

THE

Desert

M A G A Z I N E

JUNE, 1947

25 CENTS



the belt without a buckle!

Belt buckles used to be a problem in service station operation. When the attendant leaned over a fender to check the oil, it was hard to keep his belt buckle from scratching the car.

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UNION OIL MINUTE MAN SERVICE



DESERT CALENDAR

- May 30-June 1—Thirtieth annual Beaumont, Cherry Valley Cherry festival, street dance, barbecue, parade. Beaumont, California.
- May 30-June 1—Desert peaks section, Sierra club, climb of Montgomery and Boundary peaks, White mountains, California-Nevada.
- May 30-June 3—Albuquerque Market week, Albuquerque, New Mexico.
- June 1-6—"Message of the Ages," pageant of Church of Jesus Christ of Latter-day Saints, Tabernacle, Salt Lake City, Utah.
- June 2—Opening of Utah Centennial exposition, state fairgrounds, Salt Lake City, Utah. Exposition runs until September 20.
- June 7-25—Exhibit water colors and wash drawings by Peter Hurd, Museum of Northern Arizona, Flagstaff, Arizona.
- June 9-15—M. I. A. Dance, Speech, Drama and Music festival, Tabernacle and University of Utah stadium, Salt Lake City, Utah.
- June 12—Corn dance, Taos pueblo, New Mexico.
- June 13—Feast day, Sandia pueblo, New Mexico.
- June 12-13—Convention, Rocky Mountain Federation of Mineral societies, Newhouse hotel, Salt Lake City, Utah. Convention field trip, Topaz mountain, June 14-15.
- June 14-15—Desert Peaks section, Sierra club, climb of Wacoba mountain, Inyo range.
- June 15-22—Annual Tribal and Sun Dance, Chippewa, Cree, Rocky Boy tribes. Rocky Boy campgrounds, Box Elder, Montana.
- June 18—Indian Rodeo celebration, St. Johns, Arizona.
- June 19-22—Go-Western Rodeo, Billings, Montana.
- June 20-21—National C.A.A. track and field meet, University of Utah stadium, Salt Lake City, Utah.
- June 20-21—Western historical pageant and parade, Billings, Montana.
- June 24—San Juan day, St. Johns, Arizona.
- June 24—San Juan day, corn dance, San Juan pueblo, New Mexico.
- June 28-July 6—U. S. Clay court tennis championships, Tennis club, Salt Lake City, Utah.
- June 29-30—Rodeo and old time round-up, Dewey, Arizona.



Volume 10

JUNE, 1947

Number 8

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Guardisman of the Desert

There are as many definitions of the Spirit of the Desert as there are people who love it. And no man can say another's definition is wrong. The mood of the desert changes constantly as the sun moves across it, the wind blows, the rain falls, the clouds float by. But if there is a common factor upon which desert people can agree, certainly it must be that of beauty in barrenness. A beauty that at times is so knife-edged, so unsoftened by moist atmosphere and lush vegetation that it hurts the onlooker.

Never is the barren beauty of the desert more keenly felt, more richly displayed than at sundown. Rayburn F. Hunt's picture has captured much of it. He has pictured the Arizona desert. But, replace saguaro with cholla, or Joshua or pinyon, and the spirit would remain unchanged. Weird beauty of desert vegetation—vegetation whose adaption to and triumph over a harshly adverse environment is in itself a thing of beauty—has been caught and projected against the darkening sky. The fragile clouds, almost the only soft things which grace the desert scene, have been painted and outlined by the sinking sun, and serve to accentuate the incredible depth and blueness of the sky. And the almost unbelievable clarity of the evening atmosphere is there; we can see away to the edge of the world.

One who had never seen the desert could view such a picture and feel something of its attraction, understand why the lover of the wasteland gropes for words when he seeks to describe it.

Spirit of the Desert . . .

For its monthly photographic contest in April, Desert asked for pictures symbolizing the "Spirit of the Desert." It was a very broad assignment, since the desert means many things to many people.

But the response was most gratifying, and out of the many scores of prints submitted, the staff selected the two prints appearing on these pages as winners.

FIRST PRIZE went to Rayburn F. Hunt of Flagstaff, Arizona, for the picture above titled "Guardisman of the Desert." Exposure made 10 minutes after sundown on the Constellation road three miles northeast of Wickenburg, Arizona. Kodak Bantam Special, Plus-X film, developed in Microdol, exposure ½ sec. at f.16, print on F-2 Kodabromide developed in D 72.

SECOND PRIZE went to Dick Freeman of Los Angeles, California, for the picture on the opposite page titled "Monument Valley in October." Taken with a 4x5 view camera, Isopan cut film, G filter, 11:00 a. m., 1/5 second at f.4.5.



Monument Valley in October . . .

In this photograph taken in Monument valley, Dick Freeman has caught four of those intangibles which constitute that elusive thing called the lure of the desert.

PEACE! Since it has neither mines nor forests nor rich agricultural lands, Monument valley has never known the bitter conflict of man competing against man for the tangible riches which are identified with luxury and power. The people of this remote region are the soft-spoken Navajo—and their's is a peaceful occupation. They are shepherds.

BEAUTY! Where in all the world is the beauty and majesty of natural things better symbolized than in this picture? Visualize these towering buttes of red and or-

ange sandstone against a blue sky flecked with the fleecy whiteness of passing clouds—and you will understand why artists and poets find in Monument valley one of the loveliest settings in all outdoors.

COURAGE! Undaunted by withering sun and with little rainfall, the juniper, sage, rabbitbush, cacti and scores of other members of the plant world carry on here year after year and occasionally burst into gorgeous blossom as a symbol of the courage which is their's.

ADAPTATION! Monument valley has peace and beauty and courage because here in this remote region the natural laws of adaptation have had little interference from hands of men. The living things in this setting have adapted themselves to their environment.



The stage arrives at Rawhide in 1908. Photograph from "Souvenir Views of Rawhide," published by N. E. Johnson in 1908.

When Rawhide Roared

Here's a new one for the rock and mining fraternity—Cooganite. Probably you never heard of it. Well, neither has Dana nor any of the other gem and mineral authorities. There were few specimens of Cooganite—and Tex Rickard of the notorious Northern saloon paid \$50 for the best during the heyday of Rawhide's mining boom. But if any of the rock collectors want to add Cooganite to their specimen cabinet they will learn the secret in this ghost mining town story written by a member of Desert's staff.

By HAROLD O. WEIGHT

THE CLOUDS were black with the promise of rain when I pulled up from the alkali flats into Rawhide on a May evening in 1946. I stopped the car opposite a weathered frame building whose lighted windows glowed in the gathering dusk.

The amazing career of this old Nevada ghost town half way between Tonopah and Reno, had placed it high on the list of desert spots I wanted to visit. I crossed the road to the lighted house, hoping to find some old-timer who could give me details of the days when Rawhide was the roaring center of the West's last great gold stampede. On the porch I halted in surprise.

There, in fresh, black paint was the name "Grutt."

The door opened before I knocked and a large man smiled at me. "Well, come on in," he invited. "The wind's cold out there."

"You aren't one of the Grutt boys who started Rawhide?" I questioned.

"We didn't exactly start it," he said. "But we were here early. That is, Leo and I." He gestured toward another smiling man seated comfortably in a big black leather chair. "Of course, my son Gene junior, over there, wasn't in on the beginning."

I could scarcely believe my luck. The

four Grutt brothers had controlled some of the best claims in the camp, published a daily newspaper, and battled to bring in a railroad and other permanent improvements. Eugene Grutt, even back in 1908, had been known as the "Daddy of Rawhide" because of his activities in developing the town. He was the first sheriff elected in Mineral county when it was created in 1911, and served several terms.

"But you haven't stayed here 40 years?" I asked.

They laughed. "No," said Gene. "Our offices are in Reno now. But we were among the last to leave, and we held onto our properties here. We come back often to the old place."

I remained that evening while they recalled the past. And as they talked, the old camp came to life around me. I caught myself listening for the band which played all night in the big dance hall at the foot of Stingaree Gulch. Up at the corner of Rawhide avenue, Tex Rickard's Northern saloon should be warming up for the evening, and vaudeville turns would probably



Looking south on Nevada street from Grutt Hill. May, 1946.

be going on at the Princess theater and Moss Corner. Certainly I should be able to hear the thunder of exploding shots as the leasers blasted into the golden vitals of Grutt, Hooligan and Balloon hills.

But I heard only the wind crying under a darkened sky through an almost deserted valley.

Some historians profess to look upon

Rawhide as purely a stock-jobbing proposition. A figment, you might say, of the lively imagination of its most spectacular promoter, George Graham Rice. But Rawhide really did have gold. Its mines produced \$2,000,000 in yellow metal. It had the richest surface indications of any camp in the West.

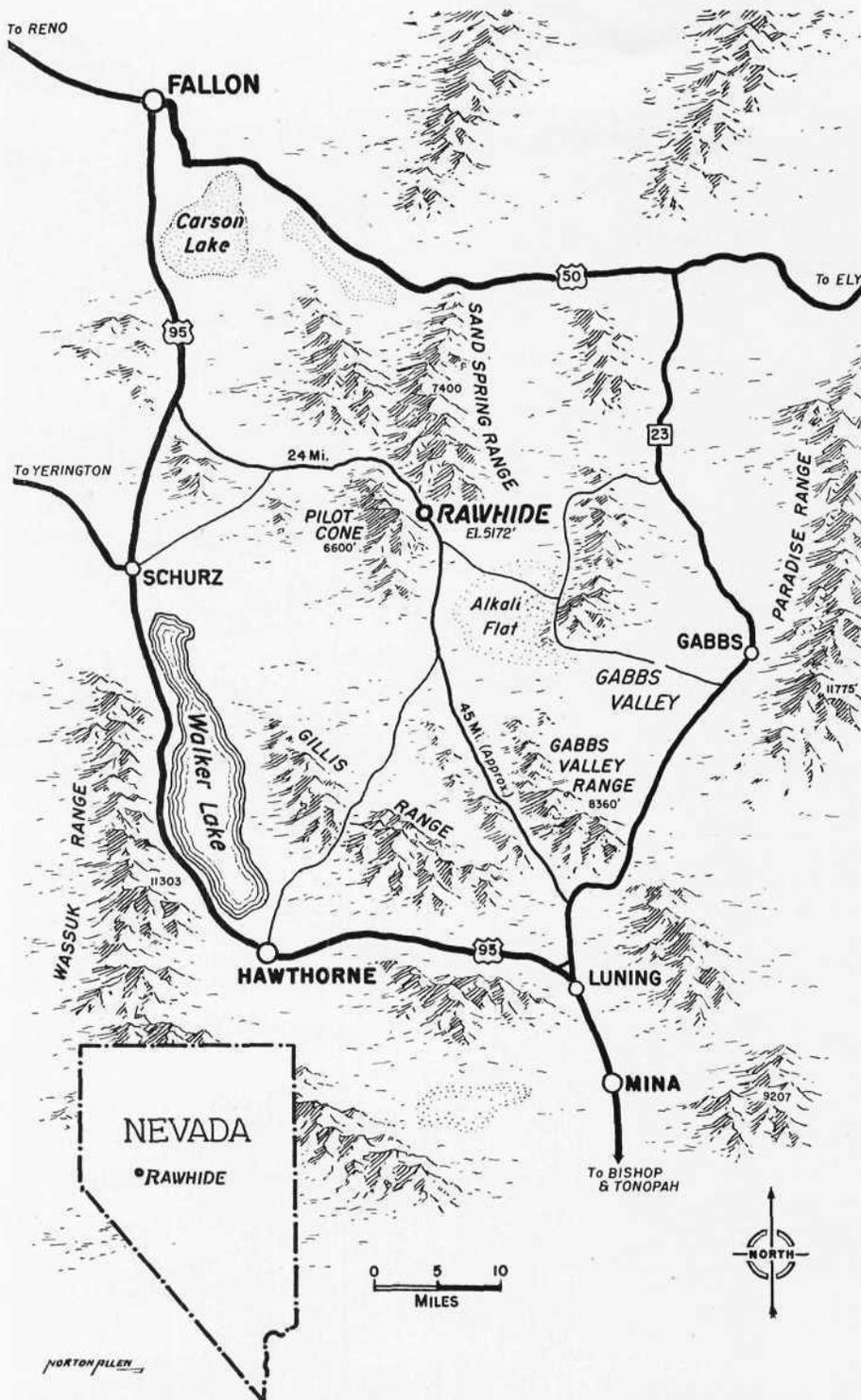
"They woke me up one night," Gene

Grutt explained, "and said 'Come on over and see what we just shot into.' In the drift I picked up a piece of gold as big as my hand. They filled a water bucket with some of the stuff broken out by the blast, and got \$2800 from that bucket alone."

Leo Grutt put down his pipe and pulled a chunk of silvery-yellow metal from his pocket. It was an inch across and half an

Center of Rawhide, rebuilt after the fire of September 4, 1908. Photograph from the collection of Mr. and Mrs. Allen Patterson.





inch thick. "That's from the Grutt Hill Mint," he said. Leasers on the Mint followed a knife-blade of ore down 150 feet. The vein opened out and through it ran a half inch seam of gold. That ore ran \$150 a pound—\$300,000 a ton!

"You couldn't have stopped a stampede if you had wanted to," Gene went on.

They still talk of the Rawhide boom all over the West. It was more of an atomic explosion than a boom. The population leaped from 20 to 4000 in three months. In six months it was estimated at 10,000. Hundreds of wooden buildings lined brand new streets. A thousand tent houses dotted the gulches. Prices of lots went

from \$10 high into the thousands. Ground rents climbed to \$300 a month.

Other big camps had taken years to accomplish what Rawhide did in months—in the winter of 1907 and the spring and summer of 1908. There were four hospitals, three banks, a church, and 90 saloons. With more rooming houses than any other city in Nevada, hundreds still found the sawdust floors of saloons the only sleeping quarters available. Fifty autos and a number of stages ran daily from Fallon and Schurz on the traffic-clogged roads. But they were unable to handle the problem when 400 men and women tried to book transportation from Schurz in one day.

There was a telephone system and telegraph lines. A water company was laying pipe, and the grade for the Rawhide Western railroad had almost reached camp. A special night stage brought in strawberries for morning breakfasts. There was a refrigeration plant to cool beer and champagne while water was still sold by the barrel and the standard price of a bath was \$5.

"We had three daily papers," Leo said, "the Rustler, the News and the Times. Here's the one we published." He handed me a 1908 issue of the Rawhide Times, more than 20 pages of coated stock, well printed and illustrated with numerous half-tones. "We brought in a Miehle press as big as any in the state," he went on. "And a Mergenthaler typesetting machine. That shows whether we thought the town was going to last."

Leo tamped the tobacco down in his pipe and grinned. "I'll tell you a story. One day a fine, handsome woman came up to me. She was dressed in black with a nice white collar. Braids down her back. Said she was collecting for a St. Louis orphanage. I kicked in \$10. So did a few hundred others. That night we went up to the Inn Bar, and there she was, running the roulette wheel. I think I know where she got the money to back that wheel."

"And there was Duffy," Gene said. "Duffy was always broke. I'd meet him and start to dig. 'No, Gene,' he'd say, 'I don't want charity. Come into the saloon and I'll sing. When I'm through, throw half a dollar on the stage, and the others will throw some too.' We'd go into the nearest bar and he'd sing 'Dying Hobo' or maybe 'Take Me Back to Montana' and get a stake of 10 or 20 dollars. Duffy loved to sing."

"And when the Gum Shoe Kid was claims recorder," Leo recalled. Gold Tooth Bess and her friend of the evening staggered into the Kid's office one night. Bess said the Kid was a public official and she wanted him to marry them. The Kid said he didn't have the legal right. Bess outlined the things she would do to him unless he complied. So the Kid took a Lode location notice, filled it out, signed it—and pronounced them man and wife.

I heard how Riley Grannan died of the "black" pneumonia and W. H. Knickerbocker preached a funeral oration which is still quoted in the Nevada hills. How Elinor Glyn came to Rawhide and the boys staged a show that she never forgot.

At last I regretfully turned in. The Grutt boys, with true western hospitality, had turned one of their buildings over to me. It was my first night under a roof in some time, but sleep was slow in coming. The wind shook the old building. Torn wallpaper rattled. I lay in the darkness and thought of the thousands who had hoped and schemed and struggled in this now desolate valley. Truly, ghost towns are well named. Though every board and



Center of Rawhide—where 10,000 gold-frenzied people once lived—in 1946.

stone vanish under the onslaught of the desert years, such places will always be crowded with the ghosts of broken dreams.

I woke early, and after a hasty breakfast prepared on the old wood stove, went out to take some pictures. The sun was shining and I wanted to take advantage of the light before growing cumulus clouds blocked it out again. Leo Grutt joined me beside the still substantial Rawhide jail. He swept an arm toward the northeast.

"That's Stingaree Gulch," he said. "I guess it's the only place that ever really rivaled the Barbary Coast. It was crowded for half a mile on either side with dance halls, red light houses and dives." Where he pointed, a rutted road wound through an empty valley. Not one wall of the old Gulch remained.

"There must have been five or six hundred girls on the line," Leo went on. "All nations and all colors. A lot of them made real money. The girls peddling wine at \$10 a bottle would get half, and cash in \$100 or \$200 a night. There was Rag Time Kelly's, and the Zanzibar and Squeeze Inn. Some places the dives and the mines ran right together, and it was hard

to keep the men on the night shift working."

Later in the day Eugene Grutt showed me a little gouge in the earth on what had been the northeast corner of Nevada street and Rawhide avenue. "That's the basement of Tex Rickard's Northern saloon. Tex paid \$8000 for that lot." The Northern was built within ten days after Tex arrived from Goldfield. Bar receipts were \$2000 the opening night, and the games reportedly paid the house \$25,000 for one day.

Before Tex came, the thousands of men who went nightly into Stingaree Gulch had to go the long way around to get in. Today you can still see the pass Tex cut through a ridge to make a direct entrance into the gulch. The pass came out right beside the Northern saloon. Tex's business doubled, and he was considered a public benefactor to boot.

"But Tex was no mining expert," Gene laughed. "We used to hit some ore with free gold through and around the bases of big quartz crystals. But most crystals were barren, and thrown on the dumps. Some smart fellows collected those barren crystals and turned them over to sign painters

who worked them over with gold leaf. One painter was so good we named the product after him—Cooganite. One night Tex called me over to see the wonderful specimen he'd just paid \$50 for. He had it in the safe. Prettiest sample of Cooganite I'd ever seen."

The big fire hit Rawhide on the morning of September 4, 1908. A lighted gasoline stove in the Rawhide drug store, window curtains, and the ever-present wind got together—and within 55 minutes the entire business district was burning.

Rawhide, born with fireworks, was dying in the sullen thunder of explosions. The heart of town, three blocks wide and five deep, was one great crimson mass. Flames rose hundreds of feet into the smoke-blackened sky. In the boiling thermals created, sheets of corrugated iron were lifted higher than the flames, to be released in the cooler air and crash back onto the town.

Although the fire finally was controlled, smoldering flames lit the sky through the night, while armed guards patrolled the ruins and occasional belated explosions ripped the silence.

"But we could still laugh," Leo said.

"The Vienna Bar had what looked like the best safe in town. Over six feet high and so massive nobody ever tried to crack it. The girls and gamblers put their money into it rather than the bank. When the fire came, the swamper and one of the owners lifted that safe up onto a wheelbarrow and rolled it into the open. It was made of papier-mache."

"And when the Gum Shoe Kid saw the fire coming," Gene contributed, "he rolled a barrel of whiskey out of his cabin and into a hole. Covered it with dirt. After the fire he couldn't decide where it was he'd buried it. Never did find it."

The fire was just one more punch that changing luck leveled at an already dizzy Rawhide. The ore became poorer instead of richer as it went down. The leasers stripped off the cream without doing development work or blocking out low-grade. From the first, the panic of 1907 had prevented proper financing of the mines. Now, the stock market manipulations and failures of George Graham Rice brought all Rawhide development into bad repute.

Rawhide rebuilt after the fire. Tex Rickard ordered lumber for the new Northern while the old was burning. The Grutt boys blew up their own building to help halt the flames, then built a better one—the present office—on the same site.

The town looked about the same, but its luck was gone.

Today the Rawhide hills are lonely again. Lizards bask on streets packed hard by thousands of human feet. A score of buildings mark the area where 1500 once stood. The others have fallen victims to flood, fire, vandals and the sales of the tax collector. Once dozens of burned-out safes marked the center of town. But when the price of scrap rose, it became profitable to mine them, and few remain.

Good graded desert roads connect Rawhide to U. S. 95 between Shurz and Fallon, and to Nevada highway 23, just north of Luning. Visitors on the Shurz road will follow the railroad grade on which trains never ran. There is usually someone living at the old camp, and those interested in its history will find a ready welcome.

Prospectors still scratch in the dump-scarred hills, and ore-hunters of a newer breed bring their doodle-bugs. One instrument gave a terrific response and the operator dug up a long-buried pocket knife.

And once Gene saw a prospector with the familiar inverted Y twig which is supposed to locate water, ore, and buried treasure. Only this divining rod had a piece of burro manure on the upright portion of the twig. The prospector was holding the rod over similar material on the ground.

Gene couldn't contain his curiosity. "Would you mind telling me what you are doing?" he asked.

The prospector looked up in surprise. "I'm trailing my burro," he explained.

"It must have worked," Gene says. "He found his burro."

But the Gum Shoe Kid hasn't been so lucky. A staid and substantial citizen now, the Kid frequently comes back on vacations, sharpens an iron bar, and probes the earth near where his cabin once stood. He's still looking for that barrel of whiskey.

"I don't want to drink it," he explains, mournfully. "I just want to know what happened to the darned thing."

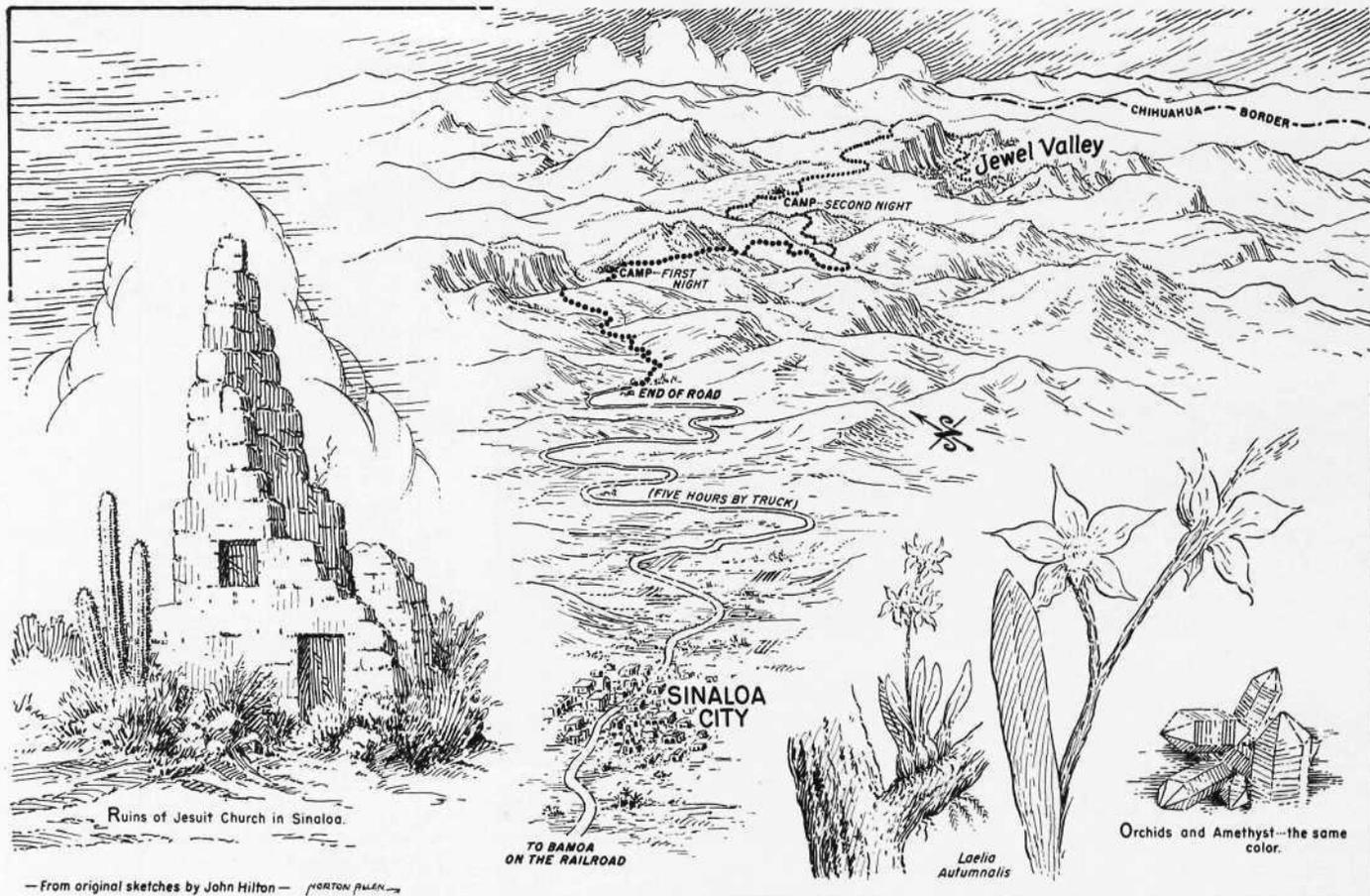
Maybe he'll find it some day. And maybe one of those doodle-bugs will locate the bonanza that some mining men think still is hidden in the grey, faulted hills. Who knows? Not the Grutt brothers, who can answer most of the other questions about the camp. Nor does Eugene junior, just out of the army and finishing at MacKay school of mines. "There's lots of low-grade," he says. "Some day they may come back after that."

In the meantime, Gene likes to sit in the old office on Nevada street and look back through the years. "We didn't make a fortune," he says, "but I have no regrets."

And Leo nods. "We had a whale of a time while it lasted."

Leo Grutt (left), Eugene Grutt (center) and Eugene Grutt Jr., in front of their Rawhide office, built immediately after the fire which swept the old mining town in September, 1908.





—From original sketches by John Hilton— HORTON PUBLISHED

John Hilton went on a pack trip deep into the mountains of Sinaloa, Mexico, in quest of an amethyst mine worked by the Jesuits 250 years ago. He found the mine—in a valley so remote it had never been visited by Americans—and in the warm hearts of its primitive people he found something more important than amethysts.

Gems From a Hidden Paradise

By JOHN HILTON

THIS story begins many years ago on the dump of a tourmaline mine in San Diego county, California. I was a young chap then, and it was my privilege to spend an afternoon with the late George Frederick Kunz—one of the recognized authorities on gem stones.

Kunz loved gems as all real collectors love them—not for their intrinsic value but for the beauty and romance of the stones, and their historic background. He had studied mines and collections all over the world. He made some rather amazing predictions regarding gems to be found in Mexico.

