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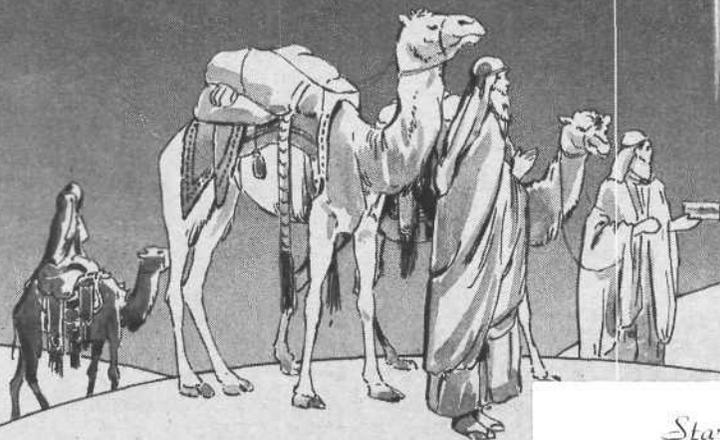
# Desert

M A G A Z I N E



MARCH, 1951

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See Page 53 October, 1950, Reader's Digest for an interesting story about **Titania**.

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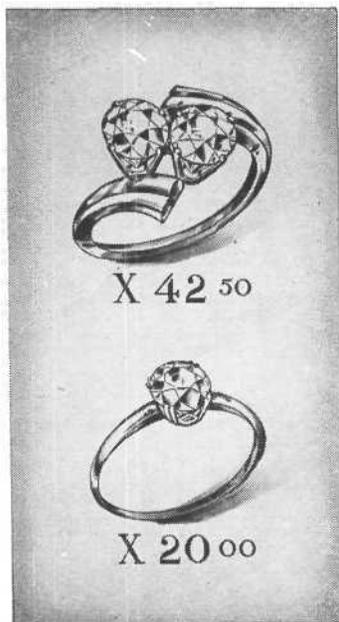
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## DESERT CALENDAR

- Mar. 1-31—Javelina Hunting Season, Arizona.
- Mar. 4—Round-Up Club tour to Vulture Mine, Wickenburg, Arizona.
- Mar. 4—Don's Trek to Lost Dutchman Mine, Superstition Mountains, Phoenix, Arizona.
- Mar. 5-11—Arizona State Amateur Gold Tournament, Arizona Country Club, Phoenix, Arizona.
- Mar. 9-11—International Desert Cavalcade, Calexico, California.
- Mar. 10-11—Hospital Day and Carnival, Wickenburg, Arizona.
- Mar. 10-11—Sierra Club's Trek to Calico Mountains, Mojave Desert, California.
- Mar. 11 — Second Annual Almond Blossom Festival, Quartz Hill, California.
- Mar. 12-18—National Golf Championship, Palm Springs, California.
- Mar. 13-14—Kennel Club Dog Show, County Fair Grounds, Tucson, Arizona.
- Mar. 16-18—Winter Carnival, Arizona Snow Bowl, Flagstaff, Arizona.
- Mar. 17-18 — Rodeo, Gila Bend, Arizona.
- Mar. 17-18 — Third Annual Horse Show, Southern Arizona School for Boys, Tucson, Arizona.
- Mar. 17-18—Bandolero Tour to San Felipe, Mexico, Yuma, Arizona.
- Mar. 17-24—College of the Pacific's 15th annual expedition to Death Valley, California.
- Mar. 17-25 — Sierra Club Camping trip to Southern Arizona.
- Mar. 17-25 — Sierra Club Camping Trip to San Felipe, Mexico.
- Mar. 18—Round-up Club's Tour to Rich Hill and ghost towns, Wickenburg, Arizona.
- Mar. 18—Don's Trek to San Carlos Indian Reservation, Phoenix, Arizona.
- Mar. 18-25 — Yaqui Indian Easter Ceremonials, Pasqua Village, Tucson Arizona.
- Mar. 23-24—Woman's Club Hobby Show. Community building Twentynine Palms, California.
- Mar. 23-24 — Easter Pageant, The Master Passes By, Box Canyon, Mecca, California.
- Mar. 25—Yaqui Indian Pascua Ritual, Tucson, Arizona.
- Mar. 25-28 — Spring Corn Dance, Cochiti, San Felipe, Santa Domingo and other Indian Pueblos, Santa Fe, New Mexico.
- Mar. 26-Apr. 8 — Tucson Festival Society's arts and crafts exhibits; excursions to historic sites; visits to Indian reservations; desert rides, Tucson, Arizona.
- Mar. 30-Apr. 4—Live Stock Show, Rodeo Grounds, Tucson, Arizona.
- Mar. 31—Saddle Club's Horse Show, Wickenburg, Arizona.



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*On the trail to the Peak of the Devil—the 15 Sierra Club mountaineers who spent nearly a week in their attempted ascent of ol' Diablo. Photo by Roy Gorin.*

# On the Trail to Picacho del Diablo

By LOUISE T. WERNER  
Map by Norton Allen

**O**UR GOAL was El Picacho del Diablo in the San Pedro Martir Range, towering 10,163 feet above sea level and the highest point on the peninsula of Baja California. Not many people have climbed this Peak of the Devil—given its name perhaps because it is so inaccessible, and its slopes so precipitous.

Fifteen of us had ventured into the interior of Lower California to make the ascent of ol' Diablo from the west. Our approach was through a primitive wilderness area of magnificent pine—a forest 40 miles long and 20 miles wide. Between this forest and Diablo peak is Cañon del Diablo, a great gorge 3000 feet deep, and this is the

barrier which makes the ascent of the peak so difficult.

The Sierra Club of California, Los Angeles chapter, had chosen this Baja California region for its Easter vacation outing in 1950. On Sunday, April 2, more than 100 members of the club gathered on the beach at Ensenada, 75 miles south of the Mexican border. On Monday the caravan moved south along the one highway in Lower California, most of them bound for Santa Maria beach, which was to be base camp for the week.

At Telmo Junction, 85 miles south of Ensenada, those of us who had chosen to spend our week making an assault on El Picacho del Diablo, left

"Only if you are in good enough condition to hike 20 miles a day with a pack, can you hope to make this trip." This was the advance warning sent out by Sierra Club leaders to members who wanted to participate in an assault on El Picacho del Diablo, highest peak on the Lower California peninsula. Fifteen rugged mountaineers signed up for the trip—and here is the story of their experience in Baja California 125 miles south of the border.

the caravan and turned toward the east on a dirt road for the 31-mile drive to Rancho San Jose where the road ends.

It isn't much of a road, but the hospitable Mr. and Mrs. Salvador Meling who own the San Jose ranch had been advised of our coming, and had put seven men at work on the trail to make it passable for our touring cars.

Roy Gorin was leader of our mountain-climbing group. Roy is a six-footer in his thirties, a veteran of many rugged ascents. His first consideration was the security of his party, and he had given each of us, long in ad-



*El Picacho del Diablo from the west, looking across Cañon del Diablo. This 10,163-foot summit is the highest point on the Peninsula of Lower California, about 125 miles south of the border. Photo by Al Schmitz.*

vance, a list of equipment, and the essential items for the trip. We had been warned that this was no expedition for one who could not hike 20 miles a day with a pack—and have enough energy left at the end of the day to cook and eat his own dinner.

Ed Peterson was assistant leader. He is a naturalist, and gave us interesting information about the botany of this mountain wilderness. Other members of the party were: Freda Walbrecht, Los Angeles attorney, and the first woman known to have climbed all the 14,000-foot peaks on the west coast; Capt. Sam Fink of the Santa Ana fire department and a seasoned mountaineer; Bill Stewart, physics and astronomy student at the University of California in Los Angeles; Jeane McSheehy, former WASP, now teaching geography in Coronado high school; Barbara Lilley, co-ed from San Diego State College.

Six were from Northern California: Helen Rudy, Al Schmitz and Frank Thias of San Francisco, Walter Donaghho of Sacramento and Al Maher and Jane Tucker of Palo Alto.

Mrs. Meling welcomed us with fresh apple juice. Her family came into

Lower California from Texas in the 1880's and settled on the western slopes of the San Pedro Martir Mountains. The only transportation then was by wagon train and they had to make the roads as they came. Mr. Meling's family came into the country in 1908 from Norway. The ranch house nestles comfortably on the bank of the sprawling Rio San Telmo. There is no telephone. Kerosene lamps light the parlor.

Mrs. Meling is a fine looking middle-aged woman, obviously capable of meeting all the situations that must be met during a lifetime spent a hundred miles from a doctor. She showed a motherly concern for our party. We did not meet Mr. Meling. He was out guiding another party.

Accommodations at the Rancho are as follows: rooms, \$3 per day; meals, \$5 per day; riding horses, \$3 per day, a packer, \$5 per day; pack animals, \$2 per day. Hot showers are available.

Ray Gorin checked our equipment to make sure no one ventured into that wilderness without the essential items that would keep us safe and independent for five days in a back-country

without grocery or drug stores or doctors. The dunnage was made ready to load on the mules.

On Tuesday morning before the moon was gone, we were cutting through the Meling pasture in an easterly direction. Each carried a lunch, canteen of water, halizone tablets, sweater, hat and sunburn lotion. Mrs. Meling with characteristic solicitude, came along for a mile to show us a turn-off she was afraid we would miss.

Ten miles later we passed the abandoned Socorro placer mines. The horse trail climbed gradually over pleasant ridges covered with manzanita, buck brush and California coffee berry. Birds seen in this Upper Sonoran zone were the wren-tit, California jay, valley quail and raven.

Senor Juan Soto, the only person we met in this whole region after leaving the Rancho San Jose, lives in a stone hut in a small meadow. He posed jauntily for pictures. His senora, he said, had gone to their ranchito three miles up a steep trail to tend the corn and potato patch.

The Oak pasture was to be our first lunch spot. As we approached a fork in the trail and were debating



*The waterhole at Vallecitos. Photo by Walter Donaghho.*

which way to go, a Mexican rode up and directed us. We had not suspected it, but Mrs. Meling had ordered him to see that we didn't get lost! The Mexican turned out to be Pompa, the packer's helper. Our packer was Bill Barré, a handsome French vaquero, son-in-law of the Melings.

After lunch we entered the western fringe of the forest and soon the four-leaved piñon was supplanted by the Jeffrey pine, which from then on was the dominant tree. Most of these Jeffreys are of moderate size but we measured one that was a good five feet in diameter.

La Corona was our first overnight camp. We had climbed gradually in 25 miles from an altitude of 2200 feet to 6600 feet. La Corona is a beautiful circular meadow surrounded by tall pines. The stream was running just enough that we could dip in a cup without stirring up the bottom. Here food was our first thought. Some had brought canned foods like beans, corn, tuna and roast beef. Some cooked spaghetti and some dreamed up weird concoctions out of dehydrated milk, minute rice, corned beef and bouillon cubes. Nearly all made tea, the mountaineer's favorite hot drink. Some had brought neat aluminum kettles that nest in one another and some had brought billy cans to cook in. Appetites were ravenous. No one felt like spending much time around the campfire that evening. During the night the poor-wills whistled.

Wednesday morning found us climbing in a northeasterly direction. The white fir, that harbinger of the cooler altitudes, appeared. Through long isolation in this dry southern environ-

ment, it has developed new characteristics. The needles are notably thicker and more bluish in color than those of its counterpart north of the border.

Early that day we got our first glimpse of El Picacho del Diablo. We hoped to climb this peak. It seemed so far away we wondered if we could reach it in the allotted time. We planned to reach the rim of Diablo Cañon that afternoon, shoulder our packs, drop down the 3000 feet into the gorge and camp that night on the bottom.

The temperature was delightful for climbing. Water became scarcer above La Corona. At Vallecitos, a meadow with a dry water course, Pompa had dug a water hole against a huge boulder and enough water had seeped in to fill all the canteens. We couldn't have gone very far beyond that point without that water hole. Eight miles to the southeast of here, at Los Llanitos, Pompa dug another water hole. Water took on even more importance because from here on we would not have the packers to locate it for us. We might not find water again until we reached the bottom of the gorge, and we weren't sure we would find any then. We knew that if we didn't find water in the gorge, we must give up the idea of climbing the peak.

The packs we shouldered at Los Llanitos weighed about 30 pounds and contained sleeping bag, full canteens, food for two days, cooking utensil, matches, first aid, parka, sweater and personal necessities. The packers shook their heads and said, "Why did we bring pack animals in the first place?" Putting on a full pack in the late afternoon, after having already

walked 17 miles that day, was just plain punishment.

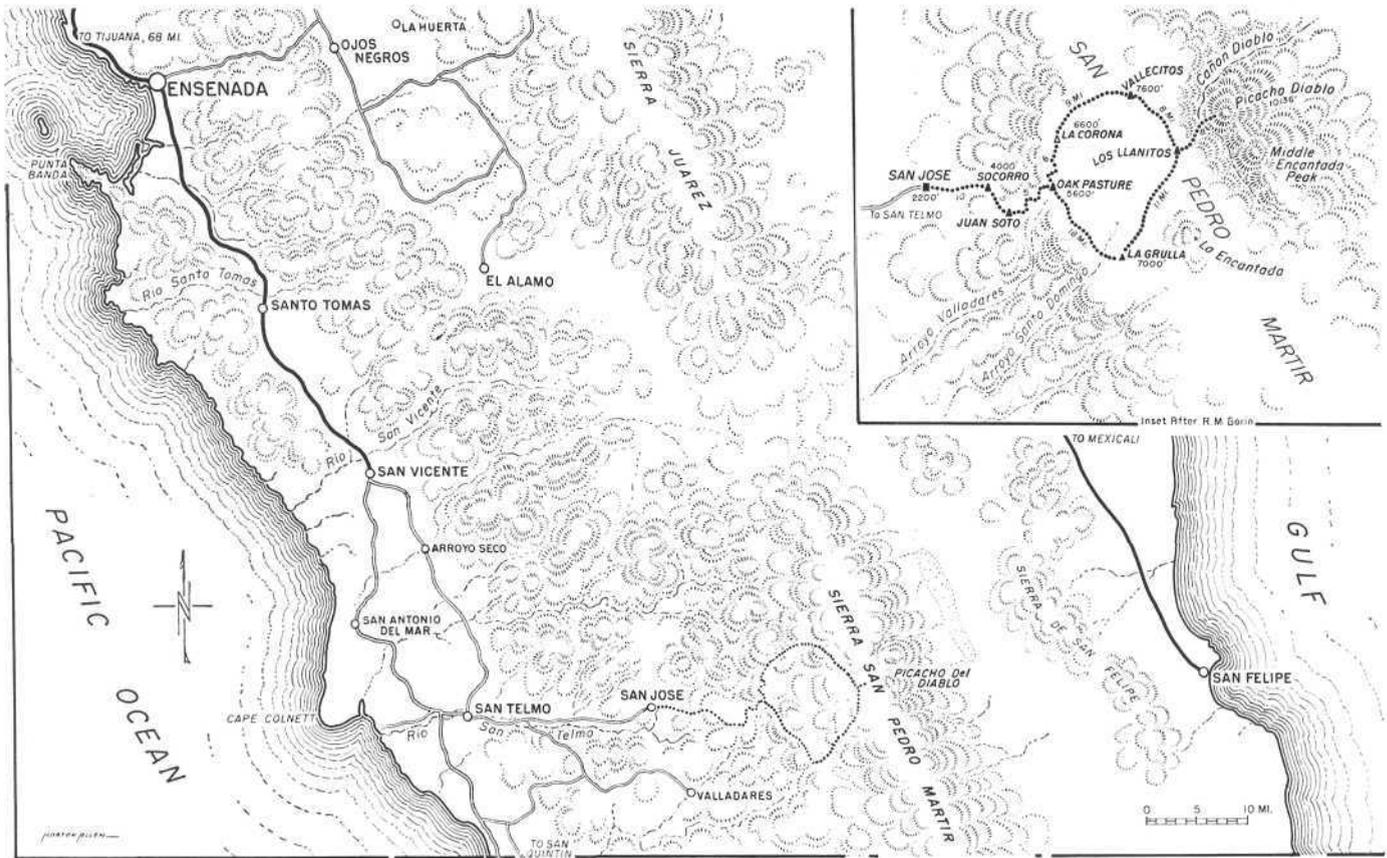
Jane Tucker, Jeane McSheehy and Walter Donaghho elected to stay at the water holes of Los Llanitos. That night they heard the screams of mountain lions. Twelve of us started for the rim, an estimated five miles. After toting the packs for about two miles, a nice little flat tempted us and we made camp for the night. We scattered to look for water, but found none. That made us all suddenly very thirsty.

Roy took inventory and found we had an average of two quarts each in our canteens. This had to do for dinner that night, breakfast the next morning, and the 3000-foot descent into the gorge. We had better find water in the gorge, we decided. Roy said, "If I catch anyone brushing his teeth, he'll get sent back to Horse Camp!" We crawled into our sleeping bags and dreamed of Utopia where all the streams ran clear, cool water. Next morning we found plenty of water in a gully a few hundred yards away, just beyond where we had searched!

We lost several hours Thursday morning, trying to find the rim. There were no trails, so we carefully ducked the route. A duck, in mountain lingo, is three or more graduated rocks placed one on the other to mark a route. They are usually placed so that from any given duck you can see a duck behind and a duck in front of you. Roy had also brought red and yellow ribbons which he tied to branches of trees and bushes. And yet, when we decided we must retrace a bit, we became temporarily lost.

Finally we found the elusive rim of the gorge of Cañon Diablo. It was as wild as our imaginations had pictured it. There, across the gorge, its summit only a thousand feet higher than the rim on which we stood, was El Picacho del Diablo. It would be a comparatively easy ascent if it didn't have that gorge protecting it. There is a route to the right, around the head of the gorge, but that involves several pinnacles where ropes are necessary for safe climbing. Norman Clyde and Randall Henderson scaled the peak in 1937, and avoided the gorge by making the ascent from San Felipe Valley on the desert side.

Lodgepole pines were abundant at this elevation, as were the San Pedro Martir cypress, found only in these mountains. Ed Peterson measured an ancient specimen of the latter. It was 15 feet in girth, perhaps a record for this species. A golden eagle soared over the Cañon Diablo. In the distance, the San Felipe desert dropped down to the blue waters of the Gulf of California, and the mountains of the



Mexican mainland had clouds above them.

El Picacho del Diablo itself is not a difficult peak. But to get to it, you have to cross some 50 miles of primitive wilderness. By the time you get within striking distance, you feel it is a hard-to-reach peak.

Jess Lang and Ed Peterson decided to remain on the rim, and our party was reduced to 10. We started down a steep tributary cañon, hoping it would take us all the way down without any drop-offs. There was some vegetation in the gully, even tall pine trees and a little grove of quaking aspens. Then it steepened a bit so that rocks began to move under foot. We had to go more carefully to avoid accidents from rock-falls. With ten people in the party, this was a slow and serious business. We were about halfway down the gorge when we realized that no one would make the mountain that day. We stopped to discuss the prospects. Five turned back under the leadership of Frank Thias.

Barbara Lilley, Sam Fink, Al Schmitz and I followed Roy in a slightly speedier dash for the mountain. We took some of the other party's water, averaging well over two quarts apiece; also extra food and sweaters, realizing that we would be bivouacking somewhere in the gorge that night. The rock work became a little more tricky, and the vegetation less. Suddenly, over the edge of a dry fall, we spied a beautiful pool of water! From

then on there was plenty of water all the way down to the bottom of the gorge. Had we known that from the start, our minds would have been easier.

Now we started up El Picacho. There is team work in strenuous mountaineering. There is a close knitting of the party. There is a strong feeling of one-for-all and all-for-one, that I have often wished could spread over the whole world. It is one of the things that makes mountaineering such a satisfying sport.

The lower part of the mountain was covered with manzanita. We worked toward a ravine with pines in it, hoping to get out of the brush. After we left the brush behind, the blocks of granite became larger and the going steeper. For a couple of pitches we used a nylon sling rope. We realized that we had started up from the gorge too soon. We should have continued down the gorge to the red banks before starting to climb. The route is just a rock scramble.

To complicate matters, the weather began to worry us. The sky had clouded over. A mountain top can be dangerous in a storm. If it should rain, the gorge might become a torrent and the ravine up the other side would be a mountaineer's nightmare. Roy estimated that we were about 1500 feet below the summit, and that it would take at least two hours to make the top, provided the going didn't get any worse.

Should we take the risk? We decided to turn back. From an armchair, such a decision may be hard to understand, especially if you have never had to make one like it. Individuals, when thinking as a team, especially in an emergency, sometimes make decisions that afterwards are not as understandable as when made. At that time, in that place, under those circumstances, it seemed the thing to do.

Dropping back into the gorge was quick work but when we began to climb up the gully again the strain of the long, strenuous day began to tell. We climbed about a thousand feet and decided to bivouac. There was enough daylight left for one last look over the gulf and the mountains of Sonora beyond.

We found plenty of wood in the immediate vicinity to keep two fires going all night. It was comparatively warm and windless and the sky cleared. Al Schmitz had a loaf of pumpernickel and a can of liver spread; Roy passed around a handful of almonds and a can of sardines; Sam Fink contributed raisins from his pack, Barbara Lilley had chocolate and I had some figs and a package of jello. This cold supper was cheered by lots of hot tea. Level space was at a premium but we were able to rest.

It was a relief to reach the rim on Friday morning and begin dropping down to High Camp and thence to Horse Camp. We had to leave there immediately because the mules had



Mrs. Meling took time off to help load the pack train. Photo by Freda Walbrecht.



Señor Juan, 90, who has worked on the Meling ranch 50 years. Roy Gorin photo.



Barbara Lilley, Los Angeles Attorney, first woman to climb all the 14,000-ft. peaks.

found no feed and were threatening to leave us cold. I suspect that after they saw that we could carry our packs, they said to one another, "Let's beat it and let these gringos carry their own stuff back. What do they think we are, anyway!"

Our route back was by way of La Grulla, a lovely dark green, boulder-strewn meadow. This part of the plateau gets more moisture as evidenced by several streams that really flowed.

We saw deer and a coyote. Bill Barré, the packer, complained that to go all the way to the Oak pasture that day was too hard on the mules! But the mules got no sympathy and an hour or so after dark we were unscrambling our rations at the Oak pasture in an effort to get a meal by flashlight.

We had left the forest behind, that wonderful oasis in a desert land. An American lumber company has secured the rights to log out this forest.

They estimate it will take 50 years to get it all out. This forest grew here during a past when there was much more water than there now is. Natural reproduction is at a low ebb, especially at the southern limit. According to present indications, the forest may never grow back.

On our way back to the ranch on Saturday we encountered our only rattlesnake, a fat, light brown beauty. He kept the sound effects going while a dozen people photographed him. He never attempted to strike. I think we were so steeped in the friendly atmosphere of his own domain, that he didn't fear us. Nobody had the urge to bash his head in.

We merely scratched the surface of this fine potential vacation land. Ours was a scouting of the possibilities and we learned enough to know that we want to go back some day soon, and in a leisurely fashion enjoy the superb scenery, explore the Canyon Diablo and climb El Picacho del Diablo.

### Vandals Apprehended . . .

Two residents of Palm Springs, California, were recently apprehended in the act of removing plants from the Joshua Tree National Monument. They were taken before the United States commissioner in Riverside and fined \$100 each. Superintendent Frank R. Givens warns visitors against damaging any natural features in the Park. Soil, dead wood, rocks and Indian artifacts are among the things on the taboo list.—*Desert Trail*.

## Equipment For Mountaineers

Members of the Sierra Club who took part in the 1950 Easter week trip were given the following list of suggested items for their outing. This list was for the general group. A somewhat more restricted list was used by the back-packers who made the assault on El Picacho del Diablo.

