

THE

Desert

M A G A Z I N E



JUNE, 1946

25 CENTS



—Photo by G. E. Barrett.

SUMMER DAY

By HELEN L. VOGEL
Mecca, California

All heaven's bright and turquoise blue;
No matrix cloud bewisps the skies,
And from that dome of blatant hue
The sun grasps earth with molten ties.

The sands are shimmering as the sea;
The day stands still expectantly.
No place for else but heat to be.
Naught else but heat eternally.

A brilliance presses down to hold
The earth upthrust to that embrace
And searing though it is and bold
The land still lifts an eager face.

No breeze bestirs the mounded sand
Or tips a frond of sun-glazed palm.
No sound of life awakes the land
Bedazed by sun to drug-steeped calm.

SUNSET

By ZENA HENDERSON
Phoenix, Arizona

Panting, the desert lies beneath the sun
The day, declining to the west has almost run
Its scorching sands into a sunset glow
That gilds the breathless land below.
Soon slips the sun behind the reddened hills.
Soon all the heat that fills
The grasping land will die
In fluttering banners through the sky.
Soon gracious curtains of descending night
Will filter out the glare and light
And all the desert into dreams will creep
And soon the restless desert land will sleep.

DESERT RETURN

By S/Sgt. MARCUS Z. LYTLE
Montrose, California

Amargosa, make your bitter waters sweet!
Flowers of Panamint, you have not hoped
in vain,
Though you and I have waited years to feel
The resurrecting potency of rain!

Wind of Muroc, toss the cottonwoods,
Move their leaves in strange and joyous
song!

A train is slowing on the moonlit track,
The music I have waited for so long!

MEXICAN SALES-CHILD

By BLANCHE M. IRVING
Las Cruces, New Mexico

She came to my door one evening at dusk,
Her eyes the shade of approaching night,
And stood in the aura of golden musk
That is core of the desert's deep twilight.

"Blue Waltz" she called it, with swift, nervous
speech,
Her trembling braids were vocal with fear,
She extended her box within my reach
As I opened the screen and she ventured near.

I bought her bottle of fluid gold,
She was small and thin, not over thirteen,
Her smile made dramas of Spain unfold,
Released on a whiff of cheap brilliantine!

A PLACE APART

By RAY WILSON
Monterey Park, California

O Master, let me walk with Thee
Into a place where I'll be free.
A place apart where I may know
No man-made houses row on row
Where caged in humans come and go
Nor leisure for the soul to grow.

O Master, let me rest a while
And help me as I reconcile
My tired soul to thoughts of Thee.
On sandy floor from bended knee
I humbly raise my thanks to Thee
For this place apart, the Desert, free.

THE GREATEST TEAM

By R. G. BEIDLEMAN
Colorado Springs, Colorado

The ants and the stars,
The lowly and the high.
Man can fathom neither,
The anthill nor the sky.

So prolific are their numbers,
So amazing are their ways,
Entomologists, astronomers propound,
But in a daze.
Man aspires to intellectual heights
And gloats to reign supreme;
But it's still the ants, the stars, and God
That make the greatest team!

Voice of the Desert

By CECILE BONHAM
Glendale, California

I am the desert; I possess the key
To that eternal vault of legendry
Where lie the fierce adventurers of old;
My Joseph's coat is shot with yellow gold
And stained with red from jagged wounds I
bear;
My yucca hides a dagger in her hair.

But I have softer moments when my sage
Is strong with rustling of a vanished age;
When swift forays of sand are quieted
And dusk lies heavy-lidded on my bed;
Then twilight combs her ultra-colored mane
And spills the fragments on my counterpane.

In such a mood my memories lift and whirl
On unseen wings; the cautious captives stir,
And feathered braves in war-paint top the hill
To dance among the tokens of their skill.
I am the desert, silent and alone,
But ah, the golden days that I have known.