Few of the really good gem mines of the old Aztecs have ever been rediscovered,

he said. The Jesuits reopened a few of them, but when the padres of the Jesuit order were expelled from Mexico they hid their gem diggings. He told of the lost jade mines of the Aztecs, the precious amber that must have come from somewhere on the west coast of southern Mexico, of tourmalines and topaz of the northern Mexican states, and genuine rubies which without doubt were brought across the gulf from Lower California. Also, there were emeralds and amethysts from Sinaloa which found their way to the treasure chest of the Spanish Crown.

Kunz was both a researcher and a dreamer and so deep was the impression on me that afternoon as we sat on the

waste pile at the tourmaline mine, I have often during the intervening years found my thoughts turning back to the lost gem mines visualized by the great collector.

It was not until I became acquainted with Alberto Maas that the possibility of ever locating any of these old gem deposits began to take form. Alberto is a former American newspaperman who has spent so many years in Mexico he practically has two citizenships. Writing, mining and hunting natural history specimens for Ward's establishment in Rochester have taken him over much of the Mexican back country many times. There are few towns and villages in this vast area where Don Alberto is not known and loved by the Mexican people. He can tell about more lost mines and buried treasures in Mexico than have ever been described in any book. Don Alberto, too, is a dreamer, but he has the initiative to chase those dreams over cactus-covered deserts and into the tangled jungles.

As we sat talking one evening I mentioned my early conversation with Kunz on the subject of gems in Mexico. He agreed with me it would be fun trying to locate some of those long forgotten gem mines—and it might even pay. But Mexico is a huge country. Sinaloa is nearly as large as California, and contains some of the roughest mountain terrain in North America.

To hunt a lost gem mine with only the name of the state as a clue seemed an im-



Living in thatched houses, the people in the remote Sinaloa country were still using bow and arrow for weapons.

possible undertaking. But Alberto smiled and shook his head. "*Quién sabe,*" he said, "Stranger things have happened in Mexico. It is the land of the unexpected and the improbable."

I knew I had planted the seed for another dream, for when he took off on his next trip to Mexico, his parting words were, "I'll keep my eyes open for gems in Sinaloa."

A few weeks later I received a letter from him saying he was on the lead to an amethyst deposit. It is a long story, the method by which he put together a bit of rumor from here and an apparently unrelated report from there, and reached the conclusion that he had a clue worth following up. I am sure that no one but a man with Alberto's innumerable friends and contacts could have worked the miracle.

All I knew was that when he returned and told me his reasons for believing he knew the location of an amethyst mine, I dropped everything and went back to Mexico with him. And if I had not faith in Alberto's uncanny knowledge of Mexico and Mexicans I would have missed one of the most interesting experiences in my life.

Eunice, my wife, drove us to Nogales, bag and baggage, and saw us off on the train. When we bade her farewell we promised to be back in a couple of weeks with our pockets full of gems.

In Alamos, Sonora, we sat on the front porch of Alberto's Mexican home and planned our adventure. It was decided we should telegraph one of Alberto's friends in Sinaloa, and arrange a meeting. He promptly wired back that he would be free next week and I sent a message to Eunice that the trip might take a little longer than I had anticipated.

The time passed quickly, as it always does in Alamos, and a few days later we were on the train again, headed for Culiacan in Sinaloa. It was late at night when our taxi stopped at the entrance to the historic Hotel Rosales. Some one there recognized Alberto as the Americano who had served as press director for Gen. Angel Flores, and since Gen. Flores is almost a saint in that city, they practically gave us the place.

After a few phone calls, Alberto's friend Don Manuel arrived with his wife to greet us. He even had some amethyst crystals with him. He had found them while hunting wild turkeys in the high sierras several years previously, and he assured us he could go back to them. Things were moving fast!

Three days later we arrived in ancient Sinaloa City. Here in the crumbling walls of the old Jesuit mission were discovered recently a fortune in gems, and among them some amethysts.

Within a few hours we were traveling again, heading for the great range of sierras to the east. The landscape had changed since we left Sonora, but it still had the aspects of a desert. There were masses of organ-pipe cactus, and another conspicuous shrub resembled the ocotillo except that it had a big trunk like a tree.

It was late at night when we arrived at the end of the road. Here we were greeted by a Mexican rancher. It was here I saw my first pitch pine torches flaring and flickering as the excited folks trotted from one palm-thatched house to another getting a late supper for us, and finding beds. The hospitality of these people comes as naturally as breathing.

Next morning a few hours were lost while mules were brought in for our party. It was near noon when everything was or-

ganized, and on the backs of skinny mules we headed off single file along a trail that led deeper into the hills.

Flowers bloomed along the trail—new flowers to me. At any other time I would have stopped to collect some of them. But now our thoughts were on the amethyst mine. We were climbing higher and could look back on the cactus-studded valley which we had left. At dusk we came into a grassy meadow among huge oak trees. The sun had left the towering red cliffs ahead and we dismounted and made camp for the night.

It was hardly daylight when we left. The mules had bad dispositions, but they were sure-footed on the trail, even in the darkness. We were climbing higher and higher. Finally we came around a sharp bend and I caught the scent of pines. Soon these giant trees were all around us, but it was light enough to see that we had not left all the desert flora behind us. Small species of echinocereus and neomammillarias were growing among the rocks—almost smothered with ferns. What a country!

Then we topped a high ridge and the tropical sunrise exploded in our faces. We crossed another meadow where wild cosmos sparkled with dew. There seemed no end to beauty. When I discovered my first cluster of terrestrial orchids in bloom near a running stream and then saw huge pineapple-like tillandsias with scarlet blossoms like 18-inch snowflakes hanging from tiny aerial rootlets on wild fig trees I almost forgot about the amethysts.

We camped early that night at the home of one of our mule drivers. He had a little paradise on a bench of a mountain with the most improbable scenery stretching off for endless miles in every direction. Palms and oak trees dotted green meadows where his cattle grazed, but it was only a few hundred feet up the mountain to more pines. Again the unquestioning friendliness and hospitality. Good tortillas, a pot of red beans and freshly roasted and ground coffee. I slept well that night.

We were climbing into another sunrise through dew-wet oaks when something like a purple flame caught my eye. I rode off the trail and sat there on my mule, holding my breath for fear the sheer beauty would turn out to be a dream or a trick of the sunlight. No florist's window ever had a lovelier display. This oak limb was covered with orchids—a species I had been hoping against hope to find in bloom—*Laelia autumnalis*. Alberto rode over and we sat together drinking in the beauty—the black oak bark of the limb silhouetted against the blue of the morning sky, fringed with the green lace of tiny ferns and tillandsias and crowned by spray after spray of amethyst-colored orchids sparkling like living jewels. Then Don Manuel rode up and joined us silently. He brushed his eyes—it may have been the sun or the dew—but I think not. Don Manuel is a sensitive man, sensitive to beauty.

Then one of the mule drivers walked up and broke the spell. He picked one of the orchids and laughed. "They are good to eat," he volunteered. "You take the bulbs and cook them like potatoes." Soon we were all laughing and chattering and we rode on up the trail toward the sun with orchids in our hats and stuck in the bridles behind the ears of our astonished mules. It was a good sign.

More valleys, more steep climbs, rocky places where we led our mounts and then finally the edge of a great plateau and below us a valley faintly resembling Yosemite. Only there were wild palms in the bottom and patches of corn and sugar cane and little groves of citrus and papayas around thatched houses that looked like tiny toys in the haze below us. This was it—the Valley of Jewels!

Somehow the amethysts had taken a second place in my mind. We had found one of earth's loveliest spots.

The trail down was so steep and rocky that we had to walk part of the way. We were tired and hungry and thirsty and didn't know it until we pulled our beasts up under the shade of a mango tree in the yard of Don Fabian who came forward to greet us, flanked on each side by a daughter. One bore a gourd of cool water and the other a basket of sweet limes. It was like coming home, and yet we were the first American visitors these folks had ever had.

Finding the amethyst mine was a sort of anti-climax. First we ministered to the needs of a child who was near death with blood poisoning. We had sulphur in our pack and she lived. Then we ate with our newly found friends and sauntered over a low hill and there was the amethyst—lying all over the ground! It was as simple as that.

We had found the dump of a mine worked by the Jesuits since about 1685 and hidden by them when they were driven out of Mexico in 1767. Huge oak trees had grown up in the mouths of the pits. All the workings were shallow and followed the outcrop of a blanket flow of grey andesite along two sides of a hill.

It was the most unpromising rock I have ever seen—brecciated with countless cracks and wherever these cracks spread wide enough for their formation the amethysts had been deposited as loose, many times doubly-terminated, crystals packed in grey clay. We had found our lost mine.

That night we sat with Don Fabian and his family and talked by the light of pitch pine torches. It was like another world and in a way it was. I got out paper and pencil and started to work on probably the only radio script written by torchlight. When we tried to explain what I was doing, we got a surprise. These folk had never heard of a radio. It developed that they hadn't ever seen an automobile. One of the girls spoke up and said, "Why, señor, I have



The mine—where the Jesuits took out amethysts over 250 years ago—and then hid the workings.

never been out of this valley. I haven't seen so much as an oxcart." Then Don Fabian cleared his throat and asked a question.

"About six months ago, said he, "there were some government timber scouts in this country from Mexico City. They told us the war was over. Could you tell us, señores, what the war was about?"

We sat there silently thinking for a moment and then I asked, "Haven't you heard of Hitler and what he tried to do to the world?"

Don Fabian and his family silently shook their heads.

"No, señor, we have never heard of Hitler. Is he a man or what?"

I thought for a moment, "Never mind," I said, "whatever he was, he doesn't exist anymore and never existed here. You are lucky, Don Fabian. Mighty lucky."

The girl who had never seen an oxcart rose and put a new piece of pitch pine in the olla full of sand and lit it from a short one. The flame leaped up lighting her clean cut features, and I remembered her first name was *Paz* which in English means peace. We had found a great deal more than a lost gem mine. We had found another world.

Mines and Mining . . .

Superior, Arizona . . .

San Manuel property of Magma Copper company has sufficient tonnage developed in its recently discovered ore body to justify large scale production, Charles F. Ayer, Magma president revealed. Grade is low, but it is one of the few really large copper ore bodies so far discovered in the United States, according to Ayer. During 1946 Magma produced, from its present ore bodies, 23,518,845 pounds of copper, 241,950 ounces of silver and 7549 ounces of gold.

Tonopah, Nevada . . .

Chemical and Pigment company is shipping 3000 tons of barite from its Nevada Baryte property, 35 miles east of Tonopah, to plants operated by company at Melrose, Alameda county, California. Barite deposit, of good quality, is one of largest on Pacific coast, and company makes practice of coming in once every two years to mine and ship from 2000 to 3000 tons. Shipments are carried from property to railroad at Luning in 26-ton trucks.

Salt Lake City, Utah . . .

Emerald Mining company of Elko, Nevada, entered high bid of \$920,000 on the Alumina plant in Salt Lake, operated during war by Kalunite, Inc. Company plans to use plant, should bid be accepted, for refining, processing and marketing beryllium, lead, chrome, mercury, uranium oxide and various metals. Two other bidders wanted plant for production of fertilizers. Bids have been forwarded to W. A. A. in Washington. Plant was constructed at cost of more than \$5,000,000, as experimental operation.

Ajo, Arizona . . .

Mica production has begun at Sunshine Mica mine, 10 miles west of Ajo. Ore will be treated at a mill in Buckeye and 10 tons of finished product are expected to be produced every eight hours. Property now includes four claims and operation has reached depth of 35 feet. Walter Tocco and R. D. Smith of Buckeye are operators of mine and mill. Mine is owned by John T. Atchison and William Rossman of Texas.

Mexico City, D. F. . . .

More than 100,000,000 paper pesos will be withdrawn from circulation in Mexico and replaced by silver coins, Carlos Novoa, director of Bank of Mexico said. New coins will consume 25,000,000 ounces of silver and will be most valuable in world, containing 83½ centavos worth of silver for each peso piece. U. S. dollar contains about 50 cents worth of silver. Move is expected to aid Mexican mining industry and bolster world silver price.

Beatty, Nevada . . .

New crushing and screening equipment is being installed on pumice property three miles north of Beatty, according to Charles Walker, one of the owners. Five new bins were added to provide storage space for better assortment of sizes of crushed rock. From 40-50 tons of crushed pumice is going weekly to Las Vegas where it is used in manufacture of building bricks.

Moab, Utah . . .

Order canceling withdrawal of 200,000 acres of potassium-magnesium land in Grand county has been passed by solicitor of interior department in Washington, D. C. This block is all that remains of 3,000,000 acres originally withdrawn in southeastern Utah. Signature of Interior Secretary J. A. Krug still is required and before order can be promulgated it must be approved by budget bureau and department of justice.

Luning, Nevada . . .

W. D. Edds has located deposit of meerschau near Simon lead mine east of Mina. Material appears to be of fair grade and in considerable quantity and Edds and Claude H. Ide are putting up small factory at Luning to produce smoking pipes, lamp stands, vases, chessmen and ornamental novelties. Material is snow white and so tough it can be turned on lathe and threaded like a bolt. Deposit occurs between layers of fine grained volcanic ash and reaches maximum width of three feet. Meerschau is hydrous silicate of magnesium.

Boron, California . . .

Western Borax mine at Boron has been sold for a reported \$500,000, subject to court approval. Sale was made by R. E. Allen, receiver in the matter of United States vs. Borax Consolidated. Purchasers are Harvey S. Mudd, Seely G. Mudd, Henry T. Mudd and George V. Dub. Dub formerly was superintendent of Pittsburgh Plate Glass company operations at Bartlett.

Manhattan, Nevada . . .

Gold dredging operations at Manhattan will not be resumed, according to John L. James, in charge of Manhattan Gold dredge, subsidiary of Natomas company of California. Company carried out extensive drilling campaign at lower edge of Manhattan gulch where gold-bearing gravel spreads in fan, but apparently did not find sufficient values to continue. Dredge will be moved to unannounced location, but it will be August before it can be dismantled and machinery and equipment prepared for shipment.

Tonopah, Nevada . . .

Rainbow Quarry company, operated by Thomas Fargo and associates of Los Angeles has leased banded rhyolite deposit 20 miles east of Tonopah from J. L. James of Manhattan. Three trucks will deliver rock to Los Angeles, Reno, Las Vegas and other markets, with 85 ton shipment contracted for by Los Angeles builder. Deposit adjoins the Joseph-Trueba rhyolite claim now being worked.

Trona, California . . .

Expansion of American Potash & Chemical corporation's Trona plant, to cost \$6,000,000, was scheduled to start in April. New soda ash and borax plant will be built, to utilize brine from lower deposits of Searles Lake which have been under exploration since April, 1946. It will be outdoor plant being operated almost entirely from a central control station. Addition to Trona power plant also will be constructed, including new boilers and turbo-generators. Plans have been completed for feeding 300-400 construction workers and housing them in a temporary village comprised of 112 cabins.

Tenabo, Nevada . . .

Arrowhead Mining company has started work on deposit of turquoise located in Lander county, Nevada. Turquoise is said to be of exceptional quality, and Southwest company of Albuquerque has contracted for entire mine output.

President Truman signed two-year suspension of four-cents-a-pound import duty on copper, an action designed to build up nation's stockpile of the metal. Western senators sought to limit suspension to one year, charging measure would hurt domestic copper mining.

Declaring that there was no market for Gallup coal, Gallup Southwestern Coal company, which started mining in 1898, has ceased operations and arranged for sale of its equipment. President Herbert C. Stacher said mine had enough coal blocked out to operate for 20 years.

First major soda ash shipment has been made from new Permanente plant on Owens Lake to eastern states. Plant operation is satisfactory and increased production is expected.

Arthur E. Morrill of Goldfield has been named a vice-president of Amalgamated Development company of Reno and Las Vegas. Firm has purchased gold property 50 miles from Beatty and is developing North Star and Lucky Boy mines at Mountain City, Nevada. Company geo-physicist is Edgar L. Stephenson, who served 11 years with U. S. bureau of mines and geological survey, as supervising engineer for 10 western states.



Photograph in *Wayne Wonderland, Utah*, by Gene O. Parks.

Let Me Travel on a Dirt Road

By CHARLES F. THOMAS
Coulee City, Washington

Let me travel on a dirt road,
Let me ride a dusty trail;
Somewhere in the shining desert
Let me hear the coyote's wail.

Let me eat beside a campfire,
Let the smoke blow in my eyes.
Spread again my tarp and blankets
On the sand 'neath starry frills.

Let me roll out in the morning
As the sun creeps over hills.
Let me start the day with gladness,
Freed from fashion fancy frills.

Let me drink from spring or trickle
In a canyon or the sand.
Let me ride through thorn and cactus
In the lonesome desert land.

For the city has no pleasures
To compare with those I've known;
On the desert I am happy,
With the crowds I am alone.

I am tired of man-made noises,
Tired of barter, shop and sale.
Let me travel on a dirt road,
Let me ride a dusty trail.

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DESERT NIGHT

By MRS. MABEL KRONKE
Phoenix, Arizona

Have you ever seen the desert
When the moon is riding high,
And the silvery stars
Shine down upon the sand;
Where the tall majestic mountains
Seem to reach up to the sky,
And the tall saguaro cacti
Stand like sentries o'er the land?

Where the call of open spaces
Seems to creep into your blood,
And your heart is strangely
Clutched by unseen hands.
Where the quiet solitude

Sweeps o'er you like a flood,
As you walk along the trail
Left by wandering Indian bands.

Where the wary Gila monster
And chuckawalla make their home,
And the lonesome coyote
Howls into the night;
Oh you don't know what you're missing
If you've never chanced to roam
Where the moon is riding high
And the desert stars shine bright.

SEEK YOU

By TANYA SOUTH

Seek you then a better Fate,
And a better every time.
Love and Light can build a state
That is all sublime.

Love and Light and Truth and Right
Are the ladders by which soul
May attain to any height,
And to any goal.



This we promised: The treaty of 1868 pledged a school building and a competent teacher for every 30 Navajo. These Navajo boys, among the few privileged to go to school, prove themselves especially adept in crafts work. Photo by Milton Snow.

We Owe the Navajo-- Six Hundred Schools!

There was a time when the Navajo hid their children to keep them from being rounded up and sent to school. But that day has passed. Today the Indians are eager for their children to learn the white man's language and the skills which will enable them to make their way in the white man's world. But there are not enough schools. In the treaty signed at Fort Sumner in 1868 the U. S. Government pledged a school and teacher for every 30 pupils—and today the American people lack 600 schools of filling that pledge.

By DAMA LANGLEY

EHILL dawn light fell through the hogan door and touched the circle of Navajo sleeping like spokes of a wagon wheel around the fire.

Warrior's Woman raised her head and looked across at her small daughter. Wide excited eyes met her's imploringly. Today, nine miles away, school began. Since they had camped at Round Rock where the Nine Day Chant was held there had been much talk of school between the two. There at the dance the child was shamed because she had no school name. Before that time she loved her name of Warband, but hearing "Ruth" and "Daisy," "Kate"

and "Ann" tossed back and forth so proudly by girls who had been to school at Greasewood and de Chelly made her dissatisfied. She was left out when talk turned to schoolroom pranks and food so plentiful some of it was left uneaten.

"Why have you not sent me to school where I could have a school name?" she asked her mother tearfully, and from that day they laid their plans. Warrior's Woman moved her flocks early from the hills and school time found them feeding near the winter hogan.

"Come, I'll dress your hair while you eat fried bread, and then I'll walk a ways with you before the others are awake."

Warband's hair was smoothed to glossiness with a stiff grass brush and drawn back into a knot behind her head. Secreted in the strand of yarn which held it there, her mother tied her "Birth Bead," the bit of turquoise given her at birth. This talisman had been tied to her cradleboard by the medicine man when he held her to the sun and said: "Child of Dawn, your name shall be Warband-Meets-Enemy."

The child was wearing two long full

skirts that touched her moccasins. Around her waist another skirt was fastened, and the worn blouse exchanged for one of yellow plush fastened down the front with silver buttons. As she dressed the child the mother said a silent prayer that this great adventure would bring happiness. Since she was six years old Warband had helped herd the sheep and run after those too active for the grandmother ever with her. She watched the younger children, teaching them to walk and keep away from the fire always burning on the hogan floor. She gathered wood and when the roads were closed in winter and her father could not bring water from the distant windmill well, she brought snow inside and melted it. In her spare time she learned how wool was cleaned and spun and dyed for weaving rugs. Already she could judge how much the trader would allow for a finished rug. It was a sacrifice for Warrior's Woman to let her helper go to school.

Where the wagon tracks merged with the road the mother wrapped a thick shawl around Warband and watched her walk away. "May she walk in beauty," she whispered and turned toward the hogan and her work.

A mile along the road two children ran from a hogan and joined Warband. Six and nine years old, they too were going to school for the first time. Rain began to fall while they were still far from the grey stone house, and the little one was tired and fretful. She was hungry too. Since the children would be fed at school they left what little food was in the hogan for less fortunate ones. Warband unwrapped her mother's parting gift, a handful of dried peaches and shared them with the whimpering child. They were all wet and miserable, their long full skirts were splashed with mud and their moccasins were sodden.

The open school door led into a hall, and through it they wandered timidly. Laughing children were seated at tables and their plates held steaming food. Other rooms had pictures on the walls and flowers growing on the ledges. The wet girls paid no attention when they were questioned by a teacher. They could not understand her so they ignored her presence. The Navajo housekeeper came and listened to their story.

"They have walked since daylight to get here. They came to school!" she told the teacher.

"But they can't stay. We have no room. We have too many here already and no extra help or money. There is no food for more. There's no place in the classrooms. They must go home and come another year!"

The teacher's English words meant nothing. The housekeeper led them to the kitchen and watched them eat stew and beans. Because her heart was sick with

pity she piled jam on bread for them and gave them cups of sweetened coffee. She took their muddy skirts and cleaned and dried them leaving the little girls wrapped in warm blankets. Then she bathed them, using so much water they were horrified, and dressed them again. This was school! They waited to be seated in a classroom, but a wagon came and took them to their hogans.

"There is no room this year. Perhaps some other year there will be room," the driver told their mothers. A solemn pledge made to the Navajo some 80 years ago is still unkept.

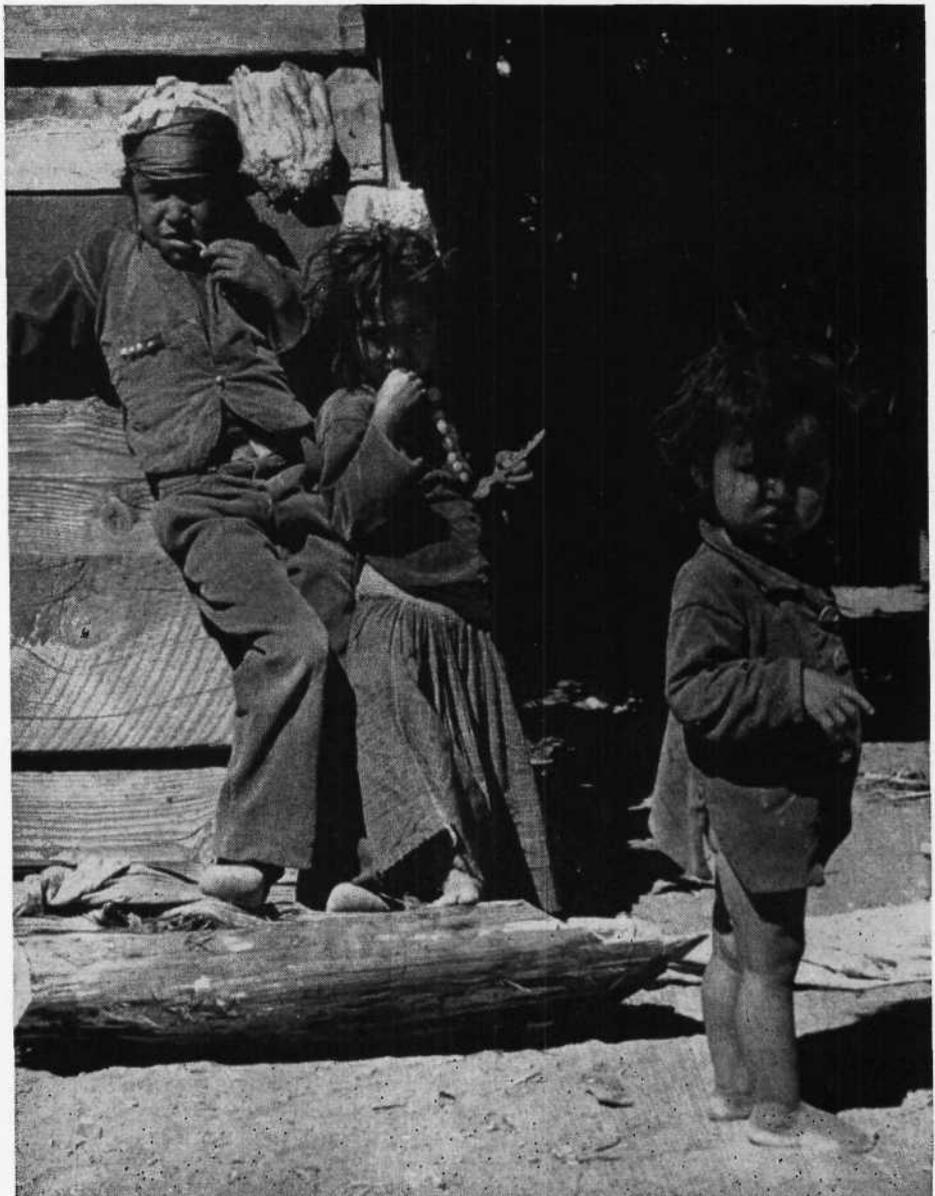
The Navajo were not always interested in learning. Their chief concern for centuries was war. They looted weaker people, and the Mexicans and pueblo tribes along the Rio Grande lived in constant terror. When Arizona and New Mexico were ceded to the United States in 1848 by Mex-

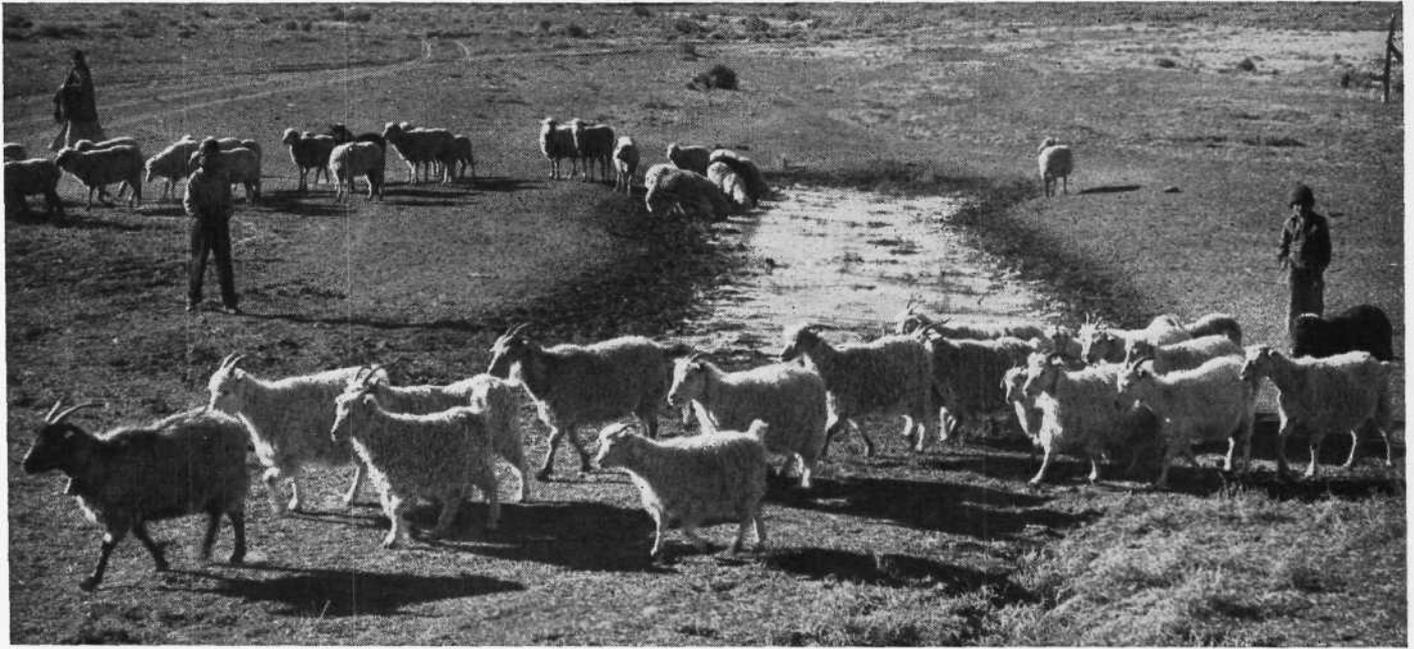
ico, our government inherited this untamed tribe of warriors. Threats and treaties failed to curb their depredations, until an army led by Kit Carson laid waste their homes and crops and orchards and killed their sheep and horses. Then the Navajo were forced to go to Fort Defiance where they were kept until the prison camp at Bosque Redondo was ready. The 12,000 Indians were exiled from their strange wild land and marched to the wasteland in New Mexico beside the San Juan river. In four years one-third of them died! Dust affected lungs accustomed to breathe pine scented mountain air. Confinement, unfit food, homesickness and epidemics threatened an end to the Navajo.

