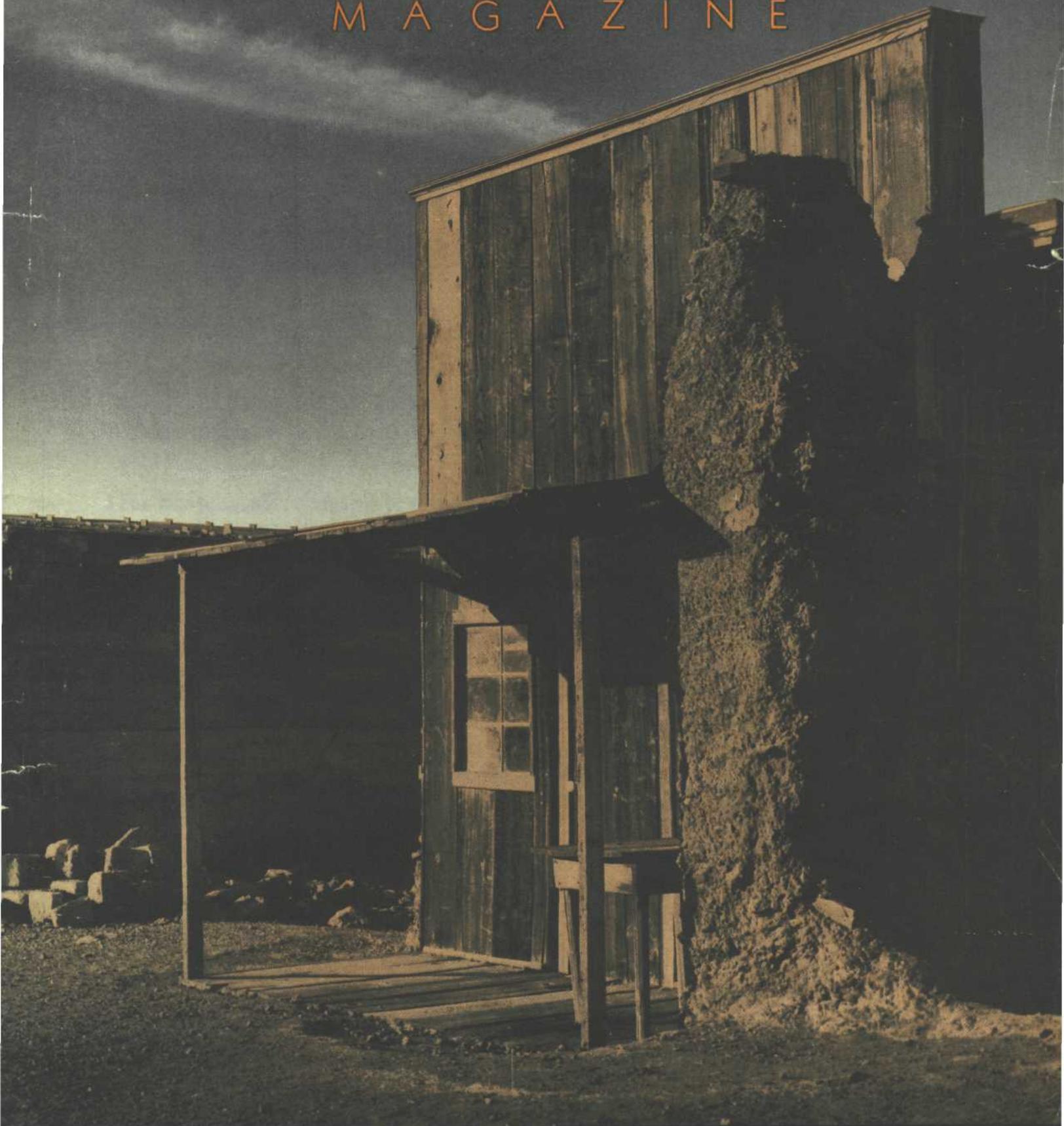


THE

Desert

MAGAZINE



OCTOBER, 1950

35 CENTS

You Will Be Wearing Rainbows

When you wear jewelry set with TITANIA. After years of experiments, synthetic Rutile is now available in facet brilliants. This magnificent substance has been given the name of "TITANIA."

When viewed under proper lighting, round brilliants of TITANIA appear to be polished bits of rainbows. Certain remarkable optical properties make this extreme refraction of light possible.

HERE ARE THE FACTS

SUBSTANCE	INDEX OF REFRACTION	CHROMATIC DISPERSION
AMETHYST	1.544 - 1.553	.013
EMERALD	1.564 - 1.590	.014
RUBY, SAPPHIRE	1.760 - 1.768	.018
DIAMOND	2.417	.063
TITANIA	2.605 - 2.901	.300 (APPROX.)

The ability of a gem to break up light into its component colors and produce a rainbow effect is measured by its chromatic dispersion. Note that TITANIA has 5—25 times more ability to produce this RAINBOW EFFECT than any of the first five natural gems in the above list.

Everyone to whom you show this new jewelry will wish to purchase a ring or pair of earrings. A free circular is available which gives you all the facts about TITANIA JEWELRY. This circular outlines a discount plan that will permit you to own one of these magnificent stones at no cost to yourself.

DEALERS INQUIRIES SOLICITED

AN ARTICLE TELLS THE STORY BEHIND THIS AMAZING DISCOVERY

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DESERT CALENDAR

- Sept. 30-Oct. 1—Desert Peaks section of Sierra club will climb Pleasant Mountain and Cerro Gordo peak above Keeler, California.
- Oct. 1—Official opening of winter vacation season, Phoenix, Arizona.
- Oct. 1—Santa Cruz County Fair and Rodeo, Sonoita, Arizona.
- Oct. 1-7—Annual Navajo Indian Fair, Shiprock, New Mexico.
- Oct. 1-8—Aspen week, "Aspencade" tours into mountains around Taos, New Mexico.
- Oct. 4—Feast Day of St. Francis of Assisi, patron Saint of Santa Fe. Celebrated on eve of St. Francis, Oct. 3, by procession from St. Francis cathedral, Santa Fe, New Mexico.
- Oct. 4—Annual feast day and dance, Nambe pueblo, New Mexico.
- Oct. 4 — Spanish-American fiesta, Rancho de Taos, near Taos, New Mexico.
- Oct. 4-8—Eastern New Mexico State Fair, Roswell.
- Oct. 5-6-7 — Nevada State Medical association annual conference, Las Vegas.
- Oct. 5-8—Graham County Fair, Safford, Arizona.
- Oct. 6-8—Tri-State Fair and Sheriff's Posse Rodeo, Deming, New Mexico.
- Oct. 6-8 — Cochise County Fair, Douglas, Arizona.
- Oct. 7-8—Mass field trip sponsored by the Clark County Gem Collectors, Las Vegas, Nevada. Camp ground at Boulder Beach on shore of Lake Mead.
- Oct. 16-19—Southwestern Cattle Festival, Clovis, New Mexico.
- Oct. 18-19—State Garden club gathering, Roswell, New Mexico.
- Oct. 18-23—Pima County Fair, Tucson, Arizona.
- Oct. 19-21 — Grand Chapter, Order of Eastern Star, Roswell, New Mexico.
- Oct. 20-21—American Association of University Women fall Workshop, Prescott, Arizona.
- Oct. 20-22—Gem and Mineral show sponsored by San Geronio Mineral and Gem society, at Cherry Festival building between Beaumont and Banning, California.
- Oct. 20-22 — Annual Pioneer Days celebration, parade, contests. Twentynine Palms, California.
- Oct. 21-22—Junior Rodeo, sponsored by 20-30 club, Phoenix, Arizona.
- Oct. 26-27 — Fifth annual Aviation Conference, Tucson, Arizona.
- Oct. 26-28 — Southwestern Medical association conference, Phoenix, Arizona.
- Oct. 28-29 — Annual Papago Indian Rodeo and Arts and Crafts exhibition. Indian dances and games. Sells, Arizona.
- Oct. 31—Annual Mardi Gras, sponsored by Kiwanis club, Barstow, California.



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The accompanying poem was suggested to June LeMert Paxton by this grave of an old prospector in Joshua Tree National Monument. The headstone bears the legend "John Lang, 1853-1926." Photo by Harry Vroman.

DESERT SHACK

By ADA GENEVIEVE MCCOLLUM
El Monte, California

There's a lonely road a' winding
Through a stretch of desert land,
Where the Joshua and Yuccas
Grow in the soft, brown sand.
Here the lazy turtle wanders,
And the Chipmunk scampers free,
Every desert creature is full of ecstasy.
There's a weather-beaten cabin
Built against a granite wall,
It's much too hot in summer,
And too cool in the fall.
The floors are warped and knotted
The door's always ajar,
But the tiny windows welcome
No matter who you are.
On the bunk's an old straw mattress,
No downy chicken's fluff,
If one's bones are sore and weary,
It's plenty soft enough.
There's a granite coffee pot
Sitting on the rusty stove,
And when there's coffee boiling
It's like a treasure trove.
A shiny car may pass the shack,
And people in it say—
"I'd hate to live way out here
It's such a long, long, way."
Yet many a weary prospector
Seeking the mother lode,
Has found a haven 'neath its roof,
Worth more to them than gold.

DESERT MESSAGE

By WILLOW WEBER
San Fernando, California

We span the mountains in our stride
Until the rosy sunset smiles
As evening hurries to her side,
Making fractions of the miles.

The wind is not so soon asleep;
Its fingers come to kiss our hair.
We stand with all of life to keep . . .
Feeding our dreams on desert air!

The desert eyes us like a sage,
And something there along its breeze
Is more than sand and space and age,
And something more than Joshua trees.

GHOST TOWN

By AMY CRUX SOUTHER
El Cajon, California

The ruthless heat of sun beat down
Upon the bleak deserted town,
Heat wavelets rose like straying ghosts,
Blown tumble-weeds were silent hosts.

The houses, fences, scaled bare
As tropic beam of sun shone there,
The shifting mounds of greying sand
Bred wierd moods on desert land.

We saw no frogs or lowly snail,
No bird on wing or feathered quail,
No hoot-owls' wistful crying sound,
No bark or cry of straying hound.

We felt the shock of parching thirst,
This bitter land was raw, accursed,
Its shapeless form was lax and dried,
A sullen spot where men had died.

The ancient graves held crumbling bones
With man's lost hopes and eerie moans,
Then strange low whispers left our breath,
We bade farewell to town of death.

OCTOBER GOLD

By RUBY CLEMENS SHAFT
Arlington, California

Fall, fall October leaves
Spill your gold upon the ground
For only fools gaze far to find
The wealth that's close around.

Right Living

By TANYA SOUTH

Let your compassion deeply flow.
Give readily. And let the glow
Of sympathetic understanding
Be never ending.

A day, a year, a life-time passed
In serving eagerly, and giving—
And oh, what strength is not amassed
Through this right living!

Pioneer's Grave

By JUNE LEMERT PAXTON

At dawning, when the air is still
And the vastness void of sound,
The sun comes up on a lonely grave—
Six feet of sandy mound.

At noonday when the wind sweeps low
And moans through the chaparral,
It hints of hidden mysteries
And secrets it dare not tell!

When the rest of the world has gone to sleep
In the darkness of the night,
A coyote waits beside that grave
And wails at a ghostly sprite.

But the pioneer kens neither sun nor wind
And smiles at the coyote's wail,
For he quenches his thirst in a fairer land
And plods a safer trail!

A DESERT SUNRISE

By FLORENCE A. MORRISON
Boulder City, Nevada

I walked out on the desert with my thoughts
confused in doubt.
The early morning sunrise woke the moun-
tains round about.
White clouds, like ostrich feathers, seemed
stationed in the blue;
The sunlight brushed their shadows with
gold and purple hue.

A useless slab of granite, thrown carelessly
away,
Served as a seat for resting while I watched
the break of day.
"Why was I born—what purpose?" From
my heart went up this cry;
"Why must my own salvation depend on
naught but—I?"

Then I looked full at the sunrise, and I
felt its golden glow.
In answer to my questions it seemed to
say, "You know—
You are a part of Nature; the image of
your God,
Of Love, The Great Creator—you were not
made of sod.

"You, given all dominion, must use your
Power of mind,
And work out your salvation from evil,
for man-kind.
All Nature stands before you—a grand and
glorious Law
Of harmony and Wisdom, Perfection with-
out flaw.

"It rests in mighty action, this Law of
Nature true;
And you must rest in knowing what God
has promised you.
Must seek the Fount of Wisdom, the un-
derstanding way,
That banishes the darkness, and lights Eter-
nal Day."

DESERT SUNRISE

By FAITH MURRAY NELSON
Taylor Ridge, Illinois

I like to stand upon a dune
And watch the sun come up.
The soul of beauty seems to hide
Within its golden cup.

The trailing sunbeams leave soft stains
Upon the blue gown of the sky,
Till morning zephyrs come along
And erase them with a sigh.

During World War II one of the most important mining operations in the western hemisphere was in California's Borrego Badlands, where a special type of calcite crystals were found for the making of Polaroid gunsights. Here is told for the first time the story of the discovery of the calcite deposits and the circumstances which brought them into production for war-time use.

Mining for Gunsights . . .

By JOHN HILTON
Map by Norton Allen

THE FIRST hint I had of calcite in Palm Wash area was an idle statement by Ted Gordon of Mecca, California. He said he had seen huge crystals of iceland spar when he was prospecting for the lost Pegleg mine many years ago. I suspected the crystals he described were gypsum, not calcite. They sounded too big and it seemed they were the wrong shape. Then, one day my prospector friend Harry Heather came in with some huge tabular plates of calcite from his diggings near Palm Wash. I knew at once that Ted had known more about minerals than I had believed.

Harry and I tried to find a commercial market for these wonderful plates of calcite but with little success. All the instrument makers agreed that the material was of excellent optical quality but they also were unanimous in stating that the crystals were the wrong shape to have any importance. We sold a few of the thicker plates by cleaving them into pieces suitable for the manufacture of Nicoll prisms, dichroscopes and other technical instruments, but most of the material was too thin and we let the matter drop.

Later I was prospecting in the area and found not only plates but clusters and rosettes of fine calcite. They made good sale and trading items. Occasionally I worked some of the pockets, with little success. At different times I filed claims with partners on different areas but finally they all lapsed.

During one of these sporadic mining ventures, Harry Heather came into our camp. He was very angry. He had seen some of the crystals we were digging and thought we were high-grading his claim. We told him that there had never been a pick stuck in the ground when we started our workings. He insisted that he had prospected the whole area and located everything that showed calcite. The argument grew hotter until we finally stopped to get our breath. Then in the light of the campfire Harry started drawing a map of his claims in the sand. He hadn't gone far before I knew that we were leaving the same camp in two very different directions. Our claims were all on the west side of a very deep and forbidding canyon and all of his were on the east side.

What had been a tense situation broke down into laughter that echoed from the high sandstone walls around us. Harry and I still get a laugh out of the situation when we meet and talk over old times.

The specimen market was soon glutted and about then Polaroid was invented by Dr. Edwin H. Land of Cambridge, Mass. This destroyed the market for optical calcite so there was little use of mining more.



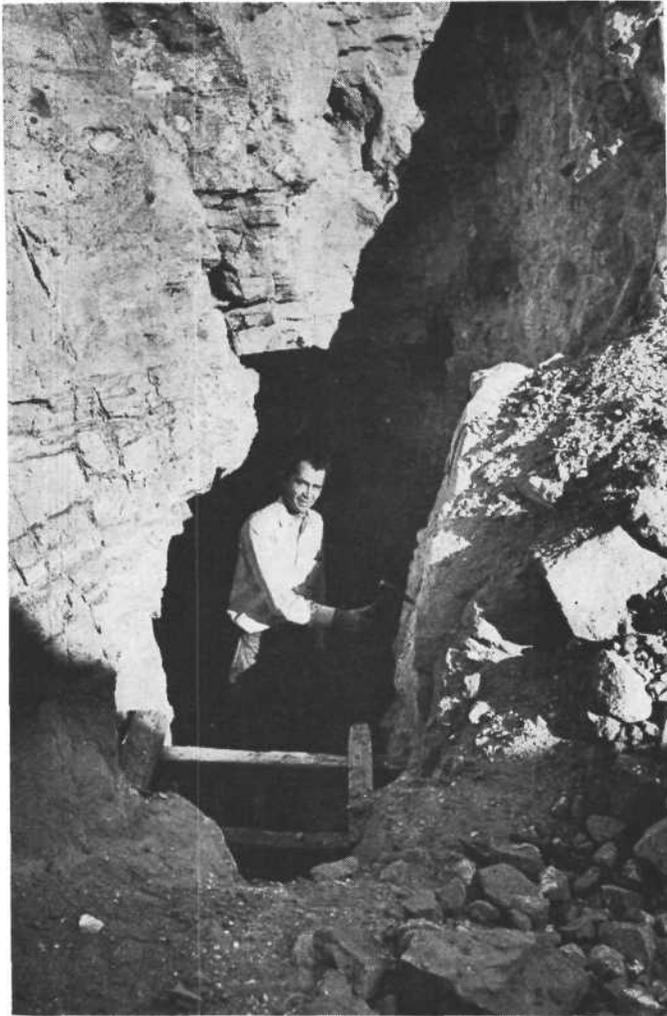
The crystals generally occurred in pockets. Ralph Willard passes out a crystal group taken from a pocket.

Some years passed and war clouds threatened and then Pearl Harbor. When General George S. Patton came to the desert to train troops I began helping unofficially as a civilian guide in the training area and in showing new officer groups a series of colored slides I had prepared to explain the character and nature of deserts. General Patton had asked me to go with him to North Africa and I had consented. He had written Washington to make the whole thing official when I received a phone call from Cambridge, Mass.

The call was from Dr. Harry Berman of the department of mineralogy of Harvard. He wanted to know if I had any amount of the thin plates of calcite like the ones I had sent him some years before. I said I had about 50 pounds of clear material and could produce much more. He told me to ship the crystals carefully wrapped to Harvard by air express that same day and he would be out on the next plane. He dared not explain over the phone.

Ralph Willard was working for me at the time so I told him that if he would go out and relocate the claim which had lapsed for several years, I would take him in partnership with a half interest. He went out the same day in his old Ford and I packed and shipped the calcite on hand.

The following day Dr. Berman arrived. He took me to a quiet spot and handed me a small grey disk about an inch and a quarter in diameter and three-sixteenths of an inch thick. He told me to hold it close to my eye and look at the sky.



Jack Frost, one of the war-time operators of the calcite mines, is shown in an open-cut working.

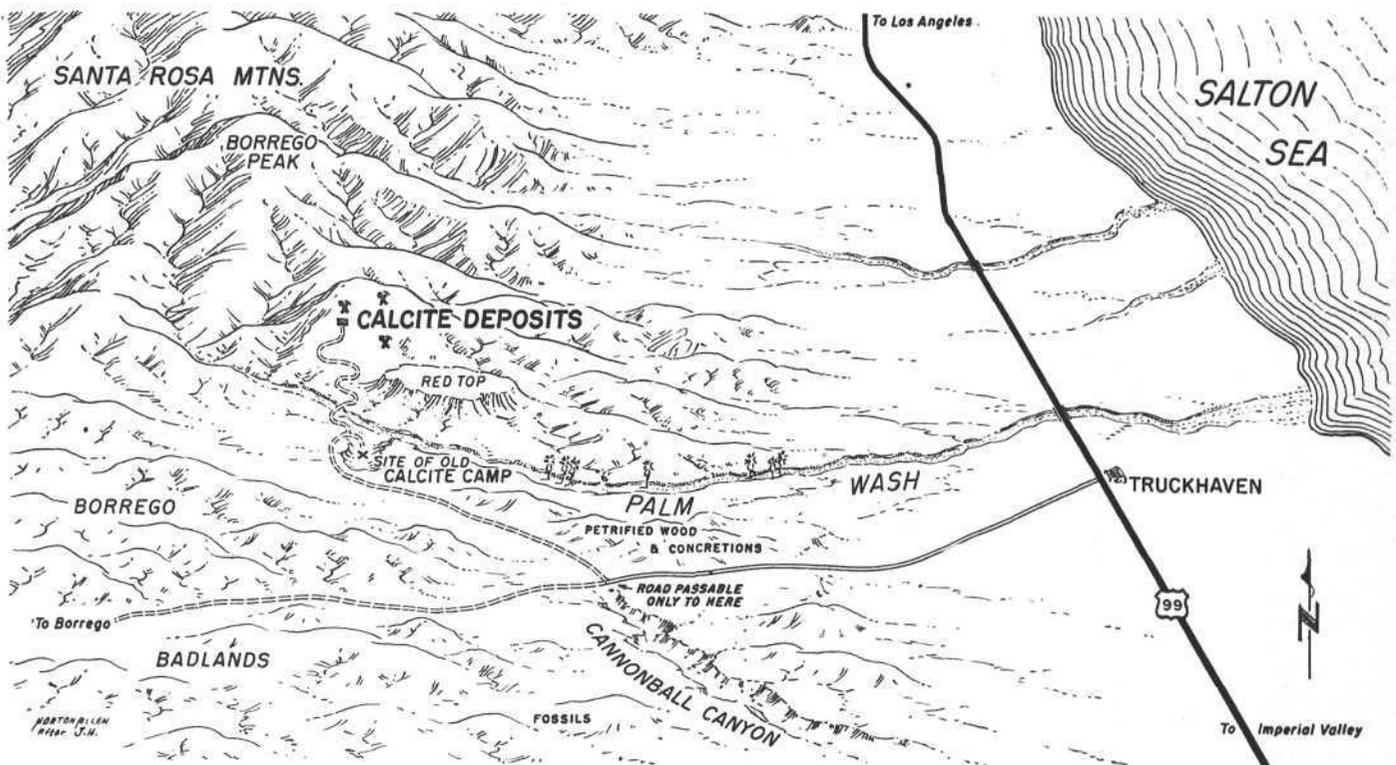
What I saw was a thing I found hard to believe. There was a series of concentric rainbow colored rings but instead of appearing to be there in the disk, they seemed to be out in the sky about a mile away. He told me to hold the center ring on a fixed target and move my head or eye from side to side. I was amazed to see that the center of the sight stayed right on the target and refused to obey the normal laws of parallax.