GHOST TOWN

By MURRAY SKINNER
Los Angeles, California

Forgotten by the trail this ghostly town
Rears broken chimneys, glassless windows, walls
Disintegrating under desert's brown
Onslaught of sand. Each crumbling bit which
falls

Is like a portion of a human life
Destroyed by sapping fears and crude mistakes,
And every shattered window is a knife
Driven to hilt in dreams which slow-time breaks.

But desert's fingers reach across worn sills,
And desert feet slip through the silent streets,
While cholla roots in corners, and sage spills
Its fragrance on the desert wind that eats
In endless gluttony on homes which man
Deserted when the desert foiled his plan.

DESERT CANTEEN

By NELL MURBARGER
Costa Mesa, California

You may choose to drink from a mountain lake
That is born of the virgin snow;
Or cool your lips in a laughing brook
Where the sky-blue violets grow.
You may sip, if you like, from a tinkling glass
Or drink of the fountain's sheen . . .
But the grandest nectar of all is found
In a rusty, old canteen.

It's likely not of the purest sort,
And it may be reddened with rust—
But it comes as Life to the thirsty lips
That are parched by the desert dust.
There's many a way of quenching a thirst
(And some of the best, I've seen);
But the finest drinks that I ever had
Came out of an old canteen.

CREED OF THE DESERT

By JUNE LEMERT PAXTON
Yucca Valley, California

Deep silence is stirred by the desert
breeze,
And warmed by the sun's embrace;
The peace and solace everywhere found
Are a gift of the Father's grace.

DESERT Close-Ups

• Chuck Abbott, more of whose photographs DESERT readers will be seeing on our covers, says, "I suppose you might say that photography just crept up on me. While at Desert Inn, Palm Springs, I 'snapped' pictures of the guests while on picnics, etc. and one day Mrs. Coffman put a Graflex in my lap and that was the beginning of it all." After three years of publicity and pictorial photography at Palm Springs, he went to Tucson, Arizona, where for the past five years he has been official state photographer for Arizona Highways magazine and for Tucson Sunshine Climate club — and sometime farmer. Although his camera work has won him acclaim he says his wife Esther Henderson is top photographer in the Abbott household.

• What is happening to one of the country's biggest wartime plants is told in this issue by John Hilton whose story, "Joe Returns to his Job on the Desert," is an up to date report on reconversion of Basic Magnesium, Incorporated, near Las Vegas, Nevada. In the June, 1944, issue of DESERT ("Miracle Metal From Nevada Hills") Leland Quick gave a vivid picture of the wartime production of the plant which furnished one fourth the magnesium used by all the Allies in incendiary bombs—a dark contrast to the shining cooking utensils, artificial limbs and other products now being turned out for rehabilitation of a world at peace.

DESERT CALENDAR

- Jun. 1-2—Rand District Old Timers reunion, Randsburg, California.
 Jun. 1-28—Fifth annual exhibition Los Angeles lapidary society, main art gallery Los Angeles Museum, Exposition Park. Daily free admission. Show opened May 4.
 Jun. 2—Horse and stock show, Victorville, California. Champion contestants, Cowboys Association of America.
 Jun. 14-16—Annual Cherry Harvest festival, Beaumont, California.
 Jun. 14-16—Annual convention and exhibition, California Federation of Mineralogical societies, Glendale civic auditorium, 1401 N. Verdugo road. Information, Mrs. Lillie Rhorer, 581 Summit avenue, Pasadena 3, California, of Mineralogical Society of Southern California, host club.
 Jun. 15—Air derby, Montebello, California, to Las Vegas, Nevada. Non-professional pilots, 150 private planes. Information: Ted Crouch, secretary Montebello chamber of commerce.

FISHING SEASONS

- Arizona—Trout—May 30-September 30.
 California—Trout — May 1-October 31 (Golden trout—July 1-Sept. 30).
 New Mexico—Trout (general) — May 15-November 21.



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Members of the Polacca family at First Mesa. In the background the truck waiting to transport some of the younger tribesmen to their new homes on the Colorado.

