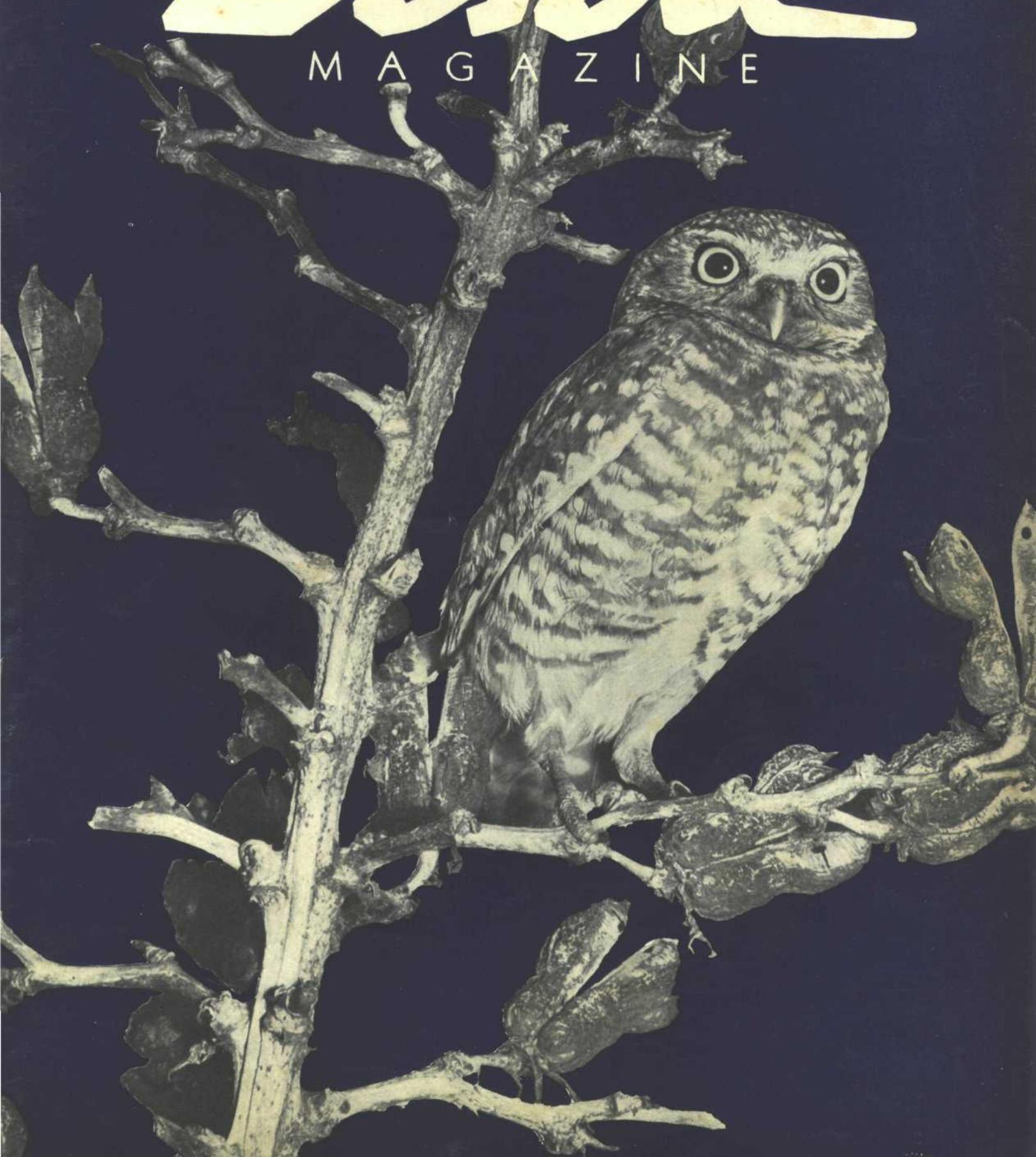


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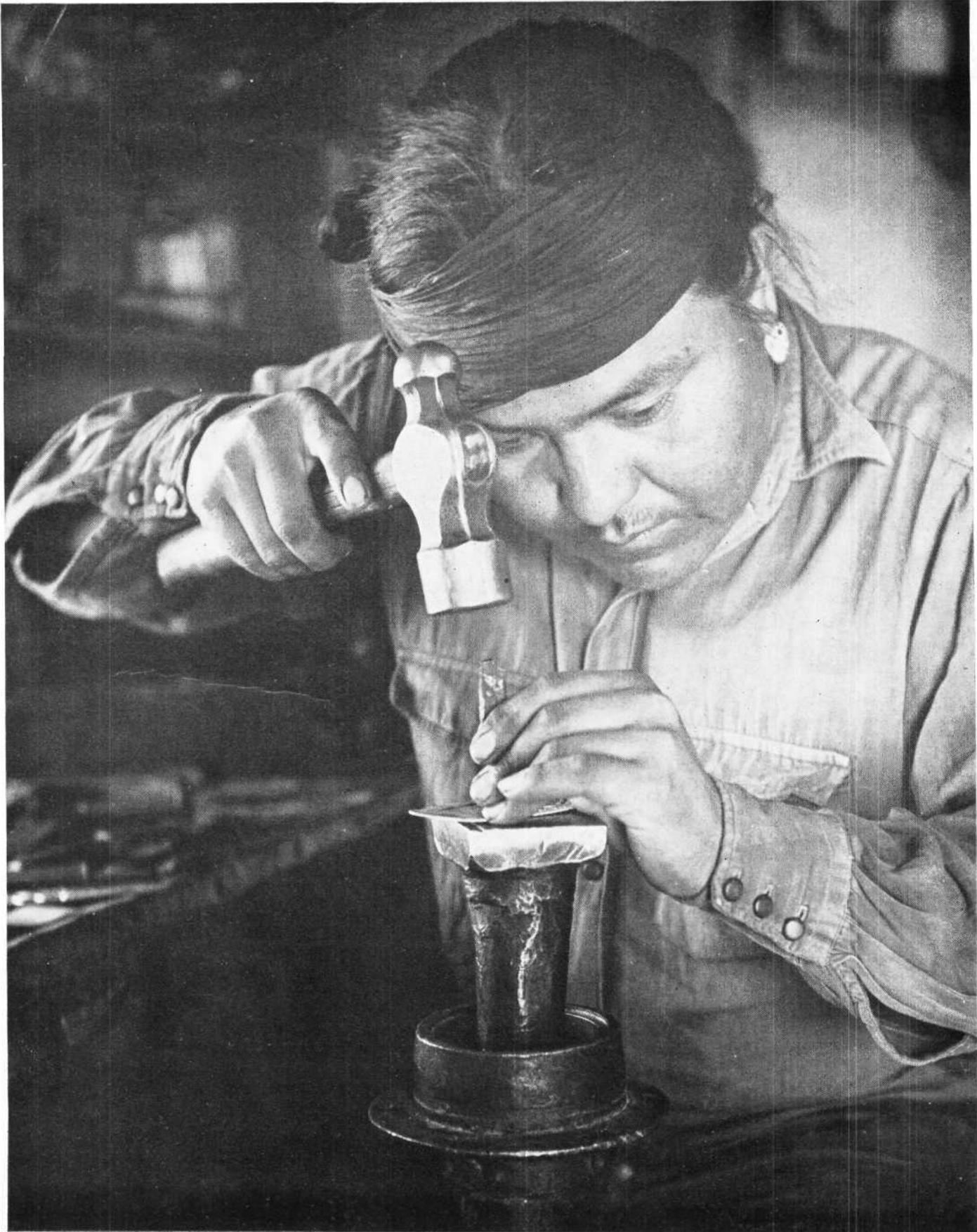
Desert

M A G A Z I N E



MARCH, 1943

25 CENTS



Navajo Silversmith

By FRED H. RAGSDALE
San Francisco, California

Winner of first prize in Desert Magazine's January contest is this fine portrait of a Navajo silversmith taken near Gallup, New Mexico, with a Rolliflex camera. Super XX film, 1/10 sec., f 4.5.

DESERT Close-Ups

• "Where is John Hilton and why don't we have more of his gem travelogs?" This is the question many of our readers are asking. John is "somewhere in the desert" doing government war work. But he hasn't forgotten his Desert readers. We'll let him speak for himself: "I will try sometime next month to finish some articles I had started for DM, as I am now in a tent with a light in it and can do a little writing in the evenings, although I am working nine hours a day. Most of us here are desert hounds of the rock gathering variety and we are very happy that we can fight on this desert front running a drill instead of a machine gun. We all would rather kick a few scorpions out of the tent than punch a clock in some stream-lined defense plant, and are all happy to know that every ounce of our material will directly help bring this war to a speedy close, so that our friends can come back and enjoy the peace of the desert with us."

• Scheduled for near-future publication is another historical feature by Arthur Woodward—this time a thrilling story of Yuma, Arizona, in 1850, during the period of the government fort and the ferry service across the Colorado river. Arthur, although still connected with the Los Angeles museum, is at present engaged in government research work.

• Another story in his bird series is presented by George McClellan Bradt in this issue. It was through his hobby of falconry that George became interested in photography and desert birds. He was teaching in the University of Arizona, Tucson, where he graduated in 1937, before being inducted into the army. He is now stationed in El Paso, Texas. George is a signal corps photographer with sergeant's rating.

• Geodes, thunder-eggs and agate will be explained for mineralogy students by Jerry Lauder milk, who has shown his versatile talent by producing some outstanding drawings to illustrate this article, to be published soon.

• One of the rarest of Navajo Indian ceremonials—The Red Ant Chant—soon will be described by Richard Van Valkenburgh. He believes he is the only white to have seen the part of the chant which he will relate in detail for Desert readers. Charles Keetsie Shirley has made a drawing of the rite. Van says, "To me it is the most exciting experience that I had in the Navajo country."

CREED OF THE DESERT

By JUNE LEMERT PAXTON
Yucca Valley, California

The sun and the wind play a game of tag,
And you should hear how the wind can brag.
He likes to say "Without my hand
You could not have a desert land."



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Sunset on Lake Mead. Charles F. Thomas, Jr., photo.

OH, PROMISED LAND

By CARRITA LAUDERBAUGH
Pacific Palisades, California

Oh, desert, you have lured me,
Lo, these many years,
But now that gas is rationed
I think of you with tears.

Well, never mind, my Promised Land!
I'll get to see you yet.
The war can't last forever;
Meantime, I won't forget

That blooming sage is waiting
Where hawks and eagles soar.
It cannot take forever
To win this blasted war!

CALIFORNIA IN SPRING

By BELLE C. EWING
Riverside, California

The mountains wear their winter caps of snow
While in the desert far below
Wild flowers walk in a mad parade
To make a flaming, rich brocade.

DESERT BURRO

By ELISE ANN HOLMES
Hollywood, California

Little brown beast on the desert trail,
Plodding along with drooping tail,
What are the thoughts in your dumb mind,
Always gentle, patient, kind?

Bearing the burning desert heat,
Happy and glad to make a seat
For Indian mother and little son;
Toiling on till the day is done.

Know you that once, so long ago,
Over another path . . . so slow
Journeyed another burro small,
Bearing a woman in labor's thrall,
Carrying under her heart the One
To save the world ere His task was done?

Little brown beast on the desert trail,
Patience like yours will never fail!

Suggested by Desert's August cover.

Lake Mead

By CHARLES F. THOMAS, JR.
Boulder City, Nevada

A gem, deep set mid serrate high crowned hills,
Reflecting through the passing hours of day
A thousand changing hues and countless thrills
Which greet the eye with sparkling, crystal ray.

No talisman, no pearl, no jewel bright
Can such spells cast nor myriad moods reveal
As from those mirrored depths comes living
light,
Or wind etched facets hidden gleams unseal.

The morning sun swings from the east, ablaze,
And with the crimson dawn a garnet rare
Shines from the tinted mountains' circling maze,
To double nature's glory painted there.

When from the heavens high, at noon, hot rays
Burn down on wav'ring peaks, dull, dim and
drear,
A smoky topaz there encrusted lays
In strata grey, unpolished, like a tear.

Through swiftly winging hours to eventide
The far sun rolls into the rose-hued west;
A turquoise blue, deep shaded, sets inside
The matrix of the painted hills' rough crest.

From far worlds, night chips flintlike stars
which spill
To gently light the gloom. A darkened shade
Is drawn to hide deep canyon, lake and hill—
The crystal waters turn to ebon jade.

THE DESERT'S TANTRUM

By MAUD CARRICO RUSSELL
Twentynine Palms, California

The Desert had a tantrum!
You don't believe she could—
She who's so quiet, so demure?
Well, I was there. I stood
And saw her lie down and kick
Up both her heels, and squeal.
She raised a dust terrific.
You don't believe 'twas real?

All the mountains hid away—
There was not one in sight;
The Sun thought bombs were falling
And quick blacked out his light.
But still she kicked, still she whined,
And shrieked, till I was riled.
Then, you know what she did next?
She faced about and smiled!

Of course I forgave her—
Most anybody would.
Her smile was so darned welcome,
For when she's good, she's good.
But she did have a tantrum,
Believe, or believe it not—
It *must* have been a tantrum
If it wasn't that, then what?

SPRING ON THE DESERT

By CLARA S. HOFF
Portland, Oregon

When Spring walks on the desert
She takes off her emerald shoes,
To walk in brown felt slippers,
And wears no gaudy rouge.

DESERT WIND

By SHIRLEY WAYCOTT
San Bernardino, California

The desert wind speaks softly,
The desert wind speaks soothingly;
I stand on a hill 'neath the stars,
My heart oppressed with life's cares
But the desert wind lays a gentle hand
On my face and on my heart,
And God's voice speaks to me of faith
In things like the desert wind,
And the desert.



Burrowing owl, also called Billy or Johnny owl, at entrance to his burrow. Remains of his rodent dinner are seen at his feet.

ONE evening last April my wife and I were taking star pictures on a lonely stretch of yucca-covered desert. While our cameras recorded the ancient light of distant stars we sat on the cold sand listening to the sounds of the desert night and accustoming our eyes to the starlit darkness.

Very soon we could make out the tall yuccas silhouetted against the black-purple sky. One of these weird "trees" reached its dead flower stalk higher than all the others and we saw, as we sat half-hidden by a low thornbush, a small dark body fly to it on swift and silent wings. Clutching the swaying stalk it scanned the desert floor until it caught sight of the cameras or of us, and as suddenly and as noiselessly as it had appeared, flew off into the night.

Although we saw it for but a few moments, its long legs, short tail, and rounded head told us that our recent visitor was

none other than *Speotyto cunicularia*, or as it is more familiarly and commonly known, Burrowing or Billy Owl. Then and there we decided to search the desert until we found the occupied burrow of one of these fantastic little owls. We knew we were in for a real job, but also that the reward would be well worth the effort.

Throughout the Southwest from western Texas into California the burrowing owls hunt rodent and insect meals on the thirsty deserts, and rear their large families in dark and secret burrows. By the sides of well-traveled highways, as well as in the loneliest wastelands, this strangest of all the owls can be seen standing on its burrow-mound, even at high noon, bowing deeply to all passers-by, animal or human. But should it be approached too closely it will turn and disappear precipitously into its subterranean home.

To see a bird dive headlong into a hole

Familiar to everyone in the Southwest are the lovable, ludicrous little Billy Owls. Coming upon them at dusk, standing near their burrow homes or perched on a sagebrush branch, they gaze upon the intruder with a bland expression then suddenly bob in a low grave bow. Fantastic stories have been told about their living habits. George Bradt was curious. So he and some soldier companions searched until they found an occupied burrow. After hours of digging into the burrow they thought the myth of the rattlesnake roomers must be true after all—but a final discovery discounted this story and led to an even stranger fact about the Billy Owls.

Burrowing for Billy Owls

By GEORGE McCLELLAN BRADT
Photograph by the author

in the ground instead of taking wing as a bird should doesn't seem quite right, but that is the way of the Billy owls. This unbirdlike habit notwithstanding, these owls are flyers of no mean ability. They even have been known to capture bats, and that calls for expert flying. At dawn and dusk and during the night they hunt their elusive prey. The daylight hours they spend either asleep in their lightless homes, or basking in the warm spring sunshine within easy reach of their safe retreat.

In order to locate an occupied burrow we had to make the most of the little free time an army photographer has at his disposal. Late in the long evenings and on a fairly regular Sunday afternoon we would load up our old car with cameras, shovel, pick, gloves, water and a little food and head for the desert.

Our first burrow, located on one of these trips, was found by the side of a trans-continental highway. At the entrance to the sloping tunnel stood a pair of these brown, elf-like owls. The amazing thing

was that their burrow opened out not more than six feet from the paving. They must have been quite used to the passing cars, however, for while we watched them a huge Greyhound bus shot by, but neither of them budged. They merely blinked their great yellow eyes and turned their heads to watch the bus disappear down the road.

When we got out of the car to excavate the burrow both birds flew off to perch on a nearby yucca and watch us work. We dug far enough to see the nest-cavity with a flashlight. Unfortunately it was empty of eggs or young. Disappointed but not discouraged we carefully rebuilt the tunnel and departed. Some days later we returned and were happy to see the owl couple again standing side by side at their front door.

During the next few weeks we found five more burrows but none contained eggs or young birds. On May 2, however, we did find a burrow in an old caliche pit that looked especially promising. When we drove up to it a pair of owls standing on the bank above began to cry loudly in their staccato way, and instead of dashing into the tunnel flew about in a crazy, wounded manner as if trying to lure us from the burrow.

On going up to the entrance we found the usual pellets, consisting of the undigestible parts of the bird's food and cast by it each day, as well as miscellaneous pieces of very dead rodent. After getting a good look at the rock-like caliche into which we would have to dig we decided to round up a couple of soldier friends and return to excavate the burrow.

Early the next afternoon, it being Sunday, we again headed for the burrow-site. Our forces were now doubled, for we had succeeded in luring Sergeants McKay and Williams into the car with the assurance that there would be but a very little digging.

Coming in sight of the burrow we saw one adult owl standing by the entrance. When it saw us it stood on its "tiptoes," bowed several times, and then flew off into the sunlit desert. When it had disappeared we piled out of the car, unloaded the tools, and began digging. It was indeed lucky that we had brought along McKay and Williams. That caliche was the nearest thing to granite I have ever tackled. We had to use a pick for a wedge and a jack for a hammer to break off slabs of the stuff above the mouth of the tunnel in order to work it back towards the nest-cavity.

After an hour of steady digging we had enlarged the entrance enough to permit one of us to crawl into it. Still we could not see the end of the burrow. As far as we could determine it ran slightly upwards, and after going straight into the bank about two feet, turned sharply to the left.

At the end of another hour our labors began to show some results. I managed to inch myself far enough into the tunnel to be able to see around the turn in the passageway. I turned on my flashlight expecting to see the nest, but was disappointed to see only a small, dam-like pile of loose dirt hiding the end of the burrow.

I reached my hand forward in an effort to push it away, only to be stopped by a sound that would have made even the oldest desert rat go cold all over. A harsh, terrifying buzzing noise was coming from behind that pile of dirt. Never have I moved so fast. As I frantically backed out of that accursed hole I must have taken with me about one half of the caliche pit. When I reached the blessed sunlight I was covered from head to foot with white powdery dust. My good friends who had heard nothing were doubled up with laughter at my hasty retreat.

When I had recovered enough to speak I announced that the burrow contained at least one very alive rattlesnake, and that from that moment on my owl hunting days were over. No one believed me at first. But my wan appearance must have convinced them because McKay volunteered to crawl in to check up. McKay had lived in northern Mexico for many years and knew rattlesnakes as well as we know English sparrows. So when he shot out of the hole just a bit faster than I had it was pretty evident that the buzzing was not due to my imagination.

While we were planning our next step someone, as it always happens when burrowing owls are under discussion, mentioned that beautiful "design-for-living" whereby the owls, snakes, and prairie dogs all live together in one burrow in perfect harmony. Although nothing of the sort takes place it does make a good story. What probably started the lovely myth was the accidental finding, on different occasions, of owls and dogs, or owls and snakes together in the same burrow where they had separately fled for safety from a common enemy or for protection from the desert sun.

Actually the three are far from friends. The adult owls undoubtedly eat the little prairie dogs when they manage to find them. The dogs must make many a meal of owl eggs, and the snakes feed not only on the puppies but on the eggs and young of the owls as well.

After everyone had been straightened out on this point we again tackled the burrow. We were determined to settle the snake problem once and for all. At last we had enlarged the burrow to such an extent that one of us easily could crawl into it and see the little pile of dirt, from behind which had come the ominous rattling, and yet not be close enough to be in danger.