### ESSENTIAL ITEMS

Good stout, well-broken-in, almost new hiking boots (no tennis shoes)  
Heavy pants or wool underwear  
Parka  
Dark glasses  
Cap or hat  
Wool sweater  
Extra socks  
Knife, pocket or hunting  
Compass  
Flashlight and extra batteries (no pen lights)  
Small personal 1st aid kit, with tape and band-aids  
Waterproof matches  
2 Quart reserve water canteen or 2 quarts of juice  
1 quart or more water canteen for daily use  
Salt tablets

Kip or similar sunburn lotion  
Mosquito lotion  
Mosquito headnet  
Snake bite kit (1 for each car group)  
Sleeping bag  
Knapsack  
1 tent or equivalent for every four persons  
Food for five full days  
Utensils and can opener  
Soap  
Some light cord

### OPTIONAL ITEMS

Small pliers for Cholla (1 for each car group)  
Small towel  
Change of underclothes  
Small lightweight ground tarp  
Lunch bag to wear on belt or outside pack  
Pencil and paper  
Kleenex and toilet paper  
Candle  
Chore boy and dish rag



*Entrance to the shaft of the old Mina del Tiro as it appears today.*

# Where Slave Miners Toiled for Silver

By CHARLES L. KNAUS  
Map by Norton Allen

**L**OST MINES! Treasure of Montezuma! Caverns filled with virgin gold! Veins of pure silver!

You have all read tales of such wonders; dreamed of untold riches, lost mines hidden for centuries in the deserts and mountains of the Southwest. The more romantic lost mines are those which were supposed to have been worked by the Spanish Conquistadores prior to the Indian rebellion of 1680 which drove the Spaniards southward and out of what is now New Mexico and Arizona.

It was many years before the Spanish Conquistadores returned to these

regions and legend has it that during the interval, the Indians filled or covered all of the Spanish mines and so completely destroyed every trace that the returning Spanish conquerors could not discover the slightest sign of the old mines.

Further, the Indians exacted a promise that the Spaniards would not again engage in mining activities. So through two and a half centuries, these mines have taken on stature until today it would seem that all the wealth of the universe must lie buried in the unknown and lost Spanish mines, never more to be recovered.

Believed to be one of the oldest mine shafts on the North American continent, the Mina del Tiro in New Mexico has long since given up its silver treasure. But visitors still find an occasional relic of the days when Indian slaves carried the ore to the surface in buckets of rawhide. This story was written after the author had made a personal trek to the old workings.

One of these ancient mines is still in existence, however, little known and usually passed over by the wandering prospector. The Mina del Tiro, Mine of the Shaft, is situated in north central New Mexico, in the Cerrillos Hills 20 miles southwesterly from the ancient city of Santa Fe.

The Mina del Tiro is believed to be the oldest known underground mine in the Southwest, north of Mexico. Here is to be found the only concrete evidence of ancient Spanish mining in southwestern United States. The mine probably antedates any other known mine in the region by at least a cen-



*Looking down into the pit of the ancient Chelchihuitl turquoise mine, abandoned so long ago that juniper trees now grow on the dump.*

ture and is believed to have been worked by Indian neophytes under the direction of Spanish priests prior to 1680.

The mine was worked for its silver and possibly for lead. The full extent of the old workings has never been determined but access was through an inclined shaft about 100 feet in depth. This shaft had landings, or platforms, cut from the solid rock at intervals of 12 or 14 feet which were gained by climbing notched logs. There are extensive drifts leading from the shaft, many of them 300 feet and more in length. Great chambers are found from which the ore was mined.

The lowest portions of the mine are slightly below the level of permanent water and as late as 1870 the remains of an old canoe were in evidence in the mine. It is generally believed that canoes may have been used for transporting the rock and ore from the working places to the foot of the shaft from which point the rock and ore was carried to the surface on the backs of Indians, rawhide buckets being used for containers or packsacks.

The ore recovered was a sulphide of lead and zinc carrying rather high

values in silver and, no doubt silver was the principal metal sought.

Many crude and curious relics have been found both in the mine and in the dump and its vicinity; stone hammers and sledges, fragments of ancient Indian pottery, and other primitive implements.

It is hard to visualize the magnitude of this undertaking since by modern standards the mine is small. However, when we take into consideration the crude manner of doing the work and the complete lack of modern tools, the mine represents a tremendous labor and the expenditure of untold sweat and blood.

The full history of the Mina del Tiro is clouded in the mists of time and only bits of information have come to light here and there in the ancient records of Mexico and Spain. It was not until 1879 that the district was rediscovered by American prospectors. The years between 1680 and 1879 are almost blank pages.

For a few years following 1879, the Cerrillos district boomed greatly and several mines were opened that were to operate for many years. Some have been worked within the past decade.

As in the old Spanish mine, the modern mining has been for the recovery of lead and silver with zinc playing an ever more important role as modern methods are developed for its recovery. The ore deposits of the district are generally small, however, and mining operations have quite often met with indifferent success. Today there is very little activity in the district and none in the immediate vicinity of the Mina del Tiro.

The Cerrillos Hills, in which the Mina del Tiro is situated, cover only a few square miles in area. They consist of a dozen peaks separated by shallow canyons and gently sloping valleys. The mass of the hills consists of a vast upthrust of igneous rock which in past ages, while in the molten state, was pushed upward into the overlying sandstones and shales. These sedimentary rocks have been eroded by eons of rain, frost, and wind, and the hard igneous core has been softened and rounded into its present outline. It is an arid, hungry land with no surface water except for short periods of a few hours following one of the torrential downpours to which the region is subject during July

### Mina del Tiro Log

- 00.0 Junction with U. S. Highway 85, 15 miles southwest from Santa Fe
- 01.2 Road fork. Keep left.
- 01.3 Wooden bridge across small stream. Site of old Bonanza.
- 03.1 Road forks three ways. Keep to middle fork. Right hand fork leads to small mine.
- 03.9 Road fork. Keep left.
- 05.7 Site of old Carbonateville.
- 06.4 Road fork. Keep left.
- 06.9 Road fork. Keep left. Road to right leads to foot of Mount Chalchihuitl in about one-fourth mile. Old brick house is at right.
- 07.0 Cash Entry mine on left. Caretaker's cabin to right.
- 07.2 Road reaches bottom of main arroyo.
- 07.9 Mouth of arroyo in which Mina del Tiro is located. Leave car here and walk up arroyo to right as described in story.

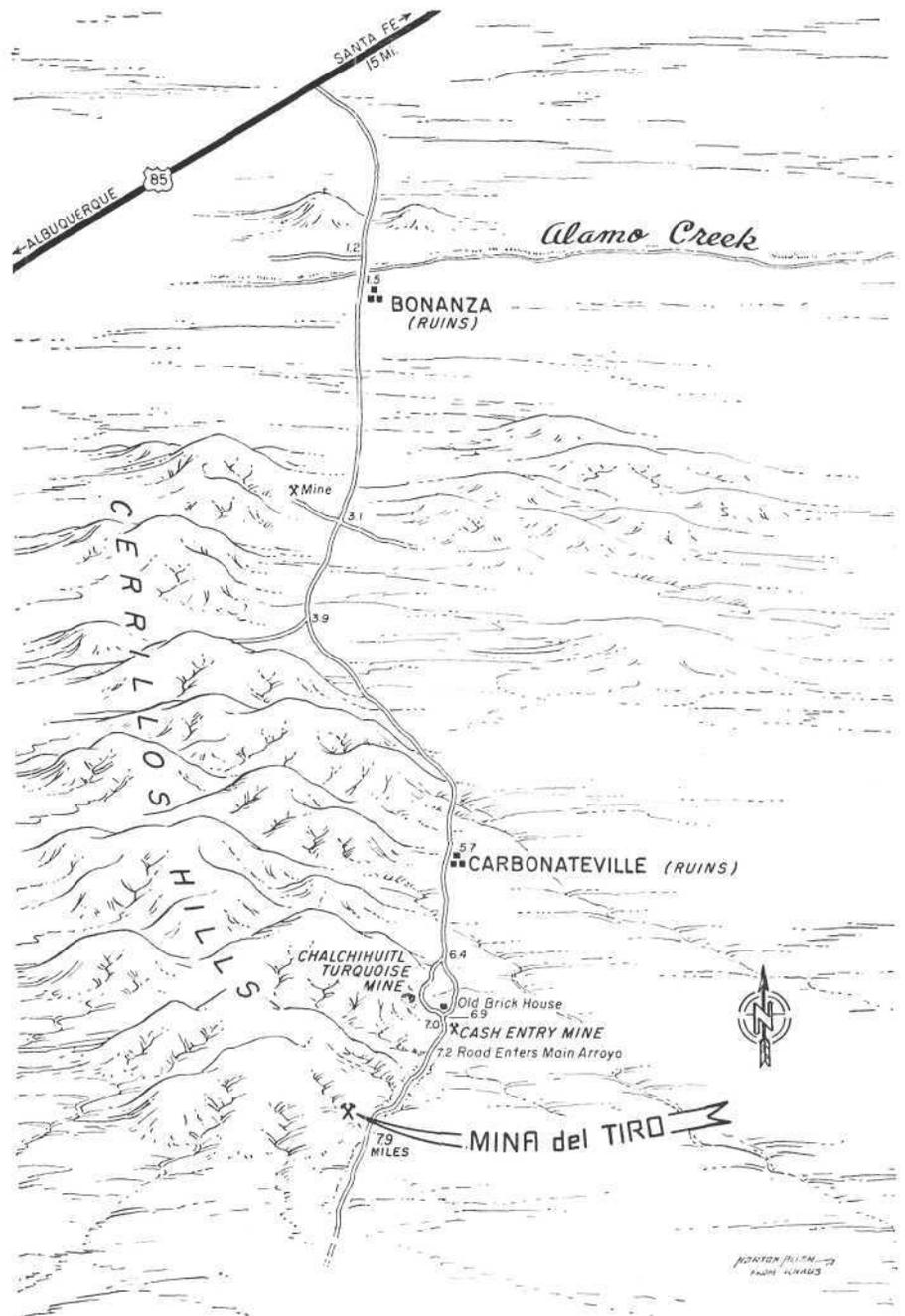
and August, or after one of the occasional winter snowstorms. It is a land of scattered vegetation, sand, finely crushed granite, and barren rocks; a hard, bitter land.

I shall never forget my first visit to the Cerrillos Hills and the Mina del Tiro. I left Santa Fe early in the morning and drove out the highway toward Albuquerque 15 miles. Here I turned left on a narrow dirt road that ran in a southerly direction winding between two rounded hills. Atop the larger hill to the right was a huge cross, no doubt placed there by the penitentes during the trials of some Good Friday dawn. The road eased across a gentle grass covered valley. A small living stream flows down this valley.

At the point where the road crosses this valley there is evidence of very old buildings, shapeless heaps of stone and adobe. Here during the boom days of the 'seventies was a thriving mining town of several hundred people—Bonanza.

Climbing the easy slope on the far side of the valley the way lies along the eastern side of the Cerrillos Hills near the foot of the steep slopes that lead to the summit of the hills. There are several forks in the road but I had been warned to remain on the road that essentially parallels the foot of the hills. At first the land showed a sparse growth of short brown grass—green only for a short time following the short rainy season of late summer.

As the road climbed gradually, it wound its way through short scrubby piñon, or nut pines, and cedars. Passing close against the eastern slope of a high hill the trail became almost a shelf cut from the mountain. Beyond



this mountain it dropped into a shallow canyon and passed the ruins of many stone buildings—all that remained of Carbonateville, once a boom mining camp. Here, to the old Inn, had come General Lew Wallace, Governor of New Mexico, seeking rest and solitude. Here the General had performed some of the work on his immortal *Ben Hur*.

On down the valley I drove and over a small rounded knoll to a two story brick house of the style of the gay nineties, abandoned now to the pack rats and other denizens of the hills. Nearby was an abandoned mine, the Cash Entry, once the largest producer of lead-zinc ores in the Cerrillos district. Passing over the hill with the mine on my left I followed the old trail and was soon driving along the bottom of a sandy arroyo. I followed

this wash for about a mile from the Cash Entry mine until I came to the mouth of a small arroyo coming in from my right, the third such arroyo since I had first entered the bottom of the main wash.

Here I left my car and hiked up the small arroyo to the right. In about 600 feet I came within sight of an old and very small wooden head-frame atop a mine shaft. This was the marker that I sought. Searching up the westerly slope a few yards, I found an ancient dump and the opening of a very old mine shaft—the Mina del Tiro.

Sitting on the old dump beneath the shade of a small piñon tree. I looked across the shallow valley to the sparse piñon and cedar that clothed its gentle slopes, and dreamed of those long ago days of the Spanish Conquista-



*The Cerrillos Hills in the background. The old camp of Bonanza was situated in the valley in the left center of the picture.*

doers when lowly Indian slaves labored here to recover a few insignificant bits of silver to enrich the coffers of the far away Spanish crown.

Brown-skinned men, naked except for breech cloth, crawled, sweating and groaning, from the hole that led down into blackness. Great rawhide buckets filled with jagged hunks of ore rested on their bruised backs. So bent beneath the great weight were they that it was as if they bore all the cares of the world as a burden that would persist until the end of time. Hawk-faced, sardonic Spanish soldiers stood guard, ready to mete terrible punishment upon the slightest hint of faltering or hesitation of an Indian beast of burden.

Far beneath the surface in the eternal blackness, relieved only by the smoky light of burning fagots and crude lamps, other slaves labored. Slowly, small bit by small bit, the hard rock and ore was worn away with the crude stone and iron implements. Sweating men loaded the rock into skin canoes and pushed it to the foot of the shaft for piling into pack-sacks. Smoke, heat, the occasional flame of a torch, the toiling Indians.

Here was indeed a hell! Men gladly died to escape its undeserved punishment.

I shook myself to escape the spell of the dream; a dream that would have been reality had I sat in this spot only a few hundred years ago. But now only the yawning pit of the old shaft remains to mark the oldest known lode mine in the Spanish southwest, north of the Mexican border. There is little of value left except sentiment

and the interest that attaches to the works of the old ones.

The rockhound and the antiquarian might find some ancient relic here, and only about a mile to the north is the ancient mine of Chalchihuitl, a vast open pit where turquoise, the beautiful skystone, was mined by Indians for untold years before the Spanish Conquistadores arrived. Here the diligent searcher may still find turquoise.

A word of warning. The Cerrillos Hills are all privately owned and the rockhound desiring to search in the area should seek permission from the owners. There is usually a caretaker to be found in the vicinity of the Cash Entry mine. Also, Cerrillos ores oxidize rapidly and in so doing burn the oxygen from the air of the old mines. Do not enter such mines unless you are properly equipped and know how to detect and avoid dangerous gases.

You will probably never become wealthy seeking the lost treasure of Montezuma at the Mina del Tiro, or elsewhere, but you will gain a rich measure of life in the search. and, *Quien sabe*, you might find Montezuma's treasure on some windswept hill.

#### Research Sources

Charles L. Knaus, a mining engineer, secured the material for this accompanying story from the following sources:

"New Mexico Mines and Minerals,"  
By F. A. Jones. Published by State of New Mexico in 1904.

"The Ore Deposits of New Mexico,"  
Professional Paper 68 of the United States Geological Survey. Published in 1910.

Information secured by personal conversation with Professor W. W. Long, New Mexico school of Mines, Socorro, New Mexico, and W. C. Smith, Consulting Mining Engineer, Silver City, New Mexico. Also from personal investigation of the area.



*The Patriarch and a younger ram on the skyline above the waterhole where George Roy had his camera.*

# I Found the Watering Place of the Bighorn

Ruthless hunting nearly drove the Rocky Mountain Bighorn from their western range. But laws now protect them, and they are slowly coming back. George Roy's experience in photographing these Santa Rosa sheep took place at a waterhole within 10 miles of the Desert Magazine's pueblo in Palm Desert.

Story and photographs  
By GEORGE M. ROY

**I** FIRST DISCOVERED this little band of seven Rocky Mountain Bighorns during the latter part of last May. I was in Dead Indian Canyon in California's Santa Rosa Mountains. From somewhere up ahead came a sound like that of a bawling calf.

Since it was not likely there would be range stock in this precipitous canyon, I proceeded cautiously toward a little palm oasis just ahead. Then, suddenly, I saw the sheep.

A large ewe scrambled up a steep ledge and stopped, looking down the slope from whence she had come. There was a plaintive bleat from below—and then I saw a very small lamb. It could have been only a few

days old. It looked up at its mother, let out another scared bleat, and scrambled gingerly and somewhat desperately up to the waiting ewe.

She immediately climbed again and waited; and again the little fellow looked up at her, voiced his protest, and with unsteady legs climbed the grade. Thus ledge by ledge, a few feet at a time, the old ewe led her new-born son up the steep canyon wall.

While I watched this little mountain-side drama, a loosened rock came bounding toward me from directly above where I was standing. My gaze shifted, I saw another fine animal—a half-grown ewe—staring down at me from a little rocky promontory

along the trail. So close was it that I could have hit it with a stone. This graceful animal would leisurely stroll along the ridge a few hundred feet at a time; then, coming to some little promontory or flat boulder, would assume a stance like a carved statue, looking down at me a minute or two before proceeding further.

About this time I chanced to glance upward. High up on the skyline, atop the ultimate pinnacle above the oasis, stood a magnificent ram. It was a quarter mile away, frozen statuesquely, its heavy recurved horns making an inverted pyramid of its head.

This was my first experience with Bighorns. For a long time—perhaps 15 or 20 minutes—I watched the

climbing animals, and in all that time I doubt if that ram so much as blinked an eye! He remained as unmoving as the huge boulder on which he stood.

The sheep finally climbed beyond my range of vision, stopping frequently to look back, obviously curious but apparently quite unconcerned over my presence in the canyon. I turned back down canyon, regretting that I had no camera with me that morning. Then I saw three more sheep watching me from the south rim of the canyon.

Several times later I returned to Dead Indian Canyon loaded down with photographic equipment, but I was not again able to get close enough to the Bighorns for more than a few long shots with a 12-inch lens. I finally gave it up and did not revisit their habitat for several weeks.

It was mid-August when I again made close contact with them. By then they were more or less permanently located on the high rocky bench that extends from Grapevine Canyon to Carrizo Canyon. All the local waterholes had dried up at that time except a small uncertain spring in Carrizo which they were using.

This time I was determined to stay with them until I had achieved my objective. During the next few days I had one of the most fascinating experiences of my life studying that little family of Bighorn Sheep on the rugged slope of that desert mountainside.

The wild creatures of the desert are imbued with a strong sense of friendliness but the accumulated experiences of heredity have taught them to regard with suspicion man's unheralded presence among them.

Mountain sheep are no different than other wild animals. They are possessed with an insatiable curiosity. This little band had never known the experience of being hunted by gunners so they had no acquired fear of me. Only their inherent sense of caution kept them inaccessible for the first day or two. They studied me critically from the rocky ramparts. Whenever I had to cross a cleared area, in stalking them, I chose such a course as to appear to be going away from them. I didn't fool them any but they must have liked my attitude. They tolerated my presence without visible alarm for a day or two; then curiosity got the better of them and they came down for a closer inspection. We became acquainted.

By the third day, they were grazing—alert but unafraid—within full sight of me at distances under a hundred yards. One half-grown ewe even stretched out comfortably upon a great flattened boulder for a nap, not more than a hundred feet away. Experi-

mentally, I began a slow approach toward her retreat and not until I was almost under her did she raise her head to regard me rather reproachfully with soft amber eyes. When I turned and withdrew, unhurriedly, she resumed her repose.

Rocky Mountain Bighorns formerly were numerous. In the early days, bands of 200 or more were not uncommon; and 50 or more were the rule. They were widely distributed. Known to science by the rather imposing designation of *Ovis cervina cervina*, Desmarest, they were to be found in numbers from Arizona and Colorado to Alberta and British Columbia, and on up to Alaska. They were slaughtered in great numbers by both Indians and Anglos for their meat; and white hunters eagerly sought the old rams for their magnificent horns that curve upward, backward and downward, forming almost a complete circle from the side view. So ruthlessly were they gunned throughout their extensive range that today they are seldom encountered. Only occasional sportsmen and local ranchers see them. In many places where they were once numerous they are now practically extinct.

A number of isolated geographical locations in time gave rise to variations from type and several of these have been classified as definite subspecies. The Bighorn Sheep of the Colorado Desert represent one of these geographical races which apparently came about in response to environment. Known as *Ovis nelsoni*, Merriam, by most authorities, they are characterized by a much lighter color than the type species, being almost white. They are also considerably smaller in size. An adult ram of the desert type will not measure over 50 inches in length nor stand more than 33 inches at the shoulders, whereas the northern Bighorn of the Rockies will sometimes measure five feet or more in length and may stand more than four feet at the shoulders. The local species has developed apparently in response to the dry, arid climate and the much lower altitude of their range. They have learned to adapt themselves to the Upper Sonoran zone and can get along with very little water, perhaps deriving some moisture from the succulents within their range.

They appear not to wander far from their favorite haunts except in search of water. My friends in Dead Indian Canyon for more than two months grazed over a precipitous, extremely rocky area not much more than one square mile; and never wandering more than a scant mile from their

diminishing water supply in Carrizo Canyon.

Held to the rocky terrain by their one remaining waterhole, they took moisture, during the summer months, three times a day—morning, noon and night. I usually missed the morning trek to water for they apparently went very early; but I was usually in time to find the old ram. He liked to dawdle over his drinking and was always last to leave the waterhole. Of course, he was always last to get there, too, for he invariably stood guard until all the others had been to water.

Sheep appear fond of galleta grass which grows very sparsely over most of their range. They also enjoy browsing on *Krameria*, burroweed and the thin grasses of the Upper Sonoran zone. When they descend to the sandy canyon floors for shade, they nibble on mesquite and other plants sparingly. A number of mescal stalks appeared bitten off about three feet above ground and I have wondered if perhaps the sheep did this earlier in the summer when the mescal was preparing to bloom and was therefore soft and somewhat sweet.

Mountain sheep have a highly specialized foot well adapted to their rocky environment. Lateral hoofs are present but the main hoof consists of a large spongy cushion. This serves admirably to absorb the shock of landing on hard surfaces. I learned to precede my Bighorns to the waterhole so that I could watch them descend the almost sheer canyon wall, a drop of several hundred feet. It was an amazing feat.

The first time I awaited their arrival at water, I tentatively picked out what I thought to be a feasible trail and focussed my camera upon it. When the sheep appeared, however, they scorned this less hazardous approach. They preferred to come down their own more spectacular trail.

First, one of the younger sheep appeared on the rim of the canyon, silhouetted against the sky. Long and thoroughly he studied the canyon walls. Then he started down as a second sheep took up the vigil on a lofty crag. This one was a ram just reaching maturity with a fine start of horns—obviously the elder son of the family.

By that time the first sheep was really coming down. He scorned the trail I had focussed on. Instead, he zigged and zagged down a sheer wall of raw granite. The worst of the treacherous descent was always made with the four feet bunched together. Twisting, turning, pausing occasionally to examine the terrain below, then bunching the hoofs for another pre-



*Two of the sheep may be seen against the shadow in the center of the photograph.*

cipitous sliding drop, the animal soon reached water. As he did, the second and older ram started down, more cautious than the first had been.

Almost at once he was replaced on the skyline by the Patriarch himself. I call him the Patriarch for he is the venerable sire of the little family. He is a magnificent specimen of his race. Stern, dignified and not given to any foolishness, he is perhaps six or eight years old—but possibly much older—in the prime of maturity. His beautiful horns are really something to see. He has the unquestioned obedience of his little family group as I have several times witnessed.