Hopi Trek to the Land of "Big Water"

Last September, 24 Hopi Indian families from the barren mesas in northern Arizona were moved to fertile valley lands along the Colorado river near Parker to establish new homes—the first step in what may become a far-reaching colonization of Hopi and other tribesmen on the Colorado river reservation. Desert asked Dama Langley, author of the book *Hopi Girl* and long-time friend of the tribe, to visit the new colony and report on the success of the venture. And here is Mrs. Langley's story of one of the most significant projects in the history of western tribesmen.

By DAMA LANGLEY

Photos by Jack Snow and U. S. Indian Service

"**Y**OU ARE a black goat leading our people to destruction!"

The aged chief shook his finger in the face of the steadfast young man he was denouncing, and his features were malevolent with rage.

Walpi's plaza was crowded with Hopi men, women and children, just as it has been at Snake Dance time for more centuries than white men have been in America. But this was not a ceremonial gathering—it was too tense and anxious.

"For hundreds of years this has been the land of the Hopi

people," the old chief continued. "We have lived here under the protection of our Katchinas." He pointed dramatically toward the snow-capped San Francisco peaks where Hopi gods are supposed to dwell. "Our shrines are here. From here our Gone Aways have taken the path to the Place of Souls." This time he waved toward the distant Grand Canyon, harbor of Hopi spirits. "Here are our homes, homes of our fathers and their fathers before them. On these mesas we have stood firm against Ute, Apache and Navajo raiders. We've faced and triumphed over the Spanish soldiers and their accursed priests. What if there have been seasons without rain? What if there have been winters whose snows have buried the feed and killed our flocks? These things come to all peoples and all places, yet only weaklings leave the land of their own gods and go among strangers. I tell you, Tom Preston, you are bringing bad trouble to our tribe."

Many months of turmoil and confusion had torn the Hopi Indians into angry factions. The issue which must be met and decided had to do with whether or not a group of Hopis should leave their arid desert land in northern Arizona and accept the land offered to them by the Colorado River Indians on their fertile reservation watered by irrigation from the Colorado near Parker, Arizona. Tempers flared and voices were raised in anger wherever a crowd collected. From the underground kivas came the constant rise and fall of oratory as the clan members argued, threatened, cajoled and discussed the pros and cons of

the migration plan. Wherever the women met to mold and burn and paint their clay pottery, quarrels developed. The corn grindings and basket weavings were no longer a soul satisfying exchange of neighborhood gossip. They were feminine battlegrounds.

It takes rare courage to break the ties of tribal tradition and custom, and there is no Indian tribe more communalized and immured in ritual than the Hopis. The tribe, numbering less than three thousand, has lived for centuries on its rocky mesas overlooking the purple desert six to seven thousand feet above sea level. On the three points of the great mesa, nine villages perch, and are so weather-beaten and ancient they seem a part of the native cliffs. Some of these villages have hundreds of rooms in a single pueblo, and were inhabited before Christopher Columbus developed wanderlust. Throughout the ages the Hopi Snake dance, that strange macabre ceremony in which the Indians crow-step around the plaza with dangling rattlesnakes between their lips, has been held in honor of the water gods, and the interest it has created has brought worldwide attention to the tribesmen. Wherever Hopis may be when Snake Dance time comes in August, they take the homeward trail to add their homage. The very fact that such a pagan ceremony could survive tells the story of Hopi tenacity. No wonder the Snake chief denounced Tom Preston for his efforts to found a colony away from the realm of Snake Dancers. But each day Tom was adding new names to the roll of colonizers.

Years before, the subject of moving the Hopi tribe to a more productive land had arisen, but at that time the old chief's hold over his people had been too strong and the plan was abandoned. Now that war was ended and scores of young men and women who had served either in the armed forces or in war production plants were ready to pick up the threads of peace-time living, they looked around their home land and found nothing there to hold them. It was this restless younger faction which accepted the Mojave invitation to visit the western Arizona reservation and listen to the Mojave proposition. Otto Lomavitu, a Third Mesa orator brought back such a glowing report of the opportunities there for them, he swept away their hesitations. He returned late in the day, and when the moon was high the Hopis gathered to hear him:

"We must make this move for the sake of our children and their future destinies. But we also make it to benefit our loved ones we leave behind. When we leave there will be more land for you to farm, more water in the slow filling springs. With our 470 head of cattle gone from your range your flocks will have better grazing. This is not an easy thing to do, this leaving of the land of our fathers. We will have many heartaches and lonely hours when we remember our shrines and our old homes. But by going there and making a success of our farming we can share food with you in time of famine, and we can be an example to other Indian peoples who cling to wornout ways and places. We can show the government that the Indian needs neither charity nor sympathy—merely an equal chance with white men to live and work and raise our children to be good citizens."