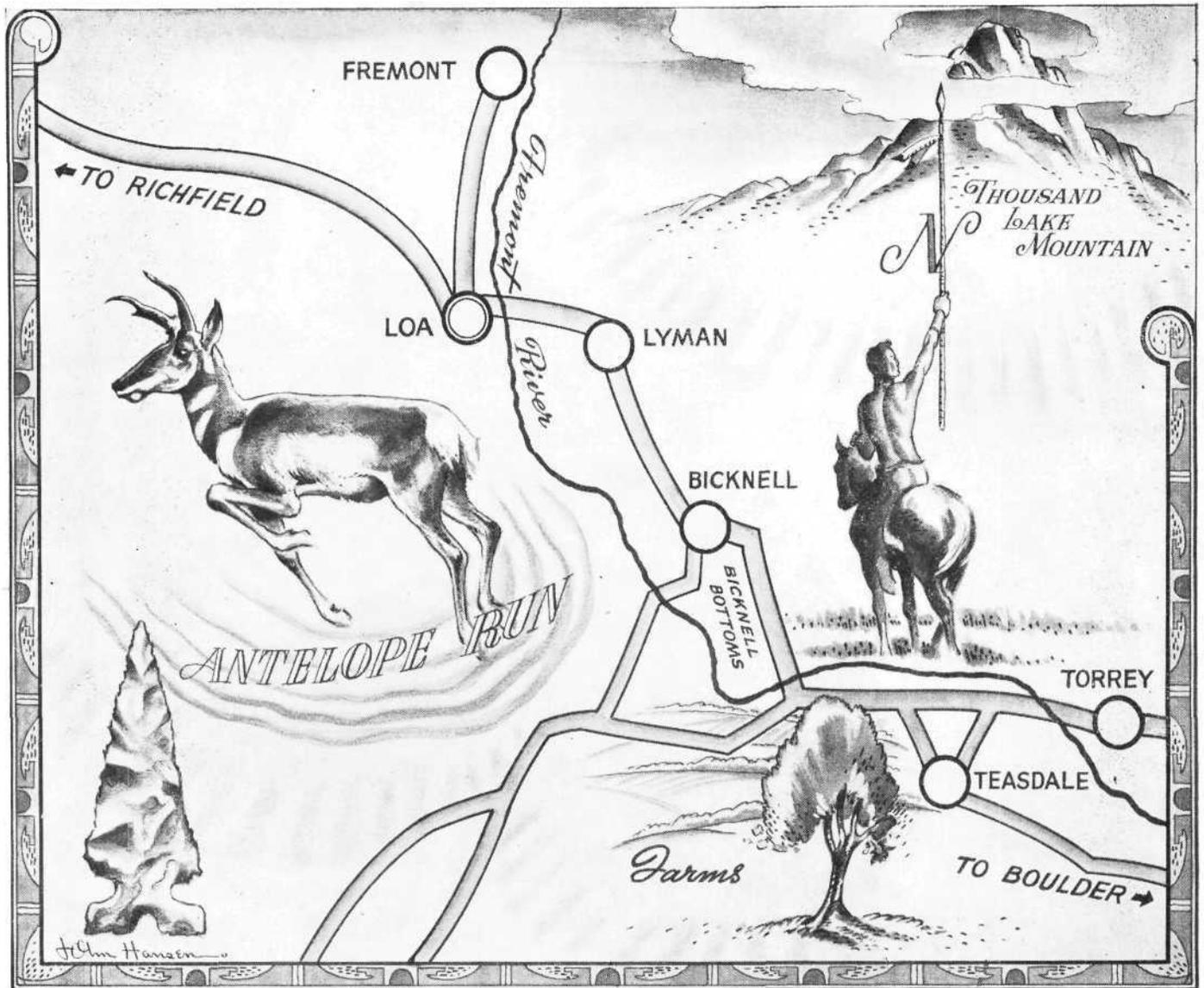
Our plans now called for someone to enter the burrow and push aside the obstructing dirt. We had fashioned a long hoe-like affair out of baling wire and a piece of old metal with which to do it. Since both McKay and I had braved that fearful hole we naturally thought that Williams was the logical one to go. Although he did not agree with us he was finally induced to pick up the "hoe" and enter the tunnel. After a few minutes of complete silence during which only his feet could be seen, he began to back slowly out of the burrow. When he had gotten out he stood up, brushed the dust from his clothes, and laconically announced: "Owls."

He was right. The nest-cavity was full of owls. We had found an occupied burrow at last. But we were still at a loss to explain that awful buzzing. It was only when we gently began to prod the little owls with a long piece of wire in order to count them that the mystery was solved. Each time the wire was poked at the mass of owlets they began to make that rattling-buzzing noise with their little mouths. It was so exactly like the warning of a rattlesnake that even after we knew the truth, cold shivers still ran up and down our spines. Undoubtedly a hungry enemy would feel the same way and so possibly be deterred from entering the burrow and devouring the young birds.

There were in all nine fuzzy, grey-brown, partially-feathered little owls and one furious amber-eyed adult. The parent bird kept snapping her sharp beak while the owlets buzzed in chorus. They were ludicrous looking little fellows. Their heads seemed much too large for their tiny round bodies. Their wings were short, rounded, and boasted only a few buff-colored feathers. Their tails were so short as to be almost invisible. Their eyes were large, and unlike the adults', grey in color. At this date they were probably almost one-third grown.

The nest-cavity contained in addition to the owls the bodies of no less than 14 rodents. Four were kangaroo rats, seven were young pack rats, two pocket mice, and one a white footed mouse. In every case only the hindquarters were found. This impressive list of pests eliminated by one pair of Billy owls in a night or two of hunting indicates how truly beneficial they are.

As we drove away, after partially refilling the tunnel to keep out any possible predators with a taste for owl meat, we looked back and saw one adult watching from its yucca perch beyond the burrow. In another two weeks or so the little owls would stumble out of their dark home and into the sunlight for the first time to take their place in the bird world of the desert.



Ancient Antelope Run

By CHARLES KELLY
Map by John Hansen

WE WERE driving over some high, rolling hills at the base of Boulder mountain a few miles south-east of Bicknell, Utah, when Wallace Bransford brought the car to a sudden stop.

"What's that?" he asked, pointing.

At first we couldn't see anything unusual. Then, as we looked more closely, we saw what appeared to be a row of black boulders extending along the brow of a hill almost in a straight line to the horizon. The surface of the ground was sprinkled with boulders, but nature doesn't often lay them in straight lines, so we decided it

must be the work of men. But for what purpose? There were not enough for a wall, so it couldn't be the ruins of an ancient Indian pueblo.

As we drove on we saw several similar lines of boulders, some running parallel with the road and others at right angles, but always along the brow of a hill.

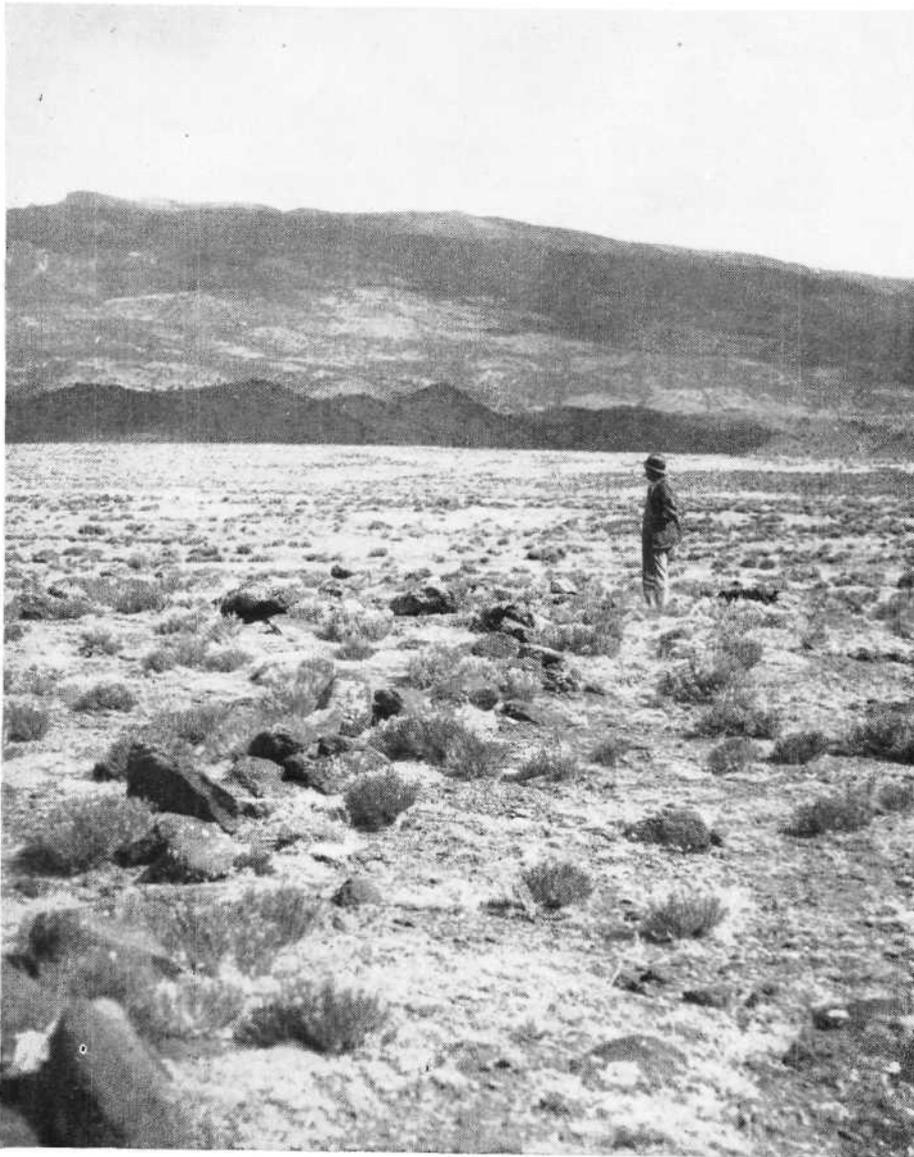
A few days later, at Fremont, Utah, we accidentally met a man who knew the answer to the puzzle.

"My father," explained J. Worthen Jackson, "was one of the early pioneers of Fremont valley. When the settlers first arrived in 1880, a band of Pahutes was still

Prehistoric American Indians learned that while the antelope had a very fleet set of legs, he was also an extremely curious animal—curious to the point of dumbness. And while it was impossible to outrun him, it was a comparatively simple matter to outwit him. Here is the story of one of the methods they used to bring him within range of their bows and arrows. Charles Kelly discovered these ancient antelope "traps" on one of his exploring trips on the Utah desert.

living here. Among them was an old fellow called Tahgee, apparently about 85 years old, who became very friendly with father and told him many stories of Indian life before the arrival of white men.

"Among other things this old Indian said that in early times, when he was a very small boy, this country was full of antelope which grazed in large numbers all



Above—This line of loosely piled boulders extends for more than a mile across the desert. There are several such lines in this vicinity. When freshly turned over the rocks were covered on the under side with a white lime deposit.

over those hills at the base of Boulder mountain.

"Antelope are among the swiftest four-footed animals in America and because of their keen sight and hearing and the open country in which they lived, it was impossible to hunt them as the Sioux hunted buffalo. Nevertheless the Indians had plenty of antelope meat. Instead of the hunters following the antelope, they made the animals come to them. That was the purpose of those long lines of rocks you saw on the hills.

"An antelope has a large bump of curiosity. Anything out of the ordinary attracts his attention and arouses his suspicion. The Indians used this to their advantage. They laid up those long lines of rocks across the hills and built small walls at intervals as blinds, stationing a hunter in each blind. Men were sent to drive the animals toward the blinds; when the antelope came to the line of rocks they would not cross over, but ran parallel with the line. This would bring them past the blinds where the Indians could shoot as many as they wanted with their short range bows and arrows."

Since man's bump of curiosity is even larger than an antelope's we decided to go back next day and examine the country more thoroughly. Near Bicknell, the Fremont river flows along the north base of

Below—Wallace Bransford in hunting position behind one of the rock shooting blinds near Bicknell, Utah. Note line of rocks in background, several of which served to guide the running antelope to within arrow shot of the blind.





Wallace Bransford and son, Wally, crouched behind the low rock walls from which Indians once shot antelope near Bicknell.

Boulder mountain through what is called Bicknell Bottoms. In this valley, watered by the river, is a heavy growth of grass. As we reconstructed the situation, herds of antelope would come down off the hills to feed in the bottoms. Upon the least alarm they would rush back to the safety of the hills.

Along the brow of the first line of hills above the valley, Indians placed these long lines of boulders, with larger piles at intervals behind which hunters were stationed. Arriving at the brow of the hill, antelope would see the line and turn to run parallel with it rather than jump over it. The lines were by no means a wall. There were plenty of spaces through which they could have passed, or they easily could have stepped over any part of it, since the boulders used in its construction were no larger than a man could lift. Yet for reasons known only to the antelope, such a simple line would turn the herds and bring them past the hidden hunters.

The scattered rocks on these hills are composed of black lava. After lying in the soil for a long period, the under side of each rock becomes covered with a white encrustation of lime. When the rocks are freshly turned over they make a distinct white line, contrasting with the undisturbed black rock. No doubt this unfamiliar white coating was sufficient to make the animals suspicious and rather than cross the line they would attempt to circle it, thus passing close to the blinds.

The longest line of rocks we found ran for over a mile, with heaps of rocks every few hundred feet indicating old blinds. But there were other lines paralleling it for part of the distance and some shorter ones running at right angles. In one place lines had been built in the form of two V's. Where they converged three large blinds had been constructed which were still in a fair state of preservation. This arrangement apparently had been more suc-

cessful and had been used longer than the others. Any one of the three was large enough to hide two or three hunters. Antelope rushing up the hill would be caught between the lines and rush past the blinds in such a closely packed group that hunters could scarcely miss.

Many hundreds of tons of rock had been moved to construct these runs, representing a great amount of labor, but the work probably was carried on over a long period of time. The longest line, with its subsidiary wings, seems to have been built first and later abandoned in favor of the V-shaped run, where the blinds were still in good shape. All the white lime covering the under side of these rocks when first overturned, long since had been removed by the elements.

"Have you any idea how old those antelope runs are?" we asked Jackson.

"Old Tahgee told my father," he explained, "that when he was a small boy, probably six or seven years old, the whole country was covered with snow one winter, so deep and remaining so long that all antelope and other game died. For many years afterward there were no antelope in this country. A few small bands drifted back after pioneer times, but they soon were exterminated."

Knowing the age of Worthen Jackson's father and estimating Tahgee's age at 85, it seemed evident that the hard winter and deep snow which killed the game in Fremont valley occurred in 1833. According to records of Rocky mountain trappers, the deep snows of that winter killed off all buffalo in Utah. If this calculation is correct, the antelope runs on the hills above Bicknell Bottoms were not used after 1833 and may have been constructed a hundred years or more before that time. Since the land is useless for agriculture, they probably will remain forever as a memorial to primitive hunters who learned to outwit America's fleetest game.

Amateur Photo Contest . . .

Each month the Desert Magazine offers cash awards of \$5.00 and \$3.00 for first and second place winners in an amateur photographic contest. The staff also reserves the right to buy any non-winning pictures.

Pictures submitted in the contest are limited to desert subjects, but there is no restriction as to the residence of the photographer. Subjects may include Indian pictures, plant and animal life of the desert, rock formations—in fact everything that belongs essentially to the desert country.

Following are the rules governing the photographic contest:

1—Pictures submitted in the March contest must be received at the Desert Magazine office by March 20.

2—Not more than four prints may be submitted by one person in one month.

3—Winners will be required to furnish either good glossy enlargements or the original negatives if requested.

4—Prints must be in black and white, 3¼x5½ or larger, and must be on glossy paper.

Pictures will be returned only when stamped envelopes or photo-mailers are enclosed.

For non-prize-winning pictures accepted for publication \$1.00 will be paid for each print.

Winners of the March contest will be announced and the pictures published in the May number of the magazine. Address all entries to:

Contest Editor, Desert Magazine, El Centro, California.



Charley Williams in his well equipped workshop where he cuts and polishes stones that win prizes at shows throughout the state.

WHEN all the talk of priorities and planes and trucks and tanks begins to pall, then Kay and I trek down to Barstow to sit at the feet of Charley Williams, veteran rockhound of the desert.

Kay is the other half of the Keagle partnership. He likes this sort of a jaunt better than collecting cactus or studying minerals. He says he has collected samples of every variety of cactus spines from Mexico to Mojave and worn the toes out of all his hunting boots climbing rocky mountains from whose sides opals were supposed to hang in ripe clusters.

Last week we arrived unannounced and spent hours mulling over Charley's collections and discussing the mysteries of the formation of minerals. Charley isn't all rockhound. He's part philosopher. "There's a sermon in every stone, if you know how to look for it," he remarked, picking up a specimen. "This smooth, rounded bit from the bottom of a deep shaft brings the message that thousands of years ago this particular stratum was

the bed of a rolling torrent. At another level the pink, petrified roots of the palm bear record of a tropical age, while the track of a three-toed horse embedded near by, in what was once clay, conjures up visions of a prehistoric horse snorting through tropical foliage where sandy wastes now reach to the horizon.

"I've been in jail more times than I've been in church," he continued, "but when I look at crystals of quartz or galena or gold and see how the agitated atoms and molecules have settled down to definite but individual patterns, I realize that there is a guiding hand back of all of this."

These are only a few of the messages but at one sermon per stone Charley has material for several thousands of texts tucked away in his collection gathered from all parts of the desert regions of the Southwest during the past 30 years.

He goes in for massive specimens. While a fair sized piece will satisfy the average collector Charley always comes up with one about four times as large. Some of his sections of petrified logs, cut and

Charley Williams followed the mines from Alaska to Mexico. Then he discovered the colorful Calico hills of the Mojave desert in California. It was there, at the beginning of the century, that he settled down on a patch of sagebrush, just far enough away from Barstow "so I can't hear my neighbors changing their minds." Today his desert gems and minerals comprise one of the outstanding collections of the state. A Mojave neighbor tells about Charley's collection and his "rockhound philosophy."

Charley Williams-- of the Calico Hills

By CORA L. KEAGLE

Photographs by F. V. Sampson

polished until they glow in rich colors ranging from orange, through the reds, to jet blacks, measure 18 inches in diameter.

There is color from all parts of the desert. The pale blue turquoise is from Goldstone and the violet amethyst from Ludlow. The cinnabar came from Newberry with magnesite from Hinkley and pale orange onyx from Trona. Geodes and nodules from the Chocolate mountains have been cut and polished to reveal the marvels of their color and formation. Arizona and the Ord mountains have contributed the deep blue of azurite and the vivid green of malachite.

Speaking of malachite and azurite, Charley says the finest in the world come from Bisbee, Arizona. At the time he was there it was very plentiful. Phelps Dodge of the Copper Queen mine gave Tiffany's of New York half a baggage car full of the best.

Of all the collection, crystals are Charley's favorites. He is intrigued by the mystery of their formation. Why do the molecules of galena or gold form the right-

angled planes of isometric forms and those of tin form with two equal axes and one longer one in a tetragonal system? Their variety and beauty of design are a never failing source of interest to him.

A large glassed-in front porch houses part of the collection, with the fluorescent specimens in a specially constructed dark room which a violet ray lamp transforms into a glowing fairyland of color. At the rear of the house is a well equipped workshop where the stones are cut and polished. The cutting is done with an electric motor turning buzz saws which were once the jagged toothed steel discs used in cotton gins to claw the cotton lint from the seeds.

Sarah Williams, Charley's English wife, is a true mate for a rockhound. It is a coincidence that she lived in Liverpool when he was there, then they both lived in San Francisco at the same time but never met until they both came to the desert. She drives the car, packed with camping equipment, anywhere a car can go, leaving him free to prowl among the rocks.

Since 1929 the Williams collection of minerals has won blue ribbons, silver cups, cash prizes or sweepstakes wherever it has

been shown at state or county fairs. When asked about his trophies he answered that he thought there were "some tin cups and silk rags" around the house. But it was clearly up to Sarah to produce them if we were to have a look at them.

At the last San Bernardino Orange show, the dark room showing his collection of fluorescent stones under the ultra violet ray and the mercury vapor lights, was one of the main attractions of the show.

Charley has refused consistently to be written up or photographed by "those geraniums from the city papers" but he finally consented to tell a little of his experiences.

Following the mines from Alaska to Mexico, he acquired a lot of rock lore and started several collections but, as he expressed it, "You can't carry a pile of rocks all over the country with you," so his first collections gradually disappeared.

When, early in the century, he drifted to the mining region in the colorful Calico hills near Barstow, and saw the variety of stones to be found in this "Jewel Box of the World," he decided to linger a while and start a new collection.

At that time the town of Barstow consisted of a little cluster of houses by the railroad yards down in the river bed. In order to have a place to camp while exploring the desert he bought the homestead relinquishment to a quarter section of land up on the bluff above the river. There was a small house on the place.

Some one asked him what he was going to do with that patch of sage brush so far from town. His reply was characteristic, "I'm going to live there. I like to be far enough away so I can't hear my neighbors changing their minds."

Today most of Barstow, including the new high school, is located on what was the Williams patch of sage brush. The homestead cottage became the first house in upper Barstow. It has been remodeled and still is inhabited.

Here is a story he tells of his mining days. "Walter Olivier, Fred Sloan and I were batching out at the Waterman mine. We'd kept missing our spoons, knives and forks. One day I saw a big trade rat leaving the house carrying a spoon. I watched him from a distance until he disappeared through a cleft in a big rock near the corner of the stone house where we were

One of the ten cases of specimens which Charley Williams has collected in the Southwest.





Casa Grande Sunset

By DOROTHY A. BROWN
San Jose, California

Second award in the photographic contest was taken with a 2A Brownie camera, at 7 p. m., Verichrome film.

Special Merit

The following photos were judged to have special merit:

"Moonrise on the Desert," by R. Van Nostrand, El Centro, California.

"Thousand Palms Oasis," Corporal William L. Frost, Enid Army Flying School, Enid, Oklahoma.

"New Mexico Yuccas," by F. E. Burke, San Fernando, California.

camping. Deciding that he was one rat near the end of his trail, I lighted the fuse on a half stick of dynamite, placed it in the crack between the two sections of rock and stepped back to a safe distance to wait for the explosion.