But they had friends who worked for their release, and the most urgent one was Carson. He felt they had paid their debt, and with proper guidance would develop into useful Americans. Again the Navajo

These youngsters are deprived of the opportunity to go to school because the people of the United States have not kept the pledge made in 1868.

Photo by B. Clifford Bond.





It is a sacrifice for the Navajo to send their children to school, for their help is needed herding the sheep and goats. Nevertheless, a majority of the Navajo families would be glad to make this sacrifice if the schools were available. Photo by Milton Snow.

signed a treaty, this time in earnest, and the caravan began its homeward journey.

They came at evening to the fort—the eight thousand who survived—and built their cooking fires across the gulch from it. Against the glow of firelight the hungry people cooked their issued food and savored once again the smell of pinyon smoke. Men moved from fire to fire and talked:

"This paper signed by our leaders—what does it say?"

"It says we have come home for good; Kit Carson says in it we promise we will listen when the agent talks, and learn to live like whites. And most of all we say we will not war on other tribes or take slaves and food from Mexicans."

Another spoke, "The paper says our children will be taught to read and write. We will have houses built where they can go to school, and teachers will live among us showing us the things we need to know."

The treaty read: "Article 6. In order to insure the civilization of the Indians entering into this treaty, the necessity of education is admitted, and they (The Navajo) pledge themselves to compel their children, male and female, between the ages of six and sixteen to attend school; and it is hereby made the duty of the agent for said Indians to see this stipulation is strictly complied with, and the United States agrees that for every 30 children between said ages who can be induced or compelled to attend school, a house shall be provided, and a teacher competent to teach the elementary branches of an English education shall be furnished, who will reside among said Indians, and faithfully discharge his or her duties as a teacher."

One boarding school was built at Fort Defiance in the ensuing years. The Navajo had drawn their promised tools and seed, and the sheep and goats given them with which to rebuild their flocks, and scattered out to every section of the reservation. First they had 9,000,000 acres for their home but as the tribe increased more land was added and eventually 40,000 Navajo lived on a tract of 25,000 square miles.

The one school built for them was not an attractive place. Funds were limited and the agent had no precedent to follow. The children brought there were scared and turbulent. They were not used to regulation clothing and the food was strange. They were afraid to be shut up in rooms away from wind and sun. Some of them died, and some of them ran away. Nothing is hidden from the Navajo. That school was not what they wanted for their children, and when the leaves were crimson in the fall the school house was vacant.

White men went out to look for pupils, but everything seemed to indicate that Navajo were born full grown. They could not find any children in the hogans, and if they captured one with the flocks and took it by force, bloodshed was sure to follow.

Pressure was brought to bear and some children were sent to school, but they were either girls or crippled boys not strong enough to count at home.

Different agents and different Indian commissioners struggled with the problem for years, with little help from a disinterested Congress. Non-reservation schools were built, some in the east and one in California. There the government took small children and kept them for years. The theory was that they would forget their way of life if kept away from their

people long enough. In Pennsylvania and Virginia the Navajo whose very life depends upon a knowledge of every desert mood, were educated to spend their lives in sheltered eastern hamlets. Then they were returned to Arizona and the hogans of their tribe. They were not trained to take their place along with whites and earn a living, and they were unhappy in the hogans after years of school life.

When the first world war came, very few of the loyal Navajo men knew enough English to qualify as soldiers. The ones who served and came back to the desert wanted better treatment for their people. Their spokesman was Chee Dodge. He was against the distant schools.

"We do not want our little ones taken where we cannot see them. We want schools here on the reservation, near our homes and near the trading posts so that parents can visit their children, and have them home in summer. That way they will not grow strange to us and to our ways. Where are the schools that we were promised—a school for every 30 children? The government has not kept its pledge!"

To appease the Navajo half a dozen boarding schools were built on the reservation at widely separated points. As time passed portions of the buildings had to be closed off because they were unsafe. Congress withheld money for repairs and the children who had made good beginnings drifted back to herding sheep in hidden canyons.

Fifty day schools were built, each one placed where water could be found, and where the greatest number of children could be reached. From the opening of these schools their worth and practicability was evident. Each school was planned

for 40 pupils, most of them to be picked up by school buses. The buildings are of native rock and each one has a central hall. On the side are the schoolrooms, gay with warmth and color. Each child has his desk chosen for size. The older children are at the back and down near the teacher's desk are little ones, wide-eyed and well behaved. First they are taught English, and learn to read and write. They make things with their facile hands. They make pictures which the teacher pins up for all to see. And they can bring their parents there to watch them learn. I've seen grave fathers crowd into the seats and sit with silent pride while their children read or did sums on the blackboard. The mothers shun the narrow seats. They tuck their many skirts around them and sink gracefully to the floor where they stay until school hours are ended.

At the end of the hall are washrooms and toilets. Individual soap and towels and toothbrushes are there and each child knows his own. Beside the showers is a laundry. Since these schools serve as community centers, Navajo women bring their washing there.

In some schools a little room is set aside for visiting health officers. The theory is that field nurses, doctors, dentists and specialists will make regular visits and conduct local clinics. The rooms seldom are used. There is one government dentist to serve the 55,000 Navajo. During the war there was not a doctor or nurse in the field.

The chore of doctoring fell on the heavily laden shoulders of the teachers. They wondered how much good it did when they must send sick children out to sleep in hogans many miles away. There are no dormitories at the schools.

Dining room and kitchen are to the children the most important places in the building. Most of them have to live on the lunch they are fed at school. The Navajo are very poor. Annual income of a family is \$80, and that includes any money that is received for rugs or silverwork. Actual money was not so important to the tribesmen while they still had their sheep. But the flocks owned by 55,000 Navajo increased until millions of sheep searched for food in every cranny. Even the roots of grass and shrubs were destroyed and the land became desolate. Stock reduction seemed the proper move, and it was carried out with bitter thoroughness.

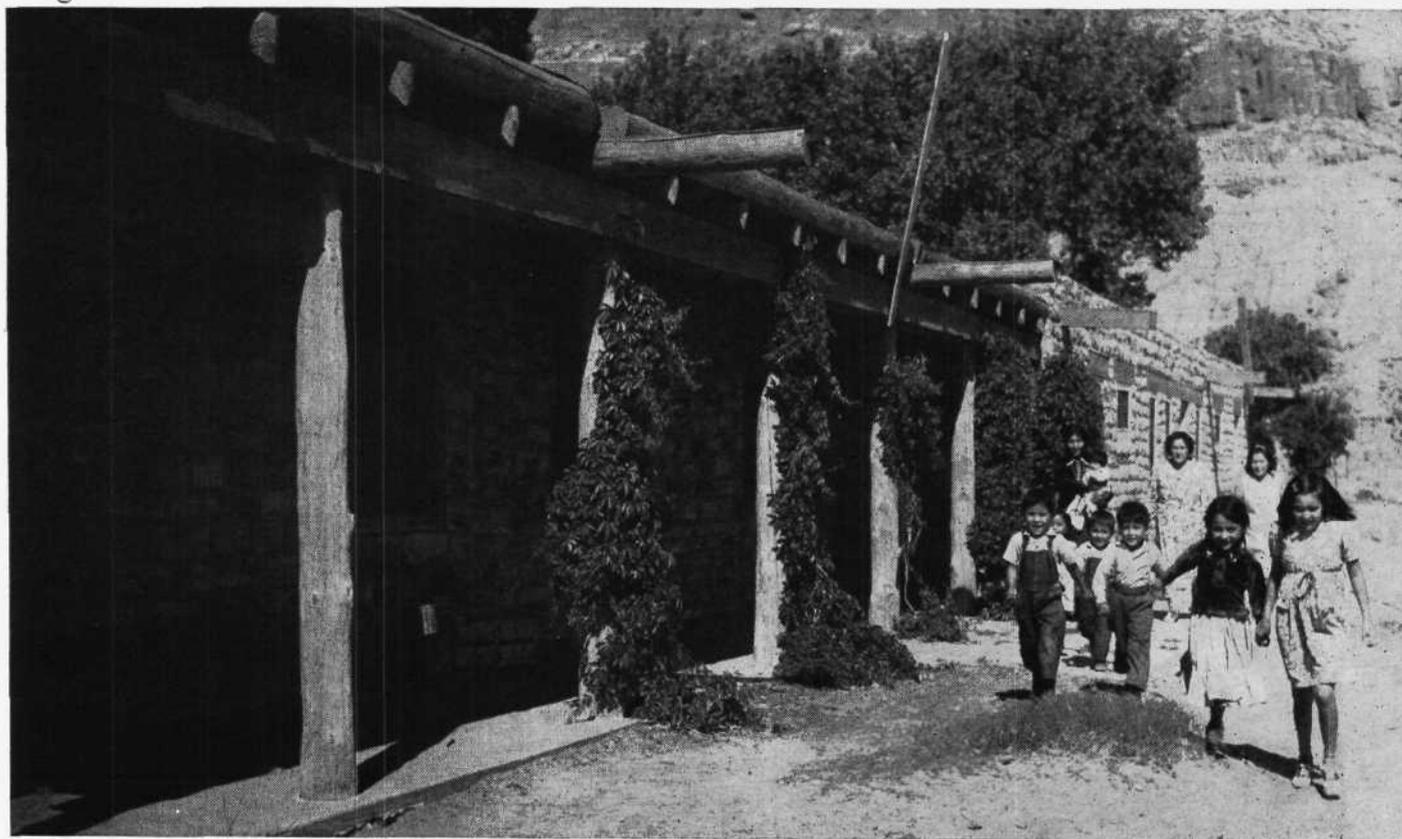
There were fewer sheep left to be killed and made into mutton stew on which Navajo have lived for centuries. There were few goats left to furnish milk to children, and through slow starvation eight times as much tuberculosis developed in the tribe than elsewhere in the United States. There was little wool for weaving. No rugs meant no food from trading posts. There is no water for farming in their desert land.

Some of the schools have a sewing room which is really a community hall. Here the parents do their sewing on machines. For

some reason most of this is done by men who sit at a machine for hours sewing yards of braid on cotton skirts for women-folk. The women do quilting there and bring rugs for purchase by the Arts and Crafts guild. I've watched the weavers and silversmiths present their work for inspection to the Crafts' manager. When a rug is spread out for measurement all the other weavers crowd close and eye it avidly. They feel the texture and discuss the size and color and always want to know why one rug brings more money than another. The silversmiths are the same. Each smith picks up the work of others and examines it with care. For the time being the room is a bazaar and each craftsman profits by the display.

Teachers live in adjoining quarters, and on them falls the job of local hosts. They stage parties for their pupils. Halloween and Easter, last day of school and Christmas find the schoolhouse in festive decoration. I know they often dip into their own resources to pay for food they serve visitors. Doughnuts or gingerbread and coffee for the grownups and cocoa for the small ones cost work and money. Yet through such means the Navajo are won to ways of health and schooling. The children ask their relatives to help when possible. Big golden pumpkins at Thanksgiving come from a family field. If they are turned into food after serving as decorations, payment is made to the grower. Colored corn is brought to hang on walls, and

Federal Indian day school at Moemave, Arizona, one of the 50 that the government has built on the sixteen million acre reservation. Photo by U. S. Indian service.



later it goes back to feed a hungry horse or be ground up in meal to thicken stew.

A Christmas tree stood in the sewing room at Greasewood when I was there. It was a neighborhood project, and although Christmas was still a week away it was gayly dressed. I touched a quaint golden bell which hung from a fragrant branch. It was the seed pod of a yucca turned downward and hung by a thread. Dozens of them in every shade were on the tree. They had been brought from a distant place by the father of a school child. Devil's claw was also used, after the children had painted the pods with silver paint left from the radiators. Corn popped in the hogans, and red berries from desert shrubs had been strung and looped from branch to branch. And underneath the tree small gifts were accumulating. Some had been made in the workshop of the school, where parents came and used school tools to work with wood or leather. There were mittens which the mothers learned to knit in the sewing room. Such schools will educate the Navajo if they ever are educated. But only half a hundred schools were built, and there are 20,000 children on the reservation who should be in school. This year less than 6000 of them found room, and only then by overcrowding in the boarding schools off the reservation. The mission schools have made almost superhuman efforts and taken in 100 more children among them. And they join in sending medical aid to schools and hogans. The economic life of the Navajo is such that they cannot live in communities or towns on their reservation. What sheep are left to them must keep moving with the seasons in order to find feed and water.

And so when 19 of the 50 schools had to be closed because there was no money for them, those in places most difficult to reach were temporarily abandoned. With 3000 miles of unpaved roads criss-crossing the reservation, only the most essential ones could be kept passable in war years. School children were picked up in buses as long as buses operated, but they wore out and could not be replaced.

Schools must be built in greater numbers, and means of transportation found to bring the children to them. Where buses cannot run the schools should have dormitories and small hospitals in connection.

The late Chee Dodge, when 86 years old and ill, made a trip to Washington and talked to every congressman who would listen.

"Education is our greatest need! More than 14,000 of our children are without school facilities. Our people are now very poor, many of them are starving. Our children must have a good education if we are to learn to support ourselves. By building schools and hospitals our people can live. Only by education can we hope to have better health and better lives. Our people are dying because the Government has not lived up to its treaty!"

DESERT FLOWERS . . Photo Contest

Best photographs of the Desert in Blossom will win the awards in Desert Magazine's June photo contest. Pictures may be of flowering landscapes or of individual plants or blooms. But they must be desert flowers growing in their native habitat. Photos of cultivated flowers or gardens will not be acceptable.

First prize is \$10, and \$5 for second place. For non-prize-winning shots accepted for publication \$2 each will be paid. Entries must reach the Desert office in El Centro by June 20, and winning prints will be published in August.

HERE ARE THE RULES

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

ADDRESS ALL ENTRIES TO PHOTO EDITOR, DESERT MAGAZINE

THE *Desert* MAGAZINE

EL CENTRO, CALIFORNIA

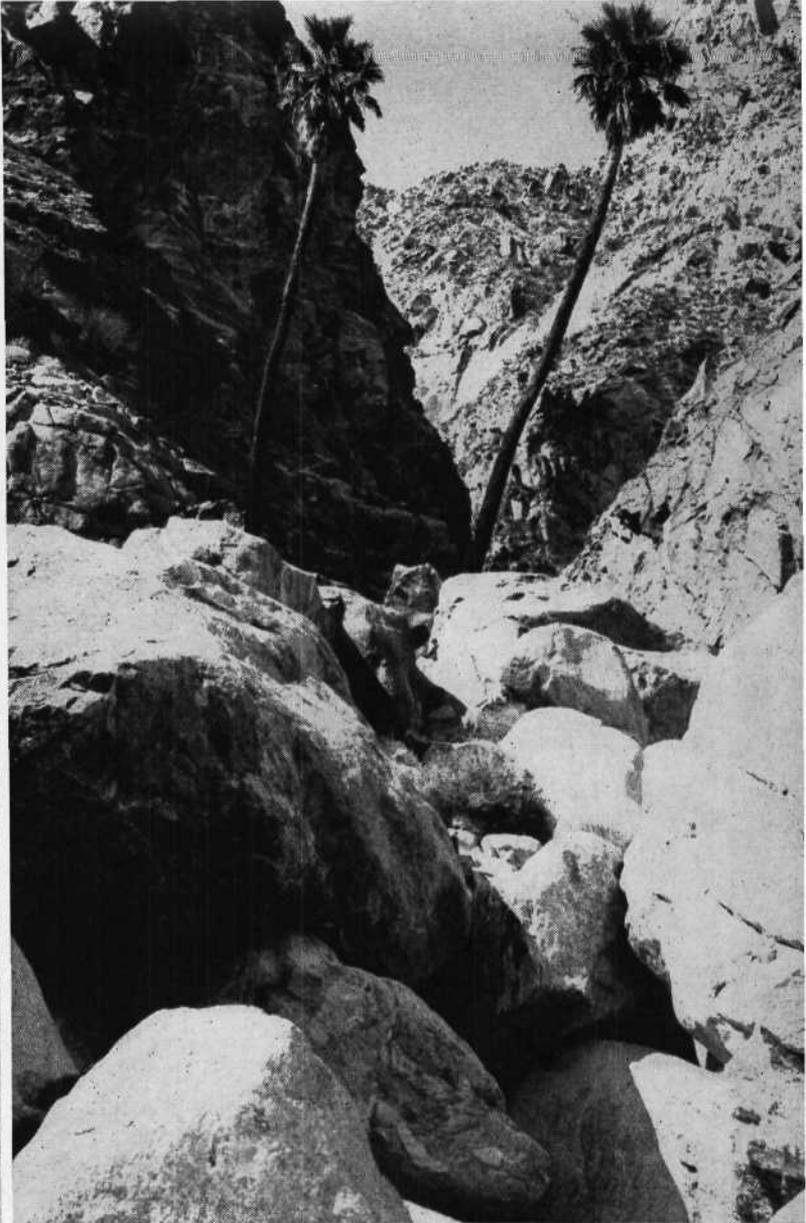
JALOPY JOE By Frank Adams



"Still lickin' rocks, or jus' tired?"



Looking downstream in Cloudburst canyon. Here the three generations of palm trees are shown, the trunk on the left being a 50-foot tree that survived the flood of 75 years ago.



Two veteran survivors of the original flood in Cloudburst canyon. The waterfall which stopped the explorers is just around the bend beyond these veteran trees.

Palms That Survived in Cloudburst Canyon

Few men have visited Cloudburst canyon, and there is no written record of the torrential floods which have poured down between its rocky walls—but the record is there nevertheless, written in terms of millions of granite boulders and a few hundred palm trees. Here is the report of another of Randall Henderson's exploring trips in the rugged desert wilderness that lies below the California border on the Baja California peninsula.

By RANDALL HENDERSON

THUMBING through the notes I have accumulated during many palm-hunting trips into the Mexican desert south of the California border

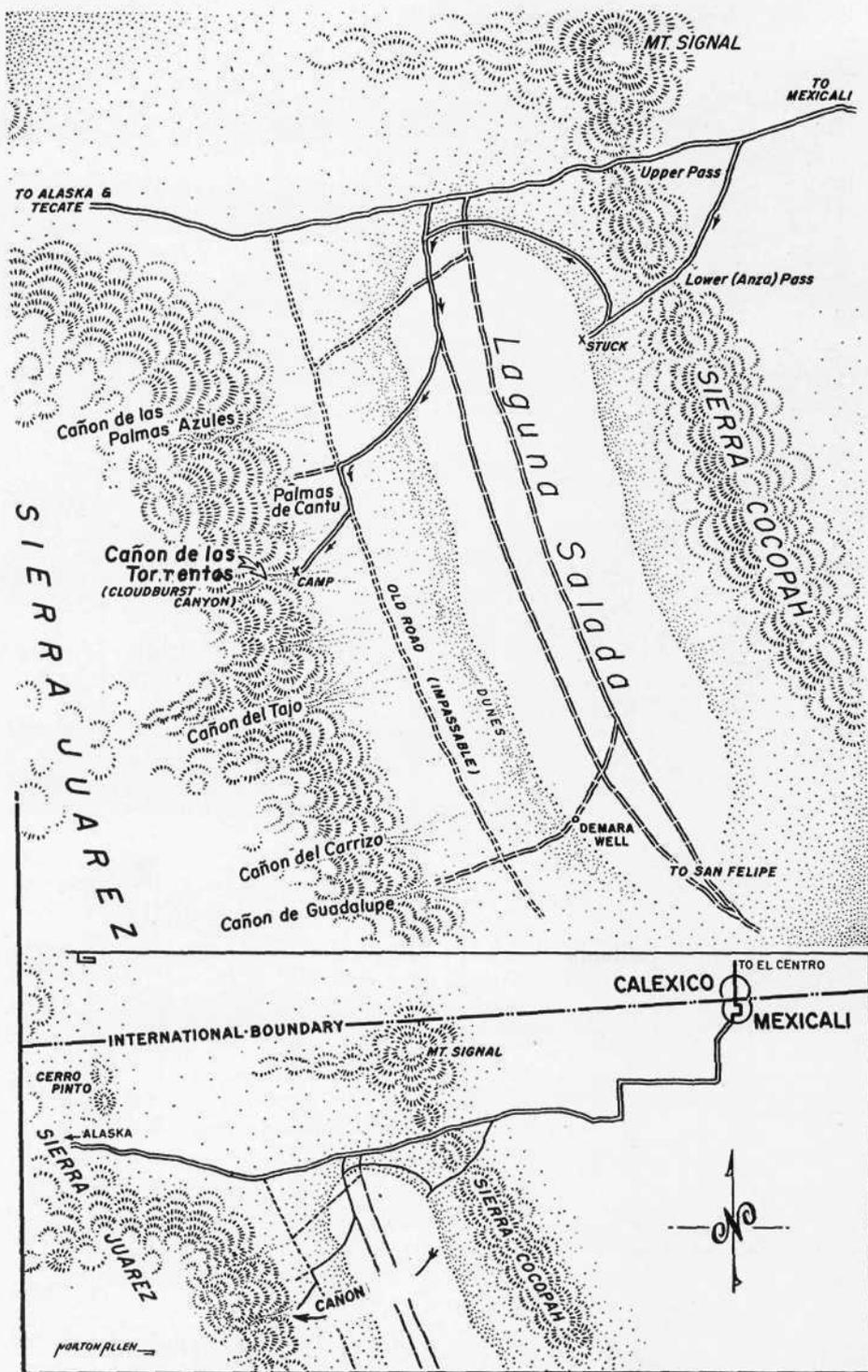
I came upon this entry under date of April 14, 1939:

"Took an old Indian trail south from Cantu palms. It skirted a rocky point and

led up into another canyon. Followed it two miles without finding palms. Then climbed ridge on the south. In the fan of the next canyon I saw dead palm trunks in the drift. Went down to investigate. There were hundreds of them. This is a canyon I must explore at a future time."

That notation was the lure that beckoned Arles Adams and me when we headed south across the Mexican border in March this year. Eight years had elapsed since I saw the dead palm trees lodged among the boulders on the bajada that extends from the shore of dry Laguna Salada to the eastern toe of the Sierra Juarez in Lower California. Obviously the palms had washed down from the upper canyon during a torrential flood.

How long ago was the flood? Were there other palms which had escaped the cloudburst? Had the source of water dried up before the palms were uprooted and carried out on the plain, or would we still find a stream in the canyon? These were questions which could be answered only



by a traverse of the canyon—for this was a wild unknown region without roads and seldom penetrated even by the Mexicans.

Crossing through the Calexico-Mexicali port of entry we picked up our Mexican *compañero*, Maclovio Vasquez, and took the road which extends along the south side of the international border from Mexicali to Tecate and Tijuana. The first 12 miles of the route was through cultivated fields of grain and cotton. This is Colorado river delta land, and very productive.

Arles recalled that when Juan Bautista de Anza passed this way in March, 1774, to scout the possibilities of conducting a

colony of Mexican settlers to Monterey, California, he had, according to Dr. Herbert Bolton's translation of the Anza diary, crossed through the Cocopah mountains in what is now known as the Lower, or Anza pass. This was some miles southeast of the pass through which the present Mexicali-Tijuana road is built.

Since we were in a jeep, and prepared for rough travel, Arles thought it would be a novel idea to cut through Anza pass and then head straight across the dry level floor of Laguna Salada to the Sierra range on the west.

And it was a good idea. I was all for it. A faint trail led through the pass, and then

we skirted some sand dunes and struck out across the lakebed. There was a hard crust of salt on the surface. After going a short distance I felt the wheels break through the crust. I shifted into 4-wheel drive and stepped on the gas a little harder. The jeep picked up speed and I was sure our momentum would take us across the soft spot. But that extra speed merely served to get us into deeper trouble. In another 50 yards the jeep squashed down to its axles in a bottomless quagmire of gooey clay. The dry salt surface was just camouflage.

So there we were, a quarter mile offshore, mired down in a bog as barren of vegetation as a billiard ball. The car was well equipped for getting out of sand—jack, shovel, old Model T running boards and some pieces of canvas. But those things are not enough to get a car out of slick mud of about the consistency of thick gravy.