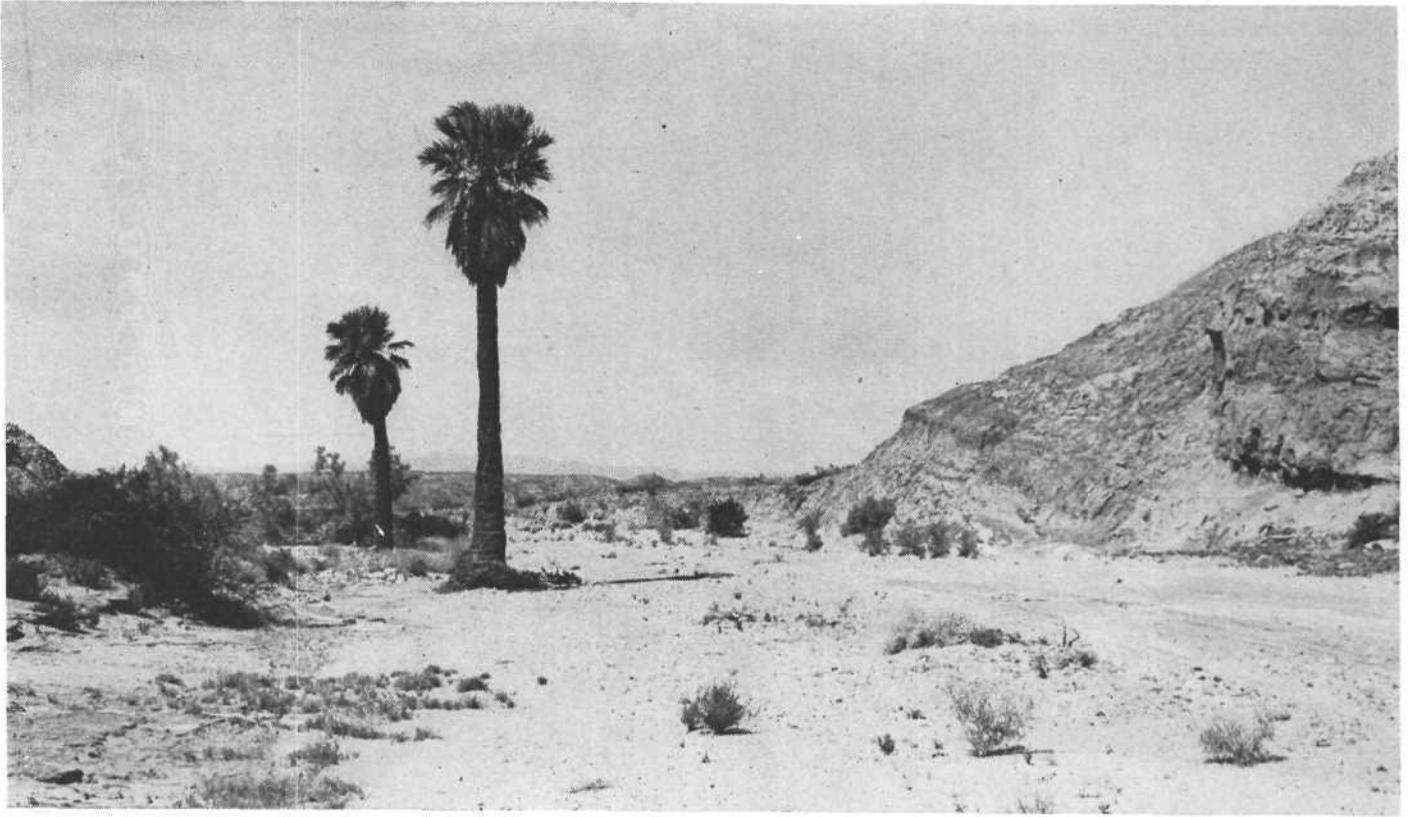
"An inventor friend of mine by the name of Dr. Land worked this out," he explained, "from one of the smaller crystals you sent me three years ago. He noticed when he looked at a piece of calcite through his polarizing microscope with the prisms crossed, that the optical interference figure did not appear to move when he moved his eye, yet the specks on the slide obeyed the normal laws of optics. It is the simplest and most accurate sight ever invented for close in moving objects like Stuka dive bombers and suicide Zeros. That's why we must have calcite like this in great quantities and as soon as possible."

The very man who had ruined the market for optical calcite was now asking for it, and our crystals discarded by all the experts as being too thin, were just the right shape and crystalized at exactly the right angle to fill the need.

That afternoon I took Dr. Berman out to see the mine and he set a tentative price of two dollars a pound. It was agreed that the material was worth a great deal more than this but we did not want to get rich out of the war. We just wanted to help. We warned that the price might have to go up to as high as five dollars per pound when we got through the soft easy going and into harder sandstone. Dr. Berman agreed with us. What none of us realized at the time was the difficulty of raising the price of a war commodity once it has been established.

Dr. Berman went back to Harvard and we started digging, sorting and wrapping calcite crystals. It was tough work. We hauled all our water in five-gallon cans and every time we chugged up Palm Wash to the camp the sand became looser. This went on for some months. The weather got hotter and the crystals fewer. I showed a sight to General Patton. He felt as I did that this new project had number one priority. So the plans for my





In Palm Wash, Borrego Badlands. It is believed that many native Washingtonia palms grew along this water course in ancient times, but the underground water supply is diminishing and the palms are slowly dying out.

trip to Africa were cancelled. I gave him the sample sight and he accepted it as a pocket piece.

Crystals became scarcer and scarcer. Wires began to pile up from Polaroid wanting more production. We used the money we had made and dug into our own funds but still we were running in the red. We wired that with a raise of price to five dollars a pound, we could get

financial backing, buy portable drills, hire men and step up production, but here both Polaroid and ourselves ran into Washington red tape. A long investigation would be necessary and this would take time.

In the meantime we kept digging and now and then hit a good pocket but never enough to gain back our losses. We lived like animals in a little cave high above



Looking out of one of the mine workings. Most of the mining was done in surface holes or open cuts to eliminate the danger of fumes from the gasoline drills.



Member of the marine detachment guarding the mine holds a choice rosette of calcite crystals taken from the workings. Many beautiful museum specimens went into museums.

our first camp and ate K rations donated by Patton's outfit, because we were too tired to crawl down off the cliff for wood to warm it up. We learned how little water a man can work on if he doesn't wash for a week at a time. We lost weight and morale in about equal proportions. Still production was spotted and low.

Finally we got word that the company was going to send out some engineers who would mine the calcite right. We gladly sold the claims for a little more than we had invested in the project and a guarantee of jobs on the calcite mine for the duration at reasonable salaries.

After "Calcite Operators" arrived things began to move. Machinery rolled in and a road was pushed along the mesa to camp and on up to some of the workings. A cook house was built on the sight of our old camp, tents were erected. The United States Marines showed up with a huge water truck and storage tanks. Showers were installed where Ralph and I had counted water by the cupful. Ration boards were finally made to see the light and issue decent food, gasoline and lumber even if they couldn't be told what it was for. Thirty men labored and fought portable gasoline drills to dig on the seams we had found and soon we had a prospecting crew of from three to five out looking for other likely places to dig.

In the meantime the price of calcite shot up to ten dollars per pound. As if this were not irony enough, Ralph and I were sitting in the shade of a big rock eating our lunch one day when I noticed a bush on a nearby hill that seemed to be too green for the spot where it grew. We had learned that this was sometimes an indication of a pocket which could catch and hold a little more water than an ordinary crack in the rock. After lunch I went over and dug up the bush with my prospector's pick. Calcite crystals came out with the roots. By evening Ralph was down neck deep in a hole handing out single optical plates that weighed as much as ten pounds each. That pocket produced more than 1200 pounds of optical calcite.

The war ground on and so did the mining operation. We knew the calcite was limited, for below the friable layer of sandstone which carried our pockets was a very hard tight layer where the seams which carried the solutions narrowed down to inches instead of feet. We also knew that the experts in the laboratory had found a synthetic crystal which would take the place of calcite in the

sight. It was only a matter of time till our material wouldn't be needed.

The laboratory men solved their problems about the same time that most of the available calcite was out, but not until I had fallen from a cliff in prospecting and almost lost the use of my arm. I worked on with the arm in a sling for more than three months.

By the time the operation closed down, the camp looked like a small town. We even had electric lights and women cooks. We were glad to be out of the heat and the dust and the roar of gasoline drills. Later the mine was sold to two members of our prospecting crew, Jack Frost and Bob Dye. They worked it for awhile mostly for specimens but finally the claims lapsed and the fine road washed out in a cloudburst.

Today the site of the once busy camp is as vacant as it was the first time I saw it. Here and there sticking out of the sand is a piece of board or a scrap of calcite crystal to remind the visitor that this was once a busy spot.

Dr. Harry Berman lost his life while flying over German-occupied France as a civilian expert in connection with the sight. Two of our marine guards who bemoaned the fact that they were in the desert instead of some coconut-fringed island finally made it but failed to come back. One, Abe Abelt, liked the desert so much that he came back after the war, married a local girl and settled down in Coachella Valley.

A new road is being pushed through from Truckhaven to Borrego and it crosses our old calcite road not far from camp. The actual road to the mine is very rugged now, but jeeps and high center cars can make it to a point a few hundred yards below the old tool house. There is still a great deal of scrap optical crystals in the dumps or on our old sorting piles.

The more ambitious can visit dozens of our old prospect holes and may still find pockets of good crystals. Anyone with a fluorescent light can get plenty of brilliant material on the dumps and in the cuts if they stay overnight. Visitors after dark should watch out for two things. There are some very deep unfenced shafts to look out for and the scorpions sometimes found in this area under rocks, fluoresce brighter than any of the crystals. It is a good idea to nudge any small extra bright specimens with your pick before you pick them up. If they crawl away they're not crystals.



Dr. Woodbury tattoos a number on the underside of a rattler, using an electric pen. Assistant records the data, which will be referred to when—and if—the snake is later captured for observation.

He Brands Snakes...

There are many superstitions and misconceptions about snakes in general and rattlesnakes in particular—and not very much exact information. To remedy this situation, a Utah university professor embarked two decades ago upon an unusual project. He wanted to find out how rattlesnakes grow, develop and reproduce under natural conditions. He had no precedents to go by in his research, so he worked out his own techniques. How he carries on his work and some of the things he has found out about these desert dwellers is told here.

By OLIVE W. BURT
Photographs by Ray G. Jones

JUST ABOUT the time that Uncle Sam was starting his decennial counting of noses, Dr. Angus M. Woodbury of the University of Utah was embarking upon his annual census of the rattlesnakes in Tooele County, Utah. And, while Uncle Sam asked only such innocent questions as how much you earn and how many bathrooms your house boasts, Dr. Woodbury insists on knowing just how many inches each snake has grown, how far it has traveled, and how many new rattles each rattler has acquired during the previous year.

Dr. Woodbury, head of the vertebrate zoology department at the university, has a tremendous urge to know all about many kinds of creatures. Since little actually was known of the habits and growth of rattlesnakes in their native habitat, Dr. Woodbury set out to obtain accurate data.

He decided that if he could find a den of rattlers he could make close observations of their habits and growth. The idea of bird banding and cattle branding, techniques with which he was familiar, suggested that some similar operation might be used to identify snakes, so that their individual changes could be recorded and studied.

When Dr. Woodbury first began this project, more than 20 years ago, there was nothing to guide him. No one knew where to find a snake den, when was the best time to study rattlers, or how to go about the problem. Dr. Woodbury had to evolve all the tech-



This is snake country. In this cobblestone snake den in Tooele County, Utah, rattlesnakes have been under scientific observation for the past 20 years. Snakes captured one year are branded so they can be identified and checked in subsequent years.

niques himself, and at first it was a matter of trial and error — with too great an error meaning a painful, if not fatal, accident.

Catching the snakes was the first problem to be considered. As a ranger at Zion National Park years ago, Dr. Woodbury at one time had attempted to catch a huge rattler to show to tourists. Being a man of determination, he finally poked the reptile into a big jar, but it was a long and frightening process. He decided there were better ways.

He learned that he could hold a rattler's head down with a forked stick, and then could grasp it around the neck and hold it so that it could not inflict harm. In fact, he became so adept at this that he sometimes demonstrated how the venom would ooze from the fangs when the poison glands were squeezed between thumb and forefinger. He does not recom-

mend this to others! He uses a sort of cane with a sliding leather collar, his own invention, with which he can hold the snake safely while he goes about his work of measuring and tattooing.

The first problem was to find a den accessible enough for study. For six years Dr. Woodbury searched and queried. Finally a friend sent him some snakes from a den near Vernal, Utah. Dr. Woodbury visited it and found hundreds of rattlers there, but it was too far away from Salt Lake City for him to make the trip regularly.

In April, 1940, one of his students told him he had found a snake den in Tooele County, only about 40 miles from Salt Lake City. Dr. Woodbury visited the place and found it to be a cobblestone area left by springs that once gushed forth near the shores of ancient Lake Bonneville. The snakes had selected this area, since they want to go underground in winter but can-

not dig holes for themselves. The loose rocks and the underground spring channels afforded them exactly what they needed.

Here was what Dr. Woodbury had been hunting for. Here he could come in the spring as the snakes were emerging and catch as many as he wanted. He could brand them, record their length, rattles, and sex, and let them go. In the fall he could return and do the same thing over again. In a number of years, he would know something, at least, about his charges.

How to brand rattlesnakes posed a problem, solved by using an electric pen with indelible ink, and inscribing a number on the underside. A careful record was kept in a huge ledger.

Dr. Woodbury made 13 trips to the den that spring. He captured and marked, measured and recorded data on 323 snakes: three gopher snakes, 61 striped racers and 259 rattlers.

The next spring he captured 290



Dr. Woodbury about to place a captured rattler in one of the metal cages devised for carrying the snakes. They are kept in these containers until data on the reptile has been recorded and the snake branded.



Dr. Woodbury and assistant go over the cobblestones pulling snakes from crevices. Note modified clinker tongs with which the scientist can pick up snakes without danger.

snakes, 79 of these being snakes he had measured the previous spring. Now, for the first time, Dr. Woodbury had actual data on growth and development of rattlers. Since that time, he and his assistants have visited the den each spring and fall, making several trips each season.

Recently I accompanied Dr. Woodbury on a trip to the den and watched with interest and amazement as he calmly went to work. The cobblestone area on the eastern slope of a hill above the Great Salt Lake had been fenced off with a heavy, fine meshed wire fence through which not even a small snake could wriggle. At certain places along the fence were openings, which apparently led into the enclosure. This was a deceit — a lure. Snakes trying to reenter the den were caught in traps and held there until they were released by the scientist or one of his students.

Dr. Woodbury and his assistants had large square metal cages for carrying the snakes. Stepping over the fence into the den, they looked about the cobblestones for snakes. As one was spied, the grappling cane devised

by Dr. Woodbury was slipped over its neck and it was lifted from its retreat and placed in a cage. When all the visible snakes had been captured, the cages were taken out of the enclosure.

There, seated on an upended pail and using his electric pen, Dr. Woodbury took each snake from its cage, tattooed a number on it—if it had none—or read the number if it had already been registered. An assistant found the corresponding number or made a new entry. Then the snake was measured, and its length, sex and apparent age were recorded.

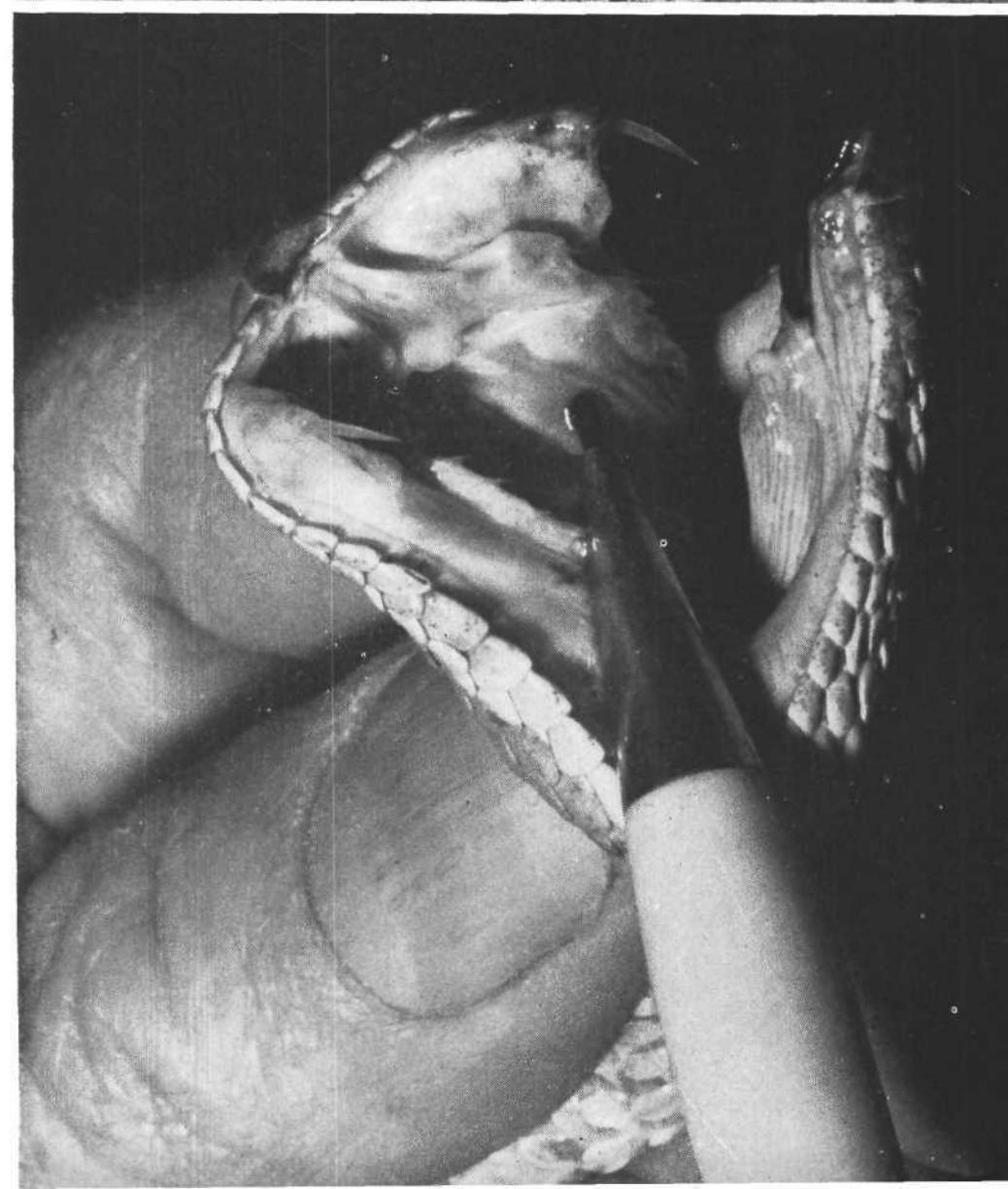
While the workers showed none of the uneasiness I felt, they were careful in handling the reptiles, and they wore heavy shoes and gloves.

They took two measurements of each snake each time it was captured: the body length from snout to vent and the total length. In order to get the lengths as accurate as possible, the snakes were stretched as they were measured. The rattlers seemed supple and stretched easily, but a heavy blow-snake required all the strength of two workers to extend it to its full length while Dr. Woodbury measured it.

Dr. Woodbury explained that young rattlers are born in the late summer or fall and go through the first winter's hibernation without much growth. They are about 12 to 14 inches in length when hatched, and have one button. When a year old, a rattler is 20 to 23 inches long and has two or three rattles and a button. A rattler acquires two rattles a year, but often loses some of these through the various accidents of a snake's life.

Each rattle in the string is a little different from the preceding one, fitting into a sort of pattern. They are dry and hard, and when a rattler is coiled ready to strike, with his head lifted and his black forked tongue darting in and out and his tail erect above his head, a nervous vibration makes these overlapping scales strike together, producing the ominous rattle that is both a warning and a threat.