"Suddenly there was a terrific blast. One half of the rock blew off, the tin roof of our house went up in the air and Walter and Fred came running out with eyes big as saucers. When things quieted down we investigated and the mystery was solved. The trade rat had carried several half sticks of dynamite from a nearby cache and had hidden them under his rock and my stick had set them all off at the same time. The sad part about it was that the trade rat escaped. I saw him high tailing it up the hill after the blast."

When asked how he would advise an amateur to begin a rockhound's career he said, "Begin when you are about so high," indicating his knee, "then some day when you pick up a stone to throw at a bird you will, if you are a natural rockhound, notice some peculiar marking and will decide to save that stone. You are off on collecting and the study of mineralogy. That will lead you to geology and from that to crystallography and into chemistry. Chemistry will take you into astronomy."

Some member of his collection must have given him a lesson on humility for with his keen mind, pat wit and a vast knowledge of minerals, Charley Williams is very modest about his attainments. One of his pet philosophies is that a man is ready to learn only when he realizes how little he knows. In fact this is his favorite quotation—

"I used to think that I knew I knew,
But now I must confess,
The more I know I know I know,
I find I know the less."

Sez

Hard Rock Shorty of Death Valley . . .

By LON GARRISON



"Now about this rubber shortage," commented Hard Rock Shorty. "It really ain't quite as much problem as it looks like to most folks. In fact me an' Baldy Williams had 'er all solved here two 'r three weeks ago but things has gone haywire temporary. We'll get the bugs out of 'er though an' then we'll be ready to move the rubber tire business right down here to Inferno."

Hard Rock stopped long enough for the importance of this to be fully understood by his listeners. Then he slouched deeper into his creaky chair and went on with his solution for the rubber shortage.

"All began when they started this Yhooley project down on Baldy's place—thousands an' thousands o' these little rubber bushes set out down there. Me an' Baldy was lookin' 'em over one day an' figgerin' out ways to increase production. Seemed like it took a lot longer time to get tires out of 'em than we figgered was really needed.

"So, Baldy knowed a feller down in Los Angeles an' he wrote down an' got 'im to get ahold of a handful o' Oriental silk worms. Then we spread these silk worms out on a tray an' started feedin' em Yhooley

leaves. The worms didn't like 'em too well at first but it was eat 'em or starve so they finally begun gobblin' the leaves an' 'fore long they was eatin' 'em like they was the real mulberry.

"We only had a few worms an' we watched mighty careful for the first cocoons they started spinnin'—we even had a government man down watchin' with us; an' it was just like we'd thot. Havin' nothin' to eat but Yhooley leaves, the thread from them worms was the very finest o' pure rubber bands! Yes Sir—all ready to unroll an' start usin'. We unravelled a few an' it looked like we really had the rubber situation under control!

"But Baldy wanted to keep right on experimentin'. He figgered if we could seed some sulphur along with the Yhooley leaves the rubber'd be all ready to vulcanize. He was right too, but it'll sure have to be done in the shade. The batch we tried that way, an' it was all our silkworms we had to work with, got full o' sulphur an' the rubber bands was just right. But the sun was so darn hot it vulcanized them cocoons shut so tight we couldn't unreel the rubber or get the worms out either."

Shrine of the Three Babies



Baby shrine, Papago Indian reservation, southern Arizona. Here a people converted to Catholic, Protestant and Mormon faiths still gather to commemorate the sacrifice of three babies who were put in the center hole, now covered with rocks, in a sacrificial prayer for rain.

When the land of the Papagos was young—long long ago, a drought threatened death to all the tribesmen. It was then the wise old medicine man decreed that a sacrifice be made to appease the gods—and today, off a little side road between Santa Rosa and Quijotoa in southern Arizona, the shrine built in commemoration of the sacrifice still is to be seen. Here is the legend of the Three Babies as it was told to Joyce Muench in Papagoland. Another version relates that a flood menace was the reason for the sacrifice and that four children, two boys and two girls, were the sacrificial victims.

By JOYCE ROCKWOOD MUENCH
Photographs by Josef Muench

IT WAS a hot day in July when we first visited the Papago Baby Shrine. The sun beat down upon Arizona's southern desert lands with a fierceness that seemed personal and malevolent. The camera case was so hot in 10 minutes' exposure to it, it was unbearable to the touch.

There was not a cloud in the sky and no promise of much needed rain. When we turned off on the little side road between

Santa Rosa and Quijotoa, and came upon the strange circle of ocotillo branches that mark this ceremonial spot, we understood why this tribe of Indians still celebrates the festival of the three babies.

The Papagos on their reservation down near the Mexican border have joined the churches of the white man. There are Catholics and Protestants and Mormons among them. Their wedding ceremonies are celebrated like our own and they at-

tend church regularly. Living in small villages and raising cattle, each year finds them accepting more fully the ways of modern America. But there is one tradition to which they cling that stems out of the earliest tribal memory. It has been handed down through the generations and the essence of it is as old as man himself.

I tell it here as it was told to me, there under the blazing sun beside the shrine itself.

Many centuries ago, before the white man knew that there was such a land as this that we now proudly call America, the Indian lived here in peace among his fellows. In the southern part of Arizona, the giant cactus, saguaro, bloomed each spring and then dropped the wax-white flowers to replace them with red-meat fruit, just as it does now. The Papago Indians gathered the fruit with ceremony and made festivals that centered around the wine that was pressed from it.

Water was as precious then as now. One



While adopting many of the white man's modes, in dress and hair style, this comely young Indian girl clings to the traditional Papago art of basketry and sells her wares to the trading posts.

The date of Wiikita, as the baby ceremonial is called, is determined by a group of Papago tribal elders, who announce it about 10 days in advance—usually in late fall after the harvest. For nine days, the participants are busy with preparations. Costumes, paints and other ceremonial paraphernalia are made ready and the singers and dancers practice the intricate symbolic observance. Some wear painted gourd masks; others paint their faces and wear feathers and ribbons. The clown dancers are dressed in outlandish headdresses and masks, with jangling bells and rattles. At dawn on the tenth day the ceremony begins, the most sacred part of the rite centering about the small boys and girls who have been selected to represent the original sacrifices. The rites performed about them and the songs sung for them are said to be the same as those of the first sacrificial ritual. The latter part of the day both chorus and dancers form a parade, carrying floats, prayer plumes and various other symbolic objects; then they pantomime the ceremonies of planting and harvesting and hunting. Wiikita ends with a night procession.

year there was no rain. The usual ceremonies had been led by the medicine men. The colored charm strings of desert growth hung at the door of each little dirt-floored house. But still there was no rain. The medicine men met and talked far into the night. They carefully sought for some ceremonial act which had been forgotten. Finding none, they said that perhaps if they had anew the festival of rain, and danced again and prayed again, it might rain. So the people gathered together and made a fresh plea for water.

Still no drop fell. No clouds came into the sky. The wells went dry. The cattle began to die. The crops in the field withered and then dried away to nothing. Something had to be done.

There was an old medicine man in the village who no longer stirred from his corner even for the ceremonies. Those who

sought the wisdom that comes with great age had to come to the tiny house on the hill and wait patiently for the few words that he was willing to speak. The people had almost forgotten that he still lived, for there had been no need for help beyond what the younger medicine men might provide.

Now someone mentioned him, and so it happened that under the white noonday heat, the whole village of the Papagos went up the hill and crowded around the tiny hut. The air lay heavy and those who were not covered by the shade from the low tree that sheltered the house, suffered in the sun. Two medicine men approached the aged prophet and told him of their trouble.

The old man opened his eyes and for a long time looked out through the open doorway.

"Take," he said, "three of your youngest children, and when you have put them into a hole in the ground, the water will come again."

He closed his eyes and did not even move as the villagers protested noisily. Finally they trooped down the hill again to talk in small groups, arguing about the fearful command of the aged one.

The next day there still was no sign of rain. There was hardly enough water to drink.

The legend does not say how the three babies were chosen for the sacrifice, but it does relate that almost as soon as they were lowered into the hole, the rain began to fall.

The rain continued for days. The level in the wells rose quickly. The parched earth was refreshed. But the joy of the people was tempered by the thought of the price they had paid for each life-giving drop.

No drought since that time has been so severe. The Papagos believe it is because a shrine was built to commemorate the death of the three babies. Over the hole a mound of rocks marks the place. Around

it, leaving a space for dancing, is a circle of stripped ocotillo branches, with entrances from the east and the west. Every year the branches are renewed and the old ones piled in a larger circle outside of the first. They still may be seen near the village of Quijotoa on the Papago Indian reservation. The piles are so high that the lowest branches have powdered into dust beneath their weight. Every four years a festival is held to honor that ancient day of trial. Only children participate in the dance. Tall, long-legged water birds are made to use in the ceremony. The people relive the time of the drought and offer thanks for the rain that falls.

Their race memory serves them well. They know what it is to suffer when no rain falls. They still remember the legend of the Three Babies.

Right—Papago Indian girl stands beside a recently planted oleander tree which has been protected by stakes of ocotillo. When the next rain comes the fence will put out green leaves and perhaps even bloom.

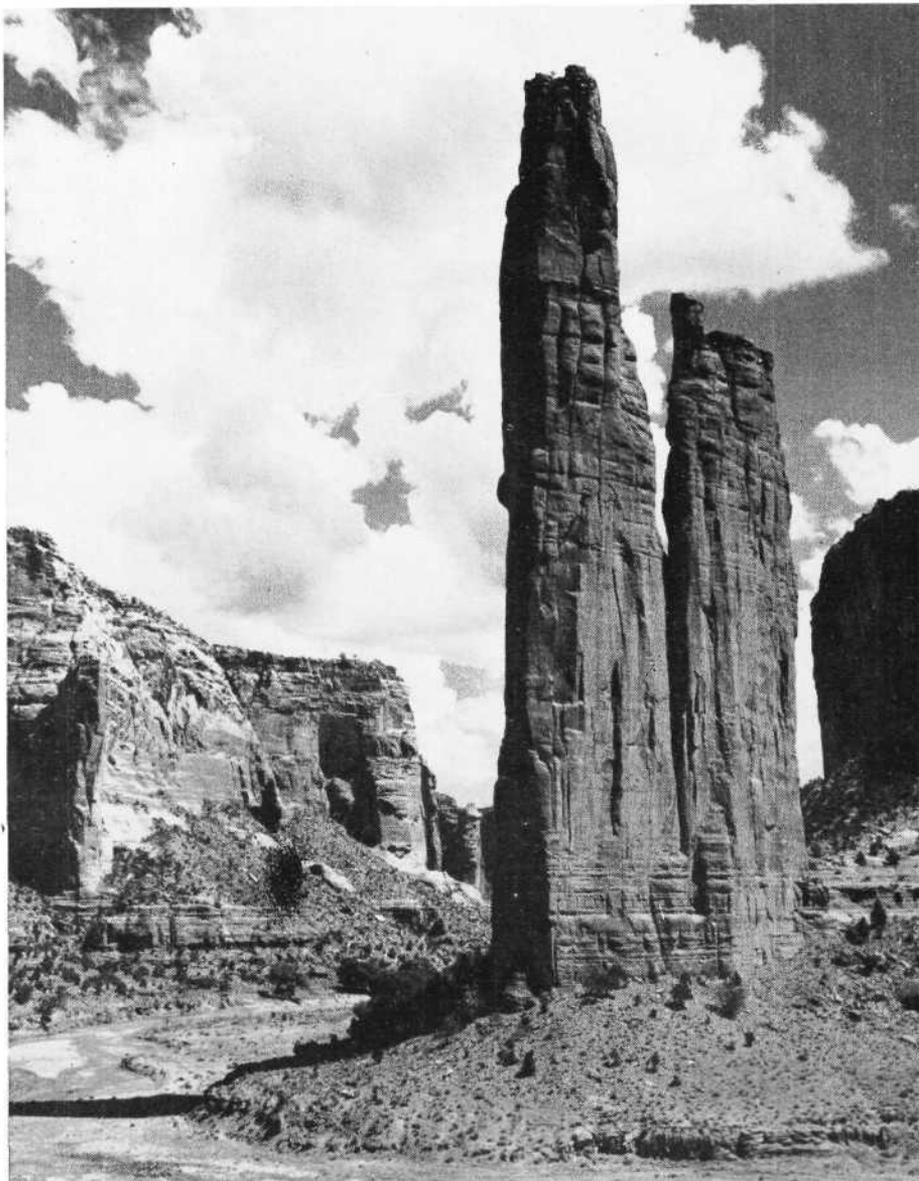
Below—At the entrance to the inner circle of the Papago baby shrine. Every year the ocotillo branches are renewed and about every four years a commemoration ceremony is held in which children take part, using such figures as the water-bird seen here.



THE MONUMENTS

Winner of the Desert Magazine's Landmark contest in January was Mary A. Fritz of Los Angeles. She

identified the sandstone pillars shown in the accompanying picture as the Monuments located in the Canyon de Chelly national monument. She entered the most interesting, and most complete manuscript.



—Photo by D. Clifford Bond.

By MARY A. FRITZ

THE Monuments rise from a common base nearly 800 feet above the floor of Monument canyon in Canyon de Chelly (pronounced Shay) national monument. The peak of the rock is about 40 feet square. Since legend relates that a huge spider, or Spider Woman, lives there, it has come to be known as Spider Rock. Navajo boys and girls are told that if they are naughty, Speaking Rock or Face Rock, across the canyon will tell the spider, who will run down the rock, snatch the culprits and scurry back up to her nest, taking them with her.

Canyon de Chelly national monument, established February 14, 1931, has an area of 83,840 acres lying near the

Arizona-New Mexico line. At the entrance, canyon walls rise only 30 feet, later going to a height of 1,000 feet and varying from 300 feet to a mile apart. The central Canyon de Chelly (Spanish corruption of the Navajo word Tse-gi meaning "down among the rocks") is about 20 miles long.

Branching off to the left is Canyon del Muerto (so named from the massacre of Indian women and children in 1805 by raiding Spaniards) and farther up, on the right, is Monument canyon. It is near the mouth of this that the Monuments of red sandstone tower above the white sands of the canyon.

In the national monument are some

thousand ruins dating from early Basket Maker to Pueblo III and including the well-known White House and Mummy Cave. Being in the heart of the flat plateau country made this a natural stopping place for migrations, and archaeologists have found evidences of many civilizations. The Navajo have undoubtedly lived here for several hundred years.

Lt. J. H. Simpson, topographical engineer, sent out with troops from Santa Fe in 1849 camped in Chinle valley and he, in going up Canyon de Chelly, discovered the White House ruin. His report published by the 31st Congress in 1850 was the basis for all accounts of this region for the next 30 years.

In 1864 Kit Carson, famous Indian fighter, with the U. S. cavalry entered Canyon de Chelly and persuaded the Navajo to go to a government reservation on the Pecos river with the idea of putting an end to raiding of white settlements. This scheme was ill-advised and the Navajo later were permitted to return home.

Navajo, superstitious about the ancient habitations, do not re-enter them but build their hogans at the base of the sheer cliffs, plant corn and fruit trees, and pasture their flocks in the bottom lands. After the fall rains, before the canyons become cold, they depart for the rim to return in the spring.

Canyon de Chelly national monument is accessible from U. S. Highway 66 by turning off either at Gallup, New Mexico, or at Chambers, Arizona, via Ganado to Chinle, Arizona, where the custodian is located. Nearby is a trading post and Thunderbird Ranch where accommodations may be obtained, also saddlehorses, or an especially equipped car for negotiating treacherous sands of the monument the better to see its colorful beauty, feel its warm friendliness and speculate about its mystifying past.

ANSWERS TO DESERT QUIZ

Questions are on page 28.

- 1—Cholla cactus.
- 2—California.
- 3—Hualpai.
- 4—Stone.
- 5—White Sands national monument.
- 6—Malachite.
- 7—Flower.
- 8—National monument for the preservation of ancient Indian ruins.
- 9—Mormon pioneer.
- 10—An outpost on the Colorado river.
- 11—Mt. Humphreys.
- 12—Filifera.
- 13—Quartz.
- 14—Motorboat on Lake Mead.
- 15—Author unknown.
- 16—Ehrenberg.
- 17—Lumbering.
- 18—Mullett.
- 19—Lavender.
- 20—As an ancient home of the giant ground sloth.



Harry Locke, creator of fantastic desert cartoons, sits at his desk putting finishing touches on some of his "Desert Cuties." On the wall is one of his more serious drawings.

Cartoonist-- OF THE CACTUS CLAN

By OREN ARNOLD

SOMETIME in the next half century my good friend Harry Locke will die and—surely—go to a strange but delightful valhalla of his own creation. It will be peopled by men, women and children who, on earth at least, have thorns and green paint all over their bodies, and who cavort in much the merry, winsome way we mortals all would like to do.

If that is a fantastic concept, so be it. But it is no more happily fantastic than the creations Harry on earth has made. A great many folk have discovered the desert as a place of beauty and serious inspira-

tion, but only a few have seen its cacti as characters of *fun*. Harry, an amateur, tops all the other amateurs and professionals I have ever heard of in cactus cartooning.

His saguaro, endowed with life, is man himself; man in all his ego, all his failings, all his charm.

Penned in gay casualness, this saguaro of Arizona and Sonora is no mere "desert sentinel" or "monument" to Harry. It is a happy-go-lucky bum hitch-hiking a ride, a woman with arms about her lover, another woman gossiping about that love, a hail-fellow-well-met singing in the barber shop, a scholar who loves to think, a but-

Harry Locke was probably born with a grin—and that grin has spread to many other faces through the infectious humor of Harry's cactus cartoons. He has seen the thorny tribe as inspiration for a philosophy of tolerance and whimsy and fun. The saguaro, cholla, bisnaga and prickly pear are endowed with an animation that is friendly and gay. His friend, Oren Arnold, says "I can envision a brilliant series of movies cartooned in Harry's inimical style, one that no Disney, no Slesinger has yet approached."

ler, a colored minstrel, a wet nurse with a baby, or simply an old, old man walking with a cane. The subtlety of Harry's work lifts it far above the commonplace name of cartooning, into that higher realm we call art. But his is a flexible, whimsical, delicate presentation, not a severe art at all. There is no roughhouse business in his sketches, none of the crude comedy with which so many cactus cartoons are typed. His characters are as far above slapstick as the screened Bambi is above Mutt and Jeff.

He calls them, not too aptly, "Desert Cuties." They are cute, yes, but cute is too limited a word. One merchant in Phoenix

borrowed some of his sketches for display in a show window. I stood by for hours to hear what people had to say.

"They're just simply darling!" one lady told her husband.

"Darling! That's absurd!" He shot back. "Those things are magnificent!"

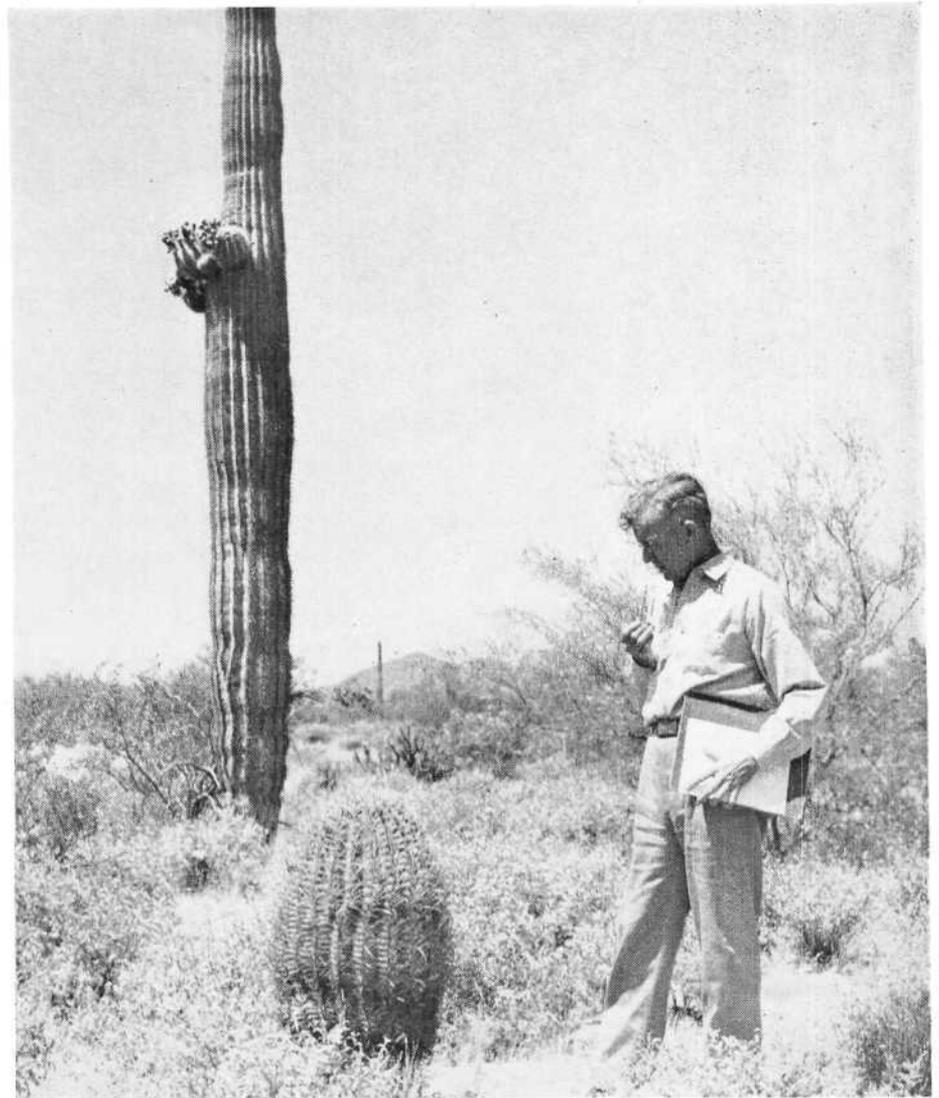
He was the president of a university in New York state. His appraisal was tribute deserved.