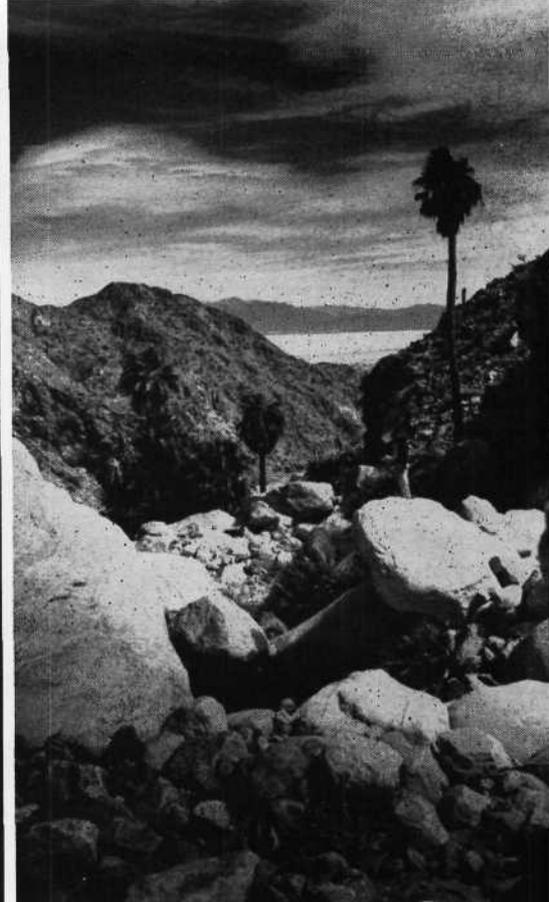
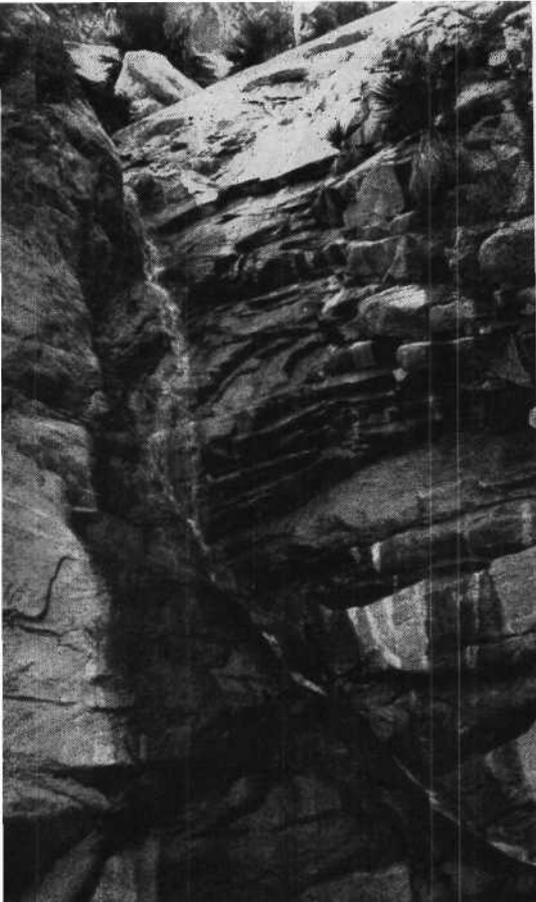
To make a short story of the three hours it took to get out of that mudhole, we made six trips to shore to bring in driftwood. We used our extra tire as a base for the jack. We simply built a corduroy road to back the jeep out of its dilemma. We jacked up a wheel and stuffed wood under it. When we released the jack, the wheel slowly pushed the wood down into the slime. But we gained an inch in the operation. So we repeated it time after time, and after eight or ten jacking operations on each wheel we got the jeep up somewhere near the surface of the bog. Then we carried in cakes of dry salt to fill the ruts behind, let most of the air out of the tires, and presto, the little car plowed its way back to hard ground.

We cautiously skirted around the lake to the road that traverses the Laguna, and before dark were broiling steaks over a fire of dead ironwood at the spot we had selected for camp.

The well-sheltered bajada, ranging from three to seven miles wide, which lies between the lakebed and the toe of the surrounding mountains is a lovely natural park and we spread out sleeping bags on a sandy floor, surrounded by healthy trees and shrubs of the Lower Sonoran zone. Sitting up in my bedroll at dawn I noted bisnaga and buckhorn cactus, galleta grass, encelia, ironwood, palo verde and creosote almost within reach.

Our camp was a long mile below the mouth of the canyon we were to explore. The terrain was too rocky to drive the jeep closer. The waters of many storms have rolled great granite boulders out of the canyon, and our hike up the arroyo in the early morning was over drift after drift of water-worn rubble. Often it was piled in great windrows as if deposited there by prehistoric glaciers. We progressed by stepping from stone to stone, or when the boulders were too big, by using hands and toes to scramble over them.

And that was what we encountered all the way up the canyon. In the exploration



At this waterfall 3½ miles up the canyon the bikers were forced to turn back. This merely is the lower one of a series of cascades with more palms growing on the benches at 2500 feet above.

Through the trunks of these palms in Cloudburst canyon may be seen the floor of Laguna Salada, with Cocopah mountains, 18 miles away, in the distance.

This picture shows the three generations of palms—the single veteran of 150 years, the mature younger trees 25 to 35 feet high, and the youngsters which had sprouted since the last flood torrent.

of hundreds of desert canyons I have never seen such a jumble of boulders as formed the floor of this canyon—Arles said it properly should be called a gorge.

All along the way across the fan we passed the trunks of ancient palms caught in the rocky debris. In one drift we counted 27 of them, trees from 10 to 18 inches in diameter deposited there by the power of water that must have poured out of the canyon in a torrent 30 or 40 feet deep.

As we reached the mouth of the canyon, where the brown ridges closed in on both sides of the streambed, we saw three young palms with their fronds poking out from among the boulders. Somewhere below the mass of rocks was sand enough to give them root and sufficient moisture to keep them green and growing.

In another half mile we came to the first cluster of mature palm trees. They were growing in a sheltered cove where they had escaped the water-borne avalanche of boulders which had swept the floor of the canyon clean of all vegetation. From that point up the gorge we passed scattered clusters of palm trees, generally growing on a bench above the main channel, where the flood had by-passed them.

There were many elephant trees along the arroyo or up on the hillsides, and once we passed a little garden of senita (old man) cactus which is identified by the "whiskers" growing on its fluted stems. This is a common species in Sonora and

farther south in Baja California, but this is the northernmost point at which I have found it. Probably a bird brought the seed to this spot many years ago and today within a radius of 50 feet there were 50 or 60 fluted arms, some of them 12 feet high.

It is not hard to reconstruct the story of erosion in this canyon during the last 100 years. There are three distinct generations of palms, most of them of the *Washingtonia filifera* species, but occasionally a blue palm—*Erythea armata*.

How long the palm has been growing in this canyon no one can say, but here and there along the route I saw a magnificent veteran 50 or 60 feet in height and perhaps 150 years of age. These were the survivors of a flood which had swept down this canyon perhaps 75 years ago. There were less than a dozen of these slender giants in the entire canyon, but they towered many feet above the later generations of trees.

More numerous was the next generation of palms which over a long period of years had reseeded themselves after the great storm which had swept away all but a few of their forebears. There were perhaps 200 trees of this later generation, mature trees 25 to 35 feet in height, but obviously much younger than the occasional veteran.

There probably had been thousands of these palms in the canyon—I estimated there are no less than 2000 dead trunks piled among the rocks on the bajada be-

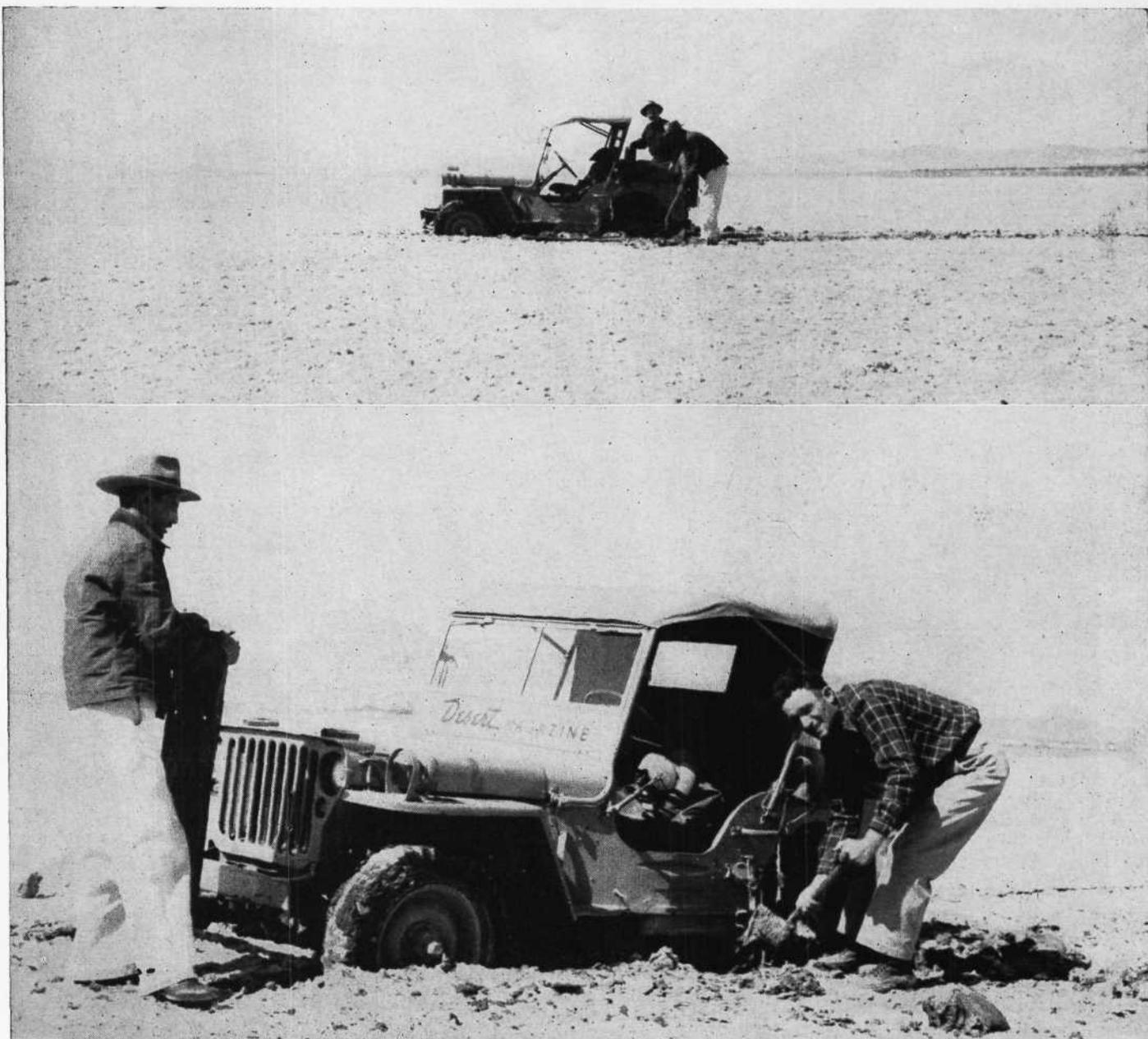
low—when another great cloudburst hit this region. That was perhaps 25 years ago. Those which came through this flood, like their elders, were in protected places or on high ground.

And then the reseeded process started all over again. Many hundreds of young trees from two to six feet in height have appeared—trees which will for the third time within a century seek to replenish this gorge with a palm forest. Of the 621 palms recorded on my counter, more than two thirds of them are of the third generation. Their small size and the uniformity of their height would definitely place the last visit of the storm gods to this canyon within the 25-year span.

Thus the manner in which Nature builds and destroys, only to start rebuilding again, is depicted in this gorge almost as clearly as if men had lived on the overlooking cliffs and made a written record of the events.

We estimated we had come 3½ miles up the canyon from our camping spot when the walls made a sudden turn and we were stymied at the base of a 50-foot waterfall with a trickle of water splashing down over its face.

We had gotten a glimpse of this fall from a vantage point earlier in the day. We knew from our previous observation that it is the lower pitch of a series of falls and that there is a snug little forest of palms at the head of these cascades. But it was im-



Even a jeep gets stuck sometimes. It took three hours to pack in driftwood from the distant shore of dry Laguna Salada and get the car out of the "thick gravy" beneath the dry salt crust on this old lakebed. Arles Adams at the shovel and Maclovio Vasquez waiting his turn.

possible to scale the slick almost vertical rock, and the walls on both sides were too precipitous for a detour—so that was the end of our up-canyon journey.

My altimeter registered 110 feet above sea level at our camp. At the base of the waterfall it had climbed to 1750 feet. We estimated the palm oasis at the head of the falls to be 2500 feet—which is about half way up the side of the Sierra Juarez at this point. But it will remain for a future explorer with more time at his disposal to make the long detour necessary to complete the record of those cascades and the palm garden at the top of them. It is certain this canyon drains a great watershed somewhere above and beyond—but that too remains a mystery as far as our party is concerned.

A considerable stream of water flows be-

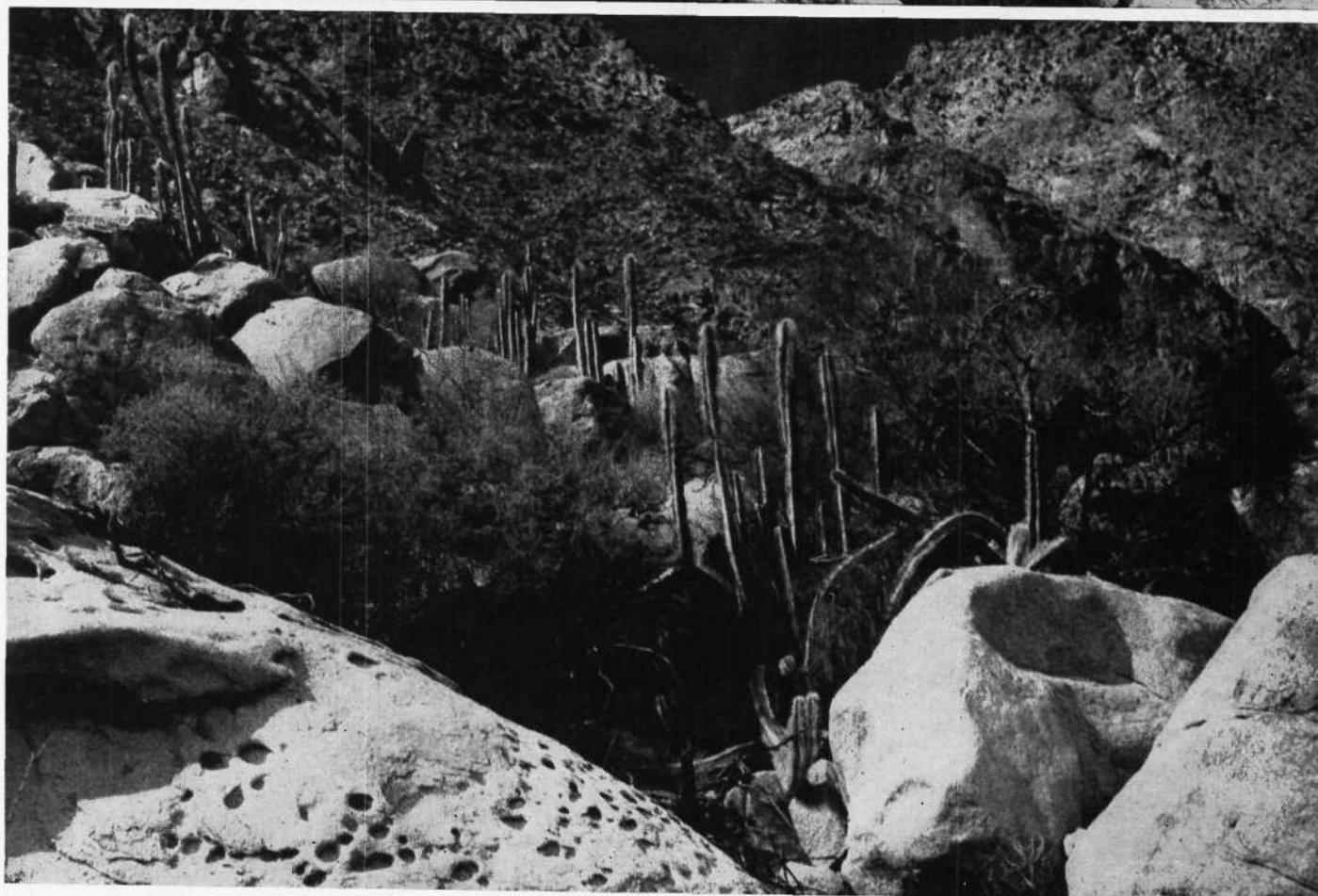
neath the boulders in this canyon. The healthy green of the palm fronds is evidence of this. But it comes to the surface only intermittently. It is good water and we found pools of it often enough to keep our canteens well supplied.

This canyon, which bears no name on any of the maps in the engineering office of the Territorial government of Baja California might well be called *Cañon de los Tormentos*—Cloudburst canyon—but that merely is a suggestion. The people of Mexico are entitled to name their own canyons—and sooner or later they will find a designation for this one.

After this trip I am more puzzled than ever in trying to distinguish between *Washingtonia filifera* and *W. robusta*. The latter is the tall slender palm so popular in Southern California for decorative pur-

poses. Growing in orderly rows along an avenue in Riverside or Los Angeles it is easy to distinguish the thick trunk of the filifera from the more slender form of the robusta. But out in the canyons where they grow wild it is not so simple. In the famous palm canyon near Palm Springs, for instance, you will find trees in which the diameter varies all the way from the filifera in its most portly form to the graceful trunk of the towering robusta. Just where to draw the line I do not know.

But in the canyon of which I am writing, the trees all are on the slender side, although most of them obviously are filifera. It seems to be true of all *Washingtonias* that after they reach maturity they tend to grow more slender and graceful with age. If one of the scientists can isolate the genes which bring this to pass, and



Above—It was these dead palm trunks at the mouth of Cloudburst canyon that lured the writer and his companions to an exploration of the gorge. They estimated there were more than 2000 dead trees in the drift below the mouth of the canyon.

Below—A little garden of senita cactus, probably the northernmost point at which this cactus grows wild on the Lower California peninsula.

then discover a way to transplant them to the human body he will be the most popular man on earth.

Once along the route we saw a bee cave high up on the canyon wall. I am sure it had never been robbed by human hands, for the crevice was full of honeycomb and now the bees are hanging it on the wall outside.

Fires of mysterious origin have visited this canyon frequently. In some instances the fronds on an occasional tree had been burned within the last few months. This canyon is too rugged for livestock. The cattlemen do not come here. I cannot imagine any vandal perspiring his way over the endless jumble of boulders merely for the fun of watching palm trees burn. It is hard to imagine lightning, which often sets fire to palm trees, striking in so many places. It is a mystery for which I can offer no hint of explanation.

As we started up the canyon early in the morning Arles picked up a lovely specimen of rose quartz. It had the most delicate pink shading of any quartz I have ever seen. We looked all day for more of it—

but without success. The almost white granite boulders which are piled on the floor of the canyon evidently came down from far above, as the sidewalls for the most part are of schist formation.

No doubt Indians camped here in prehistoric times. The agaves on the high levels and the palm seeds would have supplied food for them, and there is plenty of water. But that last deluge which poured down the gorge within recent years swept away all evidence of their campsites.

By mid-afternoon I was utterly weary after hours of hopping over this tumbled chaos of boulders. I sat on a rock to rest, and was thinking of the deafening roar that must have accompanied the avalanche of rocks brought down this gorge by the surge of flood waters in days past. Then from somewhere up in the cliff walls I heard the song of a canyon wren—a refreshing symphony which for me always makes the rough trail a little easier. The call of the canyon wren is the music of a world in which there is a world of peace and harmony—a world that remains as Nature intended it to be.

NEW TRAMWAY BILL IS SIGNED BY GOVERNOR

Construction of Mt. San Jacinto winter park tramway will start as soon as contractors submit acceptable bids, according to Earl Coffman, president of the tramway authority. Prospects for completion of project brightened when Governor Earl Warren signed bill passed by California legislature, lifting \$3,000,000 limit on bonds tramway authority could have outstanding at one time. Bill also provided for construction of living accommodations for employes of authority at foot of tramway and concession buildings at the top.

Increased construction costs had made it impossible for authority to obtain satisfactory bids within the \$3,000,000 limit. Giant cable-car line will run from Chino canyon, near Palm Springs, to Long Valley and Hidden Lake, 8500 feet above sea level. Ski lifts and other snow sport facilities are planned for the Long Valley area. Completion of cableway will place desert floor and winter sports area 20 minutes apart.

DESERT QUIZ

In the history of the Southwest a few names stand out above others because of some special part played in the exploration and conquest of the desert country. Some of them were missionaries, others were fighters. Some were Mountain men, others were Indian chiefs and a few were dreamers. Each of them demonstrated a high degree of skill and courage in his chosen field. From the list of names

in the column on the right, select the one which best fits the description in the center column, and write it in the blank space. For instance, every one who has read anything about the Southwest knows Jacob Hamblin was not a Paiute Indian chief. So, you rearrange them correctly. A score of from 12 to 15 is good, from 16 to 18 is excellent, and if you do better than that you belong at the head of the history class.

Answers are on page 36.

- | | | |
|-----------|---|-----------------------|
| 1. _____ | He was a Paiute Indian chief. | Jacob Hamblin |
| 2. _____ | He rounded up the Navajo. | William Lewis Manly |
| 3. _____ | He was governor of New Mexico. | John Wetherill |
| 4. _____ | His dream led to the reclamation of Imperial Valley. | Edward F. Beale |
| 5. _____ | He was a leader of the Apaches. | Palma |
| 6. _____ | He crossed Death Valley in '49. | Juan Bautista de Anza |
| 7. _____ | He led the Mormons to Utah. | Kit Carson |
| 8. _____ | He was a famous Mountain Man. | Adolph Bandelier |
| 9. _____ | He was with Kearny's Army of the West. | Major J. W. Powell |
| 10. _____ | He was the first to navigate the Grand Canyon. | Bill Williams |
| 11. _____ | He was a leader of the Navajo. | Winnemucca |
| 12. _____ | He brought the first camel caravan across the desert. | Lieut. Joseph C. Ives |
| 13. _____ | He led the first white party to Rainbow bridge. | Lew Wallace |
| 14. _____ | He wrote <i>Wonders of the Colorado Desert</i> . | Charles R. Rockwood |
| 15. _____ | He was a friendly chief of the Yuma Indians. | Geronimo |
| 16. _____ | He brought the first white colonists to California. | Brigham Young |
| 17. _____ | He found the lower Colorado river navigable. | George Wharton James |
| 18. _____ | He was a Mormon missionary. | Father Kino |
| 19. _____ | He founded missions in Pimeria Alta. | W. H. Emory |
| 20. _____ | He was a famous archeologist. | Chee Dodge |



Photograph shows the south slope of the Chocolate mountains north of Glamis—the approximate area in which the lost silver dike described in this story is located.

Here is a new kind of lost mine story—the discovery and loss of a quartz-silver outcropping by a prospector who is still living, and who, having despaired of finding the vein, is willing to give others a chance to locate it.

L. Harpending is a retired mining man, living at 824 Maine Ave., Long Beach, California. His story came to Desert Magazine office in a letter which

was so interesting we asked his permission to publish it. The map was prepared by Desert's staff from notes furnished by the writer.

The area north of Glamis where the vein was discovered is known to be highly mineralized. The biggest gold strike in Imperial county in recent years—the Mary Lode mine—is located near there, and placer operations have been going on in the Mesquite Diggings gravel for more than fifty years.

Lost Vein in the Chocolates

Dear Editor, Desert Magazine:

In the year 1920 a friend of mine learned of a gold prospect owned by an old German prospector and desert rat. The claim lay in Imperial county, California, in the Chocolate mountains about five miles north of the Southern Pacific railroad station of Glamis. He wanted me to go with him and do the sampling as he was not very well versed in mining methods. I cannot remember the name of this old German prospector, but he was known throughout that country as Desert John. The first night out from Long Beach we stayed all night at Niland, another Southern Pacific station. While there we met another old prospector who told us of a liv-

ing spring of water in the foothills of the Chocolates near where we were going.

We reached Desert John's prospect the next day and spent until noon of the following day looking over the surface and taking our samples. After a hasty lunch my friend suggested we spend the afternoon looking for the spring the old prospector at Niland had told us about. To describe the country we were in, I am going to compare it to the wrist and fingers of a hand. We had our camp under a bunch of palo verde trees at the edge of a very wide dry wash. Our camp represented the wrist of the hand. Above the wrist several dry washes started out like widespread fingers, running north to the foothills of the Chocolates. All of these washes emptied into the main wash where we had our camp.

My friend went up one dry wash and I up another. We met at their heads without finding any spring. At the head of the washes we did find two tanks each containing about a bucket-full of water. As it was early June when we were there, I imagine these tanks may have been full during winter and early spring. This may have been the water the prospector told us about, thinking they might be springs. As the formation of the Chocolates is schist and slate, I doubt very much if any living springs exist in them.

On our return, we each took a different dry wash back to camp. It was late in the afternoon and I would judge I was about two-thirds of the way back when I ran into a large ledge of quartz. It outcropped the entire width of the wash, approximately



Charlie Johns, prospector in the Mesquite Diggings area near where the lost Harpending silver dike is located. This dry washer was invented by Dan Saylor, also of Mesquite Diggings.

40 feet long and 3 feet wide. Having a prospector's pick and sample bag with me, I knocked off parts of the vein and filled the sack. It looked mineral-bearing to me. When I got back to camp, my friend was already there. He suggested we pack up, go to Niland and get some good meals and a good bed for the night. We did so. The next day we had an easy trip home.

After a few days at home, I thought of the sample. I mortared some of it and panned it, expecting it would show some gold colors. Instead the concentrates had a bright luster, like silver. I showed it to my wife and she thought I should have it assayed. The next day I took several pieces to Los Angeles and had John Herman run it for me. He found it contained 32 ounces of silver and only a trace of gold. I felt very much elated over my find and decided to go back in a few days and locate it, as it was on government ground.

Before I could make arrangements to

return, a mining company in Plumas county, California, wired asking me to take charge of a ten-stamp mill they were operating. The pay was attractive and I decided to take the job. I told myself I could always go back and find the silver ledge.

Three years later I did go back, and I spent a week of the hardest days I ever put in, looking for that ledge. I could not find it. When we had been there on the first trip sampling Desert John's prospect—which did not turn out as represented—John had told me of a silver mine a mile east of his cabin. This mine was found and worked in the 1890's, and \$35,000 worth of ore had been shipped from an open pit on it. More ore had been taken from a 150-foot shaft. The shaft was caved, and Desert John did not know what the values on the bottom were. The Paymaster mine on the north slope of the Chocolates was a rich silver mine that operated in the early 1900's, and had a production of \$4,000,-

000. The ledge I found might be another Paymaster. Who knows?

I made another trip back, a year and a half later. I found Desert John's cabin burned. I went to Glamis and had a talk with the section foreman, who had been Desert John's friend. He told me that when John had failed to show up at his regular time at the station, he went to find what was wrong. He found John's cabin burned and the old prospector's body in the ashes, partly burned and showing a bullet hole in his head. There was a rumor, the section foreman told me, that Desert John had a cache both of money and gold dust buried under the cabin.