The popular belief that a rattler grows one rattle each year is erroneous. Each rattle grows on the base of the tail, and is loosened when the snake molts its skin. A new one grows underneath, and is added to the accumulated rattles when the snake molts



again. As the rattlesnake molts twice a year, two new rattles are acquired each year, and a rattler's age is the number of rattles he has, divided by two—always allowing for some having been lost. Rarely, if ever, do you find a snake with its rattle quota intact.

According to Dr. Woodbury, a rattlesnake becomes sexually mature at about three years of age. The eggs develop in the ovary during the summer and fall, remain dormant during the winter, and finish their development the next spring. They generally leave the ovary about June and are soon fertilized, but are kept in the mother's body until late summer or fall, while the eggs are developing. They hatch immediately upon being laid, so that the young snakes are almost born alive.

Dr. Woodbury has found that it takes two years to develop a set of rattler's eggs and a brood of young. After the eggs are hatched, the mother pays no more attention to the young. Tradition says she will swallow them to protect them from danger, but Dr. Woodbury says this is not so.

The scientist has developed a way of counting the number of eggs held in the mother's body. He holds the abdomen between the thumb and finger of each hand, with the two thumbs about an inch apart. By careful manipulation of the thumbs, the eggs can be discovered and counted. He finds from four to nine eggs, with six or seven the usual number.

If it takes two years to produce a batch of young, say six or seven, and if snakes average 15 years of life, the snake population would grow to tremendous proportions if all the young lived. However, many eggs fail to get fertilized, and sometimes a female skips a year or two without producing a clutch of eggs. And many of the young are killed. This is evident from the fact that over a period of years, the snake population remains about the same, indicating that the young just about replace the adults that die off each season.

Already the data gathered at this den in the semi-annual visits have filled several large ledgers. It is studied and correlated by Dr. Woodbury and his students in an effort to give the world some accurate information on this reptile—one of the most dreaded in the West.

Above—Ray Jones, the photographer, set one of his cameras on a rock while he went to his car for more film. When he returned a female snake had sought refuge in the dark space under the bellows.

Below—A rattler's mouth. Note the size of the two fangs compared with a lead pencil.

Gold Pockets in the Santa Rosas

Henry Wilson, who has spent many years prospecting in the Borrego desert of Southern California, believes there are pockets of gold in the Santa Rosa Mountain range which lies to the north of Borrego Spring. And if you will read this story you will understand why Henry has continued his search for nearly 50 years.

By HENRY E. W. WILSON

FEW PEOPLE acquainted, even remotely, with the Santa Rosa Mountain section of the Colorado Desert, will doubt that there are other things to look for, in that area, besides the black gold nuggets that Pegleg Smith found on the top of one of three hills. For instance there are pockets.

To begin with, I want it understood that I do not guarantee the accuracy of what I am about to relate, but set forth the information as given to me, and as these stories have never been published before, to my knowledge, I think they will prove of interest to Desert Magazine readers.

J. Frank Dobie, in his preface to *Coronado's Children*, set forth the fact that he related the incidents in the book, as they were told to him, and that he was merely the re-teller, and not the originator of any of the stories. I am in the same position.

In the early part of the present century, there was a prospector named

Nicholas Schwartz, who found gold in the Santa Rosa Mountains. He evidently had been in that location for many years, for a canyon in the south slope of the range bears his name, or part of it, being marked on the government topographical map of that section, surveyed in 1901, as Old Nicholas Canyon.

In 1903 John Collins and I travelled down Rockhouse Canyon, and went inside the stone house from which the canyon takes its name. It was a one-room cabin, good roof, door and window, and habitable. It had a fireplace at one end, and shelves on each side, and the only removable thing in the place was a sack of salt on one of the shelves.

There was no sign of Schwartz, or any indication of anyone being in the neighborhood. We had not heard of Old Man Nicholas, and it was many years later that I was told that he built and occupied that cabin during his years of prospecting.

These legends are seen on a huge boulder near the old rock house camp in Rockhouse Canyon.



Henry Wilson, veteran prospector of the Santa Rosa-Borrego country, whose home is now at Willits, California.

It is reported that one day Nicholas picked up a nugget of gold, and proceeded to dig down under where the nugget lay. Before he finished, he took out \$18,000. He had discovered a pocket.

He covered his hole in the ground, and on top buried his pick and shovel. Schwartz quit the state and went to live in Chicago, where he died. Being asked by his friends, whom he had told about his gold strike, if he had taken out all the gold there was in sight, he replied: "No, I left more in the hole than I took out of it." Further



explaining his reason for so doing, he stated that he had not wanted the responsibility of more money than he had taken out. Before he passed on to other happy hunting grounds, he is supposed to have made a map of the place, marking the glory hole with an "X."

In 1933 I spent two months in that area hunting the Pegleg gold with a man whom I will call Jack Carter. Jack had been camped for a year near Rockhouse Canyon. There he met a man named Pomroy, who told Jack about the Schwartz pocket of gold.

Pomroy further stated that he had the map Schwartz had drawn in Chicago, and held it for safe keeping in a bank safety deposit box in Los Angeles. Also that he had hired two prospectors to help him locate the spot, but that they had been unsuccessful. He then offered Jack a 50 percent interest if he would help him, which Jack agreed to do.

They made a verbal contract, and agreed to meet at a certain place in the near future. Jack proceeded to Los Angeles, got his car fixed up and bought a stock of provisions, which

was to be paid for jointly under the agreement. Carter arrived at the appointed meeting place, and after a day or two Pomroy joined him.

Jack asked to see the map, but Pomroy had not brought it, and the expedition ended by Pomroy staking out a claim which Jack assured him was not in the right place. Later, when Pomroy failed to reimburse Jack for half the expense money, the latter took the matter to an attorney in Los Angeles, who advised him that he had the legal right to locate the place he believed the pocket was in, and leave Pomroy's name off the location notice.

Wishing to avoid trouble, Jack got two friends to file on the ground he staked out, record the claim and give him a quit-claim deed. Jack then told me that he did not know the exact spot, but had a friend in Los Angeles who operated a metal finding device by which he hoped to locate the pick and shovel, but that the friend had so far been unable to leave the city.

Soon afterwards Jack Carter passed on, and as far as I know, the pick and shovel are still where Schwartz left them.

Then there is the Buckley, or Butler mine—I have heard it spoken of by both names — which is on Coyote Mountain, known locally as Butler Mountain. Jack Carter told me about this too.

It appears that in 1904 Jack visited Clark Well at the base of the Santa Rosas and found Fred Clark there tending some cattle. Fred related that Butler had come down the mountain, and told him that he was sick, and wanted to get to the hospital in San Bernardino. Clark told him it was impossible for him to leave the cattle, and also that he had no transportation other than a saddle horse, but invited Butler to lie down on his bed in a tent until later. Soon afterwards a couple of young men from San Diego arrived at the well driving the first automobile to enter Borrego Valley. Fred told them about Butler and they talked with the sick man.

Butler told them he had a mine on the mountain, that being sick he wanted to go to the hospital, and felt his chances of coming out were slim. He said if the boys would take him, he would give them a map, by which they could find the mine, and if he didn't return to it, the mine would be theirs. They took him to the hospital where he died. Fred told Jack further that he had seen the boys later with the map go up on the mountain, but that they failed to find the mine.

A friend of mine looked for this mine, with another man, and found rocks laid on the ground in the shape of an

TRUE OR FALSE

Here's more brain exercise for Desert Magazine's True or False fans. The answers to all

these questions have appeared in past issues of the magazine. If you haven't been a regular reader of Desert try the test anyway. You will gain some new information about the Great American Desert. From 12 to 14 is a good score for the average person, 15 to 17 is excellent, 18 or over is exceptional. Answers are on page 36.

- 1—Wild camels are seen occasionally in the desert Southwest.
True..... False.....
- 2—Ubehebe crater in Death Valley is an active volcano.
True..... False.....
- 3—Organ Pipe cactus of southern Arizona derives its name from the musical tones heard when the wind blows through its spines.
True..... False.....
- 4—White Sands National Monument is in Colorado.
True..... False.....
- 5—A "mud-saw" is a tool used primarily for cutting adobe blocks for construction purposes. True..... False.....
- 6—Bisbee, Arizona, is a famous copper-mining town.
True..... False.....
- 7—Cahuilla Indians were using woven nets to fish in Salton Sea when irrigation water from the Colorado river first reached Imperial Valley in 1901. True..... False.....
- 8—John D. Lee, one of the alleged perpetrators of the Mountain Meadows massacre, was never caught. True..... False.....
- 9—T. E. Lawrence's book *Seven Pillars of Wisdom* has a desert setting.
True..... False.....
- 10—Wild turkeys are still found in the White Mountains of Arizona.
True..... False.....
- 11—Ironwood trees derive their name from the hardness of their wood.
True..... False.....
- 12—The color of dumortierite, sometimes known as desert lapis, is blue.
True..... False.....
- 13—The old Mexican trail known as Camino del Diablo passed through Tucson, Arizona. True..... False.....
- 14—Largest city in New Mexico is Santa Fe. True..... False.....
- 15—The Escalante River is a tributary of the Colorado.
True..... False.....
- 16—The Mexican name for the barrel cactus is *bisnaga*.
True..... False.....
- 17—An east and west line through Salt Lake City would pass north of Reno, Nevada. True..... False.....
- 18—Goldfield's greatest mineral wealth came from the Comstock lode.
True..... False.....
- 19—Montezuma Well is a National Monument in Arizona.
True..... False.....
- 20—Seagulls live on the shores and islands of the Great Salt Lake.
True..... False.....



All that remains today of the old rock house in Rockhouse Canyon. A nearby spring has made this a rendezvous for gold-hunters for many years.

arrow, but as it pointed to a high cliff, they gave up the search.

I do not know if the Butler mine is a pocket, but as Butler had no method of working a ledge, I have always believed it to be one.

The average prospector does not seem to know much about gold pockets. He is usually looking for ledges or placer. The ledge prospector goes up in the mountains and looks for contacts, or two bodies of country rock, with a ledge of quartz, or gold-bearing strata, between them. Most gold mines are on contacts, such as granite and slate, granite and greenstone, etc., though gold has been found in slate, and in El Dorado County, California, at Grizzly Flats there is a well known mine which has been a big producer, and is located on a fissure vein in solid granite.

The placer prospector digs to bed-rock in a dry wash or gully, and sifts his gravel generally in a dry-washer, or if water is near, he may pan it out. Neither the quartz nor the placer prospector finds anything other than very slight colors, which can be found almost anywhere on the desert, but not rich enough to work.

On the first trip I took to the desert in 1900, my partner and I found a beautiful contact with a ledge of quartz, about a foot wide. I believed myself rich for several days, till the returns came in from the assay office. It had everything that a gold-bearing ledge has, but no gold.

Jack Carter told me that an eminent mining engineer and geologist in Los Angeles informed him that there was plenty of gold in the Borrego country and adjoining mountains, but that it was all in pockets, no ledges or placer.

At the turn of the century John McCain, a cattle man living in Julian, owned Borrego Springs, where he had a three-room cabin. In 1893, he had a partner named Frank. A steer was missing from the herd one day, so Frank climbed on his horse and followed the steer's tracks which led him up the valley now known as Clark Valley, then called North Coyote. Frank was a miner as well as a cattle man, and some likely looking dirt attracted his attention. Getting off his horse, he gathered as much of the dirt as a bandana handkerchief would hold and knotting the ends, hung it over his saddle horn. He found the missing

steer, and returned to camp. Two days later he had occasion to go to San Diego. He took his bandana full of dirt with him. The assayer collected his fee and handed Frank \$5.00, all out of the handkerchief.

I have panned that dirt twice and got exactly nothing. Why? The only logical answer is that Frank, in collecting his dirt, picked up a nugget. Where did the nugget come from? From a pocket the same as the Schwartz nugget did!

When the big Waterman mine near Julian closed down in 1872, a man who had been employed there started to look for the Pegleg. He prospected the desert for six years, and in 1878 picked up four nuggets of gold, varying in value from \$2.50 to \$10.00. This man marked on the map of a friend of mine, in Los Angeles, the spot on which he found his nuggets. My friend marked the spot on my map. It was almost exactly the same place where Frank made his discovery.

I am convinced these nuggets all came from a nearby pocket. I have spent many days looking for it without success—but I believe it is still there.

Boatman of Eldorado...

By GENE SEGERBLOM

"SURE, THE Colorado River's been good to me," confirmed Murl Emery who has spent 32 years in, on or about the Colorado. "I was even a millionaire once for 48 hours.

"It was 1938," Emery continued. "I had a boating concession on Lake Mead. One day a couple of professional prospectors whom I had grubstaked came into the boat dock with a chunk of rock sparkling with gold ore. I had it assayed. It ran \$12,000 a ton."

The next day at dawn he took his fastest speedboat up to the spot where the prospectors had found the sample. They scrambled up the side and on the way up he found another big high-grade ore specimen.

When they reached a spot nearly at the top, the prospectors showed him a beautiful sight—an exposed surface of the rich stuff 16 inches wide and nine feet long between two boulders. A quick calculation showed him that at \$12,000 a ton he was easily a millionaire.

Emery wasted no time getting another sample back to Boulder City, Nevada, to be assayed. It ran \$11,500. He bought powder and went back to do a little blasting to see about the vein.

If you want to know where there's gold, guano or fish, just ask Murl Emery. It is true, Murl's gold mine pinched out—but he still mines guano, and his boats are used by thousands of fishermen who go to the Colorado River below Hoover Dam for Rainbow trout. Here is the story of a Nevada river rat who has built a thriving business in Lake Mead Recreational area.

"We blasted away and found it was only a foot deep — just a surface pocket. We just about clawed that mountain down looking for an extension of the vein but that was all there was—just 16 inches by one by nine feet. In another quick calculation, I could see that I wasn't a millionaire.

"It's the highest mountain you see on the boat trip up Lake Mead into Grand Canyon, with one side of it dug away. That's my gold mine."

When word got out about Emery's gold strike, every boat he had on the lake was chartered by gold hunters. One fellow even suggested that Emery started the gold rush to get his boats hired out. It did help business.

Today Emery's "gold mine" is a fishing camp at Eldorado Canyon on the Colorado River just below Hoover

Dam. There the best fish stories are true and anglers consider it a paradise for trout.

He has rigged up a floating rearing pond in the river. The minnows, supplied by the Nevada State hatchery, are held in the pond for 100 days. When they are about two and a half to five inches long, they are turned into the river.

Only Rainbow trout are used as they travel or scatter. These fish grow about an inch a month for the first year. Then the growth slows down. Emery started operations in 1940 and last year was the best for fish and anglers. He estimates there has been a natural hatch of nearly 1,000,000 Rainbows besides the 850,000 planted by Nevada State and the 150,000 by the Federal Fish and Wild Life Commission.

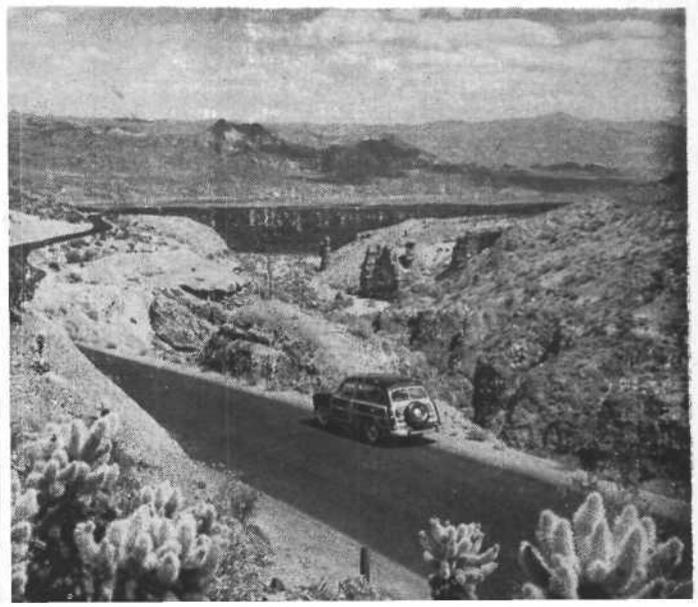
The largest Rainbow caught off the camp was nine and a half pounds. However with Davis Dam below backing up a new lake they expect to be catching 15-pound ones in five years.

Besides having boats for rent, fishing rods and tackle, licenses and a small cafe, Emery has a guide service. The guides will help spot you where the Rainbow are biting.

Emery's first experience on the Colorado was with his father, running a ferry across the river at Searchlight in

The rugged terrain of the lower Colorado River makes a beautiful background for trout fishing. Here Murl Emery, owner of the fishing concession at Eldorado Canyon, and Leonard Atkison, Boulder City businessman, wait for a bite. The cliffs rising sharply out of the water make it impossible to reach the river on the Nevada side except at Eldorado Canyon. Photo by William Belknap, Jr.

The road down to Eldorado Canyon fishing camp leads through some of the most picturesque country in the West. In the spring, the wild flowers bloom profusely and the weird yuccas and joshuas add their colorful blossoms. The road is paved most of the way and kept up by the National Park Service. The canyon lies inside the Lake Mead Recreational area. Photo by Clifford C. Segerblom.





Leonard Atkison (left), Boulder City businessman, and Murl Emery (right), owner and operator of the fishing camp at Eldorado Canyon, inspect their morning's catch of Rainbow trout. Emery can usually catch the limit in a couple of hours. Photo by William Belknap, Jr.

1917. From there he turned to exploring the canyons of the Colorado gorge by motor boat.

When Hoover Dam was under construction Emery was busy hauling dudes—a name he affectionately tacks on anyone who wasn't born and reared on the river—to Black and Boulder

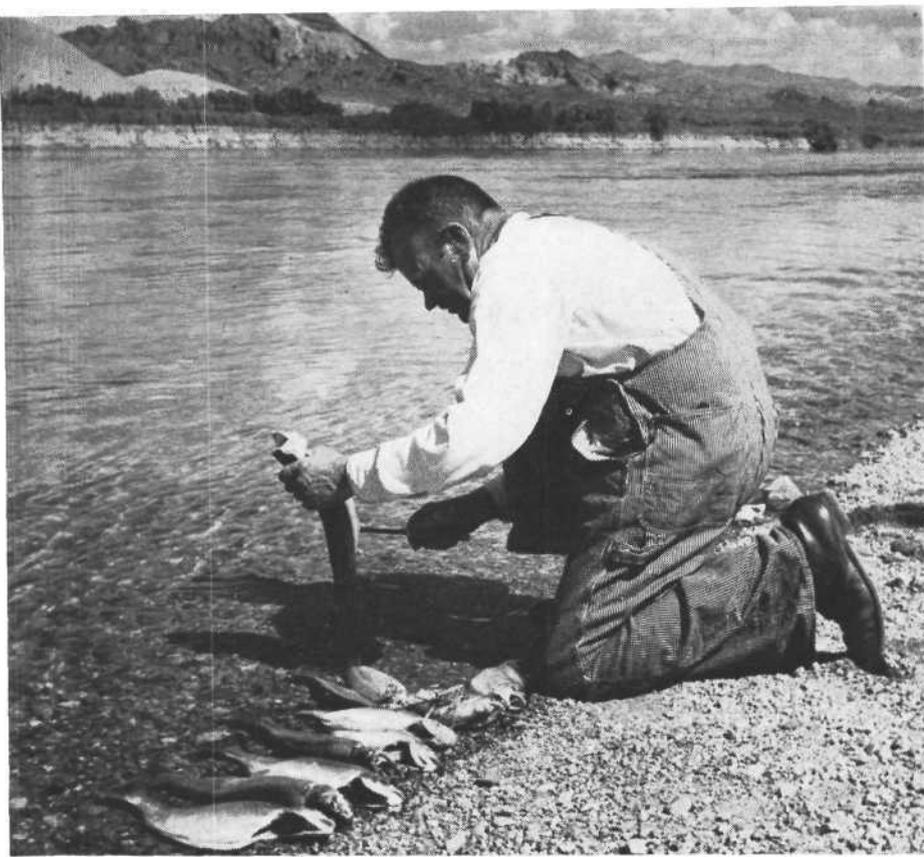
Canyons. Both canyons were being surveyed and tested as possible dam-sites.

King Gillette of the Blue Blades and Henry Stetson of the Hats employed Emery in 1922-23 to run them up and down the river. At the time they were considering construction of a private

dam 1,200 feet high in Boulder Canyon.

They were keen for the project but the Reclamation Bureau also thought it was a good idea and Uncle Sam took over from Gillette and Stetson and went to work on Hoover Dam.