A mere hint of the cartooned characters can be had from the few reproductions that are possible here, but instantly you will want to know about the man behind them.

Harry Locke is a desert rat (another inapt term, but inescapable in our desert lore). For many years he was caretaker of Arizona's meteor crater, which is isolation itself. He well might have stagnated, soured, become taciturn, or he might have soared with others of us to a semi-religious love of the desert vastness and color and form. Not Harry. I imagine he was born with a grin, and I am sure he will go out of this life wearing one. He saw the thorny things as inspiration for philosophy, to be sure, but a philosophy of tolerance and whimsy and fun. Loneliness created no somber mood in Harry; instead, it endowed the eternal saguaro, cholla, bisnaga and prickly pear with animation that was friendly and gay!

It was not the cacti alone that impressed him. He put human qualities in Benny the Badger, Fuzzy the Bunny, Frisky the Fox (a villain!), Speedy the Turtle, Rip the Rattler (secret agent!), Chucky the Chuckawalla, Pinky the Pack Rat, and so on through a legion of animal cartoons. But other penmen have done that—seldom so well as Harry, but well enough, here and

Chucky the Chuckawalla wearing his sombrero. This is the harmless little desert lizard that caused a furor at the swank Westward Ho of Phoenix.



Harry Locke studies the comic possibilities of a barrel cactus.

there. Harry's genius is in animating the inanimate things.

He was able to educate himself in the technique of drawing—there may have been a book or two of instruction, brought in by R.F.D. mail. He learned perspective because there it was endlessly around him from the famed crater's rim, and so almost every one of his sketches now has depth that reaches back miles and miles, impressions that you and I get in fleeting study of the landscape and could never put on paper at all. I know of only one other artist who has his flair for penning distance. He is another good friend, the distinguished Ross Santee.

I do not remember where Harry Locke was born, if he ever told me. I do remember he had a long session as a typical American "poor" boy. (No American is really poor.) Twenty-odd years ago he was pioneering the airplane. He was lusty and courageous enough not to give a darn about his personal neck, and so he risked it on airplane exhibitions, stunting for a few dollars and a lot of fun. There was a

period during which he snooped into old Mexico. Once he won a gun fight with Mexican bandits—ask him some day to show you his scars! But mostly he roamed here and there about the continent, tasting life fully, never getting rich and never wanting to, rarely "staying put" very long until he got that meteor crater job and succumbed to the desert's peculiar enchantment.

You would classify him now as youngish middle aged, with a wife and a daughter in Arizona, and with a sense of humor and a sense of personal loyalty to friends that few men ever achieve. At this writing, he is engaged in what we armchair adventurers must regard with holy awe: he is helping pilot airplanes across the ocean.

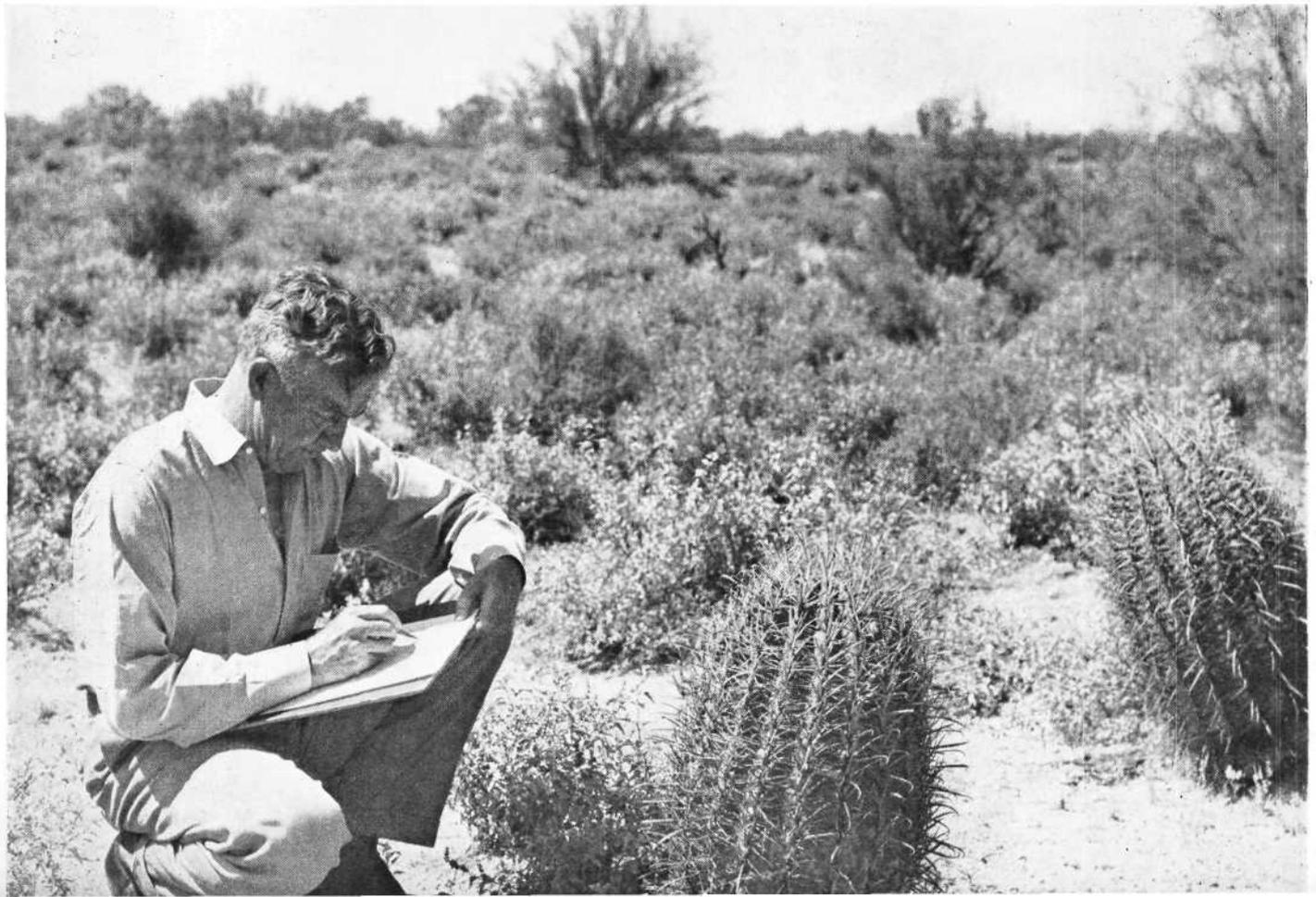
When he gets back home, he is sure to start catching up on his hobby and his personal fun. Harry is a devilish fellow, if he catches you unawares. For instance, consider his former landlady in town, an unimaginative soul.

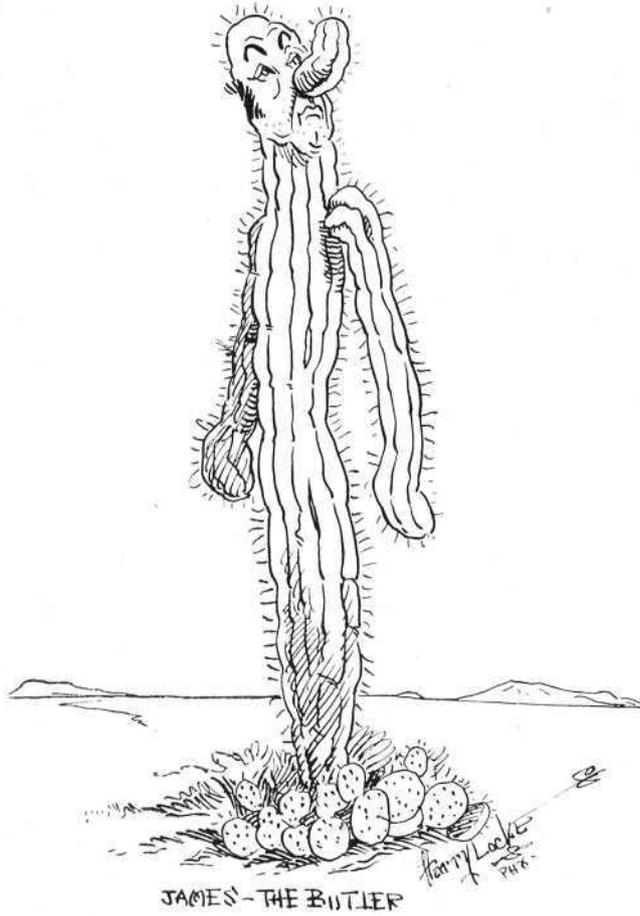
She was sweeping the hotel hallway when out of Harry's door came that most horrendous desert denizen, Chucky the chuckawalla himself!

The good lady screamed, ran downstairs and called police. But officers

Right—One of Locke's animated cartoons.

Below—The artist sketching in the field, endowing a spiny cactus with a comic personality.





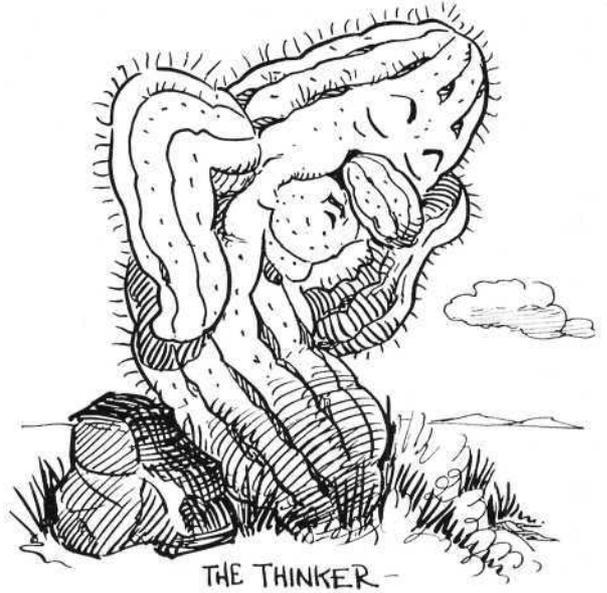
JAMES - THE BUTLER

who came to Harry's room found no cause to arrest him, found no horrors at all, told the landlady that delirium tremens is a malady which only time and abstinence can cure. Then they went away. Later, she pulled Chucky from under the water fountain, mistaking him for her pet kitten. Her uproar

this time was so monumental that Harry packed his trunk and moved.

When he moved he carried one live chuckawalla, six live horned lizards, a harmless snake, a cactus owl, a kangaroo rat, a pet chipmunk, and a baby skunk. He "declared" this contraband to the next hotelkeeper, won a new friend and got the whole gang welcomed.

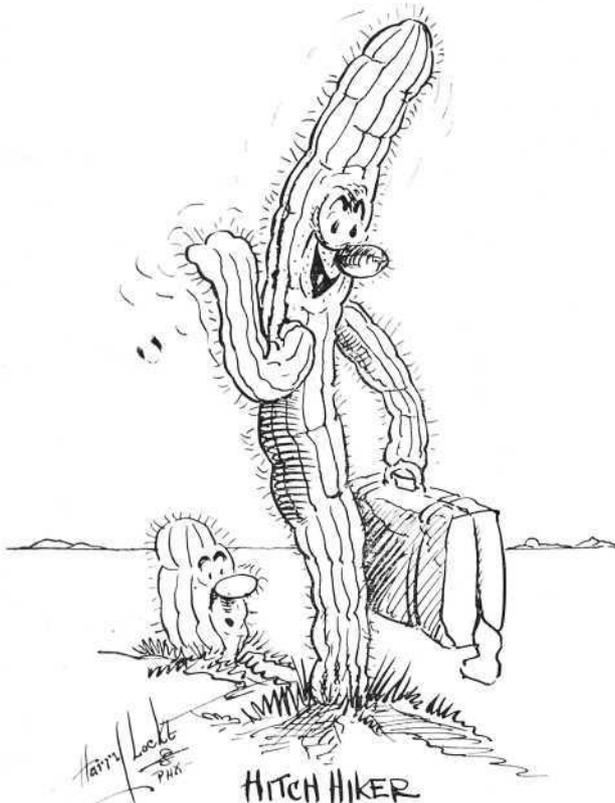
Harry sat at dinner one night in Phoenix' swanky Hotel



THE THINKER -



A VERY SAD SAD DESERT SONG



HITCHHIKER

Westward Ho when Chucky came out of his lair, Harry's coat pocket. Again nature took its course. A bosomed dowager from Miami, Florida, sat at the next table. She screamed with typical dude resonance. Instantly an emergency was on hand.

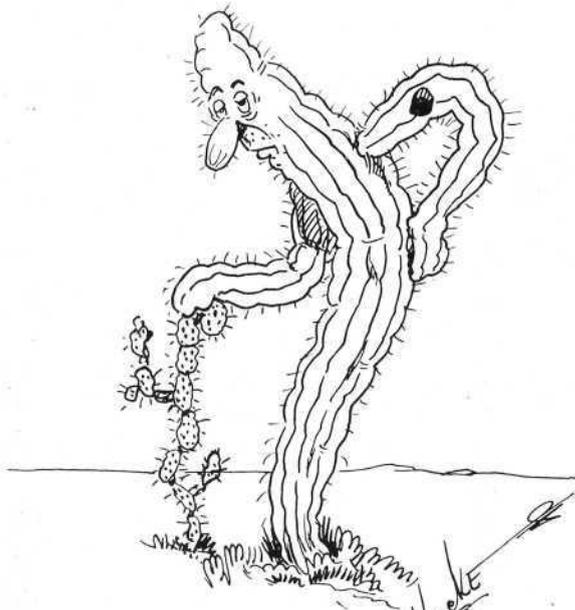
Harry sat calm. Chucky, impervious to screams and dowagers, simply crept up Harry's arm onto the table to partake of his evening meal—lettuce. A detective came. Six waiters came. The hotel manager came, along with some dozens of

astounded guests. Harry and Chucky were thereupon the center of a circus ring until Chucky's meal was over, and then Harry had to tell desert stories until midnight. A chuckawalla, you understand, is an utterly helpless, harmless creature, but in Harry's own words, he is "the darndest looking animal in all the desert world." Harry has a tiny Mexican costume, a caballero hat, even a miniature saddle, for Chucky to use.

Thus goes the life that Harry Locke lives, in peace time.



THE WET NURSE



THE OLD MAN
OF
CACTUS VALLEY.

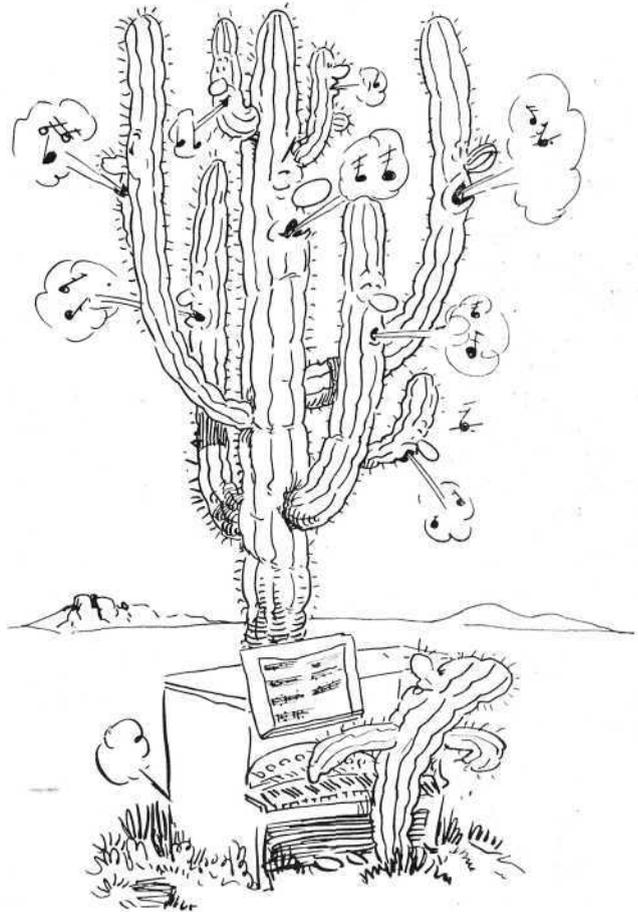
When this war is over, if not before, some shrewd talent scout in Hollywood is sure to "discover" him. I can envision a brilliant series of movies cartooned in Harry's inimical style, one that no Disney, no Slesinger has yet approached. And too, some magazine or perhaps a newspaper syndicate is bound to find him and send him to livingroom audiences throughout



NIGGER HEAD

the world as was done with another desert rat genius, Dick Wick Hall.

Until then, a very few of us can claim the "exclusive" pleasure—we know the creator, and we have stood by during the creation of Locke's cartooned cactus clan.



- THE RECITAL -



As he passed over the hill, with all his earthly possessions on one pack horse, we bid him goodbye with regret.

Saddle Tramp

By CHARLES KELLY

His hair is white and his body is covered with the scars of many a personal encounter with the tough men of the early West—but Harry MacCloskey still rides the trails of the Utah desert wilderness. When you have read his story you will understand why Charles Kelly felt genuine regret when the old man said goodbye and rode over the hill . . .

WE WERE sitting in the shade of Dr. Inglesby's veranda in the little settlement of Fruita, Utah. Not many travelers come this way now. It was growing twilight as a stranger rode in from the desert to the east—a white-haired old man on an Indian cayuse, leading a heavily laden pack horse. The animals moved wearily down the dusty road.

"Who is that?" I asked the doctor.

"Don't know," he replied. "Never saw him around here. Looks like he might have ridden straight out of Robbers' Roost."

When he reached the gate the old man dismounted stiffly. His legs were badly bowed from long years in the saddle and he walked with a slight limp. Long hair hung below his black wide-brimmed hat, while his moustache and month-old beard were also silvery white. Over a Navajo vest he wore a fringed buckskin jacket. From his belt hung a .38-40 Colt. Heavy leather chaps, short, high-heeled boots and a pair of heavy Spanish spurs inlaid with silver completed his costume. His leather cuffs, belt, gun holster, saddle and bridle were decorated with old Navajo silver. He weighed about 130 pounds and his eyes were light blue.

"Come right in!" Dr. Inglesby shouted as he walked toward the gate. "Unsaddle

your horses and turn 'em in the clover. You're just in time for supper."

"Thanks!" the old fellow smiled. "I'd sorta like to stop over night if you've got room for us. We've come 20 miles today—too far for a horse with a heavy pack like mine. I got dry back on the desert, and had to drink some alkali water. It's burning me up inside. You haven't got a small drink of something, have you, to cut the alkali?"

The doctor happened to have a bottle of alkali remedy, and after a liberal dose the old man seemed revived.

"My name's Harry MacCloskey," he said as he began unsaddling his horses. "Used to ride this country 50 years ago, but it's sure changed a lot. Them days the desert was covered belly-deep with fine grass, but my ponies like to starved to death on this trip. I just came from Robbers' Roost. Thought I'd like to see the old place again."

Doc glanced at me. His guess had been correct, after all. Then he introduced me as the author of a book about Butch Cassidy, his Wild Bunch, and Robbers' Roost.

"So you're the man who wrote that book!" the old fellow said as we shook hands. "I read it just a few days ago. It's all right, maybe, as far as it goes, but

there's lots of things you left out. Now when I was in the Roost in '92 . . ."

We were off to a flying start. I had long wanted to meet one of the genuine old Roosters, but most of them were dead. Here was a man who could give me first hand information on outlaw activities back in the days when the West was really wild. For the next 10 days I listened to the old man's stories, which cannot be repeated here because they would fill a book. What I want to write about now is the man who calls himself Harry MacCloskey. Strangely enough, his own story begins in old Russia.

His real name, he told us, was Ziplinsky. His father had been captain in the Czar's trusted Cossack guards. During the Civil war Captain Ziplinsky, with his friend, Captain Kosterlitzky, had been sent to the United States as military observers. At first they were attached to General Sheridan's staff but later went south and remained with the Confederate army until the war ended. Then they went to Mexico with General Shelby and a group of ex-Confederates to fight under ill-fated Maximilian. After the latter's death Captain Ziplinsky returned to the United States, but his friend, Kosterlitzky, re-

mained to become famous as chief of Rurales under President Porfirio Diaz.

Back in the States Captain Ziplinsky married a Scotch woman and moved to frontier Colorado, where he began operating a bull-team freighting outfit. He died when Harry was a small boy, and his widow carried on the freighting business. By the time he was 12, Harry could drive any bull-team in the outfit and was doing a man's work. When he was 14 his mother remarried and Harry left home.

Within a year Harry Ziplinsky was working for the Carlisle ranch, near Monticello, Utah, biggest cattle ranch in the state. The English owners were having trouble with cattle rustlers and hired only the toughest riders. When 15-year-old Harry arrived at Carlisle's, the foreman, Latigo Gordon, offered him a drink "to cut the alkali." He took one, but refused a second. When Gordon insisted, the boy pulled his six-shooter and shot the bottle from Gordon's hand. He was hired on the spot.

Not long afterward a number of valuable saddle horses disappeared from the ranch, apparently driven off by horse thieves. Carlisle wanted to send a group of older men to follow the thieves, but Gordon had another idea. He believed a boy might succeed where a group of men would fail.