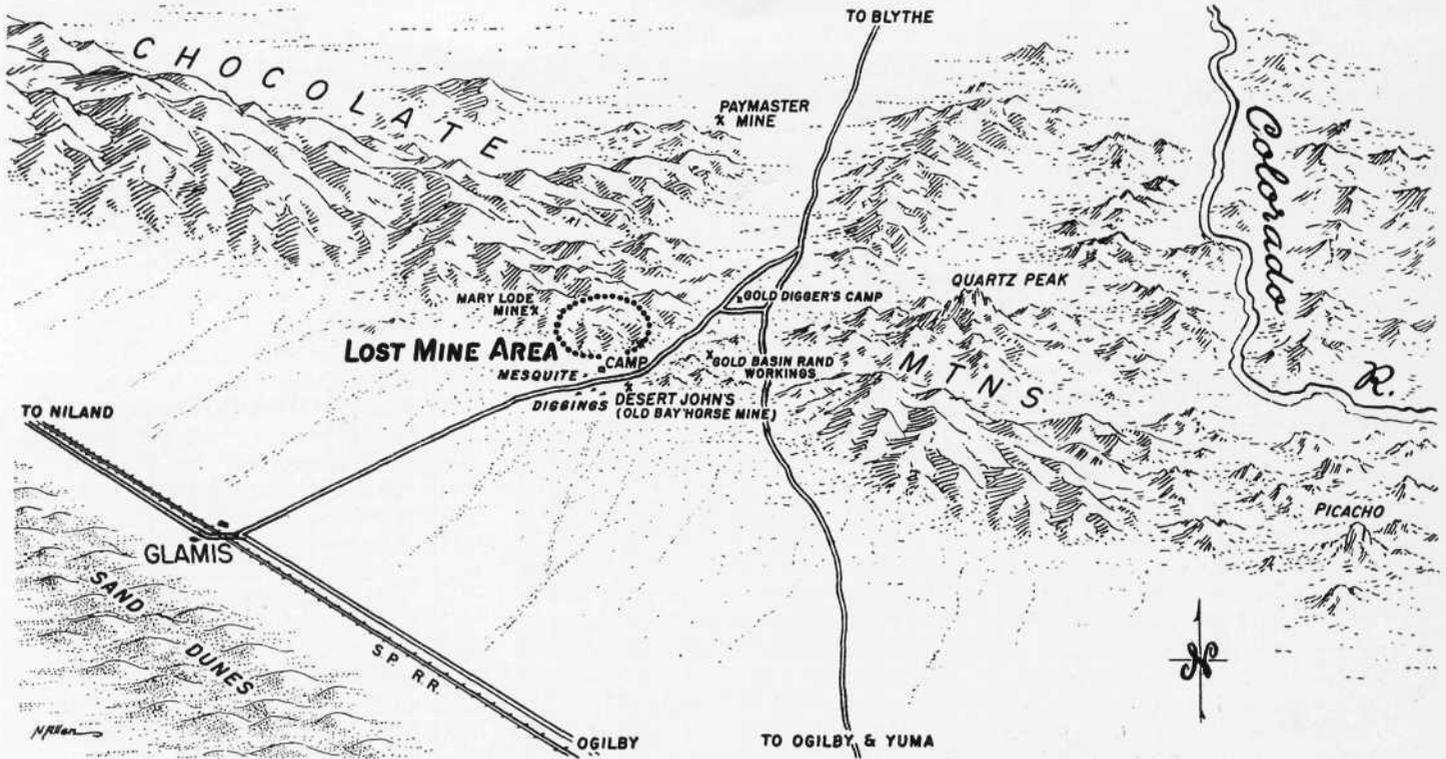
At that time two brothers, whose names I will not mention, made periodic prospecting trips in the Chocolate range. Going on and coming from these trips they often stopped with Desert John. These men were tough characters, one of them having served time in a penitentiary. The supposition was that they had heard of Desert John's cache and had murdered him for it. They were never seen around that locality again.

On this trip I found the old silver mine Desert John had told me about. There was a large open pit where the ore had been taken out, and a shaft caved in so that I could only get down it about 20 feet. I picked up several pieces of ore around the pit and later assays on them gave returns as high as \$80 in silver. Having a Brunton with me, I took the course of the vein and the trend was northwest by southeast. I followed the northwest trend, hoping it would lead me somewhere near the spot where I discovered the outcrop. But I had no luck.

During a period of 10 years I made three trips to hunt for the silver ledge. I stayed days at a time until I wore myself out and had to leave without Mother Nature showing me where she had her treasure hidden. To check further, I sent a sample of the ore to the Mayer smelter in Arizona, asking for smelter rates and freight charges. They asked how many tons I could ship a month. They wanted the silica-content of the ore for fluxing, so there would be no smelter charges. Freight rates would be \$3.85 per ton. They also sent me their assay, and it varied only a few cents from the one John Herman made.

I think a cloudburst fell in the Chocolate mountains between the time I found the ledge and the first time I went back. The water, debris and sand that rushed down must have covered the ledge completely, leaving no traces. I hope I have given my descriptions clearly enough so that if anyone wants to look for the ledge, they can find the area without much trouble. At the present price of silver, it would be a nice paying proposition. It is worth looking for, and if I were ten years younger, I would try my luck again.

L. HARPENDING



The area in which it is believed the lost silver vein is located is marked with a circle.

HERE AND THERE... on the Desert

ARIZONA

Fort Huachuca Will Close . . .

TOMBSTONE — Fort Huachuca, founded in 1877 and garrisoned continuously since, is slated for closing by army, and Arizona game and fish department has applied for use of the military reservation as game refuge for deer and buffalo. Troops at fort operated against Apache Geronimo from 1880 to 1886. During first World War, 92nd and 93rd divisions were trained there. Army is said to have 25-30 million dollars invested in 45,000 acre reservation. Arizona groups are attempting to block its abandonment.

Study Ruins of the Ancients . . .

SAN CARLOS—At least 1000 years of human history, preceding 1400 A. D., will be studied from occupied sites by University of Arizona archeological field school over a period of 12 to 15 years. School, under direction of Dr. Emil Haury, starts its second year June 15, at Point-of-Pines on San Carlos Indian reservation. Students from Columbia, Harvard and Tufts will be included in personnel. Session, concentrating on later archeological horizons, from 11th to 14th centuries A. D., will end August 15. School, jointly sponsored by state museum and university, is being aided by \$2000 grant from Viking Fund, Inc., New York.

Navajo Wants New Paper . . .

FLAGSTAFF — Hosteen Nez Tsoisie, 80-year-old Navajo wore out the paper which gave him title to his homestead at Willow Springs between Cameron and the Gap, and came to Flagstaff to get a new one. It was Good Friday and Arbor day and the courthouse was closed. Tsoisie searched out his friend, Rev. Shine Smith, missionary, and Smith located assessor D. L. McKinney in his office. The two patched the tattered paper together and found enough information to write the general land office for a replacement. Original title was dated April 17, 1893.

Sugar Plant for Yuma? . . .

YUMA—Spreckels Sugar company of California is prepared to erect \$3,000,000 processing plant in Yuma, if sugar beet experimentation is undertaken and proves successful in area, according to George Wright, company superintendent. Wright brought sugar beet seed which will be distributed to Yuma, Gila and Mohawk valleys by Bob Moody, county agricultural agent. Experimental acreage in area is said to have produced beets with 30 per cent sugar content. Average beet sugar content is 16 per cent.

Lost Dutchman Again! . . .

MIAMI—Drills testing foundations for new highway bridge over Pinto creek,

west of Miami, uncovered what lost mine writer John D. Mitchell suggests may be Arizona's legendary Lost Dutchman mine. Exploratory drills bit through rock into open space, but investigators could find no entrance or waste dump on steep hillside. Careful digging and drilling uncovered hidden opening to a 400-foot tunnel, but full exploration was prevented when cave-in occurred 30 feet from entrance. No record of mining claim in vicinity was found in Gila county recorder's office, but ore specimens found showed presence of gold, copper and turquoise. Tunnel will necessitate readjustment of bridge location. State engineers have filed mining claims to protect state's right-of-way.

Bighorn Sheep Increase . . .

YUMA—Bighorn sheep population on Kofa game range northeast of Yuma is estimated at 160, an increase of 10 since 1945. Refuge manager Arthur F. Halloran credits increase and higher lamb survival rate to water development and predator control work. From late 1943 until end of 1946, 388 coyotes, numerous bobcats and a mountain lion have been taken by service personnel from Kofa and Cabeza Prieta ranges. Two full-time predator men have been added to refuge force.

Fifty-mile-an-hour winds which continued unbroken for hours, blew water of Mormon Lake, 30 miles south of Flagstaff to one side of lake. Thousands of fish were stranded, and Flagstaff citizens picked up buckets of crappies, ring bass, catfish and pike.

Out of some cold figures, came a story to warm America's heart

NOT LONG AGO, the Secretary of the United States Treasury studied a figure-covered sheet of paper.

The figures revealed a steady, powerful upswing in the sale of U. S. Savings Bonds, and an equally steady decrease in Bond redemptions.

But to the Secretary, they revealed a good deal more than that, and Mr. Snyder spoke his mind:

"After the Victory Loan, sales of U. S. Savings Bonds went down—redemptions went up. And that was only natural and human.

"It was natural and human—but it was also dangerous. For suppose this trend had continued. Suppose that, in this period of reconversion, some 80 million Americans had decided not only to stop saving, but to spend the \$40 billion which they had *already* put aside in Series E, F & G Savings Bonds. The picture which *that* conjures up is not a pretty one!

"But the trend did NOT continue.

"Early last fall, the magazines of this country—nearly a thousand of them, acting together—started an advertising campaign on Bonds. This, added to the continuing support of other media and advertisers, gave the American people the facts . . . told them why it was important to buy and hold U. S. Savings Bonds.

"The figures on this sheet show that sales of Savings Bonds went from \$494 million in last September to \$519 million in October and kept climbing steadily until, in January of this year, they reached a new postwar high:

"In January, 1947, Americans put nearly a billion dollars in Savings Bonds. And that trend is continuing."

The figures show that millions of Americans have realized this fact: there is no safer, surer way on earth to get the things you want than by buying U. S. Savings Bonds regularly.

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CALIFORNIA

Mexican Laborers Admitted . . .

CALEXICO—Alien farm workers for California ranches are being processed through Calexico immigration offices at rate of 150 a day, as result of agreement between Mexico and United States. Farmers insisted they needed workers to replace 119,000 Mexicans illegally in this country, who are being repatriated 2000 a week from California alone. Mexican government has set up labor offices in Mexicali, Juarez and Renosa where American farmers with applications approved by immigration service can hire Mexicans for a temporary period by agreeing to return workers to Mexico on expiration of permit.

Survives Desert Wanderings . . .

PALO VERDE — Five-year-old Jimmy Hocker of Los Angeles, lost for 27½ hours in desolate Chocolate mountains near Midway well, was found thirsty and exhausted after a search which enlisted services of 125 volunteers on foot, five horsemen, eight planes and radio-equipped truck of California Electric Power company. Jimmy was discovered by Antonio H. Lopez nine miles over the mountains from his parents' camp near old Paymaster silver mine. He was found in late afternoon, and had built a small lean-to because he had been "a little cold" the night before.

Salton Sea Resort Building . . .

INDIO—Development of a beach resort on north shore of Salton Sea 10 miles south of Mecca has been undertaken by Benjamin H. Betz, who purchased 85 acres there. Included is 1500 feet of beach front known as Stump beach. Betz, owner of a large California packing company, plans to sink wells, erect cottages, provide trailer facilities and service station, and create an artificial harbor for small boats. He will construct paved road to property from Highway 195. Work on project has started, but completion date has not been announced.

Desert Museum Given Site . . .

PALM SPRINGS—Palm Springs Desert Museum plans immediate construction of a wing of its permanent quarters on land donated by Miss Cornelia White. Property, conservatively valued at \$75,000, adjoins library building in which museum is now housed. Miss White will retain use of half of land on which her house stands as long as she lives. Building will be aided by gifts of \$10,000 by Mr. and Mrs. Alfred Cook in memory of their daughter Madge, and \$4600 in stock by Mr. and Mrs. H. Earl Hoover.

Lee Voges, woman glider pilot, claims new altitude record for power gliders. In a Dragonfly with 25 horsepower motor she climbed from Victorville airport to 10,260 feet and landed 2½ hours later at Murco test base. Former record was 4200 feet.

Live ammunition sufficiently powerful to tear human beings to shreds still may be found in Chocolate mountains and mesa areas, Commander W. I. Darnell, El Centro naval air station warned. Warning came after Leo Turner, Imperial, brought to station 105-millimeter cannon shell found near Camp Dunlap. Commander urged visitors to give such ammunition wide berth. Shell was exploded by demolition crew.

Severe earthquake rocked 60,000 square miles of Southern California, Arizona and Nevada on April 10. Damage was centered in Newberry, Harvard and Midway areas east of Barstow. Houses collapsed at Newberry, and water tanks and adobe walls went down on surrounding ranches. Storekeepers told of wares being dashed to ground, some road repairs were necessary, and residents reported huge clouds of dust rising from mountain sides and river bottom.

Mrs. Rose Worthington Gibson died in Randsburg on March 29, age 71. Proprietor of Cottage hotel and dining room in Randsburg from 1921 until her death, "Worthy" was widely known as a desert hostess.

By unanimous decision, ninth U. S. circuit court of appeals has denied right of California schools to segregate children of Mexican or Latin blood.

NEVADA

Dams May Cause Earthquakes . . .

BOULDER CITY—Weight of great bodies of water impounded behind Boulder, Grand Coulee and Shasta dams may cause small earthquakes if geological faults are present, U. S. coast and geodetic survey scientists report. Study has been carried on at the three dams over several years. Included in research was recent man-made earthquake in Boulder dam area. Five thousand pounds of TNT, in form of 100-pound surplus navy aerial bombs, were detonated in 300-foot tunnel of abandoned gold mine near Henderson. Special seismological equipment was set up at Boulder dam, Overton and Pierce's ferry to record shock.

Want a Ghost Town? . . .

BEATTY — Rhyolite, famous ghost town of Death Valley country located three miles west of Beatty, is for sale. N. C. Westmoreland, according to local report, has determined to dispose of his entire holdings in the old camp. Westmoreland bought most of Rhyolite at public auction and for many years operated the Ghost Casino in the abandoned railroad station there. Rhyolite reached peak of its boom with 10,000 population in 1906, after Shorty Harris made his strike at adjacent Bullfrog.

Dam Will Cover Culture . . .

DAVIS DAM—When Davis dam is completed, lake behind it will cover remaining evidence of Patayan Indian culture, Richard G. Miller, director of Nevada state museum warns. Patayan refers to prehistoric inhabitants of Colorado river flood plain. They are believed to have lived a life similar to Nile valley inhabitants, and to have furnished nucleus from which surplus populations radiated into Arizona, Nevada, California and Mexico. There is no report on excavation of any of 155 sites located by national park service, and it is estimated that \$8000 would be needed to investigate the most important of them. Miller is attempting to raise funds to accomplish work before dam is finished.

Hunting Area Planned . . .

FALLON—Largest free public hunting area in the world is being planned for Churchill county. Hunting grounds will comprise nearly 350,000 acres, of which 175,000 will be marshy land suitable for waterfowl. Southern boundary will start one mile south of Fallon and run to foothills east of Stillwater. West boundary is to continue north of Fallon to about one mile beyond Parran. Northeastern boundary will skirt Carson sink area until it meets eastern line along foothills of Stillwater range. Reserve will be under control of Nevada fish and game commission, and plans are being outlined for construction of weirs, dams and roads in area.

Harvest Giant Bat Guano . . .

ELY—Interstate Guano company is mining as fertilizer guano left by big, prehistoric bats in caves of Ely region. Company at present has located two guano-filled caves near Osceola and three in Cave valley. Thousands of tons are estimated to be available. It is mined by driving tunnel below deposit and stoping out as in regular mining operations. Skeletal remains of the bats are sometimes found in guano, and a number have been reconstructed and sent to various museums. It is conjectured that bats died or migrated when changing climate caused animal life on which they lived to disappear.

A convention of travel industry officials in Las Vegas discovered there is not a single street car in state of Nevada.

All past tourist records at Boulder dam were broken when 73,578 people took official guided tour during first quarter of 1947.

Ellen Nay, 67, died at Fallon on April 2. Mrs. Nay came to Belmont, then Nye county seat, as a young girl and was married there in 1899. Family moved to Tonopah in 1901. While living on Salsbury ranch, Mrs. Nay discovered gold and camp of Ellendale was named for her. Mrs. Nay and her husband owned Barley Creek ranch for 30 years.

Tonopah *Times-Bonanza* reports rattlesnakes out earlier than usual this year, and apparently occurring in greater numbers than in recent years in that portion of Nevada.

NEW MEXICO

Paper Tells of Old Trail . . .

SANTA FE—Newspaper outlining first attempts to create historic Santa Fe Trail has been acquired by Museum of New Mexico. Paper, copy of *National Intelligencer* for January 27, 1825, carries address by Senator Benton of Missouri before 18th congress on measure to authorize President to create road from Missouri to "the confines of New Mexico." Benton described New Mexicans as "a people among whom all arts are lost. No books! No newspapers! Cultivating the earth with wooden tools and spinning upon a stick!"

Inter-Cultural Camp Planned . . .

TOADLENA—Second annual Girl Scout inter-cultural camp will be held at Indian service boarding school at Toadlena during June. Twenty-five non-Indian senior Girl Scouts selected from various parts of United States will be guests of 25 Indian hostesses from Navajo reservation. Visitors will be picked on basis of special talents and skills of value to their Navajo

hostesses. Navajo girls will demonstrate for their guests, cooking, costume-making, weaving, fire building, camping and other aspects of Navajo life.

New Philmont Director . . .

CIMARRON—George A. Bullock, deputy regional Scout director of Region IX is new director of Philmont Scout ranch, near Cimarron. Philmont ranch, National Senior Scout camp, covers 200 square miles of rugged mountain country populated with bison, elk, antelope, deer, beaver, wild turkey and longhorn cattle. Kit Carson's old home is located on ranch, and ruts of Santa Fe Trail cross it. Property, including large, Mediterranean style home, was given to Boy Scouts of America by Mr. and Mrs. Waite Phillips.

Research Aid Given . . .

SANTA FE—Kenneth M. Chapman, research adviser at Laboratory of Anthropology, has received \$4000 grant-in-aid from Rockefeller foundation. Chapman will use grant in completing study of design elements employed by pottery makers of San Ildefonso pueblo. His research on subject has been in progress for several years, and when completed will be published by the laboratory. Chapman is author of *The Pottery of Santo Domingo Pueblo*.

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- 4 Shasta Route**—from San Francisco via the Evergreen Pacific Northwest.

To Film Rhodes Book . . .

EL MORRO — Eugene Manlove Rhodes' most famous story, *Pasó por Aquí*, is to be filmed against its New Mexican backgrounds. Action will take place around El Morro and White Sands national monuments. Hollywood translation of title is *They Passed This Way*, and plans call for story to be filmed as it was written without shooting or killing. Gene Rhodes, who died in 1934 and at his own request was buried in New Mexico's San Andres mountains, was cowboy, rancher and miner. He is considered by many to have drawn the truest pictures of cowboy life to be found in American literature.

Needle-Miners Blight Pinyons . . .

SANTA FE—Pinyon trees in Santa Fe and Santa Fe national forest have been at-

tacked by needle-miners. Forest Service Superintendent K. D. Flock explains that needle-miners are microscopic insects which bore into heart of pinyon needles and kill them. Generally attack will not kill trees, but it has been more noticeable this year because lack of moisture has lowered vitality and resistance of the pinyons. There is no economically feasible way of controlling blight on forest land, according to Flock. He suggested that persons having pinyons growing in their yards spray needles with a small amount of nicotine sulphate in thin oil.

Zuñis Resume Irrigation . . .

ZUNI — Zuñis have resumed their spring irrigation ditch work below Blackwater dam. Annual custom was abandoned during war years because of low water behind dam and because many pueblo men were in armed forces or away on war jobs. Main lateral ditch was dug by 24 teams and scrapers and 150 men. Later, similar work will be undertaken at Nutria, Pescado and Caliente. Governor Leopoldo Eriacho, and the lieutenant governor and *tenientes* or councilmen elected from each of the villages are supervising the work.

Interior department wants congress to give it absolute control of Rattlesnake helium field to insure dependable military reserve. In closing months of war, bureau of mines completed near Shiprock a \$3,500,000 plant to tap the Rattlesnake field. Helium is used in production of atomic energy, in manufacture of magnesium and for airships.

E. M. Reynolds, sheepman of San Angelo, Texas, has purchased 50,000 acre Torreon ranch near Corona in Lincoln county. Property is enclosed with sheep-proof fence and contains 19 pastures similarly fenced.

Carl B. Livingston, lawyer, widely known as an author and lay archeologist, died in Santa Fe on March 29. He is credited with discovery of the Basketmaker race, which preceded cliff dwellers by at least 2000 years. Livingston also played an important part in developing and publicizing Carlsbad caverns.

Southwest Fibers, Inc., is planning erection of a yucca processing factory at Tucumcari. Yucca fiber was said to be a valuable product, with juice and roots of plant containing extracts that can be marketed.

Fruit flies survived a trip more than 68 miles in altitude when they rode in warhead of a rocket launched from White Sands proving grounds. Flies, lowered to earth by ribbon parachute attached to the warhead, seemed none the worse for their ascent to 360,000 feet.

UTAH

New Eagle Plumage . . .

SALT LAKE CITY — Wooden eagle topping Eagle Gate, which has been a State street landmark since 1859, will have its plumage replated. Bird has 16-foot wingspread and when carved weighed 500 pounds. It was copper coated when gate was rebuilt in 1891. Since risk of breakage in removal is great, eagle will be thoroughly cleansed, its cracks caulked with lead and a new layer of copper applied by hot spray method while it remains in place. Cost will be met by Zion's Security corporation, which handles Mormon church property, and labor will be furnished by Sons of Utah Pioneers as centennial project.

Fort Douglas Surplus . . .

SALT LAKE CITY—Old Fort Douglas, established as Camp Douglas in 1862, has been declared surplus. Colonel Patrick Edward Connor, sent to Utah from California to protect mail and telegraph lines during Civil war, founded post. It was named by Abraham Lincoln for his old debate opponent, Stephen A. Douglas. When rebuilt in 1875 it was called Fort Douglas. The old fort played an active part in training men for Spanish-American and first World wars. In World War II it was headquarters for Ninth Service command. State, city and University of Utah groups wish to acquire sections of fort and are attempting to arrange transfer as a unit to some organization to prevent its disposal piecemeal by W.A.A.

Wild Horse Hunt Fatal . . .

ROOSEVELT—D. P. Hambleton was killed and James D. Ridgway seriously injured when plane in which they were hunting wild horses crashed south of Ouray. Eyewitnesses stated that Hambleton was attempting to herd horses into a corral while Ridgway hurried them by firing a gun over their heads. As Hambleton banked at an estimated elevation of 40 feet, plane stalled and crashed. It was necessary to carry victims two miles by stretcher before a road was reached. Two cars sent on a rescue expedition from Vernal burned out transmissions on the rough Ouray road

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WORLD'S MINERALS
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while the third became stuck in deep sand. Victims then were brought out of the desolate desert by a route through Roosevelt.

Cloudburst History Reported . . .

SALT LAKE CITY—More than 500 outstanding cloudburst floods taking at least 26 lives have been reported in Utah since 1847. In same period, Salt Lake City has suffered from 44 major cloudbursts and 230 other Utah cities have experienced such floods. These figures are listed in a report of U. S. geological survey, just released. Survey reports that cloudbursts usually last about 20-30 minutes. Rarely, heavy precipitation may fall for an hour or more. Most floods caused by cloudbursts occur in areas below 8000 feet and the more violent ones originate in drainage areas of 10 square miles or less. The storms are most common in the southern and eastern portions of state.

Spray Replaces Sheep Dip . . .

MOAB — Revolutionary method of treating sheep for insect pests without using dipping vats, was introduced to sheepmen of southeastern Utah in demonstration held in Hatch wash, southwest of La Sal, San Juan county. Sheep were treated by portable power spray mounted on converted 2½ ton army truck. Dr. George F. Knowlton, Utah extension service entomologist, directed demonstration in which 1600 head of sheep were sprayed with DDT in 1 hour 15 minutes.

Coyotes Under Attack . . .

VERNAL—Coyotes in Uintah, Duchesne and Daggett counties are objective of an air war staged by U. S. fish and wildlife service. Thousands of poison baits have been dropped on sheep lambing and summer ranges by the service. Baits are large pills made of lard, sugar, strychnine and a scented material mixed with sawdust. Owen W. Morris, district agent in charge of predatory animal control, explained that with warm weather lard and sugar will melt and the tablet dissolve, eliminating possibility that sheep dogs and domestic animals will be poisoned when they go on the range.

They Cover Canyon . . .

RICHFIELD—Ralph A. Badger and Harry Aleson have been seeing the Grand Canyon country. They drove from Richfield to Boulder City, Nevada and chartered a plane there. In the plane they flew to Hite, Utah, following the Colorado river, Lake Mead, Grand Canyon, Marble canyon and Glen canyon, flying more than 1000 miles. Back on the ground, they took a power boat from Pierce's Ferry 46 miles into the Grand Canyon, going up the Colorado during its spring flood. The pair then made a horseback trip into Havasu canyon for color pictures of Havasupai Indian life, and returned by auto to Utah.

Application to operate scenic motor and boat tours in southeastern Utah has been filed with public service commission by Colorado River Scenic Tours. Route would include Arches national monument, Monument valley, Natural Bridges national monument and boat trips from Moab to Cataract canyon and from Hite to Cataract canyon.

Father Harold B. Liebler has recovered from illness which resulted in his being flown by civil air patrol from Bluff, Utah, to Durango, Colorado, for hospitalization. Father Liebler came to the Navajo reservation in 1943 and built, with a few helpers, the stone chapel of St. Christopher's mission in San Juan canyon near Bluff.

Mrs. Kate B. Carter has been named president of Daughters of Utah Pioneers for a fourth term.

Warner E. Gordon, 83, died in Ogden on April 16. Gordon was an early cattleman of San Juan county and, in partnership with Harold Carlisle operated famous Carlisle outfit.

Utah Centennial commission has officially defined the term pioneer, in connection with centennial observances, as one who immigrated into Utah previous to completion of transcontinental railroad May 10, 1869.