Emery set up a little boat business



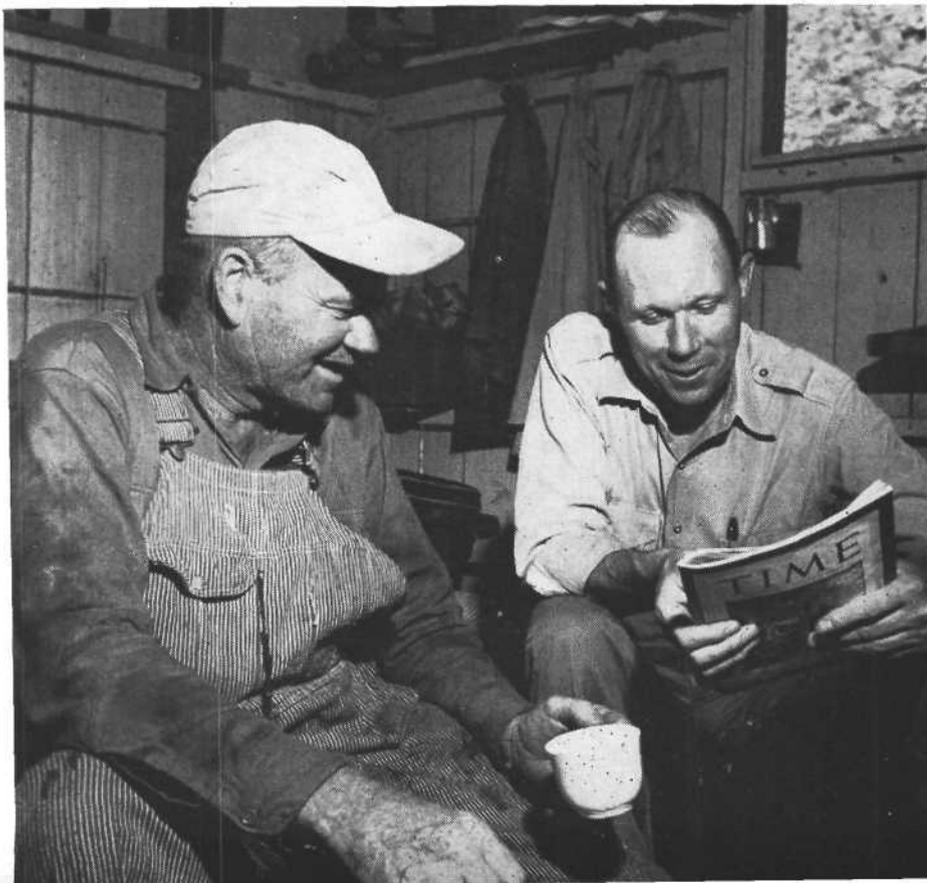
Cleaning a half day's catch of Rainbow trout. Fishermen say they get best results by casting or trolling in still water near sand bars. Photo by William Belknap, Jr.

between the two proposed sites and capitalized on the political stage. He hauled politicians, engineers and dudes between the two sights until 1929 when the government finally settled on the Black Canyon site. Emery moved to Hemingway Wash above the site and stayed there through the construction of the world's highest dam.

When Lake Mead started to fill up behind the dam, Emery pulled his movable dock back every day until the water reached a more or less permanent height.

After the dam was finished and things quieted down, Emery moved down below the dam to his present fishing camp at Eldorado Canyon.

Murl Emery and Superintendent George Baggley (right) of the Lake Mead Recreational area stop in the cook shack for coffee after inspecting the guano cave. Photo by Mark Swain.



Living on the banks of the river, even today, is rugged. Summer temperatures reach 118 degrees and the desert wind sometimes sweeps up the river like a gale. It takes a hardy soul to stand it.

When Emery first got his concession at Eldorado Canyon from the U. S. Park Service, the road was just a corrugated dirt trail from the old mining camp of Nelson, Nevada. This year, however, the Nevada State Highway division will finish paving the last three miles to make it a first class road from Nelson to the river.

Emery's two children, Pat and Alice Jane, were reared on the river bank. Edith Emery, Murl's wife, lived on the river's edge for 15 years until Pat and Alice Jane reached high school age. They attended grade school in Nelson—Murl driving them and their bicycles up in the morning. They coasted the seven miles home at the end of the day, wearing out plenty of brakes.

"I had to go to Pittsburgh to get Edith. The local girls didn't appreciate the opportunity to live on the banks of the muddy Colorado. But when you offer a girl who's been reared in the smog a chance to live in the fresh air and sunshine even though the temperatures are high, she takes it."

Although Emery's million-dollar gold mine never panned out, he does operate a paying mine. It is much more unusual than gold. Years ago when he first started making the boat trip up into the Grand Canyon, he discovered a cave high up on the rim of the canyon.

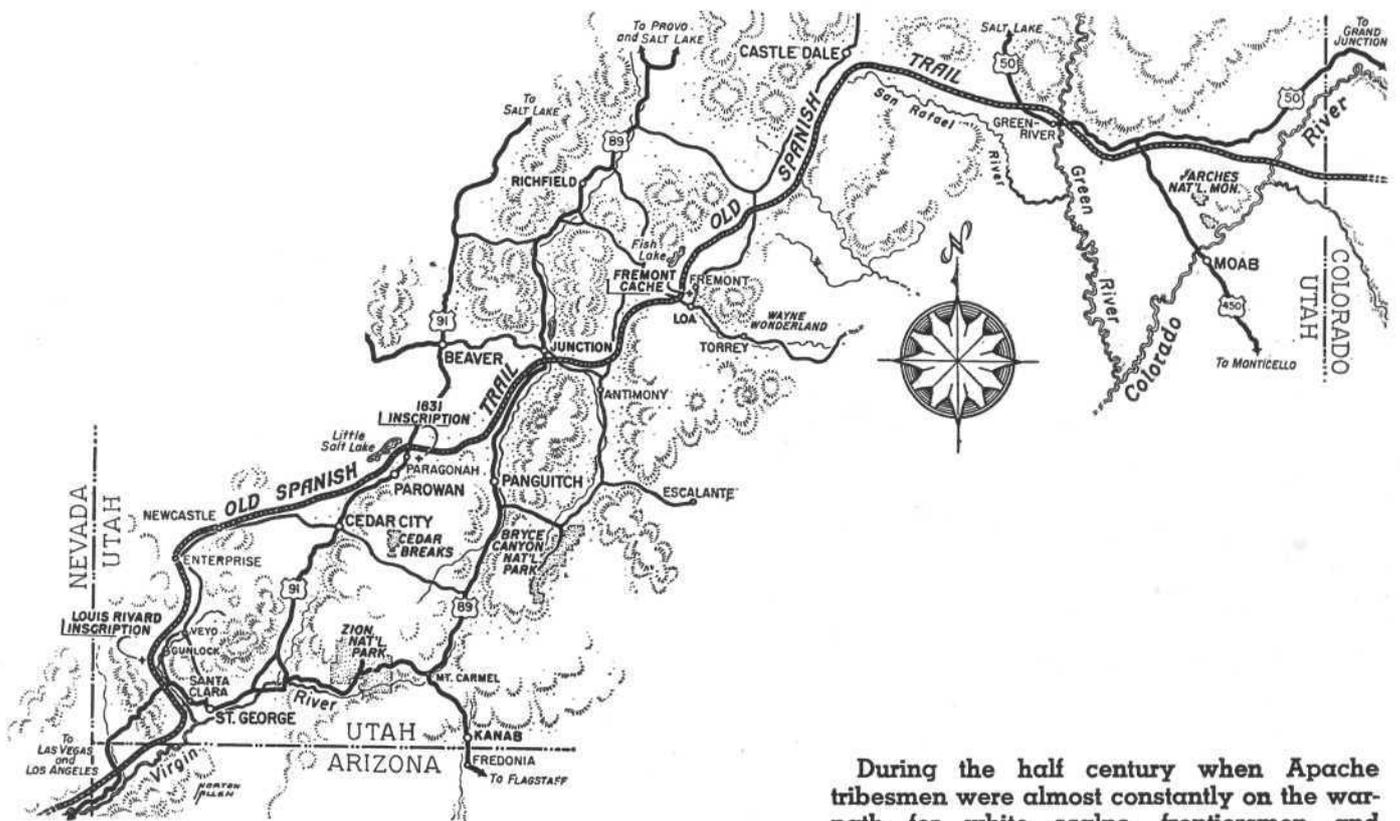
When the waters of Lake Mead brought the river level to within 2,000 feet of the cave's 10-by-30-foot entrance, he investigated it. A million bats had been there first and left a solid deposit of guano or bat dung on the cave's floor. Guano is powerful fertilizer.

He and his partner Walter Swartz have rigged up an ingenious method for getting it out of the cave and down the mountain side to barges which bring it to the boat dock on the lake.

In a year's time they haven't even made a dent in the rich deposit. He can keep "operation guano" going as long as there's a need for fertilizer.

He won't make a fortune on the mine but it pays for itself with a nice bonus and gives Emery another reason for keeping close to his favorite spot.

If you can make a character out of a solid Irishman, Emery probably can qualify for the title. And if you want to know where there's gold, guano or fish, just ask Murl Emery.



Forgotten Trail of the Old West

By CHARLES KELLY
Map by Norton Allen

RIT CARSON and Lieut. George D. Brewerton were riding eastward from Los Angeles over the Old Spanish Trail with dispatches from Col. John C. Fremont in the spring of 1848 when they overtook a caravan on its way back to Santa Fe after a trading expedition to Los Angeles. Brewerton's description of that Mexican expedition is well worth quoting. He wrote:

"Imagine upwards of 200 Mexicans dressed in every variety of costume, from the embroidered jacket of the wealthy Californian, with its silver bell-shaped buttons, to the scanty habiliments of the skin-clad Indian, and you may form some faint idea of their dress. Their *caballada* contained not only horses and mules, but here and there a stray burro. . . . The line of march of this strange cavalcade occupied an extent of more than a mile. . . . Many of these people had no firearms, being provided only with the short bow and arrows usually carried

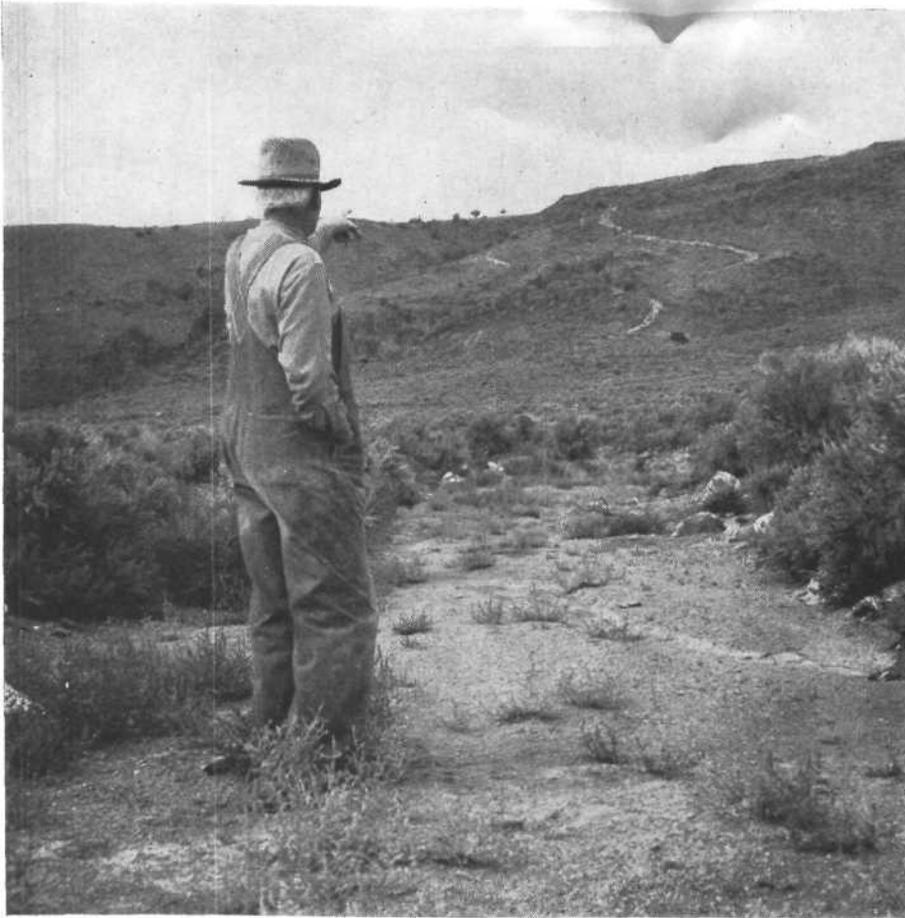
by New Mexican herdsmen. Others were armed with old English muskets . . . which bid fair to do more damage at the stock than at the muzzle (and) old, worn out dragoon sabres, dull and rusty, at best a most useless arm in contending with an enemy . . . worthless even at close quarters."

A few days later, as Carson and Brewerton approached the future site of Parowan, Utah, they met Wakara (Walker), chief of all the Utah Indians, who was camped on the trail near where it entered the Wasatch Mountains, to collect toll from trading caravans. Being a good business man this famous chief realized it was much more profitable to collect toll from the traders than to kill them and take their goods, thus stopping all traffic through his country. Such tolls had made him rich. He also did a good business in selling Indian children captured from weaker tribes to the traders, which were disposed of in Santa Fe at a profit.

During the half century when Apache tribesmen were almost constantly on the war-path for white scalps, frontiersmen and traders enroute from Santa Fe, New Mexico, to Los Angeles blazed a circuitous route to the north through Utah. The old trail has not been used for nearly 100 years, and no map of the route was ever published. But Charles Kelly, explorer and historian, has pieced together what information he has found in old records—and here is the story, with as accurate a map as it is possible to compile today.

Spanish and Mexican traders had been using this trail between Santa Fe and Los Angeles for 18 years, and in such numbers that it had become a wide, well worn road. It was well known to every western trapper and explorer. Since 1830 it had been the only road between California and New Mexico, and the most important commercial highway in the Southwest. Yet not one traveler over this route ever kept a day-by-day journal of his experiences to guide modern researchers. Although it was the earliest trail used by white men in Utah, it was the last to be definitely located.

Spanish expeditions from Santa Fe had explored as far north as the mouth of Gunnison River (Grand Junction, Colorado) previous to 1776. In the latter year Father Escalante attempted to continue a route from that place to Monterey, California, and his party was the first group of white men to enter Utah. His route was through the Uintah Basin in northeastern Utah to



Howard Blackburn, a pioneer of 1879, points out the Old Spanish Trail just west of Fremont, Utah. He remembered when it was a well beaten road. At the base of this ridge Fremont cached his goods in the winter of 1853.

Utah Lake, then south to Lee's Ferry, northeast to Crossing of the Fathers where he crossed Colorado River and finally back to Santa Fe. It is not known when his trail was first used by traders, but annual caravans were being sent to Utah Lake before the year 1813.

In 1830 William Wolfskill and a group of ten trappers from Santa Fe decided to continue this trail into California, as Escalante had planned. Eliminating the long northern detour through Uintah Basin, they crossed Green River at what is now the town of Greenriver, Utah, worked their way through the Wasatch Mountains to what is now Parowan, passed down Santa Clara river, crossed the desert to Las Vegas, Nevada, and so into California. Beginning in 1831 their trail was used annually by trading expeditions until it became a well beaten road, continuing in use until 1852.

During the last thirty years I have traced out all early trails through Utah, from Escalante in 1776 to the Donner party in 1846, guided by journals and records which made determination of their routes reasonably certain; but the Old Spanish Trail remained more or less a mystery. It is mentioned in numerous journals of early travelers

but no day-by-day record could be found to furnish detailed information. From Parowan, Utah, to San Bernardino, California, it was accurately described by Fremont and followed in general by modern highways; but through the mountainous country between Greenriver and Parowan its route was unknown.

In the winter of 1853 John Charles Fremont made a journey through Utah to explore a route for a railroad. His tragic experiences were recorded by S. N. Carvalho, photographer for the expedition, in a book called *Perilous Adventures in the Far West*. Due to deep snow, frigid weather, starvation rations and loss of equipment, Carvalho failed to give details of his route, and omitted any mention of the Old Spanish Trail. Fremont's notes were lost; in any case he wished to convey the impression that he was exploring a new route.

Earlier that same year Lieut. Gunnison had brought the first wagons to Utah over the Old Spanish Trail, and Carvalho speaks of following Gunnison's wagon tracks until they were buried in deep snow. Fremont also had as guides two Mexicans who had often traveled the old trail with caravans. When caught in the snow with-

out food supplies, they naturally guided the expedition over the easiest trail, one they knew well, rather than an unknown route arbitrarily selected by Fremont, as has been supposed. But just where it passed through the mountains was a mystery.

About three years ago I was talking with the late Howard Blackburn in Loa, Utah, about pioneer days. He was 8 years old when his family founded that town. While describing the country as he remembered it in 1879 he said:

"When I first came here a wide, well beaten Indian trail came out of the mountains from the north and passed just west of town. It was as plain as any modern road, visible for miles in either direction. Indians were still using it then. After they left we used it to trail cattle into the mountains to Fish Lake and on north. It continued south through Grass Valley to Antimony and beyond. I have traveled it hundreds of times with cattle."

It occurred to me that this broad "Indian Trail" seen by Blackburn must certainly be the Old Spanish Trail, since due to the geography of the country it had to pass somewhere in that vicinity. The proof came a short time later when I found an old journal written by George Washington Bean, another pioneer of Wayne County, Utah.

After crossing a high mountain in deep snow, Fremont had been compelled to cache all of his goods so the pack animals could be eaten to prevent starvation. The location of that cache could not be determined from Carvalho's record. But Bean's journal stated that after Fremont left Utah, one of his Mexican guides took Chief Wakara's brother back to lift the cache, which was found "near the present town of Fremont."

The old trail pointed out by Blackburn passed just west of Fremont (5 miles north of Loa), and the circumstances of finding Fremont's cache there explained its name, the origin of which had been forgotten. Realizing that it was certainly the Old Spanish Trail I persuaded Blackburn to accompany me over part of it, still plainly visible where it comes down a steep hogback into the valley. He also told me just where it passed through the mountains and described relics of a battle or massacre he had seen in early days at Seven Mile Creek, probably the same one seen by Brewerton in 1848.

On one of our expeditions to hunt Indian petroglyphs, Frank Beckwith and I had been directed to Braffet Canyon, near Paragonah, Utah. While

photographing these we were amazed to discover, carved on a rock, a cross with the initials "A. W. L. B." and the date 1831. Searching further we found other initials with the same date and on a large boulder the word "GOLD" cut in reversed lettering. This spot was a beautiful campsite, with good grass and water, just south of where the old trail came out of the mountains above Little Salt Lake. There is no written history of this party of 1831 and none of the initials can be identified. The whole canyon, we learned later, had been dug up in a search for the gold supposed to have been buried there.

On another expedition of the same kind Frank and I were searching for petroglyphs on the walls of Santa Clara Canyon, south of Mountain Meadows and west of St. George, when we found the name "Louis Rivard" cut in old style lettering, without date. We knew the Old Spanish Trail ran through that canyon and suspected Rivard to have been one of the French trappers who passed that way between Santa Fe and Los Angeles; but there was no record of such a man in trapper journals. Eventually we found his name listed on two different payrolls. First, he appeared with the Astorians outbound from St. Louis, who spent the winter of 1810-11 on Nishnabotny River. During that winter he deserted with Caleb Greenwood, another trapper, and may have gone to Santa Fe. Later his name occurs as a member of Capt. Stansbury's expedition of 1849-50, which made the first survey of Great Salt Lake. Just when he cut his name in Santa Clara Canyon is not known.

With such bits of information it is now possible to identify most of the Old Spanish Trail through Utah, although certain parts of it are still a mystery. There were several variants of the route, due to conditions of weather, water and grass. Some old maps show a "winter route" which crossed Colorado River just below its junction with the Green and continued west through a broken country now known as Wayne Wonderland, a section where it would have been impossible to travel in summer due to lack of water. In May, 1949, Dr. A. L. Inglesby visited "Spanish Bottoms" where the trail crossed and observed large stone slabs laid up as steps where the trail left the river on the west side, thus proving the old maps correct.

However, the principal trail can now be identified with reasonable certainty from Greenriver, Utah, to the mouth of Santa Clara Canyon. From the Green River crossing it went west across a desert to the head of San



S. N. Carvalho, from a photograph made late in life. (Courtesy Claire Carvalho, Hermosa Beach, Calif.)

S. N. Carvalho, artist with Fremont's expedition of 1853, who wrote a book describing his experiences on the Old Spanish Trail. Photo from Robert Taft's "Photography and the American Scene."

Rafael River, then south and southwest past the sites of Castle Dale and Emery; followed along the east base of Thousand Lake Mountain to a creek and up that stream to the summit near the head of Salina Canyon; then across the mountain and down the south slope to the present site of Fremont, passing just east of Fish Lake. Continuing west of Loa it passed down Grass Valley to present Antimony, then turned west through Kingston Canyon to Junction. Then it turned south following what is now

U.S. 89 to within 10 miles of Pan-guitch, when it went west across Bear Valley (where one of Fremont's men died of starvation) and emerged on U.S. 91 a few miles north of Paragonah. It then went south through Parowan, past Little Salt Lake to Enterprise, through Mountain Meadows and down Santa Clara Canyon to Virgin River.

Inscriptions found along this old trail have been very helpful in determining the route, but they are too rare. More may be found by careful search.



Dim inscriptions in Braffet Canyon near Paragonah, Utah, left here by unidentified travelers in 1831.

In general the whole route may be followed closely in a car, although parts of it are mere sheep trails.