So he sent Harry out alone, with a saddle horse and one pack animal, with instructions to follow the trail until he found the horses. The trail crossed some of the roughest country outdoors. Forging the Colorado river at old Dandy Crossing, Harry turned north and eventually reached Robbers' Roost, where he saw the horses. They had been taken by the McCarty gang of outlaws, who had picked them up when returning from their robbery of the bank in Telluride, Colorado. No officer of the law ever had entered the Roost and the bandits felt safe.

"What you doin' here, kid?" Tom McCarty demanded, as the boy rode boldly into his camp in Roost canyon.

"I was just hunting for some strayed horses," Harry replied. "I trailed 'em in here from the Carlisle ranch."

"Them horses ain't lost," the outlaw grinned. "We needed some fresh horses so we took 'em. What you goin' to do about it?"

"Latigo Gordon sent me after 'em," the boy replied innocently, "and if I don't bring 'em back he'll fire me."

"Tell you what I'll do," McCarty said, after a moment's reflection. "We're running kinda short of grub, and we don't want to go to town for a while yet. Nobody knows you in Greenriver. You go in and bring us back some grub and you can have your horses. We can get more any time we need 'em."

So Harry rode 65 miles into Greenriver, loaded three pack horses with supplies, and went back to the Roost. The outlaw



Harry MacCloskey—saddle tramp.

leader lived up to his agreement, and the boy rode back to Carlisle's with the horses. That, he says, was his first contact with the outlaws of Robbers' Roost.

From the Carlisle ranch Harry drifted north into Wyoming, where he took part in what is known as the Invasion, or the

Johnson County War, of 1892. Twenty-five prominent cattlemen, with 25 hired gunmen, attempted to clean out rustler-controlled Johnson county. In this audacious undertaking everything seemed to go wrong, and the Invaders were finally forced to fort up in a long ranch house.

where they were surrounded by 300 rustlers for several days, until rescued by a company of soldiers.

While this affair was cooling off Harry, who had been well paid for his part as a hired fighter, spent several months touring Europe. Returning to New Mexico he worked on various ranches until he became involved in a fight with a Mexican. He had to kill the Mexican, he says, and then, with 15 knife wounds in his body, rode to Robbers' Roost to recuperate and avoid tedious court proceedings. On this occasion he had time to become well acquainted with McCarty and many other western outlaws who found it convenient to be in the Roost. Accepted as one of the boys, he was nicknamed "Dutch Henry" MacClosky, after an outlaw who had been recently killed, because his own Russian name was too hard to remember. From that time until 1896 he was in and out of the Roost frequently, for reasons which he does not explain. Besides the knife scars, he has five bullets in his body, any one of which might account for his presence in the outlaw hideout.

Harry worked on the Panama canal for a time, then went to Bolivia and Argentina. Returning to the States he married and settled on a ranch in Wet Mountain valley, Colorado. But his wife died after a few years and once more he took to the saddle. Since then he has worked on nearly every big ranch in the West, including the Hashknife, where he became acquainted with Zane Grey. Constantly moving from one place to another, he knows the southwestern deserts better than any man I have ever met. At one time or another he crossed the trail of nearly every famous western outlaw, and his mind is a storehouse of their exploits.

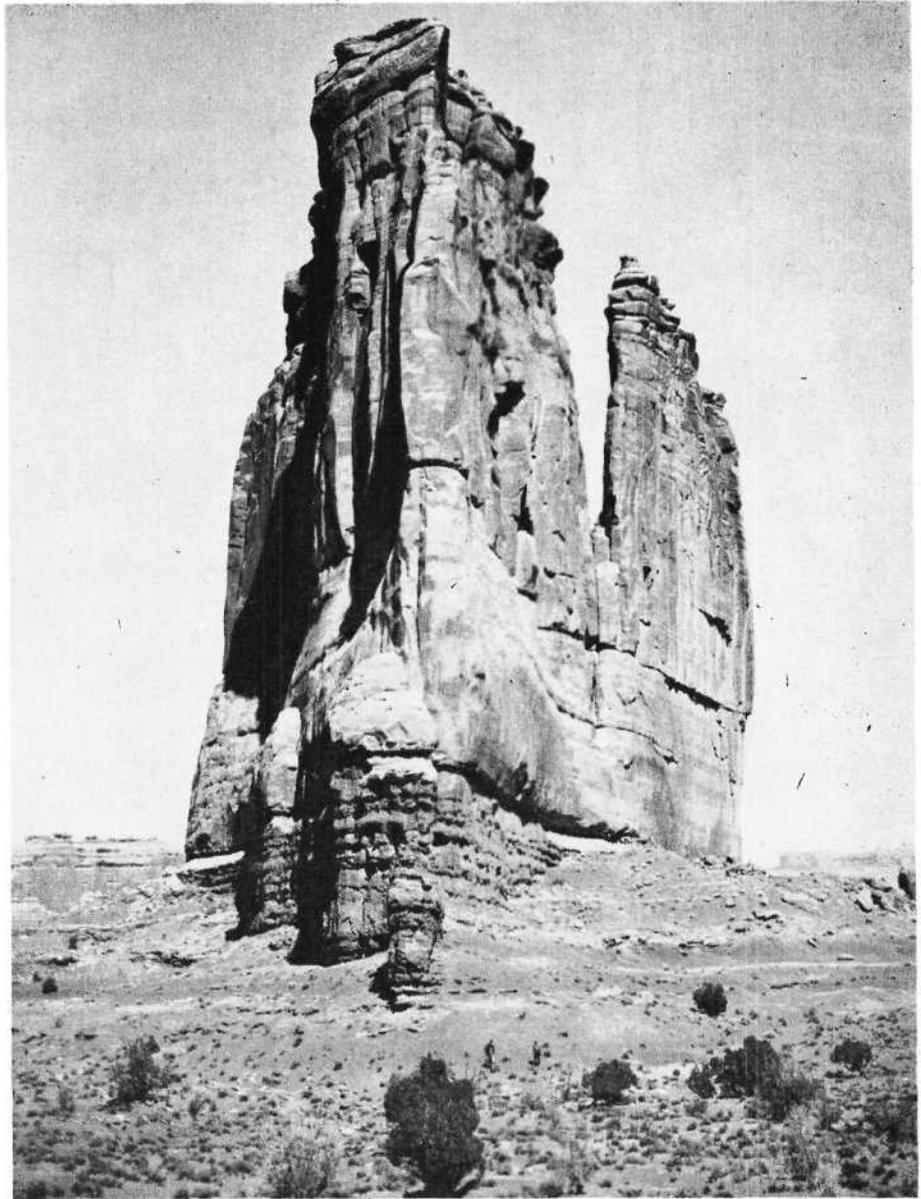
Several years ago he was dragged by a horse and nearly killed. His body is a mass of scars, and because of the limp he acquired at that time cowboys nicknamed him "Step-and-a-Half." Since then he has not been able to do much hard riding.

"I'm just an old saddle tramp," he says, "no good to myself or anybody else. I should have been killed years ago. The only reason I keep on living is just to see what the hell will happen next." Nowadays he rides from one ranch to another, stopping a few days "to get the wrinkles out of his belly," then riding on again on his never-ending journey. Everything he owns is contained in one large pack, including a few treasured books and old family photographs. Too proud to accept old age pension, he insists on working for his keep, and is always welcome wherever he stops.

As Harry MacClosky passed over the hill after a pleasant 10-day visit, Dr. Inglesby and I waved him farewell with regret. He was half Russian Cossack by birth, and he may once have traveled the Outlaw Trail, but to us he seemed the last living link between modern "progress" and the traditions of the old West.

SOMEWHERE IN UTAH

Who can identify this picture?



PRIZE CONTEST ANNOUNCEMENT . . .

Somewhere in Utah is this unusual rock formation. Its odd shape has given rise to its name.

It is located in a remote area where relatively few visitors have ventured, yet it is in one of the most fantastic and fascinating geological areas of the Southwest.

How may it be reached and may one approach it at any time of the year. How high is this monumental rock and what is its appearance from other views. When was it first seen by white men and is there any historical or legendary information available.

Desert Magazine would like to make its

readers better acquainted with this landmark and its surrounding region. In order to obtain the most complete, concise data possible, a cash award of \$5.00 will go to the reader who submits the most informative 500-word article about this month's landmark.

Entries should be mailed to Contest Editor, Desert Magazine, El Centro, California, and must reach the magazine office not later than March 20, to qualify for the prize. The winning story will be published in the May issue. Manuscripts will not be returned unless accompanied by postage.

Rudyard's discovery of an Indian grinding stone led the South family to engage in the ancient art of pinole making. Even Victoria did her share as she joined the others—shelling the gleaming red and yellow ears of corn. It was a long job, but worth it. And Marshal tells how pinole is made at the Little House in the Utah valley where they are lingering through the winter—waiting for spring's arrival before taking the trail again in search of a new home.

Desert Refuge

By MARSHAL SOUTH

THE necklace lay upon the table. In the wintry desert sunlight that fell across it from the window it shone with a strange mellowed, yellow glow. Something like old ivory; yet different, more mysterious. Our friend, the archaeologist who had brought it, touched the beads lovingly.

"Basketmaker," he said. "At least 2,000 years old. Perhaps much more. Observe this pendant! Note the workmanship."

With the absorption of the specialist his fingers strayed here and there, touching individual beads, pointing out the carefully drilled string holes, calling attention under the lens, to a mass of fascinating detail that would have escaped anyone but an expert.

"We were examining a room in an old Pueblo village," he explained. "And somehow I wasn't satisfied. I had a feeling—call it a hunch if you want to. I began to dig deeper. And away down below the level of the first floor we came upon . . ."

You could see it all as he spoke. The grey sweep of the desert and its backing of tumbled mountains. The hard, dry, dusty earth with the traces of old walls. The yawning excavation in the ancient floor—a shaft that went not only into the depths of earth but also the depths of time. From the records of one ancient vanished race into the records of another, still more ancient. And there in the bottom of the shaft, grey with the dust of forgotten things, you saw the body. And the little heap of beads that, before the string had decayed, had been the necklace. And the water jar. And the cooking pot.

Knees drawn to chest the woman lay upon her side, her face turned upward. The water jar, deliberately punctured in two places, was under one arm. The cooking pot by the other. The grey bones of the body, laid to its rest in the forgotten centuries, were crumbling to soft dust in the touch of the outer air. And there in the grey dust lay the necklace. A little pile of beads and their semi-transparent pendant—lying where they had trickled down like tears when the slow march of the years had finally snapped the string that had bound them about a dusky throat.

Our friend went on to tell us about that ancient house located less than two miles from where we now lived. It had been under the floor of another dwelling whose builders had not in the least suspected what lay below their homesite. He told us of the posts and beams, whose fire charred sockets were eloquent of tragedy. He told us of the strata of sand and soil which the slow trowel of Time had spread above the ruin. Strata which told of the changing courses of rivers, of the drifting banks of desert dust.

But we scarcely heard him. We were looking at the necklace lying there yellowed and mysterious in the glow of the winter sunshine. It was a talisman. Before its mellowed gleam 20 centuries rolled aside and fled. And it seemed to us that in the bright glow of other days we could see again the desert and the mountains and the gleaming silver of the river. And the little houses among the cornfields. And the smoke of the cooking fires. And we heard again the voices of men and women and



Rider cutting out dead wood for fuel in the thicket near the old reservoir.

the laughter of children and the steady thudding of grinding stones, pounding out meal.

And the necklace was moving to and fro, clasped about a slender dusky throat that was vibrant with life and with song. She must have been beautiful, that ancient wearer of the necklace. For, even after the lapse of 20 centuries, her teeth, as our friend had told us, with a touch of scientific awe, had gleamed in the dusk of that opened burial pit like a cluster of dazzling pearls.

Gruesome? No, it wasn't gruesome. If you could have sat there as we did, gazing at that old necklace gleaming mellowly in the sunshine, and if you could have sensed, as we did, the things that lay back in the soft dusk of the Time mists, you would have found nothing gruesome about it. Quite the contrary. For somehow that old necklace and the pictures it brought back out of the dead years was a song of glory. A message of Faith and Hope and Immortality.

Rudyard has his dog. Ever since Rudyard could walk and talk he has dreamed of some day having a dog. Now the dream is realized. For the other day, out of the north—just as the Pilgrim came—there came another wanderer. But this time it was a four-footed wanderer. We called her Bonny.

Bonny is of uncertain ancestry. But mostly shepherd. What story of other homes and other days lies behind her gentle brown eyes we cannot tell. Without collar or mark she came up the dusty path along the adobe wall and adopted us. She was weary and hungry and very footsore. The children rushed to hunt up a plate of scraps for her, which she gulped eagerly. "Maybe," said Rider, speculatively, "she fell out of some car or truck. Someone must own her."

But Rudyard wasn't bothering about questions of ownership or anything else. He just flung his arms around Bonny's shaggy head and hugged it to his heart. "My dawg. My dawg—my always-wanted-dawg," he kept saying huskily. For an hour or more, as she lay stretched on a sack, resting in a sunny angle of the wall, he sat beside her, holding her head and stroking it tenderly. Bonny likes Rudyard.

Bonny is now a firmly established member of the household. The boys hunted up a big box to serve as a kennel and Victoria toddled around collecting old sacks to lay in it for a bed. Now we have a watchdog. In her kennel Bonny curls up every night with

just the tip of her sensitive nose visible in the starlight. And no intruder, either two-footed or four-footed, goes unchallenged.

There is only one jarring note in the new order of things. Tibbets, the cat, has moved out and left us. Tibbets does not like dogs. Bonny tried her best to make friends with her. But Tibbets would have none of it. She drew aside her skirts with great dignity, spat twice—and departed across country. Rider still has hopes that Tibbets will return, as indeed we all have. Tibbets was Rider's special pet.

Wood gathering is an important job these chilly days, just as it was at Yaquitepec. Fortunately there is a good deal of dead brush and larger growth to be found in the little canyons and in the watercourses. And quite a bit of dry, burnable material in the thicket around the old reservoir. On pleasant days the youngsters make excursions and come home well loaded with kindling. And once in a while we take the car and trailer and haul in a mountain of varied fuel.

On the last of such expeditions we felt convinced that we had accumulated enough to last over the winter. But the bulk of it was willow logs, which vanish in the stove almost as fast as our Ghost mountain mesal butts did. So, soon we will have to make another foray. The boys don't mind, though. Not yet have they outgrown the novelty of this new location, and every trip is an adventure.

The cottonwoods lift bleak, bare branches against the sunset, and the edges of the mesas are iron-hard and grim against the chill dawns. But so far we cannot complain about the winter weather of this new section of the desert. Far to the north of Ghost mountain though it is, the climate is surprisingly like the one we have been used to. Perhaps even a little milder. For there is less wind. The roaring gales that used to leap upon Yaquitepec with a fury that sometimes seemed to make the entire mountain tremble to its core, are absent here. Sometimes we miss them.

You grow to love the wind. The roar and thunder of it—the elemental force. A storm has a strange power over the human spirit, a sense of buoyant stimulation queerly tempered with fear. For none of us have yet become so "civilized" that we have outgrown our primitive awe of the elements. We sometimes think that we have. But that is only a pretense—a thin veneer of artificial shelters of glass and brick that we hide behind. Deep at heart the human being still quails at the heavy rumble of the thunder and at the blinding slash of the lightning—even as did his ancestor who cowered from the tempest in the darkest recess of a drafty cave. Fortunately, in spite of all our frills and trimmings, we are still creatures of the earth. And there is hope and comfort in that.

Playing outside the other day Rudyard pulled up an oddly shaped stone that was half buried in the earth. Memory of similar shaped stones away back on Ghost mountain prompted him to trot inside and show us his find. Sure enough it was a grinding stone such as the Indian women use in rubbing out corn. Evidently it had had considerable use before it had dropped from the last dusky hand to be buried in the desert dust. How old?

We could not tell. But we dusted it off and wiped the clinging earth from the crevices—and put it to work again at its old job. Another link across the mists of Time, in the chain that binds all humanity and all Life together. The dusky fingers lay down the tool, and the white fingers pick it up, to go on with the work. Not the first time that we have turned old things to our hands in the wilderness. Tanya, who still remembers long busy hours in the fevered offices of Wall street, smiles sometimes at the queer changes the marching years have brought her.

We made a batch of pinole with the old grinder. The whole family, even Victoria, gathered round to shell the corn. We had bought it in the ear. Corn that had been raised back in the hills, perhaps—who knows—upon the self-same land as that from which the Indian owners of the grinding stone had drawn supplies. The gleaming ears were yellow and red, and the fat ker-

nels, as we stripped them from the cobs, seemed literally bursting with the health and bounty of the good earth. Victoria chose easy ears and did not get off many kernels, because she stopped to admire each one carefully before she dropped it into the dish with the others. "I don' wan' to hurt them, muvver," she explained laboriously. "They are so boo-tiful."

You parch corn to make pinole. And when we had enough shelled we dumped it into a big iron kettle and set it over the fire, stirring it constantly with a wooden spoon so that it would toast evenly without burning. When it was toasted to a fragrant, brown crispness we took the pot off and spread the hot corn grains out to cool. Then, with the ancient grinding stone we rubbed them to meal on an improvised metate.

A long job, but worth it. You can eat pinole "as is" or you can eat it with a little sugar and milk. Any way it is delicious. There are various kinds of it. Some pinole is a mixture of different varieties of toasted grains. The old desert Indians went to a lot of trouble in collecting tiny seeds. Many of them seeds of grasses and not much bigger than dust grains.

A while ago, choosing good weather, we made a dash down into Arizona, to investigate a possible location close to the Grand Canyon. The trip proved a failure as far as helping our problem of a new homesite. But it was rich in reward in other ways, for we brought back unforgettable memory pictures of a vast and lonely and beautiful land. Vivid, thrilling memories of Zion national park, of the Navajo Bridge, of the quaint little town of Kanab—of a host of other high spots in a mighty untamed world of solitude and color.

But most of all we brought back memories of the Navajo and the section of their reservation through which we passed. Not perhaps so much memories of sights—though there are picturesque enough things, and to spare, to be seen in Navajo land. But the things that clung to us were memories of sensation. For, somehow, in the land of the Navajo there is a strange sensation of Freedom—the old natural freedom which has vanished from most of the rest of the earth. It is not a complete freedom, it is true. The shadow of restraint hovers ever in the background. But still there is a great measure of Freedom there—the proud freedom of a land and of human beings who hold "Progress" and its insidious fetters in scorn. Freedom is a fierce and precious thing. To some, self satisfied in ease, it is a thing of small moment. But to those who love it as the wild things love it, it is more precious than the breath of life itself.

The Navajo dwell upon no sainted pedestal. God knows that they, in common with all of us, have faults enough to balance their virtues. But they love Freedom. They love it with all the passionate fierceness of the desert. And their love of it—does something to their territory. A mysterious something. As you pass through that land you can feel it. The wind blows a little fresher there. The sunshine is a little brighter. The faint subtle scent of the junipers, clinging along the sandstone cliffs is a little more fragrant than elsewhere. The smoke of the hogan fires rises towards the desert sky like the fume of a thousand altars, lifted in praise to the Great Spirit.

Freedom—those of us who hold in our hearts and veins that longing and that fire would rather tread a thousand times the hard trails and eat the lean fare of the wilderness than round out fatted years beneath the yoke of "Progress."

ASPIRATION

*I'm not content! I never am content!
They rot who seek but peace and calm repose.
Inertia is a parasite that grows
Clouding the thoughts that might be heaven bent.*

*Who knows the trek of stars?—the godly powers
That we ourselves shall claim some distant day,
When we, no longer in this coarsened clay,
Shall rise above this human state of ours.*

—Tanya South

LETTERS . . .

Sends Luck to Editor . . .

Phoenix, Arizona

Dear Miss Harris:

I have never met Mr. Henderson—haven't met any of you folks, but we certainly wish him the very best of good luck and success in the biggest job he ever has had or ever will have. Lots of good luck to you and the Desert too. Now, more than before, we need something like the Desert (and our hobbies) to ease the mental strain.

H. S. KEITHLEY

Greetings from War Worker . . .

San Francisco, California

Dear People:

I want to express my appreciation for the splendid job you folks are doing in keeping the magazine functioning so well, considering the trying conditions you must be working under now.

In fact, Desert seems to be getting better with each issue. Believe me, if I were in some far off country I would not appreciate the magazine any more than I do. In the work I am now doing I am constantly hearing and talking war from 8 to 10 hours a day without letup. So, when I

am through work I love to spend an hour or two planning great trips with the aid of my file of Desert.

I certainly had my thoughts expressed in last month's issue by Mora Brown. I know how she feels as I have gone over the same territory several times myself. And I like Mary Beal's beautiful work on desert plant life.

FRED H. RAGSDALE

Knows Hualpai Basketmaker . . .

Gardnerville, Nevada

Dear Sirs:

In the November issue you had a story and pictures of Queenie and other Hualpai Indians. I knew Queenie when I was a little girl living at Peach Springs, Arizona. I was so glad to read something about them. While living there I attended a three-day pow-wow at which they burned all the beautiful blankets and baskets they owned as an offering to the dead. Their chief had died a few months before.

We specially enjoy all the Indian legends—and to read of some you know about first hand is a real thrill.

PRINCESS THOMPSON

Hilton Outlines Desert Job . . .

Thermal, California

Dear Randall:

I read a lot of your Letters to the Editor but it isn't often that I feel like writing one myself. Now I have real news for a group of selected "rockhounds."