The day of moving came. While an eagle wheeled in silent majesty above the ancient villages, and the people who were staying behind lined up on housetops and mesa edge to watch, the caravan began its slow winding journey across the desert flat and disappeared in the juniper covered hills. The trucks were filled with household goods and with the flinty varicolored ears of corn and sacks of dried peaches from storage rooms. Their cattle were to be trucked to the grazing grounds provided for them in the new location . . .

From my home in the east I kept touch with events among the Hopis. They always have been my favorite Indian tribesmen. For more than 20 years their homes were open to me, and their troubles and triumphs came to me in quaintly phrased letters when I no longer found it possible to visit them in person.



Gladys Perez with Tommy and Dolores at their new home. Their daddy was still in the army when this picture was taken.

Nothing could have given me greater happiness than the letter I had from Desert Magazine suggesting that I visit the Hopi colony in their new home. Before I left Chicago I went to the Office of Indian Affairs. Dr. Willard Beatty gave me the comprehensive story of the move, and events leading up to it. He consistently denied any credit for the successful settling of details, but to him, and Superintendent Gensler of the Colorado River Indian tribes, and Burton Ladd, superintendent of the Hopis, goes the credit for successfully carrying out the plan.

"Why was this land never available for colonization before now?" I asked Dr. Beatty.

"Briefly the story is this: In 1863 when the big reservation was created it was 'for the benefit of the Colorado Indians and those living on its tributaries.' Less than a thousand Mojaves make their homes there and they cannot possibly use more than a fraction of it. To reclaim and irrigate the entire reservation would cost millions, and the money was never available. Because of bad behavior 600 Hualpais were transported there in 1874 by military authorities. They had always lived in the cool high region of the Grand Canyon's rim, and they were not well or happy in that low hot country. Many of them sickened and died there. Others ran away, but several of them tried very hard to make good. They cut wild hay and sold it to the army, and saved some money which they planned to invest in horses and cattle. However, at the end of two years they were allowed to return to their native reservation among the Peacock and Music mountains. That was the last time colonization was tried until now.

"When it became necessary to find places for Japanese relocation camps, the War Relocation board selected a portion of the Colorado River reservation and built three groups of barracks there. At one time almost 18,000 Japanese-Americans lived there and farmed that fertile valley. The land was to be cleared and leveled and irrigated and left in good condition together with any improvements made on it, in exchange for its use. While there the Japanese cleared 3200 acres and placed 2500 of it under irrigation by building 17 miles of main canal, 25 miles of distribution laterals, 28 miles of farm ditches and an 18-mile drainage ditch, necessary to prevent the rising of alkali. They built an excellent school building, fine cattle pens and a slaughter house, good poultry plants and although the barracks erected for them were temporary buildings, they were surrounded by fine young shade trees and beautifully kept flower gardens. The medical center was close to a lovely little park with rock gardens and fountains and artistic bridges across a small lagoon starred with water lilies and bright with exotic goldfish. Torn from their own homes on the coast the Japanese made the desert into a garden.

"The need for the land at an end, the War Relocation board turned it back to the Indians, and they looked around for a means of profiting from its improvement. After many interviews and long discussions, the Colorado River tribes agreed to set aside a large tract of their reservation including the land used by the Japanese, to be colonized by Hualpai, Hopi, Navajo, Apache, Zuñi, Supai and Papago. This part of the reservation is to be known as the Southern Reserve. In return for this concession the government agreed to completely subjugate, level, install irrigation facilities and furnish water at a stated rate on a portion which was to be retained by the Mojaves, and known as the Northern Reserve. This tract of not less than 15,000 acres is also to be supplied with complete drainage system.