It is to be hoped that this old trail, so important in the early history of the Southwest, will some day be carefully traced all the way through and adequately described and photographed. Over it, at one time or another, passed most of the men whose names are famous in the West's early history: Father Escalante and William Wolfskill, the pioneers; Kit Carson with dispatches for the president;

Fremont on various exploring expeditions; Pegleg Smith, Joe Walker and Chief Wakara on horse stealing expeditions to California; Antoine Robidoux, trapper and trader; Miles Goodyear, to stock the first ranch in Utah; Marcus Whitman on his "ride to save Oregon"; Antoine Leroux, trapper and guide; Lieut. Gunnison with the first wagons; and many others whose names are familiar to students of western history. Although it was the first trail into Utah, the Old Spanish Trail remains, strangely enough, still the least known.

J. Roderic Korns standing in faint traces of the Old Spanish Trail still visible north of Enterprise, Utah.



WILDLIFE CONSERVATION ON RESERVATIONS EXPANDED

Reestablishment and conservation of game and fish resources on Indian reservations to provide food and sport for the tribesmen and also a source of income from sale of hunting and fishing privileges is the object of an expanded program announced by Interior Secretary Oscar L. Chapman.

Among projects in the arid Southwest are:

Reestablishment of the once important wild fowl nesting area in and around Burford Lake on the Jicarilla Apache reservation in New Mexico. This area is on the central north-south flyway of migratory waterfowl.

Predator and rodent control on Indian lands in the Southwest.

A fish hatchery at Fort Apache reservation in northern Arizona, to stock reservation streams. On this reservation wild turkeys are also being protected.

• • •

TRENCH-DIGGING OPERATIONS UNCOVER ANCIENT ARTIFACTS

Ancient tribesmen found Safford, Arizona, to their liking. Further evidence of prehistoric dwellers was uncovered recently when a trench was being dug for a sewer line.

One large piece of pottery was identified by Ray D. Crandall, Safford, close student of early Southwestern life, as being of advanced pueblo culture. He cleaned the urn, found in it the bones of an adult who had evidently been cremated. The artifacts, it is believed, date back as far as the thirteenth century.

Recently scientists were amazed to learn that the tiny shrew has extended its range to the Huachuca Mountains of southern Arizona — an area where it previously was unknown. Here is the story of a tiny animal which spends most of its life eating.



Mighty Mite of the Huachucas

By VINITA BLEDSOE

THE SHARP bite of little teeth on my thumb upset the long-held opinion of scientists. There I stood with a bleeding hand, looking at a ferocious, furry midget which according to authorities did not live in my part of the country. But I was painfully aware that the Huachuca Mountains in southern Arizona, just north of the Mexican border, should be added to the range of the shrew. There are 66 varieties of shrews, not counting Shakespeare's kind, and it was my luck to be bitten by the 67th.

A shrew might easily be taken for a heroic mouse with the heart of a lion. Since my unfortunate introduction to the voracious little animals, I have made the acquaintance of many and have acquired some admiration for these smallest of mammals.

Their length ranges from two and a quarter inches to six, including the tail. The color varies a little with season, but is of a dusky shade. The pelage is like velvet, can be stroked backward or forward with equal ease, and is thick and luxuriant. The shrew has heavy glossy whiskers and sharp pointed teeth which have a reddish brown color. These teeth have an incisive bite but are not suitable for gnawing. Being mostly underground animals, shrews, unlike mice, cannot climb. The most distinctive fact about these tiny creatures is that they are the smallest known animal which suckles its young, and most of the species have only four mammae.

And what a voice my shrew has! It practices vibrant trills, high pitched and birdlike. It will answer a human whistle, wiggling its nose, chirping and squeaking with a sound pleasing as a canary's song. Sometimes for a full minute the wee animal will hold its nose elevated, mouth open and throat working like a bird's. But beware of its displeasure. When angry, its lips draw back exposing its sharp teeth and the head swings to and fro as it emits a peculiar song-like clatter consisting of a series of rapidly repeated chirps pitched on a high key, varied every few seconds with a long-drawn rasping note on a lower key. During these antics my shrew assumes a fiendish note and expresses all the anger, envy and hate in its little heart.

The greatest wonder is the appetite of these diminutive creatures. It is said that they eat twice their weight every 24 hours.

Shrews are classed as insectivores, but they will attack and eat anything and everything within reach including birds and animals twice their size. They are even canni-

Photograph by Karl H. Maslowski, courtesy of Woody Goodpaster.

balistic on occasion. One shrew ate his fellow—meat, bones and all—then used the turned-out skin as a sleeping bag in which it comfortably snuggled for the night.

There is nothing palatable about these furry little balls. Cats don't like them, and neither does anything else except on occasion a voracious owl. The reason: a musky odor which emanates from scent glands. Relatively safe from enemies except for those animals which have enough sporting blood to hunt for fun, the shrews are free to forage for food which they must have approximately every two hours, or die. This constant drive for sustenance appears favorable in the natural scheme of life. Man in a million years has undergone many physical changes. Powerful and aggressive creatures throughout the ages have completely disappeared, while the little shrew hasn't changed since the time of the Miocene deposits dating back some 15 million years. Rapid breeding and a short life span have not proved to be a handicap.

Shrews do get around. The most recent reports from naturalists are that they are found only in the San Francisco Mountains of northern Arizona, and in the Chiricahuas of the south. But even while facts and figures are being compiled, the tiny mammals show up elsewhere. From the nearest point where they have been previously seen to our Huachucas is 80 miles, quite a distance for the legs of two-inch creatures to travel. And my shrew is not alone in our vicinity. Woodrow Goodpaster, a naturalist working for the University of Illinois and the Museum of Natural History of Cincinnati, caught some specimens and a near-by rancher trapping gophers got two shrews. Occasionally one gets ground under the wheels of a car on our highways.

There are four general classifications of the species found in the United States. They are long-tailed shrews (genus *Sorex*); small shrews (genus *Microsorex*); short-tailed shrews (*Blarina* and *Notiosorex*); and swimming shrews (*Neosorex* and *Atophyrax*).

I have yet to learn what kind of a shrew we have in our part of the country but the tenacious little things have wandered in to roam in our game preserve with the mighty buffaloes. Here we see the largest and smallest mammals of the United States.

Museum Established in Huachucas . . .

More and more wildlife specimens are being added to the collection on display in the new Cochise County Museum, established this past summer with the aim of preserving at least one good specimen of each rare species of wildlife found in the Huachuca Mountains. The Huachucas are the habitat of many rare birds, mammals and reptiles, many of them unclassified. Mrs. F. C. (Vinita) Bledsoe is president of the organization. Weldon F. Heald, author, is treasurer.



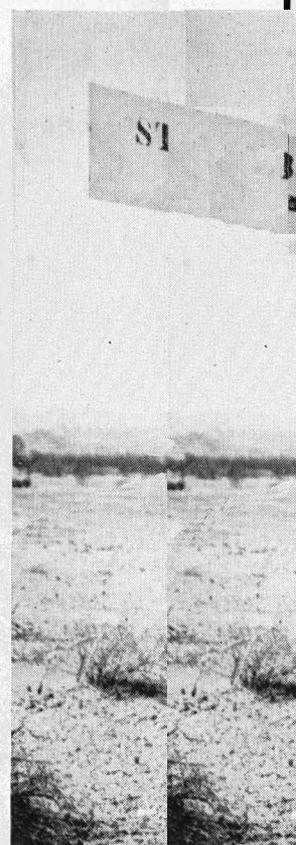
At 1000 Palms Oasis, California.



On Camino del Diablo, Arizona.



Old Yuma County Trail, Arizona.

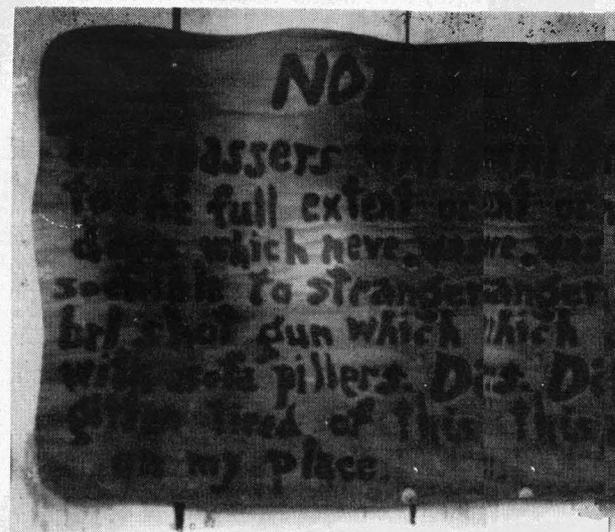


Yuma-Quartzsite Hwy, Arizona.

Signboards You'll

Mystery insignia along the road to Earthquake Valley in San Diego County, California.

Posted on the door of "Old Fort Olive" at Thousand Palms, California.



Along the road to the Natural Bridge, Utah.





Arizona.



Old Bradshaw Trail, California.



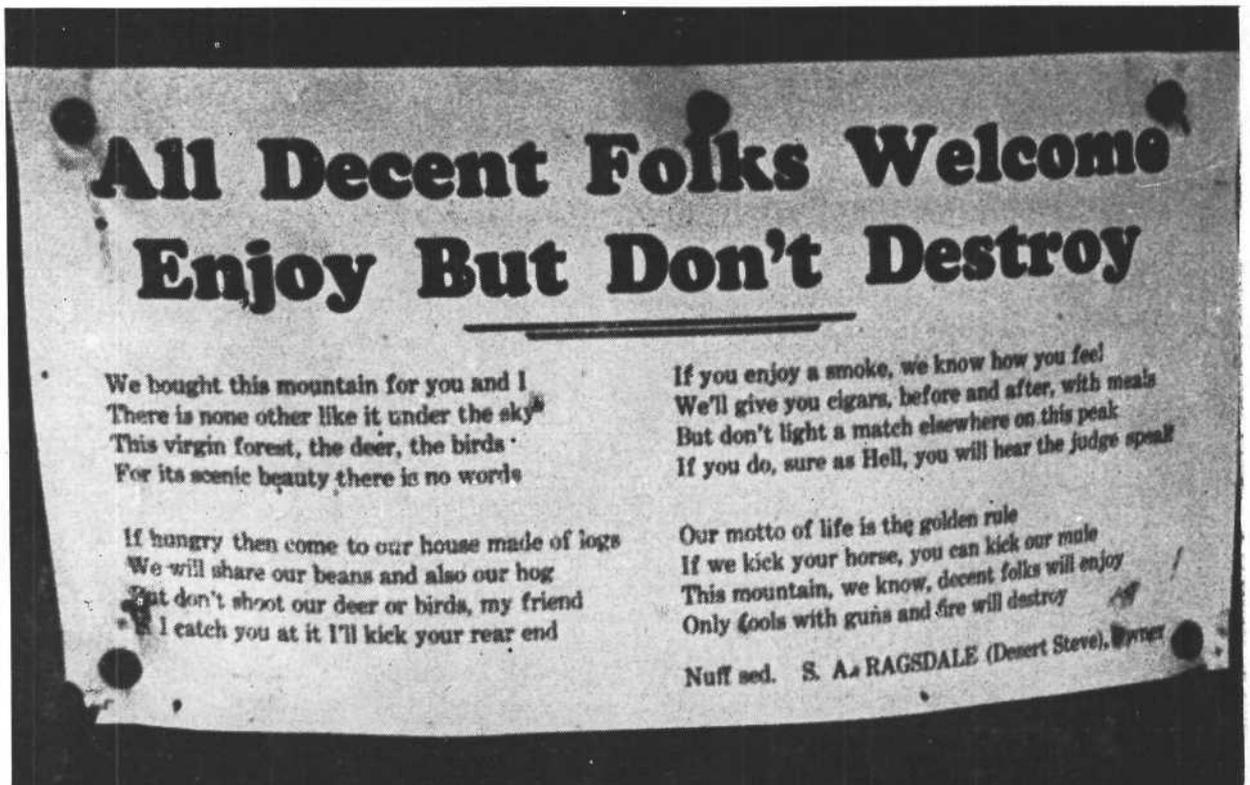
On the California-Mexico Border.



Corn Springs Oasis, California.

Read on the Desert

Desert Steve Ragsdale's mountain home in the Santa Rosa Mountains, California, is posted with these signs.



Utah.



MINES AND MINING . . .

Winnemucca, Nevada . . .

Threat of war and stockpiling of vital minerals for national defense is partly responsible for revival of mining activity in northern Pershing County, Humboldt County and western Elko County — in line with reported increased activity over the state. The Nevada-Massachusetts Tungsten mine at Tungsten in Pershing County and the Getchell mine in Humboldt are the two major producers in the Winnemucca trade area. Activity has started in the National district, the Midas area and the Red Butte area. Other mines operating are the Pansy Lee, the El Dorado, the Austin-Jumbo property, the Dutch Flat Mining Company and the Ogee-Pinson property. In Lander County the Natomas property is operating in large production. Other properties are operating in Spaulding Canyon, Leonard Creek and Willow Creek.

A part of the new activity is due to development of recovery methods which make mining profitable on properties which formerly did not pay.—*Humboldt Star*.

Trona, California . . .

A long-time desert prospector, Zirist Rizir, has proposed to his congressman legislation which Rizir believes will solve the problem of maintaining mining claim monuments and will simplify the cumbersome claim recording system. His plan is to erect a 2x6-inch plank at least three feet above the

ground at the discovery monument. Numbers at least two inches tall would be filled in opposite "B" for book and "P" for page in the recording register. Letters should be visible for 50 feet. There would be a penalty for failure to keep the sign legible.—*Trona Argonaut*.

Austin, Nevada . . .

Action by the senate finance committee in voting to table the bill extending free trade on copper has been hailed by Senator George W. Malone as "a great victory which will mean reopening of many copper deposits in America." He declared tabling of the bill "should mean the end of tampering with the tariff on copper." Effect of the action is that the two cents per pound tariff will be collected on foreign copper sold in this country, retroactive to midnight, June 30. The bill being considered would have authorized another extension of the 1934 Trade Agreement Act.—*Reese River Reveille*.

Tonopah, Nevada . . .

Values of more than \$94 per ton in lead-silver and gold content were realized from a recent shipment of 16 tons of ore from the Klondike mine—known as the original Klondike—which is being mined under lease by David F. Harris and son Allen in Esmeralda county 15 miles south of Tonopah. The mine is owned by Harry McNamara, Tonopah. Harris reports the ore body is increasing steadily in size and values. He and his son are doing all the mining, truck their ore to a San Francisco smelter. Ore with low lead content but carrying good silver values is sorted from the vein material and shipped to McGill at Ely where only gold and silver values are recovered from custom ore shipments.—*Tonopah Times-Bonanza*.

Moab, Utah . . .

Control of vast uranium properties has been acquired by Consolidated Uranium Mines, Inc., a Nevada corporation, in a series of recent transactions. It took under long-time lease with option to purchase substantially all of the Temple mining district and also acquired control of the Dry Valley properties south of Moab, formerly owned by Vanadium Corporation of America. The Nevada Corporation plans vast exploration and development, including drilling of 10,000 feet of test holes in virgin areas adjoining developed areas.—*Mining Record*.

Farmington, New Mexico . . .

A new oil strike in the booming San Juan basin 45 miles southeast of Farmington in rough mesa country has brought in a well which will be "at least a 100-barrel producer," according to Tom Bolack, vice-chairman of the San Juan basin operators committee. The new producer is the No. 1 Scott Federal test well drilled by Thomas D. Doswell and Todd M. Pettigrew of Dallas, Texas. It extends the proven area in the basin by many miles.—*Mining Record*.

Fallon, Nevada . . .

Fred Olzog, veteran prospector, believes he has hit it rich after 40 years of prospecting in northern Nevada. He is exploring an outcrop containing gold ore assaying \$49 to \$82 a ton. His claim is two miles from the Summit King mine. The deposit has not been developed enough to definitely establish its extent.—*Los Angeles Times*.

Carson City, Nevada . . .

The over-all outlook for mining is steadily improving, in the opinion of State Mine Inspector Arthur E. Bernard. He made the statement following an inspection trip through Eureka, White Pine, Lincoln and Clark Counties. He listed among new or re-opened operations:

Consolidated Coppermines Corporation has engaged the Isabel Construction Company of Reno to strip and mine by open pit methods about 3,000,000 tons of copper ore at Kimberly, Nevada. At Eureka the Eureka Corporation has started repairing the Fad shaft preparatory to a full development program. The Victoria Lease of the Anaconda Copper Mining Company in the Boone Springs area is resuming operations. Greatest optimism, the inspector reported, centers around oil developments in the White Pine-Eureka Counties district. — *Eureka Sentinel*.

Winnemucca, Nevada . . .

Mining operations at the Grey Eagle mine, early-day producer of lead-silver and zinc, have been resumed since the property was acquired by Tonopah, Nevada, mining men and California interests. It is located near Beowawe in northern Lander County. Besides trucking a large tonnage of dump material to the Tenabo mill 12 miles away, underground mining operations have started.—*Humboldt Star*.

Trona, California . . .

Discovery of a 10-foot layer of chalk-clay of high quality, with about 100 tons in sight has been reported at Zirist mine No. 25. Owner is Zirist Rizir. He says the chalk tests about 85 percent lime.—*Trona Argonaut*.

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The jackrabbit homesteaders had no church, but when Easter came they arranged an impromptu sunrise service on the summit of one of their rocky hills—and here is the story of one of the most memorable events in Catherine Venn's diary of her life on the desert.



Where the homesteaders gather for their Easter service.

Diary of a Jackrabbit Homesteader . . .

By CATHERINE VENN

OUT ON the desert on my five-acre jackrabbit homestead, my concept of time soon changed from what it had been when I was a city dweller. In the city, time was calculated in terms of speed and motion only to provide more time for more speed and motion. But on the desert, where time and space stretch out to infinity, one's concept of time is more apt to be reckoned astronomically.

That's how I began neglecting Little Ben for Old Sol. At first I would set the little clock's alarm for 7:00 every morning. Then Little Ben would screech his defiance into the timeless silence of the desert, sounding as wanton as a puppy-dog barking at the moon. His frustration was short-lived, however, for one day I discarded clock time at Rock Hill and let Little Ben tick himself out.

It was easy to manage without a timepiece, with faithful Old Sol to turn to. And what more beautiful alarm clock could one have than the sun's first rays striking the western peaks, illuminating them in opalescent splendor, while a lovely echo from Khayyam's Persian desert recants:

"Awake! for morning in the Bowl of Night
Has flung the Stone that puts the Stars to Flight
And Lo! the Hunter of the East has caught
The Sultan's Turret in a Noose of Light."

To watch this Hunter of the East ride up each morning, flinging a Noose of Light around each peak, the tallest first, and capture the desert in a warm embrace, always gives me a resurgence of strength and courage. No wonder, I thought, that sunrise is symbolic of resurrection, and that desert Easter sunrise services are so popular. With the approach of Easter I was looking forward to attending my first desert sunrise service. Little did I know that my initiation into the pitfalls of soft sand would lead to a sunrise service that will live on in memory long after all the others are forgotten.

Two weeks before Easter Sunday, in backing out the car to go for water, the upper crust of sand gave way on my tire-packed driveway, causing the rear wheels to sink into the soft sand. I speeded up the motor, expecting to pull out in one forward lunge. But the car resisted as though it had the roots of a smoke tree. Again I charged full speed ahead. The wheels sank deeper. I tried full speed in reverse. The wheels spun madly, churning sand to the hub caps, and the car listed badly.

There was nothing to do but go for my shovel. How glad I was that it was only a few yards away. I must always leave it out, I decided, for folks who might be in a similar predicament. Surely, they would be so grateful

that they would return it. And they always have. Rock Hill has never had a vandal, but rather, has been enriched by those who have come in my absence. And I am sure that those who have found Rock Hill have left enriched and blest by the Good Spirit that inhabits and watches over it.

The shovel seemed as heavy as my spirits. And with every shovelful I took out two more filled in. Oh no! I would never be so foolish as to get stuck in sand. I was eating words with sand. The desert mocked. Would I ever graduate from the tenderfoot class! But I persisted at the back-breaking labor until exhausted. I wasn't sure if the buzzing noise was coming from my head or from a motor.

It was the welcome approach of a car driven by a man accompanied by a woman and child. They stopped, and with scarcely a word the man was bending his back over my shovel. He began giving me a gentle lecture on the art and technique of extricating a car from sand. "It's like drowning," he said, "don't get panic-stricken and start threshing around or you'll sink."

He was a college professor and had a jackrabbit homestead up near that of the Good Samaritan who had helped me save my roof in a wild gale. He and his wife told me they had built their own road the previous summer, clearing brush and stones, hauling down clay soil from the hills and water up from the canyon stream. "It was labor of the hardest kind," his wife said. "And we had to do it during summer vacation. We worked early and late to avoid the sun's heat, but you have no idea the satisfaction we had from building the road ourselves. Far more than if we had hired it done, and the cost would have been prohibitive." They had built their own road to their own haven of happiness—a haven where they slept out under the stars and called many by name. Here on holidays and vacations they shared an outdoor life from campstove flapjacks to the evening campfire.

