issue, people will be flocking there as they did to the healer at Palm Springs!

Marshal South says that a movement is now in progress to grab this wonderful place. Such a movement was under way at Corn Springs years ago, but August Lederer and his prospector friends put a stop to it by writing to Washington and getting it made a water preserve. Surely you and your friends have more influence than half a dozen prospectors.

Won't you please save this place? I have not seen it yet, and I do not want to go there and be confronted by a NO TRESPASSING sign. In case it is being taken over by a party who is not a G.I., I think a G.I. has prior rights and can bump him off. In that case, get Paul Wilhelm to bump him off. He'll need a place to go, anyway, when he sells those Palms.

H. E. CARTER

Friend Carter: I am glad to assure you Uncle Sam has taken steps to protect Agua Caliente for the public.

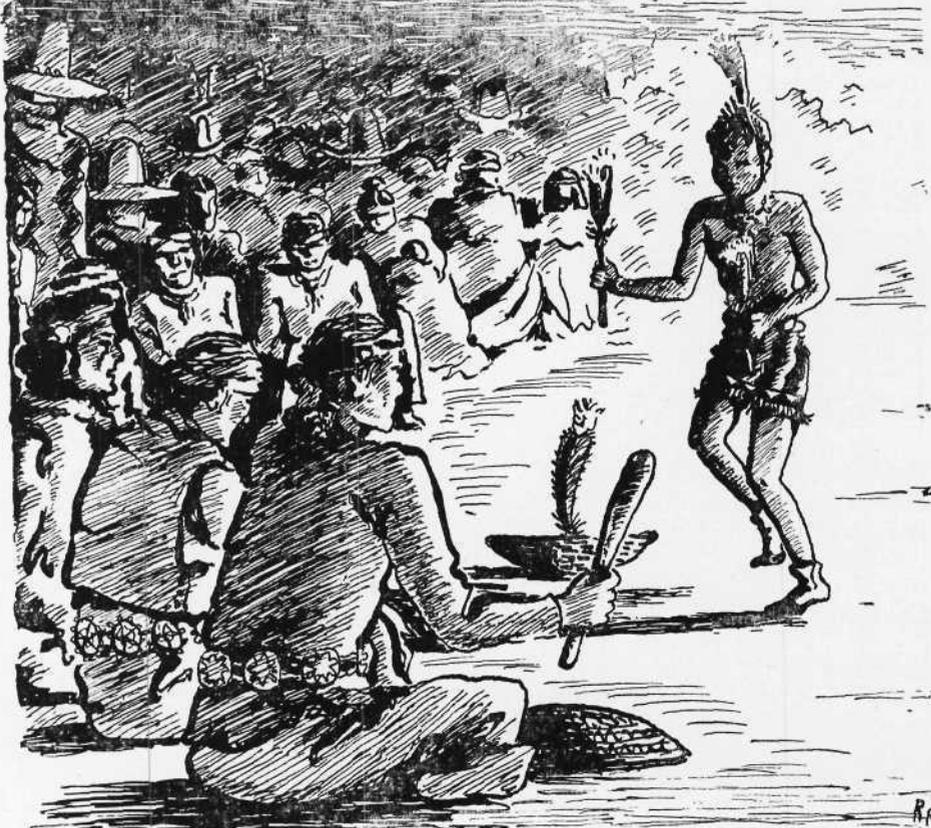
—R.H.

YOU ARE INVITED!

**Inter-Tribal Indian
CEREMONIAL**

AUGUST 14 - 15 - 16 - 17

GALLUP, NEW MEXICO



Mines and Mining . . .

Yuma, Arizona . . .

John Fay has reported a gold strike just outside Yuma city limits and 700 yards from Highway 95, with ore assaying \$44.80 a ton across a four-foot vein. Fay, 61-year-old manager of Fay Mining company, says that for nearly two years they have been following a stringer varying from six inches to a foot in width and averaging \$20 a ton. At the 105-foot level the big vein was encountered. Fay plans to erect a 25-ton mill at the mine. He spent many years digging barren holes on his Yuma claims but feels that finally he has hit it. "I've got a paved road, power line and railroad running right beside my mine," he said. "I've found plenty of water for my mill and the city of Yuma will be my camp."

Bishop, California . . .

U. S. Vanadium corporation has resumed mining operations at its Pine creek unit. Mine and mill operations were suspended last December 31, until new ore could be made available. Work on the company's tunnel under the main ore body is expected to reach its goal of 7000 feet in September and it is hoped that enough ore will be stockpiled November 1 to keep the mill running all winter. Jim Galloway is mill superintendent and Jack George assistant. The payroll will include 225 employees when full production is reached.

Pahrump, Nevada . . .

Jack Crowder of Bakersfield, California, is reported to have purchased the Johnnie gold mine 17 miles north of Pahrump. Installation of mine equipment and reduction plant is planned as soon as machinery is available. Water for milling is available. The Johnnie first was worked about 1892 and is credited with a \$3,000,000 production. Gold occurs in rich shoots in massive white quartz, which were mined by early operators. The old workings are said to contain substantial reserves of milling ore.

Goldfield, Nevada . . .

Location notices for 31 claims, covering the entire Goldfield townsite, have been filed by C. E. Collins, according to reports. The claims are said to be based on the allegation that there is an error in the original townsite patents, filed in the land office, which opens the town lots to filing as mineral claims. Mining excitement is a result of a reported rich strick by Newmont corporation in the old Florence mine. Efforts of the company to develop the rich streaks with a 60-foot raise from the spot values were found, have failed to cut ore. Development work is continuing.

Prescott, Arizona . . .

Discovery of a high-grade lead-silver ore body in the old Ruth mine, 7½ miles southwest of Prescott, is reported by Walter L. Smith, general manager of the Calan mining company. Two years have been spent by the company in driving a haulage tunnel through the Bradshaw granite at the mine, and the big vein was discovered 200 feet west of the tunnel objective. The management declares that there is sufficient lead for a long period of mining and that high-grade zinc occurs at lower levels.

Round Mountain, Nevada . . .

The Last Chance antimony property in Wall canyon, directly across Smoky valley from Round Mountain has been taken over by N. L. Brown, M. E. Niece and associates and the new owners have started driving a 125-foot tunnel into the ore. The deposit was acquired from Joe Bostain and Nick Porovich of Round Mountain. There is a 50-ton flotation mill, partly set up, and a power plant already on the property. A considerable quantity of the ore was shipped to Southern California for treatment some years ago, but the shaft from which it was taken has caved.

Tonopah, Nevada . . .

Al and Bob Montell, prospecting on the old Reed property in the Kawich range, 85 miles from Tonopah, found a large body of gold ore several hundred feet away from the original Reed discovery. The brothers obtained a lease from the Reed estate, but the discovery is on land embraced in the acreage of Tonopah army air field and they have been unable to obtain permission from army authorities to work the property. Original discovery was made by O. K. Reed, now dead, in 1902-1903. Gold then covered the surface of the outcrop, and was visible 40 feet away. Property is said to have sold at one time for \$60,000, later reverting to Reed.

Searchlight, Nevada . . .

Searchlight Mining and Milling company, operator of the Quartette mine, while doing development work 600 feet west of the old mine shaft picked up what is said to be the lost Quartette vein and has a shaft down 80 feet in milling ore. The shaft workings also have opened up a parallel vein 400 feet back in the footwall which at 35 feet in depth shows three feet in width of \$40 a ton gold and silver ore, according to Homer C. Mills, company president. Ore in both locations is free milling. Quartette has not been worked except in a small way during the past 40 years but was a big producer in the early days of the camp.

Lovelock, Nevada . . .

Iron ore for fluxing purposes is being shipped from the iron district south of the Humboldt airfield and 30 miles east of Lovelock, with a carload going out every other day. Assays show ore to be 68 per cent pure, but care must be taken to remove all ore with pyrites in order to avoid phosphorous. Mining is being done with jackhammers, blasting and hand loading, with workers sorting out the ore as they go. During the war large quantities of the ore were used to make an iron cement for ship ballast. Property belongs to A. N. Blair. Bill and John Cooney are doing the mining with Martin Gandiaga and George Cerini trucking the ore out.

Tonopah, Nevada . . .

Frank Burnham has purchased the deposit of Nevada wonder rock located 25 miles east of Tonopah and is developing a steady sale for the material. Former operators were Macy and Schole of Tacoma, Washington. Frank Trueba and Charles Joseph, locators, still retain a royalty interest in the deposit. The banded rhyolite is used principally as an ornamental stone for cement facing, patio work, fireplace and other finishings. It also is made into bookends, paper weights and other items. Burnham's future plans may lead to establishment of a large cutting and surfacing plant in Tonopah.

Manhattan, Nevada . . .

The 103 foot derrick and big boom used in construction of the big gold dredge which dug up Manhattan gulch has been reassembled and will lift the dredge from the pond. The dredge will be trucked piecemeal to Greenan placers, 16 miles west of Battle Mountain. Manager J. L. James stated that total gold production by the equipment in the gulch was \$4,500,000. No large gold nuggets were caught by the dredge but it did pick up one gold nugget stickpin and a number of silver coins, chiefly dimes. The four mile stretch worked once was spotted with settlements and cabins.

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Lovelock, Nevada . . .

The dust by-product of diatomaceous earth from the Chickbed company operations near Brady's hot springs, 40 miles west of Lovelock, is being used to manufacture bricks and blocks. The new material is known as Thermorock. President Otto Kohl of the Chickbed company declares the material has an insulating value 35 per cent greater than cork and that the bricks are light and eliminate damp and termites. The dust is being processed at Fernley, Nevada.

Washington, D. C. . . .

Representative Clair Engle, of California, announces that the treasury department has ruled that gold in its natural state can be freely bought and sold domestically. This according to Engle, means gold which has not been melted, smelted, refined or otherwise treated by heating or by chemical process. J. P. Hall, president of the Western Mining Council, Inc., explains: "This means, simply, that placer gold is exempt from the provisions of the Gold Reserve Act of 1934, and you can buy and sell it anywhere in the United States to anyone at any price you can get."

Goldfield, Nevada . . .

A gold nugget with value estimated at \$53 was displayed at Goldfield county courthouse by A. A. Goehring, who said he purchased it from an Indian named Lester Seepee who reportedly found it in upper Tule canyon. The specimen was 1 5/8 inches long, 1 inch wide and 5/8 inch thick and weighed 37 pennyweight.

Monticello, Utah . . .