For a moment, as he appeared over the rim of the canyon wall, he watched the cautious, probing descent of the younger ram, whose questing eyes carefully examined the southern slope. Apparently assured that his son was adequately covering the southern approaches the Patriarch turned his back upon that direction and directed his gaze toward the north, overlooking a section of the serpentine Palms-to-Pines highway. Satisfied that no danger lay in that quarter, he called to the rest of his family and started down, pausing frequently to sniff the air and probe the canyon wall. His call was a soft but vibrant sound, half grunt,

half snort. Immediately the old ewe appeared, leading the lamb and two young ewes. They exhibited no fear whatever as they started down the slope. Was not Father and Elder Brother guarding the way? You could read the thought in their very attitude. The Patriarch was more than a little nervous at my presence so close to the precious water but the family accepted me without protest. I was careful not to make any abrupt movements and no startling sounds.

However, on that first occasion at the waterhole, I somehow loosened a rock which clattered noisily down to the floor of the canyon. Consternation seized the Patriarch. With incredible swiftness, he nipped the flanks of the two young ewes, starting them back up the canyon wall. Then he turned and trotted over to the old ewe and her lamb, standing defiantly beside his spouse, head somewhat lowered in a defensive stance. The lamb could see nothing to get excited about and sensing the nearness of water decided against further delay. Instantly, the younger ram, who had preceded them to water, moved in with obvious concern, but the Patriarch quickly took a new stance in front of Junior, gently nipping his flanks to invoke obedience. The next move seemed to be up to me

so I withdrew as quietly as possible, not wishing to wear out my welcome or keep the sheep from water. After that first time, they showed little concern over my presence. They had learned that I meant them no harm.

My camera never failed to excite their curiosity, perhaps because of the shiny chrome trim that reflected the bright sunlight. Once, when it was set close to the waterhole for a close-up shot, it was the lamb that broke the string that tripped the shutter. When the flash bulb went off, the youngster just about jumped out of his skin in his frantic haste to get out of there.

The reactions of the entire family were almost human. Once, as we lolled about on the rocky bench, the two half-grown ewes decided to go down to water and so started off down the trail. The young ram had been dozing on a boulder. He looked up just as the two ewes approached the brink of the canyon. As he quickly scrambled to his feet and took off after them at a high lope, one could almost hear him yell out: "Hey, kids, wait for me!"

Toward the end of August, as I was concluding my studies, another band of sheep abruptly appeared one forenoon. Apparently their waterhole had failed and they were hunting

water. They represented a somewhat older group for there were two nearly mature rams in the band. They tripled the population at Carrizo. The two bands readily mixed as though they were old acquaintances but they appeared to graze separately.

It is a characteristic of Bighorns that the rams who have not yet reached maturity keep apart from the rest of the band. Not until they are old enough to acquire the mating instinct do they run with the rest of the sheep. Then they may become fierce and quarrelsome. In fighting over an ewe, they ram each other fiercely and may knock each other unconscious from the impact of their collisions.

Mating commences early in September but they do not come out of rut until December. My friends and the neighboring band started pairing off late in August and were soon scattered all over the mountain, in pairs, seeking the higher ledges and seclusion.

While the lamb had enjoyed every priority and attention during the summer, at the commencement of the new mating season he was left strictly to his own devices, accompanying the half-grown sisters. Mating does not attract the sheep until the fourth year.

The natural enemies of the Bighorn are lions, coyotes and similar predators. With the recent reduction of lions in the Santa Rosas as the result of government hunting and trapping, it has become possible for the sheep to hold their own. They are beginning to appear again in small bands on both sides of the Coachella Valley and in the lower desert ranges. While they are not yet numerous, it is to be hoped that the present strict game laws and continued hunting of predators will enable them to repopulate, in time, the areas where they had become almost extinct. They are among our most interesting desert characters.

#### PAIUTES ASK COMPENSATION FOR 40,000,000 ACRES

At a hearing of the Indian Claims Commission in January, 50 members of the Paiute tribe in northwestern Nevada asked that they be reimbursed for 40,000,000 acres of land which they assert was taken from them illegally by Americans between 1860 and 1900.

The lands which they asserted were stolen from them include the present sites of Reno, Carson City and Winnemucca. Attorney for the Indians asserted also that they were entitled to share in the billion dollars taken from the Comstock lode.

One of the spokesmen for the tribesmen was Ocho Winnemucca, grandson of the famed chief of that name.

## Gem Fields on the Mojave..

Since northern Mojave Desert is an area rich in minerals for the gem collector and lapidary, the *Desert Magazine* this month presents a field trip map showing 19 of the locations where 50-odd different species of collecting rock may be found.

This map was prepared originally by D. F. MacLachlan, publicity chairman, as a guide for the hundreds of visitors who were present at the state convention of the California Federation of Mineralogical Societies at Indian Wells last June 17-19, and was reproduced by Norton Allen of the *Desert Magazine* staff through the courtesy of the Searles Lake Gem and Mineral Society, the Mojave Mineralogical Society and the N.O.T.S. Rock-

hounds, hosts at the state convention, and Mr. MacLachlan.

The bold lines shown in the map are paved roads. The lighter lines are gravel roads, some of them rough and not always passable. Motorists going into the areas will know the limitations of the vehicles they are using, and can gauge their travels accordingly. Members of the Trona, Mojave and China Lake mineralogical groups generally can give more detailed information as to the exact spots where material will be found.

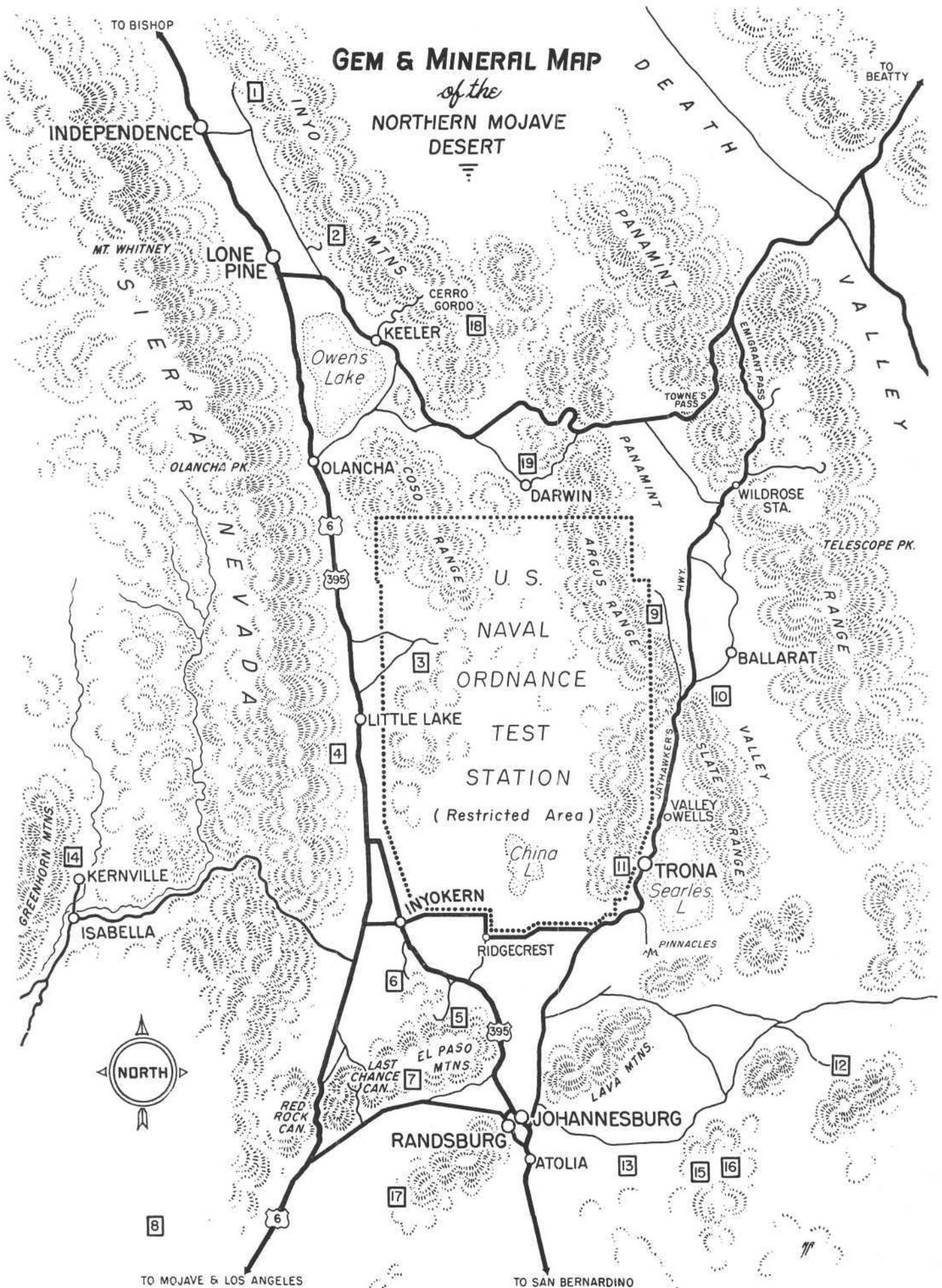
There are good campsites in practically all of the areas listed, and ample wood at most of them. Field trippers, however, should carry an ample supply of water for dry camp if necessary.

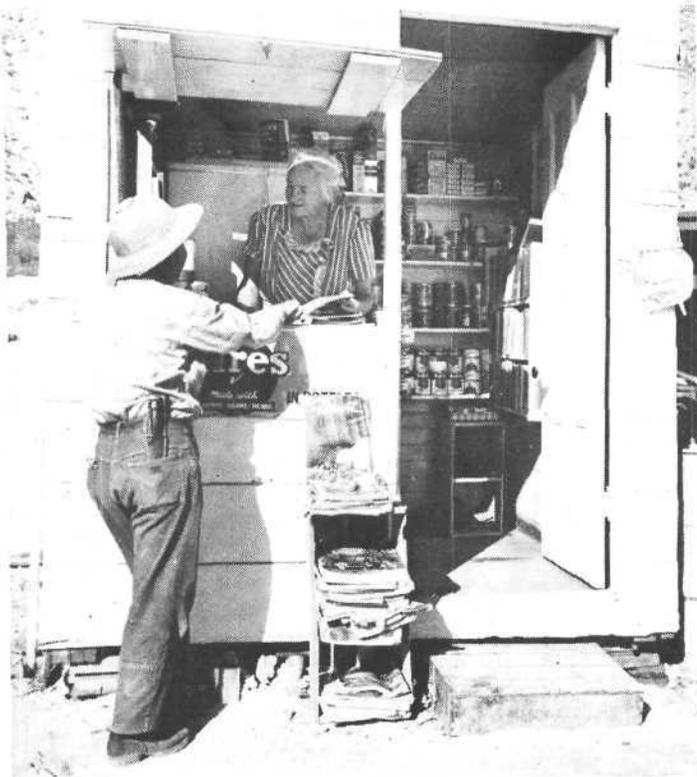
#### KEY TO MINERAL AND GEM MAP OF NORTHERN MOJAVE DESERT

1. Smoky quartz crystals and plates
2. Amazonite and beryl (aquamarine)
3. Obsidian, chrystobalite, and fayalite
4. Quartz (desert diamonds) and sanadine
5. Jasper
6. Jasper and agate
7. Jasper, agate, chalcedony, petrified wood (palm and fig), precious opal, chalcedony casts of calcite, and calcite
8. Cinco (5 miles off map on Highway 6) Carlsbad twins of feldspar and aragonite
9. Travertine (Death Valley Onyx)
10. Ophicalcite (altered serpentine)
11. Halite, hanksite, burkite, gray-lussite, pirssonite, tincal, trona and sulphohalite
12. Agate, chalcedony, jasper, precious opal, nodules and geodes
13. Rand District: gold, silver and tungsten ores and minerals, scheelite "spuds" and rhodonite
14. Smoky and rose quartz, odd forms of quartz crystals, tourmaline in quartz, gem clear scheelite crystals, epidote and epidote pseudomorph after garnet
15. Kramer Hills (35 miles off map on Highway 395) agate, jasper and petrified wood
16. Calico Mountains (60 miles off map on Highway 466) ghost towns of Calico and Borate, petrified palm root and wood, travertine, colemanite, howelite, gypsum, strontianite, and celestite.
17. Boron (30 miles off map on Highway 466) colemanite, ulexite and other borate minerals
18. Galena, argentite, crysocollo, malachite, azurite, quartz and various lead, zinc, copper and silver minerals
19. Galena, pyrite, sphalerite, linnerite, calcite, caledonite, scheelite, plumbojarosite, sulphur, fluorite, cerrusite, anglesite, brochantite and possibly some of the rarer lead, zinc and copper minerals.

# GEM & MINERAL MAP

*of the*  
NORTHERN MOJAVE  
DESERT





Health-seekers come to Mary's for food and reading



Mary Smith, pioneer merchant of Agua Caliente oasis.

# Mary's Store at Agua Caliente Oasis

By FREDERICK J. COLBERT  
Map by the author  
Photographs by Lloyds of Potrero

**T**HE FIRST time I stopped in front of Mary's store, Brigham Young's famous words, "This is the place," suddenly popped into my mind. While she was waiting on me, I remarked, "Mary, you have a gold mine here. When they build the new surfaced highway through, you'll be sitting pretty." In her quick but serious manner she replied, "But I'm not a gold digger."

Smacking of the outposts of 1849 this one woman town is located in an isolated California desert region. Many prospectors have trekked over that arid country. Thomas Pegleg Smith's lost gold mine may not be far from Mary Smith's place. The Concord coaches of the Butterfield stage line rumbled along the very route that passes the store. That was in 1858. Many years before that this same route was used by those hardy souls who

headed further west from old Fort Yuma in search of high adventure and that illusive stuff, gold. Long before any white man knew the route it was a well charted Spanish trail. It is near Agua Caliente Hot Springs, between Vallecito stage station—now authentically restored—and Carrizo.

For thousands of years men have sought health and relaxation at nature's hot springs. Agua Caliente has served aborigines, Spanish explorers, American pioneers and soldiers, desperados and prospectors. Now folk who have heard the call of the desert come to this desert retreat by motor car from far and near.

Agua Caliente, according to Robert Crawford, deputy sheriff and custodian, has an average of 100 campers all the time. Last Easter season there were 150.

By recent action of the San Diego

Like hundreds of others, Mary Smith came to the little oasis of Agua Caliente in San Diego county, California, for her health. But while living costs at Agua Caliente are not high, one does have to eat—and Mary solved that problem by opening a 6x6 foot store to serve the other health-seekers who camp by the healing waters of this remote desert hot spring. Here is the story of an unusual business venture.

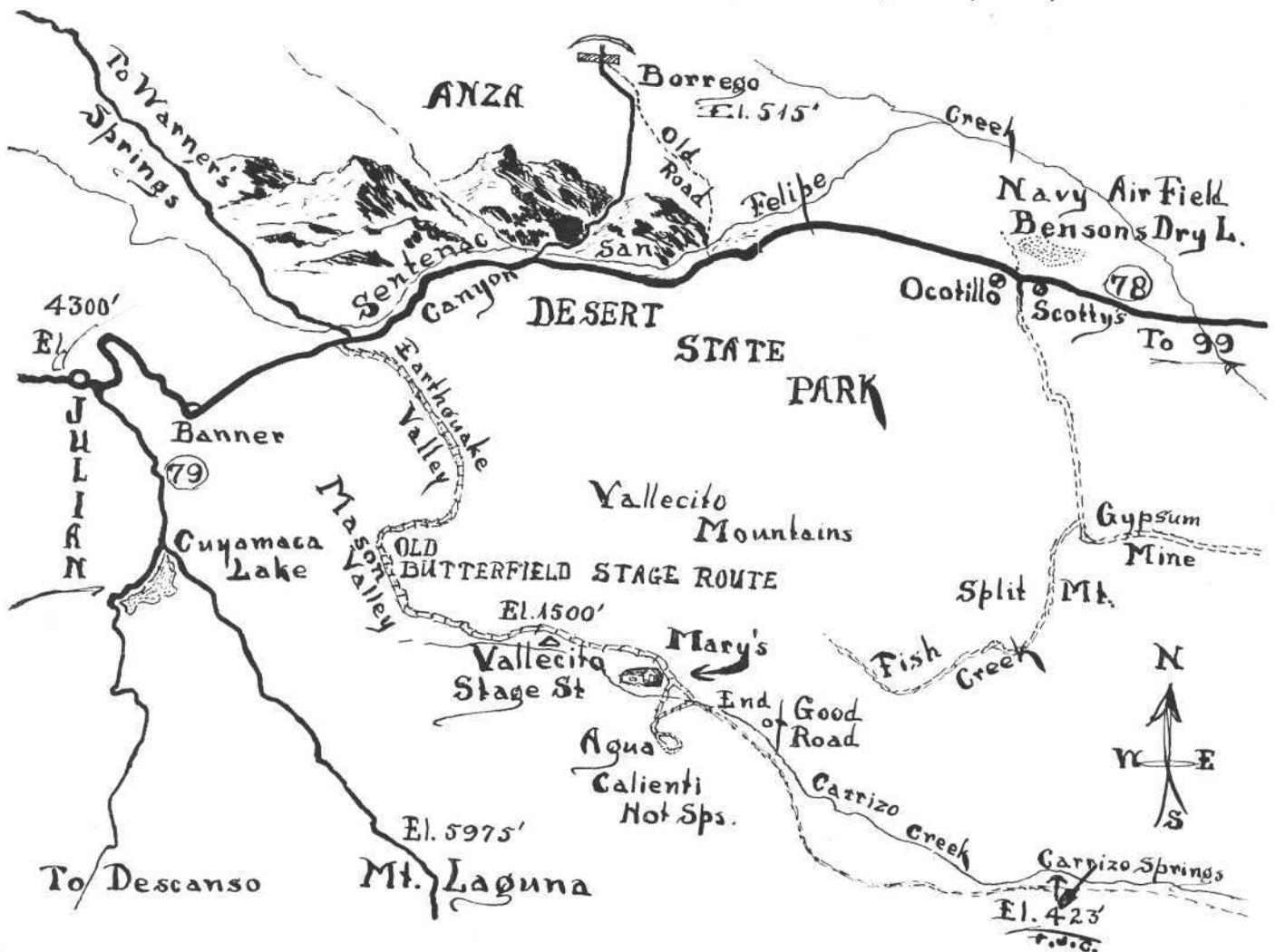
county board of supervisors effective February 1, 1951, a charge of \$3.00 a week is made for each trailer or auto camp space at Agua Caliente. However, there is no charge to anyone the first two weeks. Only those who are there for health reasons will be given permits to remain longer than two weeks.

Many stay as long as six months. Those afflicted with arthritis outnumber all other sojourners. Those with asthma and sinus ailments also come here. Some claim almost miraculous improvement in their health. Doctors who are ill or overworked find it a favorable spot for their own troubles.

There is no such thing as monotony or boredom here. Horseshoes are a favorite pastime for some. Many are out in the hills prospecting. Sun-bathing as well as hot mineral water baths brings back jaded nerves and restores



Mary Smith's doll size store—and the trailer in which she lives. The 6x6 foot store not only sells feed, but also is a branch of the San Diego county library.



health. For hikers, there is abundant space and plenty of pure air to breathe. Here one may live close to nature.

The San Diego County Planning commission, under the direction of Dr. Wedgewood, has arranged for additional improvements. The water supply, both cool and hot seems to be unlimited. Dr. Wedgewood asked Mary if she would open a cafe, and enlarge her gas service operations so as to take care of those who would come in by airplane. The new landing field will be on a flat stretch of desert directly across the highway from Mary's store.

The plans call for the building of a museum at Vallecito stage station. Here will be displayed relics of the old Butterfield stage line, Indian and frontier days. The supervisors of Imperial and San Diego counties expect to improve and make easily passable the road leading on through from Agua

Caliente Hot Springs to Highway 80 near Plaster City.

Julian is the nearest town, 36 miles. Upon leaving the pavement on highway 78 at the Butterfield stage line monument, there are 24 miles of good graded desert road. Plaster City is 42 miles to the east. Mary was right when she said, "You couldn't drive to Plaster City over the old stage road if you wanted to." Only with a jeep or power wagon should one venture more than a dozen miles on east of Agua Caliente Hot Springs.

Rockhounds know this area as a fertile field for their hobby. Mary is acquiring an interesting collection of rare rocks and gem stones, as her visitors often leave specimens. Indian arrowheads and other relics may still be found within a half mile of Mary's. In the Fish Creek and Split Mountain country are found ancient fossils and petrified woods. Many sea shells, in-

cluding, huge oysters are still uncovered near by. Don Frier, prospector, gave Mary a nugget of free gold he found. Don comes in weekly for supplies, as do many other prospectors, still filled with that uncontrollable urge to search for the yellow stuff. Some are still looking for Hank's lost gold mine over in Fish Creek region. So far, they have brought in only good agate.

Mary Smith was born near Ogden, Utah, June 1, 1891. After losing her father she and her mother lived with her grandparents on a small ranch west of Ogden. It was there she acquired her love of the wide open spaces. Animals on the ranch were her playmates. From her grandfather, Robert Griffin, a civil war veteran, she probably inherited some of her pioneering spirit. He was a railroad contractor, and built many of the depots for the Southern Pacific railroad from Kansas City across the west and north into Canada. Those were rugged days.

The greater part of her life has been spent in restaurant and cafe work. Her husband died in 1921. She has no living children, no near relatives. After living in Brawley and Westmoreland where she owned restaurants, she moved to Julian in 1934, where she still owns a modest little house surrounded by trees and flowers.

Two years ago last Christmas she suffered a heart attack. The doctor told her to get out of the high mountain country. She followed his advice, and went down into the desert. She had her old 1929 Ford sedan made into a truck. A lease was obtained from the county upon her present site, and in June, 1949, she opened up for business.

Part of the summer she slept in a sleeping bag on the floor of her old converted car. She says, "The floor was made of hardwood, and they sure put the hard side up." A trailer was acquired, in which she now lives along side her doll-house store. The store is 6x6 feet.

Mary says she is especially proud of her new library, a branch of the San Diego county library. It is unique, being one hundred percent non-fiction. Her desert folk want factual and scientific reading, chiefly on the desert and its many and varied characteristics.

Cats are her hobby. She had 12 a few weeks back, probably more by now. One morning a camper came in all excited and wide-eyed. He had been awakened in the night by the largest wildcat he had ever seen. It was prowling about his camp in the moonlight. Mary kept a poker face.

## Here's Water Forecast

For the information of irrigation farmers and domestic water users in the desert Southwest the following is a brief summary of the U. S. Weather Bureau's forecast of the runoff to be expected in the various watersheds, based on precipitation and snowfall during the period from September to December:

### COLORADO RIVER BASIN

*Colorado River above Glenwood Springs:* Above normal runoff is expected if precipitation during the remainder of the season is near normal.

*Green River Basin:* Precipitation over the upper Green, Yampa and White rivers was above normal at higher elevations and slightly below normal at the lower elevations. Outlook for the upper Green is good, for the Utah tributaries below normal.

*San Juan River Basin:* Below normal precipitation has been the rule and unless record rain and snowfall takes place during the late winter and early spring the runoff will be much below normal.

*Little Colorado and Gila River Basins:* Drouth conditions have prevailed, the precipitation being only 30 percent of normal. If normal precipitation prevails during the late winter and early spring, the runoff may build up to 30 to 50 percent of normal. If the drouth continues there may be a record low runoff.

### GREAT BASIN

*Great Salt Lake Basin:* Precipitation from September to December was above normal. With near normal

precipitation in the months ahead the season's runoff may be 120 to 140 percent of normal.

*Sevier and Beaver River Basins:* Precipitation the last four months has been below normal. If normal rain and snowfall prevails during the remainder of the season the total runoff will be 60 to 80 percent of normal.

*Humboldt River Basin:* Heavy precipitation the last two months of 1950 promise a high runoff. Good rain and snowfall during the remainder of the season could result in a total runoff 300 percent of normal.