We are busy out in one of the roughest parts of the desert producing a mineral that Uncle Sam simply has to have to speed up the war effort. So far this one mine is the only source of any importance. Positions are open to several really good men who like the desert and rock hunting and can rough it in the full desert sense of the word. There is a chance to fight the war out here on the desert and do as much good as in any branch of the armed forces.

Applicants must have excellent references, be willing to work for the duration through all sorts of desert climate at hard but exceedingly interesting labor. There is no need for a degree in mineralogy, just a genuine interest in rock collecting and a good physique are important.

Applications can be made to Mr. Arnold Hoffman, care of John W. Hilton, Thermal, California. It would be best to write and make appointments for interviews. All I can say is that anyone who works on this job for the duration will feel mighty proud after the war when the full importance of it can be told.

JOHN W. HILTON

A MODERN MIRACLE . . .

- Water from the snow sheds a thousand miles away is brought to Imperial Valley to transform a barren desert into the garden spot of America.
- Stored behind the vast confines of Boulder Dam, the life-giving water is released to wind its way down the tortuous stretches of the Colorado river. From the river it is carried across 80 miles of sand and waste land by the huge All-American Canal and finally delivered to individual farmers' delivery gates from a net work of 3,000 miles of canals and ditches in Imperial Valley.
- Charged with the responsibility of distributing the 2,000,000 acre feet of water diverted into the Valley each year and with making over 75,000 individual gate deliveries, is the Imperial Irrigation District.
- SNOW FLAKES FROM THE HIGH SIERRAS TO PRODUCE ESSENTIAL CROPS ON THE DESERT—TRULY A MODERN MIRACLE!

Imperial Irrigation District



Use Your Own Power—Make it Pay for the All American Canal

Friend of Indians Likes DM . . .

Dayton, Ohio

Dear Sir:

We have had to leave our beloved Southwest during this war emergency, and feel the need of Desert Magazine more than ever.

I enjoy the stories and articles about the Southwest Indians especially, as I have many wonderful friends among the Pueblo Indians.

MRS. JOHN T. WALLACE

. . .

Likes Far Corners . . .

Beverly Hills, California

Dear Mr. Henderson:

Have been reading Desert Magazine since you first started to print same in 1937, and will say there has been nothing of its kind published in the United States that compares with it in description of the desert country. Your writers have certainly gone into the out-of-the-way places to get their wonderful stories of this mysterious region.

I have spent my vacations in this region, off and on for a period of more than 35 years, and was more than interested in your story of Cataract canyon with its wonderful waterfalls. It brought back memories of the trip I took there about 30 years ago. Being in the mining business I was interested in the expedition of Mooney and his associates in trying to discover the mine supposed to be below one of the high waterfalls. The iron ladder that was built by Mooney's associates after his death gives one a vivid idea of the hardships these men were ready to endure in their search for the precious metals. When I was there an old rocker that they used to concentrate the high grade ore was still in a fair state of preservation, but expect it since has been washed away by floods.

Hope it will not be long before you are able to write your story of Beaver falls, as I think this is one of the most interesting scenes that I have had the pleasure to view.

Was also interested in the articles by Charles Kelly, as he is writing about a territory where I spent a great deal of time. I also, years ago, made an investigation of the lost mine of the Navajo and found Mr. Kelly's description about the same as the story I got from the Mormons who lived near this region. My guide was Ezekiel Johnson, the famous Mormon guide who has been with the National Geographic and Bernheimer expeditions in that region. He is custodian of the Natural Bridges national monument and I had the pleasure of visiting these bridges with him only a few years after their discovery.

In 1910 I visited and interviewed Cass Hite—about two years before he died. I came into that region through the Wayne Wonderland and by way of Hanksville.

FRED W. KOEHLER

DESERT QUIZ

Get a pencil and a comfortable chair—and here we go for another of those lessons in the fact and lore of the great American desert. It is fun, even if you are not too familiar with the history and geography of the arid Southwest. The average person will not answer 10 of these correctly. However, the folks who have prowled over the desert country and observed well as they went along should answer at least a dozen. Fifteen is a good score even for a desert rat, and any number exceeding 15 means you are either very lucky or very smart. The answers are on page 16.

- 1—The Cactus wren generally makes its nest in—
Beavertail cactus.....
Cholla cactus..... Saguaro..... Ocotillo.....
- 2—San Geronio pass is located in—
California..... Nevada.....
Arizona..... Utah.....
- 3—Stopping at Peach Springs, Arizona, the Indians you would see loitering in that vicinity most likely would be—
Pahute..... Navajo.....
Hualpai..... Papago.....
- 4—The old territorial prison at Yuma, Arizona, was built mainly of—
Cottonwood timber..... Adobe..... Stone.....
- 5—Going from Las Cruces to Alamogordo, New Mexico, the most interesting scenic attraction would be—
Carlsbad caverns..... Aztec ruins.....
Enchanted mesa..... White Sands national monument.....
- 6—Azurite is most often found in formation with—
Opal..... Malachite.....
Zinc..... Hematite.....
- 7—Fairy duster is the common name for a desert —
Lizard..... Insect.....
Mineral..... Flower.....
- 8—Tuzigoot is the name given—
An Arizona range of mountains.....
A river in Utah..... A cave in Providence mountains.....
A national monument for the preservation of ancient Indian ruins.....
- 9—Jacob Hamblin was a—
Mormon pioneer.....
Scout for General Kearny's army.....
First man to navigate the Colorado river.....
Government agent in making surveys for the Gadsden Purchase.....
- 10—Callville was once—
An outpost on the Colorado river.....
The place where Geronimo surrendered.....
The scene of a famous Indian battle.....
A stage station on the Butterfield trail.....
- 11—Highest of the San Francisco peaks in northern Arizona is—
Agassiz peak..... Telescope mountain..... Catalina peak.....
Mt. Humphreys.....
- 12—Palms growing in Palm canyon in Southern California are of the species—
Sonorae..... Filifera..... Arizonica..... Robusta.....
- 13—Chalcedony roses, when in place, generally are found in seams of—
Calcite..... Manganesc..... Quartz..... Lead ore.....
- 14—Iceberg canyon is most easily reached by—
Motorboat on Lake Mead..... Pack trip from Bluff, Utah.....
Motor excursion to the lava beds in New Mexico.....
Climbing to Aguerberry Point in Death Valley.....
- 15—The poem "Mornin' on the Desert" was written by—
Chase.....
Van Dyke..... Sharlot Hall..... Author Unknown.....
- 16—The old Colorado river town where Highway 60 now crosses the stream is properly spelled—
Ehrenberg..... Ehrenburg..... Ehrrenburg.....
Erenberg.....
- 17—Principal industry at McNary, Arizona, is—
Mining..... Sheep raising..... Weaving..... Lumbering.....
- 18—The species of fish for which an island in Salton sea was named is—
Catfish..... Mullett..... Bass..... Shad.....
- 19—Blossom of the salt cedar that grows around the desert cienegas is—
White..... Yellow..... Orange..... Lavender.....
- 20—Rampart cave is noted—
As an ancient home of the giant ground sloth.....
For its beautiful stalactites..... Hiding place for early day cattle rustlers in Utah.....
Its well preserved Indian pictographs.....

HERE AND THERE . . . on the Desert

ARIZONA

River Bill Introduced . . .

PHOENIX—Colorado river power and water allocation in Arizona may be settled after 21 years of controversy through a bill introduced into Arizona legislature seeking conditional ratification of the Santa Fe Colorado river compact and the governor's Arizona power and water authority. The contract asked in the proposal would provide for delivery of water from Lake Mead to Arizona. The amount was not specified.

Grandmother Runs Truck . . .

TUCSON—A spry grandmother whose mail truck actually is a store on wheels is bringing necessities and luxuries to the gas-rubber isolated people of Ruby, Arivaca and Sasabe in the southern part of the state. Three times weekly Mrs. Ruth Barker loads her truck in Tucson before dawn and starts out on a 20 mile swing through desert and mountain.

New Generator at Dam . . .

KINGMAN—A twelfth generator has been installed at Boulder dam to meet the war needs of the Southwest, adding more than 75,000 kilowatts to its generating capacity. Commissioner John C. Page of the bureau of reclamation announced it brings the dam's total capacity to more than 950,000 kilowatts.

Irrigation Plan Studied . . .

WINSLOW—Possibility of irrigating land near here is being studied with indications that water will be available for about 21,000 acres. Five thousand acres would be within the boundary of the Navajo Indian reservation.

Town Coming to Life . . .

CHARLESTON—This ghost mining camp is looking more like its old self since the 93rd Infantry division of Fort Huachuca is erecting new buildings and putting fronts on crumbling adobe ruins so soldiers may practice village fighting with live ammunition. Charleston is about halfway between Fort Huachuca and Tombstone.

Early Settler Dies . . .

PHOENIX—Anna R. Peek who came to Phoenix with her husband and three children by horse-drawn wagon in 1887, died at 94. They first settled near Tucson, but when Indians went on the warpath she insisted her family be moved to a safer place. Two children attended the first adobe school in Phoenix.

Japanese Labor Asked . . .

SAFFORD—Request has been made for revision of the Arizona military zone boundaries to enable Japanese evacuees living near the Gila river to plow and irrigate longstaple cotton.

Guayule Plots Started . . .

PHOENIX—Since last spring 85 "indicator" plots of one acre each of guayule have been planted in Arizona, New Mexico and Texas. Plans are under way to plant more such plots. Arizona and Texas are slated to have four each of larger plots to range from 40 to 100 acres each.

New Gunnery School . . .

KINGMAN—Official opening of the army air force's newest flexible gunnery school here was announced by Colonel George E. Henry, commanding officer and Lieutenant Colonel Harvey P. Huglin, director of training. The new school, sixth of its kind in the nation, will train as aerial gunners men who have qualified in the highly technical air corps examinations and have passed the flight physical.

Easter Services Planned . . .

FLAGSTAFF—Ninth annual Easter sunrise service featuring the a capella choir of Arizona state college here will be broadcast from the Shrine of the Ages at Grand Canyon. Dr. Eldon A. Ardrey is director. J. Howard Pyle will broadcast description of the canyon from the Abyss, a point above Hopi point which has a sheer drop of 3,000 feet to the first abutment in the canyon. During the service, a word-picture of the sunrise will be released.

Rainfall Shows Drop . . .

FLAGSTAFF—The driest year since 1898 when the weather bureau was established is the record 1942 won in Flagstaff. Total precipitation for the year was 9.80 inches, 13 inches below normal.

Dehydrating Plant . . .

SAFFORD—Permanent location of a dehydrating plant here to cost between \$50,000 and \$60,000, with a capacity of 50 tons of raw onions daily, depends upon the decision of individual farmers to grow onions on not less than 500 acres, between Safford and Duncan valleys and San Simon area. This proposition came to the farmers along the upper Gila river from J. M. Julian company, Los Angeles, which has a contract with the war production board to furnish 2,000,000 pounds of dehydrated onions during the coming year.

CALIFORNIA

Date Output Given . . .

INDIO—Output of Coachella valley dates is expected to reach 12,000,000 pounds. This figure is based on the 4,000,000-pound pack of the California Date Growers association which handles about one-third of the valley date crop.

Postal Business High . . .

PALM SPRINGS—Business at the post office here topped all records in both volume and revenue. Postmaster Gorham said the \$3,000 increase did not truly reveal the great expansion in business during the first quarter of 1942, which showed a drastic slump right after outbreak of war.

A WESTERN THRILL

"Courage," a remarkable oil painting 20x60 feet, the Covered Wagon Train crossing the desert in '68. Over a year in painting. On display (free) at Knott's Berry Place where the Boysenberry was introduced to the world and famous for fried chicken dinners with luscious Boysenberry pie.

You'll want (1) A 4-color picture of this huge painting suitable for framing. (2) A 36-page handsomely illustrated souvenir, pictures and original drawings, of Ghost Town Village and story of this roadside stand which grew to a \$600,000 annual business. (3) Two years subscription (12 numbers) to our illustrated bi-monthly magazine of the West. True tales of the days of gold, achievements of westerners today and courageous thoughts for days to come. Mention this paper and enclose one dollar for all three and get authentic western facts. Postpaid. GHOST TOWN NEWS, BUENA PARK, CALIF.



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First Guayule Rubber . . .

SALINAS—First natural rubber produced in this country and processed at Salinas has amounted to 600 tons this winter. The government said it was able to speed up the program as a result of changes in cultivation operations and expected the output to be stepped up 21,000 tons in 1944 and 80,000 in 1945.

Flood Hits Barstow . . .

BARSTOW—Flood water inundated the entire riverbottom district here in the second worst flood in the town's history during January. Rains general in Southern California sent a wall of water sweeping down the dry Mojave river bed. The water reached a depth of 20 feet at Victorville.

Lights Chase Fowl . . .

BRAWLEY—Frank Rutter, assistant state game warden, has been assisting farmers here in protecting their crops from damage by wild fowl. Revolving lights are being used in the field at night where ducks and other species of wild fowl congregate for feeding.

Railroad Abandoned . . .

BENTON—Permission has been granted by interstate commerce commission for abandonment of the railroad from Laws to Benton. A paved highway parallels the branch between the points for its entire length. There are three stations north of Laws, Benton, population 50, Hammil and Shealy, unpopulated. A small amount of alfalfa and livestock is raised in the vicinity.

Pilots Pick Cotton . . .

BLYTHE—Two crews of soldiers from the Blythe air base went into the cotton fields here to do their part on their day off to combat the labor shortage. Cotton ginning had picked up somewhat over the early season lag, but almost half the crop still is in the field, ginner estimate. A total of 2,512 bales had been ginned, compared with 4,201 at this date last year.

The Inyo Register is beginning its 59th year of publication. On April 4, 1885, P. A. Chalfant and son published the first issue, doing all the work by hand.

Flood Bill Submitted . . .

NEEDLES—Senator Ralph Swing has introduced a bill in the California senate authorizing expenditure of \$500,000 to protect this city from damages being caused by continued rise in the bed of the Colorado river due to a huge deposit of silt forming in the Topock canyon about 16 miles downstream from the city.

The government housing program for Indio has been adjusted to include homes for army officers' wives. The dwelling houses, 150 to 300, are to be erected primarily to house Thermal air base and army workers, either on ground rented or purchased by the government.

NEVADA

Chamber Elects President . . .

LAS VEGAS—Members of the chamber of commerce here unanimously named Harve Perry, manager of J. C. Penney store, president, January 19. He replaces the Rev. Charles H. Sloan. Al Adams was chosen first vice-president; Lloyd Tritle, second vice-president, and Marion B. Earl, treasurer. June Simon Euchner is secretary of the chamber.

Freeze Hits City Water . . .

VIRGINIA CITY—For six days this community was without water. Water in wooden flumes supplying the city was frozen for several miles, and it was not until a severe rainstorm struck that the ice thawed. Attempts to chop the ice away failed for the water quickly froze upon being released.

County Changes Time . . .

CALIENTE—Lincoln county has adopted Pacific war time. The board of commissioners approved a resolution authorizing the change which went into effect January 16. This county has been the only one in the state to observe mountain time, and this change in effect places the area once again under mountain standard time as it was before the enactment of war time.

Boulder Dam Revenue . . .

CARSON CITY—The federal government on January 1 paid Nevada \$300,000 as its share of Boulder dam revenue, making the fourth payment. State Treasurer Dan W. Franks immediately mailed Clark county \$60,000 as its portion.

University Has Herbarium . . .

RENO—University of Nevada has an herbarium of more than 18,000 Nevada wild plants, valued at approximately \$50,000. The herbarium was established for the use of citizens of the state as well as a study aid for students. Collection of the plants, identification and mounting took more than four years of cooperative effort on part of the division of botany at the university.

The Desert Trading Post

Classified advertising in this section costs five cents a word, \$1.00 minimum per issue—
Actually about 1 1/2 cents per thousand readers.

MISCELLANEOUS

FOR SALE—12 beautiful perfect prehistoric Indian arrowheads \$1; 10 tiny perfect translucent chalcedony bird arrowheads, \$1; 10 perfect arrowheads from 10 different states, \$1; perfect stone tomahawk, \$1; 4 perfect spearheads, \$1; 5 stone net sinkers, \$1; 10 perfect stemmed fish scalers, \$1; 7 stone line sinkers, \$1; 4 perfect agate bird arrows, \$1; 5 perfect flint drills, \$1; 7 perfect flint awls, \$1; 10 beautiful round head stunning arrowheads, \$1; 4 fine perfect saw edged arrowheads, \$1; 4 fine perfect flying bird arrowheads, \$1; 4 fine perfect drill-pointed arrowheads, \$1; 4 fine perfect queer shaped arrowheads, \$1; 4 rare perfect double notched above a barbed stem base arrowheads, \$1; 5 perfect double notched above a stemmed base arrowheads, \$1; 12 small perfect knife blades of flint, \$1; rare shaped ceremonial flint, \$1; 3 flint chisels, \$1; 7 quartz crystals from graves, \$1; 10 arrowheads of ten different materials including petrified wood, \$1. All of the above 23 offers for \$20. Locations given on all. 100 good grade assorted arrowheads, \$3.00 prepaid. 100 all perfect translucent chalcedony arrowheads in pinkish, red, creamy white, etc., at \$10.00. 100 very fine mixed arrowheads all perfect showy colors and including many rare shapes and types such as drill pointed, double notched, saw edged, queer shapes, etc., location and name of types given, \$25.00 prepaid. List of thousands of other items free. Caddo Trading Post, Glenwood, Arkansas.

Assortment of 8 polished slabs all different or 8 cabochons all different \$1.90. String of rare opalized Indian grave beads 48 inches long with data \$1.95. Absolute satisfaction guaranteed. P. Smith, Sr., 2003 59th St., Sacramento, Calif.

OPPORTUNITY

FOR SALE—Famous and profitable oasis and acres in the desert on Highway 80. If you like independence, dignity, serenity, security, and freedom from the crowded world's worries, plus a home and business in the desert, here it is. Built and operated by present owner, who has made enough to retire. Very unique, artistic, spacious and comfortable. Easy for two people to operate. Profit is 50%. Now paying better than ever and will continue so throughout war period. This outstanding property has never before been offered for sale. A real chance for a couple to acquire something solid and to enjoy desert life while amassing a little fortune. Price, \$10,000; \$5,000 down. Write Box 1377, Yuma, Arizona, for full details.

LIVESTOCK

KARAKULS producers of Persian Lamb fur are easy to raise and adapted to the desert which is their native home. For further information write Addis Kelley, 4637 E. 52 Place, Maywood, California.

Karakul Sheep from our Breeding Ranch are especially bred to thrive on the natural feed of the Desert. For information write James Yoakam, Leading Breeder, 1128 No. Hill Ave., Pasadena, California.

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Beaver Increasing . . .

GOLDFIELD—Beaver trapping, one of the West's most lucrative enterprises of early settlement days, is returning in Nevada now that the number of beaver is increasing, according to state officials. The state's beaver population during 1942 is estimated at between 5,000 and 6,000 and is principally in Elko, Lander, Humboldt, Churchill, White Pine, Lincoln and Nye counties.

NEW MEXICO

Sheep, Lambs Decrease . . .

ALBUQUERQUE—Cattle, sheep and lambs on feed in New Mexico January numbered less than a year ago, although the number of cattle on feed throughout the country is larger and the sheep and lambs on feed only two percent smaller, according to a report from Fred Daniels, Las Cruces, agricultural statistician for the bureau of agricultural economics.

Zuñi Officers Installed . . .

ZUNI—Taking the place of Governor Anastacio and the council which served since 1940, a new set of officers was installed at Zuñi. Every two years an election committee, nominated by a preceding election committee and approved by the caciques, determines upon candidates and a general caucus approves or disapproves these candidates. If the selected candidates are acceptable, the canes of office are given the governor and lieutenant-governor, and badges to the councilmen.

Navajo on Warpath . . .

GALLUP—Forty-two Navajo from Arizona and New Mexico are ready for the warpath—as U. S. marines. The Indians, who left San Diego boot camp several weeks ago, are at Camp Elliott undergoing a special training course. Technical Sgt. Philip Johnston, 51, who spent his childhood in Navajo country and knows their language, is in charge of the platoon. He says the youths have taken to marine life and training with great aptitude.

Children Escape Blizzard . . .

GALLUP — Eighteen below zero weather, coldest in this section of New Mexico since December 24, 1924, accompanied by a severe blizzard, endangered the lives of more than 100 school children January 19. Searching parties to hunt for three busses loaded with the youngsters were being organized when the machines rolled into Gallup more than three hours late. None of the children suffered ill effects from the cold.

The Dempsey administration has trimmed \$88,836 from salaries of 13 state offices, a study of payroll vouchers showed. The study followed a recent statement by Gov. Dempsey that economies effected since he took office on January 1 would total about \$200,000 a year.

Navajo Fond of Saddle . . .

GALLUP—Fondness of a Navajo youth for his saddle brought an appeal today to the Kirk Trading store from Private Frank B. Ginnajinny, also known as Frank Belin of Klage-toh, Arizona, from North Africa, that his saddle be held for him until his return. John Kirk said he would be glad to keep the saddle the boy was buying on the installment plan.

Vicente Roy Chaves has been elected governor of Acoma, famous "Sky City" located west of Albuquerque. Chaves succeeds Antonio M. Toribio.

UTAH

Woman Is 107 . . .

OGDEN—Mrs. Mary Field Garner passed her 107th birthday February 1. Born in Stanley Hill, Herefordshire, England, in 1836, the year the first steamship crossed the Pacific, she came to Utah with the Mormon pioneers. She walked across the plains to Salt Lake valley.

Hydro-Electric Plant . . .