Vanadium Corporation of America submitted the high bid of \$85,000 for the surplus vanadium oxide plant at Monticello, including 75 acres of land, 17 buildings and production machinery. Corporation was war-time lessee of the plant. No bids were submitted for the townsite area, but Mountain Lodge American Legion post bid \$1500 for one building, to be used for a recreation hall.

Winnemucca, Nevada . . .

The tungsten unit of the Getchell Mine, Inc., 55 miles northeast of Winnemucca, has resumed operations suspended in 1946 and is milling 400 tons a day. Ore is milled under contract for U. S. Vanadium corporation and comes from Riley mine. Work on Granite creek tungsten property of the Getchell company is being resumed and ore from it will be milled shortly. Tungsten operation is employing about 50 men. One gold unit of the Getchell mill, with 100-ton capacity, will open soon. Extensive development work on the company's gold property has been carried on during the mill shutdown, and a new ore body is reported opened.

HERE AND THERE . . . on the Desert

ARIZONA

Where the Yaqui Live . . .

TUCSON—Study of Yaqui community life at Potan, Sonora, will be continued this summer by Dr. Edward H. Spicer, associate professor of anthropology at University of Arizona, and his wife. Work was started in September, 1941, under a Guggenheim fellowship, but was interrupted by the war. It is being continued under the fellowship and a grant of the Viking fund of New York City. Potan is one of eight villages where Yaquis lived before emigrating to southwestern United States. Spicer, author of *Pascua: A Yaqui Village in Arizona*, is studying Potan for comparison with the Arizona village.

Mine Exploration Fatal . . .

PHOENIX — Three Glendale youths went into the desert seeking adventure in exploration of abandoned mines and found death. Bodies of Gordon Reed, 18,

Bob Holly, 17, and Bruce MacDonald, 18, were found in a 100-foot, 45-degree-angle tunnel of an old mine near the Carl Pleasant dam road. They had built a fire in the dead end of the shaft where there was no ventilation and were killed by smoke and carbon monoxide gas created by exhaustion of oxygen.

Seris are Friendly . . .

TUCSON—Traveling alone in a pickup truck, William Neil Smith, anthropology student at University of Arizona, has left Tucson to spend the summer studying remaining members of the Seri tribe of the Gulf of California and to collect art and craft work for coast museums. Seris have a bad reputation and once were rumored to be cannibals, but Smith declares his receptions on three previous visits have been warm and friendly. The tribe is among the most primitive in North America. Its headquarters at Tecomate on Tiburon is-

DESERT INDIANS . . . Photo Contest

Human interest pictures of desert Indians—the Hopi, Yuma, Navajo, Hualpai, Supai, Papago, Zuñi, Acoma, Taos, Pima, Cahuilla, or any of the many other tribesmen of the Southwest—and their occupations and activities—these are all subjects for the Desert Magazine's monthly photographic contest in August. They may be shown making pottery or weaving rugs or in their dances or in the field, or as close-up character studies. Nearly every photographer who has traveled the Indian country has pictures which will qualify for this contest.

For the prize-winning picture a cash prize of \$10.00 will be paid, for second place winner, \$5.00. For non-prize winning photos received in the contest \$2.00 will be paid for each one accepted for publication. Entries must reach the Desert Magazine office in El Centro by August 20, and the winning prints will be published in October.

HERE ARE THE RULES

- 1—Prints must be on black and white, 5x7 or larger, printed on glossy paper.
- 2—All entries must be in the Desert Magazine office by the 20th of the contest month.
- 3—Prints will be returned only when return postage is enclosed.
- 4—Contests are open to both amateur and professional photographers. Desert Magazine requires first publication rights of prize winning pictures only.
- 5—Time and place of photograph are immaterial except that they must be from the desert Southwest.
- 6—Judges will be selected from Desert's editorial staff, and awards will be made immediately after the close of the contest each month.
- 7—Each photograph submitted should be fully labeled as to subject, time, place. Also as to technical data: shutter speed, hour of day, etc.

ADDRESS ALL ENTRIES TO PHOTO EDITOR, DESERT MAGAZINE

THE *Desert* MAGAZINE
EL CENTRO, CALIFORNIA

land in the gulf, and at Desemboque on the mainland, 150 miles west of Hermosillo. Nearest doctor and school are 100 miles away. Tribe was estimated at 3000-5000 in pre-Spanish days, dropped to 150 eight years ago and is now increasing.

Verde Valley Landmark Gone . . .

COTTONWOOD — A landmark of Verde valley, the 430-foot stack of United Verde Extension Mining company smelter at Clemenceau, was scheduled for destruction on June 22 as a hazard to night flying. Smelter was closed permanently in 1937 when the company discontinued operations at Jerome. It was built in 1917 and during the 1920's 4,000,000 tons of copper ore were smelted there. One hundred holes were drilled into structure to receive 1400 sticks of dynamite.

Another Year to Live . . .

CLARKDALE—High price of copper will keep the mining and smelting towns of Jerome and Clarkdale alive for at least another year. Towns were scheduled to become ghosts this year with Phelps Dodge corporation announcing in 1946 that ore deposits had reached point where operation of Jerome mines would soon become commercially unprofitable. Copper shortage has extended the mining period, but some businesses already have been closed and structures torn down. Residents of the area hope for survival of the towns by developing the area as a recreation center. The district produced \$600,000,000 in copper between 1883 and 1944.

No More Gold Road Grade? . . .

KINGMAN—A new route for Highway 66 between Kingman and Topock, on the Colorado river, eliminating present twisting mountain curves and grades, is being planned by Arizona highway commission. The new highway budget allocates \$50,000 for surveys, plans and specifications for the new road. Long awaited improvement of U. S. 93, from Kingman through Wikieup to Highway 89 in Yavapai county also was scheduled. Budget provides \$50,000 for surveys, plans, specifications and right-of-way for U. S. 93, and \$1,000,000 for grading, draining and surfacing 53 miles of the road.

First Families of Cochise . . .

BISBEE—Investigations in Whitewater draw near Double Adobe unearthed evidence of Indians who lived in Cochise county 20,000 years ago, according to Carl Trischka, chief geologist of the Copper Queen branch, Phelps Dodge corporation. Bones of the small horse, extinct bison, llama and part of a human skull were found. Charcoal indicated ancient Indians used fire, and arrowheads made by rubbing stones together were found. Trischka believes the race came to America across the ice bridge of the Bering Straits and drifted to Cochise county where they lived until their sudden disappearance about 500 B. C.

Have a Grapefruit . . .

YUMA—Tourists in Yuma next fall will buy half a Yuma Desert grapefruit or a glass of Yuma orange or grapefruit juice for a dime in any cafe or lunch counter in town. Growers will provide transportation for their fresh No. 1 citrus products to town and keep costs low so the 10-cent price may be set. The idea was worked out by merchants, growers and the agricultural service to promote sale of Yuma-grown citrus products nationally by pushing them locally. At Kingman, the chamber of commerce and Arizona citrus growers have combined to present one grapefruit to occupants of each automobile going eastward through the checking station there.

Veterans will have 90-day filing preference, starting July 14, on 360 acres of public land in Pima county opened for home, cabin, camp, health and recreational sites. The land, 11 miles south of Ajo, is divided into 5 and 2½ acre tracts and will be leased on a five year basis. Water supply must be developed. Non-preferential filing opens October 13. Applications will be received at the district land office, federal court house, Phoenix.

Painted Desert Inn, 25 miles east of Holbrook on the rim of the Painted Desert, has been leased from the National Park service by the Fred Harvey company. The Inn has restaurant, museum and curio store, but no lodging facilities.

Renwick White, who edited and published the *Ajo Copper News* since its founding in 1916, has sold the paper to the Phelps Dodge Mining company, operator of the open pit copper mine there. New editor is L. T. Beggs. White founded the *Paradise Record* in a mining camp in Chiricahua mountains 41 years ago and has been in the newspaper business in Arizona since.

Arizona jackrabbits made short work of 167 young Oklahoma cacti recently planted at Papago Park desert botanical gardens. Taylor Marshall, garden director, surmised that Oklahoma jackrabbits must not be up to the Arizona brand in toughness of diet.

Schieffelin hall in Tombstone, one of the largest adobe structures in the Southwest is being reinforced with three buttresses along the auditorium wall. Built in 1881, the hall was for many years Tombstone's social center and the scene of road shows and light operas.

Barry Goldwater reports discovery of a natural bridge in the White Mesa between Tonalea and Inscription house.

Sells Indian reservation hospital, 30 years old, burned to the ground in June. Agency Superintendent Burge is in Chicago, seeking a new hospital for the Papagos.

On June 1, bullfrogs became legal game in Arizona. Hunting license is required and the bag limit will be 12 per day or in possession. Frogs can be taken day or night, during open season, but only spears or gigs may be used.

THE LOST DUTCHMAN

Fact or Fable?

Before spending any time or energy prospecting for The Lost Dutchman, or any other mine reputed to be in the Superstitions, send 25c for a copy of the April issue of *The Earth Science Digest*. In this issue is an article by noted mining engineer Victor Shaw which literally explodes the fable surrounding The Dutchman. He points out sound geological reasons why there could be no metallic deposition of any extent in this area.

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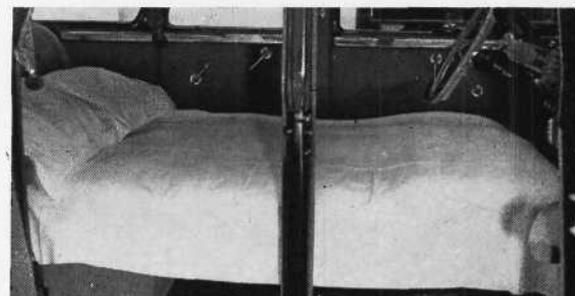
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CALIFORNIA

"Biggest Inch" Crosses the River . . .

BLYTHE—In sizzling June heat, steelworkers thrust the "biggest inch" natural gas pipeline across the Colorado river at Blythe. Sixty-foot sections of 30-inch diameter pipe were hauled and shoved into a cable network suspended between two 116-foot towers 1020 feet apart. Using a \$10,000 radium pill and eight foot strips of rubber-wrapped film, each weld was given a photographic check before the donkey engine hauled it into place. Reaching 1204 miles from Texas panhandle to Southern California, and costing \$60,000,000, the project is expected to be completed in September.

Almost Death Valley Again . . .

DEATH VALLEY—Persons reporting appearance of a horse and rider late in June in Artists' drive in Death Valley were believed to have seen a mirage. Ranger Charles Hempree and Murray Miller investigated and found Bill Musgrove, aged hand on Hidden Spring ranch. Searching for stray cattle, he had gone north instead

of south. Horse and rider had been without food or water for three days, except for drinks which Musgrove had taken at Bad Water and which had made him ill. Musgrove had a swollen tongue but otherwise seemed in good condition. The horse drank a gallon of water, refused hay and started hobbling home. He was loaded on a truck and taken with his rider to Furnace Creek.

