

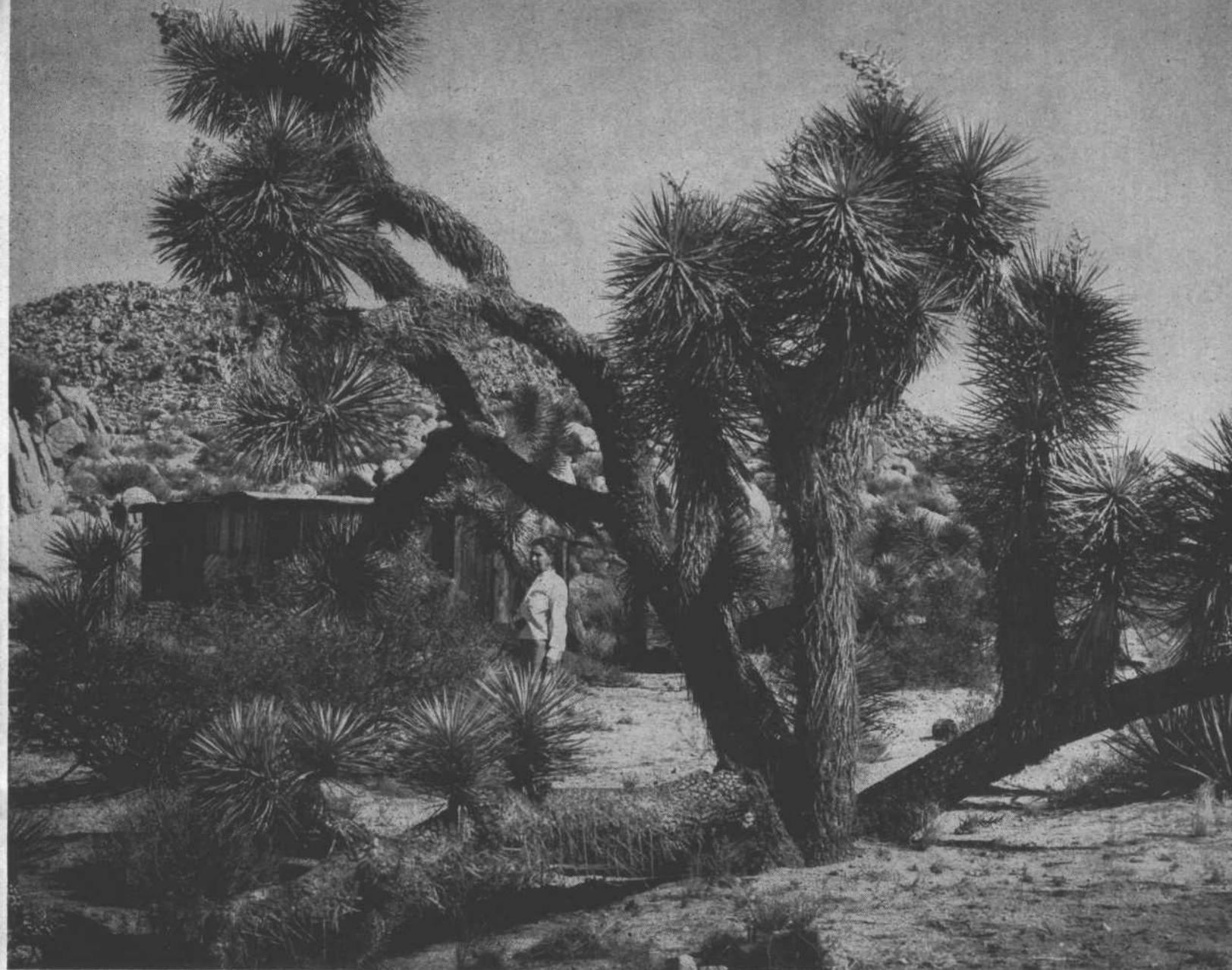
THE

Desert

M A G A Z I N E

JULY, 1949

35 CENTS



June Le Mert Paxton on her Yucca Valley homestead. Photo by Harry Vroman.

MOJAVE SNOW

By PHYLLIS J. BAILEY
Twentynine Palms, California

I awoke this morning to see a strangely
lovely sight
The desert softly sleeping 'neath a coverlet
of white.
Unsullied fleeciness tucked in snugly every
place.
Sage and greasewood, glamorous, in man-
tillas of lace.
Grotesque no longer; stately, proud,
The Joshua Tree in vestments chaste, lifts
its arms to God.
While still from out a lead-gray sky, swirl
silent, soft, white veils
Behind whose tenuous strength, our burning
desert sun fails.

• • •

WHISPERED MUSIC

By PAUL WILHELM
Thousand Palms, California

So let me live where I may hear
The silken whisper of the sand
The singing music of the sphere
The light-wing feet, the unseen hand
Of pressing winds that murmur near
The pulsing spirit of this land!

My Old Desert Shack

By JUNE LE MERT PAXTON
Yucca Valley, California

You wonder, friends, why I moved away
From city life and the modern way;
Moved out where stars hang low and bright,
And Joshua trees guard the silent night.

Where clean winds through the chaparral
sigh
And hoot owl joins the coyote's cry.
Where, alone with one's Maker, one does
not heed
Narrow conventions, style, and greed.

Perhaps 'twas the call from a primitive race,
A challenge to grow, a duty to face!
A stepping out of a long, weary night;
A climbing upward to seek the Light.

Perhaps deep within I seemed to know
I needed freedom where the soul could grow;
I needed the sunshine, the sage, and the
sand;
I needed this; I'm part of the land!

So, friends, right here I hope to stay,
And pray the crowds won't come this way.
For beauty and peace the soul does not lack,
While it dwells secure in an old desert shack!

DESERT DREAMING

By PHYLLIS J. BAILEY
Twentynine Palms, California

Some think the desert is a lonely place
Of sun and wind, of sky and space.
Where monumental mountains brood
In solemn, silent solitude, and time stands
still.

Some know the desert is a lovely place
Of sun and wind, of sky and space.
Where solemn, silent mountains raise
Heads high in reverential praise, and life is
real.

March On

By TANYA SOUTH
San Diego, California

March on! The way is clearly laid.
Step forward fearless on the Path.
Nor have you aught to be afraid
In life, and even unto death.
For God is still your staff and stay,
The very essence of your being,
And He will guide you all the way,
And be your hearing and your
seeing.

DESERT CALENDAR

- July 1-3—Annual rodeo, Silver City, New Mexico.
- July 1-4—Hopi Craftsman, 16th annual exhibition. Weaving, pottery, basketry, silver work demonstrations, Museum of Northern Arizona, Flagstaff, Arizona.
- July 1-4—Rodeo and barbecue, Cloudcroft, New Mexico.
- July 2-4—Rodeo, parades, Reno, Nevada.
- July 2-4—Hillbilly Jubilee, parade, rodeo, barbecue, Idyllwild, California.
- July 2-4—Frontier days and rodeo, Prescott, Arizona.
- July 2-4—Southwest All-Indian Pow-Wow, Ceremonial dances, Flagstaff, Arizona.
- July 2-4—Celebration and "Pageant of Progress," Bisbee, Arizona.
- July 2-5—Third convention of Cactus & Succulent Society of America, Desert Botanical garden, Papago park, Phoenix, Arizona.
- July 2-5—Annual Apache fiesta and Devil Dance, Mescalero Apache reservation, northeast of Alamogordo, New Mexico.
- July 3-5—Tooele Bit and Spur club annual rodeo, Tooele, Utah.
- July 3-5—Lions Club rodeo, Gallup, New Mexico.
- July 4—Annual free barbecue and street sports, Payson, Arizona.
- July 4—Annual rodeo, Cimarron, New Mexico.
- July 4-5—Annual rodeo, Springerville, Arizona.
- July 7-9—Ute Stampede, Nephi, Utah.
- July 8-30—Water colors and drawings by William Felt; Etchings by James Swann, Museum of Northern Arizona, Flagstaff, Arizona.
- July 14—Fiesta and corn dance, Cochiti Pueblo, New Mexico.
- July 15-17—Tooele City Centennial celebration, Tooele, Utah.
- July 22-23-25—Rodeo, Spanish Fork, Utah.
- July 24—Days of '47, Salt Lake City, Utah.
- July 24-week—Pioneer Days celebration, Ogden, Utah.
- July 25-26—Corn dances, Taos Pueblo, New Mexico.
- July 26—Fiesta and dance, Santa Ana Pueblo, New Mexico.
- July—Life Magazine's traveling exhibit "Ancient Maya", a series of photographic panels by Dmitri Kessel, Southwest Museum, Highland Park, Los Angeles, Calif.



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Home in the Cactus Forest

By LOUISE PRICE BELL

Their nearest town is 34 miles away, but they have made friends of the native fauna—and their hours are never lonesome.

THE WILDES—Elaine and Larry and their children—live in an isolated desert spot. Larry is park ranger at Madrona ranger station in the Saguaro National Monument. During winter months, tourist travel is heavy and he puts in a five-day week at the custodian's headquarters—a 34-mile daily drive. In the summer he supervises the fire-prevention and protection program in the forested area, to the east. Jogging over 110 miles of pack trails is no picnic, and getting back home not a daily affair.

When the Wildes moved here two years ago, they were very new to this sort of living. Like many other G.I. couples, Larry and Elaine had shuttled about from one rented room to another, and this continued when he was at the Utah Aggie school at Logan, Utah. No wonder the tiny one-room adobe house where they lived when they first came to the Monument seemed like a dream house! Lack of running water was nothing to them and a smoky wood stove brought no complaints. They loved the desert and didn't mind the air that filtered through slits in the roof.

Now they have a better home, with running water, gas stove, refrigerator, automatic water heater, a power plant, a telephone and radio. Studio couch and cribs in the main room take care of family sleeping, and here, too, are Larry's desk, the dinette set, some chairs. They are doing nicely.

The young people met when Larry was stationed at an air field in Tucson and Elaine was a university student there. They married, Larry went overseas as a B-17 pilot, Elaine returned to the university for another semester. After Larry's discharge, he returned to Logan—and then came the job at the Monument—a civil service appointment.

The town where they do their shopping is 34 miles away, and it is four miles to the home of the nearest neighbor.

But Elaine is a resourceful person. She is never lonely because there's always so much to do: sewing, knitting, reading, the care of the little Wildes and her little home.

One morning they awakened to find the clothes line gone, with only a few tattered pieces of what had been the day's laundry clinging to the clothes pins. Roving cattle had made a feast on rompers, lingerie, shorts. Larry solved that problem with an electrically-charged wire fence around the yard.

The Wildes love the desert country. Their only complaint is the occasional scorpion which shows up around the house, and it is hard to teach the children to leave them alone. Larry was stung once, with no serious results.

With horses and mules in the corral at Madrona station, they have plenty of opportunity to ride out through the cactus forest. But they also like to hike, and in the absence of playmates the children are becoming acquainted with the bird and animal life of southern Arizona.

They feel that they are fortunate people—with 9,000 acres of saguaro-dotted desert in their front and back yards—a region that many thousands of Americans travel long distances each year to see.

SAGUARO NATIONAL MONUMENT

Located 18 miles east of Tucson, Arizona, the Saguaro National Monument comprises approximately 63,000 acres. It was reserved as a National Monument in 1933, with a custodian on duty most of the year. The saguaro cactus is Arizona's state flower and the Monument was set aside to preserve one of the finest cactus forests in the state.



Perched atop the Middle Mesa of the Hopis in Arizona is Mishongnovi pueblo, one of three villages on the mesa. Legend tells of the arrival here of the Horn clan, of their acceptance by the Bear and Snake people. Milton Snow photograph.

Rain-Makers of Mishongnovi

On the Hopi mesas in northern Arizona the rattlesnake is regarded as a messenger who conveys to the water gods the prayer of the tribesmen for an ample rain supply. But not all the Hopis have faith in the rattlesnake. Members of the Flute Society believe the music of their flutes is more potent for rainmaking purposes than reptiles. And so, in alternate years on the Second Mesa the Flute priests are given an opportunity to hold their Rain dance. The story of this unusual ceremonial is told by a writer who knows the Hopi intimately.

By DAMA LANGLEY

It was August and Flute Dance time on the Second Mesa of the Hopis.

Under the apricot trees fed by a trickle from Burro springs, a dozen women sat and rested before carrying their filled water jars to the pueblo of Mishongnovi. All day they had gone

up and down the thousand feet of steep trail to and from the spring. Water sufficient for four days' needs should be stored in their homes before sunset. The Flute priests would come to the spring at that hour with prayer sticks and sacred pollen from corn and tulle, and the waters must not be dis-

turbed after that until the final song is sung.

Althea's mother, in whose house I was staying, rose and dipped her big jar into the spring. The other women followed.

"Mang i uh, (tired)?" I asked. "Put your jars in my car and I will haul them up to the plaza."

"Mang i uh," they answered, "but we must carry the water as did our mothers, or the gods would know and dry up all our springs."

The gravel road skirting the three mesas where the Hopi Indians live in northern Arizona was thronged with cars of people going to Old Oraibi and to Walpi where the annual Snake



The Hopi women still grind corn for their piki bread in these primitive metates. Milton Snow photograph.

dances were being held. On the Middle Mesa with its three towns the Flute Society priests were trying their luck as rainmakers. They are not modest about their powers and insist that the watergods listen to the flute songs when they can't be bothered with rattlesnakes!

Only two unmasked ceremonies are performed by Hopi dancers. One of these is the Snake dance, the other is the Flute dance, and it commemorates the arrival of the Horn Clan with its Flute Society at Walpi after years of searching for a home.

The Bear and Snake people had always lived with the Hopis, but in some way the Horn Clan lost its direction when the tribe emerged from the underworld and they could find no suitable place to settle. At last they came to a spring in a country they liked. They saw no homes, so sent out spies to see if the way was clear for them. The Flute people went to the foot of the high cliff above the spring and saw a faint trail cut into the rocks. They followed their leader up the trail. He played his flute and the rest of them sang songs to flatter their watergods. Before long they came to a line of meal across the trail and they knew enough to stop there.

While they halted they continued playing the flute and singing. Soon the Bear Clan and the Snake Clan with their priests came to the other side of the meal barrier.

"Who are you? Where did you come from, and why are you here?"

"We are wanderers looking for a home. We are of Hopi blood and our hearts are clean. We have no crooked speech. On our backs we carry the Flute altar and we can cause dry springs to bubble with water, and clouds to spill on parched fields!"

Four times the questions and answers were given before the line of meal was wiped away and the strangers led into the town. They were taken down into a kiva and ordered to show their skill.

Legend says the strangers dropped grains of corn into cracks between rocks in the kiva floor and brought rain down through the kiva roof to water the corn. All night they played their flutes and sang growing songs. In the morning there stood sturdy green stalks of corn where the dry grains had been planted. Such powerful priests as these must not be allowed to join another tribe. So the Bear and Snake priests took their new comrades before the people:

"The chief of these people shall be one of our priests."

As it happened there were two groups of flute players with the strangers. One group played flutes the color of a cloudless sky, and the other used flutes gray as rain-filled clouds. So two Flute priests were accepted, and now the Middle Mesa has both the Blue Flute and the Drab Flute dancers.

The Snake priests and the Flute priests perform their ceremonies in alternate years. Nine days before the sunset ceremony, preparations begin in the Flute kiva. An altar is built and a sand painting made before it. Bowls of water from sacred springs are set around it, and bean plants and melon and pumpkin vines are trained over the altar. Prayer sticks are planted in the sand. These are in memory of the Gone-Aways of the clan.

From my rooftop, where I had set up housekeeping with a cot and gasoline stove, I could look down on the top of the kiva where men practiced their songs day and night. This kiva was built against the cliff and hung out over space so it should have been easy to reach the underworld from it. The hatchway was open and the long poles of the ladder were decorated with bunches of swamp cattails, a bunch of colored corn and a horse's tail dyed scarlet. These decorations informed everybody that the kiva was being used for ceremonial purposes and was not to be entered by non-members of the society.

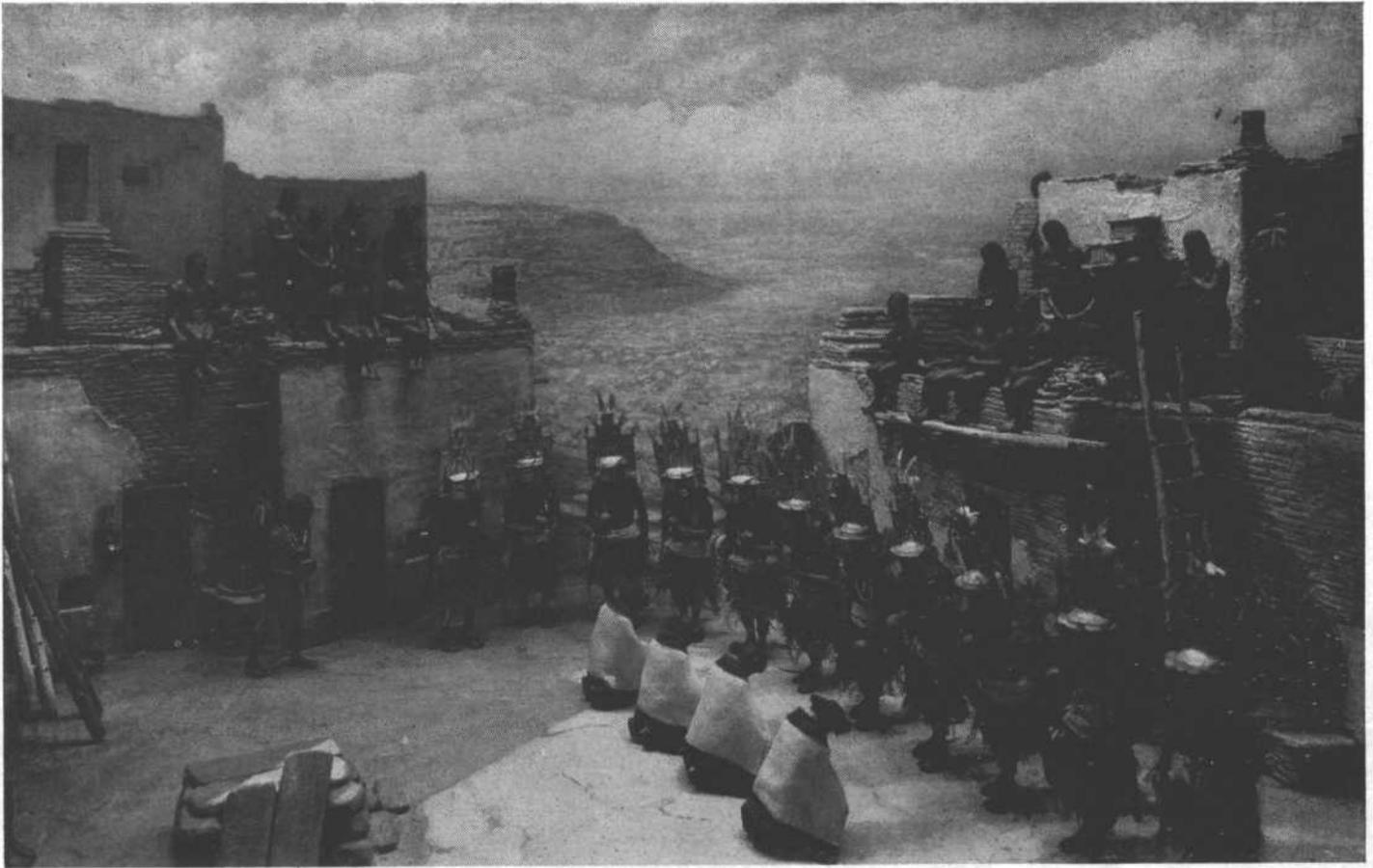
Once each day painted runners came up the ladder with their hands full of prayer sticks. The only clothing they wore was an embroidered kilt and red dyed moccasins. Althea, who had grown up in my household, married, and returned to Mishongnovi, pointed to one of the runners and said it was Homer, her husband. She said the kilts were dabbed with wild honey, and that the pahos (prayer sticks) would be planted at distant springs.

"Each day they go to desert springs and leave the prayers, and as they go they circle around all the planted fields. They go to far-away springs first and work in toward the mesa. Now all springs have been visited except the one at the foot of the trail and there tomorrow the last song will be sung. After the women brought all the water they needed priests went down in the night and put meal and tule pollen on top of the water. It gathers in spots and then the priests skim it off and put it on the fields of the Flute Society. I hope some went on Homer's cornfield."

"Do you believe in these ceremonies?" I asked the gay-hearted girl I had watched grow up far from the mesa.

"No, I don't. Homer tries to believe because he has to take part in the dance or not have anywhere to plant. If the rain fails to come every man will be questioned to see if he failed to do his duty, or if he has broken some rule such as eating salt or sleeping with his wife during the nine days."

"I thought you and Homer were



Hopi Indians no longer permit photographs of their sacred dances. This picture of a diorama in the Milwaukee public museum shows one of the katchina dances held in Mishongnovi pueblo.

going down to Parker where the Hopi are building their new home. What happened?"

"Semana, our people are old. My mother is breathless after she carries water from the spring, and you know Homer's father is blind. He sits in the sun all day and knits stockings for us, and at night he goes to the kiva and teaches the boys the songs of our people. When he takes the sunset trail he will be buried at the foot of the mesa and follow the charted trail to his Underground Home.

"My mother gathers yucca and sweet grasses here for her basket making and she is known as the best piki baker in the village. She fears to die away from where her gods keep watch over her. Homer and I are young, and later we can make our home elsewhere."

In a sheltered corner of her corn room Althea's mother heated the piki stone and began making the feast bread. She came to tell us the stone was hot if I wished to watch the baking. While she stood with us a messenger from the kiva climbed the outside stone steps and came to us. He said something to the older woman and she scurried away to the storage room and came back with a small pottery

jar closely covered with cornhusks and tied with a cotton string. She placed this in the hands of the waiting Indian and we watched him disappear down the ladder.

"There goes the honey I expected to eat on fried bread," grumbled Althea, but her mother was in a trance-like state of delight. She had been honored by the Flute priests. Althea reminded her of the piki making and we went into the corn room just off the storage place.

The blackened stone, greased with a little mutton tallow, was kept hot by a fire of cedar wood. The oily smoke came up into the eyes of the old woman, and I suggested that corncobs, of which plenty lay around, would make a hot smokeless fire.

"We use them when there is no growing corn. But if they were to be burned now while corn is green in the fields, the gods would be angry and drain all the moisture away." Strange creatures, those Hopi gods.

Althea's mother sat on a sheepskin, her feet turned sideways as is proper Hopi manners, and held her bowl of thin corn gruel on her lap. She dipped her right hand into the bowl and then swiped it across the hot rock very

quickly. Instantly the thin batter cooked into a thin sheet of bread. She lifted this off and laid it to one side and smeared another one on the rock. When a dozen sheets were cooked she picked them up one by one and laid them on the stone again to soften. Then they were folded and rolled into cylinders about the size of small ears of corn. The first bowl of mixture made blue-gray piki, but when she mixed again she colored her gruel and the rolls were a light red color. We left her with piki and smoke thick around her, and wandered down among the houses where Althea's friends lived.

In one house we heard the sound of corn being ground in a metate with a mano. We went inside just as a picture was being made of two pretty girls dressed in old-time Hopi costumes and squash blossom hairdress. They were grinding corn, but more for the fun of it than because meal was needed. There were shrieks of dismay when Althea pointed to the print aprons they had forgotten to remove for the picture taking.

Back of the houses was a row of the hive-shaped ovens which conquering Spaniards taught the pueblo people to build and use. It takes much wood to



Interior of a Hopi basket-weaver's home. Milton Snow photograph.

heat one of these ovens, and wood is scarce in Hopiland. It is brought on the backs of burros for many miles, and not a chip is wasted.

To save wood and work, half a dozen housewives have their yeast bread baked in one oven. Sometimes 20 fat white loaves are placed on the hot floor by means of a wooden shovel, and sealed in there for the accumulated heat to bake. I wondered how the women would know their own loaves, but there was no hesitation when we came back hours later and watched them being taken out. To the woman owning and operating the oven each housewife gave a brown crusty loaf in payment.

Sweet corn puddings, full of shelled sunflower seeds, had been wrapped in cornhusks and buried with hot rocks in the ground where they would stay until it was time to feast after the final song.

Old men and women, too tired with living to be excited about anything, napped in the sun and kept lax watch of playing children. Or the women worked on colorful coiled plaques made only by Second Mesa Hopi women.

We peeped into storerooms where colored corn was laid in neat rows assorted according to color, and where basket-making material, dried mutton and baskets of peach seeds were kept. On the rocky ledges beyond the village the early peaches were drying in the hot sun, and several women not connected with the Flute Society stayed there to turn the split halves and to keep birds and rock squirrels away. Little houses of stone were built there

where the peaches could be taken should a rain storm come. It pleased the women when peaches ripened before the rain dances were performed. They were sure rains would follow the ceremony and spoil the peach drying which must be done just when the fruit has reached a certain stage of ripeness. These peaches grow on stunted trees down in soil pockets along the mesa, and date back to the days of the Spanish invasion.