*Truckee, Carson, Walker and Owens River Basins:* Accumulated total precipitation at the end of December well above normal. Runoff may be from 150 to 200 percent of normal.

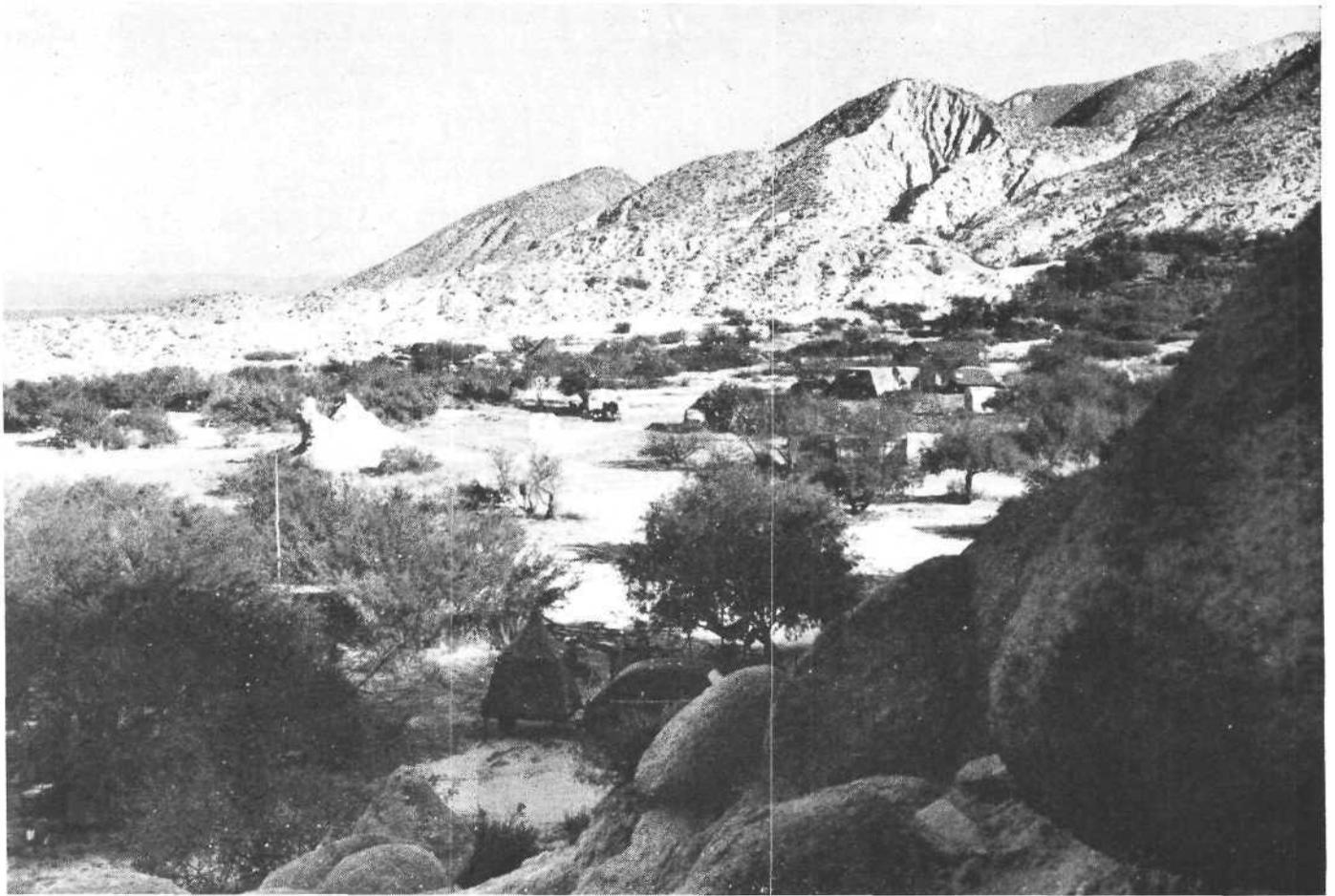
*Mojave River Basin:* For the fall season precipitation was only 30 to 40 percent of normal. Normal precipitation during the remainder of the season may bring the total runoff to 50 percent of normal.

### RIO GRANDE BASIN

*Rio Grande Basin:* Inflow into Elephant Butte dam is expected to be 40 percent of normal, unless record precipitation takes place during remainder of season.

*Pecos River Basin:* Precipitation much below normal. Forecast is for about 50 percent of normal runoff unless there is record precipitation during remainder of the season.

The U. S. Weather Bureau will issue another report on April 1, based on late winter precipitation and snow-pack data.



*Oasis of Agua Caliente where both hot and cold water bubble from the earth. The mesquite trees provide the only shelter available here. Health seekers bring their trailers, or their own camping facilities.*

She had just spent an hour pulling cactus spines out of her half grown yellow tomcat. She did not disillusion the fellow, but she knew that the kind of cactus kitty had been in grew all around his campsite. Her cats are kept inside a large chicken-wire enclosure, not only to safeguard them, but also to prevent them from hunting birds and quail. She never did find how that yellow cat got out.

Coyotes come down around her store and trailer nearly every night. There is a wildlife watering tank back against the hills, kept in good condition by San Diego county. An abundance of free water is available. Nearby Burro Springs water is cool and good. The county put up a 500-gallon tank and piped water down to the store. At times she has seen as many as 250 jackrabbits coming for a drink at sundown.

One time when stopping at Mary's place for cold drinks and gasoline there were half dozen old-timers settin' around in the shade of the patio. She said, "They are members of the desert spit and whittle club. Their tall tales are all winners. I never need to

buy fertilizer for my plants and trees." Mary has a rare and honest personality. She has a ready answer for all questions. She knows her desert, she knows the world. Whether her guest or customer be an old timer, a hardened desert rat or a Professor from Berkeley, Mary is always at ease, and makes everyone feel at home.

The entire area around there, the very atmosphere is charged with romance of vanished days. To the southeast are the rugged Coyote mountains. To the north the Vallecitos, gaunt and desolate, yet colorful and intriguing, their lost mines still cast a spell over those born with gold fever in their veins. The bad lands, over east, have taken many a life during those days a hundred and more years back. Against the southern sky stand the Tierra Blancas, throwing long deep shadows in late afternoon.

Mescal grows in wild profusion along the road. It's huge golden blossoms in spring are something out of this world. Ocotillo with its flaming red spikes topping each tall green-leafed cane covers vast areas. Cacti and mesquite are found in abundance.

Smoke trees follow the sandy washes. When rain comes desert flowers bloom. Seldom will one miss seeing some display of blossoms.

A career woman? Sure. Some, might ask, "How can a woman stand it out there alone?" Alone? One is never alone on the desert. Each morning the big and lazy jackrabbits leisurely gallop away from their breakfast upon the low green substance of the prickly pear. The chipmunks scamper across the sand, talking to those who have ears to understand. The desert quail run here and there in search of their daily subsistence. The owls soar in search of small rodents. The road runner always seems in such a hurry. The ways of the desert are slow, eternal. No, one is never alone on the desert.

It is doubtful if in all the great southwest, there is an oasis so small and yet so welcome to desert folk and to desert travelers, as is Mary's '49er town. The greatest of all treasures consist of health and contentment. To thousands the deserts have given these priceless riches. After all, gold is where you find it.



Frank Coffey always followed his burros—sometimes a couple of them, at other times a dozen. Photo by Stuart Peck.

Frank Coffey was one of the last of the one-blanket prospectors of the desert country. He never made a rich strike—and did not seem to care much. His greatest pleasure was in telling tales—tales that went on and on without end. Edmund C. Jaeger knew Frank well, and out of that acquaintance has written this story about a prospector whom everyone loved.

By EDMUND C. JAEGER

## Burro-man of the Desert...

ONE OF the most gifted story tellers of the Southern California desert was Frank Coffey who for many years before his death in 1936 lived in a little cabin at Dos Palmas on the old Bradshaw stage route near the head of Salton Sea. Among the desert rats Frank was known as the Mayor of Dos Palmas.

I first met him in 1919. He was past middle age then, and had been prospecting the Colorado and Mojave deserts according to his story since the '80s. He was a graduate mining engineer, and in 1906 worked with the Southern Pacific engineers when they were rushing shoo-fly track construction around Salton Sea to keep their roadbed above the rising waters of the flood which poured into the sea from a break in the Colorado River below Yuma.

Frank had followed his burros through every canyon in the Chocolate and Chuckawalla Mountains, always in search of pay dirt. He lived and followed the trails alone much of the time—but he was not a recluse in any sense of the word.

Frank generally introduced himself to a stranger as a very quiet man. "Now, I'm a man of few words," he would begin in rich-voiced and deliberate manner. Five minutes later he probably was starting a narrative that would take four or five hours to finish. Story material or a gifted vocabulary never failed him.

The longest tale I ever heard Frank Coffey tell began the first morning I

met him. It was 10:00 o'clock when he started and almost without interruption he talked until midnight. Then I protested because of drowsiness. I told him he'd have to finish next morning. Sure enough, he had me out of bed at daylight, the story was soon resumed and I never heard the finish of it because in desperation I packed my burros and pulled away from him at mid-day. He followed me a half mile talking all the while before he finally reluctantly turned back.

Frank Coffey was a burro-man. He always had several jacks and jennies around him and he loved and trusted them as few desert men I've ever met. Gus Lederer, prospector at Corn Springs in the Chuckawalla Mountains, always had anywhere from a dozen to 18 of the animals and once a year the Mayor of Dos Palmas and his burros traded visits with the Mayor of Corn Springs and his tribe of donkeys. Neither would have thought of exchanging visits without taking the burros along.

On Sunday morning Coffey generally baked a huge pile of soggy flap-jacks, enough to last a week for himself and his burros. His beloved animal cronies usually got a pancake feed at least once a day. "Coffey's leatheries," the pancakes were dubbed by the prospector himself. I learned by tasting one that they were well named indeed. Only a burro could fail to have a heavy stomach after eating one.

Coffey's prospecting adventures never panned out. He was always liv-

ing on the border-line of poverty. Quite often the only way he lived at all was by getting some unsuspecting tenderfoot to give him a grub-stake. He prospected until the stores of food ran out and then looked for another Good Samaritan to locate mines for. One couldn't help liking Frank and his friends were always adding to his larder gifts of canned goods and staples in exchange for a chance to hear his anecdotes. One of his ways of securing a square meal at the expense of new acquaintances was to invite them to take him up nearby Salt Creek so

*This was a characteristic pose of Frank Coffey—he gazed at the ground and talked on and on.*





*This picture of Dos Palmas oasis where Coffey lived in a cabin for many years was taken in 1946. The original two palms have increased to many in recent years.*

he could show them his famous "needle." This was a spectacular clay and conglomerate formation in one of the side canyons and was well worth seeing. Coffey never tired telling of its beauty. Generally he arranged to take his friends up there at a time that would span the noon lunch hour. Of course he got a square meal out of it, and left-overs usually were passed on to him. These he accepted apologetically with such courteous language as only Coffey could muster.

Frank Coffey regarded himself as quite a cook. He never tired of bragging of his culinary abilities. One time I came upon him at the table while he was eating some grease-soaked bread from a frying pan. Around him on the table were seven cats each happily chewing away at a slab of burned-black yam. "Coffey's good coffee" was generously served but was always the worst brewed drink on the desert. It never bothered him that he had to make it from the famous Dos Palmas salt and alkali water or that the coffee grounds were old. He often failed to empty them for a week.

His beans were so hot with chili it

took a man with an asbestos-lined mouth, gullet and stomach to eat and digest even a half plate of them. He boasted that he had an efficient way of keeping his table "reasonably" sanitary. He started off each week by putting down a fresh newspaper. When that got gummed up and sticky with grease and syrup he just added another paper. By the end of the season the table cover might be a half-inch thick and each part was well glued to its predecessor. At the back of the table next to the wall was an assembly of dust-covered pepper-sauce bottles, spice cans, soy-sauce jugs and miscellaneous pickle and mustard containers.

Dishwashing was no chore for Frank. A tub of water from the warm "milk spring," as he dubbed it, was near at hand and all he had to do was to toss the dirty dishes in and "let 'em soak." When meal-time came again he fished out and rinsed the ones he required and the rest remained in soak perhaps for a fortnight or longer.

Posted all over the desert on Coffey's lines of travel, on palo verde trees or mesquite limbs and on driven stakes, were his invitations to friends and

strangers to come and dine with him. Written in the beautiful hand-writing of a real pen-artist, one might find out in some lonely spot 20 miles from the nearest camp a sign reading:

*"When you get ready, come to camp and we'll make up a stew with all the trimmings. Frank H. Coffey, prospector in charge for the owner."* or:

*"Make yourself at home. Gone to Mecca to vote with the other burros. When I get back we'll make a big mulligan stew, trimmings and all. Frank H. Coffey, a prospector and a good one."*

Nearby one might find a couple of blackened stones marking the site of his all-night or hurried noon-day camp and beside it would be a pile of wood; for with him it was a matter of honor and decency to "always leave a little wood for the next fellow's fire. That next fellow might be you."

Beside the old wagon-road passing Dos Palmas Spring was a grave stone about whose origin Frank Coffey gave an account to every traveller who would stay on to listen. It marked the grave of "Poor Baby White." It seems



*Although this picture was taken several years ago, the little grave and the headstone placed there by Frank Coffey may still be seen near the palms.*

that a party of roving Texans once passed Dos Palmas and while they camped at the spring a baby died. The parents simply dug a small trench, laid the body in, covered it over and passed on, marking the place with not even so much as a grave-board. That was too crude for Frank Coffey. He went north-east 50 miles to the Coxcomb Mountains, got a slab of soapstone and carried it all the way by burro to Dos Palmas. On it he chiseled an inscription and placed the headstone on the grave. As long as Coffey lived at Dos Palmas he never failed to see that a flower or two was placed occasionally on the grave of "Poor Baby White." Thus was registered the human side of a rough, "patch-pantsed prospector."

Coffey was intimately connected with the development of old Red Cloud Mine at the southern base of the Chuckawalla Mountains. He often told of his neat job of stone laying, when the mine boss wanted a small smelter built. The smelter was erected a half century ago but most of the walls are still intact. Coffey had no use for the mine promoter, who he said salted the mine and sold shares of stock to his friends. "I don't know what he ever did want a smelter for, unless it was to smelt stockholders," Frank would say.

Water was hard to get at old Red Cloud but it was plentiful across the mountain to the east at Corn Springs. It seems that a widow was in possession of the springs, and according to

Coffey the promoter at Red Cloud wanted the water. He trumped up charges and entered suit against her for her holdings. Coffey liked to tell how he was "all for justice for the poor old widow and all out to aid her," and how in the court he testified in her favor and helped her to keep her water "from that hypocrite from Los Angeles." "Say, I'd sell a gold mine to a rich man, but I'd never sue a widow." I've often heard him proudly say in ascending tones of excitement as he slapped a hand on my shoulder and almost pushed me backwards off my feet. Sometimes he'd repeat it three times in succession each time ending with the exclamatory "What! What! What!", in tones louder than before.

In his later years Old Frank became so feeble he could no longer look after himself. His friends got him to go on an auto ride which ended at the Riverside County Hospital. To put Frank Coffey in an institution was like putting a wild free animal in a cage. He never could accustom himself to the confinement and to the routine of hospital civilization. He was so crushed in spirit and so unhappy that he was finally allowed to go into a nursing home. But that too, was different from his beloved desert. He died in October, 1936, at the age of 77, a lonely and dejected man.

The prospector's name is perpetuated in place name on maps of the Chocolate Mountains where he spent much of his life. Coffey Spring lies in a gulch just a few miles north of the Salton Sea.

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### THREE STATES MOVE TO SETTLE FISHING FEUD

A move has been launched in the Arizona state legislature to settle the feud with California and Nevada over fishing rights in the Colorado river and Lake Havasu near Needles.

Members of the house of representatives, meeting in Phoenix, suggested in a joint memorial that the three states sign a reciprocal licensing agreement.

Such a settlement would end a long controversy between the three states' fish and game commissions and give access to all Colorado river waters to fishermen holding a non-resident license. The permit would be granted in payment of a small fee.

Previously, all states have fined fishermen without their specific licenses when found fishing in their territory on the river and lake.—*Desert Star*.

## DESERT VALENTINE

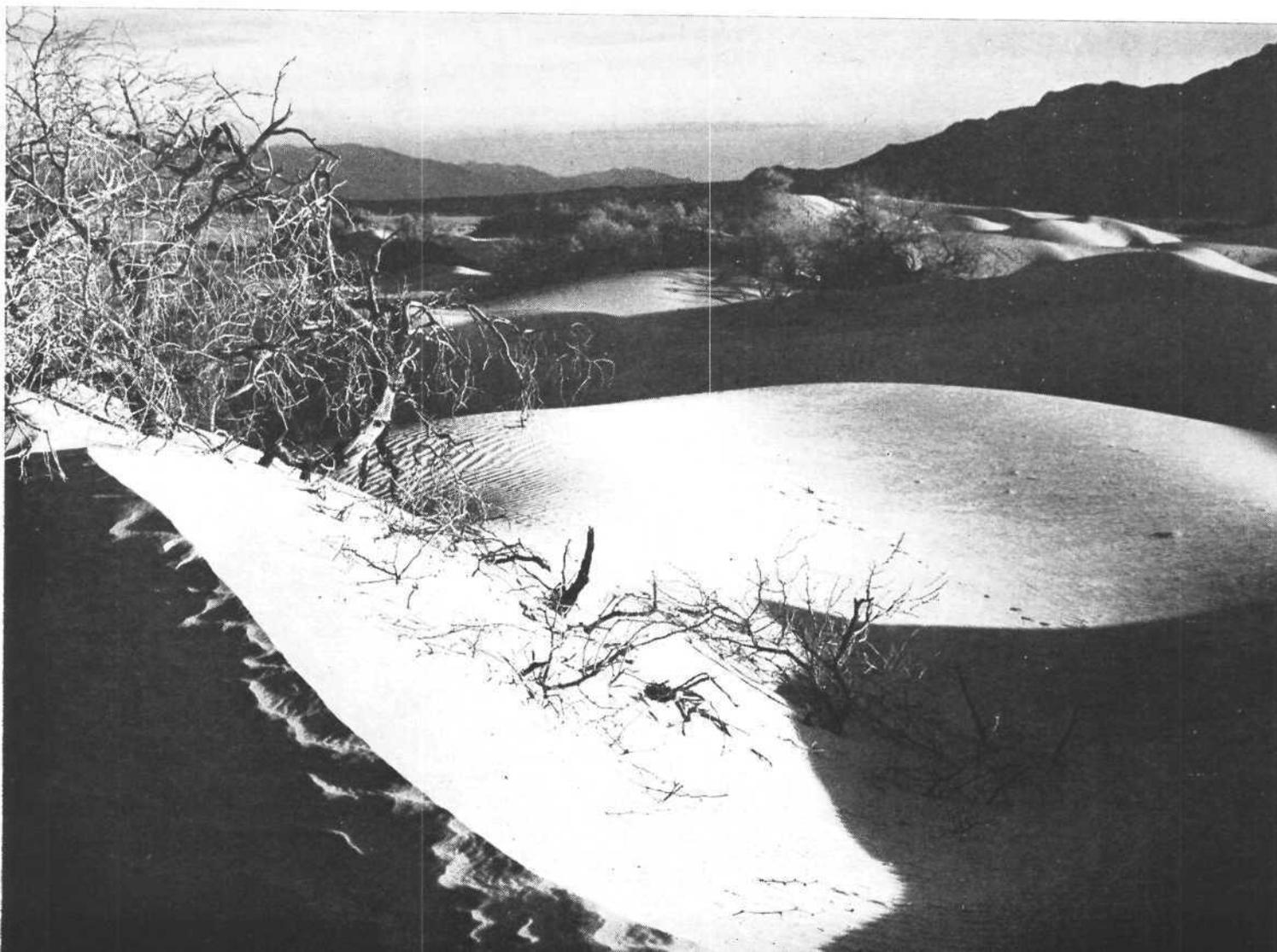
First prize in Desert Magazine's January photo contest was won by E. Foster Scholey of Prescott, Arizona, with the picture of desert hyacinths taken at White Horse Lake, Arizona. Camera was a Kodak Reflex, picture at 11:00 a.m. at 1/100, F11.

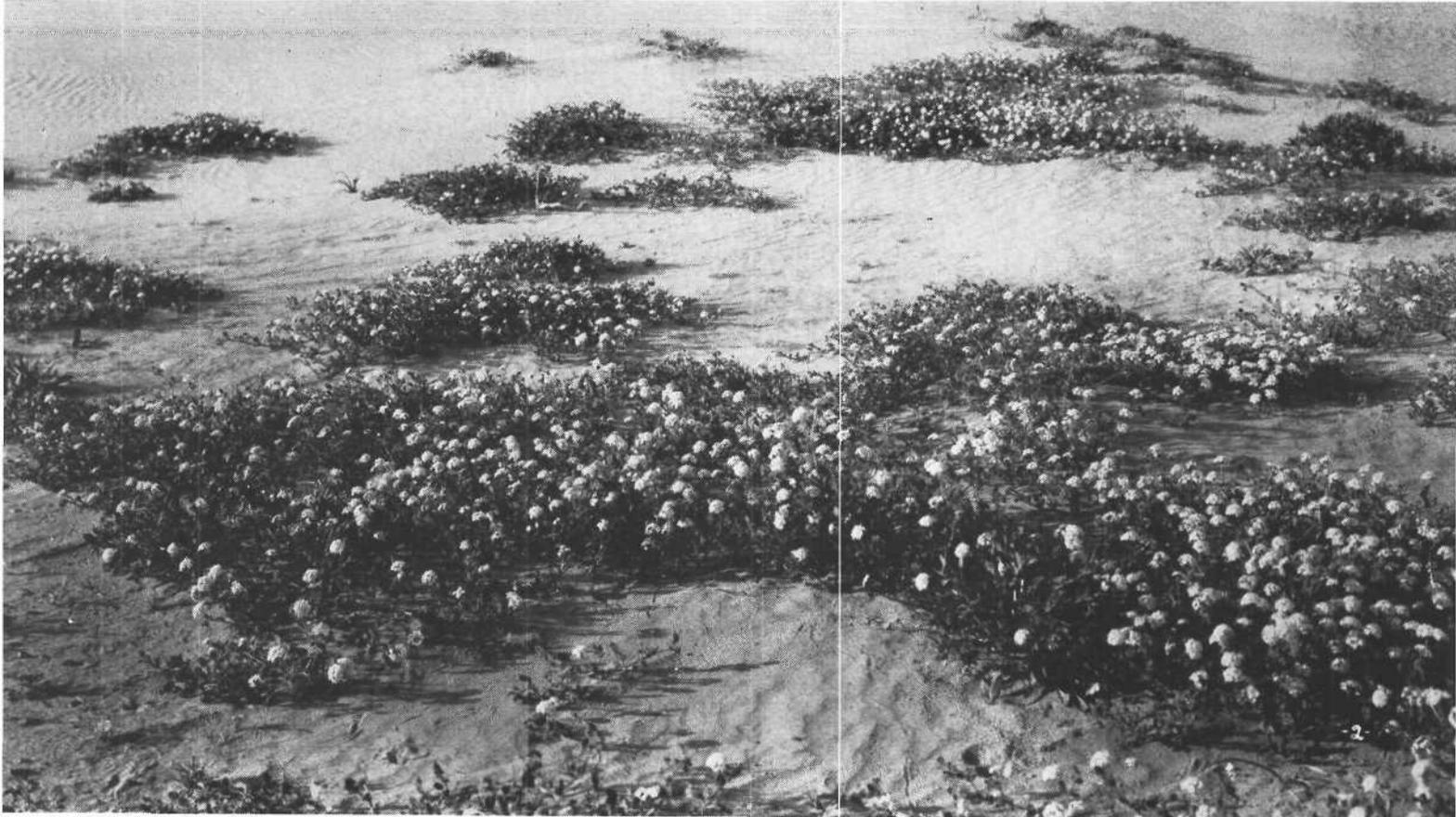
## Death Valley at Sunset

Second prize in the January contest went to Bill Stoughton of Pasadena, California, with his photograph of the Death Valley Dunes. This picture was taken with a Kodak, exposure 1/10 second at F16.