Indian Decision Upheld . . .

PALM SPRINGS—United States supreme court has upheld right of Lee Arenas, Mission Indian to 94 acres of land adjacent to valuable Palm Springs residential area. Land was allotted to Arenas and his first wife by the Indian service in 1927. Arenas reportedly is receiving \$3000 a month from leases and rentals. He will gain full title to property in 1952. Twenty-three tribe members with similar allocations are expected to press claims for property rights as result of decision.

Battle of NOTS . . .

TRONA—Frank Cronyn of Trona, hiking in the Argus mountains, entered

the restricted Naval Ordnance Test Station area and found that the war wasn't over. He was captured by a Navy patrol and hustled by jeep to headquarters. Here he was grilled by naval intelligence officers and FBI men who questioned his reasons for being in the sector where navy is testing rocket weapons. Cronyn was held in custody overnight and not released until his account of the hike had been checked.

Jackrabbit Cooperative . . .

TWENTYNINE PALMS—Cooperative development of water for the 5-acre government lessees on three sections of land near here is planned by Charles Cotton, local well-driller and contractor. A corporation would be formed for each section to finance wells, pumps and pipe lines. Cotton also proposes to lay out the acreage in 80-acre blocks with 30-foot graded roads to serve all lessees. Investment by those to share in the project would be through the purchase of shares in the corporation.

"Happy" Sharp, the Old Man of the Mountains (Desert, May '45) who lived for many years at his roadside rock and relic shop on Highway 80 west of Jacumba, California, died of a heart ailment in Quintard hospital, San Diego, June 10.

San Gorgonio primitive area in San Bernardino national forest remains unchanged as the result of decision of forestry service not to alter boundaries of the area to permit installation of skiing facilities.

Frank Pace of the Naval Ordnance Test station at Inyokern reports discovery of a mammoth tusk fossil by workmen grading the "G" range area. Tusk was nine feet long, petrified and well preserved.

An auto, hitting a 40-pound lynx on the highway three miles west of Joshua Tree, near Twentynine Palms, was stalled by impact and struck by another car traveling in the same direction. One passenger was injured and several hundred dollars damage done to the cars.

Top army, navy and air force officials are considering recommendation that a new test center for long range rockets and other missiles be established near El Centro in Imperial Valley.

Pete Ogden of Blythe caught a 14-pound catfish in Reyno's slough near Ehrenberg on the Colorado river.

Rattlesnakes are reported out early and in numbers near Cabazon. Two hunters found and killed nine rattlers who were sunning themselves in a wash near Hall's grade, south of town.

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NEVADA

Brahmas Like Desert . . .

INDIAN SPRINGS — Walking X ranch, lying along the slopes of the Belted range and Timber mountain in Nye county, imported Brahma cattle from Texas last February. The hump-backed animals have taken so well to the desert that Hale and Calhoun, company owners, expect them to be desert range stock of the future. Brahmas not only thrive on desert vegetation, they can feed six to eight miles from water—beyond foraging area of most cattle—and still find their way unerringly to the springs when thirsty. Walking X ranch lies in isolated Forty-mile canyon country.

Rhyolite Owner Dies . . .

BEATTY—Norman C. Westmoreland, colorful proprietor of Rhyolite Ghost casino, died in Los Angeles in May. Westmoreland owned most of the old camp of Rhyolite and recently had offered his holdings for sale. Noted for his tall tales, Westmoreland was believed to be 64, although he had "official" papers with which he would prove to doubters that he was 85 years old. After his death, a man claiming to be his son, broke into Ghost casino and attempted to take over property against protests of Watchman Charley Meyers. He was persuaded to leave by Deputy Sheriff Bob Revert, and later disappeared.

Will Excavate Ruins . . .

BOULDER CITY—Excavations on the sites of prehistoric Patayan ruins in Davis dam reservoir area will start this fall under direction of Dr. Gordon H. Baldwin, national park service archeologist. In 1943 Dr. Baldwin found 155 ruins in a 65 mile area and it was decided 15 were sufficiently large to justify excavation. Patayan culture remains are scattered for 50 to 100 miles on either side of the Colorado river from Hoover dam to the Gulf of California, but little is known of it. Pottery, apparently made between 700 and 1100 A. D. is distinct from prehistoric Pueblo.

Burbank of the Rabbits . . .

MANHATTAN — Harry Furgerson prevented a multiple tragedy when he assisted in the birth of six baby jackrabbits whose mother had been struck and killed by his car on the way to Manhattan. With the help of Mrs. Furgerson, he has gotten the miniature hoppers past the eyedropper feeding stage and they now nibble lettuce leaves and carrots and eat grain. According to the Tonopah *Times-Bonanza*, Furgerson is toying with the idea of raising the jacks, crossing them with tame rabbits and releasing the product in order to populate the southern Nevada desert with a more edible variety of wild rabbit.

Grave Markers Found . . .

BEATTY—Evidences of early Indian habitation and grave markers covering an area of 10 square miles were reported by

a group of Beatty men who traveled to the head of Forty-mile canyon, using four-wheel-drive former army vehicle. The area is inaccessible to conventional drive cars. Ben Lynn, park ranger, was included in the group which consisted of Jim and Billy Hinton, Charley Walker, Bill Martin and Bert Whitney.

Giant Cougar Taken . . .

TONOPAH—A mountain lion weighing 210 pounds and measuring 8½ feet from nose to tail tip was killed on slopes of Table mountain, 80 miles north of Tonopah by Smoky Emmett and Milt Holt, professional lion hunters of St. George, Utah. The lion was a male, estimated at 12 years old with a head nearly a foot wide and jaws with 1½ inch fangs. The cat was trailed for several days by a pack of trained dogs, then driven into the rocks where Holt waited for him. He broke cover and headed directly at Holt who shot him. A special bounty of \$100 was paid for the cat, one of the biggest killed in southern Nevada.

W. J. "Billy" Sinclair, who came to Tonopah with Tasker L. Oddie and was one of the first men in camp after Jim Butler's discovery, died in Yerington hospital. He made a fortune as one of the leasers of the Mizpah mine but later lost most of his money. He was Tonopah fire chief for many years.

Bureau of reclamation has invited bids for the furnishing of 20 additional residences for the government camp at Davis dam.

Nevada Attorney General Alan Bible is seeking means of protecting tourists against roadside gambling establishments operating under guise of "museums." D. E. Winchel, president of U. S. 40 association reports a steady stream of complaints from those who have lost money at the game known as Indian chuck-a-luck.

General Electric company of Denver, Colorado, entered the low bid for five 45,000 kva transformers for Davis dam and was awarded \$1,080,195.56 contract.

NEW MEXICO

Navajo Lease Helium . . .

SHIPROCK—The house of representatives has voted authorization for leasing of 7800 acres of Navajo Indian reservation land near Shiprock, containing Rattlesnake helium field. Proposal calls for Indians to be paid \$147,799 advance on 12½ per cent royalty, plus 25 cents an acre rent annually for 25 years. Royalties above advance payment would go to tribe. Navajos are privileged to sue for more pay within three years if they find they are not receiving a fair return. Field is said to be more dependable than nation's other reserve, near Amarillo, Texas.

Museum for Silver City . . .

SILVER CITY—A new museum which will feature both historic and prehistoric background of Grant county is being planned by Grant County Archeological society of Silver City. Members were urged to begin collecting and preserving the historic treasures of the region at a recent meeting of the society. Harold E. Cooley is society president.

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Research Head Appointed . . .

SANTA FE—Dr. Sylvanus G. Morley, authority on Mayan and Central American cultures, has been appointed acting director of School of American Research, and ex-officio director of Museum of New Mexico. He replaces the late Dr. Edgar L. Hewett. Dr. Morley has been exploring the jungles of Guatemala and Mexico for 40 years. He is an associate of the Carnegie institution, Washington, and has been in charge of that institution's excavation and restoration program at Chichen Itza, Yucatan, for 17 years. He is the author of the book *The Ancient Maya*.

Seek Ancient Reptiles . . .

ALBUQUERQUE — An expedition which scientists hope will find new evidence on the ancestors of the dinosaur is preparing to set out for the San Juan basin of northwestern New Mexico. Sponsored by American Museum of Natural History in New York and under leadership of Dr. George Gaylord Simpson, museum curator, the party will set up base camp near Lindrieth. Dr. Gaylord's group will explore rock strata of the lower Eocene seeking data on mammals of 55,000,000 to 60,000,000 years ago. Dr. Edwin H. Colbert, curator of fossil reptiles will lead a section seeking remains of reptiles existing in the Triassic period, 200,000,000 years back.

Navajo Shortened War . . .

GALLUP—Without the Navajo boys who sent and received 800 messages during the first 48 hours of the attack on Iwo Jima, the island could not have been taken, according to Philip Johnston who trained the Indian signalmen. Only voice radio communication could be used, but the messages in Navajo language went through speedily and accurately without translation by puzzled Japs. Navajo words were used for each letter in the alphabet and to designate certain equipment—as turtle for tank. Johnston trained 250 men and 38 were assigned to each marine division. Use of the Indians shortened the Pacific war by months, Johnston declares.

Ask Rocket Removal . . .

ALBUQUERQUE—That continuation of rocket experiments at White Sands proving ground will ultimately result in a disastrous crash on civilian population, is the belief of George A. Godfrey, president of New Mexico Cattle Growers association. He is supported in his opinions by Senator Hatch of New Mexico, who has requested removal of the rocket range. Two German V-2 missiles recently crashed near populated places. One landed 3½ miles from Juarez, the other near Alamo-gordo.

A film of Kit Carson's life, using Kit Carson's cave in New Mexico as one of the principal locations is being planned by Harry Sherman productions.

Transfer of Fort Wingate military reservation in western New Mexico from war department to department of interior is proposed by bill introduced in senate. Plan would permit use of the 13,150 acres by the Indian bureau.

Dr. W. W. Hill, authority on the Navajo, has been appointed head of anthropology department of University of New Mexico replacing Dr. D. D. Brand who has gone to University of Michigan.

The annual battle to save new-born lambs from predators was under way in June on the New Mexico ranges. Thirty government hunters and dozens of private employes eliminated 427 coyotes during May.

Carlsbad chamber of commerce planned to honor the 3,000,000th visitor to Carlsbad caverns, expected to arrive near July 1.