This was the last night of kiva ceremony and Althea and I wrapped ourselves in blankets and sat on sheepskins near the edge of the roof where we could see anybody coming up the kiva ladder. Far down on the desert we could see car lights miles away, and the sound of their passing kept the village dogs barking constantly. The visitors were planning to park below Oraibi and watch the dawn race before the Snake dance. Althea and I planned to stay on our roof and watch the dawn race of the Flute people there at the Middle Mesa.

The village noises died away and lights went out until only the faint flicker from the kiva shone up through the hatch. I was sleepy and stretched out to watch the age-old stars in the soft blue sky.

"Wake up, Semana. They are coming!" I couldn't hear anything but Althea pointed to the kiva and now the creaking of a burdened ladder reached us. The Flute priests had left their sand painting and were coming to the cottonwood bower in the plaza built over the opening to the underworld. From below they had watched the skies until the belt of Orion reached a certain

position. They glided across the plaza, the only sound being the clatter of sea shells strung and tied around their knees. There was a soft rustling noise when the cottonwood branches were parted and prayer sticks placed inside the bower. Then the thin reedy voice of a flute floated over the sleeping town and the men began to sing their rain prayer very softly. Rattles took up the tempo and soon Althea who had learned the words as a child began to hum them in English to me:

"Over the field of growing corn shall hang the heavy cloud. Over the blossoming beans, oh cloud, go slowly. Over the virgin corn hovers the thunder cloud." The song ended and then men trotted lightly back to the kiva and settled to sleep. They would rest while the powerful prayer sticks worked for them.

I looked at my watch. It was almost four o'clock, so I went to sleep and when I opened my eyes blue cedar smoke was coming from cooking fires and its desert perfume flavored my breakfast of bacon and eggs.

This was the final day of ceremony. Early in the morning the Flute priests went down a secret trail and came back to the village by the well-used pathway. They were met by Bear and Snake chiefs painted and kilted and carrying cedar branches in their hands.

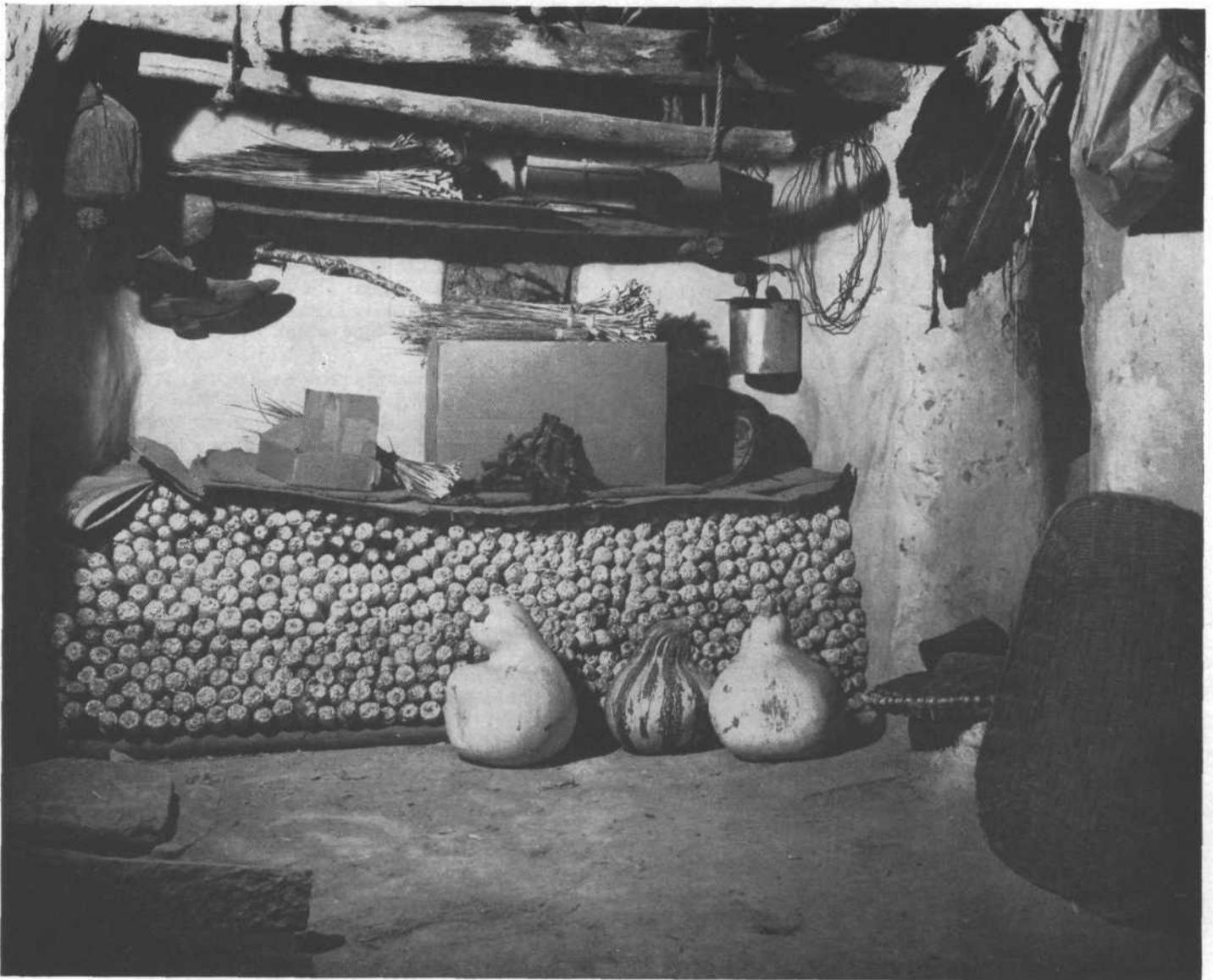
"Where are you going? What do you want here?" they asked the Flute men just as their ancestors did in legendary days. And the answer was:

"We are of Hopi blood. Our hearts are good. We have with us the Flute Powers. We cause rain to fall when our Snake brothers fail."

They were welcomed into the village and led to their kiva, and flute wail and prayer hum began anew. This time they had with them the young girl and boy who had won the dawn race, with their stalks of green corn. They were painted with Flute Society colors and dressed in embroidered kilts and woven robes and blankets and given rattles and cedar branches to hold.

Just before sunset the Flute Priest followed by the young girl and the Snake warrior came out of the kiva. Behind them were two Snake priests, two Antelope priests and all the Flute Society singers. They trotted off down the trail, accompanied by all the Indians not already waiting down at the spring.

The walled-in spring with its small terraced gardens and apricot trees was surrounded by people before the priests reached there. The Flute Society seated its members on the north side of the spring and the warrior spun the howling windmaker until it moaned and



In the scant rainfall of the Hopi country it requires infinite work to grow the annual food supply. Between harvests it is carefully preserved in such store rooms as this. Milton Snow photograph.

wailed. Then he laid it aside and shot an arrow toward the east. One of the Flute players began a tune and the chief waded into the spring until he reached the center of it. Then he squatted down under the water and planted a prayer stick in the mud of the bottom. He waded out and took a flute from another member and went back into the water. He played a tune to each direction, pointed the flute downward and blew a few notes, then did the same skyward.

Then he dipped water in a gourd and came out of the spring. Followed by the flute players he walked entirely around the pool of water and then led his members back up the trail to the kiva.

By the time the priests were stripped of their ceremonial paint and dressed in everyday clothes, feasts were waiting in their homes.

And in the desert around the other mesas, Snake priests were speeding rattlesnakes toward the underworld with prayers for rain. If the gods were kind, clouds would empty their gift on Hopi fields.

• • •

URANIUM MINES PRODUCING PROFITS FOR NAVAJOS . . .

That the Navajo Indian reservation in northeastern Arizona may become "the nation's storehouse for vital uranium," is the possibility seen by Charles H. Dunning, director of the state department of mineral resources, who revealed this month that the reservation project has been under way for more than a year.

He said 10 per cent of the profits from sale of the ore will go into the Navajo tribal fund. On the basis of present production at \$50 per ton, the

tribe is making about \$1000 a day, Dunning said.

The department's announcement said that five uranium mines are being developed in this major project on the Navajo reservation. The project is being carried out by the Vanadium Corporation of America and the Atomic Energy Commission. In addition to the five mines now being developed, the project has resulted in the location of 30 other mines.

The AEC has also scheduled an extensive exploratory drilling program for the reservation in 1951. Production at the five mines now being operated reaches 200 tons a day, Dunning said. All five mines are of the open pit variety.

The material mined in Arizona is sent to four uranium reduction plants in Utah and Colorado, which now have an output of 500 tons a day.



*Sandstone cliff long used by wild bees of the desert.
The author calls these nesting places bee-banks.*

When Wild Bees Nest on the Walls of Desert Canyons

By EDMUND C. JAEGER

Photos by the Author

MOST of those who tramp the open country are familiar with bee caves and crevices, where wild bees find housing for themselves and their food supply. But the bees of the desert country also have another type of community development, which may properly be called bee-banks. They may be seen occasionally on the vertical clay and sandstone walls of many of the larger desert washes and narrow badlands canyons.

There you see where thousands of earth-nesting wild bees make tubular excavations in which to place the cells of wax and clay which in due time will harbor the eggs and larval food. I have found these bee-banks in the vertical clay walls of the strange-looking canyons of the Indio Mud hills, in beautiful Painted canyon near Mecca, California, and the clay cliffs along the far eastern Mojave

river. A year ago I came upon the spectacular bank pictured on this page in the soft sandstone of one of the numerous gullies leading down to the Colorado river below Parker dam. Another bank which rivals this one in size I found in Pushawalla canyon on the Colorado desert north of Indio, California.

If you come upon one of these extensive bee communities in late March or April you may be fortunate enough to see the bees at work excavating the burrows and making their longish, capsule-like cells. Other members of the bee community may be busy provisioning their cells with the nourishing honey-pollen mixture on which the larval young will feed. The industry of these efficient artisans at such times is extraordinary. Since they are non-stinging bees you may watch them without fear. Of the earnestness of their endeavor there can be no doubt. The clay they choose to burrow in generally is not soft; indeed it is often surprisingly hard and one is led to wonder what unusual kind of tools the adept workers have with which to excavate so efficiently. It is a habit of such bank-nesting bees to deposit a kind of fluid on the earth to soften it so the well developed mandibles can excavate more readily. Perhaps herein lies, at least in part, the secret of their success.

The tubes they make generally are straight and go horizontally into the clay or sandstone only an inch or two. Usually they are wholly separate one from the other. Occasionally, however, especially when the burrows are longer than usual, they join one another. This probably is because the zealous workers do not always sense too well the direction in which they are tunneling, or because foolishly they begin their burrows too near those of neighbors.

Once the burrow is excavated it is lined with a paste of clay and quick-drying gelatinous fluid secreted by the bee. This retains the nourishing honey-pollen mixture on which the larva will feed. Once this inner receptacle is provisioned the orifice of the burrow is cleverly sealed with a fast hardening lid of clay which remains intact until the new adult bees later emerge.

Swarming about the busy cave-makers you may discover some of the numerous parasites that plague the deft workers and imperil the existence of the eggs or the young larval bees soon after they emerge from the egg. Such enemies are certain bees, wasps, flies and meloid or blister beetles. Often the number of parasites is so great that most of the bee larvae never come to maturity. The wasp and bee enemy-parasites lay their eggs within the clay-lined cells, slipping in to place them there before the orifices of the tubes are closed by the digger bees. The parasitic blister beetles lay their eggs, not on the bee's eggs or in the cells, but in the ground nearby.

The young blister-beetle grubs, called triangulins, fasten themselves to any hairy object they touch. Thus a certain number of them attach themselves to the bodies of the nest-building bees. As the female bee lays her egg the parasite cleverly slips from her body onto the egg and is sealed within the cell when it is closed. The egg, doomed from this time on, is entirely consumed by the young larva. Having consumed its dainty food, the strange grub now moults and becomes a very different creature which turns to feeding on the stored food prepared for consumption by the bee larva.

The bee-bank bees continue to frequent the same locality for many years until finally the clay banks in which they work contain extraordinary numbers of burrows, old and new. The bee-bank pictured here is doubtless one that has been occupied by many generations of industrious excavators. These earth nesting bees of colonial habit are flower-feeders and are valuable pollinators of many wild and cultivated plants.



Some specimens are found on the surface, but the greater variety of spikes in better condition are obtained only with a shovel. The group in the picture came from the hole in the foreground.

We Dug Sandspikes on the Border . . .

By HAROLD O. WEIGHT
Photographs by the Author

IN February, 1774, Juan Bautista de Anza and his followers struggled across the sunstruck wasteland between the lagoons of the Colorado river and the mountains of California. Their guidemark was a dark mountain against the western sky. Beyond it was water; beyond that the end of the great desert. But exhaustion slowed the steps of man and beast. Thirst blocked their way.

And when De Anza abandoned that attempt and turned back toward the lake-side camp of Santa Olaya, the dark peak seemed distant still. The soldiers grumbled about it; with bitter humor they named the mountain they had not reached *Cerro del Imposible*—the Impossible mountain. When the men and stock had rested De Anza tried again. This time Impossible

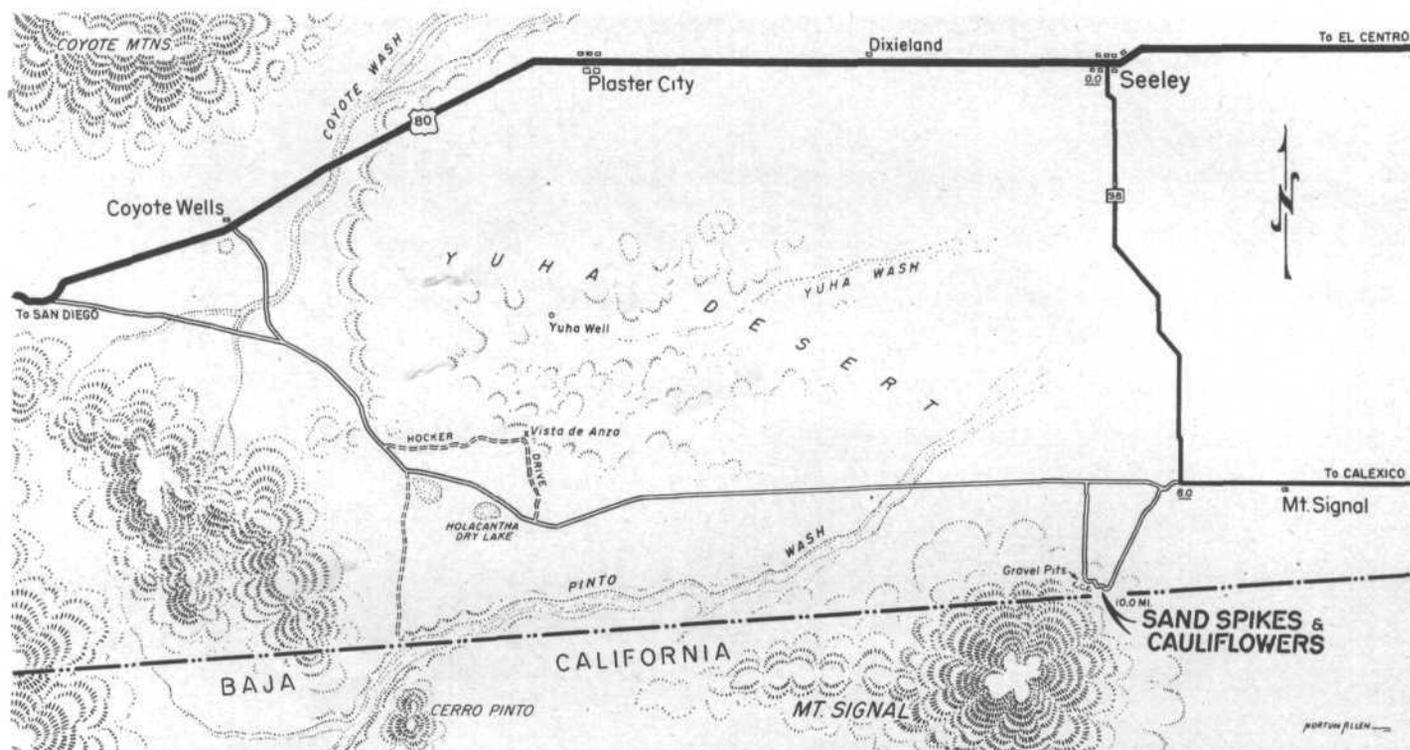
mountain was passed. The company went northward then, found the Wells of Santa Rosa, and finally reached the rich land of coastal California.

The mountain which guided De Anza became a beacon to others crossing the desolate below-sea-level plain. It was fitting, then, that one of the government expeditions should name it officially Signal mountain. Today old Signal, brooding darkly along the border west of Calexico, is as much a landmark to the dwellers of Imperial Valley and travelers along Highway 80 as it was to the pioneers. But to most of them it is only a picturesque peak, while in the days before far-ranging automobiles, a mountain which rose from the flatlands to orient the weary adventurer and point the way to water often meant the difference between life and death.

There are not many places on the desert where those fantastic sandstone concretions known among the collectors as sandspikes are known to exist. One of the best of these locations, just two miles from a paved highway, is described by Harold Weight in this month's field trip. But there is more in this story than sandspikes. Harold gives some interesting sidelights on desert history, Indian lore, lost mines and the preservation of desert wildflowers in a little known area along the Mexican border.

For years Signal mountain has been a special sort of landmark for Eva Wilson. Somewhere around its base, Eva knew, old Signal was hiding sand banks full of sandspikes. She had heard about them often and had seen some of the mineralogical oddities from the mountain. But when she asked for mileages and landmarks, her informants became forgetful or hazy. "Besides," they said, "there's no use going out there. They've about all been picked up now."

But Eva did keep going to Signal



mountain, because it was a fine field for practicing other hobbies, particularly collecting wild flowers and photography. And it is possible to pick up bits of old Indian pottery in Signal wash, and sometimes find bits of petrified wood on the bajada.

The trips paid off. One day she wrote: "I've found the blamed things. I've been driving right over some of them for years!"

Naturally we motored to Eva's El Centro home on the first free weekend. We wanted sandspikes too, and there are few places where they are known to exist. You can't cut or polish the freakish things. They're really not pretty. But they are one of the strangest attractions in Nature's mineralogical sideshow. And if ever life should become boring, just sit down with a selected group of sandspikes and try to figure out the circumstance or combination of circumstances which led to their formation.

Simple concretions are hard to explain. But some of these things look as if they had been machined. A Desert Magazine reader once suggested that they are petrified gopher holes, but gophers just don't come small enough for the little ones. Some collectors speculate that the Indians made and buried them. Believe me, there just weren't enough Indians and Indians aren't that crazy. There probably is a simple, natural reason for their shapes—if we were smart enough to understand it. Eva believes it to be a form of crystallization.

We left El Centro for sandspikes on a bright, blustery February morning

and drove to Seeley, toward San Diego on Highway 80. Zeroing the speedometer there we turned south on the paved Calexico road. At the edge of the cultivated area we stopped to obtain some dry fine sand which Eva intended to use to "pickle" wildflowers.

Eva Wilson is widely known for her collection of pressed, framed desert wildflowers which have been exhibited at the Imperial county fair and at shows of the Imperial Valley Gem and Mineral society, of which she is an active member. The framed flowers represent years of collecting and of experimenting with the best methods of picking, pressing and mounting to preserve color and life-like appearance.

Eva's interest in flowers and rocks goes back to 1923 when she was a teacher in Las Vegas, Nevada. In her four years there she boarded with Nick and Hazel Williams. Nick, who has since died, was one of Nevada's earliest rockhounds. He had his own pol-

ishing outfit and he and Hazel and their two children spent most of their free time on the desert hunting rocks. Eva went with them, developed rock fever, and soon was grinding her own specimens in the backyard. Some of the first she collected—copper ores, blue-grey moss agate and pretty jaspers—came from areas now covered by Lake Mead.

On these trips Eva and Hazel started to collect wild flowers, keeping the pressed specimens in notebooks with heavy celluloid pages. Eva's college course in botany—"from which I learned nothing"—had not aroused her interest in flowers. The trouble was that the course started from the wrong end, with microscopic study and tiny details which meant nothing to a beginner. Eva believes that field work with the flowers should come first. She knows that after she met the flowers in their home environment in the Nevada desert she went back to botany manuals with new interest and understanding. And she has become an expert on the flowers of the desert.

After leaving Las Vegas, Eva taught in Los Angeles. Here she started framing the wildflowers she collected. To pay for flower expeditions into the desert, Eva offered some of the framed flowers for sale. Soon exclusive gift shops and one of the best-known department stores took all she could produce and literally were selling them faster than she could prepare them. To speed the process, she started growing wildflowers—baby blue eyes, wild fuchsia, poppies, globe mallow, godetia and others—in her own yard. And she

ROAD LOG

- 00.0 Seeley. Turn south on Calexico road, Hwy. 98.
- 08.0 Turn right on graded road. Hwy. 98 makes abrupt left turn. Cross two irrigation canals then, less than one-tenth mile, left again on broad bladed road toward Signal.
- 09.8 Branch right to gravel pit. Keep ahead on main road.
- 09.9 Main road curves sharply right.
- 10.0 Stop. Sandspikes on either side of road.



In the sandy soil among these little hummocks near northeastern base of old Signal mountain, collectors may find the geological oddities called sandspikes.

found a large demand for pressed garden flowers.

During the school year her output was small, but in vacations it rose until she was taking in \$140 a month. She soon found that commercializing her flower pictures had spoiled the fun of making them. There were deadlines to meet. There was a demand for certain types to the exclusion of others she wanted to do.

Since moving to El Centro, where she teaches mathematics and is girls' counselor at the high school, Eva has stopped commercial sales except to friends who insist upon having them to give at Christmas and on other occasions. She has not stopped collecting,

pressing and mounting flowers, but now she selects the ones she wants and does the work because she enjoys it.

During her years of experimenting Eva has found that, to retain the color, flowers should be pressed immediately. For this purpose she carries old numbers of large popular magazines and an antique letter-press in her car. Newly-opened flowers retain their color better, and in general mountain flowers keep their color better than those from the desert. The primary colors fade less than more delicate tints and mixed colors. Larkspurs, sunflowers and verbenas are color-lasting and she has baby blue eyes, pressed by her grand-

mother more than 50 years ago, with the blue still intense.

She uses glue or mucilage for mounting the pressed flowers—placing a dot or thin line on the mount with a toothpick. Mats are die-cut and printed with framing lines. Mount, flower mat and glass are bound together with passe partout tape.

While Eva was giving flower-preservation tips we had been following the highway to 8.0 miles from Seeley, where the paving turns sharply left toward Calexico. Here we swung right onto the Yuha cutoff, crossed two canal bridges and turned left from the cutoff onto a wide bladed road which headed for Signal mountain. Gravel

Rising sharply from the level desert floor Signal mountain—La Centinela, Lower Californians call it—has been a guide for desert travelers since Juan Bautista de Anza's first California expedition in 1774, was an Indian landmark before that time. Photograph taken from the north on U.S. side of Mexican border. Much of peak lies in Mexico.





Eva Wilson shows how to dry-preserve a dune evening primrose by covering it carefully with fine, dry sand—her own method.

pits, workings and roads cover the country here. But we held on the main road to 9.9 miles, where the road turned sharply right. One-tenth mile beyond the curve—10 miles from Seeley, we stopped. Eva pointed down. There, actually in the road, were specimens of the bumpy-headed forms of sandspikes which Eva calls cauliflowers.

We examined the surrounding country, which seems to be formed of low, knobby sand mounds. Broken bits of sandspikes were on the surface in a number of places and a few minutes of digging in the soft sand uncovered perfect specimens. Our investigations indicated that this particular concentration of sandspikes covered a little more than an acre of ground. From pieces of float in the washes it seems likely that there are other deposits in the area.

This one should furnish many sandspikes for those bringing a shovel and willing to dig, however. The sand can

be excavated easily, but care must be used in working around the larger spikes or they will come out in pieces or with the points broken off. The smallest spike we located was about an inch in length. The largest recovered in one piece was a foot long. Lengths of spikes lying upon the surface show that much longer ones must occur here. The spikes appeared to be most numerous north of the road.

This collecting field is located near the northeastern base of Signal, which base, incidentally, has been eaten away by gravel-grabbing mechanical shovels almost to the international line. Gravel appears to be the only deposit being worked at Signal, but in the early days it was prospected for gold and was one of the landmarks for the first searchers after the Lost Pegleg mine. According to a story, recounted by Philip Bailey in *Golden Mirages*, Pegleg was rescued from the desert in 1855 by a hostler from the San Felipe station of the

Butterfield stage line. He was taken to Warner's rancho where he told the story of his fabulous lost nuggets.