# Pictures of the Month...





### GHOST TOWN

By MARGARET MACLAREN DIERKS  
Chicago, Illinois

Here, with your back against a mountain wall  
As though to share its strength, as though you guessed  
That Time would be the winner over all,  
You stand—a symbol of the early West.  
What tales of violence and brazen wrong  
Your streets could tell! What crimes your sawdust floors  
Could reconstruct! What ribald, drunken song  
Of men who swaggered through your swinging doors!  
A ruthless god of silver ruled your world;  
The lives of men—mere notches in a gun;  
The dice were shaken, rolled—a wheel was whirled—  
A card was flipped—a fortune lost or won.  
Play your last hand with reckless disregard,  
It matters not — Time holds the winning card.

• • •

### GRAND CANYON TRAIL

By RALPH A. FISHER, SR.  
Phoenix, Arizona

They still preach at the old adobe mission,  
Of padre, guide, friar and conquistador—  
As the first to reach the Grand Canyon,  
For record! A wooden cross of a prospector.  
Others from books do teach the class,  
Of conestoga wagon, oxen and pioneer—  
From far across the winding mountain pass,  
Did conquer its greatness and its fear.  
In this some history will confute,  
That a Pagan chief from the tribe—  
Uncompahgre, Kaviawach, Unita, the Ute  
As first to glimpse the Canyon, with his bride.  
But I remember as a boy—a trail,  
Never made by padre, Ute or pioneer—  
Nor knights in quest of any Holy Grail,  
To me, only God toiled and rested here.

## Desert Verbena

By MIRIAM ANDERSON  
San Bernardino, California  
Down sun bright trails of memory,  
Verbenas speak to me today:  
Of musing, desert sand swept space,  
And Palo Verde's golden lace;  
And time locked hours that drifted by  
While small winds sang their lullaby  
Accompanied by the beat of hoofs  
Beneath the edge of Time's blue roof.  
For to the hills so far away,  
Verbenas spread a rug today;  
A magic, purple carpet for  
A wish upon an early star.

### LONGING

By DICK JOSLIN  
Honolulu, Hawaii

Oh give me a place in the desert  
Where the sun burns all things clean,  
Away from the bustle and turmoil  
Let me live a life serene;  
Let me watch the glorious sunsets;  
Let me breathe the fresh pure air;  
Let me meditate on beauty  
Without a worry or care.  
What good is the making of money  
If I lose my soul thereby?  
I get closer to God in a wilderness  
Than many do when they die.

## Constancy

By TANYA SOUTH

Come then or good or bad, I will not falter.  
Though sorry Karma throws a tightening halter  
Upon my hopes and plans, I shall remain  
In every grain  
Loyal and true to God and His decree.  
Through my best concept of His will for me.

### I HOLD INFINITY

By DOROTHY L. CASH

Laguna Beach, California  
I hold a rock, one tiny rock,  
In this mortal hand—

I hold fire, pressure, shock,  
Minerals, gases, and sand,  
I hold millions of light years,  
Millions of dark,  
Lit through dim spheres  
By Eternal Spark.  
I hold grindings intense,  
Heavings and slides,  
Pressures immense  
Of whole mountainsides;  
Vapored worlds of diffusion,  
Liquid fires, molten sands,  
The baked, inner fusion  
Of age-weary lands.  
In God's furnace annealed,  
By Him glacier-strewn  
O'er myriad valley and field,  
To Infinity's tune!

I hold a rock, one tiny rock,  
In this mortal hand.

• • •

### SONNET TO WYOMING

By ROBERT TURNER  
Greybull, Wyoming

The purple sage extends for untold mile,  
And little tufts of grass add azure hue,  
While distantly, a snow capped mountain peak  
Extends ten thousand feet into the blue.  
Why is it that I love this barren land,  
This desolation God forgot to bless?  
Why do I hold so dear this sage and sand,  
This bleak and silent prison of duress?  
At evening, when the amber sun retires,  
And moon and stars break forth their silvery glow,  
And music emanates from bush and grass,  
Like harps aroused by prairie winds that blow,  
Then am I sure, as I stand in the gloaming,  
No mortal man could fail to love Wyoming.

# LETTERS . . .

## He Flunked in Geography . . .

Pacific Grove, California

Desert:

We are Californians and like to see our state correctly publicized.

In the January number of *Desert Magazine* is the item, "Squaw Valley Ski Championships, etc., at Reno, Nevada." Squaw Valley is not in Nevada, but on the California side of Lake Tahoe—very much so.

HILDA VAN SICKLEN

*Desert's* Ski editor never did get good grades in geography. His apologies to all Californians for putting Squaw Valley on the wrong side of Lake Tahoe.—R.H.

## More Bad Geography . . .

Imperial, California

Desert:

I know you want to be accurate in *Desert Magazine*, and I want to call attention to the fact that the Imperial Midwinter Fair is held at Imperial, and not at El Centro as stated in the February issue. Imperial was founded in 1904—and El Centro not until 1907.

GRACE E. GRAY

*We should've known better than that since Desert Magazine was born and spent its childhood in El Centro, five miles from the Imperial County Fairground.* — R.H.

## Tin Can Barometer . . .

Barstow, California

Desert:

Referring to your as always excellent editorials and particularly the November one regarding the desecration of the desert and its highways with rubbish, beer bottles and cans, I find myself wholly in agreement with you and also the follow-up letter of Wm. E. Miller in January *Desert*.

Here at Barstow, center of the scenic and great Mojave Desert Empire we watch these bottles as a barometer or rather criterion of the times. During the depression the desert highways and by-ways were strewn with beer bottles. When business improved it changed to wine bottles. Now that the desert is enjoying the greatest prosperity in history, you will find nothing but bonded whisky and imported champagne bottles.

San Bernardino county and state highway crews, however, do an excellent job of trying to clean up this mess.

CARYL KROUSER

## In Defense of Wildlife . . .

Las Vegas, Nevada

Desert:

I just read George M. Bradt's story about the "desert ogres," and I thank him from the bottom of my heart for championing the desert creatures. If more stories like his were published maybe people won't want to kill everything they don't like the looks of.

Some kill for the love of killing—even slaughter the burro which really is a part of the desert.

And Mr. C. A. Powers, the snake you killed was not the deadly coral, but a coral king snake or "false coral," entirely harmless and the most beautiful snake in the United States. Their coloring is the same, but the stripes are reversed.

I hope people will realize that these living things make the desert more interesting—and will stop killing them on sight.

DORA TUCKER

## Regarding Jackrabbit Homesteads

Los Angeles, California

Desert:

The very informative article published in the February issue of *Desert Magazine* pertaining to Jackrabbit Homesteads is much appreciated. However, there are some minor points in connection with the story I would like to correct:

In paragraph 4, you stated that the filing fee was \$5.00 and the rental \$5.00 a year. The new regulations require a \$10.00 filing fee and the rental for the entire period of the lease, or \$15.00, to be paid in advance.

In another paragraph, you stated that the valuation of the land was not fixed until the land is purchased. In some cases, this is true, but in the majority of cases where the land is classified, an appraisal has been made.

In your last paragraph, formerly these lands were under the General Land Office with a Commissioner in charge, and with local District Land Offices, with a Register in charge of each one. A few years ago, the Grazing Bureau and the General Land Office were abolished and the two offices were taken over by the Bureau of Land Management, and they have decentralized their main office into seven Regional Offices. The Regional Office for this area is at 630 Sansome St., San Francisco, California. The name of the District Land Office has been changed to Land Office, Bureau of Land Management, and these offices are under the Regional Office, and the Registers are now Managers.

PAUL B. WITMER

## They're All American Citizens . . .

Albuquerque, New Mexico

Desert:

Your editorial in February acknowledges your indebtedness to Dorothy Pillsbury, author of *No High Adobe*, for suggesting the terminology of Indians, Anglos and Mexicans to designate the several groups of Americans. Better go pretty slow with that label of "Mexican" or you are going to step on a lot of ethnic toes.

Many of my Spanish speaking friends take exception, and for myself I admit that objection is rather valid.

If you are going to call naturalized and native born Spanish speaking people "Mexicans" what are you going to call the citizens of Mexico? The fact is that the term "Mexican" in this area is generally construed as referring to Mexican nationals, and the Spanish-speaking natives of New Mexico rather object to losing their American citizenship in such a high-handed manner, especially in view of the fact that most of them have never seen Mexico.

Better stick to the time-tried term of Spanish-Americans if ethnic groupings must be emphasized. If you don't, better be prepared, for I predict a punitive expedition of Mrs. Apodaca herself — straight out of *No High Adobe!*

J. W. ALLEN

## Volcano or Meteorite? . . .

Meredith, New Hampshire

Desert:

In Randall Henderson's exciting story, "We Found a Way into Elegante," January, 1950, he has shown a fine picture, not, I think, of "an extinct volcano," but more likely, I might suggest, the very ancient crater of an enormous meteorite. This picture shows no volcanic rim, on the contrary, it gives us a look into a shallow hole one mile in diameter, its outer edge, like that of a pie plate, crumbled rubble from the rim-rock.

I have visited many volcanic craters—long ago—and all of them showed high rims, turned back, as from some mighty force from a central depth. As Mr. Henderson suggests, of course, this hole might have been made as the result of a gas explosion; but it seems hard to imagine that the mere bursting of a subterranean gas bubble could lift and dematerialize the enormous coverage of such a space without leaving a depth that millions of years could never refill.

Driving from Flagstaff to Winslow, many years ago, I visited the great meteoric crater, which lies about seven miles below old Indian "Two-Gun's" show-shack, out in the desert. *Desert's* picture of Elegante might well have

been taken from one side of its rim, although its rim was turned back, more on one side than on the other.

The Winslow crater surely must have been of a more recent date than the one in Mexico, which, perhaps, is the explanation of this normally flat rim-rock. Ages might have crumbled the upthrust, and these crumbings could be the fine rubble which the visiting party descended and climbed again.

If I were young again, I surely would like to spend at least a week prospecting for evidence of my hunch that, millions of centuries ago, a mighty meteor buried itself deep below the 610-foot level, where men now may walk in safety, if not in comfort. That's a challenge for members of a younger generation.

FREDERICK FORREST BERRY

• • •  
Honoring the Pioneers . . .

Hemet, California

Desert:

I am deeply interested in your reference in the January issue to the annual encampment of the Death Valley '49er Encampment. I agree that it is most important to keep alive the memories of the old pioneers for they had something which humans need in every place and time—the will and courage

to explore new ideas as well as new places.

I have much respect for the term "Desert Rat." It belongs only to those who know what it is to struggle for a living under hard and discouraging conditions. I hope you are successful in developing the Death Valley Encampment idea—an occasion for a reunion of the old-timers as well as an inspiration to the younger generation.

TOM CLARK

• • •  
Nights Under the Sky . . .

Boulder City, Nevada

Desert:

Your excellent magazine holds up to public gaze many charming phases of the desert, but there is one feature that merits more attention.

I came to the Nevada desert in the spring of 1905 by horse drawn stage. Since then, I have been thirsty, hungry, smothered by dust storms, drenched by rain and hail, marooned by deep snow, and chilled by awful cold, but the grand moon and star-lit nights hold my admiration in spite of all else.

It's not enough to glance up at the star-spangled sky and go your way. You must sleep outside, so that every waking moment may be spent in adoring the sky.

## Hard Rock Shorty

of  
Death  
Valley



Hard Rock Shorty was trying to take his afternoon siesta on the bench of the lean-to porch in front of the Inferno store. But he was having a bad time of it. First a vicious horse-fly kept lighting on his cheek-bone, and when he finally disposed of that annoyance, a bus load of dude tourists arrived at the store.

They immediately decided that Shorty was one of those Death Valley "characters" they had heard about, and began to pester him with questions.

"Don't those dry lakes we passed along the road ever have any water in them?" one of the visitors was asking.

"Sure they have water," Hard Rock exclaimed impatiently. "They fill up every winter when the rains come—an' when it turns

cold they have dry ice on 'em.

"Dry ice!" one of the tourists exclaimed. "Why man, that stuff's worth a fortune!"

"Sure, we know all about that. Ol' Pisgah Bill made a million dollars sellin' dry ice one winter. He didn't actually get the money, but he had it all figgered out on paper.

"Bill waited seven years for a rainstorm, so them lakes 'd fill up. Finally we got a big cloudburst—I remember it was day before Christmas in 1907. Dry lakes all had water in 'em—an' Bill wuz hopin' it would turn cold. Then on New Year's night thermometer went down to 17 degrees. Pisgah stayed awake all night watchin' that thermometer, an' when daylight come he headed down toward Baker with his team hitched to a buckboard. "Fer seven years Bill'd been dreamin' about the fortune he was gonna make out of them dry lakes covered with dry ice."

Shorty paused to give his visitors a chance to consider the possibilities of the project. They were impatient to know the rest of the story.

"But it didn't pan out. Them dry lakes had all dried up."

Sound foolish? After you become acquainted with some of the stars, as the seasons succeed one another, your old friends return right on time, and their charm grows.

I heartily recommend year 'round sleeping out under the stars to any desert dweller who thinks his surroundings lack interest.

HERBERT L. FRITTS

## THE *Desert* MAGAZINE CLOSE-UPS

Al Haworth, associate editor of *Desert Magazine* since April, 1949, took an extended leave of absence on January 1 to resume the management of the El Centro Printing company, owned by himself and Tazewell Lamb. Al plans to continue to write for *Desert*, and eventually resume his place on the editorial staff at Palm Desert.

• • •  
Frederick J. Colbert, artist and writer of Julian, California, is known best for his water color and oil paintings. Raised in the saddle on the prairies of Nebraska, he came West 30 years ago and most of his time since then has been divided between his studio and the outdoor Southwest. His first exhibit, consisting of 15 paintings, was at Padua Hills near Claremont, California. Since then his work has appeared in many galleries, from Coronado to Atlantic City.

It was on one of his field trips in San Diego county that the trail led to Agua Caliente Springs, and there he met Mary Smith and was intrigued by her unique business venture in a 6x6 frame store—and subsequently wrote the story for *Desert Magazine*.

Colbert contributes frequently to both magazines and newspapers, and has been writing a column "Go West Young Man" for the Borrego Sun, weekly paper of Borrego Valley, California.

• • •  
Louise Werner, who wrote the story of the attempted ascent of El Picacho del Diablo in Lower California for this issue of *Desert Magazine*, ranks among the best known of California's Sierra Club mountaineers. With her husband, Niles, she has ascended most of California's high mountain peaks.

Mrs. Werner does not rate herself as a professional writer. "The check you sent" she wrote to the *Desert Magazine* editor, "is the first money I ever earned by writing. But I don't intend to frame it."

But she does have many interesting experiences in her mountain trips, and has promised to record more of them for *Desert* readers in the future. Her home is in Alhambra, California.

Edmund C. Jaeger, whose story about the veteran prospector, Frank Coffey appears in this issue of *Desert Magazine*, is well known to all desert people as the author of several books on the plant and wildlife of the desert country. Jaeger's newest book, *Desert Neighbors*, came off the press in January.

Edmund Jaeger is a teacher of biology in the Riverside Junior College and spends practically all of his weekends on the desert.

On one of his trips Jaeger discovered a poor-will perched in a tiny crypt in a canyon wall. When he stroked its back there was no response. On a later visit it was still there, but when he took it in his hands it flew away. For four years this same bird returned in winter to its niche in the rock, and for weeks remained dormant. The conclusion of ornithologists is that Jaeger has found a bird which hibernates — something unknown to scientists previous to this time.

## Wildflower Forecast for March...

Folks who make annual pilgrimages into the desert areas during the spring months in quest of wildflower displays are wondering what they may expect this season.

While it is never possible on the first of February, when this is written, to make an accurate forecast, the general outlook may be given at this time. Reports have been received from *Desert's* correspondents over a wide area.

For the most part, these reports offer little hope for such a floral display as was seen two years ago. With the exception of the Twentynine Palms area, including the Joshua Tree National Monument where heavy rain fell in January, precipitation has been light or non-existent over most of the Southwest.

Temperatures, however, have been higher than normal, and such flowers as appear probably will come early. There is still the possibility of rains in March and April which will bring out a limited display of annuals. Many of the perennials, including cacti, put forth their blossoms each season regardless of the amount of rainfall.

Reports from Southwest sources describe local conditions as follows:

**Joshua Tree National Monument**—Frank Givens, park superintendent, writes from Twentynine Palms that there has been more rain this year than last, which was a disappointing wildflower year. Moreover, both December and January were unusually warm. Blossoms have been seen on some Joshua trees, ocotillo and on a few annuals. Freezing weather would kill this early blooming and might be damaging to later displays. So many factors enter into wildflower blooming, Givens suggests that an early forecast may be wrong. However, based on present conditions, flowering should be good this spring.

**Casa Grande National Monument**—According to A. T. Bicknell, park superintendent, there has been a drouth around Coolidge since last September. Unless more rain comes soon, he predicts less wildflowers than last year, which was also dry. However, temperatures have been above normal all winter. Wildflowers and cacti that bloom will do so earlier than usual.

**Lake Mead National Recreational Area**—Although it rained twice during January, Maurice Sullivan, park naturalist, writes the moisture will not cause wildflower seeds to germinate unless they get warm weather at once. Perennials such as cacti, brittle bush, creosote bushes, yuccas and other desert shrubs will benefit by the January rains since they can store moisture. A few brittle and creosote bushes are blooming in sheltered spots near Davis Dam. Unless it turns cold, red filaree should come out soon. However, February is too early for most flowers in the Lake Mead area.

**Death Valley National Monument**—In California's Death Valley possibilities for outstanding wildflower exhibits are poor below the 3000 foot level. Up to the middle of January, T. R. Goodwin, park superintendent, reports only .13 of an inch of rainfall. In some areas where precipitation has been heavier than at the rain gauge, or where moisture gathered in low spots and soaked in, some blooming may occur around Easter, possibly later. Unless more rain comes, plants will be small and blooming short-lived.

**Antelope Valley**—Jane S. Pinheiro reports there is little prospect of a spectacular wildflower display in her district. There are always some wildflowers to be found, she writes. But the great mass-flowering one looks for

## Prizes for Desert Photos . . .

This is the season of the year when the lights and shadows and cloud effects on the desert are an invitation to photographers. To obtain some of the best pictures taken by both amateur and professional photographers *Desert Magazine* offers two prizes each to the best entries in our "Picture of the Month" contest. Subjects are unlimited—landscapes, strange rock formations, light and shadow effects, people, wildlife, botany, sunsets, etc. Entrants are urged to keep away from subjects too commonplace. A Joshua tree picture has less chance of winning than a desert tortoise. Selection of subject is no less important than good photography.

Entries for the March contest must be in the *Desert Magazine* office, Palm Desert, California, by March 20, and the winning prints will appear in the May issue. Pictures which arrive too late for one month's contest are held over for the next month. First prize is \$10; second prize \$5.00. For non-winning pictures accepted for publication \$3.00 each will be paid.

### HERE ARE THE RULES

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

Address All Entries to Photo Editor

*The Desert Magazine*

PALM DESERT, CALIFORNIA

on the desert will be missing. There has been practically no rain since early last fall. Perhaps heavy precipitation during February would bring out a few flowers, but not the great fields flower-lovers hope for.

*Saguaro National Monument*—Samuel King, park superintendent, reports the first measurable rain in his district came on January 1, after 116 days of drouth. Present weather is clear and warm with no immediate prospect of

additional moisture. Prospects for annuals are not good. Those that bloom will be earlier than usual. By March 1-10 penstemons, marigolds, mallow and ocotillo should be out. By April 1-10 prickley pears, all species of chollas, scattered saguaros and rainbow cacti should be in blossom. Additional rains could bring out verbenas and California poppies in the vicinity of Picacho Peak, just north of Tucson, during late April.

*Nevada*—Prospects for desert flowers in the vicinity of Las Vegas are not promising, according to Dora Tucker. There has been no rain since last August, when two heavy storms soaked the ground. At that time, cacti and yucca took a new lease on life, and should bloom this year as luxuriantly as they did before drouth killed over half of the plants. Along the rivers and lake shore, flowers will bloom as usual. Without more rain, the hills and roadsides will be barren.

*Arizona*—Odds are in favor of an earlier than usual wildflower season in the vicinity of Mesa, writes Julian M. King. The warm, sunny winter has been the mildest in five years. It has also been the driest, so flowers will be less abundant. Cacti blossoms will not be affected by the drouth, since they carry their own moisture supply to a large degree.

*Coachella Valley* — Weather has been warm all winter but there has been little moisture. Unless it rains during February the sand dunes and roadside shoulders will not be a mass of verbenas and evening primroses as they were two years ago. Ocotillo, yucca and encelia, which grow at higher levels will probably bloom during late spring. Cacti, which store their own moisture, may also be expected to blossom.

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## OUR DESERT NEIGHBORS

By Edmund C. Jaeger

For more than 40 years Edmund C. Jaeger has explored the desert—on foot, by burro, and in more recent years, by auto. He has visited its remotest areas, and made friends with its wildlife.

He writes of coyotes, kangaroo rats, tortoises and bighorn sheep, not in the manner of an academic scientist, but as their friend, who knows their habits of life. When he tells of his experience with a packrat, the little animal becomes a living character in the play of desert life.

The desert will hold a new meaning and a livelier interest for those who make acquaintance with its denizens through the eyes of Edmund Jaeger.

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THE *Desert* MAGAZINE

Palm Desert, California

## Pinon Incense...

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# HERE AND THERE . . . on the Desert

## ARIZONA

### Lost Canyon Key Thought Found . . .

TUCSON — Five college students: Charles Gause, George Farris, Bud Holmberg, Milton Miermaster and Ed Seaver spent a day in the rugged Superstition Mountains searching for a mysterious Lost Canyon. They didn't find the canyon but they came upon a chiseled rock near the south rim of Geronimo Head. They reported the stone entirely different from any around it, with eight 3x1 inch holes of varying depth, obviously hand chiseled. From its weatherbeaten appearance they judged it to be old, possibly prehistoric. *Tucson Daily Citizen.*

### Poisoned Horse Meat Used . . .

AJO — Walter N. Walker of the Arizona Fish and Wildlife Service warned of poisoned horsemeat staked in posted areas for the control of coyotes and other predatory animals. It is designed to kill coyotes coming into the country from Mexico and the mountains to the east. Later the remainder of the bait will be gathered up and buried. — *Ajo Copper News.*

### Travel Increases . . .

GRAND CANYON — According to H. C. Bryant, park superintendent, travel for December, 1950, exceeded any figure ever recorded for the same month. Practically all came by private automobile, from every state plus Alaska, Hawaii, the Canal Zone and many foreign lands.