A special train brought 199 Navajo children from a year's schooling at Sherman Institute at Riverside, California, to Gallup. Indian service school buses met the children at Gallup and transported them to Ganado, Fort Defiance, Crownpoint, Pinon, Chinle, Mexican Springs, Shiprock, Tohachi and Fort Wingate.

UTAH

Stamp Was Wrong . . .

SALT LAKE CITY—A storm of protest greeted release by postoffice department of enlarged photographic copies of Utah Centennial stamp, which is to go on sale in Salt Lake City July 24. The scene represents the arrival of Mormons in Salt Lake valley, and Utah citizens were quick to point out many historical inaccuracies. The postoffice department claimed that it and the art staff of the bureau of printing and engraving worked out design along lines of a picture in Utah state capitol, and that a new design would hold up issuance of stamps at least a month.

Riding the Green . . .

JENSEN—Members of the U. S. geological survey and state engineer's office who are measuring the tributary inflow of the Green and Colorado rivers arrived in Jensen after a tumultuous trip down Green river from Linwood. The group is using two 16-foot boats and plans to measure about 100 small tributaries on the 700-mile trip. They expected to arrive at Greenriver by June 22 and end their journey at Lee's Ferry about July 6. Cataract canyon is expected to mark most dangerous part of the run, but boats are specially designed with four water-and-air-tight compartments and no trouble is anticipated.

Utah Display in Washington . . .

SALT LAKE CITY—A display, tracing the history of Utah through books, manuscripts, maps, photographs, tools,

utensils and fabricated articles, from first contacts with the Indians to completion of the transcontinental railroad has been opened in the Library of Congress, Washington, D. C. The exhibit, honoring Utah's centennial, will run through the summer. Materials occupy 31 display cases in the exhibition hall and there are two rooms of photographs on the lower floor.

New Utah Tour . . .

TORREY—First tour of the Utah Wonderland stages through southeastern Utah started from Salt Lake City in June. Tour will include seldom-visited areas, going through Capitol Reef national monument to Hite, crossing the river on the ferry there, and visiting Natural Bridges national monument, Goblet of Venus, Mexican Hat, Goosenecks of the San Juan, Monument valley, Arches national monument, the cliff dwellings and Dead Horse point. The tours were planned to start every other Saturday.

Whiskers Become Official . . .

SALT LAKE CITY—Utah's state-wide centennial beard-growing contest started June 2. County finals were scheduled for July 19, with state finals held on state capitol steps July 26. Governor Herbert B. Maw, President A. Ray Olpin of University of Utah and Miss Calleen Robinson, state Centennial queen will act as judges. There are seven classifications of beards, and state winners will receive hundreds of dollars in merchandise and prizes. The contest was sponsored by Sons of Utah Pioneers.

Air Shots of Natural Bridge . . .

DELTA—Frank Beckwith, Delta's venturesome editor, accomplished a long-time ambition when he photographed Fruita natural bridge from the air, with Leo Buraston as pilot. Although Beckwith had visited the bridge many times, he was unable to spot it from the air until he directed the pilot to follow a foot-trail down Fremont canyon which led to the arch. Pictures were taken from many angles.

May Fly on Salt Lake . . .

The feasibility of using Great Salt Lake as a landing area for U. S. navy flying boats will be determined by Lt.-Commander S. L. Ostermeier, USNR, who is in Salt Lake City compiling survey data in order to make a marine mercator projection chart scaled to nautical miles. The survey also suggested the use of small craft on the lake for training naval reservists in Salt Lake City.

William R. Palmer, Cedar City, has been appointed archivist for Utah state historical society. The position was created by the state legislature in 1917, but this is the first time that it has been filled. Palmer will tour the state to remove or copy historical records for safekeeping.

Where Are the Pelicans? . . .

OGDEN—The pelicans which used to live on Bird island in Great Salt Lake apparently have vanished. A crew of the Sea Scout ship Bonneville visited the island early in June and found it barren of life, with only last year's nests in evidence. On later trips they found Egg island crowded with birds, including former Bird island residents. While on the island they banded some of the almost-extinct species. But there was not a single pelican. The scouts planned future trips to Gunnison and other islands in search of the elusive birds.

A severe hail storm late in May brought stones 5½ inches in circumference to Blanding, breaking house roofs and causing heavy fruit crop losses. Workers in the mountains reported the storm was accompanied by a loud roaring. An Aurora Borealis appeared the following morning—for the second time in nine years—and maintained brilliance for more than an hour.

DESERT QUIZ ANSWERS

Questions are on page 22

- 1—Grinding meal.
- 2—Home of the Wetherill family.
- 3—San Geronio.
- 4—An animal resembling a wild hog.
- 5—Death Valley.
- 6—Rhyolite.
- 7—General revolt of the Pueblo Indians against the Spaniards.
- 8—Tombstone.
- 9—Copper.
- 10—Acoma.
- 11—Western Utah.
- 12—Powell.
- 13—Tucson.
- 14—Drainage from the Imperial irrigation system.
- 15—Drury.
- 16—Hopi.
- 17—Saguaro.
- 18—Steel.
- 19—North rim of Grand Canyon.
- 20—Salt river.

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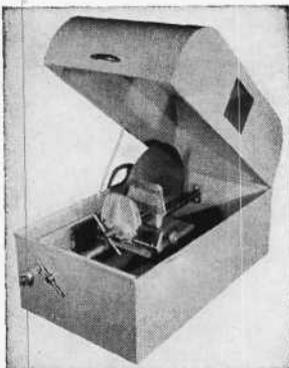
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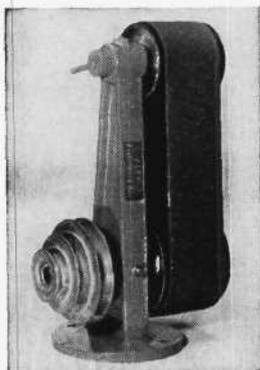
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AMATEUR GEM CUTTER

By LELANDE QUICK
Editor of The Lapidary Journal

We begin the sixth year of The Amateur Gem Cutter with this issue. That means that for five years we have been writing of gem cutting with an average article of about 1200 words or a total of 72,000 words, the length of a standard novel. One would think that all that could be said about amateur gem cutting had been said, but the story doesn't stop here. It has only begun.

I freely admit that not too much of a practical nature about how to cut gems has appeared at times, but much has been written about why people should turn to this fascinating hobby for a satisfying experience in employing their leisure time, a leisure which seems to be increasing in America to a point where it is nationally unhealthy. This page has served as a sounding board for ideas; few of them my own but many of them important in their influence. It is a good time to review them.

First there is the growth of the lapidary societies themselves and the great changes that have come about in the mineralogical societies. The old mineral society that made amateur science a hobby has faded and the ones that have survived have been those which combined science with handicraft. The societies most prominent in the news five years ago have turned to jewelry craft and the lapidary art, or they have been shoved into the background. There are at least a hundred societies thriving now that didn't exist five years ago and almost without exception they include the term "gem" in their names to signify their interest in and attention to lapidary work. The federations have recognized this important trend and the visitor to their conventions possessing a long memory can recall the changes that have come about in the annual displays.

Five years ago Frank Crawford's "one man band" made its appearance. It combined the saw, grinding head and polishing unit in one model. Since then many improvements have appeared that make Crawford's fine machine appear antiquated beside present day equipment. Many people still used mud saws five years ago. Now the modern diamond sawing units have become so good and so economical that it seems folly to use the messy mud saw any longer and I know of only two friends who own them.

Better polishing agents have come out of the amateur's experimental shops and of course better grinding wheels have been developed and a greater knowledge of how properly to cut and polish. The hobby has been vastly commercialized but no one has been able to prove that that is bad. The hobby numbers today countless thousands and the number of dealers has increased until the lapidary and jewelry crafts enterprises have become really big business. Many people have gone into the business who have not succeeded, principally because they were not equipped to succeed or they lacked the vision to pay the necessary price. The dealers who have survived, and the newer dealers who have successfully established themselves, are a little closer to the amateur than they were five years ago because of a better understanding. The amateur couldn't get along very well without the dealer and certainly the dealer could never survive without the amateur, but there is still a gulf between them.

Many amateurs are inclined to regard the

dealer as a selfish man who despoils the gem areas with a fleet of trucks, while there are dealers who still think the societies should not exist because they encourage folks to go on field trips and get rocks for themselves; rocks that too often are worthless as gem material. But this fact remains—few dealers would ever hear of locations of gem materials if rock hunters never set out with hammers and determination. The dealers' best customers today are the people who went off the beaten path and heard the ring of a hammer on a rock. It did something to them that they could never erase from their memories. More often than not they found that the rocks they brought home were valueless as gem material and they sought out the dealer for the material they later contrived into the gems of which they are proudest. We do believe there is a better understanding now between the dealer and the rock hunter than there was, but there is room for improvement.

Then there are the shows, growing better all the time. Should they be commercialized? Someone offered me this thought recently. "The tendency has been to stress the commercial idea at the shows. That is not what they were intended for in the first place. They are to bring the collectors together and bring out displays of gems and minerals. Some shows have been failing in this purpose. The commercial end is fine for bringing in money if the money is put to some good use. The money should be used to provide display space and prizes to bring out real collections. There is a lot of wonderful material hidden away where no one can see it."

It seems to me that the happiest solution is to divorce commercialism from the shows and have an annual mineral and gem fair where dealers of all kinds can gather under one roof. Someday someone will promote this for the good of the hobby. Consider what the sportsmen's shows have done. Something should be done on the west coast similar to the event to be held in Philadelphia from October 20 to 25. An exhibition called the Philadelphia Amateur Science, Hobby and Craft show will be held in the convention hall and 113,000 square feet of space on one level will hold exhibits of nearly 700 exhibitors. The smallest space will rent for \$150. Admission will be charged and an attendance of more than 100,000 is expected. A half dozen dealers with vision could promote a lapidary trade fair that would be memorable and perhaps create thousands of potential customers. These would bring new blood with fresh ideas to the many societies.

Outside of the great growth of the societies the most important trend of "America's fastest growing hobby" has been the vast literature on gems and gem cutting that has appeared in recent years. The old established mineral magazines have devoted increasing space to gem cutting and the amateur lapidaries probably account for a large share of their subscription list.

Yes, the five years that have gone have witnessed many changes and the five years to come will witness many more. Some of the things we would like to see are many more new societies with young people in them; cheaper diamond wheels, priorities taken from things like tin oxide, plenty of motors at the old prices, plenty of successful dealers—and the *Lapidary Journal* on a monthly basis.