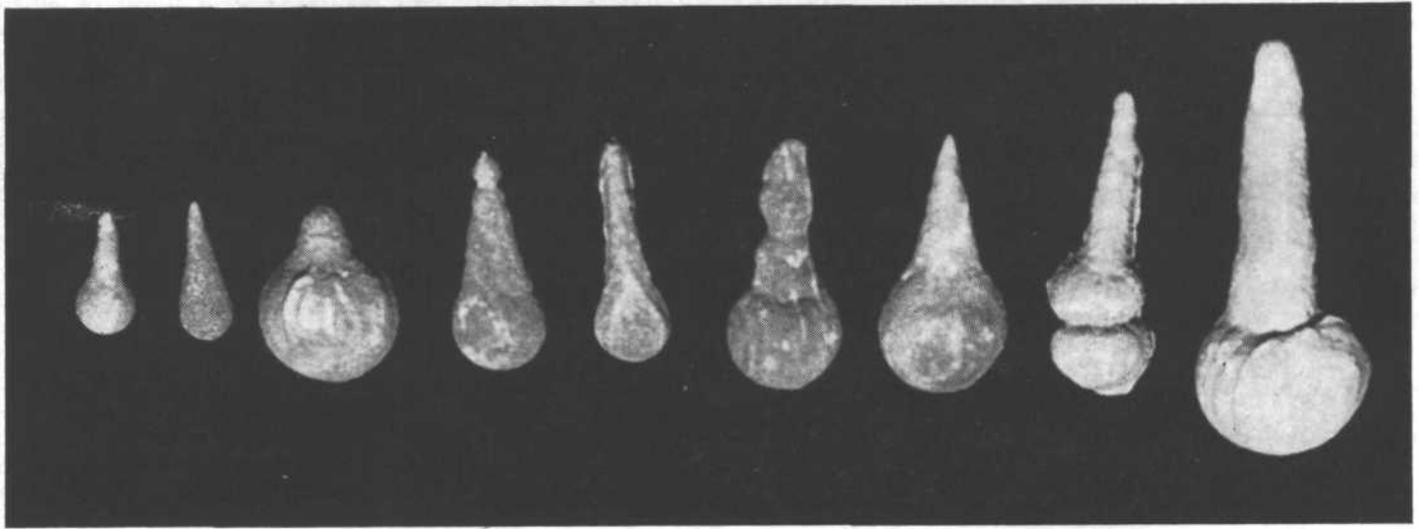
Shortly afterward several parties, including cowboys from Warner's, tried to find the nuggets. All these parties, apparently basing the search upon directions given them by Pegleg, went to the Cocopah mountains just southeast of Signal mountain. In later years the search for the Pegleg has moved north and expanded to cover most of Southern California. But Signal retains its own treasure legend, as fantastic as any in the Southwest. The tale is little known and apparently was first printed by Dr. Fred W. Peterson in 1947, in his fascinating book on the early days in Imperial Valley, *Desert Pioneer Doctor*.

Dr. Peterson heard the story from the old prospector Diamond George who obtained it from Borego, an Indian whose age was estimated as above the century mark. When Borego's grandfather was a young man, he was bodyguard for a young Cocopah chief who had a stronghold in the mountains 30 miles west of Signal. A renegade Yuma Indian from the Colorado river came to the village with the story of a large amount of gold which the Yumas had collected and hidden.

The renegade knew where the gold had been hidden and, as the Cocopahs and Yumas were almost constantly at war, the adventurous young chief decided to raid the Yumas and steal the gold. The invaders reached the river and found the gold, but before they could retreat the Yumas attacked in force. The young chief was mortally wounded in the first assault and his bodyguards carried him and the gold from the field while Cocopah warriors covered their retreat.

The Yumas harried their attackers all the way to Signal mountain before they gave up the pursuit. At Signal, high on the eastern cliffs, the members of the bodyguard buried their chief and the gold which had caused his death, then went back to their home village. There are weak links in the story, if it is examined closely. But who ever looks closely at a tale of lost gold? And if it should be true, it offers a possible solution of Pegleg and his nuggets.

If gold was taken from the Yumas it probably was from the Pothole or Laguna placers on the Colorado river and was in nugget form. If those nuggets, buried by the Cocopahs, became exposed through the years and lay upon the surface of Signal mountain, they might have become coated with desert varnish. Then Pegleg, crossing from the Colorado river and climbing the highest available peak to locate himself—remember there has been



Here are the sandspikes uncovered at base of Signal mountain.

much debate as to whether the Lost Pegleg is on one of three buttes or one of three peaks upon a mountain—could have found the “black” nuggets.

But before eager searchers scramble up Signal’s steep slopes to glean nuggets Pegleg might have missed, it would be well to remember that most of the mountain lies in Mexico. And *Norteamericanos* who crossed the border on Signal without proper authorization have sometimes been required by Mexican officials to trudge into Mexicali and account for their actions. Others have climbed the mountain without molestation.

After collecting a sufficient variety of the freakish concretions, we drove through the gravel-pits toward the Yuha cutoff. On a sandy upper level of Signal wash we found a beautiful little garden of early wildflowers—verbena, dune primrose, yellow evening primrose, *Baileya pauciradiata*, palafoxia and forgetmenots. And here Eva gave a demonstration of her latest method of preserving flowers.

About a year ago she started what might be called three-dimensional drying of desert blooms, principally to solve problems presented by cactus

flowers too succulent to press satisfactorily and others, like the globe mallow, whose dainty shapes are lost in pressed specimens. Another advantage, she found, is that with this system the original colors are retained more perfectly.

To dry-preserve flowers Eva takes two-pound coffee cans and sufficient fine dry sand to fill them, and a medium-sized funnel. She puts enough sand in the can to hold the flower upright, then carefully funnels sand around and finally over the flower. She is careful to keep the pressure even all around, working the sand under the petals in their natural positions before any is poured over them. The sand-packed flowers are left a minimum of four weeks—preferably in a room, to assure a more even temperature. Succulent flowers, of course, require more time. Some of the delicate flowers she preserved in their natural shape by this method are now a year old and show no signs of deterioration.

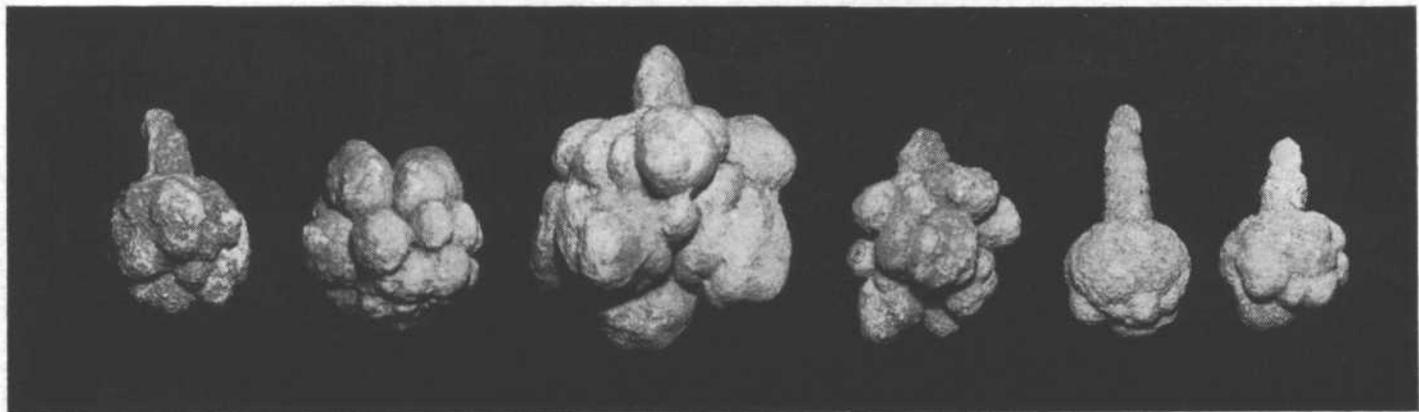
Drawbacks are the number of containers required and the amount of space necessary during the drying period. Eva has haunted tincan dumps for the containers and sometimes scarcely has

been able to carry on necessary activities because the house was bulging with sand-filled cans. To solve the problem of proper display for the finished product, Eva has made arrangements in shadow-box frames and has grouped flowers in plastic corsage boxes obtained from a florist.

After packing a dune evening primrose to dry in the warm sand, we drove north to the Yuha cutoff road. It was not yet noon and we determined to take the cutoff west, through the edge of the Yuha badlands, and regain Highway 80 at Coyote Wells. After a few miles of reasonably good desert road, we came to Pinto wash. The wash, at this point, is only about 1000 feet wide, but sometimes its soft sand welcomes automobile wheels with an unholy and all-absorbing enthusiasm. Herbert E. Bolton tried to drive across another section of this same wash in 1928, while tracing the trail of Juan Bautista de Anza for his great series of books on Anza’s expeditions. They worked all night, he wrote, carrying enough rocks to build a roadway which enabled them to back 140 feet out of the wash.

Once there was a bridge across the

Some of the concretions in the Signal mountain area are shaped like cauliflowers.



wash on the Yuha cutoff road. But a storm carried it away and it has not been replaced. That this scenic drive has been allowed to become virtually

impassable is a loss to Calexico as well as to many tourists.

One of the reasons we chose the Coyote Wells road was the desire to

visit the magnificent forest of crucifixion trees—*Holacantha emoryi*—which encircle the dry lake on the left, or southwest, side of the road about 7.5 miles beyond Pinto wash. If the visitor enters from Coyote Wells, the lake is approximately the same distance from Highway 80. The crucifixion thorn is an uncommon plant in the western Colorado desert. It is supposed to be a shrub. Yet they grow to more than 15 feet in height at this little dry lake. The forest seems to be little known, probably because from the road the shrubs look like large coarse smoke trees.

There is another attraction in the area—Vista de Anza—which should not be missed although it becomes more difficult to reach each year. About two miles northwest from Holacantha lake—5.4 miles from Coyote Wells—the winding track called Hocker drive branches southeast from the Yuha cutoff and twists an erratic 1.6 miles to Anza monument. From this point there is a magnificent and unforgettable view of the Yuha badlands. Far below can be seen the mesquites which mark Anza's Wells of Santa Rosa, called Yuha wells today. And immediately around Vista de Anza, along the ridges on either side and in the badlands below, the dark petrified wood characteristic of this desert can be found. Rockhunting in the Yuha, however, is definitely a spring, fall and winter pastime. In the summer there are few hotter, drier and more dangerous spots on the desert.

How long it will be possible for ordinary cars to reach Vista de Anza is questionable. The ruts are washing badly and the southeastern entrance to the drive could not even be located from the Yuha cutoff when we were there. California needs a law which will require road departments to do occasional maintenance work upon roads which they considered useful enough to spend public money in opening.

It was nearly dark when we reached the paving of Highway 80. Across the badlands Signal mountain was still visible. It had been in almost constant sight throughout the day's wanderings. Now its great dark bulk was gathering a crown of crimson clouds.

De Anza is gone. Those who came after him have tamed the barren desert and planted it almost to the foot of Signal. The mountain is no longer needed as a guide for pioneers, path-breakers, or prospectors hunting gold in the wasteland. But it is—and we hope it always will be—a marker for the new breed of adventurers who penetrate the heart of a land once cursed and shunned to enjoy its strange wonders and to see its vivid beauties.

Desert Quiz

Desert Quiz is published both for those who already are well acquainted with the desert Southwest, and for those who would like to improve their knowledge of this fascinating region. The questions include geography, history, botany, mineralogy and the general lore of the Great American Desert. Regular readers of the magazine find their scores improving from month to month, for all of the answers to the questions appear sooner or later in the pages of Desert. Twelve to 15 is a fair score. Sixteen to 18 is superior. A score of 19 or 20 is exceptional. The answers are on page 36.

- 1—Going from Tucson, Arizona, to Guaymas, Mexico, you would cross the international boundary at—
Douglas..... El Paso..... Nogales..... Calexico.....
- 2—Early American Indians ground their meal in a—
Mescal pit..... Mortar..... Atlatl..... Arrastre.....
- 3—Asbestos is—
Mined from the ground..... Fabricated from cotton..... Sheared from sheep..... Made from coal tar.....
- 4—Arizona's annual buffalo hunt is held in—
White Mountain Apache reservation..... Chiricahua National Monument..... Petrified forest..... House Rock valley.....
- 5—The approximate age of prehistoric pueblos in the Southwest is determined by—
Tree rings in the roof timbers..... Indian legends..... Petroglyphs on the rocks..... Pottery shards.....
- 6—For climbing in dry rocks the best footgear to wear is—
Leather-soled moccasins..... Rubber-soled shoes..... Hobnailed boots..... Leather sandals.....
- 7—The Southwestern state having the smallest population per square mile is—
Nevada..... Arizona..... New Mexico..... Utah.....
- 8—If you wanted to make application for lease of a jackrabbit homestead you would go to—
The county clerk in which the land is located..... The state department of natural resources..... The nearest postoffice..... The U.S. District Office of Land Management.....
- 9—The Mountain Men who trapped the western country in the middle of the last century derived their income mainly from the furs of—
Fox..... Beaver..... Mink..... Coon.....
- 10—If you entered Death Valley from Beatty and Rhyolite you would go through—
Raton pass..... San Gorgonio pass..... Emigrant pass..... Daylight pass.....
- 11—Albuquerque, New Mexico, is on the banks of the—
Pecos river..... San Juan..... Rio Grande..... Verde.....
- 12—One of the following plants might be mistaken for yucca—
Nolina..... Indigo bush..... Creosote..... Catsclaw.....
- 13—The most conspicuous coloring of the fossil wood in the Petrified Forest National Monument is—
Red..... White..... Green..... Orange.....
- 14—If you traveled west on the Southern Pacific railroad you would cross the Colorado river at—
Blythe..... Yuma..... Parker..... Topoc.....
- 15—Breyfogle is a name most often mentioned in the desert country in connection with—
An unscaled mountain peak..... A volcanic crater..... A lost mine..... A ghost town.....
- 16—The mineral-in-solution which forms travertine is—
Quartz..... Calcite..... Manganese..... Feldspar.....
- 17—The late John Wetherill for many years ran an Indian trading post at—
Kayenta..... Cameron..... Keams canyon..... Chinle.....
- 18—The Dinosaur National Monument is located in the states of—
New Mexico and Texas..... Arizona and Nevada..... Utah and Colorado..... California and Nevada.....
- 19—The metal obtained from a galena mine is—
Lead..... Iron..... Aluminum..... Zinc.....
- 20—If you wanted to fish in the main stream of the Colorado river you would not go to one of the following states—
Arizona..... New Mexico..... California..... Nevada.....



Leaving Wickenburg the 133 riders followed the dry course of the Hassayampa a mile before taking to the hill trails.

On Hassayampa Trails . . .

Once each year Wickenburg, Arizona, is the rendezvous for horsemen from all over the Southwest—cattlemen, lawyers, store-keepers, bankers and dude wranglers—they all come to the "dude ranch capital" to spend four days on trails that lead over the hills along the Hassayampa river. This year's trek covered 89 miles, and it was fun even for the unseasoned riders after they got over the initial aches of long hours in the saddle.

By RANDALL HENDERSON

Photographs by Herbert McLaughlin

It was Steve Hambaugh's idea. Steve lives at Wickenburg, Arizona—on the Hassayampa river. He thinks it is the best place on earth. For years he has been telling me I should come over and get better acquainted with the Hassayampa country. It is in the heart of the Arizona desert.

I thought it was a good idea, too. And so, early last January when Steve brought me an invitation to join the Desert Caballeros on their annual four-day ride over the hills that overlook the Hassayampa I was glad to accept. Much of the area is inaccessible except on horses.

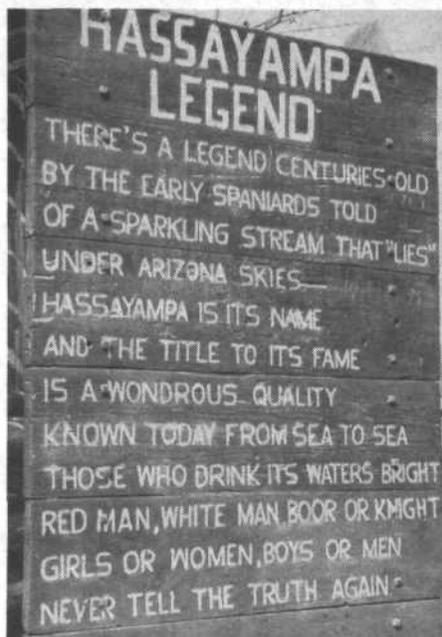
This was the third annual ride of the Caballeros. The event was organized three years ago as entertainment for the winter visitors who come to the Wickenburg guest ranches. Wickenburg boasts that it is the "dude capital" of the world.

I suspect that other motives besides the entertainment of tenderfoot visitors had something to do with the sponsoring of this annual 4-day trek. Wickenburg is a rendezvous for cattlemen, both past and present. I think the old-time cowmen wanted a good excuse to get out on the trail a few days each year to prove to themselves and

their neighbors that they are not yet ready to retire to the hall of antiquities. And that is a very worthy motive, too.

The whole town of Wickenburg—

There are many versions of the Hassayampa legend. This one greets visitors who cross the Hassayampa bridge in Wickenburg.



population 3500—turned out to see us off. We paraded down the street in the early afternoon of April 6. There were 133 riders in the procession, including 12 wranglers. I learned later that my companions on the trail came from 26 states, including one rider from New Jersey and another from Pennsylvania.

We headed north along the main street and then swung off into the dry channel of the river. The Hassayampa is poor in water, but rich in legend. Orick Jackson's version of the Hassayampa legend, as quoted in Will C. Barnes *Arizona Place Names*, is told in rhyme:

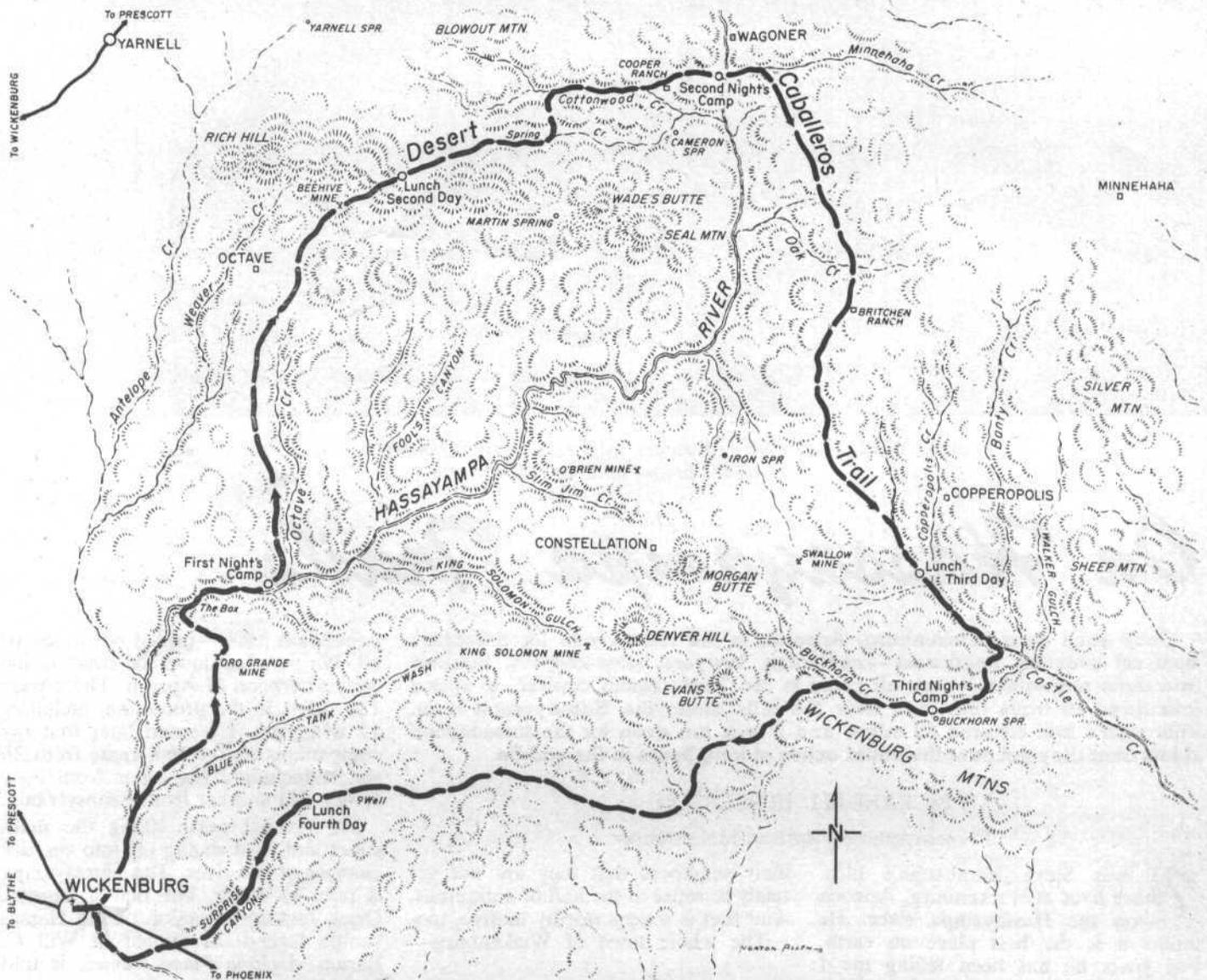
You've heard about the wondrous stream

*They call the Hassayamp.
They say it turns a truthful guy
Into a lying scamp.*

*And if you quaff its waters once,
It's sure to prove your bane.
You'll ne'er forsake the blasted stream
Nor tell the truth again.*

But one may live in Wickenburg a long time without tasting the waters of its magic river. During most of the year the water which comes from springs far to the north seeps into the sand long before it reaches the dude capital. On this April afternoon the bed was dry and dusty, and we were glad when our trail took to the hills a mile north of town.

We followed the gentle slopes, crossing arroyos and low ridges for another two miles and arrived at the old Oro Grande stamp mill and mine, a low grade gold property which was closed down before the war, and has never



resumed operation, although much of the machinery is still in place.

Our trail over the hills was bordered with saguaro, palo verde and ocotillo. The most conspicuous flowers were wild hyacinth and California poppy, at the peak of a gorgeous blossoming season.

We rode 11 miles that afternoon, reaching a mesquite-covered bench along the Hassayampa at 5:15 for our night camp.

Trucks carrying our bedrolls and a field kitchen had found their way to this spot and before dark we were in the mess line with our tin platters waiting to be served with such a dinner as no chuck wagon cook of the old cattle range would have dreamed was possible.

A sound truck with microphone and loud-speakers accompanied the supply train, and the evening was given over to an impromptu program devoted mostly to the introduction of guests, with Hal Warner of Wickenburg as master of ceremonies. There were several Californians on the ride, and as

they were introduced the Arizonans heckled them with shouts of "Water, Water!" Most Arizonans are more conscious than are Californians of the feud now going on at higher levels over the water of the Colorado river.

During the evening I met some of the successful guest ranch operators in the Wickenburg area. They are a versatile lot—they have to be to operate profitably a business with an active season of only four or five months a year. It requires a combination of showman, horseman, hotelman and diplomat to bring together a staff of cooks, housekeepers and wranglers each season to serve and entertain a clientele of wealthy patrons. The renown which Wickenburg has gained as a winter ranch resort for visitors is evidence that these operators are skillful hosts.

Folding cots were available for those who wanted them. Many of the riders had air mattresses in their bedrolls, and some of them preferred to sleep on the ground. The widespread popularity of rubber air mattresses has brought into

use several ingenious devices for inflating them. In camp that evening I saw four methods in operation.

Some used small air pumps similar to a bicycle pump. Others had compressed air bombs which are now available for that purpose. The most recent invention is a little bellows that operates with the foot, and two of the campers had these. Some of the old-timers ridicule all these modern gadgets and continue to inflate their mattresses with their own lungs.

As we crawled into our bags that night we could see the ghost-like forms of giant saguaro dimly outlined against the starlit sky. Only Arizona could provide such a picture.

A bugle call from the loud-speakers awakened us before dawn. In fact it was still so dark the disk jockey got his records mixed and roused us with mess call, and then gave us reveille when breakfast was ready.

The cooks served a delicious breakfast—coffee, dry cereal, both fried and scrambled eggs, toast, hotcakes, bacon and sausage. By eight o'clock we were

in the saddle and on a trail that led away from the river bottom. Weaver peak, named for the old mountain man, Pauline Weaver, was our distant landmark.

A good trail wound over the hills as we climbed steadily higher. On a distant ridge we saw wild horses scampering for cover. Several months ago some of the Wickenburg horsemen organized a roundup in an effort to capture some of these untamed animals. But the country was too rough and the horses too alert to be caught with a lasso. The cowboys came back empty-handed.

As we climbed, palo verde and ocotillo gave way to prickly pear cactus. Once I saw a wrangler with a pair of pliers picking cactus thorns out of the rear anatomy of a rider who had been careless in dismounting.

Toward noon we stopped at the old Beehive mine, high up on the side of Rich Hill. The Hill—really a 6,000-foot mountain—was named in 1863 when a field of nuggets was found at its summit. A single acre yielded \$500,000 in gold according to reports. The Beehive mine, some distance below the summit, was once an extensive operation, but has not been worked for 30 years.