"Any Hopi or other tribesman taking advantage of the invitation to move to the Southern Reserve was to be assigned 40 acres of prepared farming land, together with a building plot of 50x100 feet. He was permitted to borrow as much as \$3000 to be expended in improvements, seed, such small farm tools as he elected to own rather than rent from the government, and for sustenance until crops and food can be raised. The customary repayal terms were specified. Within two years the Indian moving to Colorado River reservation must decide whether or not he will remain permanently. If he chooses to stay, then he must forsake his original tribal home and become a member of the Colorado river tribes. During that interval he must prove his worthiness to become such member, and also his ability to earn a living from the ground assigned to him. When he becomes a member of the Colorado River Indian tribes he must relinquish all property rights in the tribe he renounced."

With that background, I went to Parker and in company with Paul Phillips, a Reclamation Service man, loaned to the Indian

Bureau to supervise the colonization project, drove down the Colorado river to where my Hopi friends had moved.

It was one of those perfect desert days, mild and sunny, so unlike the windswept snowy Hopi country, I could not believe I would really find Hopis living there.

"First we'll stop by and see Tom Preston. He's irrigating his field today, and, since he is chairman of the Hopi Council here I think you should talk to him." Paul parked the car at the edge of a level field faintly shaded with the tender green of barley just pushing through the earth. Lifting and lowering the gates that released water from a full canal to orderly checks of barley, I found Tom Preston working as diligently as he used to in his scattered hills of corn on Wepo wash. Tom always has been one of the most energetic and aggressive Hopis, and they chose a wise leader when he was selected to head their council.

Tom greeted me warmly, and kept a watchful eye on the water as he told me how the angry chief had denounced him.

"You see, my people are descended from the hereditary chiefs, and they thought I should stay there and take my place as clan chief. And my Navajo wife's father is an important Medicine Man in her tribe, and he was just as set against her leaving there to come with me. I tell you we had a rough time for several months before they finally realized we were coming here. Then they just looked sorrowful and shook their heads when we came near.

"I could have made a living for myself and my family there in the Hopi reservation because I am a good mechanic and always had a job with the Agency when I lived out there. But there is nothing there for my children or for the children of my neighbors. We all love our homeland. But we realize that it is a dead land."

Tom's thoughts carried back to that land of his birth. His eyes had a far away look. "The grass is gone and the soil is blowing away. There was no water. We could not farm. We were not allowed to increase our flocks because we couldn't take care of the ones we already had. What is there in that barren place to encourage our children to go ahead toward winning their rightful place in the world? No, the Hopi reservation is a place of unkept promises, a barren plateau of rock and sand where work as one may from daylight to sunset every day of the year there still is nothing to lay away for one's old age. I will not have my children grow up there, always a little cold and hungry and thirsty, as I did. I like to forget that small boy, that Tommy Preston."

The irrigating required his attention and, after promising to visit his home that night, we turned into another road and stopped where men were stretching a wire fence.