GEMS AND MINERALS

UTAH IS HOST TO MINERAL FEDERATION

Annual convention of Rocky Mountain Federation of Mineralogical societies was held in Salt Lake City, June 12-13, with 300 delegates and guests attending. A mineral show was staged in the Gold room of Newhouse hotel and 25 exhibitors and dealers from Utah, Colorado, Idaho, Wyoming, California, Texas, New Jersey, Indiana and Florida displayed material. Prof. Junius J. Hayes and Secretary-treasurer of the Federation, Mrs. C. W. Lockerbie, were in charge of arrangements. Mineralogical Society of Utah was host.

New officers of the Rocky Mountain federation, elected at the convention, are: president, Chester R. Howard, Denver; vice-president, Richard Fischer, Grand Junction, Colorado; and secretary, Mrs. Mary A. Piper, Denver. Convention for 1948 was set for Denver, in conjunction with first convention of the new American Federation of Mineralogical societies. Federation banquet was attended by 141 persons. Place-cards carried individual topaz crystals and hand-painted sego lilies on a miniature map of Utah. Earl Havenor was toastmaster and four couples doing square dances and the "Singing Grandmothers" in authentic period costume, furnished entertainment. Richard M. Pearl, organizer and first president of the Federation; Ben Hur Wilson, president of the new American Federation; and Mary A. Piper, curator of geology, Colorado state museum, were speakers.

The convention was followed, June 14-15, by a guided two-day field trip to Topaz mountain in Juab county, where 101 persons collected topaz crystals.

FIRST NATIONAL MINERAL FEDERATION ORGANIZED

Organization of the first national mineral association, the American Federation of Mineralogical societies, was completed at Salt Lake City on June 13. The new organization was sponsored by the Rocky Mountain, Northwest, California and Midwest federations of mineralogical societies, representing approximately 140 individual clubs. It is hoped that an Atlantic federation will be formed in the near future, and the new group is interested in welcoming Canadian and other societies beyond the borders of the United States.

Ben Hur Wilson, member of the Joliet Mineralists and representing the Midwest Federation was elected first president of the national organization. Richard M. Pearl of the Colorado Mineral society and Rocky Mountain federation is vice-president. Chester Howard, 1524 High street, Denver, Colorado, is secretary. Jack Streeter, California Federation member from Los Angeles, is treasurer.

Constitution and by-laws were accepted at the meeting and will be ratified at the first national convention, to be held in Denver in June, 1948. Richard M. Pearl is general chairman of the convention committee and the Colorado Mineral society will be host. Convention program will be centered on the centennial of the discovery of gold. Sacramento, California, prob-

ably will be site of the second convention, in 1949, and the anniversary of the '49ers will be celebrated.

NEW ROCK CLUB PLANNED FOR SOUTHEASTERN UTAH

A new and as yet unnamed gem and mineral club was organized June 12 at Moab in the heart of southeastern Utah's scenic wonderland. Thirteen prospective members were present at the organization meeting. Jess Abernathy was elected club president; Howard Williams, vice-president; and Mrs. William G. Harding, secretary-treasurer. J. D. Williams, 94-year-old pioneer and explorer of the area, was elected honorary president.

NORTHWEST FEDERATION MEETS IN SEATTLE AUGUST 30-31

The Gem Collectors' Club, of Seattle, invites hobbyists to come to Seattle for the weekend of

August 30-31. The convention of Northwest Federation of Mineralogical societies is to meet at the Civic Auditorium, in the downtown area. There will be on display a large number of club and individual exhibits, and the offerings of a group of dealers and suppliers. Visitors also will be able to see the collections of jade at the Art museum in Volunteer park.

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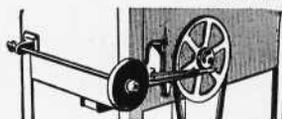
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Change sanding cloth in 10 seconds! Special design (pat. pend.) locks cloth with a twist of the wrist! Used for both sanding and polishing. ALL METAL.

Perfectly machined and balanced. Two sizes, 2" x 7" at \$5.00 and 3" x 7" at \$6.00 for 1/2", 5/8" or 3/4" arbor. State size. Ship. wgt., 4 lbs.

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DOES EVERYTHING: Sawing, Grinding, Sanding, Polishing, Lapping, Sphere Cutting and Faceting! More than 2,000 in use by amateurs and professionals. Saws up to 10" can be used.



Standard Unit includes 6" saw, two lapidary grinding wheels, all-metal combination sander, polishing buff, rock clamp, coolant feed, belt and motor pulley, lapidary pliers, dapping wax, dop sticks, etc. \$110.00 f.o.b. without motor or stand. Crating, \$3. Ship. Wgt., 100 lbs.

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Size	Shipping Weight	New	Your Blade Recharged
7"	1 1/2	\$ 4.75	\$ 4.00
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KING JADE—A new and beautiful stone approved and recommended by expert mineralogists. It is bluish-green, possesses a high luster, and hard. Price \$2.50 per pound. Slabs 50c per square inch. Postage extra. Gem quality. King Gems, Inc., Box 1579, Colorado Springs, Colorado.

ALABASTER—Mfgs. of the finest most colorful Alabaster products. Send 25c for sample Ash Tray and prices. Dealers wanted. Western Alabaster Co., Box 134, Fort Collins, Colorado.

FINE PAPERWEIGHTS — Pen mounts, matched sets, many mineral types. Featuring Texas fluorescent turritella. Sent on approval. Discount to dealers. Clay Ledbetter, 2126 McKenzie, Waco, Texas.

NEVADA WONDERSTONE, 15c lb., colorful banded Rhyolite, unique and distinctive for desk sets, book ends or lamp bases. Several kinds, colors and quantities. Virgin Valley Wood Opal, 50c oz. Also petrified wood, Agates and Jasper 50c lb. Postage extra. Mailed C.O.D. if desired. Nevada mineral specimens 15c each. Mrs. Mariphyllis Foreman, Box 178, Goldfield, Nev.

FLUORESCENT BARITE. A new one. \$2.00 brings you a 1 lb. box of these beautiful specimens, assorted colors. Jack the Rock Hound, P. O. Box 86, Carbondale, Colo.

AMATEUR LAPIDARY AGATE Special. Assorted good gem agate, jaspers, and highly colored novaculites in chips and small sizes. Especially suitable for the beginner, Schools' and Mineral Societies' Lapidary Classes. 75c lb. postpaid. Special prices on 10 lbs. or over. Frank Duncan & Daughter, Box 63, Terlingua, Texas.

MINERAL AND FOSSIL COLLECTORS! Read The Earth Science Digest, a monthly publication reaching thousands of collectors the world over. One year subscription \$2.00. Sample copy 25c. Write: Dept. D., Box 57, Omaha 3, Nebraska.

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SUPERIOR MINERALS—Agate Slabs—Blue and white banded, Utah, 35c sq. in.; red and yellow flowers, Death Valley, 50c sq. in.; many colors in scenic moss, Nev. and Utah, 35c sq. in. Xlized Minerals—Mesa Grande tourmaline and matrix, 35c to \$35.00; Azurite and malachite, Utah, Xlized on masses, \$1.00 to \$10.00; rare and beautiful combinations of aurichalcite and malachite, Utah, \$1.00 to \$20.00. Streamliner lapidary equipment. Many other rare and beautiful minerals. Ask for them. See our beautiful display at Saint George, Utah. West side of Court House. North side of Highway 91. Earl and Clyde Olmsted, P. O. Box 248, Saint George, Utah.

ARIZONA AGATES, Jaspers, Petrified Woods. Beautiful, gorgeous, fascinating, unbelievable, real flowers, moss, whirls, flames in fire colors. Gems come in just about all colors, pictures, trees and scenic views. Colors are reds all shades, purple, amethyst, green, golden, pink, white and clear with all colors that mix and blend in with each other thus making many beautiful gems or first class specimens. We have some beautiful blue agate that comes in sky blue, ocean blue, baby blue, robin egg blue, and cloudy blue. This is sold in cut gems or by the slice only, prices are 20c to 80c per carat. Agates, jaspers or petrified wood gem stones run from \$1.00 to \$5.00 each on ring stones, with bracelet, brooch, buckle and large gem stones running from \$2.50 to \$20.00 each. Rough gem material will be sold as mine run only. Sample lot of small chips, Arizona agates, jaspers, and petrified wood 6 pounds \$5.00. Send for price list. No orders under \$2.00 please. All choice gem sold in cut gems or sliced only. Postage and express extra. Satisfaction or your money back. Chas. E. Hill, 2205 N. 8th St., Phoenix, Arizona.

ARIZONA GEM AGATES: Lovely Moss agate, small pieces 75c lb. Pink or grey-blue agates 50c lb. Smoky, flawless Obsidian stones (Apache Teardrops), 10 for \$1.00. Michigan Petoskey (Turtleback) agate stones, 25c to \$1.50 each. Postage Extra. MaryAnn Kasey, Box 230, Prescott, Arizona.

MONTANA MOSS Agates in rough for gem cutting, direct from diggings, \$1.00 per pound, prepaid. Nels Christofferson, Richey, Montana.

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ATTENTION ROCK COLLECTORS. It will pay you to visit the Ken-Dor Rock Roost. We buy, sell, or exchange mineral specimens. Visitors are always welcome. Ken-Dor Rock Roost, 419 So. Franklin, Modesto, California.

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HAVE DISPOSED of Ancient Buried City, Wickliff, Kentucky, which you should see, great display minerals, artifacts, fossils. Am now buying meteorites, fluorescent minerals, in quantities, "cull" diamonds, zircons, any other stones, not gem grade, rough with fluorescent qualities. Offer Kentucky-Illinois fluorites, (rare specimens), unusual Arkansas quartz, old Michigan coppers. No lists. Come and see us. Fain White King, 2700 Washington Ave., Cairo, Ill.

BEAUTIFUL NEW MEXICO Gem Agate. We operate our own mines. Money back if not satisfied. 10c per square inch for red banded Agate, black and red patterns, red moss, golden moss, red fern moss, golden fern moss, or \$1.00 per lb. rough. All solid material, will assort. Jet black Apache Tear Drops (Obsidian) 1x1 inch or larger 10c each or 12 for \$1.00. One small slab plume or Sagenite free with each order until Sept. 1st. Geo. C. Curtis, the Agate Man, 645 1st St., Hermosa Beach, Calif.

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FIFTY MINERAL SPECIMENS, 3/4" or over, boxed, identified, described, mounted. Postpaid \$4.00. Old Prospector, Box 21B15 Dutch Flat, Calif.