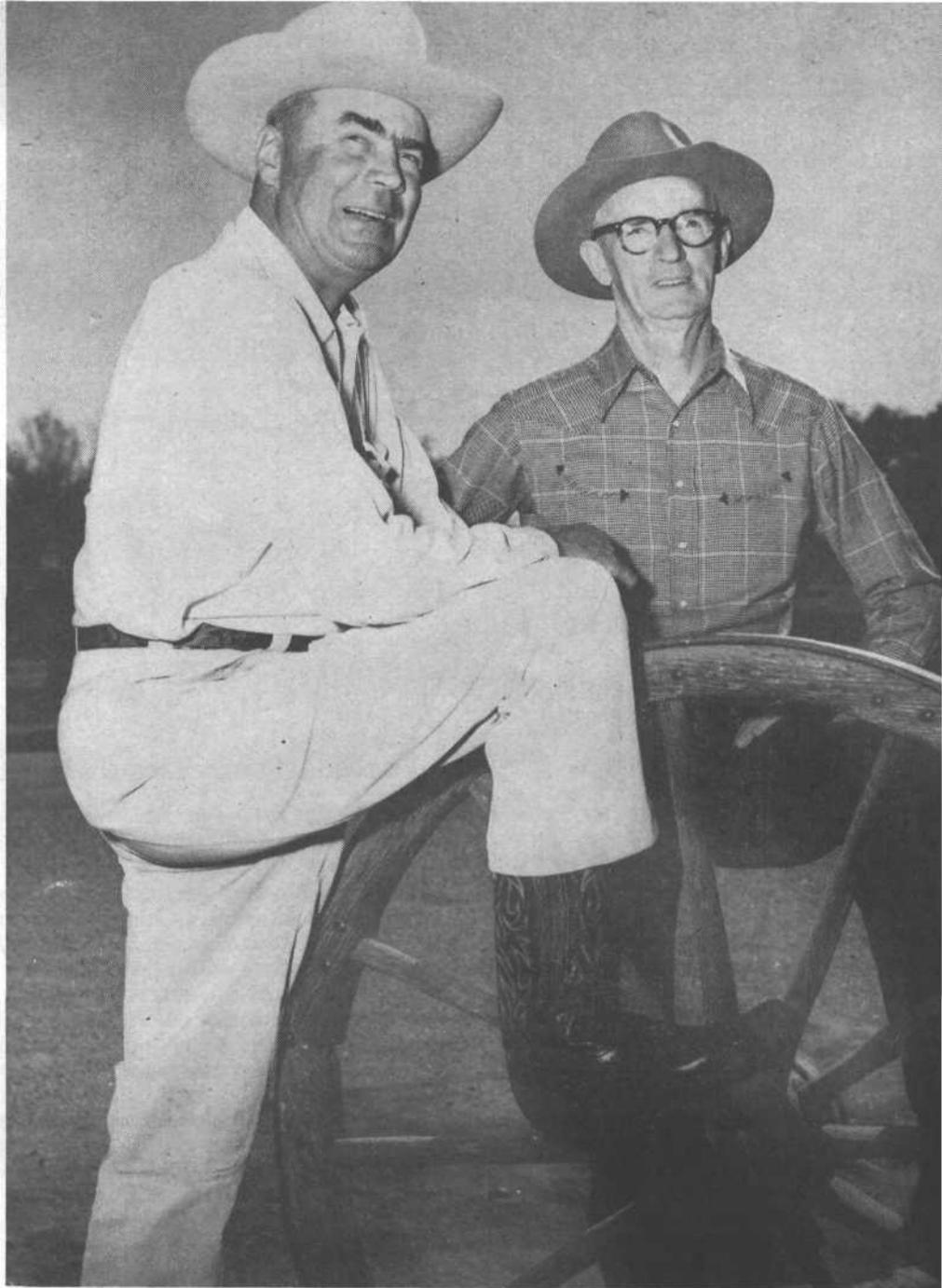
A truck brought in sack lunches over the old mine road, and we picked them up and continued over a 5500-foot pass to a sheltered little basin for picnic lunch among the junipers.

Then the trail descended sharply to Spring creek and over a ridge to Cottonwood creek and thence to its junction with the Hassayampa where we made camp among cottonwood trees.

The cattlemen in our party were in high spirits. Due to generous rains during the winter the range was green with tiny pink-blossomed filaree. The cowmen gauge the grazing value of the early season range by the growth of this nutritious little plant.

The Hassayampa was flowing a knee-deep stream at this point, near the old mining camp of Wagoner. Just below our camp the hills close in and the river flows through a narrow portal of rock. This is the site of the only attempt ever made to harness the waters of the Hassayampa. According to Will C. Barnes, a large dam was built here in 1889-1890. "February 22, 1890 . . . the dam burst, carrying death and destruction to those living below. Over 70 lives were lost and heavy damage suits ensued. Dam was built primarily for hydraulic mining."

The loss of this dam gave rise to one of Arizona's lost treasure stories. The tale is that a safe in the construction camp saloon was washed down stream and never recovered, although it was said to contain a small fortune in gold dust and fortune-hunters searched for



Rush C. Smith (left) president, and Steve Hambaugh, chairman of the trails committee of the Desert Caballeros.

years along the bed of the stream in an effort to locate it.

The chuck-wagon trucks had found a passable road in to this point and the portable tables were spread out for the evening meal when we arrived.

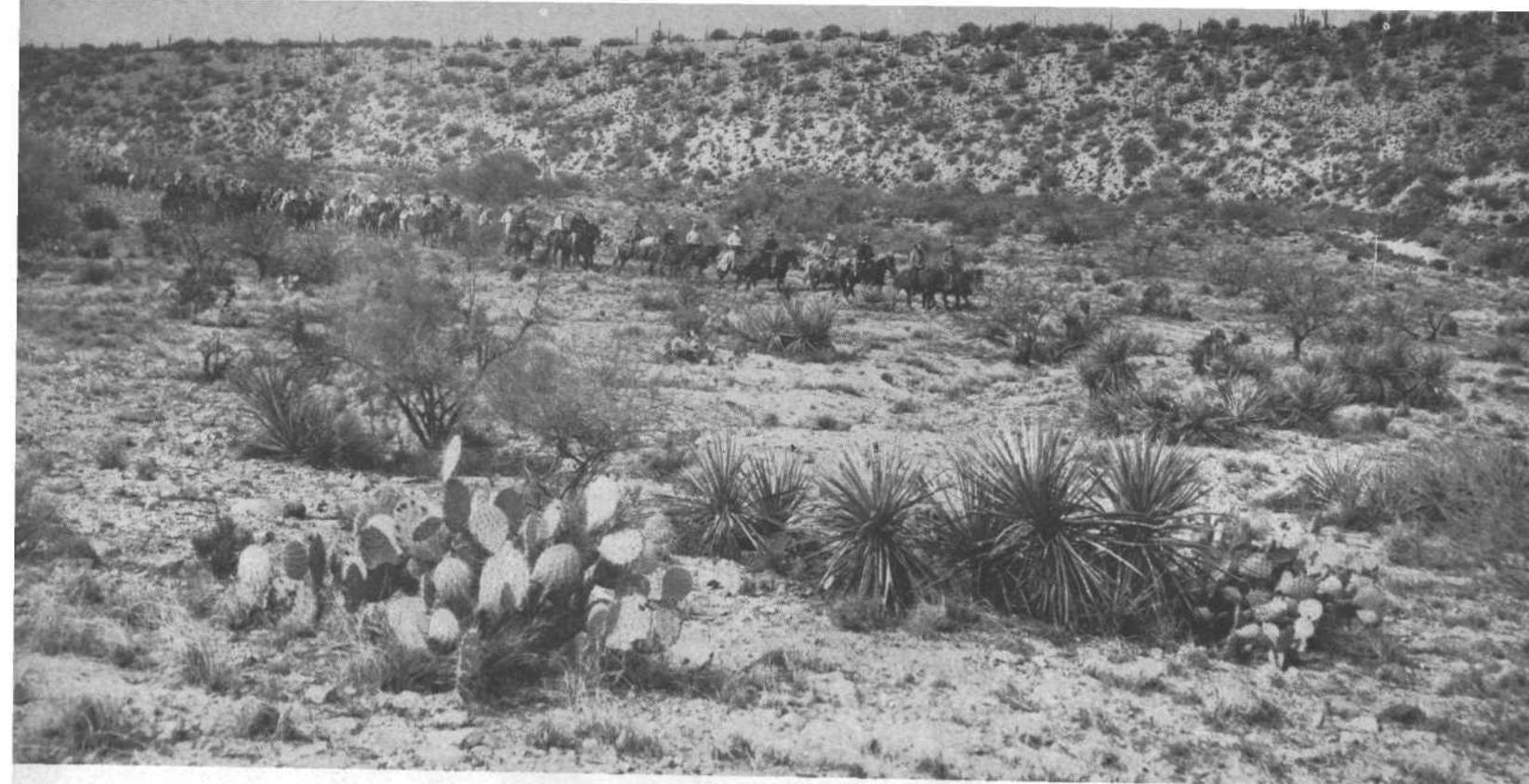
On this second day of the trek we rode 28 miles. That is a long day in the saddle for one not riding regularly. But I led my horse on some of the down-grades, and felt no discomfort. As soon as we reached camp the wranglers took over the stock while the rest of us picked smooth spots for our bedrolls. The animals were tied in picket lines and given forage brought in for them by a truck.

At the campfire program that night one of the entertainers recited some verses about "dude cowboys" with their pants tucked in their boots. When

I asked Steve Hambaugh about the propriety of wearing breeches inside or outside one's riding boots he quoted an old Arizona gag: "A rancher with four cows is entitled to wear one pantleg inside. If he is the owner of a whole herd he can stuff 'em both in."

Next morning we forded a fine stream of water in Minnehaha creek, a tributary of the Hassayampa from the east, and followed a scenic trail over the ridges and eventually into Castle creek a few miles above Castle Hot Springs resort. One of the trucks came up the bed of the wash and served cold lunch in a scenic cove at the base of two of the rock pinnacles which give the creek its name.

A mile below the lunch stop the trail left the creek bed and climbed steeply over a high ridge and then led



For seven or eight hours a day the riders followed old cattle and mining trails across a cactus and yucca strewn landscape.

down into Buckhorn creek, scene of extensive placer mining in the early days. The trenches left in the gravel banks where dredges once operated are still visible.

We arrived at our night camp at Buckhorn springs at 4:30, and an hour later a plane flew over and dropped copies of the Wickenburg Sun, just off the press. Edited by John McCarroll,

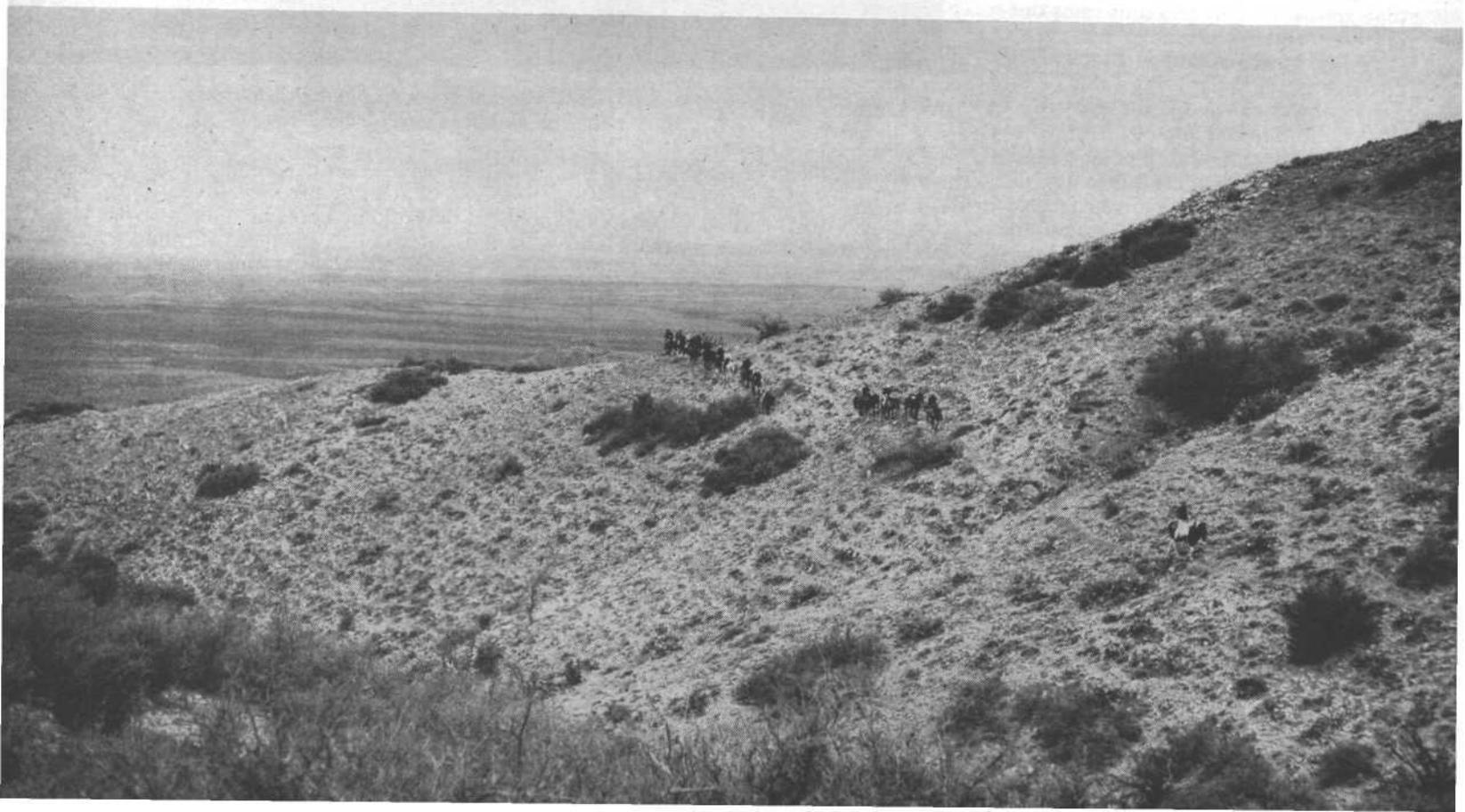
the Sun is one of Arizona's outstanding country newspapers. This was our first contact with the outside world since we left town three days previously.

The ride of the Desert Caballeros is so organized that no money can be spent enroute. At no time during the 3½ days we were on the trail did we pass a trading post or drink stand where money could be used. And there

is a strict rule against tipping the wranglers and service employes.

Three times a day we were served with meals as varied and well prepared as one would expect in a high class guest resort. I learned that much of the credit for the excellent commissary was due to the skill of Gene Francis, a Chicago insurance broker, who comes west each year to handle that

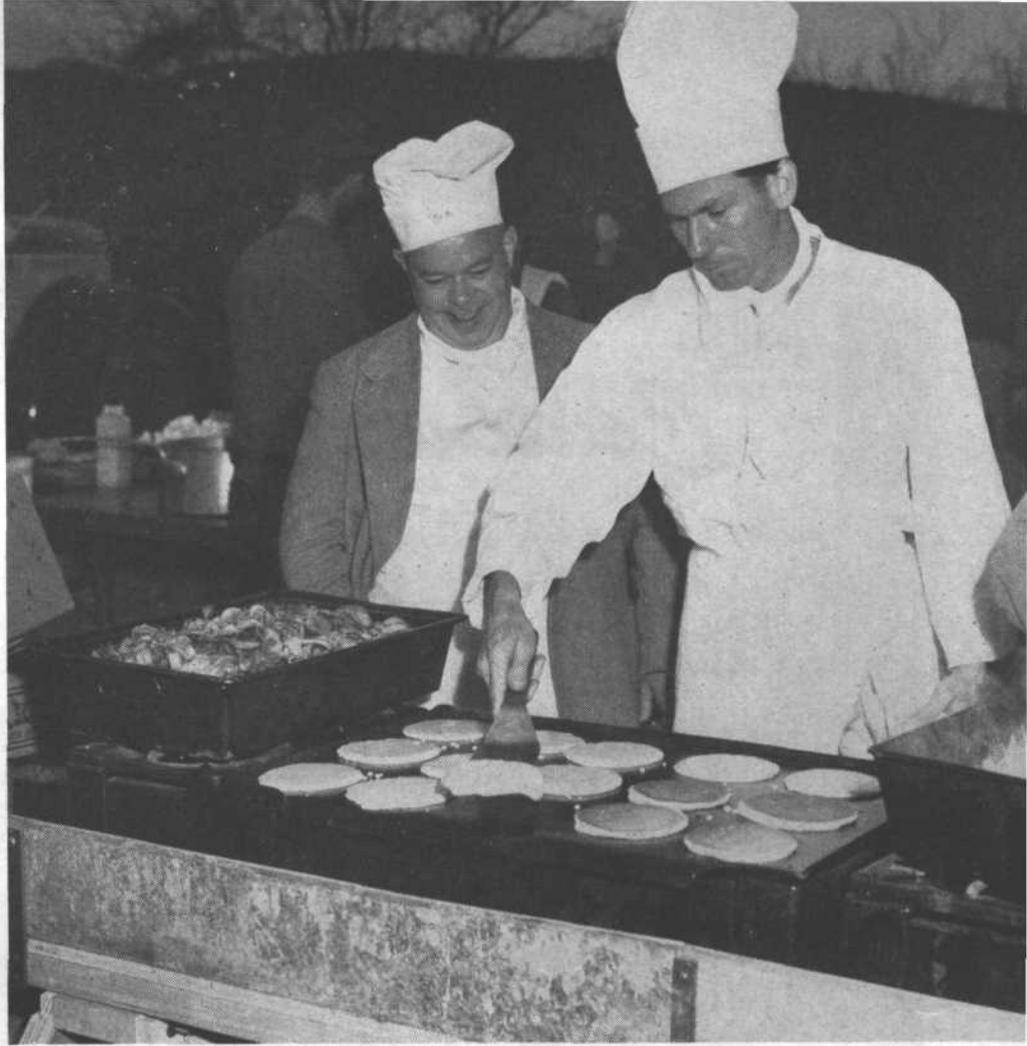
When the trails were narrow the riders were strung out single file for more than a mile.



detail. He is executive secretary of the Caballeros. With Rex Vaughn, chef, three cooks and ten helpers they operate a fleet of eight cars and trucks, including one refrigeration unit. They use two gas field ranges and since it is necessary to reach the campsites by rough circuitous roads, they have to operate with the precision and speed of a circus schedule.

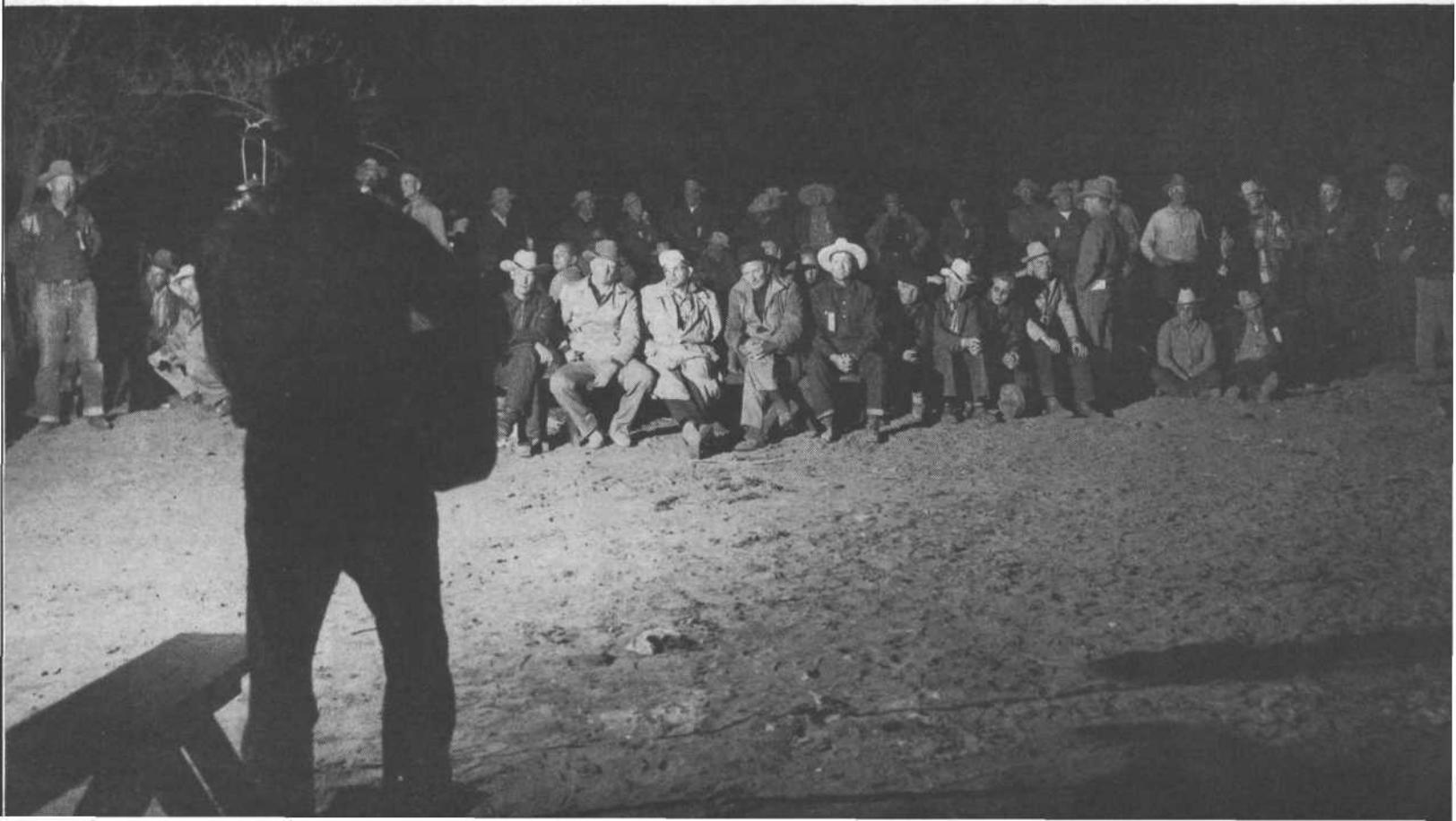
At Buckhorn springs I met Jack Clark and Eugene Lowell, the former a disabled veteran who came to this remote desert canyon for his health. He has located several mining claims which he believes will pay off later. He told me there is a showing of gold at many places in this area, with some of the prospects assaying high values. Gold mining is in the doldrums due to federal restrictions on price, but many of the mining men are expecting boom days later.

Saturday morning we headed toward the Hassayampa river again, on the home-stretch of our 3½-day jaunt. The high ridges were behind and we were down again in the zone of wild hyacinth and California poppy, of saguaro, ocotillo, palo verde, crucifixion thorn and fairy duster. We rode across a lovely landscape of native shrubbery. The soreness of the first two days in the saddle was gone, and I could understand why these Arizonans love the broad horizons and the ever-changing panorama of their homeland.



For breakfast — hotcakes, bacon, sausage, eggs, coffee, toast and dry cereal.

After evening chuck the Caballeros enjoyed impromptu programs, drawing on their own members for most of the entertainment.



Rails Across the Continent -- 1869



This is the scene on May 10, 1869, as Central Pacific's "Jupiter" (left) and Union Pacific's "119" inched forward to complete the first transcontinental rail connection. Savage photo. Courtesy Union Pacific railroad.

By DAVID E. MILLER

LELAND STANFORD, president of Central Pacific and governor of California, took the silver-headed spike maul, stepped up close—too close—swung and missed! The blow landed squarely in the middle of a rail. The golden spike didn't even quiver. Perhaps he was encumbered by the attached telegraph wires dangling from the silver head of the mallet. Perhaps he missed intentionally, for a hole had been bored in the tie that was to receive the spike and the slightest tap would have driven it home. Stanford then handed the sledge to Thomas C. Durant, Union Pacific vice president. Durant swung and missed—no doubt intentionally. The maul then was circulated among various dignitaries who in turn completed driving the \$400 gold spike into place.

W. N. Shilling, telegraph operator from Ogden, flashed this message over the wires to President U. S. Grant: "The last rail is laid! The last spike is driven! The Pacific railroad is com-

Out on the Utah desert 50 miles northwest of Ogden there was enacted 80 years ago a little drama which initiated a new era of progress for western United States. A group of dignitaries drove the last spike in the first transcontinental railroad—and here is the detail of what took place on that historic date.

pleted! The joint of junction is 1,086 miles west of the Missouri river and 690 east of Sacramento."

That was on May 10, 1869, at Promontory, Utah. The ceremony was the climax of an era of railroad building unmatched in American history. The nation had been bound together by bands of steel. Probably no other event did more to solidify the states than this union of the rails.

At the conclusion of the spike driving ceremony two engines (Central Pacific's "Jupiter" and Union Pacific's "119") inched toward each other over the new track. As their cow-catchers

met, bottles of champagne were broken on them and "bubbling wine flowed down over the Golden Spike and the last tie." The crews then took turns running their respective trains over the new section. The ceremony was over.

The day had been a busy one at Promontory. Four special trains had brought numerous railroad officials and other dignitaries from east and west. Four companies of the Twenty-first infantry and two brass bands were on hand to lend proper atmosphere to the occasion. Over 1500 people had made the trek to that relatively isolated spot (50 miles north and west from Ogden and almost 90 miles from Salt Lake City) to witness the completion of the transcontinental railroad.

The last 50-foot stretch of the roadbed had been prepared by Chinese coolies of Central Pacific work crews. Shortly before the ceremony, when a temporary halt was made and the cameramen were ordered to "shoot", these Chinese scattered in all directions, taking refuge behind any object that

would stop a bullet. They did not know much English, but their numerous encounters with Union Pacific crews had taught them a few essential words and phrases.