Legislation authorizing coinage of a Utah centennial half-dollar was referred

back to congressional subcommittee, when President Truman sent a letter to senate banking and currency committee stating his opposition to issuance of any and all such memorial coins.

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MISCELLANEOUS

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ROCKHOUNDS! Build an Outdoorsman's Work-buggy. Carries all equipment. Gets to those out-of-the-way places. Handiest rig you ever used. Illustrated manual with descriptive diagrams, only \$1.00. Wildcrafters World Magazine, Rt. 1-D, Alton Sta., Ky.

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CACTI AND SUCCULENTS—From the deserts of the world. Don-Rita brand. By appointment only. Write us your needs and we will try to help you. Michael Donnelly Cacti Gardens, 334 Lowell St., Daly City, Calif.

FOSSILS—Geological supplies, Geiger counters, thin sections, picks, hammers, etc. Omaha Scientific Supply Co., Box 1750, Omaha 4, Nebraska.

"PERRY DRILL"—New all-steel. Drills 1/4" agate in 5 min. Usable for drilling plastic wood, iron, gemstones. None better at any price. Only \$17.50. L. E. Perry, 111 N. Chester, Pasadena 4, Calif.

LEARN the profitable jewelry and gold-smithing trade at home. Simplified course teaches jewelry designing, manufacture and repairing; gemsetting, etc. Gemcrafters, Dept. F, Kalispell, Mont.

WANTED: Old Envelopes with western cancellations, early California mail before 1890. Write: C. H. Greiner, 106 N. Sunset, Temple City, Calif.

SWAP \$500.00 COLLECTION rare Mexican Opal Cabochons; Watches; Printing, Mimeographing; Gems; for Guns; Electric Motors, Fans; Lapidary Equipment; Cutting Materials; Gems; Hobby-Collections; Relics; Ammunition. Desert Bazaar, Box 503, Calexico, Calif.

THE PERRY "PRECISION" 8 inch Re-saw diamond saw. Fast cutting, all steel, dbl. ball bearing, strong, true running, 9x13" table. None better. \$27.50. L. E. Perry, 111 N. Chester, Pasadena 4, Calif.

PANNING GOLD—A side line hobby for Rockhounds and Desert Nomads. You should know how to pan gold, recognize gold bearing gravel and valuable quartz ledges. The places you go are where rich virgin ground is found. Send your name for new folder on panning gold, with pictures—list of mining books and equipment for prospector beginners. Old Prospector, Box 21A90, Dutch Flat, Calif.

DESERT RATS, Rockhounds, Camera Fiends, you can pursue your hobbies to the limit at Casa de Las Cruces, Las Cruces, N. M. Fine accommodations in congenial surroundings at reasonable rates. Send stamp for circular.

GOLD PANNING for profit. Healthy, outdoor occupation. Beginners' big instruction book, blueprints, photograph—\$1.00. Desert Jim, 627 Lillian, Stockton 4, Calif.

FOR SALE: Midget, Model A Gem Drill, never used. One Gem Maker Saw 6", 2 grinding wheels, lap, or will trade for ball-bearing arbor 5/8 or 3/4 shaft or Perry Re-saw. R. Barnum, Yucaipa, Calif.

REAL ESTATE

FIVE ACRES or more close to thriving desert resort—Desert Hot Springs. R. H. McDonald, Desert Hot Springs, Calif.

For Imperial Valley Farms—

W. E. HANCOCK

"The Farm Land Man"

Since 1914

EL CENTRO — — — CALIFORNIA

BARRY STORM

NOW OUTFITTING TO CONTINUE
SUPERSTITION MOUNTAINS
PROSPECTING

(Lost Dutchman & Peralta Gold Mines)
(Peralta Treasure & Any New Mineral)

On data not publicized in his books, needs grubstake partners for two year campaign of detailed mineralogical—geological—electronic explorations to locate all mineral, unseen or not, thus creating chance not available to usual prospectors and making success increasingly more probable as process of elimination works. Campaign is based on his several pre-war years of actual work in region verifying data and deductions partly outlined in his book, THUNDER GODS GOLD. His manual, PRACTICAL PROSPECTING, shows his wide experience with modern scientific ore-finding methods.

He needs limited number of grubstake partners to underwrite \$175 total cost per 1/100th interest for full two year campaign, payable \$55 down and \$5 monthly. Or any multiple at a proportionate cost. Notarized grubstake share contracts sent by mail insure performance under mail fraud laws. Those to whom he is unknown will be furnished further information upon request. If grubstake minded act at once.

BARRY STORM
P. O. BOX 502 — PHOENIX, ARIZ.

LETTERS . . .

Rattlesnakes All Gone . . .

Coachella, California

Dear Sirs:

Last year a junkman told me that when he was collecting junk on the dumps he had found and killed about a dozen rattlesnakes.

As I thought there might be some one needing snakes, I told him when he found any more to fence them in and I would try to find a market for them. That is why I asked about a market for rattlesnakes in the letter you published in April.

But now the junkman has gone to other parts—so I have no more snakes. Thank you for your help.

SAM KAPLAR

. . .

The Trees That Died . . .

Deming, New Mexico

Dear Editor:

I was interested in Toney Richardson's story about the "Trees That Died of Fear" in your March issue. Mr. Richardson said it hardly could have been due to drouth because trees in the surrounding area were not killed.

If you will refer to the weather bureau records you will find that much of Arizona suffered a critical drouth from the beginning of this century to July 20, 1904. At Prescott only two inches of snow fell in the winter of 1903-4, and no rain came until July. Many cattle died and deer coming to the few waterholes which still held water were as tame as sheep.

It is very possible that the little patch of soil where the trees were killed did not hold moisture as well as the surrounding area, and that they actually did die from lack of moisture while nearby junipers, growing in soil which held water better, survived.

I have lived in Arizona and New Mexico 50 years, and have seen more than one bad drouth when trees were killed for lack of water.

LEE THOMAS

More Poets Needed . . .

Burbank, California

Dear Mr. Henderson:

Your possession of a warehouse of poetry is a real tribute to your very fine Desert magazine. Poetry, like painting, is an expression of one's inner soul, and although it may be poorly expressed, it helps that soul to grow and to be more understanding. The world needs more poets.

Poems, like rocks, are not all gems, but there are many undiscovered gems in poetry, as in rocks. Therefore please spare the warehouse of poems, and keep searching among them. Also, please implore John Hilton to never burn any paintings.

Some of us lovers of the desert, and would-be artists, would give our eye-teeth for one of those paintings—if we had any eye-teeth. Why not make a scrap book of those surplus poems and paintings, and let us visit your office sometime and look it over.

You have guessed it. I'm no poet, but I write poems, I'm no artist, but I like to paint pictures, and I'm a rockhound. I have never sent a poem to anyone for publication, but I refuse to be discouraged, and am enclosing "The Mojave Desert" which you may publish, store in your warehouse or burn as you see fit. I'll keep on writing the stuff when I get the urge anyway.

Luck and best wishes to you, John Hilton, and all the poets, artists and rockhounds.

GOLDA E. PETERSON

. . .

Mythology of the Desert . . .

Del Mar, California

Dear Mr. Henderson:

Would Desert readers be interested in a memory out of the past of a practical attempt to settle and neutralize muddy alkali water by the addition of cactus pulp, a theory on which Mr. Laudermilk reported in your April, 1947, issue?

In the spring of 1894 I made one of a party of four traveling by wagon from a point in New Mexico to La Plata canyon in the La Plata mountains of southwest Colorado. Up toward the Colorado line there was a road of sorts following the east bank of the Las Animas river but apparently none on the west side where we were. Our leader, old Dan Freeman, chose not to attempt to ford the river in flood. It had a bad name I understood.

We traveled through country over which I would not have thought it possible to take a wagon, and progress was slow. Finally we became pretty well lost on an interminable mesa covered with heavy high brush somewhere in the Indian reservation south of Fort Lewis. This further delayed us. Sundown found us off this mesa in a region of rolling hills and gullies where Dan said there was a prospect of finding water. Our canteens were nearly empty and the prospect of a dry camp was not pleasant especially as our horses already were suffering. We made camp here and I was delegated to dig for water of which I finally managed to collect a couple of buckets of very muddy and bitter stuff. Our horses, thirsty as they were would have none of it.

Dan told me to split some "hands" of prickly pear and throw them into the water and they would clear and sweeten it. I split three or four "hands" and added them to each bucket stirring well. A half

hour seemed to show no results more than such natural settling as might be expected so we made our coffee with the last of our canteen water. Perhaps an hour and a half later and before turning in I sampled the water again. My impression was that there had been no more settling than was to be expected by unaided gravity. Mr. Laudermilk's laboratory tests confirm this judgment. To be of any real value the clarification should be a lot quicker than natural settling, and it is not.

I have also been a bit skeptical of Dan's claim that the cactus would also neutralize alkali but have never tried to test it until yesterday when a test of a 10 per cent solution of the juice of a variety of opuntia showed a reaction of pH 6.9. To the non-technical this means that this pretty strong mixture was very weakly acid indeed and could have no appreciable action in sweetening alkaline waters. So-called alkali waters vary greatly but many which might be reasonably safe to drink owe their bad taste and unfortunate physiological action to the presence of sulphates which could not be neutralized nor eliminated by the addition of an acid substance.

Where do theories like this one and the bowl of water in the scooped-out barrel cactus, with little or no basis of fact, originate? Apparently in the active imaginations and tall tales of the old boys. They seem to persist for generations however and are still going strong.

L. B. DIXON

. . .

Rare Ocotillo Blossom . . .

Las Vegas, Nevada

Dear Desert:

I would like to know if there is such a thing as a yellow ocotillo? Coming through the Chuckawalla mountains the other day we found an ocotillo in full bloom—with blossoms of golden yellow.

DORA TUCKER

This is the first report Desert staff has had on a golden yellow ocotillo. Our office has a record over a period of years of the finding of four "white" ocotillos at various places on the Colorado desert. These white blossoms actually are a creamy color with a yellowish tinge—but none of them could be called golden yellow. You have made a rare find indeed.

—R.H.

. . .

More Frightened Trees . . .

Kingman, Arizona

Gentlemen:

Mr. Richardson's story of the "Trees that Died of Fear" recalls to my mind a trip I took through a similar region a number of years ago. The blasted area was quite large, and I have often wondered about it.

It lies to the north of Peach Springs, Arizona, on the Frazier's well road, I think, but I am unable to give you the ex-

act distance north, since it was so long ago. It would hardly seem that a meteorite could have blasted the trees in two regions so widely separated as these are.

SELMA BRAEM

Information Wanted . . .

Tooele, Utah

Dear Editor, Desert Magazine:

Spring is here and I have the urge to do a bit of hill-climbing. I have heard old-timers talk of the Lost Brigham Young mine, or the Lost Crossland mine—supposed to be located somewhere in this locality. Do you know anything about it, or do you know where I could get the information?

JOE BURK

Hauser Geode Beds . . .

Los Angeles, California

Dear Mr. Henderson:

I have read with interest the article entitled "Operation Rockhound" in the May issue of your magazine and would like to comment as follows: I was at the Hauser

geode beds the first of the month and found the locator, Ray Barfield, installed there, monuments, tent and gun. As I stated in a letter I wrote to Orlin J. Bell, president of the California Federation of Mineralogical societies, on this matter, Mr. Barfield does not object to the rockhounds digging at the beds but he says stay away from his glory hole.

He is developing what he says is a cinabar claim but he might as well have filed on a coal claim because what he is taking out is geodes and these he is taking out by the ton. He is also blasting and popping them and from the looks of his pile he will soon have enough busted geodes to pave the 20 miles out to the highway.

I also admire the active Blythe Mineralogical society and can not blame them for taking a safari of some 200 rockhounds into a field which is right at their door. They are introducing a lot of amateurs to a very interesting hobby but of course collecting on this scale will also help to exhaust these beds, limitless as they seem. I am singing a swan song which you may wish to publish but my thought is that

there should be conservation and not commercialism and the making of it a little hard to collect our rock specimens. We enjoy them more then.

S. G. BENEDICT

COLORADO RIVER FLOOD NOT UP TO NORMAL

Total annual inflow at Lake Mead will be 10,250,000 acre-feet, according to weather bureau water supply forecast issued as of April 1. This is 94 per cent of 25-year adjusted normal flow. Light precipitation during February and March resulted in slight downward revision of forecast. There is an expected runoff of 105 per cent of normal on upper Colorado, above Glenwood Springs, and 98 per cent of normal on Roaring Fork.

San Juan basin still shows most significant water shortage. Basin as a whole will have 63 per cent of normal flow, with only 35 per cent of normal in Los Pinos area. Total flow of the Gunnison at Grand Junction will be 83 per cent of normal, with Uncompahgre down 35 per cent. Dolores will be 20 per cent low, as will extreme upper reaches of the Green river. But at Green River, Utah, flow will be 10 to 15 per cent above normal.

Precipitation was only nine per cent of normal during March in Little Colorado basin, and it was deficient in San Juan and Dolores areas.

\$87,549,760.00!

This imposing amount represents the 1946 PRODUCTION AND VALUATION TOTAL of the area served by the IMPERIAL IRRIGATION DISTRICT in IMPERIAL COUNTY—

(Statistics compiled by B. A. Harrigan, County Agricultural Commissioner)

Included in this Record-Breaking Total are:

Field Crops	\$22,863,277.00
Fruits and Nuts	1,602,708.00
Vegetables	24,944,574.00
Truck Crops	15,828,484.00
Animal Industries	18,682,730.00
Miscellaneous Items	2,836,987.00
Seed and Cut Flowers	386,000.00
Soil Improvement Payments	405,000.00

\$87,549,760.00

Imperial Irrigation District's Water Distribution System which has over 3000 miles of canals and drains, serves the greatest Irrigated Empire in the entire Western Hemisphere.

The District's Power System with more than 1800 miles of Transmission and Distribution Lines, supplies Farms and Businesses with electricity in an area larger than some States . . .

IMPERIAL IRRIGATION DISTRICT — PUBLICLY OWNED AND OPERATED — IS THE LIFELINE OF IMPERIAL VALLEY

Imperial Irrigation District



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

QUIZ ANSWERS

Questions are on page 26

- 1—Winnemucca was a Paiute chief.
- 2—Kit Carson rounded up the Navajo.
- 3—Lew Wallace was governor of New Mexico.
- 4—Charles R. Rockwood dreamed of the reclamation of Imperial Valley.
- 5—Geronimo was a leader of the Apaches.
- 6—William Lewis Manly crossed Death Valley in '49.
- 7—Brigham Young led the Mormons to Utah.
- 8—Bill Williams was a famous Mountain Man.
- 9—W. H. Emory was with Kearny's Army of the West.
- 10—Major J. W. Powell was first to navigate Grand Canyon.
- 11—Chee Dodge was a leader of the Navajo.
- 12—Edward F. Beale brought the first camel caravan across the desert.
- 13—John Wetherill led the first white party to Rainbow bridge.
- 14—George Wharton James wrote *Wonders of the Colorado Desert*.
- 15—Palma was a friendly chief of the Yuma Indians.
- 16—Juan Bautista de Anza brought the first white colonists to California.
- 17—Lieut. Joseph C. Ives found the lower Colorado river navigable.
- 18—Jacob Hamblin was a Mormon missionary.
- 19—Father Kino founded missions in Pimeria Alta.
- 20—Adolph Bandelier was a famous archeologist.

GEMS AND MINERALS

ARTHUR L. EATON, Editor

SOUTHWEST SOCIETY SHOW DRAWS LARGE ATTENDANCE

Tenth annual exhibit of Southwest Mineralogical society, held April 5-6 in Palestine Masonic temple, Los Angeles, was attended by more than 800 people. First prize blue ribbon winners were: Mrs. Alwilda Dart, best crystal and grand award for best display; O. C. Barnes, lapidary craftsmanship, on onyx lamps and bowls; A. C. Gustafson, faceted stones; C. A. Terry, faceted quartz; Charles Cook, jewelry craftsmanship; Mrs. Ola Mortenson, tooled copper pictures; Dr. P. A. Foster, educational mineral display. Judges were: Mrs. Jessie Quane, silver work; Richard W. Mitchell, lapidary; Ernest W. Chapman, Victor Arciniega and Roy Cornell, minerals.

Ernest Chapman's mineral collection was exhibited, but not entered in competition. Dealers displaying were: R & B Artcraft, E. R. Hickey, Ellsworth Beach, W. S. Shirey and W. A. Felker of RX Laboratories. Fourteen prizes, donated by dealers and members, were awarded by drawing.

NATIONAL MINERAL CLUB FEDERATION PLANNED

Committee on organization of a national federation of mineral societies has sent questionnaires to all mineral clubs in United States and Canada. They wish to determine majority preferences and opinions concerning name of organization, time and place for conventions, what branches of earth sciences should be stressed, whether or not groups not affiliated regionally should be admitted.

Preliminary meeting is to be held June 13 in Salt Lake City by organizing committee headed by Richard M. Pearl and Ben Hur Wilson. Other members are Ernest W. Chapman, California, Alger R. Syme, Midwest, Junius J. Hayes, Rocky Mountain, and E. E. Walden, Northwest.

ROCKY MOUNTAIN FEDERATION INVITES SHOW GUESTS

Rocky Mountain Federation of Mineralogical societies invites all travelers to include Salt Lake City in their itineraries so they may attend federation convention there June 12-15. It is suggested that rockhounds take specimens to sell or trade, and that they join two-day field trip to Topaz mountain.

Those desiring commercial space reservations write A. M. Buranek, 1642 Browning avenue, Salt Lake City 5, Utah. For other information consult Professor Junius J. Hayes, 1148 E. 1st South street, Salt Lake City 2, or Mrs. C. W. Lockerbie, 223 W. 9th South street, Salt Lake City 4.

SANTA BARBARA CONVENTION EVENTS ARE LISTED

Members of Santa Barbara Mineralogical society, hosts to California Federation meeting May 23-25, are working hard to make convention outstanding in fine displays and entertainment for guests. Meetings will be at Museum of Natural History in Mission canyon. A bar-

becue will be held Saturday night with old Santa Barbara fiesta spirit typified by strolling musicians in Spanish costumes. Auction and dance will follow.

H. R. Benham is president of the host society; Mrs. F. G. Fleckser, 699 San Ysidro road, secretary; Jessie Brock, 334 E. Sola street, publicity chairman.

ROCK CLUB ORGANIZED AT EL PASO, TEXAS

L. G. Howle, publicity chairman, reports organization of El Paso Mineral and Gem society in El Paso, Texas. There were 29 charter members March 1, and at the end of the month 38 had joined. Officers are Col. A. S. Imell, president; Mrs. D. T. Harris, vice-president; Mrs. R. H. Miller, Rt. 42, Box 63, Ascarate Park, secretary; Mrs. B. R. Newell, treasurer. To date group has enjoyed several meetings and trips. J. Lewis Renton was guest speaker at one meeting and showed movies of his collection. Meetings are held second and fourth Fridays in members' homes.

Raymond and Royal Barfell, who are working a claim in the Hauser geode beds, welcome rockhounds to area. They ask only that visitors do not dig in their main pit. There are plenty of geodes for all—some 25 square miles of them—but if the visitor fails to dig up any good specimens the young men generously donate a few.

CLOSED DURING JULY and AUGUST

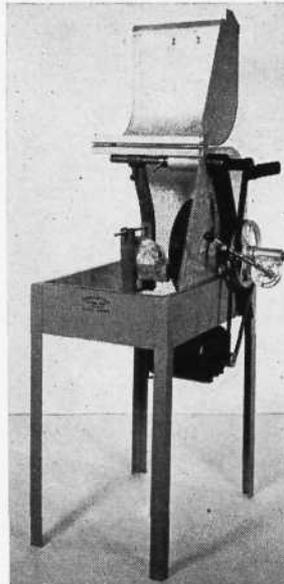
TO DROP IN TRADE — MAIL AND PHONE ORDERS WILL BE FILLED VERY PROMPTLY.

Open Again in September with Much New Material and Our Complete Stock of Minerals Will Again Be Available to Collectors.

TWO NEW ILLUSTRATED CATALOGS—

These are the same catalogs mentioned on the POSTCARD WE SENT TO YOU. If you did not receive one of these cards, write for them and we will put your name on our mailing list to receive notice of new 200 page catalog now being prepared.

COVINGTON LAPIDARY EQUIPMENT



14" POWER FEED SAW UNIT—

This saw permits use of full cutting depth of blade. Power feed so greatly increases cutting life of blade, that this is most economical saw unit made. We have personally used Covington equipment with complete satisfaction and we recommend it to you as the most dependable machinery for cutting stones. Many of these saws have been in use for 4 years and are still going strong. SUPPLIED COMPLETE WITH MOTOR.

MULTIFEATURE LAP UNIT—

Performs most types of lapidary work except sawing. Units operate at two speeds. There are grinding wheels, sanders, buffs, and sphere cutters which may be used on the same spindle. SUPPLIED COMPLETE WITH MOTOR.



JEWELRY TOOLS AND SILVER—

We stock all gauges of sterling silver sheet and all available types of fancy silver wires. NEW DETAILED PRICE LIST with bargain prices on LARGE GRINDING WHEELS sent on REQUEST. ALL MAKES OF LAPIDARY MACHINERY MAY BE SEEN AT OUR STORE. No need to shop. We are also So. Calif. Dist. for LAPIDARY EQUIPMENT CO. OF SEATTLE, makers of HILLQUIST SAWS, Gem DRILLS, etc.

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ADVERTISING RATE
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ROCK COLLECTORS—ATTENTION. This summer I expect to cover 7 Western states, with the Trailer Rock Store. Send me your address, so I can notify you. Remember, I carry the finest variety of rock and mineral specimens in the west. The Rockologist, 1152 So. 2nd Ave., Arcadia, Calif.

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

\$1.13 GETS YOU OFFER No. 1 postpaid, 10 nice little study specimens you will cherish, mostly minerals, and should you wish to return them after inspection I will refund \$1.38. (Offers No. 2 and No. 3 available same conditions.) E. R. Hickey, 2323 S. Hope St., Los Angeles 7.

30c GETS YOU LAUCK'S Prospectors Guide to the Identification of 185 Minerals you should know. No trip is complete without this easy to carry booklet. E. R. Hickey, 2323 So. Hope St., Los Angeles 7.

CASH PAID for bargain lots of small mineral specimens and polished pieces. E. R. Hickey, 2323 So. Hope St., Los Angeles 7.

FOR SALE: Semi-precious stones, cabochons and facet cut. Slabs of same on approval to responsible parties. State what you want. Colorado Gem Co., Bayfield, Colo.

PLUME AGATE—Gorgeous A-1 Red Plume in Clear Agate. Save 400%. Finish own stones. Very reasonable. Approval selection. L. E. Perry, 111 N. Chester St., Pasadena 4, Calif.

INDIAN RELICS, Curios, Coins, Minerals, Books, Old Buttons, Old Glass, Old West Photos, Weapons, Catalogue 5c. Lemley Antique Store, Osborne, Kansas.

MINERAL SETS—24 Colorful Minerals (identified) in 1x1 compartments—Postage paid, \$3.50. Prospector's Set of 50 Minerals (identified) in 1x1 compartments in cloth reinforced sturdy cartons. Postage paid \$5.75. Elliott's Gem Shop, 26 Jergins Arcade, Long Beach 2, Calif.

MINERAL SPECIMENS, slabs or material by the pound for cutting and polishing, RX Units, Felker Di-Met Saw Blades, Carborundum wheels, Cerium Oxide, Preform Cabochons, Indian jewelry, neck chains. Be sure and stop. A. L. Jarvis, Route 2, Box 350, Watsonville, California, 3 miles S. on State highway No. 1.

FOSSIL COLLECTORS ATTENTION: 10 beautiful fossil specimens all different \$2.00. 10 beautiful mineral specimens all different \$2.00. Postpaid. Satisfaction or refund. Bryant's Rockpile, R. 1, Alton Sta., Ky.

MINERAL SPECIMENS: Micro-mount and Thumb-nail sizes; write today for free list. J. E. Byron, Mining Engineer, 1240 Pearl Street, Boulder, Colorado.

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

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

MINERALS, GEMS, COINS, Bills, Old Glass, Books, Stamps, Fossils, Buttons, Dolls, Weapons, Miniatures, Indian Silver Rings and Bracelets. Also Mexican. Catalogue 5c. Cowboy Lemley, Las Cruces, New Mexico.

AUSTRALIAN FIRE OPALS—Large stocks of cut and polished doublets and solids. Small quantities rough cutting material as available. Shipment inquiries welcomed. Woodrow A. Oldfield, Cr. Whitehorse and Union Roads, Mont Albert, Victoria, Australia.

FIFTY MINERAL SPECIMENS, 3/4" or over, boxed, identified, described, mounted. Postpaid \$4.00. Old Prospector, Box 21A91, Dutch Flat, Calif.

BARGAIN NO. 10—One short wave M-11 Mineralight, \$27.50—12 tested fluorescent minerals \$12.00—Special \$35.50 postpaid. Thompson's Studio, 385 West Second Street, Pomona, Calif.

WANTED—Excellent crystallized or colorful minerals and fluorescents, wholesale. No road ballast, please. Send price and small sample. El Camino Gem Shop, P. O. Box D, Solana Beach, Calif.

AUSTRALIAN OPALS, gem stones, all sizes, shapes and qualities. Reasonable. Ace Lapidary Co., 92-32 Union Hall St., Jamaica 5, New York.

THE DESERT RATS NEST—All gems listed in the March issue still in stock and the following new arrivals, Australian faced opal, dark red and green colors, uncut rough red and green pinfire opal, from Coober Pedy field. New parcel of star sapphires, some fine stones, gray color only. Two great tourmaline matrix specimens, 2 and 3 pounds wt. My private collection, 800 pounds museum specimens. Rose green and bi-color Mesa Grande tourmalines, up to 1 1/2 in diameter. Finest in the west. In customs fine amethyst and citrine crystal points. Lots of specimens. Geo. W. Chambers, P. O. Box 1123, Encinitas, Calif. Home address: Contact Texaco filling station, on 101 and F Sts.

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

CHOICE CRYSTALLIZED Minerals. Beautiful polished slabs. Large assortment of cabochons in Petrified Picture Wood, Moss Agate, Obsidian, Jade, Chrysocolla, Tiger-Eye, Petrified Palm, Turquoise, etc. Wholesale and retail. Sliced cabochon material. Blank sterling silver mountings. Sterling jewelry made to order. Broken silver jewelry repaired. Lost or broken stones replaced. Stop in and visit our shop. Rainbow Gem Co., 546 W. Mission Dr., San Gabriel, Calif.

OPALITE—Banded, striated, mottled and solid colored. Only known deposit of excellent polishing opalite. Selections postpaid in California and Nevada \$2.00 lb. Discount to dealers. Write W. D. Edds, Luning, Nevada.