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JADE, RHODONITE, Lapis Lazuli. Try us for a fine gloss polish on these hard to finish gem stones. Large specimen polishing. Drilling any size and quantity. H. M. Samuelson, 1012 El Camino Real, N., Salinas, Calif.

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HIGHEST PRICES for meteorites, iron or stone or any specimen of natural iron (metallic iron, not iron ore). S. H. Perry, Adrian, Mich.

MONTANA MOSS AGATES in the rough for gem cutting \$1.00 per lb. plus postage. Also Slabbed Agate 25c per sq. in. (Minimum order \$1.00). Elliott Gem Shop, 26 Jergins Arcade, Long Beach 2, California.

THE DESERT RATS NEST—All gems listed in the March issue still in stock and the following new arrivals, Australian faced opal, dark red and green colors, uncut rough red and green pinfire opal, from Coober Pedy field. New parcel of star sapphires, some fine stones, grey color only. Two great tourmaline matrix specimens, 2 and 3 pounds wt. My private collection, 800 pounds museum specimens. Rose green and bi-color Mesa Grande tourmalines, up to 1½ in diameter. Finest in the west. In customs fine amethyst and citrine crystal points. Lots of specimens. Geo. W. Chambers, P. O. Box 1123, Encinitas, Calif. Home address: Contact Texaco filling station, on 101 and F Sts.

AMONG THE ROCK HUNTERS

Two permanent display cases of cut and polished material were placed in El Centro, California, public library in June by Imperial Lapidary guild. All specimens were prepared by members of the guild from Imperial Valley material.

Sixteenth annual meeting and picnic of Mineralogical Society of Southern California was held June 8 in Oak Grove park, Pasadena. An exhibit of minerals, crystals, polished materials, jewelry and novelties, fluorescents, and junior collections was held and ribbons awarded in various classes. Chairmen were: Richard Heidrich, publicity and invitation; Pauline Saylor, reception; Mrs. Estelle Ellery, decorations; Louis Vance, exhibits; Jack Rodekohr, grab bag; Willard Perkin, auction and raffle. Ernest Chapman, Mrs. Dorothy Craig and Don George were exhibit judges. Club held a field trip to the actinolite deposit in the Wrightwood area on June 15.

Roy Warren used San Diego Mineral society's new heavy-duty Mineralight to demonstrate fluorescence of minerals under ultra-violet light at June 13 meeting of the society. During July and August, there will be no society meetings, but field trips are planned for the fourth Sunday of each month. Annual election of officers was scheduled for September 12 meeting. During May, the Craftsmanship division collected black petrified wood near Lake Hodges, the Mineralogy division heard a talk by Norman Dawson on "My Collecting Trip to Mexico," and the Resources division worked on their current project, a map showing old mine locations. Society membership now is 184.

Jerry Laudermilk, guest speaker, told about fossils at June meeting of the Pomona Valley Mineral club. President Kroger reported on the Santa Barbara convention. Mrs. G. Lewis Taylor and her son Richard entertained fellow club members on May 20, with a musical program followed by a fluorescent display.

Santa Monica Gemological society heard T. S. Warren of Ultra-Violet Products, Inc., discuss "Ultra-Violet Light and its Uses in Mineralogy" at the June meeting. Club corresponding secretary is Mrs. A. J. Strong, 1232 Second street, Santa Monica.

Yavapai Gem and Mineral society of Prescott held its first mineral and gem show July 19-20 in the show room of the Arizona Power company in Prescott. June meeting of the society was presented by the junior members with John Butcher chairman, Chuck Murdoch secretary and Pete Murdoch registrar. Colored slides of geological formations of the Southwest were shown by A. F. Bumpus.

H. L. Monlux showed Alaskan trip motion pictures, featuring rocks and rock formations at the July meeting of Los Angeles Lapidary society and Lelande Quick read the club history for the past year. A record number of members and guests attended. The Faceteers branch of the society met for July in Los Angeles museum and displayed the project of the month—a novelty reverse cut—and discussed problems in cutting it. Faceteer meetings will continue throughout the summer. The jewelry group, working under guidance of Mrs. Jessie Q. Chittenden, met at

Griffith park playground, and also planned sessions through the summer.

Issue of the Rock Rustlers' News, of Minnesota Mineral club of Minneapolis contained a map showing the collecting localities of Minnesota. Officers of the Minnesota club are: William T. Bingham, president; Adolph Heumann, vice-president; Arthur Anderson, treasurer; Mrs. B. G. Dahlberg, secretary; J. Drexel Miller, tour director; Edwin Lambert, program director and B. G. Dahlberg, publicity director.

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TO DROP IN TRADE — MAIL AND PHONE ORDERS WILL BE FILLED VERY PROMPTLY

Open again in September. 100,000 mineral specimens are a lot of ROCKS but visit us after Sept. 1st and see MORE ROCKS THAN ROCKEFELLER—HAVE MORE FUN THAN CONEY ISLAND. Specimens which have been in storage for years will be offered for the first time.

NEW BOOK—ADVENTURE IN JADE by J. L. KRAFT—

Published June, 1947. Tells the story of the discovery of American Jade. Postage Prepaid. \$3.00

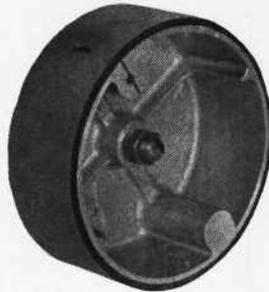
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2" Roll—24 feet long \$1.70—Full Roll 150 feet \$ 8.95
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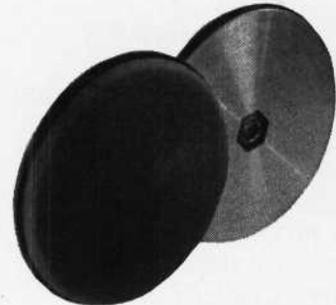
These are the same catalogs mentioned on the POSTCARD WE SENT TO YOU. If you did not receive one of these cards, write for them and we will also put your name on our mailing list. These will be more than catalogs, containing articles on how to polish rocks that give you trouble and original MODERN JEWELRY DESIGNS never before published.

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SEND FOR OUR BULLETIN NO. 547 which fully describes these wonderful new Cast Aluminum sanders. Dealers—write for wholesale prices. This bulletin also lists all types of ROUGH GEM MATERIALS.

JEWELRY TOOLS AND SILVER—We stock all gauges of sterling silver sheet and all available types of FANCY SILVER WIRES.

THE BEST MAKES OF LAPIDARY EQUIPMENT MAY BE SEEN AT OUR STORE—NO NEED TO SHOP — SEE THEM ALL AT ONE TIME. SEE NEW FACET EQUIPMENT as well as the complete HILLQUIST, COVINGTON, and ALLEN LINES.

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42 Non-Metallic Minerals	2.75
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126 Specimens, Complete Set	8.00

Selected high grade specimens. In sturdy ¾ inch spaced compartment trays. Hand labeled and identified as to ore & type.

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FIRE OPAL - MEXICO

10 small pieces—average 1/2"-3/4"	\$1.00
5 larger—average 3/4"-1"	1.00
6 still larger—1"-2" or over	2.00
1 small vial clear fire opal	1.50
50 rough mixed Mexican Opals, including honey, cherry, etc., average 1"	1.50

ALL 5 LOTS POSTPAID—\$6.00

Although these are sold chiefly as cabinet specimens and have plenty of fire, many of them will work up into nice cabochons.

Money Cheerfully Refunded if Not Entirely Satisfactory.

Polished Mexican Opals and other gem stone cabochons on approval to responsible persons.

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Satisfaction Guaranteed

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ST. LOUIS 1, MO.

Announcement is made that enrollment at the Pioneer Lapidary school at Loveland, Colorado, is filled until September 1. At that time 30 more students may be admitted.

Roy Gaskill, mineral collector and dealer, died in his home in San Gabriel, California, on May 31, of a heart ailment.

Leon Miller, El Centro, was elected president of the Imperial Lapidary guild, taking office in June. Ed Stevens, of Imperial, is the new secretary.

Annual climb of Telescope peak in the Panamint mountains was planned for June 20-23 by Searles Lake Gem and Mineral society. Program included talks by T. R. Goodwin, superintendent of Death Valley national monument, and Naturalist Alberts and Chief Ranger Ogston. Colored slides were shown by M. D. Bradshaw, desert photographer of Thermal, California. Side trips into the Panamint mountains area were planned. A field trip to Mitchell's caverns near Essex was planned as club outing for July 25-27, including side trips to Calico district and the ghost town of Providence. June meeting was an old fashioned box social at the John MacPherson rancho in Homewood canyon.

Kodachrome pictures of minerals and their fluorescence were shown by Mr. and Mrs. Alard at June meeting of Pacific Mineral society, Los Angeles, held at the Chancellor hotel. Using superimposed images from two projectors, minerals were shown changing from their natural colors to full fluorescence. Program was given at the annual dinner meeting of the club.

Field trip to Horse canyon was taken by 35 members of Southwest Mineralogists June 14-15. Albert Hake returned with rare specimens of agate. Group planned to spend July 4-6 at the home of Mr. and Mrs. E. R. Hickey in Mint canyon, and collecting in the area.

Mr. and Mrs. Kilian E. Bensusan gave an illustrated talk on Venezuela at May 8 meeting of San Fernando Valley Gem and Mineral society. May 18 field trip was planned to Ord mountain.

Officers for San Jose Lapidary Society, Inc., were elected at the May meeting. A. M. Cook is the new president; B. E. Wright, vice-president; and R. M. Addison, 542 Irving avenue, San Jose, secretary-treasurer. New committee heads are: D. J. Burrige, librarian; Mrs. R. M. Addison, hospitality; B. E. Wright, membership; Mrs. Russ Grube, reservation; Al Bluet, field trip; L. R. Cody, program; Bruce Holmes, sales and display; Russ Grube, historian. George Reynold of Santa Cruz showed colored pictures of southwestern geology at the June meeting.

Annual potluck dinner and auction of San Fernando Valley Mineral and Gem society was planned for July. W. Scott Lewis showed colored slides of a trip from Mt. Mammoth to Mt. Ritter in the Sierras. The club is preparing to obtain a flag with society colors and emblems to match the American flag given to the society by the 1947 executive board. June lapidary group meeting discussed methods used in polishing flats.

Formation of geodes and petrified wood was discussed by Mr. McKay of the high school teaching staff at June 12 meeting of Coachella Valley Mineral society. The high school has offered to purchase equipment and set up a course in lapidary work if sufficient people are interested. Also planned is a geology class. June field trip under direction of Glenn Vargas, club president, was to Sage where tourmaline is found.