Much friction had developed because of the wording of the railroad acts. The two companies were to build toward each other until they met. But nothing in the law stated that they had to meet. Hence, the two outfits had surveyed parallel lines—the Central Pacific extending its grade through Ogden and up into Weber canyon while the Union Pacific was working well into Nevada. U. P. Irishmen and C. P. Chinese had had many skull-cracking encounters. Because of the conflict, congress was forced to name a spot (Promontory) where the two must meet. May 10, 1869 was also set as the official meeting day although the junction may well have occurred several days earlier.

The old rail line crossed Bear river at Corinne and struck northwest across the flat lands toward Promontory. There was practically no grade and but few curves for the first 20 miles—until the pass over the Promontory range was encountered. Although the pass is

not high, as mountains go, it was a steep incline necessitating a climb of 90 feet to the mile. This ascent was negotiated by building a winding road along the foothills and up over the pass. The grade and the curves were a serious handicap to rapid transportation on a large scale.

Long before 1900 this section of the road had become a bottleneck on the transcontinental line. It was because of this that the Lucin Cutoff was planned to go west from Ogden and straight across the north arms of Great Salt lake to Lucin. This line was completed in 1903 and regular traffic was routed over it in 1904. The new line shortened the route by 43.77 miles and the time between Ogden and Sacramento by seven hours.

Although trains were run over the old Promontory line for many years after the completion of the Cutoff, it gradually fell into disuse and the roadbed was allowed to deteriorate. In 1942 the old rails were torn up and sold as scrap metal.

A short time ago Dr. C. Gregory Crampton and I visited this old junction city. We found Promontory truly a ghost town. A fine monument—bad-

ly marred by vandals who have used it as a rifle target—marked the spot where the union of the rails took place 80 years ago. A few half-rotted ties and badly rusted spikes that may well have dated back to 1869 were lying about. Only two or three broken down buildings, unoccupied for decades, remain to mark the spot of the one-time rip-roaring railroad junction town. Signs painted over each other proclaim the largest of these remaining relics as post office, hotel, general store. It is almost completely overgrown by vines, bushes and weeds. Doors are off, floors sag, rats are the only occupants. Inside we found mute evidence of the civilization that once thrived there—remains of beds, tables, bottles, personal papers. Everything was soaked by recent rains that poured through gaping holes in the roof. In front was a dilapidated hitching-rack.

Today the surrounding valley is given over to ranches. A large herd of Palomino horses, owned by Sunset Ranch, runs wild on the range. Travelers now ride autos over much of the old railroad bed seeing very little to remind them of the hectic historic days of the past.

On May 10 this year, Lucius Beebe (left) and Charles Gregg of Carson City, Nevada, visited Promontory and, costumed for the roles of Leland Stanford and Thomas C. Durant, laid wreaths on the "Last Spike" monument and enacted the scene of 80 years ago. Glen Perrins photo.

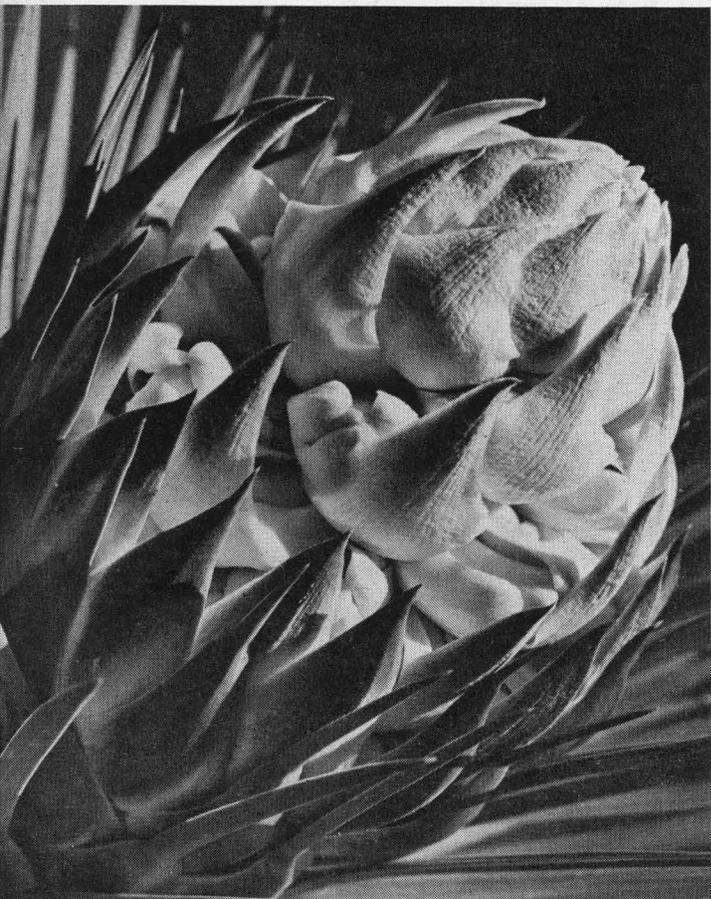




Fish-Hook Cactus . . .

First prize in Desert's May wildflower contest goes to M. and M. Carothers, La Jolla, California, for above photo taken in Vallecito valley, California, with a Miroflex camera and Portra 3-plus attachment. The close-up was taken at f.34, 1/35 second, at 10:35 on an April morning in bright sunlight. Super XX film.

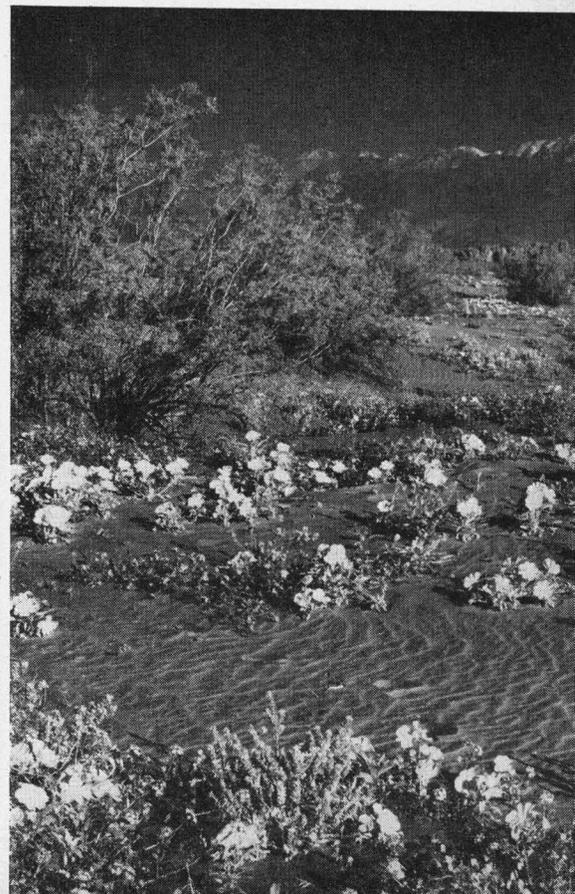
Pictures of



Special Merit

So many beautiful desert pictures were entered in Desert's May contest, the judges selected the two winners, and then chose three more pictures with exceptional merit for publication on this page.

AT LEFT — Joshua Tree Bud, by Nicholas N. Kozloff, San Bernardino, California. Speed Graphic, 1/50 sec., f.22. G Filter. SXX film. Afternoon on the Victorville desert, 1947.





Dune Primrose . . .

the Month

Second prize in the wildflower contest was won by Don Ollis, Santa Barbara, California, with above photo taken near 1000 Palms, California. He used a 4x5 Graphic View camera with 8" Ektar lens and K2 filter. Super XX film, at f.20, 1/25 second, late evening of March 29.



AT LEFT—Desert Primrose at Wonder Palms, by Harry Vroman, Palm Springs, California. B. & J. press camera, 8½" Cooke lens; Infra-Red film, 23a filter. 1 second on f.22, early morning light. Agfa 12 developer, Brovira No. 2 print in V-72.



AT RIGHT—Desert Easter Lily, by Henry C. Waggoner, Blythe, California. Taken on the Colorado desert west of Blythe, late afternoon, natural sunlight with dark background. Speed Graphic 2¼x3¼, fine grain Pan film, 1/200 second at f.5.6.

MINES AND MINING . . .

Wickenburg, Arizona . . .

Seventeen feet beneath the surface in a well he was drilling near Bouse in northern Yuma county, Sidney Smith brought up what he thought were small flecks of gold. As the bit dug deeper the yellow flecks increased. Word of the strike spread and many people rushed to stake out claims. A crew of workmen setting poles for a new power line to Parker took time off to join the stampede. R. D. McIntosh, district power company manager, and Ray Walker, Wickenburg manager, on a trip of inspection caught the fever and staked a joint claim. McIntosh and the editor of the *Wickenburg Sun* took a sample of the metal to John C. Herr, recognized mineral authority. He pronounced it metallic copper—pure copper. His comment: "I can't understand finding metallic copper under the conditions you have outlined."—*Wickenburg Sun*.

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Winnemucca, Nevada . . .

Reopening of the Black Diablo manganese property 21 miles south of Golconda has been announced by Charleston Hill National Mines, Inc. Twelve carloads per month production is estimated. During the war this was one of the biggest manganese producers in the nation, but has been idle since December.—*Humboldt Star*.

. . .

Winnemucca, Nevada . . .

Extensive development of the Winnemucca Mountain Mines company's tunnel to the Rexal mine has started, according to Gus Rogers, secretary-treasurer. Plans are to extend the tunnel 1,000 feet to connect the Winnemucca Mountain mine with the Rexall workings, former bonanza producer which has long lain idle. A pilot plant designed to treat 20 tons of ore daily has been installed, was scheduled to be in operation June 1.—*Humboldt Star*.

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Kanab, Utah . . .

It was Friday the 13th when M. E. Noel and E. W. Ford of Prescott, Arizona, located and staked a claim on 1000 feet of exposed uranium only 13 miles from Kanab at Navajo Gap. Now virtually all the surrounding area is covered by claims. Not entirely new at the uranium prospecting game, the two men have another claim in Arizona which tests seven per cent. Their Kanab find will run higher, they believe.—*Kane County Standard*.

Death Valley, California . . .

Death Valley Curly, Roscoe Wright and L. S. Barnes have reported discovery of a large body of a uranium-bearing ore in Inyo county somewhere in the vicinity of Death Valley. The ore, a melilite—an iron-bearing form of gehlenite—is the first found in any quantity in the West, it is believed. The uranium-bearing mineral appears to be independent of the melilite, although the melilite crystals record presence of uranium on the Geiger counter. Samples of the deposit, found more than a year ago, were identified by the California division of mines. The Atomic Energy Commission, after testing samples, reported presence of uranium in commercial quantities.—*Tonopah Times-Bonanza*.

. . .

Beatty, Nevada . . .

A geologic report on the Daisy fluor-spar deposit near Beatty, in southern Nye county, has just been released by the U.S. Geological Survey. The deposit consists of nine claims. Reserves in the area have been estimated at nearly 100,000 tons of fluor-spar.—*Tonopah Times-Bonanza*.

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Barstow, California . . .

Prospectors have full right to enter, prospect, locate and operate railroad lands for all minerals except coal and iron. This is the decision in legal action brought by W. F. (Dan) McGrew, Kern county, California, after he had located gold and tungsten claims—which proved to be high grade—on railroad land which had been sold to the Summit Lime company. When the Lime company wanted McGrew to get off, he hired an attorney and asked the aid of U. S. Senator Edwin C. Johnson of Colorado. McGrew now has been notified that the Lime company attorney admits McGrew's claims are legal. When the government granted the lands to the railroad, it reserved all minerals except coal and iron.—*Barstow Printer-Review*.

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Tonopah, Nevada . . .

Frank May and Eddie Clark, Tonopah residents, are developing a showing of fluor-spar in Quinn canyon range 75 miles east of Tonopah, they report. They see promise of a producer of high grade ore. Last fall May made the discovery, found a series of veins cutting through a rhyolite flow, east and west. The veins range in width from a foot or less up to four feet.—*Times-Bonanza*.

Flagstaff, Arizona . . .

A vital component of man's most modern tool, atomic energy, will be moved from a northern Arizona canyon by pack burro. The sure-footed little burro, always identified in the Southwest with mining, is the only answer to nature's challenge at House Rock valley. There, in a steep narrow box canyon 130 miles north of Flagstaff, lie 200 tons of uranium-rich petrified logs. Neither trucks nor jeeps could operate in this rugged land. So Maggie and Riley Baker, discoverers of the rich strike, have hired 15 burros and five Navajo Indians to move the precious ore. The pack animals will bring out the ore over a 1½-mile trail to Highway 89. There trucks will pick it up for transportation to the Atomic Energy Commission's processing plant at Montecello, Utah. Mrs. Baker says the discovery was an accident, just as it was an accident of nature that the trees washed into the box canyon and couldn't wash out again. Discovery of the uranium deposit was announced by state officials after a period of secrecy during which the Arizona department of mineral resources tested samples.—*Gallup Independent*.

. . .

Ajo, Arizona . . .

Discovery of a uranium deposit in Pima county has been announced by Charles H. Dunning, director of the Arizona department of mineral resources. He said samples of ore taken from a pegmatite formation at The Kid sample mine owned by F. F. Ray of Tempe have run about 5 per cent uranium in the natural state. The mine is about two miles south of Papago Wells, 30 miles west of the Papago Indian reservation. Several men from Ajo had spent much time searching for the vein from which a large piece of float was found near Papago Wells last year, but were unable to locate the vein.—*Ajo Copper News*.

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Winnemucca, Nevada . . .

The Nevada-Massachusetts Tungsten mine 17 miles west of Winnemucca has been closed. Reasons for the closing, as announced by President C. H. Segerstrom: foreign competition "brought on by state department encouragement of low tariff"; low demand for tungsten; low prices for the metal. The mine has operated since World War I.—*Pioche Record*.

. . .

Baker, California . . .

Erection of a 50-ton amalgamation and flotation mill at Silver lake, seven miles north of Baker, has been started by the California Silver corporation. Ore from the company's silver hill mine near Riggs will be trucked 12 miles for processing at the new plant.



Dr. Welwood Murray with his Scotch tam-o-shanter.

Patriarch of Palm Springs

By NINA PAUL SHUMWAY
Photos from C. C. Pierce Collection

OUTSIDE the patched and crumbling adobe walls which surround the old Welwood Murray garden in the heart of Palm Springs, an ardent mid-May sun warned wintering devotees that it was time for the famous California desert resort to close its doors and shutter its windows after another busy and prosperous season.

Inside those walls, where I stood with Miss Cornelia White—one of the town's respected pioneers and a loyal friend of Dr. Murray's—all was cool and quiet. Encircling ranks of citrus and gnarly old fig trees, tall palms, great magnolia, jacaranda, cottonwood, umbrella, camphor and other noble trees spread a deep shade over thickets of pampas grass and bamboo, little jungles of blossoming shrubbery, cata-

Today a fine library in Palm Springs perpetuates the name of Dr. Welwood Murray. The library is a monument to the fine qualities of a man who played a major role in the development of the desert community. But Dr. Murray also had his eccentricities, and there were times when his neighbors regarded him as harsh and ruthless. But whatever may have been his other qualities, all recognized the strength of his rugged Scotch character.

racts of flowering vines, numberless native plants and rare exotics.

Here in a dreamy twilight of tangled greenery and leaf-shadow the old Palm Springs hotel—the village's first hostelry—drowsed among memories that

went back more than six decades. It was from Miss White and other pioneers of Palm Springs that I learned the story of a man whose stalwart character and eccentric ways have become a legend in this community on the edge of the Colorado desert.

It was in 1886 that Dr. Welwood Murray came to the tiny settlement of the Palm Valley colony, started two years earlier by J. G. McCallum and associates within a stone's throw of the ancient Indian rancheria of Agua Caliente.

A native of Edinburgh, Scotland, Dr. Murray had been living for years in the region of what is now Banning. There as early as 1877 he had been superintendent of the San Geronio Fluming company—a corporation formed to cut and transport from the forest belt of the mountains to the north, lumber, fuel and ties for the

Southern Pacific railroad then completed as far east as Cabezon in the San Geronio pass.

He was a man of strong character, excellent education, deep religious feeling, and cultured literary taste. It is said that he was at one time a proof-reader for Harper's magazine and that the friends who came to visit him were men of learning and distinction. He had a fine library. Lack of evidence that his title of doctor was a university degree would indicate that it came from the custom common in small communities of putting honorary tags on prominent citizens. Tall, gaunt, bearded, with dignity of bearing and a deep Scottish burr in his speech, Dr. Murray was as typically the laird outwardly as events proved him to be inwardly.

Arriving on the desert, he built a little rest-house of railroad ties near the narrow-gauge line constructed by a San Francisco company to link with the Southern Pacific a new townsite called Palmdale—a rival of the Palm Valley colony project—situated where the Smoketree ranch now stands.

The Palmdale venture proved short-lived and when it ended Dr. Murray dragged his cabin with chains and mules to the site where it later became part of his hotel establishment. Eventually it was moved to its present location across the street where it is incorporated in the picturesque residence of Cornelia White.

It must have been about the time he started his hotel that Dr. Murray began planting the trees whose very roots are intertwined with Palm Springs history. He was as ardent a horticulturist as he was a book lover, and he kept in constant touch with the Bureau of Plant Industry in Washington, D. C., always eager to procure and try out in the desert some new tree, vine, shrub or flower.

His plantings produced oranges, grapefruit, lemons and figs in marketable quantities. He was proud of his output and solicitous that it meet the highest standard. The packing for shipment he did himself after the fruit had been picked by Indians, who also did the heavier work in grove and garden.

The native palms Dr. Murray planted, *Washingtonia filifera*, were brought as young offshoots from the wild groups growing in neighboring canyons. In addition to those on his own premises, he planted them around the thermal springs on the Agua Caliente rancharia—part of the local Indian reservation.

As we see it today, closed and silent in its cloister of great trees and rank herbage, the old hotel exudes an atmosphere tinged with the gentle melancholy of places once, but no longer,

deeply beloved. It is a quaint substantial building constructed sectionally of three materials. The part which contains a commodious living room and eight bedrooms is of wood. The large dining room, one wall of which is covered by a mural of Palm Canyon painted by Carl Eytel (*Desert Magazine*, September, 1948) is built of stone. The kitchen is of pink adobe. Above the front door hangs the huge-horned skull of a mountain sheep. A magnificent Guadalupe cypress, one of two planted by Dr. Murray, stands near this entrance fronting toward Indian avenue behind a gate whose posts are giant palm logs.

Writing in 1896 in a trade volume entitled "Hotel Men's Mutual Benefit Association," George Wharton James, author and lecturer who was then doing much publicity work for the railroad, said: "Five miles from Palm Springs station there is an excellent hotel in the Valley, kept by Dr. Welwood Murray, a member of the Southern California Hotel association, who, with his genial wife, delightfully entertains all those who are fortunate enough to discover this hidden Paradise."

Many did discover it. Among them were such celebrities as John Muir and Robert Louis Stevenson, not to mention James himself, of whom Miss White told me an amusing incident. On one occasion when James visited Palm Springs after Dr. Murray's death, he asked if he might see the old Scot's fine library. He was told that most of the books had been sent east. Others had been placed in the small local library, so that only a few odds and ends remained. Looking over these leavings, James must have been somewhat chagrined to come upon a number of his own writings.

The ride from the railroad station seven miles from the village was a thrilling exploit. It was accomplished by means of a buckboard and team of mules driven by an Indian at reckless speed which took no account of the condition of the road. A sandstorm rendered the experience particularly memorable. The mules, with bags over their heads to protect them from the driving sandblast, plunged wildly ahead under the crack of the driver's whip. Passengers clung frantically to the seat of the careening vehicle helpless to do more than shut their wind-bitten eyes and pray.

Like many of the people who came to Palm Springs in those early days, most of Dr. Murray's guests were seeking health. One visitor was a young girl, now Mrs. T. J. Murphy, who in 1901 spent the winter in Dr. Murray's household. Though she and her husband now reside in season at one of

the resort's fine hotels, Mrs. Murphy still holds the memory of those months in Dr. Murray's quiet retreat. Graciously she told me some of her memories:

"It was not like a hotel," she said, speaking of the Murray establishment. "I can never think of it that way. It was a home in every sense of the word, with Dr. Murray and his wife at the head of it.

"They were very different, these two. But together they made a good team. Mrs. Murray was Welsh—a short heavy woman with a rather combustible temper which her husband took philosophically. He simply vanished till its explosions were over.

"We were never a large group while I was there. I can't recall that there were ever more than six of us at the dining table. Dr. Murray sat at the head, always rising to say grace before the meal. In the evenings Mrs. Murray often played old hymns on the little organ in the living room, and we all sang.

"Finding me among his books one day, Dr. Murray asked, 'What are ye reading, lassie?' I held up *Beside the Bonnie Briar Bush* which contains so much Scotch dialect. He shook his head. 'Ye cannot read that one right,' he said. And sitting down he opened the book at the first page and began to read it aloud exactly as it should be read. This he continued to do, as he found time, until the book was finished.

"Mrs. Murray, too, was fond of books. But her taste differed from his. The book she read aloud—and very enjoyably, too, was a more modern and popular classic—*Mrs. Wiggs of the Cabbage Patch*.

"Toward the Indians Dr. Murray's attitude was that of a kind and just but strict father. At Christmas he gave them a big dinner, setting in the garden a long string of tables from the head of which he said grace and presided over the feast. Each Indian before he left received a gift.

"They responded by giving him love, respect and faithful service. He used no other help on the place. They were so honest and dependable he needed no other."

Dr. Murray was no longer a young man nor was he in rugged health. Thin and sallow he appeared hardly equal to the tasks he undertook. Either a skull cap or tam-o-shanter always protected his head and in cold weather he habitually wrapped his neck and throat with a long knitted wool scarf. In later years the addition of a frock coat, once black but grown rusty with age, gave him with his long graying beard, a patriarchal aspect well suited to the



Old Murray Hotel in Palm Springs.

role assigned him by J. Smeaton Chase in *Our Araby — Palm Springs*, a charming little book now long out of print.

After speaking of the trees which "flourish in tribute to the memory of that wise old Scotsman and pioneer, Doctor Welwood Murray, who had the courage to plant and the patience to rear them in the teeth of horticultural disabilities," Mr. Chase refers to him as the "old Scottish doctor . . . who may fairly be termed the patriarch, well nigh the founder, of our village."

Such recognition is well deserved. In addition to giving Palm Springs its first hotel, Dr. Murray is credited with having been instrumental in providing the village with its first school and its first place of public worship—a little Protestant community church at whose services he often preached. Interdenominational in the beginning, the church later was adopted by the Presbyterians.

In view of the part he played in its history, it was not surprising that the old Scot should have assumed a pro-

prietary supervision over the village. Human nature being what it is, it was equally natural that this assumption of authority should sometimes provoke resentment and result in such dissensions as the feud with Mr. McCallum in which each in turn, being determined to route the scanty traffic of the period past his own door, fenced off and marked "Private Road" the public thoroughfare leading past the other's property. Another pioneer, Mrs. Nellie Coffman, tactfully settled the issue by posting on the fence a clever bit of rhyme which made the tug-of-war too ridiculous to continue.

That Dr. Murray's arbitrary control sometimes embarrassed his friends is indicated in a letter I received many years ago from Carl Eytel. After confiding to me some of the details of the heart-breaking disappointment for which he held Dr. Murray partially responsible, Carl wrote: "He took a great liking to me and being a Scotch highlander this liking developed into a jealousy so much that he thought I was

really under his dominion and a chattel which belonged to him."

Even the Indians at times resented his rule. One instance of their rebellion concerned the thermal springs used by their people from time immemorial for cleansing and healing. The springs lay just across the road—now Indian avenue—from Dr. Murray's hotel, and he had taken the privilege not only of piping the hot water for use in his kitchen and wash-house, but of offering his patrons the freedom of the bathing pool as part of the accommodations provided by his establishment. This joint tenure became objectionable to the natives and they carried their grievance to the agent in Banning. His remedy was to stretch a wire cable across the pool into which the springs bubbled. He gave the Indians the use of one side, Dr. Murray the other.

This half-measure, however, was not to the Indians' liking and they interfered with the white bathers until Dr. Murray had to replace the cable with a substantial partition in the crude

building which had been built over the pool.

A more modern bathhouse has taken the place of the old structure. The young palms Dr. Murray planted have become a real grove. The springs have long been under the exclusive control of the Indians, affording them a handsome revenue. But their white brothers have not ceased to covet this resource nor have they given up the last hope of possessing it.

Another clash between Dr. Murray and his dark-skinned neighbors involved the life of his precious trees. In 1894 began a period that was to become known as the ten-year drouth. As the stream from Tahquitz canyon—the only source of irrigation water—dwindled, the watering of Dr. Murray's garden grew correspondingly unpopular with the residents of the Agua Caliente rancharia where fields of corn, squash, and beans were parching.

One dry year followed another and the situation grew more acute. In his desperation Dr. Murray is said to have vowed that he would keep his trees alive with his own tears. When he diverted to their thirsty roots the last trickle in the irrigation flume, the wrathful Indians dispatched a mounted delegation to Banning where they laid their wrongs before the agent. His verdict was that the water belonged to the Agua Caliente people.