While we were building a bed of sticks and stones under my jacked-up car, who came along but my roof-saver with her husband and 17-year-old son. These families were acquainted, and it took the aid of the men and the jeep to get me out of the hole I was in, I had done such a thorough job of it. "What you really need," one of them suggested, "is a semi-circular drive to your door so you won't have to keep backing out to the roadway." And thanks to their kindness and labors I had my driveway that afternoon. The boy hauled in water in a leaky tank that served as a road sprinkler and the jeep improvised for a steam roller.

You can't stop neighbors like that. They don't suggest

something and go on their way or ask if they can be of help—they go into action. The spirit of neighborliness that exists on the desert is something I can't recall without a lump coming up in my throat.

The young man's mother invited me to supper. I was to come in time to watch the sun set from their hilltop. The hill is a miniature set down on the hump between two narrow canyons. The view was magnificent. The western sky glowed like a burning hearth casting shadows and light to play hide-and-seek in the crevices of the low surrounding hills. It turned our snow-capped peak into a fire-opal. As the molten ball of crimson-gold went down behind the paling crest, the young man at our side raised the bugle he had brought for his evening ritual and sounded evening taps.

It touched something in us. His mother remarked, "Wouldn't it be heavenly to have a sunrise service here on Easter." "With a bugle herald to the sun," I chimed.

We decided to ask our scattered neighbors to join us in impromptu services and to enlist whatever talent there was among us. I asked my closest neighbors to suggest someone who would be most qualified to give the Easter message. The person they suggested turned out to be the chance stranger who had instructed me in desert botany. They also suggested that his brother read the resurrection story from the Gospels, and said they would rather have Easter from our hills than any place in the world.

These neighbors own a quarter-section on which they have built a veritable stone castle that looks as if it were hewn right out of the rocks. Theirs is the largest house in the area and mine is the smallest. But desert neighbors, I have found, judge you by deeper values than the number of bathrooms in your house. I shall never forget my terror in that first windstorm before the cabana was anchored, and how I took refuge in my car for two successive nights. And then I was discovered by this good neighbor who sensed my fears. She literally gathered me up and took me home with her. I returned before nightfall determined to brave the wind if it arose again. They admired me for it. They knew and I knew that I had to be able to take it—that the desert will not compromise with weaklings.

To invite other neighbors I drove up a steep road of hairpin turns to a high ledge of rocks that looked out on a commanding view. Here city socialites with a passion for the desert have built a clever retreat. From their eagle's nest they can see across to my cabin. They worried about me and at various times suggested devious methods of lady-in-distress signals which I have never had to employ.

From here I visited a seasoned old desert rat in his shack. He cooked, drank and ate out of tin cans, slept with his boots on and wore woolen underwear the year round. "Keeps the body cooler in summer and warmer in winter," he informed me, and added that it was the Gospel truth. No sunrise services for him on Easter. He worshipped God every mornin' in the sunrise. "And I been resurrected, myself," he boasted. "Come out here to die, and now I'm so tough even the Divil won't have me." I eyed his collection of snake skins and rattlers. "Don't worry none," he said, "Snakes don't go fer wimmin'." I looked dubious. He only nodded wisely.

We posted an invitation to our services at the village postoffice. The response was as warm as the sunshine. We were rewarded in the talent of a church soloist and the glorious voice of a young man student. The neighbor who suggested the services enlisted her sister's contralto and her brother-in-law's violin, and we in turn prevailed upon her accordian. Young folks volunteered to stake out directional signs.

In the dark pre-dawn of Easter morning I joined the

first vanguard that drove up our meandering section road. We stopped at the escarpment that girds the hills, then picked our way by flashlight across the narrow creek-bed where young folks guided us up the hump of the canyon divide to the short, steep ascent which led to the promontory and the new white cross.

Up there in the silence of space waiting for the world to awaken, we could hear the morning stars sing together and feel the order behind the universe. The headlights of the cars, wending their way up the rise of the bajada, shone like fascinating rivulets of light through the blackness. The flashlights of the climbers made bright flecks up the trail.

As daylight crept into the hills our little company became discernible. Hiking garbs contrasted with Easter finery, due later in church. Fur coats rubbed elbows with leather jackets. And high heels and boots picked their way together up the stony path narrowly missing the thorns of bisnaga and beavertail dewy-fresh in their rebirth of translucent new bloom.

A few folks had camped out all night in the sandy washes, and others had come up from a fashionable spa in the region. Those who could not climb sat in parked cars on the hill directly across, while still others crossed the creek-bed and sat around on the large rocks at the foot of the promontory.

Through the soft morning mist that hung in suspension over the mysterious sands, we watched the first faint glow in the east color sand, sky and hills in the ever-changing pastels of desert dawn. Cloud streamers caught the first roseate tints. The mist lifted to reveal the blue eastern hills in their tracings of burnished gold against the brightening horizon. In the suspense of the last moments before the first tip of blinding brilliance, it was as if the earth paused on its axis before the impact of the power and glory of a desert sunrise. Our little company stood enraptured. The young bugler's herald to the sun called us back to earth.

We raised our voices to the spirit of the Risen Christ, and responded to the inspiration of the Lord's Prayer in a young man's song. The resurrection story from the Gospels, read with rare artistry, brought inspiration and comfort in its message of the triumph of life over death. And we were moved by a little girl's unflinching: ". . . he leadeth me beside the still waters."

The miracle of the resurrection process taking place under our very feet was beautifully portrayed in the Easter message picturing the delicate little flowers of exquisite pattern and hue that were bursting forth from their sepulchre of sand. A symbol of imperishable life and beauty that survives despite all ravages. And yonder was a rock split by a little tree whose miraculous life force, springing from a microscopic seed buried beneath it, had the power, vigor and tenacity to burst through in its courageous desire for growth.

And, as if in benediction to our worship, a canyon wren throated its unforgettable, dulcet-sweet descending scale. Spontaneous, simple, unrehearsed, with every face reflecting the beauty and inspiration of so sublime an experience.

It was the socialite who uttered, "This is the most gorgeous cathedral I ever hope to worship in." Yes, I get a lump in my throat when I think of that Easter morn, and all the folks and neighbors who came together in the desert dawn, and have never really been apart since we heard the morning stars sing a prelude to the sunrise. No wonder all the great religions were born and cradled on the desert.

The fifth instalment of Catherine Venn's diary will be in next month's Desert.

LETTERS...

Wildflowers in Nevada . . .

Boulder City, Nevada

Desert:

On the first of February we had a good rain in southern Nevada. But from that time until July 5 not a drop of water fell and I never saw this region as destitute of wildflowers as during the early summer.

Then on July 5 a good old-fashioned thunderstorm struck here and by the 10th of August three more had followed. Today, in the middle of August, the desert from the Colorado river to the foothills looks like the spring flower display. Goldfields are growing in great patches and the star thistle is more plentiful than I have ever seen it. I have never seen anything like it in southern Nevada before.

DORA TUCKER

36 Rattles and a Button . . .

Hot Springs, New Mexico

Desert:

I stopped at a filling station here today and a boy, Leo Brock, showed me the rattles of a snake he said was seven feet long when killed. There were 36 rattles and a button. Said it was killed on the mesa between this town and Elephant Butte Dam several days ago.

I killed many rattlers and sidewinders when building railroads in the West in the '80s, but never one with half this many rattles. I think it is a record.

JOHN G. SPIELMAN, C.E.

They'll Jump for Five Months . . .

Alamos, Sonora, Mexico

Desert:

No doubt many of your readers have heard of the Frank Byerly school for under-privileged children near Navajoa, Sonora. Ed. Ainsworth wrote a very sympathetic story about the school for the Los Angeles Times issue of June 18.

Some of these children have been gathering Mexican Jumping Beans as a means of helping needy Mexican children to enter the school.

And now we have the problem of finding a market for the beans. They are good jumpers—and will keep it up for five months. Any orders may be sent to me—\$1.00 for 100 beans, \$5.00 for 1000, postpaid — and the money will go for the benefit of the youngsters.

We'll all appreciate any reference to our problem in your fine publication.

ALBERTO MAAS

Alamos,
Sonora, Mexico



In Memory of Bert Loper.

Memorial to a River Rat . . .

Greenriver, Utah

Desert:

A shaft for Bert Loper, grand old man of the Colorado, who lost his life in the Grand Canyon on July 8, 1949, when his boat capsized, was unveiled at Greenriver July 30.

Hundreds were in attendance when Mr. Loper's widow unveiled the impressive eight-foot granite monument. A nephew, Blaine T. Busenbark of Salt Lake City, acknowledged the monument for the family.

Speakers on the occasion included John Stark of Ogden, grand master of Utah Free and Accepted Masons; Lyman Pederson, Boy Scout of Salt Lake City; Don Harris for the River Rats, and Edwin Eshleman for the Spanish American war veterans. Five representatives from E. A. Wedgwood Camp, United Spanish War Veterans of Salt Lake City, of which Mr. Loper had been a member, were present.

Don Harris told of the watery grave which claimed the river man, near his 80th birthday, after half a hundred successful trips.

He said a rock cairn had been built around the oars of Loper's boat at a point north of a lone cedar tree on the Colorado River about 16 miles below where his boat had capsized.

Insignia of the Boy Scouts, Masons and Spanish American War Veterans appear at the top of the Greenriver monument with the following inscription carved in the granite:

*Bert Loper, Pioneer, Soldier,
Prospector, River Guide.*

*Born July 31, 1869 at Bowling
Green Missouri*

*Lost July 8, 1949 in the Vastness
of the Grand Canyon*

The Land of the Blue Horizons

And the Silent Desert Mesas

That He Loved So Well

Below the crossed oars at the base of the monument are the words:

*I belong to the Wondrous West and
the West Belongs to Me.*

JOHN P. SIMONSON

Getting Rid of the Spines . . .

Fullerton, California

Desert:

Some months ago you wrote an article about trying to see if that barrel cactus had enough fluid to sustain life. You told about the difficulty in cutting off the spines. I would have supposed that almost anyone would know they can be burned off almost instantly by a lighted match or two. When people graft cacti they burn the spines off.

CHAS. S. KNOWLTON

Hand-Outs for the Miners . . .

Somewhere in Nevada

Desert:

I have been reading with both interest and disappointment about the efforts of the senators from Nevada and other western states to get a bill through congress subsidizing the small mine owners.

I am one of the little fellows in mining. Have been at it all my life, prospecting when I had a grub stake and working as a mucker or whatever I could get when I ran out of money. Now I have a caretaker's job at a mine which has been closed down because of the low price of gold.

For most of us mining has never been very profitable. But we could come and go as we liked and somehow we've always gotten enough to eat. I don't like this idea that people have to be subsidized to make a living. Seems to me we are getting so many of our people on subsidies of various kinds I am worried about the future. It has long been the policy of Uncle Sam to subsidize shipping, and the manufacturing industry through protective tariffs. But now the farmers are getting to depend on the government, and the bankers and home-builders.

I have been sorta hoping that mining would remain in the field of free enterprise, without any socialistic strings tied to it, for the road to socialism is paved with subsidies. People

Hard Rock Shorty

of Death Valley



The big city motorist shivered as he walked from his car to the porch of Inferno Store, turning up his collar against the biting early-winter gale that was whipping down from the Panamints across the floor of Death Valley. Hard Rock Shorty left his warm chair inside and met the tenderfoot at the door, invited him in to "git th' chill outta yore bones."

"I certainly didn't expect this kind of weather on the desert," the visitor commented, "is this usual for this time of year?"

"Wal, no, it ain't exactly usual," Hard Rock answered, "but now and again we do git a spell o' right smart cool weather when them north winds come down off'n th' range. But it never lasts more'n two, three days at a time."

Shorty settled back in his comfortable old chair and waved the motorist to a seat.

"I've seen quite a few cold snaps right here," Shorty resumed, "but they ain't none of 'em could come up to the spell

we had the fust winter Pisgah Bill prospected up on Eight Ball crick. That was durn near too much for Bill. If he coulda got outta his cabin where we wuz holed up, he woulda gone back to Alaska in the dead o' winter.

"How cold did it git? We never did rightly know, cuz durin' the fust night after it turned real cold the mercury shrunk up so small it plumb disappeared from the thermometer. And there we wuz, stranded. We huddled 'round Bill's old cook stove day and night — one sleepin' while t'other fed mesquite wood into th' stove. We had tuh melt ice tuh git a drink. We durn near starved, cuz even the flapjacks froze hard before we cud git 'em from the fryin' pan to our mouths.

"What's that? No, it didn't warm up much in the daytime. In fact, some days the maximum was even lower than the minimum. Our biggest trouble was gittin' out to drag in some more wood, cuz most o' th' time we didn't dare set foot outside the door and we didn't have no thermometer tuh tell when it warmed up a little."

Hard Rock shook his head gently as he appeared to recall the experience. He roused as the visitor repeated a question.

"How did we know when we cud go out, yuh ask? Wal, every hour we'd stick a crowbar out the chimney—and effen it didn't freeze the end off, we'd go out."

lose part of their freedom when they start taking hand-outs from Uncle Sam.

ED. HAVERSALT

THE *Desert* MAGAZINE CLOSE-UPS

During her 25 years as a newspaper woman, Olive W. Burt, whose story of the scientist who brands snakes was written for this issue of *Desert Magazine*, has covered a wide range of assignments for newspapers and magazines. Since 1947 she has been editor of the *Deseret News Colorgravure Sunday Magazine* at Salt Lake City.

Mrs. Burt is the wife of Clinton R. Burt of Salt Lake. They have three grown children, a daughter in the Caroline Islands with her navy doctor husband, another daughter in the American embassy in Bolivia, and a son in law school at the University of Utah.

While she has raised her family and kept an 8-room house, Mrs. Burt, in addition to a 40-hour-a-week newspaper job has written seven juvenile books and numerous articles, fiction and verse for such magazines as *True Story*, *Woman's Day*, *Parents* and *American Magazine*. Her eighth book, *Canyon Treasure*, dealing with a boy's adventures in uranium prospecting in the Colorado Plateau area, was due to be off the press of Bobbs-Merrill early in September. Another teen-age book, *Jed Smith*, is due for publication early next spring.

Before this issue of *Desert* is off the press Mrs. Burt is scheduled to be on her way to South America to gather material for more books and articles.

• • •

Norton Allen, the artist who has been drawing *Desert Magazine's* monthly maps since this publication was started in November, 1937, has been in Utah this summer seeking new fields for archeological research. Norton has been an amateur archeologist for many years and has an unusually fine collection of artifacts gathered from all over the Southwest.

• • •

John Hilton, artist-author who relates his experiences in mining calcite crystals for use in the making of polaroid gunsights in the last war, for *Desert* readers this month, has been spending the summer at Alamos, Sonora, Mexico, dividing his time between painting and mining amethyst crystals from a newly-discovered deposit.

ANNOUNCING . . . A NEW EDITION OF

On Desert Trails With Everett Ruess

The first edition of this amazing book was published in 1940. Within a few months the initial printing of 1000 copies was gone. And now a second edition—limited to 2000 books—will be ready for mailing on October 20.

Here is the story of a young man who traveled the desert wilderness trails alone—in quest of adventure and beauty. In 1934 Everett Ruess left Escalante, Utah, for a two-month exploring trip in the canyon country along the Colorado—a trip from which he never returned. "On Desert Trails" is the story of his life among the Indians and in the canyons, as told by his letters to family and friends. Illustrated with pictures and Everett's block prints, for he was an artist of talent.

Orders may be placed now for the new edition. \$2.75 plus 8c tax in California.

THE *Desert* MAGAZINE

Palm Desert, California

HERE AND THERE ... on the Desert

ARIZONA

Papago Tribesmen Ask Aid . . .

WASHINGTON—Papago Indians of southern Arizona have asked congress to authorize a \$23,000,000 rehabilitation program designed to help members of the tribe "afflicted with the evils of extreme poverty." Tribal Council Chairman Thomas Segundo appeared before the house public lands committee with the plea.

Papago reservation land is so poor, Segundo told the law makers, that it takes a square mile of range land to support three cows. There are 7000 Papagos, only about 40 percent of them speak English, he said. Only 20 percent can read and write. A development program to restore the land's fertility and expand educational facilities is sought.—*Tucson Daily Citizen*.

Winter May Be Critical . . .

NAVAJO RESERVATION — Full economic impact of the drouth which last winter and this summer plagued the vast Arizona and New Mexico Navajo Indian reservation is expected to be felt this fall and winter. Because of poor range conditions the lamb crop is far below normal, and in addition ewes are expected to go into winter in poor condition. If the winter is severe, ewe loss may be high.

Recent rains took the edge off the drouth, but more precipitation is needed if there is to be fall forage. Catastrophe was averted during the summer by the government's action in hauling water to dried-up watering places and natural water holes, but the sheep still had little feed. — *Gallop Independent*.

Indian Village in Winslow . . .

WINSLOW — Plans for Winslow's proposed Kachina Indian Village

have progressed to the point of incorporation and it is hoped that before long actual construction of the village can commence. Patterned after a Hopi pueblo, the village will include shops where Indian rug weavers, silversmiths and other craftsmen and artists can work and display their wares.

Nightly Indian dances and rituals will be performed in the plaza of the village. Aim of the project is to offer a tourist attraction, and to make it possible for motorists to see authentic Indians, Indian crafts and customs without making the trip over difficult roads to the Navajo and Hopi reservations. — *Scenic Southwest*.

History of Ancient Man . . .

TUCSON—Ten thousand years of man's existence in northern America is traced in a newly-published book, *Ventana Cave*, by Dr. Emil W. Haury, University of Arizona professor of anthropology and director of the Arizona state museum. The book covers the story of Ventana Cave, located on the Papago Indian reservation southwest of Tucson. The cave is believed to have been used by man for more than 10,000 years—ending with recent occupation by the Papago tribesmen who claim the region as their traditional home.

The cave is a spacious shelter carved by nature out of the rugged volcanic formations of the Castle Mountains in the arid region of southern Arizona. — *Tucson Daily Citizen*.

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EARTHWORM BREEDING. Valuable bulletins on successful methods mailed free. Earthmaster Publications, Dept. 11, Sun Valley, Calif.

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MAGAZINE SUBSCRIPTIONS for all publications at publisher's prices. Courteous, prompt service. F. G. Voltmer, 10211 Seabury Lane, Los Angeles 24, Calif.

BACK ISSUES: of Desert Magazines by the year or single issues. Edna Malott, 5023 Meridian St., Los Angeles 42, Calif.

MISCELLANEOUS

GHOST TOWN ITEMS: Sun-colored glass, amethyst to royal purple, gold scales, gold pans, limited odd items from camps of the '80's. Write your interest, Box 64-D, Smith, Nevada.

OLD WESTERN outlaw photos, \$1.00. 20 different Old West, Pioneer, etc., photos, \$1.00. 10 different battle of Wounded Knee 50c. 5 different Lincoln 25c. Lists 5c. Vernon Lemley Store, 302 Dallas Ave., Mena, Arkansas.

SILVERY DESERT HOLLY PLANTS. One dollar each postpaid. Greasewood Greenhouses, RFD, Barstow, California.

COLOR SLIDES—Travel, Nature, Geology, etc. Free list (with sample 30c, three for dollar). Kelly D. Choda, Box 5, Los Alamos, New Mexico.

KODACHROME SLIDES on approval of all Western National Parks, also Banff, Jasper Canada and Mexico. Douglas Whiteside, Yosemite, California.

"GOLD PANNING FOR PROFIT." Healthy outdoor hobby. Beginners big illustrated instruction book—\$1.00. Miners' gold pans, \$2.00. Prospectors' powerful magnifying glass, \$1.00. Package black sand and real gold, \$1.00. Desert Jim, 627 Lillian, Stockton, California.

LADY GODIVA "The World's Finest Beautifier." For women who wish to become beautiful, for women who wish to remain beautiful. An outstanding desert cream. For information, write or call Lola Barnes, 963 No. Oakland, Pasadena 6, Calif. or phone SYcamore 4-2378.

FRED AND JESSIE PORTER welcome you to SHOOT!!! your pictures of "Ghost Town of Calico" and mountains in miniature, at the "POW-WOW" Trading Post, Hiway 91, Yermo, Calif. The hub of Rock-hounds of Paradise. Crystals, cutting material in rough or slabbed. Uranium, highly fluorescent, and specimens. Miniature cactus, gifts and souvenirs.

PREPAID DESERT HONEY, five pounds \$1.50, additional can \$1.20; 60 lbs. \$12.00, additional can \$10.50. G. C. Christensen, Box 266, Marathon, Texas.

SHORT COURSE for persons interested in beginning the study of Mineralogy. \$1.00. Bob Barnes, 2726 Jefferson Park Ave., Charlottesville, Va.

LUCKY RING—Indian Medicine Man, Sterling Silver. \$3.00 postpaid including Federal Excise Tax. If not satisfied, return in 5 days for refund. Send ring size. COWBOY JEWELER Dept. B., P. O. Box 2417, Phoenix, Arizona.

CARLSBAD CAVERN IN COLOR! 35MM. Kodachrome slides taken by controlled flash to show each formation at its best in brilliant color. These are new! Send 50 cents for sample slide and large photograph showing views offered. Robert Nymeyer, 811 West Greene, Carlsbad, N. Mex.