### Grazing Fee Increase Set . . .

KINGMAN — Oscar L. Chapman, Secretary of Interior, has announced an increase from six cents per animal unit month in 58 grazing districts of ten western states, effective May 1, 1951. The present range improvement fee of two cents per animal unit month remains unchanged as an additional charge to the grazing fee. The increased grazing fee is based on recommendations of boards representing the range users in all the grazing districts, an action unique in the history of federal range administration. Range users have been voluntarily contributing an amount equivalent to eight cents per animal unit month. The increase affects nearly 32,000 live stock operators. Although the grazing land is arid and semi-arid, it furnishes about one-third of the annual forage requirements of almost 10 million head of livestock. — *Mojave County Miner.*

### No Water in Sight . . .

FLAGSTAFF — Ralph Shapiro, Lowell Observatory meteorologist, says Arizona's drouth could continue several years. Under the direction of the United States Air Force, a study of weather on other planets in comparison to that on earth, is being conducted. In addition to continued dryness Dr. Shapiro predicts higher than normal temperatures. His conclusions are based on the fact Arizona is in a high pressure area. — *Yuma Daily Sun.*

### Apaches in Court . . .

SAN CARLOS — Apache claims against the government of the United States were aired in January at San Carlos in the first of a series of court days for the redmen. They are seeking up to \$50,000,000 for lands confiscated by the United States as far back as 1848. Principal attorney for the Apaches is C. M. Wright of Tucson, with James E. Curry of Washington as council. — *Tucson Daily Citizen.*

### Walter V. Woehlke Retires . . .

PHOENIX — Walter V. Woehlke, who will soon celebrate his 70th birthday, is retiring as area director of the Bureau of Indian Affairs in Phoenix. He will be succeeded by Ralph M. Gelvin. Woehlke's retirement on March 1, marks 17 years of service, during which he has supervised the activities of 10 field jurisdictions in Arizona and Utah. Gelvin entered the Indian Bureau in 1933. He is now superintendent of the Colorado River Agency and acting superintendent of the Carson Agency, where he will continue to serve until a successor is appointed.

### Restoration of Tombstone Planned

TOMBSTONE — C. M. Palmer, Jr., president of the Tombstone Restoration Commission, states they plan to restore specific historic places in Tombstone as funds are available. The town claims the distinction of being the first and last of the American frontiers. Coronado came through in 1540. Barely more than half a century ago Tombstone helped close the last of a lawless frontier when it tamed the Apaches and renegade white men. Many of its original buildings still stand. Tourists visit Tombstone to see the old west, especially the Helldorado re-enactment. — *Tucson Daily Citizen.*



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## MISCELLANEOUS

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## Rare Rock Located . . .

HUALPAI MOUNTAINS—Harold Julian, operator of the Green Hut Rock shop, found a new species of Smithsonite in the Hualpai Mountains, the exact spot not yet disclosed. Because of the shining iridescence of the brown, green and purple surface, Julian sent a specimen to the Smithsonian Institute for identification. The curator wrote the rock was unusual because of its difference in color. Its rarity has established a high value on specimens among rock hounds, although intrinsically the ore is of small value.—*Las Vegas Review Journal*.

## Wildlife Magazine Sold . . .

PHOENIX—The January issue of Wildlife-Sportsmen was the first under new ownership of Ernest Douglas and Clarence Powell, veteran publishers of Arizona Farmer. Ralph O. Brown of Phoenix is managing editor, Mr. Douglas, editor. Although in no sense a house organ of the association, the magazine will continue to disseminate important news of the Arizona Game Protective Association. — *Mojave County Miner*.

## Javelina on the Table . . .

TUCSON — During a brief open season every spring, javelina shooting is popular. Sportsmen are anxious to do something with the meat besides throw it away. Unless two musk glands in the back are removed immediately after killing, the meat, which is usually tough and stringy, becomes permeated with a vile flavor.

The State Game Commission plans to furnish dressed carcasses to the domestic science department of the University of Arizona for experimental purposes.—*Los Angeles Times*.

## Big Buffalo Bagged . . .

PHOENIX—During a state-supervised buffalo hunt the biggest buffalo ever shot in the southwest was bagged. Estimated weight was 1000 pounds on the hoof. Eighty-year-old Dale Bumstead was the hunter. — *Tombstone Epitaph*.

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## CALIFORNIA

### Road Paving Will Help Mining . . .

**GOLDFIELD**—Construction of a paved road to Scotty's Castle in California, may have a stimulating influence on Nevada mining and milling activity. It is reported George Lippincott, owner of the Sun Battery Co., will erect a concentrating plant at Bonnie Clair for treating such base metals as lead and zinc. Lippincott has 18 valuable claims in the Ubehebe district. With water available at Bonnie Clair and a paved highway connecting with Salt Lake City smelters, Lippincott reasons construction of a plant on the Castle Road will materially reduce transportation costs. If and when the plant is erected, it is reported custom ore will also be accepted.—*Goldfield News.*

### Oil Eradicates Weeds . . .

**COACHELLA** — James Dewlen, county weed control inspector, says Johnson grass has been eradicated along Valley roads through the use of weed-oil which has also been used on 700 acres of grape land. Oil is also cleaning up morning glory. Corn, cotton and grapes lead in infestation, followed by dates, alfalfa and citrus. Only 244 acres of idle land are infested.—*The Desert Barnacle.*

### Searles Lake Fish Fossil Found . . .

**TRONA** — Ralph Merrill, Searles Lake mineralogist, recently discovered a well preserved fossil of a 10 inch fish in a core of material taken at the 68 foot depth. Strata at that depth is believed to date back some 10,000 years. This is the first form of animal life ever recovered from core drillings.—*Trona Argonaut.*

### Joshua Tree Area to be Mined . . .

**JOSHUA TREE NATIONAL MONUMENT**—Jack Ross, Riverside county recorder says the Joshua Tree area is considered one of the best mining locations in southern California. Reopening of a large portion of the National Monument to mining is expected to result in considerable activity. Good prospects for the discovery of uranium and other strategic minerals are believed to exist.—*The Humboldt Star.*

### Almonds Blossom on the Desert . . .

**QUARTZ HILL**—The Second annual Almond Blossom Festival at Quartz Hill in the Antelope Valley is scheduled for Sunday, March 11. The Festival queen will be crowned at a Hanger Dance at the Quartz Hill Airport, Saturday, March 10, followed by a Sunday "Fly-In" breakfast at the Airport Dude Ranch. At noon a

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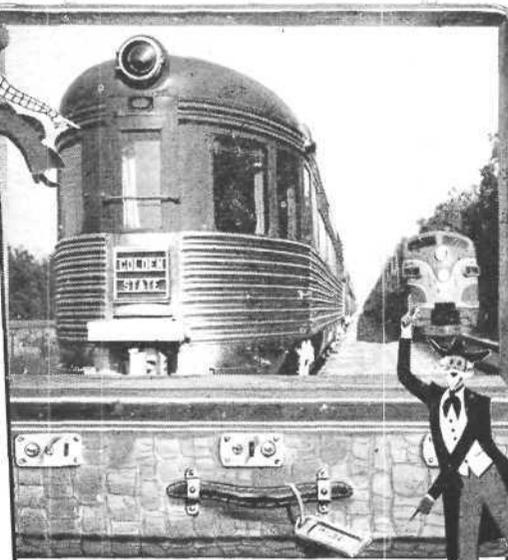
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parade, featuring floats, riding groups and bands, will wind through blooming almond orchards where 2500 acres cover the slopes of Portal Ridge. The afternoon will be given to a gymkhana at the Dude Ranch stables and an Air Show at the airport.

### One Man Town . . .

JACUMBA—W. A. Hanson, Fullerton, California, recently re-purchased Jacumba, California at a foreclosure sale for \$216,593.37, the exact amount of a first trust deed plus costs.

Present population of the mountain resort is 450. Included with property and buildings are a rodeo grounds and water system for entire district. Phil-lard, Inc., of San Diego, has owned and operated Jacumba, founded by Bert Vaughn of San Diego, 30 years ago.—*The Yuma Daily Sun.*

### Wildlife Enemies Trapped . . .

INDEPENDENCE — About 157 hunters and trappers accounted for 75,008 fur-bearers and predatory animals during 1949-50 fiscal year says the division of Fish and Game. Enemies included 13,511 coyotes, 5729 bobcats and 243 mountain lions, costing federal state and county governments \$673,785. Commercial trappers received \$266,391 for their annual take. The department transferred 225 nuisance beavers to higher ground.—*Inyo Independent.*

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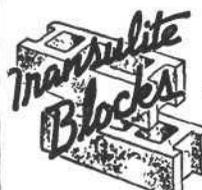
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### Wild Game Club Elects Officers . . .

COACHELLA — Coachella Valley Wild Game Propagation Club has elected the following officers for 1951: Dr. C. W. Hatch, president; Frank Wilson, first vice president; A. E. Swindler, second vice president; C. R. Kollenborn, secretary-treasurer; John Vevers, chief poacher; Ed Atwater and Ray Schisler, new directors. The club plans to build warm water sport fishing ponds in the Valley.—*The Desert Barnacle.*

### Passengers Prefer Autos . . .

EL CENTRO — For 30 years a mixed train of passengers and freight has chugged over the 120 miles of grade between this city and San Diego—and now the passenger service has been discontinued. The San Diego & Arizona railroad, financed originally by the Spreckels millions, but long owned by the Southern Pacific, except for short periods has never been a profitable operation, and with the building of paved Highway 80 over the mountains between Imperial Valley and the coast its passenger business has dropped almost to nil.—*Imperial Valley Weekly.*

### Mecca Easter Pageant Announced

MECCA — The 1951 Easter pageant, "The Master Passes By," which is staged in a natural setting in Box Canyon, seven miles east of Mecca, is scheduled for the evenings of March 23-24. The one act drama, in three scenes, by Helen Drusilla Bell, is based on an attempt by a group of Jesus' friends to persuade Pilate not to crucify the Master. The production is under the direction Major D. B. W. Alexander.

### NEVADA

#### Frogging Not Fishing . . .

AUSTIN — According to the laws of Nevada, when you go frogging you're not fishing but hunting, because a frog is a game animal. At the same time, where the nocturnal songsters abound they may not be hunted with firearms. Since Nevada laws prohibit taking game animals other than with a gun or bow and arrow, who's going to do what about the frog.—*Reese River Reveille.*

#### Deer Mittens for Men . . .

CARSON CITY — The Nevada Fish and Game Commission urges hunters to turn in deer skins to their local hide buyers so they can be sold to tanners making military glove leather. Trigger finger arctic mittens of deer skin leather give maximum protection in cold climates, according to the office of the Quarter-master General at Chicago.—*Mineral County Independent News.*

### Davis Dam Power Plant Operating

BOULDER CITY — Secretary of the Interior, Oscar L. Chapman, officially started the first generator in the new Davis Dam power plant on the Colorado river between Arizona and Nevada. When the five generators are installed they will have a total capacity of 225,000 kilowatts, the nation's fourth largest hydro-electric plant. Davis Dam is located at Pyramid Canyon, 67 miles below Hoover Dam. The waters are already backing up to form Lake Mojave, which is expected to rival Lake Mead in beauty and recreational facilities. It is expected the Davis Dam power plant will be generating to its full capacity by next summer.—*Pioche Record*.

### Mine Loans Involve Red Tape . . .

PIOCHE—According to *Business Week*, those seeking mine loans should (1) apply quickly; (2) cut your loan request to a minimum; (3) tie your need for money closely to defense contracts. The Defense production Act provides \$600-million for defense loans immediately and authorized \$1.4-billion when and if Congress deems it necessary. The four loan certifying agencies; Commerce, Interior, Agricultural Departments and Defense Transportation Administration will screen applications from industries in their respective fields, issuing certificates for loans after clearing them through NSRB. Reconstruction Finance Corporation makes the actual loans.—*Pioche Record*.

### Do Not Trespass . . .

LAS VEGAS—Officials of the Las Vegas office of the Atomic Energy Commission warn all unauthorized persons to stay off the Las Vegas Bombing and Gunnery Range. For national security reasons there will be no public announcement prior to any tests that are conducted on the range. Unauthorized persons who pass inside the limits of the bombing and gunnery range may be injured as a result of test activities. "We cannot guarantee the safety of such unauthorized persons who enter the range or fly above it," warns the officials. "We are concerned about careless, curious and hard-to-reach persons." — *Tonopah Times*.

### New Recreation Area Considered

LAKE LAHONTAN—Recreational development is being tentatively considered on a 636-acre tract on the northwest shore of Lake Lahontan, Nevada. Contour surveys and drawings of the Bosserman holdings have been complete, engineer Clyde Gummow announced recently. Representatives of the California Bosserman holdings are expected to visit Lake Lahontan in the near future to make plans for the development. — *Fallon Standard*.

### More Land for Veterans . . .

LAS VEGAS—Opening of an area of land about four miles southeast of Las Vegas, Nevada, to veterans of World War II, under a lease and purchase plan, has been announced by Senator George W. Malone on information from the Interior Department.

## Announcement

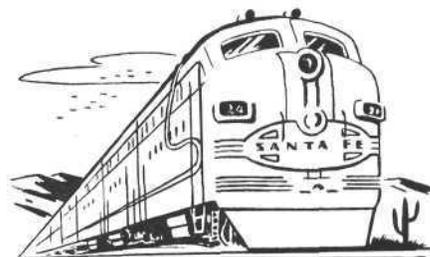
We are pleased to announce that on March 1 the editorial and business offices of the Lapidary Journal will be moved to the spacious Pueblo building of the Desert Magazine at Palm Desert, California, where the Journal also will be printed. All future correspondence should be addressed to The Lapidary Journal, Palm Desert, California.

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### Nevada Power Needs Mount . . .

HENDERSON—A summary of the recent power market survey for this region by the federal power commission discloses power requirements of the Lower Colorado river basin, which includes southern California, Arizona and southern Nevada, will be two and a half times as great in 1970 as they were in 1948. In addition to present planned capacity expansion, another five million kilowatts will be needed by 1970, the report estimates. The report makes it obvious that all power

users, including those in southern Nevada, should contemplate and initiate plans for some sort of fuel capacity to supplement present and contemplated hydro-electric capacity, which may presently be installed or contemplated for installation in the near future.—*Las Vegas Review Journal*.

### NEW MEXICO

#### Poisonous Weed Threatens Cattle

CARLSBAD—Ivan Watson, extension animal husbandman at New Mexico A. & M. warns of a fast spreading poisonous weed, halogeton, native of the Caspian Sea region, and related to the Russian thistle. It was first noted 15 years ago in Elko County, Nevada. From there it spread to Idaho, Wyoming, Utah, Montana and California, and could spread into New Mexico. It brings sudden death to both cattle and sheep feeding on it in late fall and winter. Oxalic acid, the poisonous substance in the weed, combines with the calcium in blood serum. From half a pound to a pound and a half of dry weed (depending on the size of the animal) will kill a sheep. Where there is no other plant cover, halogeton blankets the land. Since it competes poorly with other plants, Watson feels therein may lie the remedy. — *Eddy County News*.

#### Indian Weather Predictions . . .

AZTEC—Indians have been credited with being able to tell by September what kind of a winter would follow. Although this has never been proved, the Navajo prefers to figure it out his own way. At first those owning radios listened to them for weather reports. Predictions were difficult due to varying altitudes and remoteness. Now the Navajo classes Uncle Sam's weather reports with other agreements he has had with the government, designating the radio "heap big wind."—*Aztec Independent Review*.

### New Kind of Game Planted . . .

SANTA FE—Eight Barbary sheep, native to North Africa, have been planted in the remote rocky Canadian Canyon west of Mills. Elliott Barker, state game warden, said it is hoped the sheep will multiply and furnish a new game animal.—*Yuma Daily Sun*.

### Forest Service Tames West . . .

ALBUQUERQUE — A report on forest service activities in Arizona and New Mexico released by assistant regional forester Clifford McDuff states that during the past four years in the two-state area the service has put up 1800 miles of new range fence with the help of the ranchers; developed 617 new stock watering places and reseeded 8128 acres of grass on deteriorated range land.—*Gallup Independent*.

### Rainmaking Dust Bowl Threat . . .

SANTA FE—Senator Clinton Anderson charges present rainmaking activities may be a case of "robbing Peter to pay Paul" unless some controls are put into effect. Future farmers may be stealing clouds from each other, he points out. The result, according to Anderson, could easily be that all clouds would be so heavily over-seeded there would be no rainfall in New Mexico and throughout the southwest. He cites conditions in the middle Rio Grande Valley where farmers are being forced to dig wells because of lack of rainfall. A state official reports New Mexico's Rio Grande watershed is virtually bankrupt, and places the blame on rainmakers. Robert McKinney, chairman of New Mexico's economic development, says the state is water bankrupt unless something is done at once to develop and conserve water resources. He also places the blame on rainmakers who have been seeding clouds in the upper Rio Grande watershed. This seeding might intercept normal motion of winter storms to New Mexico from the northwest, according to McKinney.—*Humboldt Star*.

### Indian Trade Training Planned . . .

GALLUP—The government, organized labor and contractors are planning an on-the-job training course for Navajo and Hopi Indians. If this project, the first of its kind, proves successful it will be tried on other reservations, with the Papago tribe of southern Arizona next in line. Short term training, such as truck driving and time keeping as well as apprenticeship training requiring two to four years' experience will be available.—*Gallup Independent*.

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### New Mexico's Highways Improve

ALAMAGORDO — New Mexico highways that cost \$130,000,000 to build cost an average of \$319.15 per mile to maintain for the fiscal year 1948-1949, about half the average cost per mile for the United States as a whole. The earliest mention of New Mexico roads was in 1598, when Juan de Onate and his colonists used "El Camino Real," now a portion of U. S. 85. Until 1848 the Santa Fe Trail provided the main trade route for trappers and traders. It was not until about 1903 that automobile travel necessitated better road development. New Mexico highways are below proper maintenance standards. According to the Maintenance Division it will cost \$5 million a year for the next four years to bring them up to standard.—*Alamogordo News*.

### New Pecos Dam Proposed . . .

CARLSBAD—The United States engineers are proposing to build a new dam 40 miles north of Alamogordo Dam, altering the present flood control and water provision units in the immediate area. The plan proposes a retention dam and reservoir in the vicinity of Los Esteros, seven miles above Santa Rosa on the Pecos River.—*Eddy County News*.

ALAMOGORDO—A new chemical used in aerial sprays is proving successful in killing mesquite and may offer for the first time a mass method for fighting the growth in less arid sections of range country. — *Alamogordo News*.

### UTAH

### New Resort in the Making . . .

DINOSAUR NATIONAL MONUMENT—Lodore Canyon of the Green River in the Dinosaur National Monument, beautiful but so rugged only a few have seen it during the past eighty years, will attract thousands of visitors when Echo Park Dam is constructed. At present the only way into "lost" Lodore Canyon is over the western falls and rapids in special cataract boats handled by experienced rapidshooters. The trip involves days of running perilous rapids, strewn with boats that have failed to negotiate them. Some cliffs along the canyon reach 3000 feet above the river bed. Cedar, box elders and willows grow at the foot of the cliffs. Cougar and bobcat tracks are found at Pat's Hole. After Pot Creek the river narrows with the water tearing through a gorge only thirty yards wide. Beyond Hell's Half Mile the canyon formations flatten and the rapids diminish. At Pat's Hole at the mouth of the Yampa, the water is calm.—*Vernal Express*.

### Transfer Imminent . . .

BRIGHAM CITY—It is expected decision on the site for transfer of the U. S. Indian Service Bureau from Washington, D. C., will be made soon, according to W. Vosco Call, president of the Box Elder Chamber of Commerce. Call reports the support of the Salt Lake City Chamber of Commerce has been obtained for the move of the bureau to Brigham City. He said bankers and business men of Salt Lake City are willing to finance construction of 150 houses for the use of employes of the Indian service. The rest of the housing for the 220 employes would be absorbed by apartment houses in Brigham City. Call draws attention to the desirability of locating the Indian service in Brigham City where the Indian school is already located.—*Salt Lake Tribune*.

### Beavers vs. Engineers . . .

SALT LAKE CITY—Fort Douglas engineers and a colony of beavers are at war. During 1949 the engineers demolished beaver dams in Red Rock Canyon and rebuilt several miles of road that had been undercut by a creek the beavers had diverted. During 1950 the beavers increased to 300, rebuilding their old dams and adding

another between Emigrant and Red Butte creeks, periodically flooding Wasatch boulevard. Captain Robert Burns, Fort Douglas engineer, feels another demolition campaign inadequate but that live trapping might be satisfactory.—*Salt Lake Tribune*.

### Travelers Increase . . .

ZION NATIONAL PARK — December travel in Utah's National Parks was up according to Supt. Charles J. Smith, Bryce Canyon visitors were double those in 1949 while Zion showed a 20 percent increase.—*Salt Lake Tribune*.

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## Indian Land Exchange Discussed

SALT LAKE—Representatives of Ute Indian tribes from Uintah and Ouray reservations met with state and

federal officials to discuss land transfers, thus paving the way for a peaceable settlement between Indians and white stockmen. A plan has been for-

mulated whereby the federal government turns over to the state land outside the reservation for the same state owned acreage within.—*The Vernal Express*.

## Desert Quiz

Desert Magazine's monthly quiz is a liberal education in the geography, history, botany, mineralogy and lore of the desert country. Studious readers take the quiz each month, not merely to test their knowledge but to gain new facts about this interesting land and its history. 12 to 14 correct answers is fair, 15 to 17 is good, 18 or over is exceptional. The answers are on page 45.

- 1—According to legend the Lost Dutchman mine of Arizona is located in the—Harqua Hala range..... Superstition Mountains..... Camelback Mountain..... White Mountains.....
- 2—A chuckawalla lizard has—Two feet..... Four feet..... Eight feet..... Crawls on its belly.....
- 3—Your best view of the Wasatch Mountains would be obtained from—Tucson..... Santa Fe..... Reno..... Salt Lake City.....
- 4—In locating a mining claim the location notice should be placed—At point of discovery..... In all four corners..... In the center of the claim..... On the nearest mountain peak.....
- 5—Betatakin is the name of—A Hopi chief..... Ute Indian reservation..... Old Indian cliff dwelling..... Ceremonial god of the Navajo.....
- 6—A mano was used by the Indians to—Kill game..... Grind seeds..... Adorn the medicine man..... Offer prayers to the gods.....
- 7—If you owned a cinnabar mine with a mill for processing the ore you would ship your product to market in—Flasks..... Ingots..... Bags..... Bales.....
- 8—Mangus Colorado was a chief of the—Apaches..... Yumas..... Pueblo Indians..... Paiutes.....
- 9—"The Goosenecks" are in the — Colorado River..... San Juan River..... Green River..... Rio Grande River.....
- 10—Bill Williams River in Arizona was named for a famous—Stage coach driver..... Steamboat captain..... Army officer..... Mountain Man.....
- 11—The book "What Kinda Cactus Izzat?" was written by—Edmund C. Jaeger..... Philip Munz..... A. D. Houghton..... Reg Manning.....
- 12—The blossom of the chuperosa or humming bird flower is—Red..... White..... Yellow..... Lavender.....
- 13—The famous Bird Cage theater is located in — Virginia City, Nevada ..... Searchlight, Nevada ..... Tombstone, Arizona ..... Needles, California.....
- 14—Going south from Tucson to Sonora you would cross the international boundary at — Douglas ..... San Luis ..... Naco ..... Nogales.....
- 15—Canyon de Chelly is on the reservation of the—Zuni Indians..... Supai Indians..... Navajo Indians..... Apache Indians.....
- 16—The mission at Ganado, Arizona, is sponsored by the—Methodist Church..... Presbyterian Church..... Catholic Church..... Baptist Church.....
- 17—Dipodomy is the name of a—Desert rodent..... Bird..... Reptile..... Wild hog.....
- 18—The river which flows through Zion National Park is — The Virgin..... Escalante..... Paria..... Sevier.....
- 19—*Camino* is a Spanish word in common use in the Southwest, meaning —River..... Mountain..... Highway..... Village.....
- 20—Capitol Reef National Monument is in—New Mexico..... Utah..... Nevada..... California.....