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Long Beach Mineralogical society heard Norman Dawson speak on "Gems of San Diego County" at its June meeting. Officers of the club are W. L. Mayhew, president; Florence Gordon, vice-president; F. Schmidt, treasurer and Jane Fisher, 2077 Eucalyptus Avenue, Long Beach, secretary.

Wyn Jones of San Jacinto was elected vice-president at June 6 meeting of the San Jacinto-Hemet Rockhound club. Plans were made to establish a club library on minerals and gemstones. A June field trip was to mines of Bob Ormand of Cahuilla. On the trip specimens of rose quartz, tourmaline, garnet, quartz crystals and beryl were collected by club members. Persons interested in joining the club should contact the secretary-treasurer, Mrs. Marion Harwell, Box 282, San Jacinto.

Dr. Rogers, professor emeritus of geology at Stanford university talked on "The Romance of Jade," displaying specimens and slides, at May meeting of the Mother Lode Mineral society of Modesto.

June meeting of Sequoia Mineral society was planned as annual potluck dinner in Roeding Park, Fresno. Club members won four first prizes and two seconds at the California Federation convention at Santa Barbara.

Oklahoma Mineral and Gem society celebrated its first anniversary in June. All members were invited to Oklahoma City on June 8 where collections of the various members were exhibited and dinner and refreshments served.

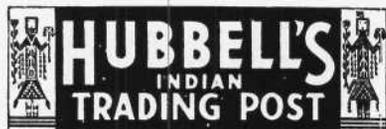
Cogitations . . .

Of a Rockhound

By LOUISE EATON

Soft harts is like gold—they're where yu finds um. Mineral dealers resembles rockhouns in this respect; even if they're hard headed they can be counted on to have soft harts. (Maybe dealers is jus rockhouns graduated frum amature status.) This was demonstrated at California federation convenshun when a little crippled boy evinced interest in rox. Before he got out uv the room dealers had given him enuf speciments to make a good collection an started him on a hobby that will mean mutch to him in the future.

Didja ever have a tree make yu home-sick? Not wun that yu're accustomed to—that would be understandable—but a variety yu don't evun have at home. Jacarandas can do that to desert rockhouns. Jacaranda trees in bloom looks jus like canyon haze in desert mountains at sunset an can shure give yu a nostalgic feelin when yu've bin away frum the desert for a while. Yu forgets the heat an dust an recalls only the peace an beauty.



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Officers of the Texas Mineral society of Dallas, were elected at the June 10 meeting. Asa Anderson is president; Raymond McIver, vice-president; Ralph D. Churchill, secretary-treasurer; B. Salas and Fred Bentley, directors. Holdover directors are Mrs. Robert Peck and J. D. Churchill.

J. Gordon Ennes gave an account of a pack trip to the top of Mt. Whitney, illustrated with colored slides, at June meeting of Northern California Mineral society of San Francisco. June field trip was to Lake county.

Dr. McMillan of the College of Puget Sound planned to lead members of the Seattle Gem Collectors' club on their June field trip. May meeting of the Lapidary section of the club discussed various types of copper ores. Jewelry group discussion centered around design. Club officers for the year are Roy H. Allen, president; Robert D. Bradley, vice-president; Mrs. Stephen Fowler, secretary; Pearl Moss, treasurer. Committee chairmen: Muriel Bodwell, telephone; Mrs. Gallagher, decoration; Mrs. T. Evans, library; Mrs. John Fincke, sick calls; Mr. Berry, jewelry class; Mrs. A. C. Foss, lapidary class; Mr. Bateman, displays; Paul H. Soll, mineral localities and bulletin editor.

Mr. and Mrs. William Wedel of Dinuba won second prize in jewelrycraft at Santa Barbara convention of the California Federation, according to a letter from Mrs. Chris Anderson of Selma, who was listed as second place winner in news releases. The Wedels and Mrs. Anderson are members of Sequoia Mineral society.

Annual picnic of Nebraska Mineralogy and Gem club was held at Antelope Park, Lincoln, Nebraska, on June 15. May meeting heard Sharpe Osmundson, C. D. Hutchens and Robert Berry discuss a field trip to Wyoming and western Nebraska.

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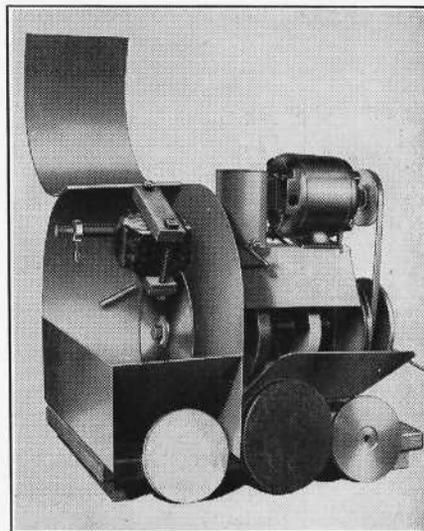
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Rock formations and erosive action in the Southwest was the subject of a lecture by Edwin Goff Cooke at June meeting of Chicago Rocks and Minerals society. Movies of Grand Canyon, Monument valley and Mesa Verde were shown.

Mrs. Phil C. Orr was elected president of Santa Barbara Mineralogical society at the June meeting. R. G. Seely was chosen vice-president; Mrs. John W. Walters, 554 Arroyo avenue, Santa Barbara, secretary; Ralph Williams, treasurer. Club meetings are held on the first Wednesday of each month, with next meeting scheduled for September.

Officers of Ventura Gem and Mineral society are: J. F. Taylor, president; Ruth E. Barker, vice-president; Dorr Thayer, Box 1397, Ventura, California, secretary-treasurer. Club meets second Saturdays 7:30-9:30 p. m. in county courthouse.

Eighty-four members and friends attended picnic and rock auction held by Orange Belt Mineralogical society June 8 in Devil's canyon park near San Bernardino, California. Mesdames Carpenter, Stockley and Weston were committee in charge. W. F. Smith, Riverside, talked on mound builders. July 13 meeting is scheduled to be held in Sylvan Park, Redlands.

A new mineral was introduced at convention of California Federation of Mineralogical societies by Aristolite company of Santa Barbara. It is said to be harder than jade—8½—but easier to work. Its color is pearl white, light and dark grey, light and dark green. It comes from near Park valley in northwest Utah. It has been named Aristolite.

Secretary Dorothy Craig of California Federation of Mineralogical societies, 4139 South Van Ness avenue, Los Angeles, requests that all societies send her a list of current officers, including address of secretary.

Specimens of phenacite, hardness 8, were exhibited at Santa Barbara convention by Kilian Bensusan. It comes from Minas Geraes, Brazil. In ancient times it was probably found in the upper reaches of the Nile. The stone derives its name from Greek word phenax meaning swindle or cheat. It was once passed off as diamond.

W. T. Dibblee, Bakersfield, had a display at California Federation convention of trays of marbles made from all sorts of materials—agies, crockies, even glassies—most of them true gems.

Mineralogical Society of Southern California, Pasadena, has contributed \$200 toward Harry A. Burman memorial laboratory, Harvard university. Burman was killed in a plane crash before he had finished his work on Dana classifications. Harvard will complete the last two volumes.

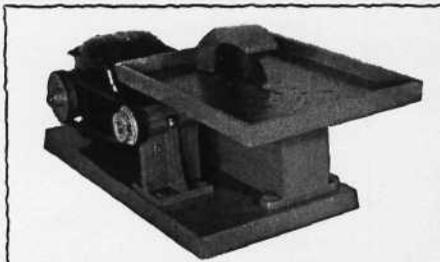
Inez Lewis, daughter of the late Dr. H. G. Clinton, displayed his diamond collection at Santa Barbara convention. She also showed a huge group of amethyst crystals and a cameo carved from precious opal.

Among the rare specimens displayed at California federation convention were mimetite on wulfenite shown by Burmico of Monrovia, and phantom calcite from Chihuahua, Mexico, shown by J. C. Filer and son, Loma Linda.

Election of officers was scheduled for June meeting of Wisconsin Geological society of Milwaukee. June field trip was to the coal mine dumps at Wilmington, Illinois, to collect leaf fossils. At the May meeting, Professor Frank L. Fleener discussed little known elements and their uses.

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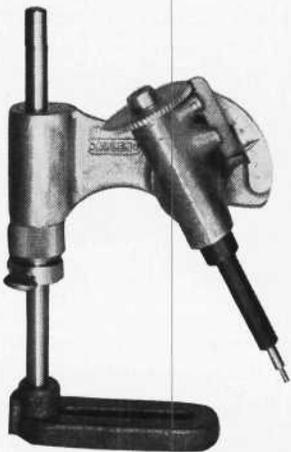
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Attention Club Secretaries, Publicity Chairmen—

Until further notice, please send club news direct to Desert Magazine, El Centro, California. News should be in the magazine office by twentieth of second month preceding date of publication. Material for October issue should be in August 20.

True Chrysocolla, a soft and crumbly variety, is of interest only to the miner, but the highly silicified type, hardness seven, with its brilliant blue color, is a prime favorite with both gem cutter and collector. This was found only in the upper levels of the mine, and gave way below those points to the soft variety. Fortunately for the present day collector, the miners of the early days liked the color also, and proceeded to highgrade much of the best material and stow it away in sheds and cellars. This seems to be the source of most of the good material of the present day, and lucky indeed is the collector or gem cutter who succeeds in getting a supply of the better quality.

Eight of the ten minerals of Moh's scale of hardness contain either silica or calcium. Gypsum, hardness 2, is calcium sulphate; calcite, 3, is calcium carbonate; fluorite, 4, calcium fluoride; and apatite, 5, is calcium phosphate. Of the four containing silica, clear crystalline quartz, 7, is the pure material; while talc, 1, feldspar, 6, and topaz, 8, contain notable quantities. Only sapphire, 9, and diamond, 10, are free from these two minerals.

MINERAL RARITIES Caledonite

Caledonite, first discovered and named in Scotland, is classed as one of the rarest of the beautiful copper minerals. It really is a basic hydrous silicate of both copper and lead, although usually found only around copper mines. In the United States, only Utah, New Mexico, and the Cerro Gordo district of Inyo county, California, seem to have the distinction of producing it. The slender, prismatic, orthorhombic crystals are usually less than three in hardness and very brittle. Their gravity of seven (very heavy) and the fact that they are easily fusible, help to identify them, but it is their beautiful deep green or blue color which makes them attractive to collectors. Except in their shades of color, caledonite crystals often resemble diopside.