But Scotch blood was up. As well abandon kith and kin to vandal hordes as surrender his beloved trees to the deadly ravages of drouth. A flash flood intervened to postpone the crisis, but only for a short time. When the water supply again shrank to the danger point, the Indians, armed with their decree, opposed opening the sluice to the white men's land. The latter, otherwise armed, opened it under cover of darkness. The battle grew into a test of endurance that became too wearisome. The settlers sought and obtained a fairer division of water rights. Subsequent developments which afforded the village a more adequate water supply, are another story. As far as Dr. Murray's trees are concerned, they still proclaim their champion's triumph over man and nature.

There are many incidents which reveal that the dual personality expressed by all humans to some extent, was developed to an unusual degree in Dr. Murray. He could either be most gracious and kind or adversely, dour and ruthless. This accounts for the differences of opinion in regard to his predominant traits.

Advancing age and ill health no doubt aggravated in later years his eccentricities. From the first he disapproved the arrival of Mrs. Nellie Coffman who became the founder of the

world-famous Desert Inn and a leader in every worthy pioneer enterprise. Perhaps he intuitively suspected her of harboring designs on his exclusive preserve. At any rate, on her second visit he refused her and her companions accommodations at the hotel. Finally he relented enough to say they could remain if they would wash the dishes during their stay. Surprised, but not daunted, they agreed. Having failed to rout them with this requirement, he provided, perhaps from necessity, but more likely from perversity, a menu of four items—oatmeal, prunes, toast and tea. Mrs. Coffman says she cannot understand to this day how he hit upon all her pet aversions.

An incident told me by the artist, James Swinnerton, illustrates how stern, almost fanatical, was Dr. Murray's religious code. Having in a weak moment consented to loan the church building for a worldly purpose, his tormented conscience saw heavenly wrath symbolized in an ensuing thunderstorm of unusual violence. And, like some bearded patriarch of biblical times, he rushed out to stand amidst its downpour and tumult, prayerfully invoking the retribution of divine justice.

Such glimpses only strengthen the conclusion that Welwood Murray no more conformed to the influences of his time and environment than Scotch heather becomes sagebrush by being transplanted to the desert. He remained as typically the laird ruling the affairs of his baronial estate in Coachella Valley, California, as he would have in some ancient feudal kingdom among the fells of his native Scotland. Tradition and hearsay label him "a character" and so he was, in a more monumental sense than the term usually implies. He was a high-thinking and uncompromising individualist who felt for the community he helped to found, too great a sense of personal responsibility.

In June, 1914, a local newspaper reported his severe illness. The same issue contained the announcement that he had sold the hotel to Dr. White and her sister Miss Cornelia White. The item included this statement: "Dr. White . . . is making many improvements and will have an up-to-date sanitarium ready for next season's business."

A later issue told of Dr. Murray's recovery. But the improvement was only temporary. He died August 3, 1914, in Beaumont, California. Burial was in Palm Springs cemetery where his body was laid beside that of his wife, Elizabeth; who had passed away in 1911, and that of a son by his first marriage—Welwood Erskine Murray.

Another son, George—a prominent

New York City attorney—deeded to the town from his father's estate, the site on which the handsome Welwood Murray Memorial Library now commemorates the man who loved books, just as his name given to beautiful Murray canyon in the adjacent mountains commemorates the man who loved palms and other plants.

"Our Araby" has far outgrown its original promise. Save for the idyll enshrined in the memories of a few early settlers, little remains of the quiet village of long ago except the old hotel and garden. These remain unchanged—a part of the past which still lives and eloquently speaks of Dr. Welwood Murray the pioneer, the builder, the extraordinary old Scotch highlander who, though he might blindly trample some tendril rooted in the human heart, would have watered trees with his tears.

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HISTORIC BONANZA RAILROAD WANTS TO HALT OPERATIONS . . .

"Final rites" were conducted recently at Reno, Nevada, for the tired old Virginia and Truckee railroad. The 50-mile line, part and parcel of Nevada's mining boom days, is in its 80th year of operation.

The railroad has petitioned the Interstate Commerce commission and the Nevada Public Service commission for permission to store its two remaining rickety locomotives and tear up its tracks. Most of the line's old historic engines and coaches have already been sold to Hollywood motion picture companies.

The Virginia and Truckee railroad in its heyday hauled more than 600 million dollars worth of gold and silver from the Comstock lode at Virginia City. Officials claim the line has been losing money steadily for the past several years.

Still, however, the line manages to operate a single train daily, making a round trip between Reno and Minden, frequently hauls a few nostalgic passengers who can tell about the bonanza road's glamorous past.

Anticipating that the two agencies will permit the line to cease operations, the California and Nevada Historical society scheduled a special excursion trip to Minden at start of June. Members received black-bordered invitations to attend the affair, prepared in the style of old-time funeral announcements.

But trains will continue to run over the historic line for probably several months yet, until the federal and state agencies have ruled on the railroad's petition to cease operations.

LETTERS . . .

Protection for the Wildflowers . . . Randsburg, California

Desert:

I have read with great interest your comments about people picking the wildflowers on the desert. Heartily do I endorse your statements. "We folks who live on the desert wish the visitors would leave the blossoms where Nature planted them."

At the present moment as I look across the valley behind Red Mountain I can see a large section of the mountain yellow with blooms, but tomorrow this beautiful field of wild flowers will be a dusty patch of barren ground, because I see coming up the hill several thousand sheep. These flocks of sheep have stripped the ground around here each year until there is scarcely anything left of the beauty that once was the pride of the district.

If it is against the law for a party of city dwellers, hungry for a bit of outdoor life to pick a handfull of desert flowers, how come these sheep owners can ship in thousands of sheep each year, just at the time the wild flowers are at their peak, and strip the entire region, leaving only dusty hillsides where they have passed over? Can't something be done about it?

WALTER H. MILLER

In Riverside county the supervisors have passed an ordinance establishing certain areas as Wild Flower Reserves where the destruction or removal of wildflowers by sheep or otherwise is unlawful. San Bernardino county and other desert areas are entitled to similar protection, and I am confident the boards of supervisors would pass such ordinances if the pressure of public opinion within those areas is strong enough.—R. H.

Right Name, Wrong Cactus . . . Tucson, Arizona

Desert:

Unless my acquaintance with the cactus family is rapidly evaporating, you gave the title "Bisnaga" to a picture which should have been labeled Mammillaria or "Fishhook" cactus on the poetry page of your April issue.

HENRY F. DOBYNS

Thanks for correcting Desert's botany editor. The picture is a Mammillaria, one of the smallest members of the cactus tribe, whereas Bisnaga or barrel cactus is a sizable fellow.—R. H.

When King Snake Meets Rattler . . . Alpine, California

Desert:

For many years I have heard that the king snake is the arch enemy of the rattlesnake. But I never met anyone who had seen the two snakes in actual combat.

But now I have seen it myself!

About two p.m. on May 6, 1949, I was working in the yard when my neighbor called to me. She said a big snake was in her yard. What I found was a king snake about three feet long. It did not appear to be just passing through, but was looking for something.

It crawled over to a small geranium bush, and out crawled a rattlesnake about two feet long.

The king snake waited until the rattler was out in the open and then took after it. The king snake seized the rattler about three or four inches above the button, and in the same motion lifted the rattler off the ground and wound a couple of coils around its body. The rattler tried repeatedly to bite its attacker.

By this time the king snake had changed its hold with its mouth to the middle of the rattler. Before long the rattler was bleeding, and making less effort to fight back.

The king snake then changed its hold to just back of the rattler's head and began to swallow it.

The last we saw of the rattler was a few jerks of its tail as it disappeared down the king snake's throat.

The combat lasted about five minutes and when it was over the king snake crawled leisurely away.

J. L. NEELY

How to Behave on the Desert . . . Los Angeles, California

Desert:

I read with interest the trip which Harold and Lucile Weight made into the Kofa country of Arizona, and especially Lucile's comment on "How to behave in the presence of a Cholla cactus."

Just yesterday I was on a hike with the Sierra club in Red Rock canyon near Mojave. I spied a huge tortoise sunning himself under a Joshua tree. I was so eager to make acquaintance with this little fellow of the desert that I plunged head-on into a low overhanging limb of the Joshua.

I have 98 holes in my head at the moment. I thought someone had scalped me. Why, oh why, Lucile, didn't you include Joshua trees in your lesson on behavior.

Moral: Don't get so chummy with your fauna that you ignore your flora.

ALMA A. CHESSMAN

Where Loneliness Dwells . . . Phelan, California

Desert:

I too am a "Desert Rat" of many years and believe the reason we Rats do not write of the desert's beauty is that we have come to realize that there are no words to really describe it.

How many artists have thrown down their brushes in disgust, finding they could not catch the ever-changing beauty of the desert, that too much had to be left to the imagination?

Will some one tell me why the word "loneliness" is used so often in connection with the desert? To me loneliness is within one's self. How much more lonely one can be in a thickly populated city than on God's desert.

ETHEL CAUGHLIN

Dizzy Mining Reporter . . . Miami, Oklahoma

Desert:

A short time ago some friends drove me through Salome, Arizona on our way to Swansea. Although the temperature was sufficiently high, I failed to see any pools of gallium in the arroyos thereabouts. I presume your contributor under "Mines and Mining", May issue, meant to quote the price of gallium in grams rather than gallons.

I am glad I am not an editor.

D. C. MacKALLER

Right you are. Our mining reporter's alibi is that he became dizzy trying to follow the intricate process by which gallium is obtained from zinc-blende, and got his galliums and gallons all mixed up.—R. H.

Creed of the Sportsman . . . San Diego, California

Desert:

The editorial in your May issue certainly expressed what my wife and I have thought many times since our first camping trip on the desert. I wish your fine essay could be printed in every publication in the country.

William von Phelps once wrote: "This is the final test of a gentleman: his respect for those who can be of no possible service to him."

I believe that test applies to sportsmen as well as gentlemen, for certainly he is no sportsman who would needlessly damage Nature's or some other person's handiwork. I am sure it was no true sportsman who used the Hart headstone at the old Vallecito stage station as a target. (See photo enclosed.) Nor can I believe it was sportsman rockhounds who caused the destruction at the ghost town of Tumco, California. (Desert Magazine, February '49.)

Since my wife and I have become

acquainted with the desert we have learned to love its beauty, its history and its people. We wish there was some way to protect the desert landscape from those who have not yet learned the lesson of good sportsmanship.

RICHARD H. TOWNES

• • •

Parasite Called Dodder . . .

Pittman, Nevada

Desert:

I wonder if you could tell me something about this yellow fungus that appears on so many of the desert shrubs in California and Nevada. Doesn't the state have funds to control pests of this kind? I wish I had time to go out and destroy all the fungus that seems to be spreading over the countryside. This year I have even seen it on a lot of plants along the road to Mt. Charleston. Can you suggest something?

GRACE HONEY

I presume you refer to yellow dodder, a member of the morning glory family. It is a parasite with stems not much bigger than coarse thread which attaches to and becomes entwined in many of the desert shrubs, forming a rather conspicuous tangle in the tops of the plants. Alfalfa and clover farmers in the west and midwest have been fighting this pest for many years. My observation coincides with yours—that dodder is spreading in many parts of the desert. If it threatens irrigated farm crops you may be sure money will be available for its eradication. Confined to the desert, Nature has her own devices for keeping her world in balance. In the meantime there are some who feel that the golden skeins of dodder are no less attractive than many of the shrubs to which it attaches itself.

—R. H.

• • •

Definition of a Weed . . .

Trona, California

Desert:

Have been reading in your June issue about your difficulty in telling the difference between weeds and flowers.

Many years ago I took a course in botany from an elderly teacher who was quite an authority on cacti. He gave us a definition of "weed" which I think might interest you.

"A weed," he said, "is any plant out of place. A rose bush in the middle of a corn field would be a weed. But a cactus would never be out of place in the desert so I can see no reason for giving them the label of weeds."

RALPH E. MERRILL

DESERT CLOSE-UPS

He spent the last 18 years of his life in a little 8x12 room in downtown San Francisco—and yet many critics regard him as the greatest portrait artist the West has ever known. On March 21 he died at the age of 91, following a cable car accident.

This man was Elbridge A. Burbank, who spent 20 years of his life painting the portraits of the best known among the Indian chieftains. His work was not confined to Indians alone, however, for his crayon sketch of Abraham Lincoln, on the wall of Smithsonian Institution, has been rated the best in the institution's collection of 100.

Burbank was born at Harvard, Illinois in 1858. He was a student at the Chicago Academy of Design and studied under Paul Navin and Frederick Fehr at Munich. During his years as a painter of Indian portraits he visited 128 tribes and many of his originals now hang in Newberry library in Chicago, and in the Smithsonian galleries.

On March 9 Burbank was struck by a cable car on Powell street and taken to Laguna Honda home where he remained until his death. For many years he had lived in modest circumstances. He would accept no charity, and eked out a meager existence by the occasional sale of a picture. The only picture on his wall was a copy of his Lincoln portrait. On an easel in the room was the half finished portrait of an Indian girl.

San Francisco gave him belated recognition with an elaborate funeral, many San Franciscans not realizing until then that the unobtrusive old man who had lived at the Manx hotel for 18 years was one of the West's greatest artists.

• • •

Feature stories in Desert Magazine cover many subjects—field trips, exploration, history, Nature subjects, Indians, mining, travel, recreation, personalities, hobbies, parks, and the general lore of the desert country.

Visitors at the magazine office often ask how we go about getting this wide range of material. The answer: Most of it comes from free lance writers who submit their material subject to our acceptance or rejection. We accept about one out of every 20 manuscripts sent in.

About half of the material comes from professional writers—men and

women whose published work in magazines, newspapers and books is their main source of income. The other half comes from spare-time writers who devote their working days to a wide range of professional and business activities.

For instance, in this issue of Desert Magazine appears the work of the following writers with professional standing: Dama Langley, Harold O. Weight, Leland Quick, Louise Price Bell and Randall Henderson.

Mrs. Bell, whose story about Elaine and Larry Wilde of the Saguaro Cactus National Monument is published this month, is a resident of Tucson, Arizona. She is a contributor to many national publications including House Beautiful, Mademoiselle, Good Housekeeping, Better Homes, Travel, American Home, Today's Woman, Charm and Glamour.

Other contributors to the July Desert who write either as a hobby or in spare time include Tanya South, who keeps house for her three children in San Diego and holds a civil service rating for clerical work, and Nina Paul Shumway, who devotes her time to a wide range of cultural activities. David E. Miller is a teacher of history at the University of Utah. Mary Beal does research work in botany on the Mojave desert.

For industry, Edmund C. Jaeger probably holds top place among all of Desert's contributors. He is a regular teacher in the junior college at Riverside, California, spends his weekends doing research work in scientific subjects on the desert, and between times writes books and magazine articles. His *Denizens of the Desert*, now out of print, and *Desert Wildflowers*, are widely used as handbooks of the California desert country. Another volume is now in progress.

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Palm Desert, Calif.

HERE AND THERE . . . on the Desert

ARIZONA

Earliest Artifacts Discovered . . .

DRY CREEK—A campsite showing evidence of the most ancient human civilization yet found in north central Arizona has been excavated on the first 1949 field expedition of the Museum of Northern Arizona. Dick Shutler Jr. and Bill Adams, graduate students from the University of California, have revealed details of the work, which was undertaken for the museum under a grant from the Viking fund of New York. The ancient campsite located on Dry creek in the Sedona area of Verde valley was discovered by Dr. Harold S. Colton, museum director. Several weeks spent at the site yielded quantities of very crude stone implements. Although they have yet to be studied, "they certainly represent a period of prehistoric human culture prior to 500 A. D.", in the opinion of the museum director. The implements are crudely-flaked nodules of stone, are mostly scrapers and choppers, show no evidence of fine pressure flaking which characterized the work of more recent Indians. Many crude grinding stones are associated with the flaked tools, as well as some hammer stones. Shutler says the tools found at Dry creek bear a marked resemblance to those of the Chiracahua stage of the Cochise culture found near Willcox in southeastern part of Arizona. Geological evidence, missing at the Dry creek site, has indicated that the Chiracahua stage dates back before 3,000 B.C. Crudely flaked scrapers and choppers accompanied by grinding stones have been found in the desert areas of California, and are of great antiquity. It is hoped that some means will be found to date the culture found at Dry creek, now it can only be said to be pre-500 A.D. No excavations had before been undertaken in the Verde valley.—*Coconino Sun*.

. . .

Forest Supervisor Transferred . . .

HOLBROOK—Francis J. Monighan, for the past eight years supervisor of Sitgreaves National forest in Arizona, has been transferred to Albuquerque, New Mexico, as supervisor of the Cibola National forest, according to Regional Forester P. V. Woodhead. Monighan will replace Ellis Wiltbank, who died recently. Monighan entered the forest service as a ranger on what is now the Kaibab National forest in Arizona, later served as a

ranger on the Apache, Coconino and Sitgreaves National forests, was promoted to assistant supervisor, then supervisor. Replacing Monighan as Sitgreaves supervisor is Kenneth A. Keeney.—*Holbrook Tribune-News*.

. . .

Navajos Claim Greater Area . . .

FLAGSTAFF—A treaty ratified by congress in 1850 gives the Navajo tribe claim to an area much greater than that now included in the reservation, according to Sam Ahkeah, president of the Navajo tribal council. The old treaty, long forgotten, was uncovered by attorneys working for the tribal council. It outlines the Navajo lands as being bounded by the four sacred mountains: Mt. Baldy, in Apache county; Mt. Taylor, southwest of Grants, New Mexico; the San Francisco peaks at Flagstaff; La Plata mountains in southwestern Colorado near Durango. "None of the older living Navajos knew about this 1850 treaty," Ahkeah said.—*Coconino Sun*.

Study Patayan Indian Ruins . . .

MOHAVE COUNTY—In an effort to recover and study Patayan Indian ruins before they are covered by water backed up by Davis dam, two excavation parties are going into the area, it is announced by Supt. George Bagley of the National Park service. Started by Dr. Gordon Baldwin, naturalist for the park service, before his recent transfer, the work will be carried on by the San Diego Museum of Man, cooperating with representatives of the University of Arizona headed by Barton Wright. Wright has lived in the Willow beach area many years.—*Mohave County Miner*.

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Scholarship Offered Indian . . .

SEDONA—A \$500 scholarship to help make it possible for an American Indian student to attend the Val Verde preparatory school here has been offered by Dr. Clyde Kluckhohn, internationally-known anthropologist and professor and research director at Harvard university. The school will receive applications from qualified Indian students. The Val Verde school is dedicated to promoting inter-cultural and international understanding. Field trips to Indian reservations and to various communities in the Southwest and Mexico are an important phase of the training. The school opened last fall with a pioneer group of 20 boys and girls from 10 states and Canada.—*Gallup Independent*.

KARAKULS—Producers of Persian Lamb fur are easy to raise, adaptable to any climate or altitude. For further information write Addis Kelley, 4637 E. 52nd Place, Maywood, California.

RAFFIACRAFT—An easy, profitable pastime. Supplies, instructions and sample, \$2.00. Malik, Carson City, Nevada.

20 OLD WESTERN outlaw photos, \$1.00. 20 different Old West, Pioneer, etc. photos, \$1.00. 10 different battle of Wounded Knee 50c. 5 different Lincoln 50c. Lists 5c. Vernon Lemley Store, 302 Dallas Ave., Mena, Arkansas.

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PART OF OUR LOVELY ISLAND SUMMER home for part of your winter home. 300-foot beach. 3 acres. No improvements. Isolated, virgin, beautiful Fishing, boating. Logs for cabins. June Burn, Waldron Island, Wash.

FOR SALE: Comfortably furnished mountain cabin south central Nevada. Good road, kitchen, dining-living room, bedroom, two screened porches, spring house, good water, two car shelter. 7200 feet elevation. Dry climate, restful, scenic, privacy. A. Keller, Box 168, Desert Hot Springs, California.

SALT WATER FRONT FARM ON WALDRON ISLAND, SAN JUAN COUNTY, PUGET SOUND, WASHINGTON. Ideal for resort, bulb, or berry farm or secluded living. 2500 feet sandy beach. 60 bearing fruit trees, good well. Old farm buildings surrounded with huge Lombardy poplars. No gophers, moles, rabbits, or deer on this island. Daily mail boat service from the mainland. Plane service twice daily from Bellingham, best of salmon fishing, clams in front yard, 9 acres cleared about 200,000 board feet standing timber, logs for cabins galore, room for an airstrip if you want one. This property goes clear across Sandy Point facing south on Cowlitz bay and north on North bay. Access in any weather. Beautiful view of Olympics south, Canada north. 45 acres \$7500—\$3.50 per foot. Discounts freely given for cash. Will give good terms, sell all or part. Fact is, we're broke. Make offer. JOHN HUNT TAYLOR, WALDRON, WASH.

FOR SALE—ARTIST'S HOME. 96 acres on Grand Canyon-El Paso highway. Furnished 4-room modern house, beautiful fireplace, 3-room stone guest house, hot and cold water, fireplace. Good water, grand view, orchard. Excellent climate. \$12,000. John Hampton, Greenwood Canyon Ranch, Silver City, New Mexico.

LIVE ON A BEAUTIFUL San Juan island. 50 acres, 1600 feet sandy, secluded beach. You can move right in. House furnished. Price \$11,500, easy terms. Ray Tiberghien, Waldron Island, San Juan County, Washington.

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DESERT CRAFTS SHOP

Palm Desert, California

More 'Mountain Goats' Reported . . .

AJO—Tourists traveling in Arizona have had the thrill of seeing "wild mountain goats" right on the outskirts of Ajo on a few occasions. They are goats, and they are wild, and they live in the mountains—but it's another case of domestic animals reverting to the primitive. A little more than two years ago a pair of goats belonging to Pat Alley of Ajo chose to leave the security of civilization. Since then they have been running wild in the hills. When last seen on Camelback mountain the two goats had become a small herd. There are now six "mountain goats," two nannies, one billy and three kids.—*Ajo Copper News*.

Controversy Stalls Exploitation . . .

WASHINGTON—If the Navajos and Hopis can reach an agreement over oil rights, exploitation of oil on the Hopi reservation in Arizona may proceed as result of recent congressional inquiries into the dispute. The dormant case of Hopi oil was reopened by Congressman Leslie A. D'Ewart, Montana, with a geologist's report that the Hopi reservation "contains the largest oil deposit in the country." More conservative, the Indian bureau said several companies making explorations report considerable quantities of oil and are prepared to spend large sums of money to obtain land leases. Legal tangles, lack of clarity in the congressional treaty of 1882, and Hopi-Navajo disagreements have held up further exploitation because leases could not be negotiated.—*Gallup Independent*.

Women Make Hassayampa Ride . . .

WICKENBURG—Not to be outdone by the menfolks, women of this area in May took a Hassayampa river horseback trip of their own. Las Damas riding group inaugurated their first annual trek, starting from Wishing Well on west side of the Hassayampa river. The ride was a three-day affair, the ladies returned each night to headquarters at Ira Walker's ranch.—*The Sun*.

DESERT HOMESITES

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Palm Desert, California

Fire Dance to be Performed . . .

FLAGSTAFF—Navajo medicine men have consented to performance of the tribal fire dance at the Southwest All-Indian Pow-Wow in Flagstaff July 2, 3 and 4. The fire dance, part of a nine-day ceremonial, is considered the most spectacular and thrilling ritualistic dance performed by the Navajo. At the Pow-Wow Apache Indians will perform their famous devil dance all three nights of the celebration. This year's ceremonial will include ritualistic dances by these tribes: Zuni, Jemez, Suan Juan, Hopi, Laguna, San Ildefonso, Kiowa, Taos, Santa Ana, Arapaho, Cheyenne.—*Verde Independent*.

CALIFORNIA

Salton Sea Park Considered . . .

SALTON SEA—Cost surveys for development of a state park at Salton Sea, below-sea-level area in heart of the Colorado desert, will be made by the staff of the California division of beaches and parks and will be studied by the state park commission at its next session. This forward step in the move to create a park along shores of the inland sea was taken by members of the commission following a report on the project by George A. Scott, San Diego, southern member of the commission. Scott declared there is "a great need" for such a park in the desert area. His recommendation came after he visited the region recently. Nestling beside waters of the Salton sea and shadowed on one side by the jagged peaks of the Chocolate mountains, this unique park has long been a dream of the area's community leaders.—*The Desert Sun*.

Navy Plans Threaten Highway . . .

NILAND—Possibility that the U.S. navy will close part of the Niland-Blythe road, a link of the International Four-States highway from Canada to Mexico, has raised new difficulties in the plan to complete the Four-States highway. Approximately 23 miles of the Niland-Blythe sector goes through the Chocolate mountain aerial gunnery range, now in use by the navy. The navy has asked Imperial county supervisors to close the road, part of the 40-mile link that civic groups are seeking to have surfaced to complete the Canada-to-Mexico highway.—*Imperial Valley Weekly*.

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Church in the Desert . . .

TWENTYNINE PALMS—A new Community chapel has been dedicated at Joshua Tree in the Colorado desert. Services are being held regularly with Dr. David Williams as pastor.—*The Desert Trail*.