## New Bridge Needed . . .

MOAB—Ever increasing traffic on U. S. 160, the all-weather road from the southern and south central states to the central west and Pacific northwest, has focused attention on the weakest spot on the highway, the old wagon bridge across the Colorado at Moab. This 40-year-old structure is being strengthened and a new floor is being installed. However, a new bridge is a crying necessity, since the repairs can last only a year or two at best. Experienced engineers do not minimize the possibility the bridge may drop into the river at any time. The loss of the bridge would be a blow to southeastern Utah. All heavy traffic would have to be diverted 500 miles. A vast amount of defense traffic uses highway 160 every day of the year. It is also the chief artery for transportation of vital uranium ores.—*Times Independent*.

## Mild Winter Helps Wildlife . . .

VERNAL—Fred Reynolds, game warden, reports good range conditions in Dry Fork, Taylor and Brush creek mountain areas. Deer were well scattered and in fine condition. Numbers in individual herds were less than last year. Only old mountain lion tracks were encountered. Streams were all open, rare for this time of year, giving fish better growing opportunities. A normal number of pheasants have been seen, indicating the next shoot will be good. Quail, which are being fed, are increasing. Other birds are fending for themselves. Reynolds reports a drive is on to reduce magpies, which eat both the eggs and young of pheasants.—*Vernal Express*.

## Plaster Replica Shown . . .

SALT LAKE CITY—The University of Utah recently put a plaster replica of the reptile Seymouria on display. The plaster skeleton of the 200,000,000 year old fossil, dug up in the Permian red beds of Texas, was made for the University by the Museum of Natural History, New York City. There is only one original. The Seymouria, often called the grandfather of the dinosaurs, is believed to be the ancestor of all reptiles and four-legged animals, according to Prof. W. L. Stokes, university paleontologist. The university recently traded the shoulder of a dinosaur, dug up near Jensen, in 1924, for three plaster fossils of the Seymouria.—*Salt Lake Tribune*.

# MINES AND MINING . . .

## Aztec, New Mexico . . .

Two new gas wells on the Oswell lease brought in early in January further confirmed Aztec as an important producer in the San Juan basin oil and gas field. The gas was tapped in Mesa Verde sand three miles from town.—*Aztec Independent Review*.

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## Austin, Nevada . . .

Due to odd and unusual minerals of numerous types, engineers have described the Austin area as a "mineral curiosity shop" that can jump into prominence over night. Washington keeps a careful record of minerals whose value is not yet fully recognized. One local metal, indium, previously used chiefly in the manufacture of cheap plated silverware, came into importance with the development of jet planes. Engineers are of the opinion Austin's future, if any, as a mining center will come chiefly from production of base metals and unusual ones, as research in many fields goes forward.—*The Humboldt Star*.

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## Albuquerque, New Mexico . . .

Large and small mining and industrial concerns, government agencies and individuals are scouting for suitable manganese deposits to feed steel mills supplying military and civilian requirements. The General Services Administration in Washington is said to be anxious to work out contracts with private enterprises to purchase large quantities of manganese that will meet rigid specifications required by steel makers. A contract for 50,000 tons of manganese has been awarded to U. S. Ferro Metals Corporation. They will erect a metallurgical plant in Deming.—*The Pioche Record*.

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## Lone Pine, California . . .

Donald F. McGrew, president of the U. S. Tintype Corporation of Oakland, announces he has made application to the U. S. Bureau of Mines for \$2,500,000 loan to start large scale development on a cassiterite (chief source of native tin) deposit in the Argus Range, New Coso mining district. McGrew claims assays average better than two percent tin, with over 200,000 tons of ore in sight. Fissures show cassiterite to a depth of 150 feet. The new town on the site will be called Thunder Mountain, with jobs for over 100; veterans preferred.—*Inyo Independent*.

## Salt Lake City . . .

Uranium activity in the Intermountain area has been given impetus by the announcement of the Vitro Chemical company that refining facilities are to be established here. The Vitro company has purchased the Salt Lake Kalunite plant from J. R. Simplot of Boise, Idaho. Mr. Simplot is to remain with the new operators as vice-president. The million dollar wartime plant is to be rehabilitated to process uranium ores for the Atomic Energy Commission and for other strategic minerals and chemicals.—*The Mining Record*.

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## Battle Mountain, Nevada . . .

Ford T. Frost of Ogden, Utah, is reported to have taken a lease on the Needle Peak fluor spar mine owned by Marius Allard and Ted Johanson and plans to begin operations soon. Road building equipment already has been moved in. Encouraged by the Geneva Steel company, because of the need for ore of this type for metallurgical purposes, development work has been in progress at the property for some time.—*The Humboldt Star*.

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## Round Mountain, Nevada . . .

Round Mountain Gold Dredging Corporation is treating 17,000 tons of ore daily in its new plant. Deposits of gold bearing ore on the southwest flank of the mountain were leased several years ago from the Nevada Porphyry Gold Mines Inc., on a 10 percent royalty basis on gravels and alluvials and a 6½ percent royalty on lode deposits, both to run for 30 years. The plant represents a \$3,000,000 investment.—*Goldfield News*.

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## Park City, Utah . . .

New Park Mining Company has hit ore on the west drift of its Mayflower fissure at 1505 feet as well as encountering higher values in the prolific Pearl fissure. President W. H. H. Cranmer announces the company will apply for government assistance in exploring 475 acres of East Utah Mining Company, of which it recently obtained voting control. The company believes a tunnel driven by East Utah two years ago was not deep enough or in the correct area to find ore in the McHenry fissure. New Park has nearly completed its new high-speed hoist, which, it is predicted, will double rate of production from the mine.—*The Mining Record*.

## Monticello, Utah . . .

A flow of gas estimated at 1,500,000 cubic feet daily was brought in January 14, at the Sitton No. 1 wildcat natural gas well near here. The gas was tapped at a depth of 5803 to 5821 feet.—*Salt Lake Tribune*.

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## Tonopah, Nevada . . .

Recalling the days when high-grading was common practice in the western mining camps, a complaint has been filed against Clyde Newman on a charge of stealing gold-bearing gravel from the Round Mountain Gold Dredging camp. Superintendent Ed Oshin said that he caught the defendant in the act of taking ore valued at from \$35 to \$75. — *The Goldfield News*.

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## Las Vegas, Nevada . . .

National Lead Company is considering production of titanium metal at Henderson, at the state owned Basic Magnesium Industries site, where it has leased an 80 acre tract. The company has contracted for power from the Colorado River Commission of Nevada, 151 million kilowatt hours annually. Since titanium is strong, and light weight as well as corrosion and heat resistant, it is potentially important in military equipment. In sponge form it is quoted at about \$5 per pound.—*The Mining Record*.

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## Tonopah, Nevada . . .

Guided by a letter written 35 years ago by Frederick Bradshaw, former superintendent of the Tonopah Belmont Mine, Thomas J. Nicely, with Lloyd and Harold Sammons, have located a silver-lead mine in an isolated section of the Antelope Mountains about 20 miles southeast of Jungo. The property contains a vein varying in width from three to seven feet. Mr. Nicely once owned and operated the Tonopah Belmont Mine.—*The Mining Record*.

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The California Division of Mines recently has issued five special reports of mineralogical interest: Special Report 1-A is Sierra Blanca Limestone in Santa Barbara County, 1-B is The Calera Limestone in San Mateo and Santa Clara Counties, No. 2 contains the geology of part of the Delta-Mendota Canal near Tracy, California. No. 3 is Commercial Black Granite in San Diego County, and No. 4 is Geology of the San Dieguito Pyrophyllite Area. The California Division of Mines is in the Ferry Building, San Francisco. Price of the first three of these reports is 25 cents each, plus sales tax in California. No. 4 is 50 cents.

# AMATEUR GEM CUTTER

By LELANDE QUICK, Editor of The Lapidary Journal.

Great Oaks from little acorns grow! It was in the August 1942 issue of this magazine that this column for the amateur gem cutter began. It has appeared every month without interruption since. Nine years ago there was little information available to the gem cutting hobbyist about his interest.

If one had clipped all the gem cutting information from all the books in the largest library at that time the collected data would not have filled a large cigar box. Today the books on the subject would fill a generous shelf in any library. A file of the articles about the hobby taken from the nation's leading magazines would make a thousand page scrap book. Almost every magazine of consequence has given many

pages to the hobby, for its importance as a national trend of the pastime of the people has been recognized all over the land.

Both *National Geographic* and *Nature Magazine* have had splendid articles recently. *Collier's*, the *Post* and many others have run articles during the past year. About the only important magazine that has failed to "discover" the subject is the one magazine that is supposed to mirror the life of the people—*Life*. On several occasions that publication has approached us and secured story material, taken pictures, etc. Each time we became stirred and enthused at the prospect of a magazine with nearly six million circulation devoting space to our hobby. But each time the project was shelved in favor of a fox kill, a square dance, a barbecue or something believed of greater interest. Almost every Sunday newspaper with a magazine supplement has featured some local rockhound's work or a show of a local group.

Through the first years this column appeared we published the fundamental information on cutting and polishing. We have not repeated this information because it is now available in many books. The column then resolved itself into a sounding board of opinion, reflected the growth of the hobby and became a reporting medium of developments of interest to the gem hobbyist. This column was the first to report the use of cerium oxide as a good polishing agent, the first to report facts about the new man-made gem titania and how to cut it; the first to offer sensible publicity that boosted local showing of gemcraft; the first to develop lapidary interest into the forming of groups for the purpose of study, etc., etc.

As the column continued our correspondence became more and more burdensome as our readers kept asking for information that had been published. Here and there among the letters people were saying "can't we have more of the same? The present column isn't enough." After some serious thought over many months we came to the conclusion that it was time indeed for the lapidaries of America to have their own magazine but it was decided to continue this page in *Desert Magazine*.

We then addressed a circular to the readers who had written us through the years and we were not too surprised when we had more than a thousand subscriptions to the projected *Lapidary Journal* before copy was in the printer's hands for the first issue. After that issue appeared the response was rapid and thousands of letters arrived saying in effect "just what we have been waiting for." People in the lapidary equipment and supply business and people selling gemstones were quick to see the possibilities of the new medium created just for them.

The *Lapidary Journal* grew and grew and today, as we prepare the first issue in Volume Five, we have close to 25,000 readers of a beautifully prepared 80-page slick-paper magazine that is well illustrated and read all over the world. It not only gives important cutting information but it presents the stories of gems, important news about them, travel articles concerning gems, ideas and craft information on jewelry

making, etc. Thousands of our readers will never cut a gem in their lives but they like to read about them. Ten years ago there was nothing the American public spent more for and knew less about than gems. Today it is not unusual for a customer in a jewelry store to know more about the merchandise he is buying than the proprietor of the store himself.

It became apparent at the end of Volume One that we should quit our executive position, with one of America's largest pharmaceutical manufacturing concerns, and conduct the *Journal* even though it involved some financial sacrifice—to do the thing we wanted to do rather than the thing we had to do. The move was made and the *Journal* was promoted from our kitchen table at home to offices in Hollywood; increased from a quarterly to a bi-monthly.

Now we have grown to the point during the last year where we need much more help and much more room and the burden of the *Journal* has become great. Consequently we are moving in March to Palm Desert, California to the offices of this magazine. The *Desert Magazine* has grown phenomenally too in these years and our readers know of the magnificent modern building built in Pueblo style (the only native American architecture) that was opened 2½ years ago. It has plenty of room and is as modern a printing plant as exists anywhere. And so the next issue of the *Lapidary Journal* will roll off the presses of *Desert Magazine* and for the first time everything will be done under one roof and under an arrangement we hope will be a long and happy one. It also relieves us of a load; the nagging dread that a siege of illness or death itself might kill off the *Journal*. Capable hands can now keep our beloved property going until other arrangements are made in the event of a contingency. Statistics show that of all magazines started in America less than two percent survive five years. We're beginning our fifth year now and it looks from here as if we will make the grade.

This move means a revolution in our personal living too for we had to sell our home in Los Angeles and all that went with it for our personal possessions did not fit in with desert living. But we look forward to peace and cleanliness again. When we came to Los Angeles it had a million inhabitants and it was the most charming city in America. Today, with two million people, it has become a Pittsburgh with palms, and has lost much of its charm because of a hurly-burly atmosphere brought in by the Chamber of Commerce, another million hustling Americans and smelly autos. In the desert we hope to achieve a peace long missed and devote the rest of our life to continuing a magazine devoted to America's fastest growing hobby. If you have never seen a copy of the *Lapidary Journal* why not send us a quarter (or stamps) for a sample and spend a fascinating evening discovering the interesting reading it contains?

In brief conclusion we pay tribute to the vision of Editor Randall Henderson of this magazine. For after all it was his idea that his readers might be interested in a column about gem cutting nine long years ago. It was our great luck that he asked us to write it. His encouragement through the years and his broad vision and tolerance made the *Journal* possible and his present cooperation insures its continuance. Yes—GREAT OAKS FROM LITTLE ACORNS GROW!

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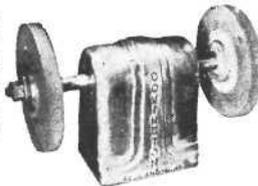
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# Gems and Minerals

## SAN JOSE SOCIETY ANNOUNCES SIXTH ANNUAL GEM SHOW

A gem exhibit affording members an opportunity to display the past year's work is held each year by the San Jose, California, Lapidary Society. This year April 21-22 are the dates. Everything on exhibit will be the work of some member. There will be nothing for sale and admission is free. Agate, jasper, rhodanite and opal are among the gem stones to be displayed. This year the society expects to feature education in lapidary. Information will be on hand as to where the material comes from and how it looks when slabbed. Also shown will be gems mounted in handmade jewelry.

## FALLON CLUB OF NEVADA INSTALLS NEW OFFICERS

The Fallon Rock and Gem club of Nevada installed the following officers for 1951: Harry Ringstrom, president; Oscar Engebretson, vice president; Mrs. A. L. Robinson, secretary-treasurer; Mrs. L. E. Peck, historian. Prior to installation a baked ham dinner was served to 30 members and guests. Mrs. Ringstrom announced there were 25 teen agers anxious to form a Junior Rock and Gem club. It was disclosed there are 225 Rock and Gem clubs in the United States with an active membership of over 11,000.

## WOMEN ARE HOSTESSES AT JANUARY MEETING

Women of the Los Angeles Lapidary society entertained fellow members with a two-act playlet, "We're Going to the Desert" at their January meeting. Between acts, Claire Schroeder gave her version of "The Thing," climaxed at the end by Pearl Robertson in full rock hunting regalia. Colored slides of the California desert were shown by Goldie Wood. Joan Bennett showed and spoke on desert purpled glassware. She says it is not the heat of the sun which colors the glass but the reaction of the ultra violet (actinia) rays of the sun on certain minerals and compounds in the sand used in glass manufacture. She also said older glass colored more quickly, although some modern grades will turn lavender or purple. Better grades of modern glass turn a shade of citrine.

## NEW CLUB ORGANIZED AT TWENTYNINE PALMS

The Twentynine palms, California, Gem and Mineral society with 19 charter members has been organized with Lee McMahon as president; Elmer Rapp, vice president; Ben Steeg, secretary-treasurer. Meetings are scheduled for the first Tuesday, field trips, third Tuesday of each month. At a pre-organization meeting in December, Leland Quick, editor of the *Lapidary Journal*, spoke on the "Third Largest Hobby." Present at this meeting were James Arnold, Rolland Willis and Harry Ringwald, all past presidents of the Los Angeles Mineralogy Society. Arnold was instrumental in organizing the local club. All interested in rocks are invited to become members of the club.

## LOS ANGELES COLLEGE OFFERS EVENING COURSES

Los Angeles City College, 855 North Vermont Avenue, announces the following courses, beginning January 29th:

Metal Mining — Lecture 7-9 Monday; Laboratory 7-10 Wednesday. Course includes prospecting, location, development. Teacher, Mr. Gordon S. Fay.

Crystallography — 7-10 Tuesday; 7-9 Thursday. Course includes study of crystal forms, using crystal models and natural crystals; construction of crystal models; development of artificial crystals. Teacher, Mr. Alfred Livingston.

Mineralogy 51 — 7-10 Tuesday; 7-9 Thursday. Course includes identification of minerals through physical properties; cutting and polishing of gem stones (optional).

Mineralogy 52 — 7-10 Tuesday; 7-9 Thursday. Course covers elements of blow-pipe analysis.

Class is open to high school graduates and to citizens eighteen years old. No tuition. Service fee \$2.50 per semester covers costs except books and supplies.

N. O. T. S. Rockhounds of Chino Lake, California, trekked to Opal Mountain in mid-January. Honey and cherry opal were located, with an award of \$1.00 worth of free cutting and polishing in the Lapidary Hut for the best specimen.

The December issue of the *National Geographic Magazine* carried an excellent article "Exploring the World of Gems," by Dr. William F. Foshag, head curator of Geology, U. S. National Museum in Washington, D. C. Especially commendable are the excellent reproductions of real colors.

The San Diego Mineral and Gem Society has elected the following officers for 1951: W. L. Wart, president; Charles J. Parsons, vice president; Gertrude Ritchie, recording secretary; Leslie F. Burns, treasurer; Nellie Bryant, corresponding secretary.



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ROCK COLLECTORS ATTENTION—The Trailer Rock Store is again open to visitors to the area between Palm Springs and Palm Desert, Hiway 111. The Rockologist, (Chuckawalla Slim) Box 181, Cathedral City, California.

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# AMONG THE ROCK HUNTERS

Geothite in crystal form was discussed at the January meeting of the Kern County, California, Mineral society. Officers are: Mable O'Neil, president; Cecil Roberts, vice president; H. D. Bushey, secretary-treasurer; John Kennedy, field scout.

Newly elected officers of Victory Valley Gem and Mineral Club, Victorville, California, are: Walter Pilkington, president; Bob Pierce, vice president; Mrs. Thelma McCain, secretary; Mrs. Maxine Pierce, treasurer.

New officers of the Colorado Springs Mineralogical Society are: Richard M. Pearl, president; Charles B. Barnhart, vice president; Mrs. Ruth Wright, secretary-treasurer.

Newly elected officers for the Tacoma Agate Club of Tacoma, Washington, are: Ralph Pommert, president; Chester Barton, vice president; Peggy Olsen, treasurer; Kent Freeman, secretary.

Dr. R. M. Garrels, professor of economic geology at Northwestern University described methods of telling synthetic from real gems at the December meeting of the Chicago Rock and Mineral Society. Member exhibits are a feature of the monthly meetings. During January Dr. W. E. Powers of Northwestern talked on "The Origin and Culture of the Eskimo and the Geology of Greenland," illustrating with colored slides.

Mid-January meeting of the Minnesota Mineral Club of Minneapolis was Crystal Night with Dr. Gruner from the Geology Department at the University of Minnesota speaking on crystals. Two short movies on crystals were also shown.

Officers of the Colorado Mineral Society have been elected for 1951. Harold T. Hofer, president; Ray W. Thaler, first vice president; James Hurlbut, second vice president; Mrs. Jeannette Haralson, secretary-treasurer; Mrs. C. R. Williams, corresponding secretary. Grand auction night with "silent" bidding was a January feature.

At the December meeting of the Rex Young Society of Torrington, Wyoming, C. S. Dietz, former State Mineralogist, spoke on minerals and gems. The lecture was followed by two motion pictures loaned by the Wyoming University.

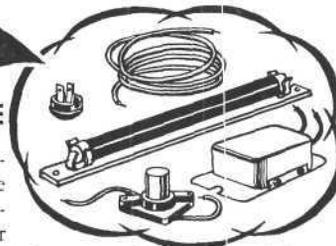
The El Paso Mineral and Gem Society elected the following officers for 1951: E. A. White, president; A. L. Patterson, vice president; Mrs. R. H. Miller, secretary; Mrs. A. L. Patterson, treasurer.

Lloyd Pray, of the Geological Sciences at the California Institute of Technology, spoke at the January meeting of the Mineralogical Society of Southern California in Pasadena. "Rare Earth Deposits of Clark Mountain" was his subject.

The Sacramento Mineral Society held its annual Christmas party Friday evening, December 22. There was a program, a Santa Claus, a Christmas tree and gifts for everyone. Refreshments were served late in the evening. A nominating committee was selected to recommend officers for 1951.

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## GEOLOGY DEPARTMENT HOLDS OPEN HOUSE

The Mt. San Antonio College Geology Department is scheduled to hold its annual geology open house Wednesday, March 28 from 7:00 to 10:30 P.M. The College is between Covina and Pomona, California, between Garvey and Valley Boulevards. Darold J. Henry, associate professor of Geology invites all rock collectors to attend. There is ample parking space. Displays, films, demonstrations and experiments are being planned.

New officers of the Victor Valley Gem and Mineral Club of Victorville, California, are: Walter Pilkington, president; Bob Pierce, vice president; Thelma McCain, secretary; Maxine Pierce, treasurer. At the January 3 meeting a film, "Nevada's Natural Resources" was enjoyed. Helen Pratt, secretary of the club for the past four years, was presented a ring set with floating opals, as a token of appreciation of her untiring efforts in behalf of the club. At the January 17 meeting, Rene Belbenoit, the only man ever to make an escape from Devil's Island, French penal colony, told of his adventures. A potluck supper is scheduled for the February 7 meeting.

Newly elected officers of the Austin Gem and Mineral Society are: Emil H. Spillmann, president; Dr. Stephen Clabaugh, vice president; Mrs. Bill Branch, secretary; E. A. King, treasurer. Dr. R. T. Havens of Brownwood, Texas, is scheduled as guest speaker for the February meeting. He will talk on "Some Collecting Areas in Central Texas." Regular meetings of the society occur the second Thursday of the month in the Auditorium of the Public Library. Those interested in gems and minerals are welcome.

The Gem Cutter's Guild, Los Angeles, recently elected the following officers for 1951-52: E. H. Pauls, regent; R. E. Nowak, marquis; Audry Baum, tablet; H. L. Chapman, cuvette; Shirley Miller, baguette; C. A. Terry, keystone. The next regular meeting is scheduled for February 26 at the Manchester Playground.

The Columbian Geological Society, of Spokane, Washington, has elected the following officers for 1951: Joseph M. Scubert, president; Jack W. Manning, vice-president; Russel Chilberg, treasurer. Directors are: Alma C. Walker, Charles D. Magee and C. W. Kinville.

Both the senior and junior Coachella Valley, California, Rockhounds have been actively combing the desert for specimens recently. Twelve young people and five adults trekked to the old calcite mines at Borrego, January 13. The following day five carloads of adults went to Chuckawalla Springs. This trip produced a quantity of green and yellow moss agate, probably some iris agate and considerable plain agate, Jack Lizer, president of the senior group said.

Demonstrations of the Geiger counter on uranium and other types of ore were given by Robert Loer at a recent meeting of the Cedar City, Utah, Rock club. In addition to explaining the counter and the uranium, specimens of petrified wood and a bottle of water from the hot springs at La Verkin which showed radio activity, were on display. Three major trips have been planned by the club.

## MINERAL EDITOR HONORED BY STATE FEDERATION

A plaque was presented to Prof. Paul Vandereike, editor of *Mineral Notes and News* for the past eleven years, by the California State Federation of Mineral Societies. A gift of money and mineral specimens made it a real Christmas remembrance, expressing everyone's appreciation of Prof. Vandereike's untiring efforts in behalf of the Journal. Pictures were taken of Prof. and Mrs. Vandereike, showing the mineral specimens and plaque.

Newly elected officers of the Sequoia Mineral Society of Parlier, California, are: Dr. Asher Havenhill, president; Bill Wedel, vice president; Gladys Minch, secretary; Mabel Anderson, treasurer. W. H. McDonald spoke on the art of jewelry making at the January meeting.

The Gem Cutter's Guild, Los Angeles, held its annual January auction and social at the home of Mr. and Mrs. Ralph Nowak. Proceeds go toward the purchase of colored slides.

The Mojave Desert Gem and Mineral Society, Barstow, California, elected 1951 officers at the December meeting. They are: Jack Klein, president; Frank Palmer, first vice president; Walter Lautherback, second vice president; Mrs. William Gabriel, secretary-treasurer.