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Red and Black Obsidian | 75c |
| 8—\$6.00 mixed selection of above | \$5.25 |
| 9—\$6.00 mixed Montana Agate slabs | \$5.25 |
| 10—Unpolished scenic and
Moss Thunder Eggs, each | \$1.00 |

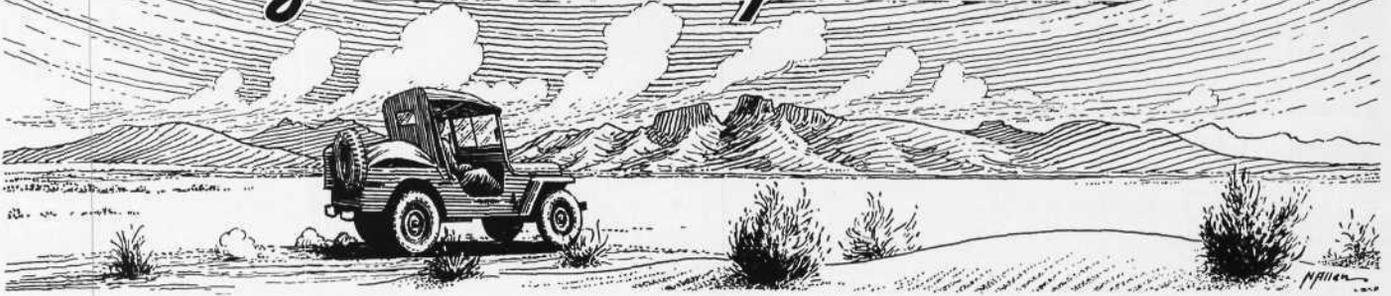
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Just Between You and Me



By RANDALL HENDERSON

FROM a United Press news dispatch dated at Boulder City, Nevada, I clipped this item: "Three signs designating the road to Hoover dam at a nearby highway intersection were found to have been mutilated during the night. The signs only recently had been changed from their previous designation of 'Boulder dam' . . . Congress or no congress, a majority of the residents of southern Nevada still refer day in and day out to the giant structure as Boulder dam."

They should not be too severe on the vandals who changed the signs. For they merely were perpetuating a childish tradition inaugurated by Secretary Ickes many years ago and continued by the present congress. This dam is one of the finest engineering achievements of all time. But it hardly is to be expected that the common garden variety of citizen will regard its name with dignity when high officials in Washington insist on kicking it around like a political football.

Boulder dam was a very appropriate name—and so is Hoover dam. In his attitude toward social progress, I think Herbert Hoover belongs to the age of dinosaurs. In the field of material progress he is one of the great engineers of our generation. It was his vision which brought about the Seven States compact and paved the way for the construction of the dam—and it was Herbert Hoover more than any other one man who brought the dream to fulfillment.

But if the Democrats want to change it back to Boulder dam at some future date when they have votes enough to do it, let's snicker to ourselves and go along with them. For after all, millions of people are being served with power from that dam, and my neighbors and myself down here in Imperial Valley feel a lot more secure since those annual spring floods have ceased coming down the Colorado. That is important! The name we give the dam is not important!

* * *

It is a rather ambitious program the Junior chamber of commerce at Holbrook, Arizona, has undertaken, but it is a worthy one and I hope it meets with success. I refer to the project sponsored by Holbrook for the building of a good all-weather highway from Highway 66 at that city north by way of Chinle and Canyon de Chelly to Bluff, Utah.

Most of this road will lie within the Navajo reservation, and therefore will serve a double purpose. It will give the Indians a much needed road through a region where the present wagon-track routes virtually are impassable following rain storms. And it will provide a new and important approach to the scenic Kayenta and Monument valley country, and thence through the gorgeous land which is southern Utah.

My interest is in the welfare of the Navajo no less than the convenience of vacation motorists. Perhaps the Indian would have been better off if the white man never had built trails into his country. But it has been done, and not even the Indian would want to change it now. And since we have imposed upon the tribesmen an economy more or less dependent on highways, we

can serve both his and our own best interest by providing him with good ones.

It may be a long hard pull getting the cooperation of the states of Arizona and Utah and the federal Indian bureau for the construction of this road—but I think the men and women of Holbrook are good pullers, and they will have a million American travelers on the sidelines cheering for them.

* * *

Southern California's All-Year club is running full page ads in the national magazines again—trying to lure people to Los Angeles and environs.

I am sorry they are doing this. It is an injustice both to Southern California and its visitors. There are 100,000 people in the metropolitan area now without adequate housing. Such advertising makes a bad situation worse. It merely encourages hotel and inn-keepers to maintain their excessive rates—and the net gain in dollars can never compensate for the confusion and dissatisfaction that accrue.

One line in the All-Year club's ad copy symbolizes the thoughtless disregard for human values implied in this campaign. It reads: "Here's night life—fast paced fun!"

Haven't those people learned that fast-paced night life is a fraudulent palliative for neurotics who want to escape the realities of an over-paced civilization? It merely is the entertainment phase of a vicious circle that is filling the mental hospitals to overflowing. Rome—just before it fell—also advertised its fast-paced night life.

Southern California is a lovely place—when it is not over-cast with smog and over crowded with honking cars and ill-housed people. I wish the All-Year club would spend its huge fund restoring the stage for tranquil living in Southern California—and let the advertising come afterward.

* * *

If plans work out according to schedule, before this August issue of Desert Magazine reaches its readers I will be somewhere in the bottom of Grand Canyon giving what moral support I can to Norman Nevills as he steers his boat stern foremost down over the 200-odd rapids between Lee's ferry and Lake Mead.

I am probably the world's worst boatman. But Norman knew that when he invited me to accompany him on the Grand Canyon sector of his 1947 river expedition. In truth, I suspect that was one of the reasons why he reserved a seat for me on this boat trip. For Norman doesn't favor back-seat driving when he is shooting the rapids in the Colorado—and he knows he will get no "expert" advice from me.

According to the plans there will be four boats—the special cataract type which Nevills has used so successfully on former expeditions. We are scheduled to leave Lee's ferry July 12, reach the foot of Bright Angel trail for a brief stop a week later, and arrive at the head of Lake Mead 250 miles downstream early in August.

I'll have my notebook and camera along so I can give Desert readers a firsthand report on ol' Sockdolager and some of the other notorious rapids along the way later.



FATHER GARCES LIVED WITH HIGH ADVENTURE

Father Francisco Garcés lived high adventure from the moment in 1768 when he became resident pastor at San Xavier del Bac until he died under the clubs of the Yuma Indians 13 years later. No other Spanish pioneer had quite the combination of gentleness and utter disregard for personal safety which far-wandering Garcés showed in his lonely missionary travels through the deserts of Sonora, Arizona and California. The story of his triumphs and his failures receives a needed re-telling in Helen C. White's fictional biography, **DUST ON THE KING'S HIGHWAY**.

The book opens with the Franciscan's third *entrada*, his journey with four Yumas to their villages at confluence of the Colorado and Gila rivers. It closes with Garcés' death in the bloody Yuma uprising brought about by Spanish policies which he opposed. It tells of his experiences with the De Anza expeditions to California, of his travels to the far Mojaves, the Hualpais, the Yavapai; and it pictures his first view of the Grand Canyon and of the hidden land of the Havasupai.

The book is a picture of the Spanish Southwest of the period—of mission and pueblo and camp and Indian village. Most of the famous figures—Diaz, Font, Exiarch, de Anza, Palma—are introduced and with them many others not so well known. A great deal of research has gone into the novel.

Elliot Coues' *On the Trail of a Spanish Pioneer* with Garcés' own diaries, is still by far the best book about the great Franciscan. But it has been out of print for decades and is available only to a few. **DUST ON THE KING'S HIGHWAY** will serve as an entertaining and valuable introduction to a great-hearted Southwestern adventurer.

Macmillan Company, New York, 1947. 468 pps. \$3.50.

STORY OF THE GREAT LAKE WHICH MADE UTAH HISTORY

THE GREAT SALT LAKE is a book which covers a far greater area than its title indicates. In addition to being a history of the lake, it is the story of the people who live and have lived on its shores. Author Dale Morgan covers much of Utah and the West and often ventures farther, tying the threads of history into one of the most entertaining, best-written books on Mormon country. Morgan, who has already published *The Humboldt* and who

edited the excellent Utah state guide, appears able to write without the bias which marks so many Utah books.

One of the American Lakes Series, edited by Milo M. Quaife, **THE GREAT SALT LAKE**, begins with the story of the earliest savage inhabitants of the region. It traces through the coming of Spaniards, mountain men, Mormons, goldseekers, railroad builders, tourists—to the industries, camps and fields of World War II.

Despite the amount of material included, the book remains intimate. It is not history scraped down to the bones—rather it deals in sharply drawn vignettes coupled with vivid summaries. There is a chapter about birds and beasts of the area—about gulls and brine flies and the fabulous Bear Lake Monster. The story of attempts to build resorts on the lake is told. The history of Lake Bonneville, of which Great Salt Lake is but a dried remnant, is brilliantly simplified.

Almost anyone interested in the intermountain West will find something of value in Dale Morgan's book and general readers will find it fascinating material.

Bobbs-Merrill company, Indianapolis and New York, 1947. 432 pps., 27 photographic illustrations, maps, bibliographical notes, index. \$3.75.

HOW AND WHEN TO SEE THE GREAT WEST

Something new in travel books has been attempted in **WESTWARD HOW**. Fred

Bond the author-photographer plans all the trips, giving you nice red, blue, purple and green lines to follow on the tour map, telling you when to arrive at a spot and what to see on the way. While this will seem too cut, dried and packaged for many people, it is valuable to those who do not know the country or who have a limited time and wish to see everything possible. It will be useful to anyone planning a vacation, since it gives a great deal of information on roads, weather, accommodations and the like which are not available in a general guide.

The book covers most of the West, with sections on Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, South Dakota, Utah, Washington, Wyoming and western Canada. State maps are given, and attractions and routes outlined. Material on each point of interest is necessarily sketchy when so great an area is covered.

Unique features of **WESTWARD HOW** are the tables with each of the 130 photographs, giving suggested exposures and best time of day for taking pictures in the area illustrated. This should step up the quality of vacation snapshots immeasurably. Almost all of the pictures were taken by the author and they are good—with many beautiful ones. But the majority suffer through the variable reddish-brown reproduction given.

Fred Bond attempts to provide all information the average tourist will need: car equipment necessary, clothing and accessories, photographic equipment and supplies, best months for each trip, customs regulations which may be encountered.

Camera Craft Publishing company, San Francisco, Calif., May, 1947. 324 pages, 8x11 in., photographs, maps, tables, large route-selector map. \$6.95.

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