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Desert Contributes to Building . . .

RANDBURG—Some day you may build a house of tufa blocks. Quarrying operations are starting on a large deposit south of Ridgecrest and Inyokern, and plans are to saw the product into bricks or blocks for use as building material. Tufa is the result of volcanic eruptions, usually deposited in water. It is composed of equal parts volcanic ash and pumice with large amounts of silicon, iron, aluminum, calcium, lesser parts of nine other elements. It is unusually light. In its natural state it needs no preservative or paint, has an appearance not unlike marble. Tufa is said to be resistant to deterioration or breakdown from age or weather. Tufa can be handled much the same as lumber, can be sawed into blocks or strips of a desired size.—*Randsburg Times-Herald*.

Calico Pageant Planned . . .

CALICO—A historical pageant woven around the story of the Calico mountains, the mining boom, old Spanish trail, borax mining and other highlights of the rich historical background of the Calico country, is being planned now by residents of the Calico area. September 23 and 24 are dates chosen for presentation of the Cavalcade. If successful, the Cavalcade may become an annual event.—*Trona Argonaut*.

• • •

New Road to Death Valley . . .

DEATH VALLEY—A new paved entrance into Death Valley approaching the area via Trona, Slate range, Panamint valley and Wildrose canyon is expected to be completed by August 1. It is the Trona-Wildrose federal aid secondary highway, which will permit motorists to travel the Trona road from its junction with U.S. 395, midway between Johannesburg and Red Mountain, and drive an easy 75 miles into the National Monument in less than two hours.—*Randsburg Times-Herald*.

• • •

Borrego Springs Gets Postoffice . . .

BORREGO SPRINGS—The new desert community of Borrego Springs, located in Borrego valley through which Capt. Juan Bautista de Anza's exploratory expedition passed in 1775, feels that it can now take its place along with its sister desert villages as a full-fledged community. Borrego Springs has a postoffice. Postmistress is Mrs. Gertrude Steffen, the postoffice is located in a new building which also houses the Borrego Mercantile company. Developments have been rapid in the Borrego area in the past two years. It now has an airport, a nine-hole golf course, hotels and other accommodations.—*Palo Verde Times*.

Prizes For Desert Pictures . . .

. . . Monthly Contest Announcement

Each month Desert Magazine awards two cash prizes to photographers submitting the best black and white pictures for publication. Any desert subject is acceptable . . . wildlife, Indians, flowers, sunsets, scenics, etc. It is suggested that the judges prefer unusual subjects rather than the commonplace ones such as Saguaro and Joshua tree.

Entries for this month's contest must be in the Desert Magazine office, Palm Desert, California, by July 20, and winning prints will appear in the September issue. Pictures which arrive too late for one month's contest are entered in the next. First prize is \$10.00; 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

ANSWERS TO DESERT QUIZ

Questions are on Page 16

- 1—Nogales, Arizona.
- 2—A mortar.
- 3—Mined from the ground.
- 4—House Rock valley.
- 5—Tree rings in the roof timbers.
- 6—Rubber-soled shoes.
- 7—Nevada.
- 8—The U.S. District Office of Land Management.
- 9—Beaver.
- 10—Daylight pass.
- 11—Rio Grande.
- 12—Nolina.
- 13—Red.
- 14—Yuma.
- 15—A lost mine in the Death Valley region.
- 16—Calcite.
- 17—Kayenta, Arizona.
- 18—Utah and Colorado.
- 19—Lead.
- 20—New Mexico.

Atomic Experiments in Desert . . .

SALTON SEA—Expansion of the Atomic Energy Commission's experimental base at Salton sea in the Colorado desert is expected to be completed by November 1, according to Rear Admiral George P. Kraker. The testing grounds and proving station plus small modern city are located at the former Sandy Beach naval auxiliary air station, 40 miles south of Indio. The experimental work at the Salton sea base will involve no radiological hazards to persons in the area, Kraker emphasized.—*Indio Date Palm*.

NEW MEXICO

Indian Poverty Decried . . .

GALLUP—"This nation, from a strictly economic view, cannot afford to permit the present conditions among our Navajo, Hopi and Papago Indians to continue." This is the opinion of Dr. John R. Nichols, new Commissioner of Indian Affairs, who spoke to people of the Indian country in a transcribed broadcast from Gallup. "We cannot afford to have in this Southwestern area from 60 to 75 thousand persons with almost no purchasing power, many illiterate, others sick and hungry. Neither can we afford to permit continued soil erosion on the Navajo range, which not only reduces productive capacity of the range and impoverishes the people, but actually endangers the huge federal investment in Hoover dam." What is being done? Dr. Nichols referred to the program now before congress which if authorized and financed as requested "will go a long way toward reducing the problem to a proportion that can be managed." Present efforts to rehabilitate the Navajos and Hopis represent "a new approach to the Indian problem," Dr. Nichols declared. He called for the people of this nation to guard against "any thought or deed of racial discrimination."—*Gallup Independent*.

Governors Work Together . . .

GALLUP—Gov. Thomas J. Mabry of New Mexico has enlisted the cooperation of Gov. Dan Garvey of Arizona in the move to acquire land needed for establishment of the proposed Manuelito National Monument, west of Gallup. The proposed park area extends south of Highway 66 from Manuelito to the Arizona state line, covers an area of great archeological interest. Ruins in the region give evidence of a culture rivaling that at Chaco canyon. A strip of land a mile wide is needed on Arizona side of the state border to provide access to the red cliffs at Lup-ton.—*Gallup Independent*.

Hard Rock Shorty of Death Valley



"Naw, there ain't no poultry-raisers in Death Valley," Hard Rock Shorty was explaining to the chicken feed and fertilizer salesman who had just arrived at Inferno store.

"Cost too much to feed 'em!"

"Ol' Pisgah Bill tried it a few years ago, but the wind finally blew all his chickens away. But even before that big windstorm came along Bill was plumb discouraged.

"Had to haul all the feed in from Barstow, an' the cost o' the feed and gasoline kept 'im broke all the time.

"But what really got Bill's goat was when a smart dude came along one day and told Pisgah

how he could save some money.

"You don't have to give 'em that fancy bran from the feed store," the dude explained. "Just feed 'em sawdust. The chickens won't know the difference."

Bill thought it over a couple of days. Didn't sound reasonable, but he was hard up for money so he decided to try it. Next trip out to Barstow he brought in four sacks of sawdust. "I'll feed 'em half an' half," he said.

"For awhile the chickens seemed to get along all right, and then one o' 'em started settin'. She hatched out a family all right, but seven of 'em had wooden legs and the other four wuz woodpeckers."

Citizenship for Indians . . .

WASHINGTON—That Navajo and Hopi Indians be placed under state laws as a necessary part of their rehabilitation is the proposal of Representative Fernandez, New Mexico Democrat. He told the house Indian affairs subcommittee: "I don't think we will get very far unless the Indians are made subject to laws of the state. They would become good citizens," he declared.—*Farmington Times Hustler*.

Seasonal Jobs No Solution . . .

GALLUP—"Seasonal jobs do not solve the problem of over-population on the reservation and have created new problems of disease, broken homes and neglected children." This is the

opinion of Mrs. Lucy Adams, director of welfare and the Navajo job placement service. Off-reservation jobs open to the average Navajo are very limited. Many work in extra gangs on the railroad, in beet, carrot, potato, lettuce and bean fields, in the forests of New Mexico and Arizona, as sheep herders in Wyoming and Colorado. But the reservation is still their home, they return when seasonal work is over. Mrs. Adams believes it is the business of the placement service to try to select job opportunities which will "encourage Navajo independence and initiative, and to work with employers and communities to insure decent working and living conditions for the Indians."—*Gallup Independent*.

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Sometimes you can break a good rule!

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Aged Navajo Leader Dies . . .

GALLUP—Casamero, 95-year-old Navajo chief and brother of the famed Chief Mariano of Kit Carson's time, has passed on to the happy hunting ground. Casamero was 10 years old when the Navajos were rounded up in 1864 by Carson and taken on the "long walk" to Bosque Redondo near Fort Sumner for four years' internment.—*Gallup Independent*.

New Indian Department Asked . . .

WASHINGTON—Recommendation that the Bureau of Indian Affairs be transferred from the U.S. department of interior to a new department of social security and education, is contained in the Hoover commission report on Indian affairs. The transfer is recommended "pending discontinuance of all specialized Indian activity on the part of the federal government." The commission also recommended that administrative changes be made to "give more local autonomy" in administration of Indian affairs.

To Search for Meteorite . . .

ALBUQUERQUE — Thousands, possibly millions of years ago, a screaming meteorite reamed a hole almost a mile wide and 600 feet deep near Winslow, Arizona. Early this summer a group headed by Dr. Lincoln LaPaz, University of New Mexico meteoriticist, will search with modern equipment for fragments that came hurtling to earth from some other planet in the dim past. The tremendous mass of meteoritic material is located

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just off U.S. Highway 66. The university metal hunters will operate with devices related to World War II mine detectors. Modern instruments capable of detecting remains of celestial objects 50 or more feet below bottom of Canyon Diablo crater—the depth allowed for digging—will enter the picture in search of the fabulous meteorite that has intrigued scientists for years.—*Gallup Independent*.

NEVADA

Million-Acre Ranch Litigation . . .

FALLON—Nearly a million acres of ranch property and range rights, plus personal property and cattle, is involved in a district court suit at Fallon. The property is included in the Butler estate, which is made up of 16 ranches extending 125 miles west of Tonopah taking in a part of Fish Lake valley.—*Fallon Standard*.

Centennial Script Approved . . .

BEATTY—The script to be used in dramatizing the Centennial celebration in Death Valley November 19 has been approved and accepted by the executive committee of '49ers, Inc. Charles School, head of Furnace Creek Inn, and Ray Goodwin, superintendent of Death Valley National Monument, were present at the meeting.—*Goldfield News*.

Early Pueblo Pottery Found . . .

LAS VEGAS—The Pueblo Indians' past is catching up with them—anthropologically speaking. Prof. Robert H. Lister, guest anthropologist at Highlands university, reports that pottery found by members of his class indicates caves in Gallinas canyon were occupied by the Pueblos 600 to 800 years ago. The find was about two miles south of Las Vegas. Other sites are still being investigated.—*Goldfield News*.

ANNOUNCEMENT

Palm Desert Art Gallery

(In the Desert Magazine Building)

will be open to visitors five and one-half days a week, closing at noon on Saturdays and remaining closed Sundays.

Daily hours will be 8:00 a.m. to 5:00 p.m. during the week and until 12:00 noon on Saturday.

Visitors are always welcome in the art gallery and book and crafts shop—and to inspect Desert Magazine's printing plant if they desire.

DESERT MAGAZINE STAFF

Old-Time Cowhand Dies . . .

HUMBOLDT COUNTY—One of the few remaining old-time cowhands who lived through the West's bumpy formative years has gone to the last round-up. Death took George Gay, 72-year-old cow puncher, on May 20. He had lived in Humboldt county 68 years, was a native of Nevada, during his life worked nearly every ranch in Paradise valley. Starting at 15, Gay was an active cowhand for 53 years, was known as a top hand.—*Humboldt Star*.

Wild Horse Licenses . . .

FALLON—Wild horse hunters in Churchill county must have licenses backed by a \$2000 bond for either hunting or killing mustangs. Reasons for passage by the county commissioners of an ordinance regulating wild horse hunting were that some rancher's valuable saddle animal or a miner's burro might get shot, and because there is strong suspicion that game poachers have been killing deer under the guise of ridding the range of wild horses.—*Fallon Standard*.

UTAH

Scenic Area Named . . .

MOAB—"Colossal canyon" will be the name of the recently explored scenic area below the White Rim on the Colorado river 30 miles below Moab, heretofore vaguely known as Monument canyon, if Jack Breed, nationally-known photographer and writer, has his way. Following an expedition into the scenic canyon to take pictures and gather data for an article, Breed got together with several Moab citizens to decide on a name before any further publicity is given the canyon. A tributary of the Colorado river, the canyon contains scores of white-capped pinnacles that rise from the canyon floor to dizzy heights.—*Times-Independent*.

To Preserve Historic Town . . .

CEDAR CITY—Preservation of the historic old townsite of "Iron Town" in the vicinity of Iron mountain has been undertaken by the Cedar City chapter of the Sons of Utah Pioneers. This site was the scene of the manufacture of iron products from 1863 to 1873. At only one place west of the Mississippi was iron manufactured earlier than at Iron Town, that place was Cedar City where the Mormon pioneers produced first iron of the West. One of the old ovens used still stands at Iron Town, with smoke stack and portions of other buildings.—*Iron County Record*.

Nevills at It Again . . .

MOAB—Norman Nevills, king of

white water boatmen, has opened his 11th consecutive river running season, first trip of the summer was down the San Juan river with three boat loads of passengers. This year's trips down the San Juan and Colorado rivers to Lee's Ferry, Arizona, will make a total of more than half a hundred boat expeditions down these spectacular rivers of the West. It will also be Nevills seventh trip through the Grand Canyon, a world's record. The Grand Canyon run is scheduled to start July 12.—*Times-Independent*.

Ninetieth anniversary of the founding of Minersville, Utah, was celebrated by that community with a civic observance on May 17.

Travel to Parks Increases . . .

CEDAR CITY—Automobiles from as far away as Arabia, Saipan and Switzerland have been among the increasing throngs entering Zion and Bryce Canyon National parks this spring, according to the National Parks service. Travel so far this year exceeds that of a year ago, the service reports.—*Iron County Record*.

Top Indian Artist . . .

Grand prize winner at the fourth annual national exhibition of American Indian painting, held at Philbrook Art center, Tulsa, Oklahoma, was Walter Richard West, 37-year-old Cheyenne Indian.

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By LELANDE QUICK, Editor of The Lapidary Journal

Through the fine cooperation of a cross section of DESERT'S more than 130,000 readers it was determined from a survey, published in the last issue, that of all the regular features the readers preferred travelogs with maps first, and the gem and mineral section second. Since almost every travelog article deals with minerals and gem materials it appears that the first interest of the great majority of our readers is rocks.

With this issue this department finished seven years in which it has appeared regularly. Originally started as a "how to do it" section for the gem cutter it offered much of the fundamental information that is now available in many fine books on the subject. As new ideas are originated they usually appear here first, but in later years this page has served more to create interest in gem cutting as a wholesome and satisfying hobby than to repeat the trite information about tin oxide, wheel speeds, etc.

An analysis of correspondence indicates that this is what occurs with thousands of eastern visitors, especially since the availability of new automobiles and unlimited gasoline: They plan a trip to California to see the reaches and the beaches of the Pacific, the majestic mountains, the flowers, the finest agricultural areas in all the world—and the tinsel of Hollywood. Seldom are they prepared for the sight of the desert they have to cross. Many accomplish this with a grumbling and grouching, getting through the desert at 80 miles an hour. Other fortunate folks "discover" the desert; find that it isn't the wasteland they supposed but a place of quiet and repose and, above all, the cleanest place they have ever encountered. They usually leave the region with a copy of Desert they have picked up at one of their many stops. When they return to their New England white houses or New York canyons they read it carefully and subscribe so they can read more about the desert trails and rocks. Many of these people eventually turn to America's fastest growing hobby—gem cutting, now grown to the point where it is the fourth largest "doing" hobby and rapidly pushing the number three spot.

We gave a talk on this subject at San Antonio, Texas, April 24, and here is the manner in which we arrived at the conclusion that gem-cutting is entitled to fourth place in the action hobbies. To begin with we eliminate hunting and fishing as hobbies. They are sports. We eliminate all the collecting hobbies: for philatelists, numismatists and collectors of guns, shaving mugs, buttons, hat pins, playing cards, theater programs, cigar bands, etc. create nothing. They merely satisfy the acquisitive instinct inherent in man and in this class of hobbyists the mineral, gem and rock collectors are increasing in such numbers that they support several magazines devoted to their interests.

The important trend in hobbies in the American 40-hour work week is the problem of doing something with one's hands in the spare time that Americans possess more than any other people in the world. In this

class of "doing" or "action" hobbies, which can be followed without regard to season such as hunting and fishing, we place photography first. How many people climb in a car to make a trip anywhere without a camera in the luggage? Some may say that photography is not a creative hobby, but we have placed it first. On the other hand there is no dispute about painting and sketching being creative and placing second. In third place we place wood working, although we believe gem cutting is crowding it for that position.

A news item on May 19 told the results of a survey of 19 million hobbyists in 22 thousand hobby clubs, by the American Hobby Federation. The survey indicated that stamp collecting ranked first with glass ware collectors, woodworking, model making, dolls, autographs, coins, painting, needle work and miniature collecting following in that order.

As a publisher of one of the nation's leading hobby magazines we never heard of the American Hobby Federation and they evidently never heard of us or the Federations of Earth Science clubs for none of us were ever approached in their survey. We decline to believe that more people collect dolls than rocks and we don't think anyone else believes it.

Some may challenge our statements and say they are wishful thinking but there are incontrovertible facts on record. Last July a meeting of the California Federation of Mineralogical societies had 36 thousand people attend a three-day exhibition. These people were clocked on counters and not estimated. As this article appears the combined meeting of the American and California federations will be about to take place at Sacramento on the 24th and through the 26th of June. It will draw more people from greater distances at greater expense than any stamp exhibition that has ever been held, and we've been to many stamp exhibitions from coast to coast. The magnet that will draw more people than any other hobby will be the gems. If they were left out entirely there wouldn't be enough visitors to fill the largest Sacramento hotel and there wouldn't be enough commercial exhibitors to pay the rent of the exhibition hall. There is more magic in the word gem than in the word mineral and some day the federations will realize that a combination of the two words in their titles will do more for the promotion and clearer understanding of their purpose than the clumsy word mineralogical to which some cling with sentimental affection. Gem cutting revived mineral collecting when it was in the doldrums and gem cutting interest predominates in most of the mineral societies today.

Seven years is a long time to be singing the same tune. We haven't tired of it for we know more than ever that gem cutting is America's fastest growing hobby and that it offers more facets of diversion, travel, collection, study, creation, imagination and satisfaction than any other hobby on the list.

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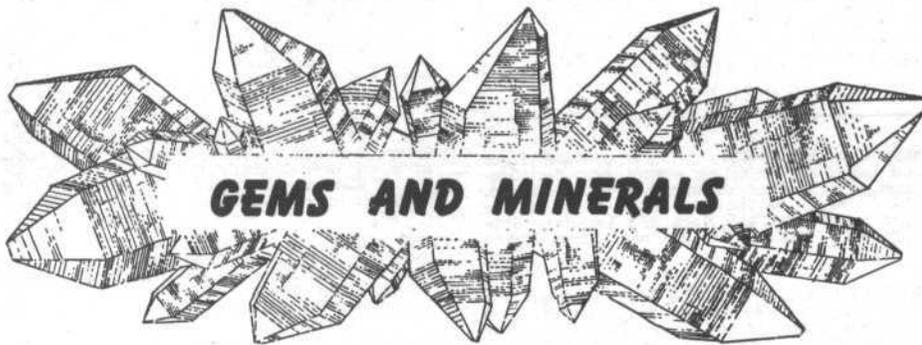
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GEMS AND MINERALS

NEW MINERAL GROUP STARTS WITH 66 CHARTER MEMBERS

The Golden Spike Gem and Mineral society was recently organized at Ogden, Utah, with a charter membership of 66. Corps of officers: J. C. Mahlum, president; C. L. Stallings, vice president; S. P. Roach, secretary; Mrs. J. C. Mahlum, treasurer; J. P. Lambert, historian. The group meets at Weber college. Anyone interested in geology, mineralogy, gems, rocks, fossils, Indian artifacts, or prospecting is cordially invited to attend.

• • •

A tall, hand-carved statue of jade was among the pieces on display at the May meeting of Coachella Valley Mineral society, when Robert Moehle addressed members, speaking on "Jade." O. A. Rush, past president of the Valley group, displayed carved pieces of American jade from Wyoming and Monterey Beach, California. Included were a jade fish, frog, turtle and letter opener. Omar Kerschner, field trip chairman, reported plans were complete for a three-day trip to vicinity of Mesa Grande for tourmaline. Society fiscal year was to end in June with election of officers, and the season brought to a close with a final field trip to San Bernardino mountains. Club will convene again in September. A wiener roast was scheduled for June 3 at Lone Palm beach on the Salton sea.

• • •

Dr. and Mrs. H. H. Nininger, directors of the American Meteorite museum near Winslow, Arizona, have returned from a five-month combined lecture and field-work trailer trip into California. Particular areas visited were Coachella valley, Mojave desert, San Joaquin and Inyokern valleys. Points of contact were the mineral societies in these regions. "We were received and entertained by 15 mineral societies and clubs," said Dr. Nininger who thinks that rockhounds and mineral collectors make good prospectors for meteorites.

• • •

Orange Belt Mineralogical society plans to publish a bi-monthly bulletin called "Stauro-lite." Newly elected club officers are: Dr. Warren Fos, president; H. H. Brannon Jr., vice president; Floyd G. Mortimer, secretary; Mrs. A. B. Cyrog, treasurer; Frederick Gros, Kenneth B. Garner, I. V. Graham, J. C. Filer, directors; Major C. T. Kennedy, Federation director. The annual election was held at the Derby House cafe in Colton, California.

• • •

Raymond Addison was scheduled to display his carved shell cameos at the May 18 meeting of the Northern California Mineral society. It took Addison 14 years to perfect his present technique. He has displayed his work throughout the West, and will exhibit at the Sacramento convention.

Colorado Mineral society has prepared a field trip schedule for 1949. The June trek was to be to White Quartz mountain to look for smoky quartz crystals and topaz. An overnight camp is planned for July 2-4 into San Luis valley and Gem village. Opal, Colorado plume agate and geodes will be sought. Two other trips will be made in July—to Hartsel, Colorado, the 17th; and to Mt. Antero July 30 through August 1.

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AMONG THE ROCK HUNTERS

ESTIMATE 8000 VISITORS ATTENDED SAN JOSE EXHIBIT

An estimated attendance of 8000 was reported at the two-day exhibition of the San Jose Lapidary society, and Charles Murphy, president, stated there were more entries than at any previous show. Al M. Cook of Redwood City was grand prize winner. Ribbons were awarded in 11 classes. First, second and third place winners were: Cabochons—Arthur Maudens, San Mateo; Carl Brooks, San Carlos; Cook. Flats—Cook, Maudens, Norman Pendleton, Santa Cruz. Facet cut stones—Dr. W. H. Taylor, Redwood City; Burton Stuart, Palo Alto; A. B. Strong, San Jose. Jewelry—Raymond Addison, winner of last year's grand prize; Mrs. O. Heller, Mrs. R. S. Grube, all of San Jose. Novelties—Dr. Gordon F. Helsey, San Jose; Lloyd Douglas, Santa Cruz; Stuart Bartlett, Santa Clara. Transparencies—Pendleton, Maudens, Brooks.

Specimens of pitchblende and ricolite were displayed by F. E. Smith at the regular monthly meeting of the Ventura Gem and Mineral society. Smith related experiences of a prospecting trip in Nevada. Monthly field outing was a trek to Calico Hills area where various types of cutting materials were collected.

Gem Stone Collectors of Utah elected Ed. Dowse as field trip director for the summer.

"Diamonds of Arkansas" was the topic discussed by Hugh D. Miser of the United States Geological survey at a recent meeting of the Oklahoma Mineral and Gem society. The lecture was augmented with slides. According to Miser the diamonds are found near Murfreesboro in Pike county in peridotite on the ground in much the same type formation as those found in Africa. Several mines are located in this area of Arkansas and while production has been intermittent since discovery, 50,000 diamonds have been taken out. The largest, found in 1924, weighed 40 carats in the rough but in cutting was reduced to a 14 carat stone. Of the diamonds found 90 per cent are industrial type and 10 per cent gem stones.

George M. Stanley, professor of geology at Fresno state college, gave an illustrated lecture on "Hudson Bay Area, of Canada" at the May meeting of the Sequoia Mineral society. A swap party was held May 29 at Legion park, two miles out of Modesto.

Appointments by new President C. E. Hamilton of the Santa Monica Gemological society included: Mrs. Florence Strong, membership chairman; John Hall, field trip chairman; Mrs. Francisca Simmons, historian; Mrs. G. F. Blakey, librarian; Earle W. Allen, publicity; C. I. Meek, display; Mrs. Lefa Warth, social, Mrs. Myrtle Cadieux, parliamentarian. May field trip was with the NOTS of Inyokern to Lead Pipe Springs, through arrangements with the U.S. Navy.

Testing radio-active minerals in the field and laboratory was the subject demonstrated by Ernest Parshall, radio technician with the U.S. Public Buildings administration, at a recent meeting of the Colorado Mineral society. Geiger counters were exhibited.

George Hunt Williamson, archeologist,

talked on "Fossil Areas in Northern Arizona" at the May meeting of the Yavapai Gem and Mineral society. In the region east of Flagstaff, near Bottomless Pits, three horizons containing abundant fossils are known, said Williamson. Plans were formulated for a field trip with Williamson accompanying to identify fossils. Movies of Arizona and New Mexico scenes presented by Sidney Webb added to the evening's entertainment, and Mrs. Bertha Schnell displayed specimens of a new semi-precious stone—schellfern.