YOUR OPPORTUNITY: We have to move and are going to reduce our large stock of Nevada material. Assorted, agatized and opalized wood, agates, algae, jaspers, geodes, amygdaloids, etc., 5 lbs. \$2.00, 10 lbs. \$3.50, 25 lbs. \$7.00. Slabs from this material 10 sq. in. \$1.00. 50 sq. in. \$4.00, 100 sq. in. \$7.00. Assorted good specimen wood and lots of good cutting material, 10 lbs. \$2.50, 20 lbs. \$4.50, 40 lbs. \$8.00. Please include postage or we will ship express, charges collect, whichever you prefer. John L. James, Tonopah, Nevada.

MONTANA MOSS AGATE for sale in 25 lb. or over lots, at 25c per lb. This is not first grade, has been picked over, but worth the money at this price. Roy Rand, 551 Main St., Brawley, Calif.

ROUGH GEM PRICES SLASHED. I am taking a much needed vacation and will be out of the rock business for five months so stock up now. I have the following to offer now. 1.—Specimen Arizona petrified wood, 100 lbs. \$25.00. 2.—Gem picture, rich high color and rainbow Arizona petrified wood in mixed lots \$1.50 per pound, or 50 pounds \$50.00, half orders \$30.00. 3.—Gem picture, rich high color Arizona petrified wood, gem Arizona agate, jaspers and amethyst crystals, 50 pounds \$50.00, half orders \$30.00 or \$1.50 per pound, mixed orders only. 4.—Beautiful chips from Arizona agate, jaspers, and petrified wood, picture, high color and rainbow gem in mixed lots, \$1.00 per pound. 5.—Mixed sliced gem, two pounds for \$15.00. 6.—Little chips and broken slices of mixed gem, from the diamond saw, 50c per pound. 7.—Mine run Arizona moss and fern high color agate and jaspers \$2.00 per pound. 8.—Mine run Arizona petrified wood, picture or high color, \$1.50 per pound. 9.—Chunks or ends with one sawed surface Arizona agate, jaspers and petrified wood, picture and high color, in mixed lots, \$1.00 per pound. 10.—Amethyst crystals, \$5.00 per pound or two pounds \$9.00. Postage and express extra. Stock up now. After the first of May orders filled each 15 and 30 days. Chas. E. Hill, 2205 North 8th Street, Phoenix, Arizona.

FINE NEW MEXICO Gem Agate. Beautiful patterns, red and golden moss, rough \$1.00 per lb., sliced 15c sq. in. Carnelian, banded, rough \$2.00 lb., sliced 20c sq. in. Jasp. Moss Agate, assorted colors, rough 75c lb., sliced 10c sq. in. 1 small slab plume agate free with each order until June 15. When down this way stop and see our giant moss agate, weight 639 lbs. Curtis, The Agate Man, 645 1st St., Hermosa Beach, Calif.

NEW FIND of petrified wood, underground. Limb and trunk sections, some highly colored, 100 lbs. or less 75c per lb., over 100 lbs. 65c. New find of good Agate, banded, mottled, etc., in all colors, 100 lbs. or less \$1.00 per lb., over 100 lbs. 80c. Smoky Topaz (Obsidian), fine faceting material, good sized nodules \$1.50 per lb. Fine banded and mottled onyx for book ends and ash trays, etc., 30c per lb. in 5 lb. lots. Correspondence and visitors welcome. See us at the Bucking Horse Ranch, 9 miles south of Wickenburg, Arizona, on highways 60-70-89. Maricopa Gem and Mineral Mart, Box 1, Morristown, Ariz.

A NEW ONE in fluorescents, banded Calcite, white and black bands, fluoresces a beautiful pink and red. \$1.00 brings you a generous specimen of this material. Write for price list on other specimens and cutting material. Jack the Rockhound, P. O. Box 86, Carbondale, Colo.

STARDUST SPECIAL: A truly generous assortment of 10 sq. in. of selected and identified gemstones sized for grinding (ring-size blanks)—including Tiger Eye, choice imported and domestic agates, petrified wood, etc., prepaid and all for Two Dollars with order, plus your honest rockhound's opinion of its comparative value after receiving it. Stardust Gemhouse, Shangri La Road, Rt. 6, Box 1113D, Phoenix, Arizona.

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

RARE GEM AGATE: Special assortment of carnelian, rose banded, and plumed agate. 1 lb. \$5.00. Frank Duncan and Daughter, Box 63, Terlingua, Texas.

"HERKIMER DIAMONDS" Quartz crystal assortments \$1.50-\$2.50-\$5.00 and \$10.00 postpaid. Fluorite cleavage octahedrons, various colors, some fluorescent, 6 fine specimens 1/2" to 1" \$1.60; 12 extra size and quality \$3.50 postpaid. Franklin, N. J., collection 10 selected specimens (some fluorescent) about 2x2" \$4.00 postpaid. Gorgeous fluorescent collection, several localities, 10 specimens about 2x2" \$5.00 postpaid. When ordering state what kind of ultra violet equipment you have and we will select specimens best suited to same. Fine beryl crystals in matrix \$1.00 to \$3.00 postpaid. Calcite Iceland spar near optical quality, fine transparent specimens, 1 1/2x2" to 3x3" 75c to \$3.00 postpaid. Recently arrived excellent specimens of crystallized lepidolite, purpurite, cookite, uraninite, gummite, autunite, fluorite groups, kimolite in montmorillonite, columbite, prehnite (best ever), Molybdenite in green serpentine, chrysotile in green serpentine, eastonite, etc., etc. Particulars on request. Large quantity of small but excellent specimens for beginners and for educational purposes 1x1" to 1x1 1/2"—information on request. We have the best in ultra violet equipment, Wonderlite best low priced bulb on market \$2.60 postpaid. Mineralight, Gates Raymaster, Argon, Purple X, General Electric, etc. Satisfaction guaranteed or money refunded. H. Stillwell & Son, Rockville Centre, N. Y.

ADAMITE, Mexico, lovely and rare, \$1.50 to \$4.00. New York clear Selenite plates, very attractive. Missouri crystal lined Geodes, 25c to \$3.00 each. June Special: Oregon polished half thundereggs, 1 3/4x2" to 2x3" 35c; 50c; 75c; \$1.00. Postage extra. MaryAnn Kasey, Box 230, Prescott, Arizona.

BARGAIN ASSORTMENT No. 15—One slab tempskya fern, to make polished slab, or fine ring sets. One slab Brazilian rose quartz. One slab gem grade Texas moss agate. One slab rhodonite, best grade for lovely polished specimen, or fine ring sets. One slab moss jasper, Colorado. One slab fine banded onyx,

hard and fine grade. One half Chocolate mountain nodule, all ready to sand and polish. One Oregon beach agate to polish. One slab gem Arkansas novaculite. All slabs of good size. And all for \$3.00 plus postage on 4 pounds. West Coast Mineral Co., Post Office Box 331, La Habra, California. Shop location, 1400 Hacienda Blvd. (highway 39), La Habra Heights, California. Cutting material of all kinds and thousands of fine specimens.

American Girl mine in the Ogilby district is closed to collectors.

LAPIDARY WHEELS

The advertisement displays several types of lapidary wheels: a large diamond cut-off wheel, a diamond cup wheel, and several vitrified grinding wheels of different sizes. A cartoon illustration of a miner on a donkey is positioned in the lower right corner of the product display area.

STEEL CENTER DIAMOND CUT-OFF WHEELS unsurpassed for fast smooth cutting-off action on all gem materials.

DIAMOND CUP WHEELS excellent for general stone grinding, forming cabachons, and faceting extremely long life.

SPECIAL VITRIFIED GRINDING WHEELS cut fast and cool, offer better visibility while grinding less cracking of critical gems less glazing.

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10 LBS. JEWELRY

\$20

Mostly broken.

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Choice India Bloodstone — Aventurine —
Belgium Congo Malachite
Iris Agate Slabs — Petrified Woods — Brilliant colors, Patterns in Texas Agates
Crystallized Specimens from the Swiss Alps and other showy minerals

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MINERAL SETS . . . HIGH GRADE SPECIMENS

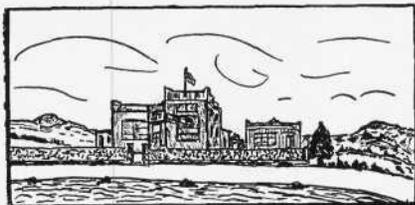
42 Metallic Minerals\$3.25
42 Non-Metallic Minerals 2.75
42 Rocks and Rock Silicates 2.50
126 Specimens—Complete Set 8.00

In compartment trays, hand labeled and identified as to ore, type and location. Assembled by engineer-pro prospector for practical study and field use.

Size Apprx. 1/2 inch — Postage Prepaid

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Gem materials, Cabinet Specimens, Cut Stones, Indian Jewelry, Mineral Books, Fluorescent Materials, Silver and Lapidary work to order.

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RX LABORATORY MACHINES . . .

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COVINGTON LAPIDARY ENGINEERS UNITS . . .

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EQUIPMENT FOR EVERY NEED, IN STOCK, FOR DELIVERY

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WORLDS MINERALS

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Oakland 12, California

AMONG THE ROCK HUNTERS

Minnesota Mineral club, Minneapolis, celebrated its first birthday March 8 with dinner and program at Curtis hotel. Leland Cooper talked on primitive man, artist in stone. He displayed several artifacts. Exhibition was staged April 13, 1-9 p. m. in Curtis hotel. Public was invited.

Sequoia Mineral society planned a box social April 1, proceeds to go into treasury. Sixty-three members went on March field trip to Park field area, first since before the war. They found some nice jasper.

George L. Green, instructor of geology at San Francisco junior college, talked on geodes, how they are formed and where to find them, at April meeting of recently organized Fallon Rock and Gem club. He also discussed wonderstones of that vicinity. Official field trips are scheduled for Sundays following first Tuesdays, regular meeting night. Geodes were hunted on first group field trip.

George R. Smith talked on petrified wood, its occurrence and process of petrification, at April 10 meeting of Coachella Valley Mineral society, Indio, California. It was voted to invite Banning and Blythe societies to join Coachella group in putting on a mineral show in the future. Society has enjoyed field trips to Wiley's Well, Hauser beds and Ogilby districts and planned a flower and rock trip through Borrego valley at height of wild flower season. Society has voted to join California federation.

Kenneth Garner talked on Old Faithful geyser and Dr. Wedgewood showed pictures of Yellowstone at April 1 meeting of Orange Belt Mineralogical society. This was last indoor meeting of society till next fall. Plans were completed for society's exhibit at Santa Barbara convention. Field trip April 19-20 took group to Trona district.

C. L. Mills talked at April 3 meeting of East Bay Mineral society, Oakland, California, on a trip through Canada and the eastern seaboard.

J. C. Nave, supervisor of Prescott national forest, was guest speaker at April meeting of Yavapai Gem and Mineral society, Prescott, Arizona. He supplemented his talk by colored motion pictures of wild life in the national forest. He stated that three-fourths of our forest land is privately owned and only one-fifth of that is operated on a reforestation program.

Mineral Minutes, bulletin of Colorado Mineral society, reports that a huge nugget of turquoise, claimed to be largest ever found, has been on display at Colorado state bureau of mines museum. It weighs nearly ten pounds, and was found by Horace King in the King mine near Manassa, Colorado.

Members of Imperial Valley Gem and Mineral society recently have found in northeastern Imperial county, not far from Hauser geode beds, small chalcidony formations of unusual interest. Many of these show good lines and bright colors and so are usable for cutting. Others, in process of formation, first have acquired the grape-like formation common to chalcidony, then the surface has been burned by the desert to almost rainbow iridescence. Then a second layer of clear chalcidony formed over the rainbow, giving a beautiful opal-like appearance. When the outer surface is polished carefully, these formations really resemble opals.

Guy B. Ellermeier talked on gems at March meeting of Colorado Mineral society. Scheduled speaker for April 4 was Dr. C. E. Dobbins, chief regional petroleum geologist U. S. geological survey. Topic, geologic evolution of Rocky mountain region.

STONES Exchanged For Gold Scrap

We will swap stones for old gold, broken or usable jewelry, dental gold, and gold filled pieces. Our stock of stones includes genuine, synthetic, and imitation stones removed from rings and jewelry. Write for free mailing containers and send us your articles in exchange for stones.

Satisfaction Guaranteed

B. LOWE

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ST. LOUIS 1, MO.

Smooth, rounded balls of chalcedony, found in any field of chalcedony roses, frequently have tempted the gem cutter to try polishing them. Results often have been very unsatisfactory. This is because they are cryptocrystalline, or formed of countless needles radiating from a common center. The heat of grinding causes them to fall to pieces.

Peter Zodac, editor of Rocks and Minerals, reports a new moss opal locality in Colorado on the Republican river, southern Yuma county, 20 miles north of Burlington.

S. Paul Lindau, sales representative of Western precipitation corporation, planned to show films of mining camp scenery at April 16 meeting of Searles Lake Gem and Mineral society. Modesto Leonardi was to give five-minute talk on April birthstone, diamond. Searles Lake group will be in charge of raffle and auction at convention of California Federation of Mineralogical societies at Santa Barbara May 23-25. Field trip led by Bill Lewis was scheduled April 26-27 to Pilot Knob bloodstone area. May program was to be home-talent; colored pictures of the '49er parade and of the Death Valley trip. The MacPhersons were scheduled hosts to group in June at their Homewood mountain retreat.

Missouri Valley Mineral club of Savannah, Missouri, has joined Midwest federation. Annual Midwest convention will be August 23-25, Detroit, Michigan.

Santa Monica Gemological society installed following officers at May 7 dinner meeting: Clarence H. Chittenden, president; Vern Cadieux, first vice-president; Professor W. R. B. Osterholt, second vice-president; Mrs. John C. Baur Jr., recording secretary; Mrs. Alexis J. Strong, corresponding secretary; James T. Curry Jr., treasurer; E. W. Allen, publicity chairman, 3779 Redwood avenue, Venice, California.

Member Roy Cornell talked on fluorite and its effect on our daily lives at April 11 dinner meeting of Pacific Mineral society, Los Angeles. April 19-20 field trip to district north of Ogilby was enjoyed by 13 members who were joined by a few members of Imperial Valley Gem and Mineral society.

SEATTLE CONVENTION MOVED TO CIVIC AUDITORIUM

Convention of Northwest Federation of Mineral societies at Seattle, August 30-31, will be held in Seattle civic auditorium instead of Masonic temple, according to Paul H. Soll, publicity chairman. Decision to change location was reached at April 15 meeting of Gem Collectors' club of Seattle, when requests for display space indicated that original location would not be adequate. Visitors will find ample parking facilities and other conveniences at the auditorium. Mr. Foss addressed the April meeting, relating experiences on a convoy to Honolulu during war.

Agates and Jewelry

Selected half sections of scenic and moss agate nodules, sanded but unpolished, 75c to \$1.50 each. Polished half sections, \$1.50, \$2.00 and \$2.50 each.

Montana Agate slabs for cabochons, 50c to 1.00 each or \$5.00 bundle for \$4.25.

Agate rings, Lavalleres, and Brooches for resale in one dozen and half dozen lots. Prices on approval selections on request.

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Agate and Mineral Display—Visitors Welcome

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SLABS . . .

Shattuckite—Exclusive Arizona Gemstone. Pure blue 50c sq. in. Mixed with red or green 35c sq. in.

Arizona Gem Pet. Wood—From Pet. Forest Area. Very colorful, 25c sq. in.

Arizona Desert Rose Agate—Red and White. Something different. 35c sq. in.

Oregon Plume Agate (Friday's)—Priced according to size and quality. Please state size and shape desired.

Prices include Luxury Tax and Postage Money Back Guarantee

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ATTENTION—STONE COLLECTORS . . .

3 lbs. broken jewelry containing enough stones to make this a rare value—\$10.

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TENACITY—Six typical specimens showing: brittleness, sectibility, malleability, ductability, tensile and crushing strength, flexibility and frangibility. Size—1"x1" plus, numbered—\$1.35.

CLEAVAGE—Showing cubic, octahedral, dodecahedral, rhombohedral, prismatic and basal. Six specimens, 1"x1" plus—\$1.80.

FRACTURE COLLECTION—Most important fractures, conchoidal, subconchoidal, uneven, hackly, splintery, and earthy-brittle. Six specimens, 1"x1" plus — \$1.00. Six specimens, 2 1/2 x 2 1/2 inches plus—\$3.00.

LUSTER—15 specimens illustrating kind and degree; labeled, in compartments, 1"x1" plus—\$2.30; Special, 2 1/2 x 2 1/2 inches plus—\$12.00.

CRYSTALLINE AGGREGATES — 30 specimens, loose, numbered, in compartments, 1 1/2 x 2 inches plus—\$5.00.

UNITED STATES ROCK COLLECTION—75 fine specimens: sedimentary, altered, igneous and metamorphic. Size 2x2 1/2 inches plus, loose, numbered, identified. Special at \$15.00.

THE PROSPECTOR—Guide for comparing minerals in the field. 50 selected specimens. A Special at \$4.00.

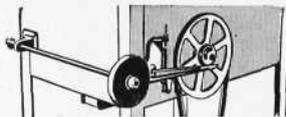
Handbook of Minerals with Collection of 50 Minerals or More.

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New HILLQUIST AUTO-FEED for HILLQUIST DIAMOND SAW UNIT—

No other power feed like it! (Pats. Pend.) Automatically adjusts cutting speed to hardness of rock. Foolproof. Gives faster, smoother cutting. Pays for itself by increasing life of saw blade. Fits all Hillquist saw units and many other makes . . . write for information. Only \$46.85 f. o. b. Hillquist 16" Saw Unit shown below complete with Auto-Feed, \$143.85.



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HILLQUIST TRIMMING SAW

The only trim saw with raising and lowering arbor and precision rock feed it will pay you to wait for it.

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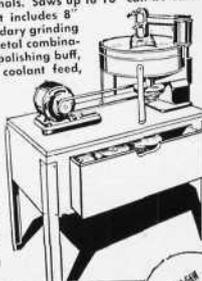
Change sanding cloth in 10 seconds! Special design (pat. pend.) locks cloth with a twist of the wrist! Used for both sanding and polishing. ALL METAL. Perfectly machined and balanced. Two sizes, 2" x 7" at \$5.00 and 3" x 7" at \$6.00 for 1/2", 3/8" or 3/4" arbor. State size. Ship. wgt., 4 lbs.

Hillquist FACETOR

Professional model. Fits any professional lap with simple adaptor socket or used with Hillquist LAP UNIT shown above. Cuts all types of faceted gems. The finest precision gem. Made at a price you can afford. Only \$29.00 f.o.b. Ship. Wgt., 5 lbs. Adaptor Socket \$2.00. Ship. Wgt., 2 lbs.

Hillquist LAPIDARY UNIT

DOES EVERYTHING: Sawing, Grinding, Sanding, Polishing, Lapping, Sphere Cutting and Faceting! More than 2,000 in use by amateurs and professionals. Saws up to 10" can be used. Standard Unit includes 8" saw, two lapidary grinding wheels, all-metal combination sander, polishing buff, rock clamp, coolant feed, belt and motor pulley, lapidary pliers, dapping wax, dap sticks, etc. \$110.00 f.o.b. without motor or stand. Crating, \$3. Ship. Wgt., 100 lbs.



Hillquist SAW UNIT

Years ahead of any other saw unit! Cuts rock up to 7" x 9" x 18". Quick-action clamp grips rock with hundreds of pounds pressure. Slabs up to 3" of rock before reclamping. Handles 12" to 16" blades. Removable sump. Pressure grease lubricated. Extra long babbit sleeve bearing. \$97.50 f.o.b. without blade or motor. Crating, \$3. Ship. Wt., 150 lbs.



Hillquist DIAMOND SAWS

Dollar for dollar, Hillquist Super-speed Diamond Saws give you more for your money because they last longer and cut faster. Order today and see for yourself.

Size	Shipping Weight	Now	Your Blade Recharged
7"	1 1/2	\$ 4.75	\$ 4.00
8"	1 1/2	\$ 5.75	\$ 4.75
10"	2	\$ 7.85	\$ 6.85
12"	2 1/2	\$ 9.50	\$ 8.25
14"	3	\$ 11.75	\$ 10.00
16"	4	\$ 13.50	\$ 11.50

Hillquist GEM DRILL

Drills finest holes and saws disks up to 2" diameter automatically. Exclusive ramrod action (pat. pend.) prevents core from plugging drill. Does half hour's work in ten minutes. Now you can make beads, buttons, earrings, bracelets, etc. \$68.80 with 4 drills f.o.b. Crating, \$1.00. Ship. wgt., 25 lbs. Button discs can be sawed in less than one minute by using pressure lever supplied with unit.



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BRAZILIAN Unique Specimens and Cutting Materials—Per GRAM—

Aquamarine, colorless and pink, 50c; blue, \$1.25; green, \$1.50; yellow, \$2.00.
Topaz, colorless, 15c; golden, 50c; blue, 75c; peach, \$2.00.
Tourmaline, all colors, 75c to \$1.25.

QUARTZ Amethyst, Grade A trimmed, average 2 1/2 grams, each\$4.00
Rose, deep color for faceting, per oz. 1.00
Smoky, deep, medium or light, per oz. .50
Optical, per oz. .75
Citrine, per oz. 4.50
Rutilated, per oz. 1.00

Or by the pound at 25% discount.

AGATES. All designs, colors and sizes at \$2.50 lb. or 30c sq. inch slabbed. Carnelian in thin slabs for cabs at 50c each slab.

BLACK "ONYX" PREFORMS, to fit standard rings, rounds, ovals, squares, etc., 30c each.

BLACK "ONYX" FINISHED: Sizes up to 13x18 at \$1.00 each. Above \$1.75 each.

MOSS AGATES, Tiger Eye or Bloodstone, finished ring mounts at 50c each.

Please include for Luxury Tax—
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We have expert Navajo Silversmiths making jewelry to order, wholesale and retail. Send us your cabochons for mounting. Everything entirely hand-made.

ART'S GEM SHOP

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THE INDIAN CAPITAL OF THE WORLD

Dr. J. Harlan Bretz, University of Chicago, was scheduled to speak at April 5 meeting of Marquette Geologists association on geological cave exploration. At March meeting members Scanlon, Putnam, Platte and Menzel gave talks on methods of polishing, essential equipment for home lapidary shop, minerals in pegmatite dykes and on cataloguing specimens. Poole displayed jewelry through courtesy of Ruth Mitchell, Henderson, Nevada, who is instructing disabled veterans in polishing and mounting Nevada gems. First field trip of season is planned to Bellevue agate region, leader Val Rutkowski.

Chicago Rocks and Minerals society has elected following: George C. Anderson, president; Ralph Beach, vice-president; Mrs. Marie Holtz, secretary; Emil Andresen, treasurer; Mrs. Lucille Sanger, curator; Mr. and Mrs. H. F. Grand-Girard, editors. Dr. J. Daniel Willem, amateur lapidary, was scheduled to lecture at April 12 meeting on story of gems illustrating his talk with kodachrome slides. Arthur Sanger contributes to April bulletin an article on iron ores and their formation.

Annual dinner and exhibit of East Bay Mineral society, Oakland, California, were planned for May 3. Silver plaques were to be awarded as first prizes for jewelry, facets, minerals, flats, and cabochons. Auction and grab bag were planned. At May 15 meeting Morrison of Lynde air products was scheduled to show movie on Elgin watches and to have two faceting machines for demonstration. Members were to make faceted stones, the finished gems to be given as door prizes. Picnic was planned at Elm Rock park, San Jose, April 29, all members to attend San Jose lapidary society exhibit.

Cogitations . . .

Of a Rockhound

By LOUISE EATON

Vacations is good for folks an they're good for rockhound societies too. After spendin several weeks without group meetins or field trips it shure is good to get together again an indulge in rok talk.

"Well," sez mama rockhoun, "we've waited a long time for this new car, an we're not goin on enny hard ruf rok trips with it—at least not till the new wears off." "Humph," sagaciously replies papa rockhoun. Then along cumz a fren with interstin specimens he's found in a new field. "But," sez he, "the road up there isn't too good. When yu cum to the sign over past Dry Wells that reads 'Road Closed' take the closed branch; go to where it sez 'Bridge Out—Detour,' don't detour. Pritty quick there's a 'Dangerous but Passable' notice. Jus go on about 5 and a half miles beyont that sign. Yu can get thru if yu're careful. Lots uv good rox in that districk." An who's the furst to say, "Cum on, lets go!" Ten to wun it's mama rockhoun.

Rock convenshuns never lasts long enuf. Yu simply can't see all the displays an hunt up peepul yu wantta meet in jus 2 or 3 days. Eggzibitors has to stay near their rox and is so busy that they don't evun know what the uther fella has. Therz so meny specimens that yu can't possibly comprehend all the beauty at wunst. An yu never gets to talk all yu wants to with yur frens. But a convenshun is mighty satisfyin while it lasts, an the memry picture lingers with yu for a long time.

GENUINE YAVAPAI ONYX . . .

Now Available in Any Quantities

Aside from the diamond and its kindred gems, there is no stone to which the romance of history clings so closely. It is mined in the mountains of Arizona and is justly celebrated for its wealth of gorgeous colors and markings. Under the hand of the master craftsman the exquisite tints of this beautiful Onyx are brought out in fullest detail, suggesting delicate flowers, rare old tapestries and the gleaming lights of priceless jewels. Prices in the rough. 50c per lb. up to 25 lb. lots. 40c per lb. up to 50 lb. lots. 25c per lb. up to 100 lb. lots. F.O.B. Mayer. Write for prices on larger quantities.

YAVAPAI ONYX, INC.

Mayer, Arizona

FIRE OPAL - MEXICO

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

ALL 5 LOTS POSTPAID—\$6.00

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

Money Cheerfully Refunded if Not Entirely Satisfactory.

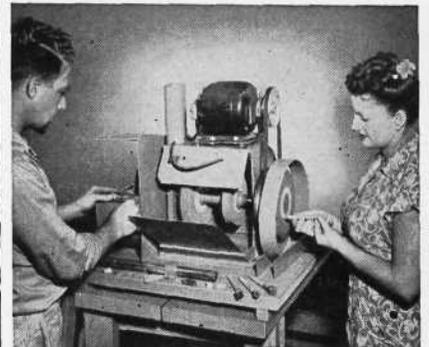
Polished Mexican Opals and other gem stone cabochons on approval to responsible persons.

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True running, and will last a life time.

12 inch saw.

The gem machine you have been waiting for.

Only seconds required to change from one operation to another.

Start with the best and you make no mistake.

See your lapidary dealer or write direct for Bulletin A.

RX LABORATORY

W. A. FELER

1143 Post Ave. Torrance, Calif.

Mining Congress of Southern California, San Bernardino, sponsored April 12 lecture on minerals of San Bernardino county and vicinity by Frederick Gros, instructor of geology and mineralogy at San Bernardino junior college.

Ethel and Wm. McNeil were in charge of jewelry display at April 16 meeting of Northern California Mineral society, San Francisco. Jewelry classes under direction of Cecil Iden are held weekly at 422 Belvedere street. Field trip was planned to Corral Hollow for gypsum crystals, petrified wood and fossils.