Napa Valley Rock and Gem Club of California, will hold its first exhibition March 31 and April 1 at Napa. Santa Rosa and Benecia Clubs will participate.

Senior Rockhounds of the Coachella Valley, California, entertained the Junior Rockhounds at a potluck dinner in December.

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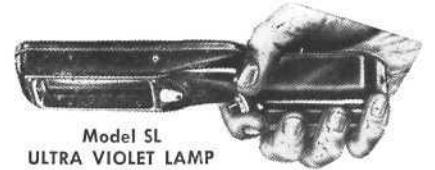
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The Pomona, California, Valley Mineral Club was entertained at the January meeting by Pauline Saylor. She talked on the Mother Lode country, illustrating with colored slides.

John Wood spoke to the San Jose, California, Lapidary Society on "Piezo Electrics in Crystallography" at the January meeting at the De Anza Hotel.

The Yuma, Arizona, Gem and Mineral Society enjoyed a lecture and slides on the geology of the Navajo country, presented by Joseph W. Baker. A trek to Koon Hollow, where fire agates can be found, took place in January.

Officers of the Searles Lake, California, Gem and Mineral Society for 1951 are: Nedra Merrill, president; Dwight Sawyer, vice president; Celia Forgee, recording secretary; Alma Bliss, corresponding secretary; Eddie Redenbach, treasurer. The year began with a "Know Your Club" meeting. Plans were formulated for the annual '49er Party and Costume Ball.

A December field trip to the dry lakes near Boron, California, netted members of the Mineral and Gem Society of San Fernando Valley, California, some fine specimens of petrified wood. At their Christmas party a burro helped Santa carry his pack instead of the traditional reindeer.

Members of the Monterey Bay, California, Mineral society named W. R. Bast and Louis Braum to prepare their fourth annual rock and gem show at the Y.M.C.A. on Clay street, Salinas, California, February 24-25.

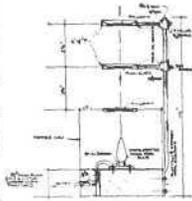
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### NEW BULLETIN LISTS CALIFORNIA MINERAL RESOURCES

Bulletin 156, prepared by the staff of the State Division of Mines under the direction of Olaf P. Jenkins, Chief of the Division, is now ready for distribution. The volume presents the geological occurrence, economic development, and utilization of California's resources, embracing more than eighty types of raw materials of commercial and strategic importance.

The book is especially documented with reference data that has definite appeal to economists, mining engineers, and to the staff members of industrial and manufacturing firms. The entire technical staff of the Division of Mines have assisted in the compilation of the volume. The latest statistical data were supplied through cooperative agreement by the U. S. Bureau of Mines; the earlier production figures being compiled from the Division's own records, and recast in the form of graphs.

An attached map shows distribution of the State's mineral deposits, major rock units, and outlines of the 58 counties and land nets. The reverse side of the map contains descriptive matter pertaining to these features, accompanied by a small map of the geomorphic provinces of the State. The concluding section contains a directory of producers of metallic and non-metallic minerals, mineral dealers, smelters, and commercial grinding plants within the State, and also commercial assay and testing laboratories.

Embracing such a broad scope of subject-matter, Bulletin 156 will serve as an excellent college text upon economic geology. The publication cloth-bound, 445 pages, may be purchased for \$2.00 including map, or the map may be purchased for 50 cents from the California Division of Mines, Ferry Building, San Francisco 11, California. California residents pay 3% sales tax.

The Delvers Gem and Mineral Society of Downey, California, made a field trip into the Bullion Mountains in January. This is a well known area for agate, jasper, carnelian and geodes.

During December the San Diego Lapidary Society enjoyed a talk by Lee Weatherbie on turquoise, the December birthstone. Eric Manring was scheduled to speak on "Alaska Jade and Prospecting in Alaska" during January.

J. Small, instructor at the Geological Institute of America, spoke on "Inclusions in Gem Stones" at the December meeting of the Pasadena, California, Lapidary Society. Rock gifts were exchanged and refreshments served.

Regular meetings of the Gem and Mineral Society of Tucson, Arizona, occur the first and third Tuesdays of each month, 7:30 P.M., room 106, Arizona State Museum. Visitors welcome. 1951 officers are: Mrs. Jean Serrans, president; Mrs. J. B. Cunningham, vice president; Wally Thies, secretary-treasurer.

California's Mother Lode Mineral Society elected the following officers for 1951: Joe Sousa, president; Fayne Rinehart, vice president; Lois Wemyser, secretary-treasurer; Les Burford and Warren Hughes, directors.

At the mid-January meeting, the San Geronio Mineral and Gem Society, Banning, California, was entertained by Mrs. Erna Clarke, who spoke on "A Rockhound Abroad," illustrating with colored slides.



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## RARE EARTH DEPOSITS OF CLARK MOUNTAIN

Lloyd Pray, a member of the staff in Geological Sciences at California Institute of Technology was speaker at the January meeting of the Mineralogical Society of Southern California at Pasadena. He spoke on rare earth deposits of Clark Mountain in Mountain Pass district of San Bernardino county. The main mineral of this deposit is Bastnasite, which is known only in a few localities in the world. The deposits are the richest known in the western hemisphere and appear to be an important domestic source of strategic rare earths.

With Alamogordo as their base, members of the Roswell, New Mexico, Geological society made two extensive trips in December. The first day they took in Alamo Canyon, trekking over rugged terrain from Marble Quarry Canyon to Alamo Canyon. The following day took them to Fresno Canyon.

The Mineral and Gem society of Castro Valley, California, enjoyed a talk by Wesley Gordon of Hayward at the January meeting. Gordon discussed the findings of his Boy Paleontologists at the Irvington Gravel Pits near San Jose. Important discoveries of this group have attracted considerable attention in scientific circles. Among the fossilized remains unearthed, is the skeleton of the only one of a species of a four-horned antelope, which has ever been discovered.

About 40 members of the Mineralogical society of Arizona and their guests enjoyed a field trip to an old prospect on Big Bug Creek, December 10. They found an abundance of chalcopyrite crystals, some single and loose, others in groups. Mrs. Berlie Robard found a single crystal over an inch in diameter, combining the octahedron and cube.

Newly elected officers of the Southwest Museum in Los Angeles are: Homer D. Crotty, president; Preston Hotchkiss, John O'Melveny, Kenneth Macgowan, vice presidents. A successful year of activities in science and education was reported. Nearly 50,000 visited the museum during 1950, including more than 10,000 students from schools and colleges. Both collections and library were materially increased.

Calaveras Gem and Mineral Society re-elected W. G. Daniels, president and Frank Wallace, vice president for 1951. Secretary-treasurer is Mrs. Sarah E. Wallace.

### Answers to Quiz

Questions are on page 38

- 1—Superstition Mountains.
- 2—Four feet.
- 3—Salt Lake City.
- 4—At point of discovery.
- 5—Old Indian cliff dwelling.
- 6—Grind seeds.
- 7—Flasks.
- 8—Apaches.
- 9—San Juan River.
- 10—Mountain Man.
- 11—Reg Manning.
- 12—Red.
- 13—Tombstone.
- 14—Nogales.
- 15—Navajo Indians.
- 16—Presbyterian.
- 17—Desert rodent.
- 18—The Virgin.
- 19—Highway.
- 20—Utah.

## SAN BERNARDINO MINERAL SOCIETY PRESENTS CRYSTALS

Kunzite crystals were given each member of a committee responsible for the success of the recent show of the Orange Belt Mineralogical society. Mrs. D. H. Clark presented her talk "A Rockhound Abroad" which deals with her ramblings through many countries in Europe, where she found a "rockhound" a curiosity.

A baked ham dinner marked the mid-January meeting of the Whittier, California, Gem and Mineral society. Later a mock trial was held. Robert Myers, acting as judge, fined some as high as 31 cents for not wearing badges.

January 17 was scheduled as Indian Night at the Nebraska Mineralogy and Gem club in Omaha. Pictures of American Indians by Ben Bierer and a short lecture on Pittsburgh Plate Glass by R. A. Wilson was planned.

The Hollywood, California, Lapidary society plans all its field trips in 1951 for the last week end of the month.

Colored slides, presented by Harland A. Ludwig, were a feature of the January 2 meeting of the Yavapai Gem and Mineral Society of Prescott, Arizona.

"Ghost Towns," a film loaned by the Signal Oil Company, entertained members of the Southwest Mineralogists of Los Angeles at their January meeting.

The Maricopa Lapidary Society of Phoenix is the 28th member of the Rocky Mountain Federation. Officers are: Washington N. Moore, president; Harry Hazlett, vice president; Avis Moore, secretary; Fred Stein, treasurer.

New officers of the Dona Ana Rockhound Club are: Mrs. A. E. Archer, president; S. F. Sanders, vice president; Ruth Randall, corresponding secretary; Mrs. Shilo Smith, recording secretary; Alvin Watson, treasurer.

The following officers were elected to serve the Wasatch Gem Society of Salt Lake for 1951: Kenneth Stewart, president; Geraldine Hamilton, vice president; Helmut Wachs, secretary; Mose Whittaker, treasurer.

At their January meeting, the Glendale, California, Lapidary and Gem Society enjoyed a talk on "Prospecting in 1951" by Dr. R. H. Jahns, of the California Institute of Technology. Plans were discussed for the Glendale Show, scheduled for May 12-13.

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By RANDALL HENDERSON

**G**REETINGS THIS month to my new neighbors across the corridor in the *Desert Magazine* pueblo at Palm Desert—to Editor Lelande Quick and his staff of *The Lapidary Journal*.

In February, Lelande moved his publishing office from Hollywood, where *The Journal* was started four years ago, to our spacious publishing plant out here on the California Desert—and hereafter his magazine will be printed by the same craftsmen who set the type for *Desert Magazine*.

We are glad to have Lelande and his associates as neighbors. Our editorial offices will be entirely separate and the move involves no change of policy on the part of either publication. But as editors we have a great deal in common. Both of us pioneered new magazines in new fields and we have had the same problems to solve—problems of editorial policy, of circulation, advertising and printing. I am sure the association will be pleasant and profitable for both of us.

Increasing numbers of folks in the metropolitan area are trying to figure a way to get out of the hurly-burly of city traffic and away from the poison fumes of a million automobiles—and Lelande and Mrs. Quick are two of the fortunate ones. They have built an institution which could be moved without sacrifice.

It is an adventure—when folks who have lived in the big city most of their lives pull up stakes and move to the country especially when “the country” is a new desert community such as Palm Desert. City residents take their conveniences and luxuries for granted. Problems of transportation, of water and fuel, of sewerage and garbage disposal are something that can be solved by a telephone call. It is not as simple as that in a new desert community.

But the desert has its compensations. Most people who live on the desert do so from choice. They love the shadows of the ever-changing dunes, the sharp heady fragrance of the sage brush. They thrill to sunsets when the sky blazes in gold and crimson. Most of all, they find peace in the silence that enfolds them when darkness falls. Simple things, ordinary people, take on real importance. Superficial things have value only for what they are.

Men in authoritative positions in New Mexico are concerned about the widespread seeding of clouds for increasing rainfall. They suggest that unless some controls are enforced, there is the possibility that one area may secure rain at the expense of another.

No one knows the answer to this question. But it is a proper question—and one that should be studied by men who are qualified to delve into such matters.

Every naturalist knows and respects Nature’s law of

balance. When humans start tampering with the natural order of things they invariably run into difficulties they had not anticipated.

I saw this illustrated years ago when I was residing in the Palo Verde Valley. The Laguna Dam had just been completed to divert Colorado River water to Yuma Valley for irrigation. It was just a low diversion dam with a reservoir that extended less than 15 miles upstream.

Within four years, unprecedented floods began breaking through the levees and flooding the Palo Verde Valley 70 miles upstream. My old friend Ed F. Williams said they were caused by Laguna dam. Engineers ridiculed the idea. The dam, they insisted would not affect the river bed 70 miles above. But they were wrong—and the federal government eventually paid a big damage claim to Palo Verde Valley, after studies had proved it was a proper claim.

The seeding of clouds to produce rainfall appears to be a scientific discovery of great benefit to the arid regions. I hope the U. S. Bureau of Meteorology is making studies to make sure that in creating artificial rainfall someone is not robbing Peter to pay Paul.

Everett Ruess, artist and poet, trekked through the desert wilderness with his burros and found beauty everywhere. Generally he traveled alone. We cannot all spend our lives following the trails he trod. We would not want to—for it is important that we work and build homes and raise families. But one does not have to be a hermit of the trail to find beauty in the world of Nature. There are flowers and trees and rocks and tinted sunsets for all who seek them—and their enjoyment is for the most humble of men. There is no prettier music on earth than the song of the canyon wren—and this little bird of the wild trills its call for rich and poor alike. And that is true all through the world of Nature—there are no racial or class distinctions in the natural world which you and I inherited. Prejudice and hate are inventions of man—and perhaps it was to get away from these things that Everett Ruess chose the lone trail in the desert wilderness.

A card from Robert S. Callahan of Burbank, California, carries a message that is worth repeating:

It's not what we have, but what we use  
It's not what we see, but what we choose.  
These are the things that mar or bless  
A life of lasting happiness.

It's not what we take, but what we give,  
It's not as we pray, but as we live,  
These are the things that make for peace,  
Both now and after time shall cease.

# BOOKS OF THE SOUTHWEST . . .

## VIVID PORTRAYAL OF THE FOUR CORNER INDIANS

"In Europe the stones of Westminster Abbey had not been hewn. In Asia, Marco Polo had not yet journeyed to the Court of Kublai Khan. The Church still proscribed as 'heretical and unscriptural' the belief that the earth was round. But here, in the high hinterland of a vast undiscovered America, the people had planted in stone the roots of a civilization."

Thus Frank Waters, editor of the *Crepusculo*, a weekly newspaper at Taos, New Mexico, recounts the background of the Navajos and Pueblos.

Masked Gods, is a gripping story, one that takes the reader into the intimate lives of the Indians of the Four Corners, that portion of the United States where Arizona, New Mexico, Utah and Colorado join.

We see the redman, communal, obdurate to change, without sufficient competitive spirit to hold his own with an aggressive white race. Waters vividly pictures their belief in the evolution of every living creature. Through long and intimate acquaintance with them, he is able to explain the meaning behind their rituals, drawing rare comparisons between the ceremonies and the religions of other peoples.

Frank Waters, as a boy, lived for a time on the Navajo Reservation and has been closely associated with the Indians much of his life. He is the author of eight novels.

Published, 1950, by University of New Mexico Press, Albuquerque. 438 pages. Sketches. \$6.50.

## TRAGIC EPISODE IN MORMON HISTORY

One of the darkest and most secret chapters in the history of the West is the story of the Mountain Meadows Massacre in Utah in September, 1857, when 123 members of a California-bound emigrant train were killed by Mormons and Indians. All adult members of the wagon train were slaughtered. Seventeen children were spared.

Twenty years after the massacre, John D. Lee, a Mormon, was tried and executed for his part in the attack. Lee's defense was that he was acting under orders of superior officers in the Utah militia, which had been formed to resist a United States army then enroute to Utah on orders from President Buchanan "to put down the Utah rebellion."

For nearly 100 years historians have tried to unravel the tangled thread of events during and preceding the tragedy of Mountain Meadows. Juanita

Brooks, a member of the Church of Jesus Christ of Latter Day Saints, has thrown much new light on the events of that tragic year of 1857 in Utah, in her book *The Mountain Meadows Massacre*, off the press in November.

Mrs. Brooks, working under a Rockefeller Foundation fellowship, makes no attempt to exonerate the Mormon leaders for their part in the crime. She has searched the records of the church and state for all evidence bearing on the tragedy, and this she presents for the conclusions of the reader. The people of Utah, she points out, had been driven out of Illinois and Missouri—and now an army was approaching. Brigham Young had taken the stand that the Mormons would defend their new desert homes to the last man, and had sent emis-

saries to the Indians to enlist their aid in defending the territory.

The evidence presented by Mrs. Brooks, including voluminous documentary reprint, points to two conclusions: one, that Brigham Young had no responsibility for the massacre, and the other, that the tragedy could have been enacted only under extreme emotional stress such as had been engendered by the approach of invading troops from the East.

The Mormons would like to forget this unpleasant episode in their history, but Mrs. Brooks believes that she has done the church a favor in bringing out into the open as many of the facts as are available. "I feel that nothing but the truth can be good enough for the church to which I belong."

Stanford Press, Palo Alto. 243 pp. Index. Appendix. \$5.00.

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NET FILLING 3 LBS. OF 50% DOWN - 50% SMALL GREY DUCK FEATHERS.

2 BAGS CAN BE ZIPPED TOGETHER FOR DOUBLE BED.

SHORT ROLL PACK. ALL MDSE. FULLY GUARANTEED

COMPLETE CAMPING SALES AND RENTALS

WEST'S LARGEST IN CAMPING GOODS SALES

# \$39<sup>95</sup>

PLUS 3 1/2% SALES TAX



## BRADLEY-REHRIG

FRESNO RIVERSIDE PASADENA SAN BERNARDINO SANTA ANA  
1125 BROADWAY 4023 MAIN ST. 99 E. COLORADO 571 FOURTH ST. 406 W. FOURTH

MAIL ORDER

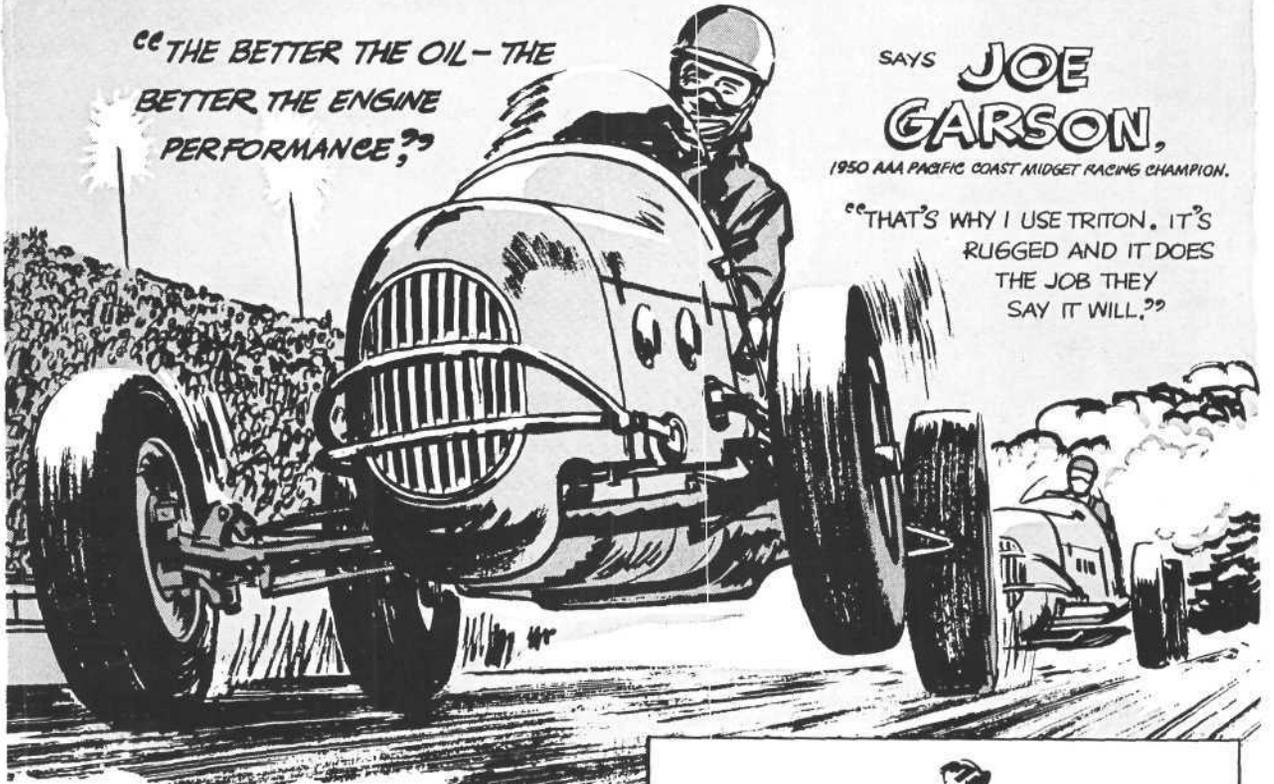
# WHY TRITON GIVES YOU AN EXTRA MARGIN OF SAFETY!

"THE BETTER THE OIL - THE BETTER THE ENGINE PERFORMANCE?"

SAYS **JOE GARSON,**

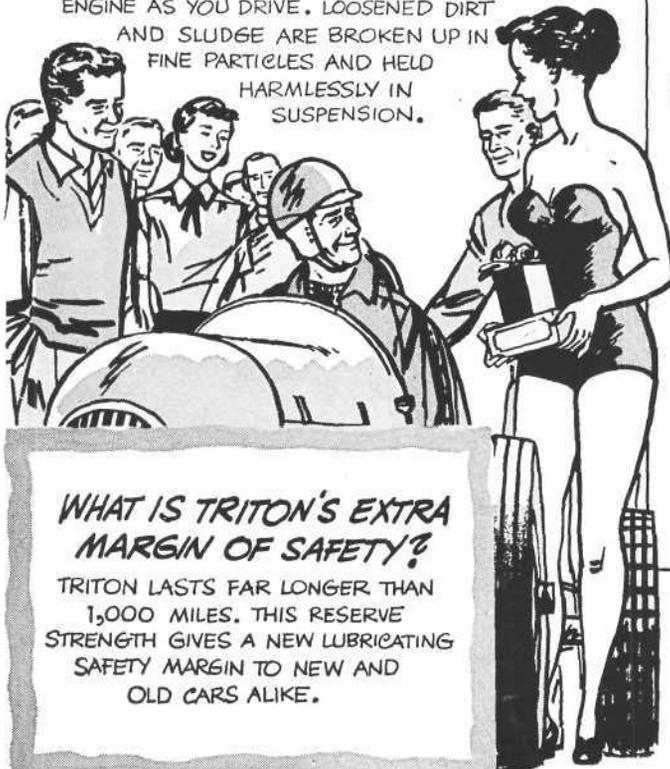
1950 AAA PACIFIC COAST MIDGET RACING CHAMPION.

"THAT'S WHY I USE TRITON. IT'S RUGGED AND IT DOES THE JOB THEY SAY IT WILL?"



## WHAT ABOUT DIRT AND SLUDGE?

WITH TRITON, DARK OIL MEANS A CLEAN MOTOR! TRITON'S DETERGENT COMPOUND CLEANS YOUR ENGINE AS YOU DRIVE. LOOSENED DIRT AND SLUDGE ARE BROKEN UP IN FINE PARTICLES AND HELD HARMLESSLY IN SUSPENSION.



## WHAT IS TRITON'S EXTRA MARGIN OF SAFETY?

TRITON LASTS FAR LONGER THAN 1,000 MILES. THIS RESERVE STRENGTH GIVES A NEW LUBRICATING SAFETY MARGIN TO NEW AND OLD CARS ALIKE.



## WHAT MAKES TRITON LAST LONGER?

A PURE, RICH 100% PARAFFIN-BASE STOCK GIVES TRITON ITS BASIC STABILITY. SPECIAL PATENTED COMPOUNDS RETARD ACIDITY, SLUDGING AND CORROSION AND CLEAN YOUR ENGINE AS YOU DRIVE. THE RESULT IS AN OIL SO HIGH IN QUALITY THAT IT LASTS LONG AFTER MOST OILS ARE RECOMMENDED FOR CHANGING.

**UNION OIL COMPANY**  
OF CALIFORNIA



Notice: Triton is now sold by many independent dealers and garages as well as regular Union Oil stations. If your particular dealer doesn't carry Triton, ask him to stock it for you.