BEAVER CITY—Mayor Thompson has thrown the switch which set in motion the new \$120,000,000 hydro-electric plant in Beaver canyon.

Conover Named President . . .

SPRINGVILLE — Harrison Conover, publisher and editor of the Springville Herald, was elected head of Utah State Press association at the annual winter meeting. He succeeds Frank S. Beckwith, Delta, publisher of the Millard County Chronicle.

Salt Lake Aqueduct . . .

SALT LAKE CITY—J. W. Robinson announced he had received assurances the construction of the Salt Lake aqueduct to bring water supplies into Salt Lake valley's war industry area from the Deer creek reservoir, will be approved by the war production board if it is definitely established that Salt Lake City and vicinity is threatened by serious water shortage by reason of light precipitation this winter.

City Has Extra Funds . . .

SALT LAKE CITY—Salt Lake City ended the year with \$236,754.28 in unencumbered or unappropriated funds in the city treasury to be carried over into 1943, year-end report of City Auditor L. E. Holley showed.

Japanese Reach Camp . . .

MOAB—First contingent of Japanese have reached the new relocation center being established at the Dalton Wells CCC camp 14 miles west of Moab, Ned Campbell assistant project director of Manzanar, California, center, announced. Dalton Wells center will consist of 25 to 50 Japanese for the present with possibility that eventually it will number 200 or more.

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LOS ANGELES, CALIF.

Mines and Mining . . .

Lovelock, Nevada . . .

Tungsten concentrates in steady and increasing amounts are being shipped from the United Tungsten Limited mill, 15 miles west of here, to the Vanadium corporation smelter at Salt Lake City. Officials of the milling company plan to install additional machinery to further increase their output.

Winslow, Arizona . . .

A large area of potential low-grade copper, possibly the greatest deposit in the nation, has been discovered on the Navajo Indian reservation of northeastern Arizona, according to representatives of the Arizona department of mineral resources. "A survey indicates that the region will produce more new copper in less time, with smaller capital expenditures than any deposit known," said J. S. Coupal, director of the department.

Washington, D. C. . . .

The United States produced more metals and minerals in 1942 than at any time in its history, the bureau of mines has announced. But Harold L. Ickes, secretary of the interior, warned that "despite this record, our production is still insufficient for current demands."

Carson City, Nevada . . .

Despite federal rulings which closed Nevada's gold mines, the number of men employed in the state's industry including mills and mines, has increased materially in the past few months, according to Matt Murphy, state mine inspector. He issued an estimate of 8,500 as of January 1, or an increase of 700 since last July, and a gain of 2,000 in the past two years.

Goldfield, Nevada . . .

A number of miners along the mother lode of California and in Nevada who were thrown out of work by the gold mine shutdown order are being re-absorbed by mother lode operators who are going into tungsten, chrome and manganese, while in Nevada they are resuming work as a result of the order from Washington exempting the Comstock lode from the gold shutdown.

Washington, D. C.

The treasury department has turned over to the defense plant corporation 636,087,000 ounces of silver to be used for war purposes. The silver is to be returned to the treasury after the war. It is used in electrical conductors, bus bars, in the aluminum industry and in certain alloys from which the metal later can be recovered.

Salt Lake City, Utah . . .

Urgent need for coal miners to work the newly acquired properties of Henry J. Kaiser company at Sunnyside, Utah, was voiced here January 21, by A. V. McLeod, manager of the two-mine project. "We could use 150 or 350 miners today," he said. The mines are leased from the Utah Fuel company to supply coal for the steel plant recently placed in operation at Fontana, California.

Las Vegas, Nevada . . .

Major construction work on all four units of the calcining plant at the Gabbs valley plant of Basic Magnesium, Inc., is completed. Representatives of the MacDonald Engineering company, which has been in charge of building the \$5,000,000 calcining plant at the base of extensive magnesium deposits, declare that only minor odds and ends remain to be completed.

Goodsprings, Nevada . . .

The U. S. bureau of mines has assured Articles of incorporation were filed Senator J. G. Scrugham that it will examine specimens of the Goodsprings ore for indium. This metal is known to occur in many of the complex sulfide ores of the western states, and its present chief source is found in the residues from the purification of sulphate solution at electrolytic zinc plants.

Blythe, California . . .

The old Cinnabar mining property 15 miles southeast of Ehrenberg after a shutdown of over 28 years may be placed in operation again. R. W. Waterman, Auburn, California, mining engineer, is making an examination of the property which was first opened in 1903. High costs of production and inefficiency of the old Scott furnace for distilling mercury from ores caused the closure in 1914.

Moab, Utah . . .

January 14 by the Potash Company of America listing capitalization at \$2,800,000. This company, headed by G. F. Coope of Carlsbad, N. M., will develop potash and magnesium deposits near Thompsons, Utah. Several wells will be sunk within the next few weeks to determine the size of the bed.

Las Vegas, Nevada . . .

U. S. defense plants corporation has allocated \$340,000 for erection of a 500-ton mill at Goodsprings, which will treat zinc ores. The Waelz process will be used and the Sherwin-Williams company will operate the plant.

Winnemucca, Nevada . . .

An announcement that the federal government will pay \$20,000 a ton for water-clear and perfect quartz crystals has interested mining men of this area. This appeal for rock crystals has been issued to all residents of the Rocky Mountain states. The price will be paid for certain crystals badly needed for oscillators in army and navy radio sets.

Reno, Nevada . . .

Nevada Surveyor General Wayne McLeod acting on a request made by state mining men, is preparing a bill which will authorize cataloguing of all mining patents and claims in the state, and will provide for the appointment of a research deputy in his office. Under the terms of the bill the deputy would receive a salary of \$2,700 annually.

Ogilby, California . . .

Thousands of dollars worth of equipment and supplies were stolen from mines, storerooms, homes and plants in the Ogilby mining district early in February. Among the missing articles were an air compressor valued at \$2,000; two tons of lime, 1,000 feet of pipe, blacksmith forge, anvil tongs, punches and chisels. Properties looted by unknown vandals include the Walker Well, Colorado mines, and Ben Harrison property. Investigating officers described the robbery as systematic loot of a wide area in the Ogilby district.

Weather

FROM PHOENIX BUREAU

Temperatures—	Degrees
Mean for January	53.5
Normal for January	51.2
High on Jan. 16	73.0
Low on Jan. 19	30.0
Rain—	Inches
Total for January	0.73
Normal for January	0.80
Weather—	
Days clear	10
Days partly cloudy	9
Days cloudy	12
Percentage of possible sunshine	58

E. L. FELTON, Meteorologist

FROM YUMA BUREAU

Temperatures—	Degrees
Mean for January	57.8
Normal for January	54.4
High on Jan. 15	81.0
Low on Jan. 20	35.0
Rain—	Inches
Total for January	0.33
Normal for January	0.45
Weather—	
Days clear	19
Days partly cloudy	4
Days cloudy	4
Sunshine 82 percent, (260 hours of sunshine out of the possible 318 hours).	

Release from Lake Mead averaged around 18,500 second feet. Storage during the month decreased 865,000 acre feet.

JAMES H. GORDON, Meteorologist

GEMS AND MINERALS

ARTHUR L. EATON, Editor

BIRD'S NEST CALCITE FOUND NEAR SAN FERNANDO

John W. Fick of San Fernando, California, has discovered a very unusual formation. He has been exploring small caves and cavities in the mountainsides back of the ranch. Stalactites and stalagmites of varying sizes are quite common, but his most recent find is decidedly not at all common. This is "bird's nest calcite," a formation seldom found anywhere in the world.

Bird's nest calcite is possible only when conditions are exactly perfect. Water, dripping from the ceiling of a cave, must fall precisely into a small hollow in the rock below, coating the inside of the hollow with calcite or aragonite, thus forming the "nest." Grains of sand or tiny bits of rock must then find their way into the "nest." The water falling from the ceiling into the nest keeps the tiny grains of sand turning, at the same time coating them with lime, until numbers of small, snow white "eggs" are formed.

Two of the nests found by Johnny contain about 6 eggs each, the third and larger one about 100. None of the eggs is over two millimeters in diameter. The eggs fluoresce; the nests do not.

CANADA MAY BECOME SOURCE OF MAGNESIUM

The Canadian bureau of mines has been carrying on investigations into the possibility of refining magnesium from the almost limitless tailings of asbestos mines. If the process proves successful, Canada may lead the world in the production of this valuable metal.

The U. S. war production board placed magnesium, because of its low specific gravity, near the top of the list of strategic and scarce minerals. It is much used as a light weight material in airplane construction. Its inflammability makes it essential for flares in bombing, and even for incendiary bombs themselves.

The Canadian material for production seems limitless as more than 20,000 tons go on the dump daily, and it is estimated that more than 200,000,000 tons of ore may be available at once.

Mary Cornelia Parker, Bozeman, was awarded first prize for her entry in the junior exhibit held January 14 and 15 by Montana society of natural and earth sciences. The show was up to its usual good quality and attendance was fair, according to H. E. Murdock, secretary.

John R. Burrows of Hay Springs, Nebraska, writes that he is interested in the mineral news of D.M., as "we are here in the Black Hills of South Dakota getting set to mine some strategic materials—Spodumene (lithialithuem), tin, feldspar, beryl, mica, etc. These materials are being mined to some extent already but the WPB wants them produced on a much bigger scale."

Geology of the proposed Bridge canyon dam sites on the Colorado river was discussed by J. Neil Murdock of the bureau of reclamation at the January 21 meeting of Mineralogical Society of Arizona, Phoenix. Natural color illustrations accompanied the talk.

Gates Burrell described the process of making synthetic abrasives at the January 5 meeting of Sequoia mineral society. Sequoians celebrated their sixth birthday February 2 with a turkey dinner in Selma. John S. Greenwalt, Fresno, who plays music on leaves, entertained the group.

San Fernando Valley mineral society reports election of the following officers December 10: Larry Higley, president; Cash Ferguson, vice-president; Frances Pittman, secretary; Nellie McPheeters, treasurer.

O. C. Smith, petroleum and chemical technologist of Bell, California, entertained Orange Belt mineralogical society January 7 with colored motion pictures made 1937-39. Forty-seven members and visitors enjoyed pictures of the Canadian Rockies, of Mexico and of the San Francisco and New York world fairs. Another picture titled "How to Get Rich" showed Smith using his portable placer mining equipment. He displayed several gold nuggets to prove the efficacy of his machine.

COLORFUL MINERALS

DIOPTASE

Rich emerald green, and one of the most beautiful of minerals, hydrous copper silicate, also often has been regarded as one of the rarest. It first was found in Russia, then in Africa, and finally in Arizona. Africa furnishes much of the massive mineral, but Arizona, from time to time, produces groups of glistening green prismatic diopside crystals, hardness 5 and specific gravity 3.5. Both color and luster recommend diopside to the collector of bright hued stones. Sometimes the tiny, slender, green prisms are sold as "emeralds" mounted on the sides of diamond rings to set off the brilliance of the solitaire.

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Whenever the opportunity presented itself, we have purchased Tourmalines for our stock. The fact that we seem to have a splendid selection does not indicate that they are easy to get. As a matter of fact good Tourmalines always have and will continue to be highly prized specimens in any collection.

SPECIAL OFFER . . . For \$1.00 we will send you a GLASS TOPPED GEM DISPLAY CASE containing seven choice Mesa Grande, California, Tourmaline crystals.

For a more detailed listing of our comprehensive stock of Tourmalines, turn to P. 17 in our
— 1943 JUBILEE CATALOG —

It contains 100 pages of information you will find of value to you. In order to distribute this catalog to those persons most interested in receiving it, we are asking you to send us
10c IN STAMPS PLUS 5c FOR POSTAGE

OR send \$1 for 2 large sized polished Agates and include postage for 2 lbs. and a copy of this catalog will be sent to you free. The Agates are worth \$2.00 anywhere else.

WE WILL BE CLOSED EVERY DAY DURING THE MONTH OF FEBRUARY.

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WE WILL BE OPEN FOR BUSINESS DURING THE FOLLOWING HOURS ONLY—
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Ninita Parkway is one block east of the intersection of So. Hill Ave. and San Pasqual Sts.
Our phone number is SYcamore 6-6423.

Victor M. Arciniega spoke on the geology of the Santa Monica mountains at January 8 dinner meeting of Pacific mineral society. Arciniega laid particular stress on the eastern part of the hills in Griffith park along Fendell canyon which was the scene of the club's January 17 field trip. Roy Martin provided specimens for the display case during January.

GEM MART

Adv. rate, 5c a word—Minimum \$1.00

SUPERB WESTERN MINERALS: from Colorado, argentite, bismuthinite, gold, silver, ferberite, embolite, pyrite, etc. From other mountain mining states, altaite, azurite, cassiterite, cerargyrite, smithsonite, tellurium, wulfenite, stibnite, vanadinite, etc. All individual specimens of finest quality suitable for most advanced collector. Write for quotations on those you want. E. Mitchell Gunnell, 201 Colorado Blvd., Denver, Colorado.

CONSIDER trading beautiful Minnesota lake front for desert or mountain gems. Write F. L. Hill, Pine River, Minn.

FRIENDS—Gem material, cabinet specimens, books, Indian silverwork, fluorescent materials, lapidary work to order. Write The Colorado Gem Co., Bayfield, Colo.

VIRGIN VALLEY OPALIZED WOOD—We were fortunate in obtaining a small supply of this beautiful fire Opal. We can furnish lovely specimens in prices ranging from \$1.00 to \$100.00. Every collector should have a specimen of this material. Not recommended for cutting. Chuck and Rocky, 542 So. Broadway, Los Angeles, Calif.

ANTIQUÉ JEWELRY — Locketts, brooches, chains, rings, etc. 12 assorted, \$3.00. B. Lowe, Box 311, St. Louis, Mo.

\$2.50 brings you prepaid, six rare and beautiful crystallized Arizona minerals. Vanadinite, Diopside, Wulfenite, Willemite, Chrysocolla, Azurite. Specimens 1½x2 or larger. Wiener Mineral Co., Box 509, Tucson, Arizona.

AGATES, Jaspers, Opalized and Agatized woods, Thunder eggs, polka dot and other specimens. Three pound assortment \$1.50 postpaid. Glass floats, price list on request. Jay Ransom, 1753 Mentone Ave., Pasadena, Calif.

ZIRCONS—OPALS—CAMEOS—3 Genuine diamond cut Zircons (total 2½ carat) \$2.75. Twelve Genuine Opals \$1.50. Twelve Genuine Cameos \$2.50. B. Lowe, Box 311, St. Louis, Mo.

INDIAN RELICS, Beadwork, Coins, Minerals, Books, Old Buttons, Old Glass, Old West Photos, Weapons. Catalog 5c. Vernon Lemley, Osborne, Kansas.

100 JEWELRY STONES removed from rings, etc., assorted \$2.00. B. Lowe, Box 311, St. Louis, Mo.

HERE ARE BIG BARGAINS . . .

Big specimens, Virgin valley opal \$3 each. Stibnite inclusions in quartz \$2. Uruguayan amethyst, Brazilian crystal, 2x3 in., \$3 lb. Send for big local specimens, postpaid 25 cents. You can return specimens, if not satisfied. The Desert Rats Nest, 2667 East Colorado St., East Pasadena, Calif.

AMONG THE ROCK HUNTERS

Among the lead minerals found at Castle Dome mine, Arizona, are some fine specimens of anglesite. This is a secondary mineral, formed from galena by oxydization. Often the galena ore, lead sulphide, is still intact and very lustrous, surrounded by concentric bandings of anglesite, lead sulphate. As the layers of anglesite frequently occur in alternating dark and light colored stripes, the effect is quite pleasing.

Some misunderstanding is caused among mineralogists by careless naming of manufactured products. A valuable synthetic product was recently named lucite by its makers, in spite of the fact that leucite is already the name of a natural mineral. The two words lucite and leucite are pronounced the same, but are very different physically and chemically.

Battle Mountain, Nevada, ore stock pile is receiving shipments of high grade manganese from the C. L. Holcomb deposits in the Hilltop field.

Secretary of the Interior Harold L. Ickes stated recently that reports of the U. S. bureau of mines show a 10 percent increase for 1942 in the total value of metallic minerals produced in the U. S. over 1941. He expects 1943 to show at least a 10 percent increase over 1942. Production for 1942 reached the all time record of almost eight billion dollars. Army, navy and civilian demands, meanwhile, have also broken all records, so that every effort must be used during the present year to increase last year's record by a very substantial amount.

R. Whalley, El Cerrito, disclosed a new geode field to members of East Bay mineral society at the January 21 meeting. R. O. Deidrick and F. W. Cochran discussed determination of minerals by their physical properties at the January 7 meeting. They illustrated the blowpipe method of identification and demonstrated with equipment, the chemical analysis of a few stratic and some of the better known minerals.

Helen M. Laabs of California mining journal suggests that common ferrule cement, used for repairing fishing tackle, is an excellent doping medium.

Al Bolz states that 3A silica grit sandpaper can be used in polishing flats and any material that is likely to undercut, such as jadeite or californite. Speed is immaterial.

Jesse McDonald who has been acting president of Sequoia mineral society since president Tom Goff went to work for Uncle Sam, was elected president at the January 5 meeting in Parlier. His colleagues are: Gates Burrell, vice-president; Nellie Petersen, secretary-treasurer; Mabel Andersen, assistant-secretary; Dora Andersen, director; Florence Chapin, Leon Dial, Frank Dodson, Paul Eymann, trustees.

Walter M. Bradley, state mineralogist, announces price reductions on many maps and the earlier chapters of the state mineralogist's reports, those issued from 1922 to 1929.

January Sequoia bulletin mentions the discovery at Shark Tooth mountain near Bakersfield, California, of a shark tooth five inches in length and four and one quarter inches in width. Larger ones have been found in North Carolina, but this is claimed to be the largest in California.

Ordnance department of U. S. army reports that the following savings have been made by changes in percentage content and character of ingredients in ferro-alloy steels: Chromium, 18,313,452 pounds; nickel, 72,103,055 pounds, and vanadium, 1,647,870 pounds. Increased use of molybdenum was a main factor in this saving. Ordnance steel represents 80 percent of current steel consumption.

State division of mines announces the release of April, 1942, issue of California journal of mines and geology. The bulletin contains a report on the mineral resources of Imperial county by R. J. Sampson and W. B. Tucker. The publication is illustrated by photos, cuts and maps. It is for sale at the San Francisco, Sacramento and Los Angeles offices of division of mines, 60 cents plus two cents tax.

Bulletin 124 "Commercial Minerals of California" is now available for distribution by division of mines, department of natural resources, Price \$1.00. Due to war conditions and conservation efforts the papers have been issued in loose leaf form. Some 50 subjects are treated, including strategic minerals listed by the U. S. army and navy munitions board.

Sequoia mineral society has voted to obtain a service flag.

Charles S. Knowlton, president of West Coast mineral society, says that attendance is keeping up well despite war conditions. C. A. Brooks, Santa Ana, addressed the group in December on volcanite, a product of montmorillonite.

W. Scott Lewis in his January bulletin stresses the importance of a hobby in developing and sustaining morale. Hobbies lead youthful energies into harmless outlets. Especially beneficial are nature hobbies, such as the study of flowers, insects or minerals.

Cogitations . . .

Of a Rockhound
By LOUISE EATON

• No wonder that city folks likes the desert! Didja ever smell a city? Jus' take a good sniff the next time yu gets down town in a sizeable burg. Ghosts of past vile odors mingles with present day stenches. Even whiffs of perfume is somehow noxious, as tho they tried to cover up other scents not so good.

Besidz, there's nuthin' to see in a city—only buildings ev'ry way yu looks, people yu don't know, clangin' streetcars 'n creepin' autos. No sky nor mountains nor proper landmarks. Policemen most busts their whistles blowin' at yu if yu forgets about street-crossin' lights. Ev'rywun's in a terrible hurry, crowdin' 'n pushin'; but it takes as long to get waited on in a store as it takes for a rattlesnake to shed his skin.

An' yu're absolutely alone in a city. All those folks yu don't know makes yu feel solitary as a hermit. On the other hand, in th' desert yu can look around 'n see things, 'n yu don't hafta read a street sign to find out where yu are. North is north, 'n stays put. By yurself on th' desert yu can't feel lonesome cause YU are th' most important object in th' vicinity.

Vincent Morgan, president Mojave mineralogical society, spoke on agate at the January 12 meeting of that group. He illustrated his talk with specimens of agates, and demonstrated how "moss" is formed in moss agate. A cluster of Brazilian amethyst crystals rewarded the winner of a surprise quiz on agates.

Professor E. A. Just, member, spoke on the mysteries of light in an illustrated talk for Long Beach mineralogical society at their annual banquet. H. O. Fox of Dow Chemical company lectured at the January 8 meeting of the group.

Death Valley Curley, Goldfield, Nevada, reports mining a lazulite nodule five inches in diameter. (Lazulite is aluminum phosphate, blue spar or lapis lazuli.) Curly and Frank Livesley recently have found a deposit of moss agate 10 miles from Goldfield.

"All work and no rocks makes Jack a dull boy" states Mineral Notes and News, urging mineral societies to keep up interest and if possible, hold their organizations together. Trading by mail, sorting and labeling specimens are suggested. Societies might submit lists of their members who like to trade, and what they have to offer. Dealers might want to purchase surplus materials, as their supplies of common minerals are running low.

Mrs. Howard L. Soper, member Imperial Valley gem and mineral society, sponsored the S. S. Cape Mendocino, launched by Consolidated Steel corporation, Ltd., for U. S. maritime commission January 24 at Wilmington, California.