PANNING GOLD — Another hobby for Rock Hounds and Desert Roamers. A new booklet, "What the Beginner Needs to Know," 36 pages of instructions; also catalogue of mining books and prospectors supplies, maps of where to go and blueprints of hand machines you can build. Mailed postpaid 25c, coin or stamps. Old Prospector, Box 729, Lodi, California.

PROSPECTORS AND ROCKHOUNDS WANTED. To join the newly incorporated United Prospectors Organization. If you are experienced or beginners the articles in our magazine are bound to help you enjoy your hobby and the outdoors. Send your name for our new brochure and literature. United Prospectors, Box 729 Lodi, California.

REAL ESTATE

OCOTILLO DESERT RESORT: lots, acreage, in a mountain and desert area on railroad and Highway 80. Lots with an abundance of soft, pure water \$250. Business opportunities. Send for circular. Acre, partly furnished hollow tile dwelling 62'x24', new rock building 45'x18', good well, trees, poultry pens, at Coyote Wells railroad station and Highway 80. \$12,000, terms. 1 1/4 acre choice land at Descanso on corner of oiled St. 3 partly furnished cottages, large rock building suitable for business, 1 fireplace, hot water, electric ranges. \$10,000. Easy terms. ALPINE: Victoria Heights view home sites. 1 acre or more with water to irrigate garden and trees. Best climate in U. S. according to government report. \$850 per acre, terms. John C. Chalupnik, Ocotillo, via Plaster City, California.

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YOUR DESERT HOME—5 acres, only \$1000. Easy terms. Where there's Peace and Quiet —no fog—no smog. R. H. McDonald, Box 21 Desert Hot Springs, Calif.

WIFE OF RECALLED RESERVIST sacrificing Lapidary Gem Shop. Large stock specimens, cutting material, machinery, fixtures. New Bldg. 30x35 with living quarters. 5 acres Hy 60 & 70, 2 miles west Salome. Would sell real estate separately. Bertha Wellborn, Desert Gem Shop, Salome, Ariz.

FOR SALE — Historic old 14-room one-story hotel with two apartments and large store. Hotel now operating. Part of famous Rand mining district. Fabulous income. Severe illness forces owner to sell at extreme sacrifice of \$15,000 full price. For further information or appointment to inspect phone Hudson 27425 or write B. J. Ryan, 1258 N. La Brea avenue, Hollywood, California.

CALIFORNIA

Early-Day Indian Agent Dies . . .

BANNING—Death came August 14 to Miss Clara B. True, Indian agent in the San Gorgonio pass and desert area from 1908 to 1910, at the home of her sister in Shawnee, Oklahoma. Miss True received her appointment from Theodore Roosevelt during his term as president. She lived on the Morongo reservation, and was in charge of five reservations: Morongo, Mission Creek, Soboba, Twentynine Palms and Palm Springs. She was a personal friend of the late Nellie Coffman, Palm Springs pioneer who died recently.—*Banning Record.*

Minimum Date Price Set . . .

INDIO—Leading date growers of Coachella Valley have agreed upon a minimum price of 14 cents a pound for both Deglet Noor and soft dates, and have appealed to all producers to not sell under the 14-cent price. Last year growers barely made expenses, many lost money. Those with a good direct-mail market made a profit. With operating costs up this season, it will take a return of more than 12 cents a pound for the grower to break even, it is claimed. An estimated 33,000,000 pounds of dates are on Coachella Valley palms this fall. If the 14-cent price holds, the crop will grow close to \$11,000,000 for growers.—*Indio Date Palm.*

Eager for Return to Desert . . .

RANDBURG — George Benko, widely known desert prospector and miner who settled in Homewood Canyon a few years ago (*Desert*, June, '50), was taken to Weimar Joint Sanatorium, Weimar, California, when he fell ill this summer. Bert Wegman, Randburg, visited Benko recently and reported he was greatly improved — and eager to get back to the desert—*Trona Argonaut.*

Pioneer Days Celebration . . .

TWENTYNINE PALMS — The dates of October 20, 21 and 22 — Friday, Saturday and Sunday—have been set for the Twentynine Palms annual Pioneer Days celebration, it is announced by Phil Phillips, general chairman. The colorful parade will be held at 2:00 p.m. on Saturday.

Argus to Get Postoffice . . .

TRONA—Argus, the town which has grown up almost within a stone's throw of the Searles Valley city of Trona, was scheduled to have its own postoffice before end of September. The postoffice was to be located in Simpson's store. Official approval was granted by postoffice officials in mid-summer.—*Trona Argonaut.*

Courthouse for Desert Area . . .

INDIO — Riverside County supervisors, despite some opposition, have voted to keep in their budget \$50,000 to start construction of a branch courthouse for Coachella Valley and the desert area of Riverside county. The branch will serve Coachella and Palo Verde valleys and the desert communities which lie between the San Jacinto and San Bernardino Mountains and the Colorado River. Some residents of Riverside County have to drive 150 miles to the present courthouse at Riverside.—*Desert Barnacle*.

Another Product from Dry Lake . . .

TRONA — Pelletized potash has been added to the long list of products made by the American Potash & Chemical Corporation from brine pumped from deep beneath the surface of dry Searles Lake. The potash in its new form is used in mixed fertilizers and is also suitable for direct application to the soil.—*Trona Argonaut*.

More Trout for Fishermen . . .

BISHOP—Construction of the Fish Springs rearing ponds this fall is apparently assured with allocation by the State Wildlife Restoration board of \$352,000 for the project and opening of bids September 26. Aim is to raise fingerling trout in time for 1951 planting. It is hoped the ponds will be turning out catchable-size trout in 1951.—*Inyo Independent*.

More Cloud Seeding Planned . . .

BANNING—The San Jacinto and San Bernardino Mountains, which border the Colorado desert on either side of San Gorgonio pass, will have more rainfall this winter if proposed artificial rain-making efforts are successful. The cloud seeding which is expected to increase precipitation during the rainy season will be carried out between November 1 and next April 15 over both the San Bernardino and San Jacinto Mountains. The San Bernardinos are principal watershed of the Santa Ana River, while the San Jacintos give rise to the San Jacinto River.—*Banning Record*.

NEVADA

Prospector Finds Historic Papers . . .

TONOPAH — Historic letters and documents dating back to 1823 were recently discovered by R. W. Thaler, veteran prospector known as the "Gumshoe Kid," in an ancient stone cabin at Dead Horse Wells in the northeast corner of Nye County about 18 miles south of the one-time boom town of Rawhide. The cabin is believed to have been built by General Fremont on one of his exploration trips.

The letters and documents were found by Thaler in a metal box secreted behind stones near the fireplace at one end of the cabin. The letters are easily legible, penmanship is beautiful. One government document concerning a land grant in Ohio was signed by President James K. Polk. The papers are being donated to the Nevada Historical society in Reno.

Remarkable thing about the story is that in 1907—43 years ago—when Thaler was prospecting the region just before the Rawhide boom, he used the old cabin as headquarters for more than two months. The cabin was well known to other prospectors, and was used by many as a stopping place. Yet none of them ever noticed anything out of the ordinary in arrangement of the stones about the fireplace.—*Tonopah Times-Bonanza*.

Brush Controlled by Spraying . . .

WINNEMUCCA—Experiments on control and eradication of sagebrush and greasewood by spraying with chemicals indicate this may be a practical means of putting thousands of acres of land back into grazing. Experimental plots sprayed in 1949 were recently checked in Humboldt County. A year after the spraying, sagebrush showed virtually 100 percent kill. The greasewood kill was about 85 percent. On big sagebrush 60 gallons of the chemical solution were used per acre. Cost of the material was slightly less than \$3.00 per acre. Per-acre costs can be reduced, it is believed. As a result of over-grazing and other causes thousands of acres of land over the Southwest have gone to brush in recent years, it is hoped much of it can be reclaimed.—*Humboldt Star*.

TURKEY RANCH SALE

Forty acres, five-room furnished house, family orchard, equipment for 1200 birds, successful for past ten years, operator deceased. In Lucerne Valley, elevation 3300 ft., dry air, isolated from others, mountain spring water.

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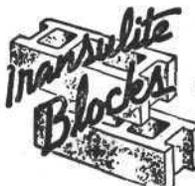
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Nevada May Try Rain-Making . . .

ELY—Success of experiments conducted during the past three years in New Mexico has led to plans for increasing the precipitation in White Pine County. Membership of the Stockmen's association was asked to approve a program for scientific rain-making experiments commencing about mid-August. The project would call for distribution of probably 20 smoke generators over an area of about 50 miles in all directions from Ely. The generators contain silver io-

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dide impregnated coke, which gives off millions of nuclei when burned. These rise into cloud formations and if conditions are favorable for precipitation, the amount of rainfall is increased.—*Humboldt Star*.

Lynx Makes Home in Mine . . .

BATTLE MOUNTAIN—A large lynx cat has found a home to his liking in the Silver Fox mine near Midas, according to L. V. Pangburn, operator of the mine. The cat goes down a ladder of a 40-foot incline shaft and through a drift into a large stope, the main room of his made-to-order home.

Pangburn does not dispute possession with the lynx. He works the property through another entrance.—*Battle Mountain Scout*.

New Water Finder Described . . .

LAS VEGAS—A new scientific instrument which assertedly can aid greatly in locating underground water-bearing gravel was described here by Roland H. Wiley, gubernatorial candidate, who proposes that the instrument could be obtained by the state and loaned to communities in need of more water. The instrument, he said, could help not only municipalities in need of domestic water, but could also be of help to ranchers and homesteaders and would stimulate development of Nevada's fertile valleys where underground water is the source for irrigation.—*Mineral County Independent-News*.

Historic Courthouse Causes Debate

PIOCHE—Whether or not Lincoln County's historic old "million-dollar" courthouse will be restored and kept in Pioche as a museum or historic shrine, or be moved to Las Vegas as part of the frontier village adjoining the Hotel Last Frontier, is a question still to be answered. No decision was reached at a recent public meeting called by the board of county commissioners. Meantime, an effort will be made to ascertain definitely whether or not funds for the building's restoration can be raised by public subscriptions.—*Caliente Herald*.

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Railroad Won't Stay Dead . . .

RENO—They just can't bury Nevada's historic Virginia & Truckee railroad. Retired in June after 81 years of service dating back to the roaring days of the Comstock, the V & T is slated to come out of retirement to star in a motion picture, "Roar of the Rails." Columbia studios plans to film a story of pioneer railroading in the '90s.—*Battle Mountain Scout*.

NEW MEXICO

Taos Newspaper 115 Years Old . . .

TAOS—El Crepusculo de la Libertad, founded in 1835 by Padre Martinez and which claims to have been the first newspaper printed west of the Mississippi, in August celebrated its 115th anniversary. It was taken over in 1948 by its present management, which restored the old name of El Crepusculo to the historic weekly. Within the past year El Crepusculo took over the former Taos Star, and is now the only newspaper in Taos County.—*El Crepusculo*.

Mountain Lion Cubs for Sale . . .

SANTA FE—Unless they've already been snapped up by some cat lover who wants an over-size pet, the game and fish department of New Mexico has two mountain lion cubs for sale. The six-week-old cubs were captured when their mother was killed by Barty Henderson, state hunter, on the Bluebird mesa of Santa Fe National Forest, near Cuba. Henderson went on the lion hunt after reports that lions were killing deer and livestock in the area.—*Gallup Independent*.

Kit Carson Park Fund Asked . . .

TAOS—If a bill now being prepared is approved when presented at next session of the state legislature in January, there will be a fund of \$250,000 for purchase and development of a Kit Carson Memorial park in Taos—home of the famed Indian scout and trapper. The bill is being drafted by the assistant state attorney general. Establishment of the park has long been sought by those interested in creating a shrine to memory of Kit Carson.—*El Crepusculo*.

Explorer May Be Honored . . .

WASHINGTON—Jim White, said to have made the first extensive exploration of Carlsbad Caverns in 1901, will be honored by a plaque or marker at the cavern if a bill now before congress becomes law. According to Interior Secretary Oscar Chapman, White was responsible for bringing to the attention of the public, scientific groups and the federal government the importance and significance of the area.—*Gallup Independent*.

Best Flying Saucer Story . . .

AZTEC—A newspaper editor in New Mexico, source of many flying saucer stories, finally decided he would go out among his Navajo friends, who live in the open and frequently sleep under the stars, and ask them if they had ever seen any flying saucers. He explained to the tribesmen all about the objects so many white men had claimed to have seen. The Indians shook their heads. It was clear their opinion of the white man's sanity had been given another jolt. Finally the Navajo sense of humor broke through. Said a listener: "White man getting so crazy he see lots of things, maybe he see pretty soon cup riding around in saucer."—*Aztec Independent Review*.

• • •

Tribesmen Sue Government . . .

WASHINGTON—A suit has been filed by the Navajo Indian tribe against the U. S. government asking \$3,126,-456 for helium deposits in the Rattlesnake field on tribal land in New Mexico. The suit claims the government paid the tribe only \$147,799 for the helium when the government took over in 1945 and capped the helium in the ground. The Rattlesnake field deposit is said to be the richest in the world. Congress in 1947 approved legislation setting aside the helium and allowed three years for the tribe to present a claim to the Court of Claims if the tribe considered the payment it has already received was less than fair and reasonable.—*Aztec Independent Review*.

• • •

Three proposed lake projects in Otero County are expected to receive the backing of Ray Bell, chief field warden of the State Game Department, who met recently with the Otero County Game Conservation Association at Alamogordo. Proposed locations are in La Luz Canyon, at the artesian well near White Sands and on the Sacramento River near the head springs.—*Alamogordo News*.

UTAH

Centennial Celebration . . .

PAROWAN—It was a cold winter day in 1851 when a little band of pioneers under the leadership of Apostle George A. Smith arrived in a Utah valley that looked good to them. They founded Parowan City 100 years ago, and their arrival on January 13, 1851, is to be celebrated in January of next year. The city council is already making plans for the event. The Daughters of Utah Pioneers and the newly organized Sons of Utah Pioneers will help.—*Iron County Record*.

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Southwest, in the opinion of Dr. Howard R. Driggs, president of the American Pioneer Trails Association. He voiced a plea for historic markers in a talk before the Spanish Trail Association in Cedar City. He praised the local group for its plan to mark the Old Spanish Trail (*Desert*, Oct. '50) this fall on the 100th anniversary of discontinuation of the trail. It is proposed to mark the entire trail from Santa Fe to Los Angeles this year.—*Iron County Record*.

Head of Church Council Dies . . .

SALT LAKE CITY — George F. Richards, 89, oldest general authority of the Latter-Day Saints (Mormon) church, died August 8 here. He was president of the church's Council of Twelve Apostles, had been a member of the council since 1906. He became president in 1945. His son, Leland Richards, is presiding bishop of the L.D.S. church.—*Salt Lake Tribune*.

New Geology Book Available . . .

CEDAR CITY—A new book, *The Geology of Eastern Iron County, Utah*, which covers the geology of the National Parks of southern Utah, is now available from the University of Utah, it is announced by Dr. Arthur L Crawford, director of the Utah Geological and Mineralogical Survey. The book was written by Dr. Herbert E. Gregory, now 81 years old and known as "the grand old geologist of southern Utah." There are 53 illustrations and a 36x42-inch geological map insert in the book.—*Iron County Record*.



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Working Toward Independence . . .

VERNAL — Striving toward the economic independence which all tribes long for, the Ute Indians on the Uintah-Ouray reservation last year took in more than \$1,000,000 in a wide range of business activities. Organized into a corporation, the Indians are already largely independent of the U. S. Indian bureau.

Approximately half of their income came from cattle and sheep, trapping beaver, cutting mine props and leasing scattered tracts. The other half came from rentals and royalties paid by oil companies drilling on the million-acre reservation.

Only about 200 of the 1588 tribesmen are receiving welfare aid, and most of these are aged and blind or dependent children.—*Vernal Express*.

Fish Planting in Utah . . .

CEDAR CITY—Attempting to improve Utah's position as a sport fishing region, the state game department during the 1950 season planted at least two million legal-sized fish in streams and lakes. A planting of exotic white bass is also planned in the Uba Dam reservoir of central Utah. Two hundred pair will be hauled in a tank truck from Iowa.—*Iron County Record*.

TRUE OR FALSE ANSWERS

Questions are on page 14.

- 1—False. The last of the camels brought to the United States in the 'fifties died many years ago.
- 2—False. Ubehebe crater has not been active in modern times.
- 3—False. Organ Pipe gets its name from the flute-like stems of the cactus.
- 4—False. White Sands National Monument is in New Mexico.
- 5—False. A "mud-saw" is used by lapidaries to cut stones.
- 6—True.
- 7—False. Salton Sea was not formed until the Colorado river flowed into it in 1905-6-7.
- 8—False. John D. Lee was caught and executed for his part in the Mountain Meadows massacre.
- 9—True.
- 10—True.
- 11—True.
- 12—True.
- 13—False. Camino del Diablo trail is along the Arizona-Mexico boundary.
- 14—False. Largest New Mexico city is Albuquerque.
- 15—True.
- 16—True.
- 17—True.
- 18—False. The Comstock lode was at Virginia City.
- 19—True.
- 20—True.

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Gems and Minerals

CLARK COUNTY COLLECTORS TO HOST MASS FIELD TRIP

A mass field trip that will probably be the largest event of its kind ever staged, and to which all gem, mineral and lapidary clubs of Southern California, Nevada and Utah have been invited, is to be sponsored by the Clark County (Nevada) Gem Collectors October 7 and 8 in the Lake Mead Recreational Area.

It will be an overnight camp and field trip. Campground will be at Boulder Beach on the shore of Lake Mead, about five miles from Boulder City. For those who do not wish to camp, accommodations are available in motor courts and motels at Boulder City, near Boulder Beach and in the Las Vegas vicinity.

Main field trip will be on Saturday, October 7, when the hobbyists will be led to an agate area near Lake Mead. There will be another trip Sunday morning for those who care to stay over and take the trip, according to Paul O. Drury, publicity director for the Clark County Gem Collectors.

Drury reported in September that communications received from clubs invited indicate that more than 1000 rockhounds will gather for the unprecedented mass field trip—making it the largest event of its kind ever staged.

JADE FROM FAMED STATUE SOLD TO SOCIETY MEMBERS

Pieces of jade from the famed statue "Thunder," purchased from the sculptor, Donald Hord, was offered for sale to members of the San Diego Lapidary society at their August meeting. The jade is in slabs and small pieces. Each member is allowed to buy only two pieces. Each piece is being registered as a collector's item, so that its authenticity cannot be questioned. Each piece has already been catalogued by weight and the exact outline drawn.

The spinach green jade boulder from which "Thunder" was sculptured was found near Lander, Wyoming, by Marcia Branhams. Hord bought his 460-pound piece from Dr. Chang Wen Ti, Los Angeles. The completed sculpture is 20 inches high, 16 inches long, weighs 104 pounds. Sculptor Hord and his assistant, Homer Dana, worked for 15 months, six hours a day, five days a week, to complete the statue. The pieces of jade from the statue are highly valued by lapidarists.

Dopping and finishing of cabochons took up the time at the regular August meeting of the Pasadena, California, Lapidary society, at Las Casitas del Arroyo, 177 South Arroyo boulevard, Pasadena. Prior to the regular meeting the Faceteers met at 7:30.

FIELD TRIP NETS RARE FIND FOR ROCKHOUND

San Fernando Valley Mineral and Gem society's July field trip to Horse Canyon was a real success for Mr. and Mrs. Harvey G. Chapman, Jr., Glendale, California. Their find of small highly agatized bones has been identified by the Los Angeles County Museum paleontologist as pieces of the leg bone of a prehistoric sheep-sized camel. Chapman is to lead a museum party to the location in a search for the skull or teeth, which are important for exact identification.

Horse Canyon lies in the shadow of Cache Peak, which marks the southern end of the Sierra Nevadas and the northeast extension of the Tehachapi range. It is a broad open canyon, officially called Cache Canyon, but known to gemologists all over the world as Horse Canyon. The gems are known as Horse Canyon moss agates.



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DONA ANA COUNTY CLUB HAS ACTIVE SUMMER

Fragments of turquoise left by those who mined in the old ghost towns of the Tyrone area in New Mexico were sought by members of the Dona Ana County Rockhound club on a two-day field trip August 26 and 27. Guests from the El Paso, Texas, society swelled the number. The trip was carefully guided, for there are many trails over the mountains around Tyrone, and it is easy to get on the wrong trail.

An interesting summer picnic-meeting featured a talk by Theron Trumbo on "the rockhounds of 800 years ago." Trumbo has made an extensive study of Southwest Indian ruins. September meeting was also an outdoor affair, in the back yard of a member's home.

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BANNING GEM EXPOSITION DATES ARE APPROACHING

Main interest of the San Gorgonio Mineral and Gem society, Banning, California, is centered on the Banning Gem exposition which is scheduled for October 20, 21 and 22. The rock and gem show will be in the Cherry Festival building half-way between Banning and Beaumont on Highway 99. Full cooperation of all members was enlisted at August meeting of the society. Clubs from many parts of southern California are expected to display exhibits at the show.

Hundreds of grab bags have been prepared containing many fine specimens and desert cutting material. Competitive classifications include fossils, gem and crystal collections and all phases of lapidary work. Jim Adrian is exhibition chairman, Hattie Black is society secretary.