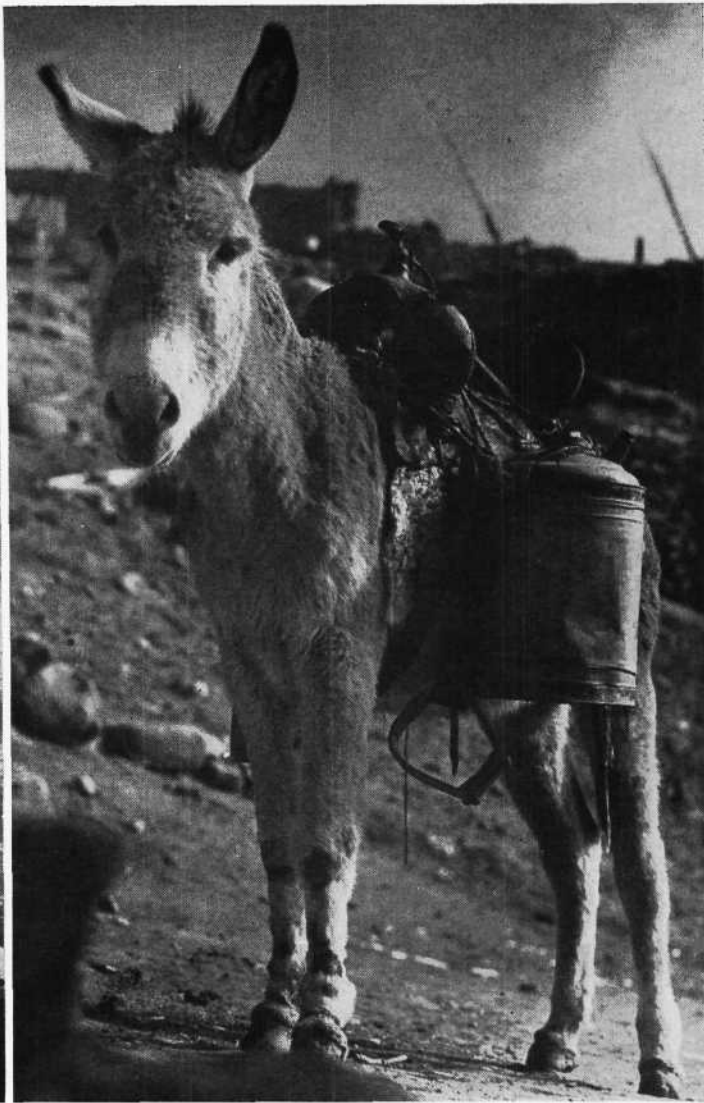
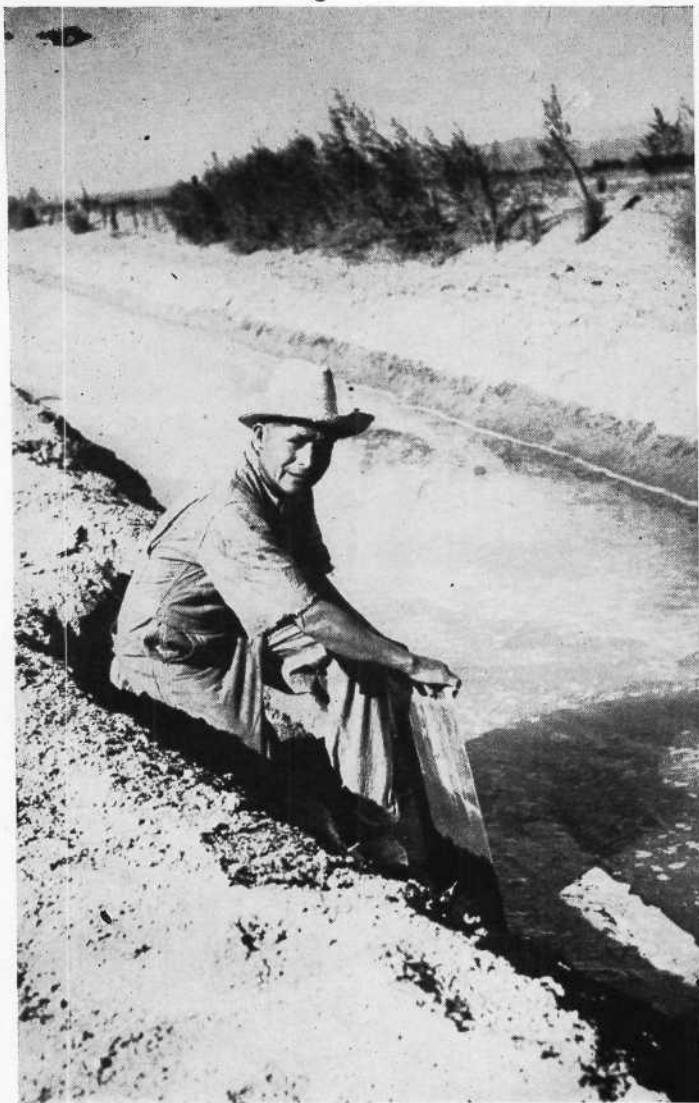
Philip Zeyouma, a 60-year-old Second Mesa silversmith, showed me how the plot he had chosen adjoined that selected by his ambitious daughter Gladys for her husband now in uniform. By having the two assignments together the matter of fencing and irrigating was simplified, he said.