New president Fred Smith appointed the following committee chairmen at the May meeting of the Pomona Valley Mineral club: F. Kroger, program; Verna Weist, publicity and notification; C. W. Illingworth, field trips; Esther Leggee, membership; Emma Kryder, door prize. "Gold" was discussed by Fred Kroger, and gold specimens exhibited.

Installation of new officers Victor Gunderson, president; Jim Underwood, first vice president; Norman Cupp, second vice president; C. D. Gibson, treasurer; Mrs. Alpha Evans, secretary; Lelande Quick, historian, was highlight of the annual June dinner meeting of the Los Angeles Lapidary society. The society planned to participate in the Hobby show at Los Angeles May 26 to 31 and the State and National Convention of Mineralogical Societies at Sacramento, June 24-26. Plans are also being formulated to take active part in the Los Angeles Lapidary society show and picnic scheduled for September.

Junior Rockhounds of Prescott have a club emblem—black and brown dog carrying a pyrite cube in its mouth. Made of small stones the dog has been named Rocky the Rockhound. Black and turquoise have been chosen as club colors.

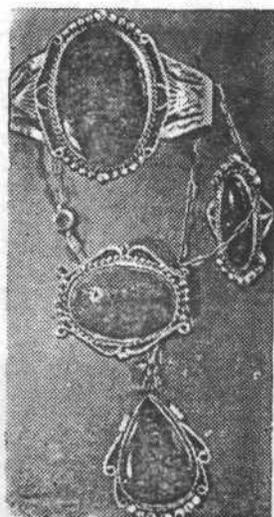
Sixteen members of the Everett Rock and Gem club, Washington, are now enrolled in a mineralogical class at the Everett Junior college night school. Laboratory work includes identification of specimens by chemical and physical tests.

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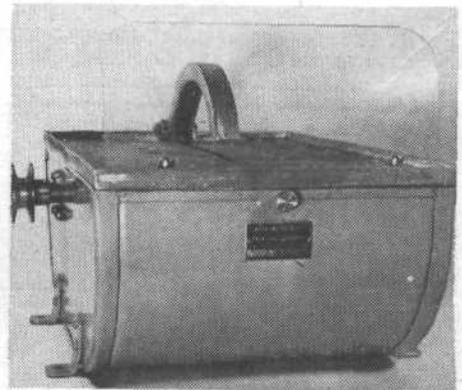
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SPECTACULAR GOLD EXHIBIT AT SACRAMENTO CONVENTION

The California Division of Mines' famous gold collection is to be displayed at the convention of the American and California Federations of Mineralogical societies at Sacramento, June 24, 25, 26. This display of gold is reported the most outstanding in California and is valued at approximately a quarter of a million dollars.

A testing laboratory will be exhibited and manned by the California State Division of Highways and Public Works. They will demonstrate their 28-inch hydraulic diamond saw. Geological and mineral material tests used by the department will be shown and materials identified. A gala banquet, starting at 6:30 p.m. at the Governors Hall, will climax the social activities.

Jewelry-Craft and Lapidary Arts is the title of a fine new catalog issued by J. J. Jewelcraft of Pasadena, California. The book is a price list covering a wide range of jeweler's tools and lapidary equipment. The catalog is well illustrated.

Greiger's of Pasadena are featuring the story of the rainbow diamond "Titania" in a supplement to their informative *Encyclopedia of the Lapidary and Jewelry Arts*. A completely revised edition of the 160-page 1948 Encyclopedia is scheduled to be available by the end of June.

May meeting of Santa Monica Gemological society was the annual dinner and installation of officers. William B. Sanborn, of Claremont, ranger-naturalist at Yellowstone national park, entertained with a talk, supplemented by kodachrome slides, on Yellowstone and other Western parks and national monuments. A colorful display of mineral specimens was exhibited by members. New officers elected were: C. E. Hamilton, president; Vern Cadieux, first vice president; Prof. W. R. B. Osterholt, second vice president; Edward L. Oatman, treasurer; Mrs. Doris Baur, recording secretary; Mrs. Estelle Tesh, corresponding secretary.

May annual spring variety meeting of the Colorado Mineral society was to feature gadget night and election of officers. Dr. J. Harlan Johnson of the Colorado school of mines announced that quarrying operations have been undertaken again on North Table mountain and preliminary diggings have exposed more zeolites.

The editor of the Dona Ana county rockhound club bulletin writes: "So many mineral names end in 'ite'—it might even be said to be refreshing to come upon one that doesn't—lepidomelane, for instance. But that leads to the question of how to pronounce it. I've never heard, but have a feeling that 'lepp-ih-doe-meh-lane' is correct. I've heard blodite pronounced 'blow-ed-dite' and 'blow-edd-ite', but since it's also spelled 'blodite'—obviously German—I lean toward the German pronunciation which approximates 'bler-dite'. When it comes to 'prizbramite', I'm going to wait until I hear someone pronounce it."

Two outstanding novelties were on display at the Southwest Mineralogists twelfth annual show, Los Angeles—a horse carved from Death Valley onyx by Charles Cook; a coffee table of mineral transparencies in mosaic by Frank Trombatore. It is believed to be first ever made in this fashion, and Trombatore claims a total of 472 hours labor. The show was announced a success with an attendance of 1500. Exhibits included silver jewelry, faceted gems, polished wood, cabochons, crystals and sand concretions. Mrs. Florence Ingledue received a special award for her gold display, panned by herself in Alaska; also for her fluorescent paintings.

New officers of the Southwest Mineralogists, elected at the May 9 meeting are: Frank Trombatore, president; Henry Green, vice president; Hazel Creighton, recording secretary; Connie Trombatore, corresponding secretary; Pearle Arnold, treasurer; W. A. Clarke, John Akers, R. F. Thomas and officers will form the board of directors. Walt Shirey, retiring president, was elected an ex-officio member of the board.

Members of the Gem Collectors club, Seattle, Washington, enjoyed a potluck dinner, arranged by Mrs. Walter Larson, at the May meeting. Various specimens were exhibited and discussed by the group.

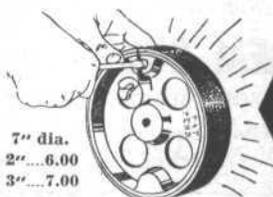
Discussion of "Benitoite" by Ralph Dietz was program feature at a recent meeting of the Kern County Mineral society. Dietz gave historical facts concerning its discovery, and related experiences of a trip to Benitoite mine owned by Ralph Merrill.

An illustrated lecture on Brazilian minerals by Killian Bensusan was scheduled for the May 11 meeting of the Long Beach Mineral and Gem society. An over-night field trip to Opal mountain April 30 through May 1 was enjoyed by 40 members and guests. En route home a stop in the vicinity of Lenwood yielded specimens of red palm root.

Members of the Pacific Mineral society heard Colonel Clarence A. Jenni speak on "The Geology of North China" at the May meeting. Jenni illustrated his lecture with a display of fossils collected on the Andrews expedition, including dinosaur bones and eggs located in upper China Tibet plateau. Colonel Jenni, a geology and paleontology major of the University of Chicago, at one time assembled a collection of 20,000 invertebrate fossils for the Walker museum.

E. Goff Cooke was scheduled to preview his latest film of the west at the May 14 meeting of the Chicago Rocks and Minerals society. Scenes were to be of Arches National Monument, Dead Horse mesa, Monument Valley and Mexican Hat, all located in Utah. W. Briggs, field trip chairman and S. Norvell, program committee chairman, announced a geological field trip for May 22.

A new locality for petrified wood is reported by Prospector Thomas Kienzle of Maupin, Oregon. The locality is situated fairly high up on the range of hills known as Tygh Ridge, west of Sherars bridge on the Deschutes river. The locality can be most easily reached via Tygh valley, four or five miles west of the locality on The Dalles-California highway. As to quality of the wood, information is lacking, since the locality has been visited seldom, if ever, by collectors.



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GEM AND MINERAL EXHIBIT FEATURE AT COUNTY FAIR

Featured at the San Diego County Fair, June 24-July 4, will be a Gem and Mineral department. Created three years ago, this department attracted 90,000 visitors last year. A complete large scale demonstration unit will be in constant operation featuring all types of lapidary techniques and equipment, ranging from sawing of large slab material with a 36-inch diamond saw down through faceting, sand and centrifugal casting of jewelry and final mounting of stones. A \$40,000 gold exhibit is to be featured by the State Division of Mines. Also featured will be a display from the museums of the California Institute of Technology, ultra-violet display, and Geiger counter demonstrations.

Program of the Hollywood Lapidary society May 12 meeting, Plummer Park Barn, Hollywood, featured "Minerals and Gems of Montana" by James Underwood, president of the Pacific Mineral society and member of the Los Angeles Lapidary society and faceteers. Specimens of gems and minerals collected in Montana were on display. A three-day field trip was planned to Lead Pipe Springs area.

Potluck picnic at the Chas. A. Rush canyon home was planned for May 15 by the Feather River Gem and Mineral society. One of the entertaining features of the occasion was to be an auction of minerals and lapidary equipment. Colorful jasper was found in the Stonyford area on a recent club field trip.

Mineralogical Society of Southern California planned to hold its annual meeting at Oak Grove park, June 5. Signed up for the Lead Pipe Springs field trip May 21-22 were 104 members and guests.

Clark County Gem Collectors have announced plans for a Gem and Mineral show to be held at the United States Naval Reserve Armory, Las Vegas, Nevada, November 11, 12, 13. Paul Mercer, Box 925, Boulder City, Nevada, director.

Glenn E. Vargas of Indio, California, was scheduled to present the evening's program at the May meeting of the San Geronio Mineral and Gem society, Banning, California.

Members of the Mineral and Gem Society of Castro valley trekked to the Pleasanton Gravel pits April 10. Specimens of gypsum were found. "Geophysics, Its Place in Geology Today" lecture by Herbert Springer of San Jose state college, was feature of the April meeting. Copper ores from collection of Mrs. Adair Warren were exhibited.

The seventh annual agate show of the North Lincoln Agate society is to be held July 16-17, Delake, Oregon post office building. Admission charge. For exhibiting contact North Lincoln Agate society, Nelscott, Oregon.

Development of perlite is rapidly becoming a new and important industry in New Mexico, and at a recent meeting members of the Albuquerque Gem and Mineral club heard John A. Wood, mining engineer and secretary-treasurer of the Albuquerque Chapter of Miners and Prospectors association, lecture on "Perlite." Wood expanded some perlite in his expansion furnace, increasing its size ten times.

WHY COLLECTORS PRIZE THEIR OWN SPECIMENS

In Pick and Dop Stick, bulletin of Chicago Rocks and Mineral society, Stevens T. Norvell gives a bit of advice—"Nothing is so dear to the heart of a mineral enthusiast as his collection of specimens. While many of the pieces may have an appreciable intrinsic value, it is not the market price alone which endears them to their owner. Each has two separate stories; one, the story of the mineral itself; the other, the story of its procurement—perhaps it was collected under adverse or even dangerous conditions, it may be the outcome of a particularly astute trade, perhaps its purchase meant going without something else, or it may be the gift of an esteemed friend. No wonder it hurts to see them abused. There are only three simple rules. Put them into practice: 1. Never handle a specimen without permission. 2. Hold the specimen by its edges. 3. You don't expect to drop it, but it might slip. Just hold the other hand directly under it—in case."

"Some folks advocate polishing with the grain, others across it. Whichever way it is done, it should have been the other way." This is the conclusion reached by E. P. Van Leuvan after the polishing of tiger eye was discussed by members of the Kern County Mineral society at their March meeting.

Some unique fluorescent calcite has been found near Big Timber, Montana, by Herman H. Graff of Seattle, Washington. This calcite is quite crystalline, and under long-wave lamps it shows a bright yellow fluorescence, similar to the yellow of wernerite. Calcite showing this bright yellow fluorescence is not at all common. Usually calcite, when luminescent, will show either red, blue, white or yellowish-green.

Gilbert Arnold, guest speaker at the April meeting of the Coachella Valley Mineral society, related experiences mining opals in Nevada. Arnold brought jars filled with fire opals which he exhibited. April field trip was to the Windy Hill area, Chocolate mountains. The Banning Mineral and Gem society accompanied the club on this trek. A growing interest has been noted in the monthly Rock Exchange.

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By RANDALL HENDERSON

ACCCEPTING an invitation from George Palmer Putnam of Stove Pipe Wells hotel, I drove to Death Valley early in May to join him in a trip up Cottonwood canyon, one of the few canyons tributary to Death Valley having running water.

It proved to be a delightful two-day horseback ride into an area seldom reached by visitors who go to Death Valley. I will be writing more about this trip for a future issue of *Desert*.

Along the route north I spent an evening with Paul Hubbard. Paul and his son, Bob, are publishers of the *Randsburg Times-Herald*. With most of the old Randsburg mines closed, printing is the most flourishing industry in the town now. The Hubbards and their associates have built a substantial publishing business in the ruins of the ghost town. Their customers come from all over the Mojave desert.

• • •

When I go to Randsburg I am never quite sure whether the dilapidated appearance of the town is due to neglect, or to a desire on the part of its citizens to preserve it as a sort of museum piece, and are afraid it would spoil the effect if they hauled off the tins cans and patched and painted the old shacks.

But I did find one pretty home. I visited my old friends Ed and Sylvia Riopel. Ed is a printer in the Hubbard shop, and Sylvia probably is the most artistic housewife on the Mojave desert. They bought an old cabin, dolled it up with paint and pretty home-made furnishings and surrounded it with rock gardens and flowers. But they moved to Johannesburg, two miles away, before making all these improvements.

So Randsburg still has a perfect score as a ramshackle relic of the days when nothing mattered but gold.

• • •

Paul Hubbard lost no time in selling me a membership in Death Valley '49ers, Inc., "a non-profit corporation organized by public spirited citizens of Inyo, Kern, San Bernardino and Los Angeles counties for the purpose of staging a Centennial Pageant at Desolation canyon, four miles from Furnace Creek Inn, November 19, 1949."

Nearly everyone I met during four days in the Death Valley area tried to sell me one of those memberships. They are raising \$50,000 to stage the greatest of all Centennial programs in Death Valley—and judging from the enthusiasm with which they are making their plans it will be a grand spectacle.

• • •

Leaving Randsburg we took the newly constructed road from Trona across Panamint valley, to enter Death Valley by way of Wildrose canyon and Emigrant spring. Paving of the highway is scheduled to be completed in October

and without doubt it will become one of the most popular routes to Death Valley National Monument.

We spent an hour with George and Ann Pipkin who have the only service station along the 96-mile span from Trona to Stove Pipe Wells hotel. The Pipkins have a well-kept little retreat in Wildrose canyon with a fine spring of water. They are friendly folks who have lived on the desert many years, and deserve the prosperity which will come their way when the new road is completed.

The Panamint daisies were in blossom as we drove up Wildrose canyon, and at the summit before we dropped down into Emigrant canyon the mountainside was covered with great patches of purple dwarf lupine. The floor of Death Valley is a wasteland of rocks and dunes, of salt flats and bitter water. In contrast the rim of mountains enclosing it is a great rock-strewn garden of luxurious desert vegetation, of scenic canyons and wildlife trails.

Despite its reputation for sizzling temperatures, many visitors follow the paved roads through Death Valley during the summer, and Stove Pipe Wells hotel remains open throughout the year.

We deposited our luggage at Stove Pipe and after a brief chat with George and Peg Putnam drove up the valley to Scotty's Castle, now under the management of the Gospel Foundation of California, a non-profit operating organization established by the will of the late Albert M. Johnson to maintain the fabulous palace built with his money and Walter Scott's name. The castle remains open throughout the year, and the fee for a guided trip through the bizarre structure is one dollar.

Death Valley Scotty, now in his late seventies, lives alone in his little cabin over the hill, and generally comes down the trail in the evening for the companionship he finds in the home of Mr. and Mrs. H. H. Ring, managers at the castle.

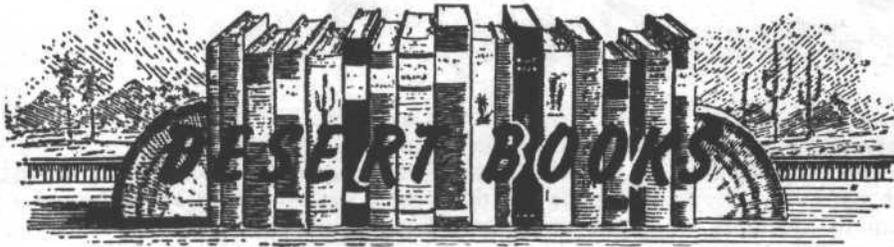
• • •

Everywhere I went the main topic was the Centennial Pageant to be held in November. It is to be a historical play and the script is now in preparation. There will be one afternoon presentation according to present plans.

I asked T. R. Goodwin, superintendent of the Monument, how he was going to take care of the 20,000 people. This figure is the most conservative estimate I heard as to the number who would witness the spectacle. Facilities within the Monument would provide lodging for only a small fraction of that number.

The superintendent laughed. "Probably a majority of them will leave the Monument that evening and return to their homes," he said. "But we have unlimited space for those who prefer to camp out for the night."

I asked him to reserve a little plot of sand for the bedrolls of Cyria and myself—for we'll probably be among the campers that night.



STORY OF HARDSHIP AND SURVIVAL IN DEATH VALLEY

One hundred years ago a wagon-train of California-bound emigrants seeking a mid-winter route to California that would bypass the snow-covered Sierras of the more northerly trail, all but died of thirst and starvation in Death Valley.

The story of that tragic journey across California's most forbidding desert region was told by William Lewis Manly, one of the survivors, in his book *Death Valley in '49*, first published in 1894.

That bitter struggle for survival is now re-told in fiction in *Hickory Shirt, A Novel of Death Valley 100 Years Ago*, by George Palmer Putnam, published this year.

It is a fast moving tale of men and women fighting for survival against terrific odds. It is a situation which brings out the best and the worst in human nature, and sometimes both courage and cowardice in the same person.

Historically, the Death Valley party divided into smaller groups as differences of opinion developed among the members of this lost caravan in a strange and forbidding land. Putnam's story is concerned mainly with one small band in which love became an all-important factor in final survival of all but one member of the party.

Now the owner and manager of Stove Pipe Wells hotel, Palmer has become well acquainted with the history and lore of the Death Valley country, two previous books having been written about that region. *Death Valley and Its Country*, and *Death Valley Handbook*.

Duwell, Sloan & Pearce, Inc., New York City. 252 pp. \$2.75.

ARTIST WHO LOVED THE WEST AND DAMNED THE BARB' WIRE

A hazy mist is gathering over the Golden West of yesterday and enveloping its stirring scenes. The Old West with its rollicking cowboys, warring Indians, army scouts, vast herds of cattle and roaming buffalo, is gone. Where once the convivial driver of the stage coach guided his horses along trails and tortuous mountain passes the modern trans-continental train rushes swiftly through peaceful valley or by picturesque canyon. The huge ranch, with its cow-camp, except in a few instances, has disappeared, and where thousands of cattle once roamed there are today hustling cities and towns. The curtain is being lowered on the old life. A few more years and it will be history and tradition dimmed by perspective.

Fortunately, the records are being preserved in prints and paintings. Charlie Russell would have been the first to protest had anyone referred to him as an historian. "I jes' paint things as I see 'em," he once said. Yet, whether he realized it or not, his drawings, paintings and models have become historical records of the early American cow country. And it is a record few men could have left. Having lived the life he portrayed, his pictures are invaluable for their absolute veracity, and will take the place of documentary evidence of an epoch that has passed.

When it comes to depicting western life on canvas or in clay and wax, Russell had few equals. His pictures are full of motion, vivid color—they tell an unforgettable story. His genius as an artist yielded only to his genius for friendship.

The story of his life and work, as told in *Charles M. Russell—The Cowboy Artist*, is rich in humor and pathos. Co-authors Ramon F. Adams and Homer E. Britzman are both Westerners, and after spending years in research and study they trace the cowboy artist's life from boyhood in St. Louis to death in 1926 in complete and authoritative detail—his cowboy days in Montana after 1880, his struggles and triumphs, his love of horses, his letters, religion, homey philosophy and his deep resentment of the coming of barbed wire that spelled the end of the great open range days of the West.

Friends warmly said of Charlie "He wore well." And this excellent biography of Charlie's life and work will wear well too. The book is richly illustrated—many in color, and contains a prologue by Irvin Cobb.

Trail's End Publishing Co., Inc. 725 Michigan Blvd., Pasadena 10, Calif. 1948, 350 pps., 150 illustrations, index, biblio. check list by Karl Yost. \$7.50.

COW RANGES BECAME LAND OF ORANGE GROVES

In the decades after the Civil war, the great ranches in southern California were breaking up, and vine and citrus culture gradually replaced the Spanish-Mexican pastoral economy. Small farms and intensive agriculture offered opportunities for the eastern emigrant. The arrival of the Southern Pacific railroad in 1876 increased emigration. When the Santa Fe came in 1885, and the ensuing rate war reduced fares from Kansas City to one dollar, tourists and prospective settlers swarmed in from most of the United States and many countries of Europe.

The city of Los Angeles, nucleus of the

boom, increased in size 500 per cent. Many new suburban towns were incorporated. Irrigation facilities were vastly improved. A network of transportation lines connected the cities and towns, and the transition of the southland from Mexican cattle frontier to American commonwealth was completed.

The boom of the eighties is one of the most frequently mentioned phases of southern California's history, and *The Boom of the Eighties In Southern California* by Glenn S. Dumke tells the story in all its color, picturesqueness, and uproarious enthusiasm.

Anderson & Ritchie: The Ward Ritchie Press, Los Angeles, California, 1944, 313 pps., index, biblio., end maps. \$3.75.

FRAGRANT ODORS COME FROM A BED OF COALS

"Bill Magee did not invent barbecuing. It began in the Bible, just after Adam and the core were thrown out of Eden. But Bill Magee has done for barbecue what Eve did for the apple. He put it on the map," says Ed Ainsworth in *Western Barbecue Cookbook*. And again, "I really feel sorry for the people down the ages who were compelled by nature to eat but did not have Bill Magee's barbecue recipes."

In this book, Bill Magee, who all his life has either thought up or perfected good things to eat, pours out recipes, gleaned from 55 years of cooking at the pit. While the recipes are Bill's, they were rounded up by Ed Ainsworth with 60 clever illustrations by Clyde Forsythe.

Barbecuing—once a hobby—has now become an art, and Bill dishes it out, from selecting meat to proper use of salt. Bill maintains the staff of life is much stronger if it is adorned with garlic and tells how to prepare that hot garlic bread folks drool over. "Hints and Oddities" give super-secrets like this tip—"if pepper juice gets in the eye, wash the eye immediately with milk; the pain will be relieved at once." Another chapter is devoted to "Munches", and as Ed Ainsworth explains, "the main reason for this chapter is that we couldn't correctly spell horse dovers."

Spiced with anecdotes as only Ed Ainsworth of the Los Angeles Times editorial staff can tell them, this cookbook that reads like a novel—and is more exciting—finds a place even for beverages.

Published by Murray and Gee, Inc., Culver City, California, 1949, 225 pps., index, drawings by Clyde Forsythe. \$3.00.

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JOURNEY OF THE FLAME

By Antonio de Fierro Blanco

Reading Juan Colorado's strange narrative you are never quite sure whether he is relating fact or fable but you'll enjoy this amazing story, and you love old Juan for his blunt philosophy.

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The pages of Desert are an open door to the most fascinating area accessible to American travelers. Back copies kept available for quick reference offer a hun-

dred answers to the question: "Where shall I spend the weekend or the two weeks' vacation?"

Desert Magazine has a limited number of back issues available for those who would like to keep them for guide and reference purposes. Here are the issues now obtainable, listed by subjects.

*Indicates articles accompanied by maps

LOST TREASURE

- Aug. '46—John D. Lee's lost gold mine, Ariz.
- Nov. '46—Lost Pegleg gold not a myth, Calif.*
- Apr. '47—Lost John Clark silver mine, Ariz.
- May '47—Searching for lost cities of the desert
- Jun. '47—Lost quartz-silver vein, Calif.*
- Nov. '47—Jack Stewart's gold ledge, Calif.
- Mar. '48—Guadalupe gold, Texas
- Jun. '48—Tim Cody's lost gold ledge, Nev.
- Jul. '48—Lost Treasure of del Bac
- Sep. '48—Haunted Silver in Arizona*
- Oct. '48—New Clues to Pegleg Gold*
- Dec. '48—Emerald Mine in Santa Rosas

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GEM AND MINERAL FIELD TRIPS

- Mar. '46—Gypsum, concretions, near Salton Sea*
- Apr. '46—Jasper, agate, etc., along Colorado river*
- May '46—Green jasper, near Lake Mead, Nevada*
- Jun. '46—Agate, chalcedony, etc., Arizona*
- Aug. '46—Aragonite "fossils", near Salton Sea*
- Sept. '46—Gem onyx field, near Las Vegas, Nevada*
- Oct. '46—Augite crystals, Hopi Buttes, Arizona*
- Nov. '46—Petrified stumps, Painted Desert, Arizona*
- Jan. '47—Fluorite, quartz, etc., sw of Denver*
- Feb. '47—Indian turquoise workings, se Arizona*
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