An unusual field trip was sponsored by the El Paso, Texas, Mineral and Gem society in August. It was a five-day unhurried trip to Springerville, Arizona, via Hot Springs, Socorro, Magdalena, Quemado, Pie Town and Datil through the Cibola National Forest. The return was through Alpine, Silver City and Deming, New Mexico. Stops were made wherever gravel beds, mines or beautiful scenery were found. Fine agates, petrified wood and many other mineral specimens were collected.

Members of the San Diego, California, Lapidary society chose Labor Day weekend for a field trip to Horse Canyon—where the famed Horse Canyon agate is found. It was an over-night trip, and the rockhounds discovered they had to dig for specimens. The society's August "field trip" was a potluck dinner at the regular meeting-place, the old chamber of commerce building in San Diego's Old Town. Members attending were given credit for a field trip.

The Whittier Gem and Mineral society, one of Southern California's newer clubs, will hold its first annual show October 21 and 22 at the York Field clubhouse, on the Santa Fe Springs road one mile south of Whittier boulevard.

Zelma I. Thieme, president of the Delvers Gem and Mineral society, Downey, California, reports that on a recent trip to San Francisco he was surprised to learn that jade is a musical stone. True jade has, he says, an incomparable tonal beauty when properly suspended and struck gently.

It is possible to lap out saw marks on a stationary lap, according to T. V. Little of Shafter, California. He suggests a smooth piece of cast iron 12 or more inches across, but it should not be polished. Apply silicon carbide grit of about 150 grade and add water as needed. Move the stone on the lap with a circular motion, being careful to not get too near the edge. Saw marks can be removed more quickly than on a drum sander, it is claimed.

The San Gabriel Valley, California, Lapidary society chose August for a family picnic and get-together, and for the August field trip members attended the show put on by the Orange Coast Mineral and Lapidary society at the Orange County fair.

SEQUOIA MINERAL SOCIETY ANNOUNCES FIRST SHOW

A potluck picnic in the Dinuba, California, City park was the August meeting for the Sequoia Mineral society. It was "copper month," and there were fine displays of both gem and mineral specimens. At the July meeting the society decided to stage its first annual gem show November 18 and 19 instead of merely having an exhibit at the Fresno fair. The show will be in the Home Economics building at the Fresno, California, fairgrounds.

Roy Kuntz, rockhound, archeologist and veteran hiker, was elected president of the Yavapai Gem and Mineral society at the annual meeting held in August at St. Luke's parish hall, Prescott, Arizona. He succeeds Ernest E. Michael. Mrs. Michael was secretary-treasurer. Other officers: Jeanne Stolte, secretary-treasurer; Ray Shire, re-elected vice president. The new officers were installed at the society's meeting September 5.

A lecture on the art of making monolithic rings was enjoyed by members of the San Antonio, Texas, Rock and Lapidary society at their July meeting. Dave Penny-cuff was the speaker. He showed several finger rings which were cut from solid jade and agate, and explained how he accomplished the work—which he did without modern lapidary equipment. For monolithic rings, he said, it is necessary to select material which is tough and won't splinter and which will take a high polish.

Members of the Wasatch Gem society, Salt Lake City, held their August meeting in the beautiful yard of the William Langton home with President Edward Dowse presiding. After a business meeting, Mr. Langton showed colored pictures of little-known Utah scenery and unusual rock formations.

A special "Field Trip Night" is planned by the Southwest Mineralogists, Inc., Los Angeles, on October 9.

FOURTH ANNUAL SHOW DATES SET NOVEMBER 4-5

Dates for the fourth annual gem and mineral show of the Orange Belt Mineralogical society, San Bernardino County, California, will be November 4 and 5, it is announced. General chairman is Marion L. Moberly, Riverside. Display space will be in the industrial building of the National Orange Show. Seven thousand people saw last year's show.

Catalina marble was collected in quantities when members of the Delvers Gem and Mineral society, Downey, California, went on a field trip to the beach at Corona del Mar. Some of the rockhounds chipped away at boulders in an effort to remove fossilized bone which was discovered. Several good specimens were obtained. August field trip of the society was to Tick Canyon, where excellent quality jaspagate and agate were found. Digging was required to find specimens.

Members of the Santa Monica, California, Gemological society enjoyed—vicariously—

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a three-month field trip when they watched colored slides at their August meeting with narration by A. C. Ostergard. He is past president of the Mineralogical Society of Southern California. Mineral specimens collected on the trip were on display at the meeting. August field trip of the society was an easy one—a picnic in North Hollywood Park.

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NEW OFFICERS INSTALLED BY GLENDALE SOCIETY

Now heading the Glendale, California, Lapidary and Gem society is a new slate of officers installed during the summer. Officers are: Mrs. Orma Foote, president; Wencil Seastrom, first vice president; Earl Endell, second vice president; Mrs. Louella Miller, secretary; Frank Overton, treasurer.

President during the preceding year was Henry Hodge, who led the society through a very active season which ended with the organization in a sound financial position.

With next year's California Federation convention scheduled to be in Oakland, the Mineral and Gem Society of Castro Valley is planning to enter an exhibit in the competition. Decision to do so was made at August meeting of the society. At the meeting Dr. Arthur B. Emmes discussed uranium and other radioactive minerals. Using speci-

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mens submitted by members, he demonstrated use of a Geiger counter. August field trip was to Golden Gate park, San Francisco, where members viewed the mineral collection of William Pitts, on display in the Academy of Sciences, and the Hapsburg art collection at the DeYoung Museum.

Pictures taken on a trip to Mexico City were shown at September meeting of the Kern County Mineral society, and displays to be arranged for the Kern County, California, fair were discussed. Members also talked about the mass field trip to Lake Mead which is being sponsored October 7 and 8 by the Clark County Gem Collectors, Nevada. August meeting of the Kern County group was a potluck dinner at the country home of a member couple.

August was a busy month for the Long Beach Mineralogical society. August 9 was regular meeting, with slides and a talk on a boat trip through Grand Canyon sponsored by the California Institute of Technology. August 23 was board meeting night, and on August 27 members and their families and guests enjoyed the society's annual picnic. Some members have indicated they may join the mass field trip being sponsored by the Clark County Gem Collectors, Las Vegas, Nevada, on October 7 and 8.

A visit to the San Andreas fault area in Cajon Pass and the Wrightwood and Big Pines regions of California made an interesting field trip in July for the Pomona Valley Mineral club. Many stops were made along the actual fault line and George Bellamin, instructor at Los Angeles City College, described and explained peculiarities of the fault area. In August the club held its annual summer picnic in San Dimas park, where members took time for an exchange of mineral specimens.

Members of the Tacoma, Washington, Agate club gathered for a potluck picnic which was their August meeting, but in September they went indoors again and met at St. Johns parish house, regular meeting place.

Third annual Lapidary and Gem exhibit of the Hollywood Lapidary society is to be held October 28 and 29 at Plummer Park, 7377 Santa Monica boulevard, Hollywood, California, it is announced.

Devil's Canyon in San Bernardino County was site of the July meeting for the Orange Belt Mineralogical society, California. In September members enjoyed a picnic and rock auction at Sylvan park, Redlands.

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AMATEUR GEM CUTTER

By LELANDE QUICK, Editor of The Lapidary Journal

Several annual fall gem and mineral shows are in the offing. The first annual show of the *Compton Gem & Mineral Club* comes September 30 and October 1 at the Civic Center Auditorium in Compton, California. This is followed by the annual show of the *San Diego Mineral & Gem Society* on October 14-15 at Recital Hall in Balboa Park. Then comes another first show by the *San Geronimo Mineral & Gem Society* October 20, 21, and 22 at the Cherry Festival building, midway between Beaumont and Banning, California. This is followed the next weekend by the third annual show of the *Hollywood Lapidary Society* to be held October 28 and 29 at Plummer Park Recreation hall, 7377 Santa Monica Boulevard, Los Angeles. November 4 and 5 the *Orange Belt Mineralogical Society* will hold its annual show in the National Orange Show building at San Bernardino. Then comes the first annual show of the *Sequoia Mineral Society* to be held November 18 and 19 at the Home Economics building on the Fresno fairgrounds at Fresno.

Three of these shows are given by experienced hands at the show business and three of them are the first shows of their societies. We wish them well for we know that nothing holds a society together like work in a common effort. We express the hope that they accomplish the things they are evidently planned for—the education of the non-collecting public in what the members have gathered together. But education cannot be accomplished without information. The public wants to know what they are looking at but they don't want exhibits so cluttered with strange names and terms (too often misspelled) that the exhibits lose their effectiveness.

Perhaps a letter recently received from Alice Walters of Ramona, California, may be of interest to the committees planning these shows. Mrs. Walters writes: "I recently went with a group to see the Hobby Show in Los Angeles. I hoped to see a good lapidary and mineral display. In one way I was pleased because what there was, was of fine quality, but in several ways it was a great disappointment. May I tell you several things that occurred to me as I looked and listened to the comments? One: Practically no labels. While I stood there a lady commented to me: 'Such a beautiful slab. Do you know what it is?' I told her and then she asked where it came from. I also was able to give her that information. A tiny card placed at its base would have been most helpful to those who admired but were too shy to ask.

"Two: At least three groups were heard to say (on looking at the faceted stones), 'my, how real they look. How can they make such good imitations!' Now that isn't fair to the lapidary craftsman. I know all my beloved quartz minerals were represented, including clear, smoky, citrine and amethyst, besides aquamarine, etc. But right across the center of the display was a row of the synthetic rutiles and they heard the man say they were synthetic so assumed that all the stones were synthetic or, as they understood, imitations. A few labels would have done a silent but efficient job of educating the interested but still quite ignorant public.

"Let's break down this idea that 'labels spoil the effect.' Good clear concise little cards, giving the name of the specimen and

locality where found, would interest visitors, especially if they saw their state represented.

"And about synthetics: I don't know how the majority of lapidaries feel but to me it would seem more in keeping with the educational theme to keep them in separate displays from genuine stones and so label them, as well as labeling the real stones genuine."

We heartily agree with our correspondent. However the shows of recent years have usually been adequately labeled. The thing that burns us is the horrible misspelling. The terms and names are really difficult even for well educated people who are often stumped by rhodochrosite and chrysocolla. Location names like Lavic and Nipomo are frequently misspelled. But we think the prize in wrong spelling should go to a jeweler we visited recently, and not to any society show. This jeweler had a mineral display for his customers' interest. Practically every label was wrong but when we came to a benitoite specimen labeled "Baneedow White" we asked for baking soda.

In the case of the Hobby Show exhibit there was a genuine excuse. This display was gotten together on 24 hours notice. Several good specimens were selected from the collections of many members of two societies and hastily put in the cases. There was no time to prepare labels but the societies had someone there at every hour the show was open for 10 days to offer advice on the displays. That was a heroic job that deserves more applause than would the labeling.

We still believe a case of cabochons with every one labeled often looks like the stadium two hours after the game—messy and cluttered. The best solution to this we believe is to have each cabochon represented by a tiny, unobtrusive printed number. Each guest should be given a printed program as they register and then when they see a pretty purple stone labeled No. 43 they consult their program and see that it is amethyst, that it is found in most western states but that the cut specimen they are looking at probably came from Brazil, where the best material is now found. The *San Jose Lapidary Society* was the first to follow out this idea and it has been very successful and appreciated where it has been used. The expense of printing such a program can easily be covered by a few ads from local business houses. This idea also gives the exhibiting society an opportunity to do a little propagandizing by telling who and what they are, where and when they meet and what they do besides showing stones. The best way to get the numbers is to have several people cut the numbers from old calendars and the page numbers from old magazines.

And we hope that all the societies exhibiting in the fall will follow the idea originated by the *Glendale Lapidary & Gem Society*. Have a big table with some personable and well informed member behind it to answer questions. Have the table loaded with all kinds of rocks and a sign that invites people to handle them all they wish and ask as many questions as they wish. If they find a rock they like let them put their name on it and then if they are present to claim it when the show closes let them have it. That's educational!

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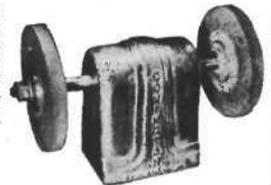
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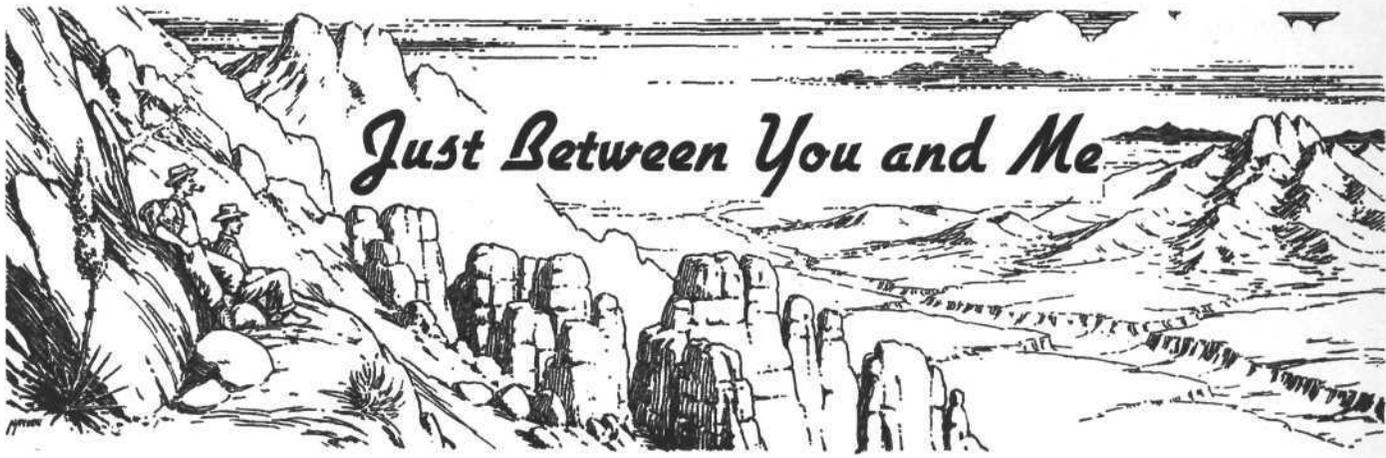
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Just Between You and Me

By RANDALL HENDERSON

I HAVE a great admiration for the industry and thrift of the Mormons of Utah. They still believe in the good old-fashioned idea that humans should provide their own social security, and that when folks begin depending on monthly checks passed out by a governmental agency they are surrendering some of the personal freedom and independence which were their original heritage.

And so the Saints are mining coal, sawing wood, operating stores, building warehouses and stocking them with provisions—as insurance for the future.

Utah is richly endowed with timbered mountains and colorful landscapes and spectacular rock formations—but rocks do not grow good corn crops, and one cannot eat landscapes. The Mormons have developed the limited agricultural areas of their state by hard work. And while they were reclaiming and cultivating their little valleys they were schooled in the idea that their best security was provided by the work of their own hands. The idea of depending on the beneficence of their Uncle Sam has never taken root in the Mormon mind.

They have a feeling—as many of the rest of us do—that a nation cannot go on spending in excess of the national income without getting into financial difficulties. If trouble comes the Mormons will be ready for it.

• • •

Another desert summer has passed. Living in air-cooled homes, the desert in summer isn't as fearful a place as many non-dwellers imagine. Nevertheless, those of us who remained on our desert jobs during June, July and August are looking forward to the months ahead when the dry crisp air of the winter months will more than compensate for any discomfort the heat may have brought.

Those of us who like to tramp the desert canyons and mesas in quest of minerals or rare botanical specimens or unusual pictures—or just for the fun of exploring—are looking forward to the trips we will take in the months ahead.

At the top of my list for winter excursions is a trip down into the Pinacate country along the Arizona-Mexico border where at one period in the remote past more than 500 volcanic jets were spouting lava over the landscape within an area of a hundred square miles. The fire is gone now, but the craters are still there. For years I have been looking forward to the opportunity to visit that region and write the story for *Desert Magazine* readers. Arles Adams and I have made definite plans for the trip this fall.

• • •

I receive an increasing number of letters from people—often a man and wife well past middle age—who have

discovered the charm of the desert canyons and mesas which are not seen from the paved highways. They have learned that by using ordinary common sense it is quite safe to take any type of car out along many of the winding trails which lead off from the highways in every direction. One does not have to own a jeep to explore the side roads. I can think of a thousand secluded camping places within 300 miles of the Southern California metropolitan area which can be reached without special equipment. The same is true in Arizona, Nevada, Utah and New Mexico.

Much of the desert region is still in the public domain—and that means it belongs to you and me—to explore and enjoy as we choose. It is good tonic for humans to go out occasionally and spend an evening or two beside an ironwood or a mesquite campfire. The newspapers and radio bring us so much of human conflict, we need a bit of association with Nature's world occasionally to keep our sense of values.

The paved highways at night are places of blinding lights, of raucous noises and poisonous gas—and danger. But on the desert everywhere there are hard trails winding off through the rocks and creosote to remote mesas and canyons and coves, to a world undisturbed by the conflicts of the human family. In such an environment one gets a clearer perspective. The desert does not solve the world's problems—but it gives spiritual strength and understanding to human beings who must face those problems.

I recall a paragraph by Everett Ruess, poet-adventurer of the desert wilderness. He wrote: "Alone on the open desert . . . the world has seemed more beautiful to me than ever before. I have loved the red rocks, the twisted trees, the red sand blowing in the wind, the slow sunny clouds crossing the sky, the shafts of moonlight on my bed at night. I have seemed to be at one with the world. I have rejoiced to set out, to be going somewhere, and I have felt a still sublimity, looking into the coals of my campfires, and seeing far beyond them. I have been happy in my work, and I have exulted in my play. I have really lived."

• • •

The winter months are the period when you and I may break away for a few hours or a few days and perhaps find the tonic we need in this desert world of quiet and peace. For, as has been written in these pages before, "to those who come to the desert with friendliness it gives friendship; to those who come with courage, it gives new strength of character. Those seeking relaxation find release from the world of man-made troubles. For those seeking beauty, the desert offers Nature's rarest artistry. This is the desert that men and women learn to love."

BOOKS OF THE SOUTHWEST . . .

COMSTOCK LODE LEGENDS RETOLD IN ANTHOLOGY

"The Comstock was the greatest bonanza in precious metals ever to be uncovered in modern times and probably in all history, although the wealth of Peru in the days of the Incas may have rivaled or surpassed it."

This introductory sentence in *Legends of the Comstock Lode*, by Lucius Beebe and Charles Clegg, explains the foundation on which was based one of the most colorful periods in Southwest history. With riches undreamed of, it was inevitable that unheard of conditions and events should follow and intriguing personalities should develop in the raw frontier atmosphere of Virginia City and the surrounding Nevada countryside during the bonanza years of the nineteenth century.

The unadorned history of the Comstock Lode is dramatic enough in itself. But there were many sidelights not generally known, and of course many legends which developed — most of them based on fact. And in their new book the authors have gathered together the most arresting and dramatic historical aspects of Virginia City and the Comstock region and present them for the first time in a single handy volume.

The authors are anxious to point out that they make no claim of presenting any new or significant historic material. What they have done is to search out all possible sources, many of them not readily available to the general reading public, and combine the known history of the Comstock in a readable book.

Lucius Beebe and Charles Clegg are a writer-photographer team who have made southwestern Americana their special field. Their *Virginia & Truckee*, the story of the famed railroad that was built to serve Virginia City and the Comstock, has already gone into its fourth edition. *Legends of the Comstock Lode* is a worthy sequel.

Published 1950 by Grahame Hardy, Oakland, California. 80 pp., profusely illustrated with old and new photographs. \$3.00.

*This book may be ordered from
Desert Crafts Shop
Palm Desert, California*

LIFE IN A SIERRA MOUNTAIN CABIN

Father Crowley, beloved padre of California's Mojave desert, was killed in an auto accident in 1939. At the time of his death he was building a spacious cabin home at the end of the highway at Whitney Portal overlooking Owens Valley.

George Palmer Putnam, seeking a quiet place to relax and write, after busy years as publisher and explorer, bought the unfinished home just before the war. Then Putnam went into the service and it was not until after his return that he and Peg, his wife, had the opportunity really to establish the kind of mountain retreat about which they had dreamed — Shangri-Putnam they called it.

On January 4 this year, Putnam died in the hospital at Trona, California. Before his death he had completed the manuscript of his last book, *Up in Our Country*. The book has just come from the publishers.

Putnam wrote a light amusing story of life at Whitney Portal—about the birds and animals which came to the

"bird lunch counter" outside the window of their cabin, about their neighbors in Lone Pine and in the mountains, about the little problems of living in an outpost where there is no electricity and the water supply freezes in winter.

The Putnams had names for everything. There was Hopalong Cassidy, the one-legged grouse; Petunia, the Ford pick-up; Forget-Me-Not, the skunk.

Those busy persons who dream of a tranquil life in a mountain hideaway will be more eager than ever to fulfill their dream after reading *Up in Our Country*.

Published by Duell, Sloan & Pearce, Inc., New York. Pen sketches. 224 pp. \$3.00.

*This book may be ordered from
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