W. T. Harriman talked on adventures in gold mining at April 9 meeting of Long Beach Mineralogical society held in Belmont recreation center, 4104 Allin street, Long Beach, California. March field trip to Lavic, east of Barstow, was well attended.

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Kern County Mineral society, Bakersfield, California, announces following officers: Della Chenard, president; Henry A. Lane, vice-president; Mabel O'Neill, secretary-treasurer; Luther Godby, field scout, to be assisted by Hugh Stephens; Gilla Kennedy, curator; Kathleen Godby, hostess; Paul Van der Eike, federation director. Modesto Leonardi, federation treasurer, was speaker at April 14 meeting. He was accompanied by Clark Mills, president Searles Lake Gem and Mineral society. On March field trip to Mule canyon members met Montana rockhounds on the location.

Officers elected at March 18 meeting of Gem Collectors' club of Seattle were: Roy H. Allen, president; Robert Bradley, vice-president; Mrs. Beatrice Fowler, secretary; Pearl Moss, treasurer; Paul Soll, new member of board, with Tom Evans and G. I. Canfield continuing on the board. Ralph Gustafson, retiring president, was presented with a faceting head. Bob Bradley described the 3V Lapidary unit presented for convention raffle by Lapidary Equipment company. John Field discussed Crater Lake and other western scenic areas, and illustrated lecture with color photos.

Enthusiastic rockhounds have reactivated Mojave Mineralogical society, electing following officers: Vincent Morgan, president and federation director; C. H. Plopper, vice-president; Mignonette S. Morgan, Box 542, Boron, California, secretary-treasurer; A. J. Henderson, J. H. Harden, E. E. Stanley, Rena Wilkins, directors. First activity of new group was a field trip to Horse canyon April 12.

Mrs. Ella Arciniega illustrated a talk on crystal formation at April meeting of Los Angeles Mineralogical society, with models of the six main crystal formations. Her demonstration was climaxed with building of a chemical garden through dropping various chemical compounds into a mixture of water and water glass, the various chemicals breaking up and recrystallizing in the solution. Club planned a field trip to Barstow for April 27.

Juniors were scheduled to exhibit specimens at April 3 meeting of Mineralogical Society of Arizona. Bureau of mines picture on mineral resources of Arizona was to be shown. At April 19 meeting scores were to be announced on questionnaires in connection with series of lectures on what the rockhound wants to know. Ralph Proctor planned to talk on Arizona cacti, showing pictures in natural color. April 13 field trip was planned to Prince of Arizona mine for wulfenite, galena, desclozite, calcite.

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Faceteers, a branch of Los Angeles Lapidary society specializing in faceting, entertained society at regular April meeting held in Griffith park playground auditorium. Members displayed faceted stones and worked on gems in various stages of completion. Jewelry group or-

ganized in February was scheduled to entertain society at May 5 meeting. Esther Ports was to lecture on principles of art in relation to lapidary work and Jessie Quane on designing simple jewelry. Louis and Katherine Goss planned an old fashioned rockhound picnic at their home May 4.

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Dr. Richard Jahns, department of geological science, Cal Tech, was scheduled speaker at April meeting of Mineralogical Society of Southern California, Pasadena. He discussed Pala pegmatites, illustrating lecture with lantern slides. Appropriate specimens were displayed.

Isabel Mead is new publicity chairman for San Fernando Valley Mineral and Gem society. She reports that Edward Morris, engineer, gave an illustrated lecture on gold mining and refining at April 10 meeting. Club extended thanks to Dan Mamer for interesting programs the past year, to Charles Clark for lapidary instruction and to Joe Mikesell for mineralogy classes. April 12-13 field trip was to Mule canyon and Opal mountain. Annual exhibit dates were set for October 25-26.

Dr. Mildred J. Groesbeck of Porterville was guest speaker at April meeting of Pomona Valley Mineral club. She talked on cameo carving and stone sculpture, showing many beautiful specimens of her handiwork. Materials used included limestone from Death Valley, alabaster, purple fluorite, talc, granite and marble.

Librarian of East Bay Mineral society, is compiling a card file of mineral locations. Any member knowing an accessible location in the western states is requested to hand in a detailed map with specific directions on how to reach area. Material will be available to all members.

Norman Williams, professor at University of Utah and consultant for Brush beryllium company, talked on beryllium minerals and uses at April 1 meeting of Mineralogical Society of Utah, Salt Lake City. Beryllium specimens were displayed. Field trip April 19-20 was planned to Ice spring craters near Fillmore and Twin Peaks west of Kanosh.

San Geronio Mineral and Gem society of Banning, California, has spent profitable weekends in Barstow area, finding fossil bone and petrified wood.

Near foot of Mountain Springs grade, in Imperial county, California, south of highway 80, is a deposit of essonite garnets. Occasionally someone brings to light specimens showing many transparent yellow cubes, each one capable of producing a fine faceted gem of one carat or more. However, no one has bothered to locate the place exactly so that it remains very difficult to find.

MINERAL RARITIES
Cherry Opal

Dealers all over the west, from time to time, advertise for sale so-called "Cherry opals," often without knowing what real cherry opals are. The stones which they offer for sale as cherry opals are usually some shade of orange or brown and should be classed as honey or orange opals.

True cherry opals vary in color from light ruby red to the deep garnet color of rich port wine. A very few unite to the garnet red a streak of pale yellow. These stones are rare, beautiful and justly famous.

FOUR THOUSAND ATTEND SAN JOSE LAPIDARY SHOW

Four thousand visitors attended second annual gem exhibition of San Jose Lapidary society, April 19-20. Grand prize for best over-all exhibit in show, awarded by vote of society members, was won by Glenn Holmes who showed faceted stones, jewelry and flats.

Other prize winners, in first, second and third order were: cabochons, Russell S. Grube, Glenn Holmes, Raymond Addison; cabochons, under two years experience, B. E. Wright, C. R. Hitchcock; cameos, Raymond Addison; flats, A. M. Cook, Walter Reinhart, Arthur Maudens; jewelry, Mrs. O. E. Heller, C. R. Brooks, Mrs. Gertrude Pendleton; jewelry, under two years experience, Mrs. Russell S. Grube, Mrs. Walter Reinhart, Mrs. J. Robert Elder; novelties, Tom Rogers, Walter Reinhart, Frank Rodgers; Santa Clara county polished material, Herbert Stockton, Tom Rogers; faceted stones, Bruce Holmes, Glenn Holmes, Dr. W. H. Taylor; transparencies, Arthur Maudens, Walter Reinhart, Hal Reassall.

In addition to competitive exhibits, there were mineral, fluorescent and machinery displays. Machinery was in operation during most of the show.

Desert Magazine will be represented at the annual convention, California Federation of Mineral societies by Jack Frost, Banning rockhound and mineral dealer. Convention is being held May 23-25, in Museum of Natural History, Santa Barbara.

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AMATEUR GEM CUTTER

By **LELANDE QUICK**
Editor of The Lapidary Journal

It isn't often that the reply to a reader's inquiry about gem cutting would be of general value. Many inquirers, for instance, want to know the best polishing agent for petrified wood. I usually tell them to try tin oxide first on almost everything they polish, then see if cerium oxide improves it. If it does they should use cerium oxide thereafter on that material. Repeating such information would make dull articles.

If you have a practical idea, send it along for the benefit of others. When William Baxter found something better than cerium oxide he wrote about it. After getting what he thought was a fine polish on tiger eye with cerium oxide he tried chrome oxide when he was polishing jade (the best polishing agent for that material) and the tiger eye was greatly improved. People want to know where they can buy chrome oxide. A chemical dealer in San Francisco and Los Angeles supplies it. (Name furnished on request.) If you live elsewhere call your nearest chemical dealer if you cannot get it from your local lapidary supply dealers. Wholesale price is 70 cents a pound. For dealers the price is 28½ cents in 100 pound kegs and 26½ cents in 400 pound barrels. The announcement here about cerium oxide was followed by a wide demand for it. It is expected that chrome oxide also will come into general use and smart dealers should be prepared to meet the demand.

Here is a good example of a useful question. Sherman S. Shaffer of Baytown, Texas, writes—"I use a 16 inch diamond blade and have been having very good success with it sawing agate, jade, etc., using about equal parts of kerosene and lubricating oil (that's right!) and about 8 to 10 pounds of weight on the pulley (that's right!). Sawing small pieces was a problem and I decided to cut them in a mortar of Portland cement with no sand. This worked and I was proud of myself, sawing nice slabs from the end of my neat cement blocks until suddenly, after sawing about 100 inches, my blade quit cold. It looks as if the edge has been worn off. Do you think the cement had anything to do with it?"

I offer the following advice, given me by my good friend Billy Pitts of San Francisco. Imbed your specimens in a mortar composed of three parts Portland cement (no sand) and one part plaster of Paris. Save all boxes that come into your possession—match boxes, candy boxes, cigar boxes, small jewelry boxes, etc. Take a box of appropriate size and place the specimen in it. Pour mortar in the box until it is full. When it is dry pull the cardboard away and you have a perfect block which can be put into the saw vise and sawed to any thickness you desire. After you cut a slice break away the mortar and you have a slab of gem stone.

Sometimes the saws will bind because the material being sawed causes the steel in the wheel to close around the diamond bort. Best way to correct this is to leave material being sawed in position, lift the cover on your saw equipment and insert a long stick to which has been fastened crosswise a piece of regular carborundum dressing stick. Peep through any window arrangement you have on your equipment and see that you hold the dressing stick ahead of the specimen being sawed. Release the

specimen a little and start the saw. You will find that the dressing stick will wear away the metal and release the bort again and you can continue sawing without difficulty.

Everyone has a nub of a carborundum wheel around the shop or pieces of a broken wheel. Save these and when the saw blade gets dull insert a piece in the vise and carefully saw into it about an inch. This will bring out the diamond bort again and give you a new saw blade. After you have sawed into the carborundum do not pull the carriage back until the saw has stopped. Some people break in a new saw blade in this manner. Many persons saw through a building brick. Few present diamond saw blades need breaking in.

I have never regretted anything as much as suggesting attendance at the exhibition of Modern Jewelry Design at San Francisco. It was the most disappointing thing I ever have witnessed. It was sponsored by the Museum of Modern Art in New York, originally founded to exhibit unorthodox "art" that other museums declined to sponsor. This should have aroused my suspicion but I wasn't clicking. They had the leading jewelry makers in the country submit their work. From it a selection was made of the "best" pieces and a traveling exhibit sent around the country.

I visited the exhibit in high anticipation. I expected to see beautiful pieces of exquisitely designed jewelry, the ultimate in modern designing. It was the best in the country, the pick of our best craftsmen. I forgot that "modern" is a word misused for abstract, and that abstract art is not understood by almost 100 per cent of the population. Remember your visits to art museums where you saw paintings that you were sure were hung upside down, because they looked like nothing at all? You went away muttering "Why do they give houserom to such stuff? Who wastes his time at such futile pursuits?" The Modern Jewelry Design exhibit has done that to jewelry.

As I entered the exhibit I was entranced with a piece of "jewelry." It was a wire on which were strung several hundred safety pins, some of them painted blue. Another piece of unusual interest was a wire set with three pieces of "gem" material. The wire was looped around three pieces of broken glass—a two-inch piece of a red automobile tail light, another piece of blue Bromo Seltzer bottle and a nice green piece of pop bottle. The whole exhibit was in a similar vein. The only piece that approached sensible jewelry was a necklace set with tourmaline cabochons.

If any readers went to the exhibit on my recommendation I hope you will forgive me. I am indeed sorry that I suggested it. For years I have been preaching that the lapidary craft was an art. It is the oldest art of man. He was polishing stones and wearing them long before he had a written language, before he invented his first crude musical instrument or painted animals on the cave walls of France. I thought when this exhibit was announced as visiting art museums all over the country that other people were getting the idea too and the lapidary and jewelry crafts at last were being recognized by authorities as an authentic art form. They will be some day—but this wasn't the time.

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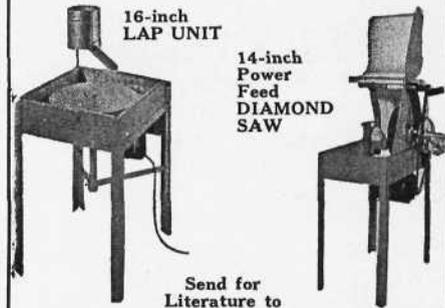
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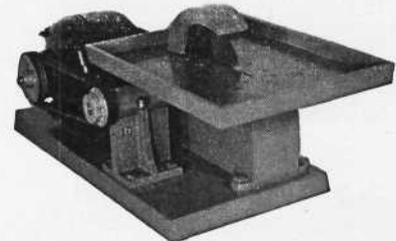
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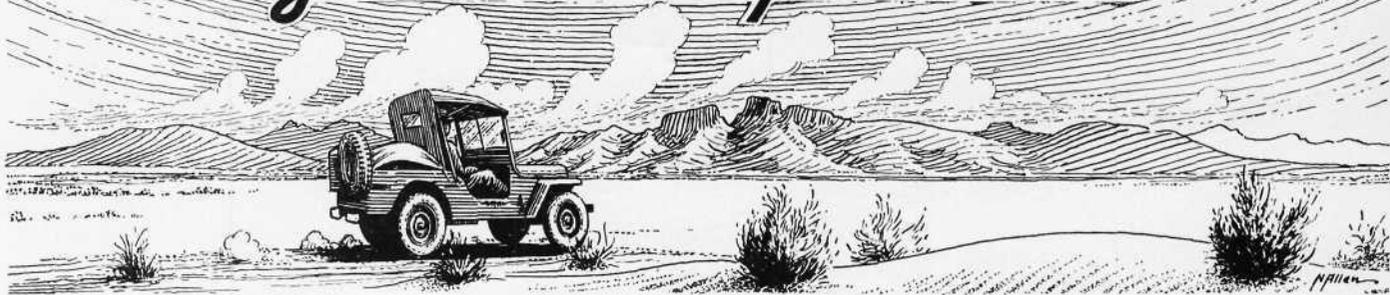


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Just Between You and Me



By RANDALL HENDERSON

A DESERT reader recently called my attention to an advertisement clipped from a midwestern newspaper in which desert land in Southern California was being offered in 2½-acre homesites at \$50 a tract.

The land in this case was pictured as an ideal desert homesite, only 15 minutes from a cool mountain retreat. It was implied that irrigation water would be available. Actually there is no immediate prospect for either water or good roads, and the mountains in the vicinity are very drab and without shade trees. The buyer's first investment would have to be a jeep or a couple of burros for transportation into the area.

This appears to be the revival of a racket stopped by the California division of real estate several years ago when large numbers of buyers were being victimized by similar offerings of land in "Paradise Valley."

Paradise valley, it should be explained, is a desert plateau lying between the Chocolate and Chuckawalla mountains in Riverside and Imperial counties. It is a lovely desert landscape—but without water or decent roads, and much of the land offered for sale was in terrain so rough as to be worthless for homesite purposes. A five-acre tract could be bought for \$50—but it would take \$2000 to level a homesite and build a passable road to it, and another \$5000 to develop water. By keeping the price at a modest \$50, the promoters were able to sell it in Los Angeles and other distant points sight-unseen. Prospective buyers who insisted on inspecting the land before buying, were eased out the door. Many hundreds of gullible Americans were taken in by this promotion before it was stopped.

The moral of all this is: Don't buy desert real estate without first looking it over. There are millions of acres of desert land which are not worth a dollar a section without water. And that is the reason it is desert land—it has no water, nor the possibility of obtaining any without the expenditure of a fortune.

* * *

But do not construe the above remarks as having any bearing on the 5-acre "jackrabbit homesteads" Uncle Sam is offering. The difference is that the U. S. Land office and all the printed circulars pertaining to the 5-acre law urge you to look at the land before you file on a location. They tell you frankly it has no water, and no possible value for purposes of a livelihood. The lease costs \$5.00 a year—and if you change your mind after a few months, you are under no obligation to continue the payments.

Recently I visited a section where some of the 5-acre homesteaders were working on their claims. They were mostly city dwellers who had come out for the weekend to build roads and level their cabinsites. They were making a grand picnic of it,

swinging picks and shovels and prying boulders out of the way. Probably there were some blistered hands and sore muscles the next day—but it was worth it. Those folks get their five dollars' worth every weekend, whether they ever get the cabin built or not. It is good for humans to work with their hands.

I know one homesteader who spent many weekends erecting a cozy shelter on the topmost rock of his claim. Then a desert twister came along and tossed the whole thing over in the nearest canyon. Next time I saw him he was grinning—"I've changed my plans," he said. "I'm going to have a cave instead of a cabin—with a little miner's dump car for transportation in and out of the tunnel."

* * *

Warm days have come to the desert. The summer sun is beating down on the barren landscape, and heat waves simmer on the dunes and playas. The waterholes which depend on the storms for their replenishment are drying up. This is the season when cautious travelers keep to the main traveled roads and carry extra water with them.

For a few months the rockhound will put away his hammer or turn to other fields in his quest for specimens. The prospector will move to higher altitudes. The artist, the photographer, the hiker, will seek cooler landscapes for their work and play. Even the little animals of the desert will keep to the shade during the long sunlit hours.

Undisturbed by inquisitive and acquisitive humans, Mother Nature will do her annual job of house-cleaning. The winds will sketch new ripple-patterns in the dunes. Storm waters will sweep away the tracks in the sandy arroyos. The purifying rays of the sun will disinfect the haunts where humans have loitered. Dust-devils will scatter the debris that has been cast along the trails by thoughtless visitors.

And when cooler temperatures come again and the desert beckons those who find solace in its sun and sand and solitude, the mesas and canyons will be clean and fresh and unscarred.

Thus does the desert cleanse and renew itself once each year that you and I may find here peace and beauty, and escape from trivial things. Everett Ruess once wrote:

"The perfection of this place (War God Springs, Navajo mountain, Arizona) is one reason why I distrust ever returning to the cities. Here I wander in beauty and perfection. There one walks in the midst of ugliness and mistakes.

"All is made for man but where can one find surroundings to match one's ideals and imaginings? It is possible to live and dream in ugly, ill-fitting places, but how much better to be where all is beautiful and unscarred."



STORY OF COCHISE IS RETOLD IN IMPORTANT NEW NOVEL

Cochise, chief of the Chiricahua Apaches, saw Americans pour into southern Arizona. He learned that through something called the Gadsden Purchase, Mexicans had sold to the Americans land which never belonged to them—land upon which the Chiricahuas had lived for generations. The young men wanted to fight the invaders, as Mangas Coloradas and his Mimbres Apaches were fighting. But Cochise, who had warred endlessly with the Mexicans, saw something different in the Americans. He felt their strength; he knew that the Chiricahuas must make peace with them or perish.

BLOOD BROTHER by Elliott Arnold is a historical novel. Primarily it is the story of the great years of Cochise's life and of his bitterly disappointing struggle to bring peace and understanding between his people and the whites. It is also the story of Tom Jeffords, an American who believed in Cochise, who worked with him to end the bloody conflict, and who finally became his blood brother.

BLOOD BROTHER is a vivid, realistic retelling of Apache warfare in southern Arizona, a recreation of hatreds and evils of the period. Elliott Arnold is outraged at the treatment the Americans awarded Cochise, and his anger makes good reading. But his fierce partizanship at times reminds one of J. Fenimore Cooper's noble redmen—too perfect to be quite real. And the beauty of Jefford's Apache wife and the cleanliness and perfection of Apache community life are sometimes at variance with the pictures which other observers have left.

But these are minor criticisms of an important contribution to Southwestern literature. He has done a monumental job, and the fact that Arizona historian Frank C. Lockwood praises the book is a guarantee of its authenticity. **BLOOD BROTHER** is extremely well written, and it is exciting reading.

Duell, Sloan and Pearce, New York, 1947. 558 pps. \$3.00.

MEXICAN USAGE EXPLAINED FOR STUDENTS OF SPANISH

MEXICAN SPANISH, by George C. Storz, a pamphlet now in its second edition was published, according to the author, to bring to the student of Spanish an understanding of the speech of Mexico. The booklet might be useful, as a sort of dictionary of slang terms and local usages, to

those who have a good knowledge of Spanish grammar and pronunciation and who plan trips below the border. To those without such a Spanish background it would be of limited value. There is an interesting foreword, dealing with English intrusions in Mexican language, phonetic changes, accents, time-telling and other matters not dealt with in general studies of the language.

Published by Publicaciones Fronterizas, 735 Bank of America building, San Diego, California, 1946. 64 pps. 50 cents.

PAIUTE INDIAN LEGENDS RETOLD WITH CHARM

Indian legends are meant to be told, not written. That is why the Paiutes of Cedar City, Utah, made William R. Palmer pledge that he would never "make a book" of the stories which they told him. They had learned that cold print made traditions which were sacred to them seem foolish and laughable to white men. But they did permit Palmer to tell the stories to children in schools and boys at Scout encampments. The Indians who heard Palmer tell the stories found that the reactions of the listeners were good and that the stories made friends for them. They released him from his pledge.

And Palmer published **PAHUTE INDIAN LEGENDS**. Since the stories have been told many times and have been written just as they were told, one feels that he is hearing the legends rather than reading them. The simplicity of language and vividness of imagery make the book fas-

cinating to young and old. It is great folk lore, and should rank with the classic tales of all ages and all races. And it probably is the truest picture of Indian legendry yet published, because the author approached his subject in friendliness and good faith without either a coldly objective viewpoint or a smirking superiority.

It would be futile to attempt to reduce the charm of the volume to a few lines or paragraphs. We learn how the flowers got their colors, how the packrat got his patches, why the sun rises cautiously, why the moon changes and why rocks cannot travel. There is a total of 26 legends in the small book, and all of them are good.

The Paiutes of Cedar City felt that they owed a debt to William R. Palmer for his work, as a representative of the Mormon church, in obtaining better homes and farming land for them. They took him into the tribe and told him their legends and traditions. Now we owe a debt to Palmer for the manner in which he has preserved and presented those legends.

Deseret Book company, Salt Lake City, Utah. 136 pps., glossary of Paiute words, illustrations. \$1.75.

Tales of a Triumphant People was selected from 150 entries as the title of a book of pioneer history to be published by Salt Lake county branch of the Daughters of Utah Pioneers. Book will include ten original maps of the early Salt Lake valley which will be bound into the volume.

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SONORA SKETCH BOOK

By JOHN W. HILTON

with crayon sketches by the author

Everywhere he goes, John Hilton finds human drama—and this is especially true on his frequent trips into the primitive desert country that lies just below the Arizona border in Sonora. In *Sonora Sketch Book* he brings to the reader fascinating reports of the people he has met—the general who gave them a lift when the tires blew out, the book-seller who could not read, the beggar who smelled like violets, and scores of others.

Hilton tells of his expeditions to the wild Yaqui country, visits to ghost mining towns, and his collecting experiences as a semi-professional scientist. But mostly the book is about the people—all kinds of people—for whom he has a great affection.

\$5.00 Postpaid

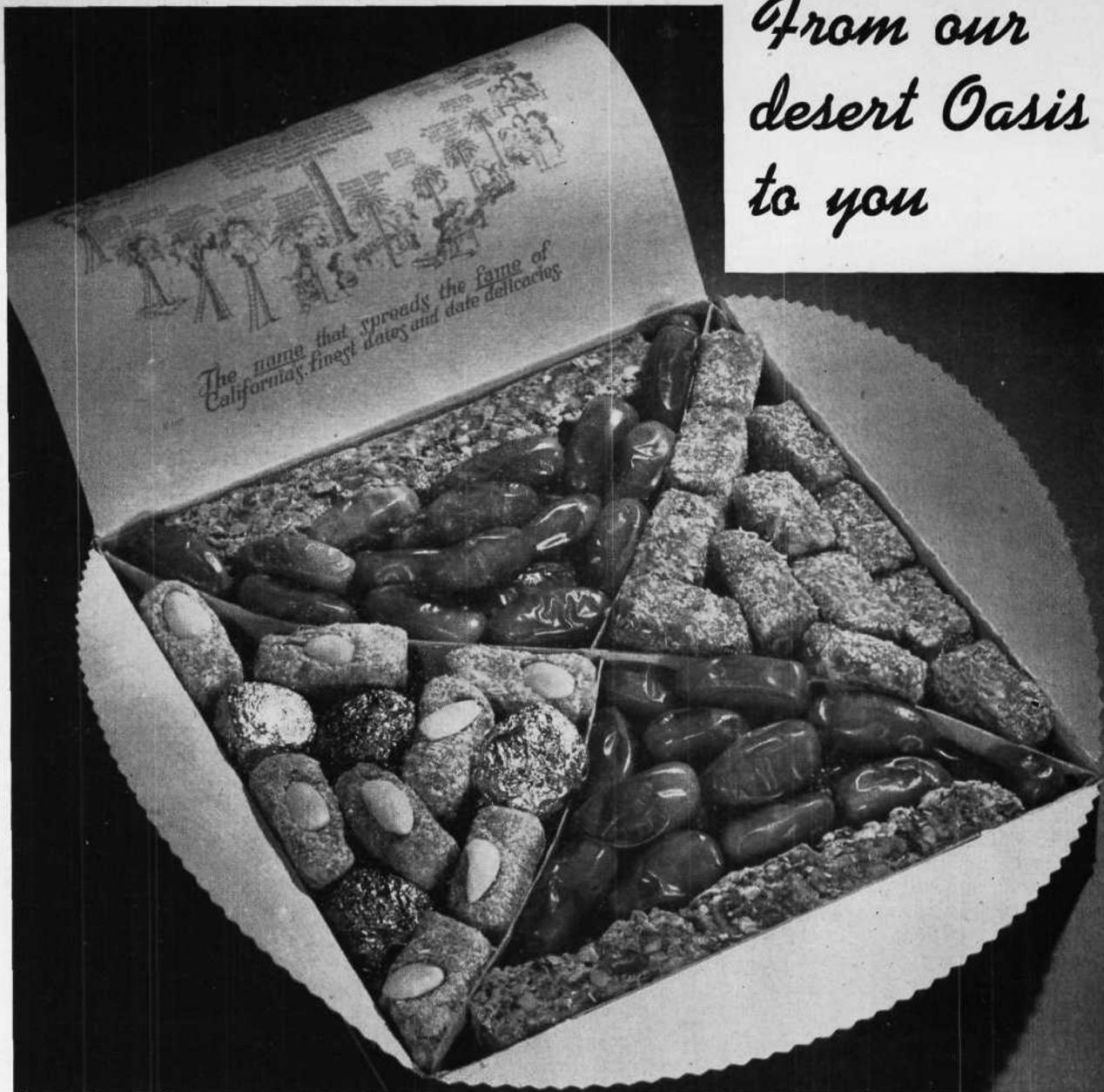
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For descriptive folder of other packs from the Valerie Jean shop, just drop us a card.

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