Searles Lake gem and mineral society has undertaken the restoration of the desert oasis at Indian Joe's, site of John Searles home.

Los Angeles lapidary society has seven members in the armed forces, all of them dues-free members for the duration. It was voted at the December meeting to allow seven new members to take their places from a waiting list of 32, as the society has a closed membership of 150. At the annual Christmas party and turkey dinner, 138 members attended, with President De Witte Hagar presiding and Leland Quick as master of ceremonies. Table decorations were arranged by Belle Rugg.

HIDDEN MINERALS

Here is a new kind of "treasure hunt" for the rockhounds, written by Namance Sherwood of Los Angeles, California. If you find 25 names of common rocks and minerals you are a genuine rockhound. If you find 35 you are a rocknut; find 50 and you have too much imagination! Answers are on page 36.

One quiet evening Bill and I and the two children were driving slowly through Picture Woods, thinking how lovely it was to be out on the road a night like this. There was faint star light; and by the light of a fainter moon, stones gleamed like diamonds.

But we were far from home and a chill wind came up suddenly. We wished for home.

Bill broke the silence. "Hi! A light!" Baby echoed, "Oo, light!"

"There's a gate, too," I replied. "I'm cold and hungry. Oh, Pal, let's go in."

On entering the yard we noticed a tiny gleam. "Was it a dog tooth or a cat's eye?" I wondered. But small Katie cried, "Thassa fire!" Baby Willa added, "I tan zee a light." Near the house Bill called, "Watch out, that root'll trip you." He led us to the step.

"Daddy," said Katie, "a bear 'll get us!"

"No, silly Kate!" said her father, "you won't find a bear right out on the desert!"

We knocked and were invited in by a poor old fellow, Job Jasper. Job's tears fell fast as he hold us his story. "My appetite for strong drink," said he, "brought me to where I owed more than I had."

"Gee, owed more than he had," murmured Bill, while I thought, "What a sin a bar is. Where in the Bible, Micah or Habakkuk, does it say, 'Woe unto him that giveth his neighbor drink?'"

We opened our lunch basket to share with him. He saw the quarts of milk and his jaded spirit began to rise. On the sink was a granite dipper. After a pleasant meal we realized that it was late and time for the children to be in bed. As we hurried them into the car a bat flew right over us, giving us a creepy feeling; or was it foreboding?

Bill drove fast, for the fog was upon us. "Willa might be cold," he said. "On your lap is where she ought to be." Just as I took her, Bill honked at a scuttling little animal. At the same moment I yelled, "Bill, slow up, a copper's coming!" But too late. We heard the dying sound of the horn blend with the rising sound of the siren, and here was the law!

"What yah think yer doin', speedin' in the fog like this?" he roared.

"I've been on the road a crow's sight darker 'n this," retorted Bill ironically, "and besides, what's to hinder a fellah usin' a rag, a night like this, to dry his windshield?" The cop was unmoved. I thought of our nearly empty purse as I watched him mark a citation for speeding.

The next morning we reluctantly entered the courtroom. It looked unfriendly.

"Give 'em a long term," a lean old man was saying, "or else a big fine! It's folks like them as is alluz wastin' gas and tires."

Suddenly a familiar form burst into the room. It was the old man of the hills, yelling at the top of his voice, "Where are those good, kind people? I'll pay their fine! I've struck it rich! I've just found five dozen fresh eggs! Yes, by thunder! EGGS!"

Mojave Desert Gem and Mineral Shop . . .

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Red Jasper	Brazilian Agate
Black Obsidian	Belgian Chert
Multi-colored Petrified Wood	Eden Valley Wood
Rouge Blanca	Moss Opal
Myrickite	Green-red Mess Agate
Chrysocolla	Nevada Wonder Stone
Black Wood	Brecciated Jasper
Jasp-agate	Orbicular Jasper
Palm Wood	Utah Jade
Moss Agate	Vesuvianite
Cinnabar Opalite	Double-flow Obsidian

ANY THREE FOR \$1.00
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SPECIAL! A few Rock-a-chuckies in ring, brooch and pendant sizes, in outstanding patterns and designs. Ring size, 65c; brooch, 90c; pendant (drilled in proper place), \$1.25.

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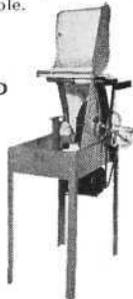
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THIS MONTH . . .

We are featuring a special for cabochon cutters—sawed blanks of choice cabochon material about 1/2"x3/4" or larger, at 25 and 50c, depending on the quality. These will all make nice stones. We can also supply you with roughed out cabochons, or complete slabs of fine material at prices you like to pay. Send 3c for my price lists.

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GEM SETS . . .

NEW WONDER SET

Of gems and minerals includes turquoise, gypsum, opal, actinolite, marcasite, iron pyrite, fluorite, bauxite calerite, galena, onyx, howlite, agate, lepidolite, silver ore, quartz and benitoite.

Set contains streak testing block, bottle of mounting glue, small hand lens, 25 printed mounting cards, and instruction manual for gathering and classifying your gem collection\$1.50

YOUNG PROSPECTOR'S SET

Includes specimens of copper ore, jasper, blue calcite, tourmaline, onyx, silver ore, iron pyrite, muscovite, opal, vesuvianite, marcasite, actinolite, flint, turquoise and gold ore and small hand lens\$1.00

Desert Crafts Shop
El Centro, California

AMATEUR GEM CUTTER

This page of Desert Magazine is for those who have, or aspire to have, their own gem cutting and polishing equipment. Lelande Quick, who conducts this department, is former president of the Los Angeles Lapidary society. He will be glad to answer questions in connections with your lapidary work. Queries should be addressed to Desert Magazine, El Centro, California.

By LELANDE QUICK

H. H. Meigs of Sacramento writes me that aside from the commercial value he would rather possess an opal as large as a hen's egg than a diamond that size and I am inclined to agree with him. I like opals intensely and fail to thrill to diamonds. That statement will make some diamond lovers gasp.

Now I always have been tolerant of other people's preferences in the matter of gems but I find it is a subject that pains many people to the point of making them disagreeable if one does not possess the same appreciations. A few weeks ago I was at Redondo on the look-out for some "moonstones" and among other retrievers was an individual who was greatly excited about finding a "flower stone." I was unimpressed however and when I said I wouldn't give a dime for a bucketful of them the stranger lapsed into a pained silence that was almost murderous. I think flowers are interesting to a degree but I fail to see much beauty in them. I would much rather have a good piece of orbicular jasper from Morgan Hill for that does possess great beauty and color for me.

I deeply wounded a friend of mine once by not being able to share his enthusiasm for fluorescent materials and I never have been able to understand why some folks are so violent in their partiality to certain gems that all other folks are outside the pale if there is not a meeting of minds. There are plenty of people who care nothing at all for opals; they wouldn't take one as a gift and they tell me so but I have never held it against them. Sometimes I think we are guilty of bad manners with our fellow hobbyists and possibly there is a sensible middle ground where a person should not shout his likes or his dislikes too strongly and then no one will be offended.

For a while I tried silence—said nothing at all when I felt I could offer nothing but an opinion that wouldn't please, but then silence is louder than words sometimes. It would be a dull world indeed if we all had the same tastes and I suppose someone has to like the abalone shells and petrified wood but I don't want anyone feeling hurt because they are not among my greatest enthusiasms.

L. E. Perry of Monrovia, California, a member of the Imperial Lapidary Guild, advises me that he has been able to adapt his gem cutting knowledge to the war effort by becoming a grinder of lenses and prisms. It is a fact that amateur gem grinders are given preference on such jobs. They are usually required to display evidence of their work so that the employer can judge their skill and know where to place them for further training. If any gem cutter is considering a change of occupation to the war program it would be wise to utilize his precision experience in an industry that is not dangerous and in a job that is reportedly well paid.

Many people are agog with excitement since a recent newspaper announcement appeared stating that good clear quartz crystals were wanted by the government at \$20,000 a ton. In addition to the complete information in Arthur Eaton's GEMS AND MINERALS section in January DESERT MAGAZINE I am informed that Donald M. Murray Co., of 14 E. 46th street, New York City, will buy any quartz crystals that are clear, with no twinning or checking, regardless of color.

Bennie Bengtson of Kennedy, Minnesota, says he understands that the bdellium (opal?) mentioned in January DESERT MAGAZINE as being the first stone referred to in the Bible is really the pearl. Dr. Rolland Butler of San Diego, who received a gold medal for his work on Biblical gems at the California International Exposition in 1935, claims it was the opal. There is no authoritative information. Dictionaries define it as "probably a gum" (amber?) and Kunz himself said no one really knew for sure but that it had to be local material and pearls were not reasonably local. Dr. Butler, who claims there are 1,704 Biblical references to gems, has a most interesting collection of all gems mentioned in the Bible on display at the Museum in Balboa Park, San Diego. It is a fascinating exhibit to which I return whenever I get the chance.

DID YOU KNOW . . .

- Some of the finest rock crystal ever found anywhere was found in an ancient streambed of Calaveras county, California, about 40 years ago.
- Californite, a green variety of vesuvianite that greatly resembles jade, was so named by Dr. George Kunz.
- A greater variety of gem crystals occurs in San Diego county, California, than in any other one spot in all the world according to a report made to the California state mineralogist by Dr. Kunz as early as 1905.
- True sapphires have been found in the drift of San Francisquito pass in Los Angeles county.
- Sky-blue topaz crystals weighing more than a pound each have been found near Ramona, California.

LAPIDARY HELPS AND HINTS . . .

Tourmaline has the same index of refraction as carbon disulphide. Take a bottle of it with you when you go to buy tourmalines for faceting. Because of the same index the tourmaline placed in the solution will tend to disappear—but any flaws will show clearly.

Roy Merdian of the Tacoma Agate club tells me of a new idea for keeping the grits on the lap wheel. Dissolve soap-powder to a creamy lather, add the grits and proceed. It keeps the hands clean, prevents the lap from rusting and the grits "stay on." Sounds good. Thanks, Mr. Merdian.

While opals cannot be successfully simulated common milk opal can be colored by oils and pigments to make them red and blue. The colors can then be fixed by long soaking in Canada balsam.

HIDDEN MINERALS ANSWERS

Questions are on page 35.

Picture wood, rhodonite, staurolite, moonstones, diamonds, hyalite, opal, agate, dog tooth, cat's eye, sapphire, zeolite, rutile, beryl, silicate, barite, jasper, Job's tears, apatite, geode, cinnabar, mica, quartz, jade, zinc, granite, fluorite, willemite, lapis, copper, hornblende, rhodochrosite, iron, aragonite, marcasite, tourmaline, thunder eggs.

BOOKS OF YESTERDAY AND TODAY

—a monthly review of the best literature of the desert Southwest, past and present.

ROMANCE OF GEOLOGY REVEALED IN BOOK

Even the layman unfamiliar with mining and its attendant science of geology will find **TREASURES IN THE EARTH**, by Edward F. Fitzhugh, Jr., full of exciting interest.

In the formation of the earth's crust embodying both rare and strategic minerals there is drama. And Mr. Fitzhugh has captured through vivid writing the feeling that one has when faced by the wonders wrought by powerful natural forces.

Major geologic processes pass in brief review, opening a fascinating work in which the author tells how metals are first concentrated to be deposited in veins or other forms of ore bodies. His explanation of faults and rock structures is easy to understand. He reveals the geologic clues that have solved puzzling problems for mining men. Scientific tools including the map, the model of a mine, the diamond drill and the microscope all are detectives on the job for the commercial geologist, Mr. Fitzhugh declares.

Although the book was published first in 1937 it is one that is of interest today and one that will be of importance tomorrow. It should be on the shelf of every gem collector, miner, geologist, and prospector. Index. 130 pp. \$2.00. Caxton Printers, Ltd., Caldwell, Idaho.

—Harry Smith

LIFE IN MORMON COUNTRY PICTURED BY STEGNER

MORMON COUNTRY, Wallace Stegner's recent contribution to the American Folkway series, being published by Duell, Sloan and Pearce, N. Y., is an intimate portrait of the hardy, practical Mormons and the desert wasteland they have turned into neat productive farms.

Stegner lived many years in the territory he describes as a scenic wonderland, including all of Utah, most of southern Idaho, the southwest corner of Wyoming, much of Arizona and Nevada and strips of Colorado and New Mexico.

History of the Mormons has been unique in western development. The rigid tenets of their religion, including obedience, personal abstemiousness and intense religious convictions, have tended to isolate them as if they were another race. Stegner believes, however, that when the "outside" is made aware of the beauty of the region, their little settlements no longer will be so detached from national life. An appreciation such as can be brought about by books like this of Stegner's will further aid the slow process of

assimilating an independent resourceful people.

Many of the novels and other books on Mormonism have overstressed the practice of polygamy, leaving unexplored the many other sides of Mormon life. Stegner gives the practice one chapter, "Fossil Remains of an Idea," in which he tells the story of Short Creek where a group of polygamists attempted to make a flourishing community of like believers, only to meet church ostracism, near starvation and trouble with the law. Of the practice, he says, however, "Those two relics of barbarism, slavery and polygamy both have been crushed, but there are still the defiant. Faith is a weed with a long taproot."

Mr. Stegner retells the story of Everett Ruess, the adventurous boy who worshipped beauty and traveled the backroads of the Navajo country, the rock deserts of Utah and Arizona to write and paint and after three years disappeared. He recounts some of the legends and myths which are much alive in the Mormon territory.

Index, 362 pp. \$3.00.

—Helen Smith

GRAND CANYON SETTING FOR NEW NOVEL

Admirers of V. Sackville West will find **GRAND CANYON**, her first novel in eight years, in the Wellsian vein of fantasy.

It is an imaginative tale based on world conflict and written against the fabulous landscape of Grand Canyon. This awesome background is a haven for a man and woman who in the midst of death from dive bombers look dispassionately at the warring world. The conclusions which they reach regarding the establishing of an ideal peaceful society they are able to put into practical form by bringing reason and order into the lives of others living at the Canyon. \$2.50. 304 pp. Doubleday Doran & Co., N. Y., 1942.

SPELL OF THE MOJAVE WOVEN IN POETRY

HOURGLASS IN THE MOJAVE is a remarkable poem-portrait and character study of the desert land. Ruth Forbes Sherry reveals Mojave in the stark beauty of its changing moods and hours.

Some passages are delicate as a rose petal, others full of strength and hardness. Her lines whet the mind as well as the heart. In dignified verse she has shown the great, timeless quality of the Mojave.

Wagon and Star. West Los Angeles, California. \$1.25. 48 pp.

—Helen Smith

LIFE AT TRADING POST TOLD IN CHILD'S BOOK

One hundred and fifty miles from the railroad, Black Mountain trading post in the Arizona desert furnishes the setting for Laura Adams Armer's **THE TRADER'S CHILDREN**, another of her books for boys and girls. The children of the story are real children and Mrs. Armer photographed them for her book.

Since the country is nearly barren, has a sparse population, and sheep herding is almost the sole industry, Mrs. Armer has had to use what would ordinarily be considered too unessential details to build her story. Yet this is the making of the book, because it gives her the opportunity to picture the desert country and the type of life lived there. The story is charming, lively and educational.

Nature furnished the conflict in the form of drought, soil erosion and thunderstorms with their threat to the sheep. Celebration of the Fourth of July and Christmas and Mayna's going away to school are highlights of the book.

Illustrated with aquatone reproductions of photographs taken for the book by the author. Decorations by Sidney Armer. Longmans, Green and Co., New York. \$2.50. 241 pp.

—Helen Smith

ADVENTURE OF SOUTHWEST IN COLUMNIST'S BOOK

"With every five gallons of gas you burn in New Mexico, you can depend upon enriching your life and your memory," said the late Harry Carr in **THE WEST IS STILL WILD**. And with every page you turn of the noted columnist's book, you can count on adventure and atmosphere along exciting trails through Southern California, Arizona and New Mexico.

Mr. Carr's terse, newspaper style enables him to cover a wide territory and include much factual information without detracting from the charm of his travels. He recounts delightful conversations with obscure Indian maidens, dips into legends of the past, pictures such wonders of nature and of man as the Carlsbad caverns and Boulder dam. He writes of the days of the dons and California missions.

Reading **THE WEST IS STILL WILD** is like sitting with the author through a long evening while he takes you on a thrilling trip highlighting it all with droll comments on his own observations. He brings to life vividly the old days and gives a passing look at present activities in the matchless setting of the Great Southwest.

Illustrated by Charles Owens. 257 pp. Houghton Mifflin company, Boston. \$2.50.

—Helen Smith



Just Between You and Me

By RANDALL HENDERSON

I THOUGHT when I joined the army I would have a recess from the unpleasant task of rejecting a dozen more or less good, bad and indifferent poems every day. Believe it or not, I have a great fondness for poets despite my dislike for the cockeyed verses some of them write occasionally.

Desert Magazine has always received far more poems than we could use every month—and so there was the disagreeable task of sending them back to the writers. I never enjoyed doing that. And I thought the army would relieve me of that duty.

But it didn't work out that way. One of my first assignments when I arrived at Hobbs field in New Mexico was to take charge of the camp newspaper. And in the first five manuscripts that came to my desk for official approval there were three poems, written by the soldiers in the camp.

There is just no getting away from poetry-writers. They are everywhere. And despite all the annoyance they cause me at times I hope their tribe will never grow less. As I have said before I wouldn't want to live in a world that had no poetry. I only hope the folks who write it will be as tolerant as possible when the editor sends it back to them—which he must do in most cases to hold his job.

* * *

My tour of duty as a member of the Army Air Forces recently included a few days in Washington D. C. While it was an interesting assignment from a military standpoint I am glad it was not permanent. Washington in wintertime is no place for a desert rat. For nine days I shivered in snow and rain and fog, with the temperature hovering around zero most of the time. I never did see the sun.

Speaking of deserts I am sure there is no desert on earth more bleak and forbidding than the cities of northeastern United States in mid-winter. Long rows of grimy brick and stone apartment houses—with not a blade or leaf of anything green to brighten the landscape—the sun obscured by fog and smoke in daytime—the stars seldom visible at night. In comparison, it seems to me that our desert of the Southwest, even in its most unfavorable aspects, is warm and friendly and colorful. I am sure that Washington in summer is a very beautiful city, but I hope I never have to make my home in a place so cold and ugly for five or six months of the year.

Washington has a fine system of bus transportation for its thousands of war-time workers, but to a stranger it is most bewildering. I never could figure out where these buses came from nor where they were going. Even the bus-drivers seemed to be in doubt at times. I finally gave up trying to solve the riddle, and would reach my destination eventually by the trial and error method. Fortunately, the transit company sells weekly passes, and so my blundering involved no extra expense on my part. This is the only place I have ever been where I could get a public utility company to pay for my mistakes.

* * *

From Washington, my orders took me to Florida—and I was grateful for the opportunity to thaw out again. While one hardly would call Florida a desert, it does have great forests of native palm trees and other close relatives of the trees and shrubs and flowers that grow in the Southwest. And so I felt much more at home than in the drab leafless environment of the nation's capital.

On the Colorado desert of Southern California the desert's native palm trees grow only at the lower elevations, and pine trees are found at higher levels. But here in Florida there are no mountains so the palms and pines grow together in one big happy family, and it makes a very picturesque landscape.

Really the only difference between Florida and the desert Southwest is the amount of rainfall. This also is a land of sun and sand and solitude. But the rains come abundantly here and the result is dense vegetation everywhere.

It is interesting to recall in passing, that Southern California's native palms first were observed and recorded by Floridians. They were the Florida soldiers who accompanied Kearny's Army of the West to California in 1847. Lieut. Emory, who accompanied the Kearny expedition, tells of the discovery of the palms at Mountain Palm Springs, not far from Vallecito stage station. The men from Florida identified them as "cabbage palmettos." And they still are called that by the old-timers here in Florida.

* * *

This Florida climate does strange things. Out in a little flower garden on the shady side of the barracks in which I am living, ferns and water-lilies are growing in the same soil with cereus cactus. There they are, side by side, and all of them appearing healthy and quite at home. All of which proves that the cactus family is even more versatile than some of us had given it credit for being.

* * *

Now I am writing somewhere 9,000 feet over South America. Yesterday we rode 10 hours, and at the rate we are going that is a lot of miles. Landed twice on islands—one a U. S. possession, and the other belonging to an ally.

Through the clouds I get fleeting glimpses of the green jungle below. I imagine there are monkeys and gay-colored parrots down in those trees. Occasionally we cross a wide muddy river. The cloud formations below and on both sides are gorgeous. Sometimes it almost seems as if a giant "cloudplow" had gone ahead and gouged out a great canyon for our plane to follow.

Occasionally one of the cloud peaks reaches up to our elevation and as we plunge through, the plane bounces around as if it were in a squall. Most of the time it is very smooth riding, however, as you may judge from the fact that this is written on my lap.

The boys in the plane are breaking out the lunch boxes—so I'll finish this and get in on the food.

IT'S FLOWER TIME OUT HERE . . .



About this time in past years, you were planning a trip out into the Desert to visit the fields of sand verbena, dune primrose, and desert lilies. This year you are staying home—but you can still enjoy the breathtaking loveliness of the desert in spring through fascinating books on desert lore which Desert Magazine has assembled for you. A varied selection to meet the taste of any reader is on sale at the Desert Crafts Shop. Write today for a complete list.

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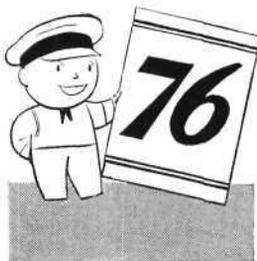
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