"You are not going to give up your silversmithing are you, Philip?" I asked, remembering the exquisite silver teaspoons and salad forks he made for me some years ago.

"Oh no! Just as soon as the crops are in, and we can get our home built I intend to add a room just for my silverwork. You know Taylor Tahbo plans to have a big arts and crafts department in his store, and already he is engaging pottery from the best makers on Walpi, and wicker baskets from Oraibi and coiled plaques from our mesa. And he has asked some of the older men who weave to send their blankets to his store to sell!"

"Taylor Tahbo here?" I couldn't imagine the First Mesa without Taylor being there to keep things calm and running smoothly.

"Yes, Taylor is here," Paul Phillips answered. "He's opened a store. We'll drop in before we visit the womenfolks. Taylor took advantage of the government loan and stocked his store well. I went with him to Phoenix and the wholesalers soon found that he knew what he wanted and what it should cost him.



Those who could afford them had burros to pack water to the corn and bean fields in ancient Hopiland. In the Valley of the Colorado Tom Preston irrigates his new field by opening a gate in the irrigation ditch.

There's no doubt about his business being a success, even though the Hopis are his customers. The Hopis, you know, are not reckless spenders." We both grinned, remembering the very thrifty ways of that tribe.

Taylor had set up shop in a corner building and his shelves were filled with standard brands of canned goods and household supplies. I wandered around peering into every corner. There was a shelf of standard remedies, and a case of hand and face creams and hairpins (I bought a few of those for myself) and bright ribbons, needles and pins and thread for the women-folks. Paul called me to look into the big electric refrigerator. It held half a beef and other fresh meats, all the cheeses and lunch meats needed for hearty farmer lunches, and there were quarts and quarts of milk and a few pounds of butter. We looked at a case of eggs and Paul remarked that if the women-folks prospered with their chickens Taylor would not need to import eggs for them, but could ship that item out of the community. Taylor finished with his customer and welcomed us graciously. He told us he had high hopes that he would be able to create a big market for the mesa crafts and asked my advice about adding the work of other Indian tribes. He led me to a certain spot in the store and pointed to a space on the wall.

"Right there I want a very large painting of old Walpi," he said. I was startled and wondered if Taylor might be developing nostalgia.

He laughed when I asked him, and shook his head. "No, not that. But we are proud of being Hopis. Even though we take on membership in this tribe we were born Hopis and in our hearts we'll always be just that. Last night we men talked about the picture and just as soon as I can find someone to paint it I'll have it put there."

I left, after promising to find someone to paint the picture for him, and we went on down the street to the home of Philip Zeyouma. His wife is a Shasta Indian from Washington and her ways never have been the happy ways of the Hopi. I found her quite discouraged and downhearted, and spent an hour trying to cheer her up. When they planned the migration they hoped to have everything ready for their sailor son to take over the farming when he came home. He didn't come back, and on the wall hangs the awards given to his parents after he was killed.

Later in the evening I returned to visit with the family. Almost like it used to be up on the mesa, it seemed. Dolores, the little granddaughter leaned against me petting the kitten she'd put in my lap, and her little brother showed me how to draw an airplane. Gladys, Philip's daughter, grown up and married since I had seen her, brought her sewing and settled herself beside her mother. For a happy hour we gossiped about those left on the mesas, about marriages and births and deaths. And bit by bit Philip's wife lost her look of bewildered sadness and led the conversation. She admitted that she found time heavy on her



A Yuma farmer in the Valley of the Colorado with ample water and the type of equipment the Hopi will have in their new homes.

hands because everything was so handy in the new home. It was one of the barracks in which four Japanese families had lived. All four apartments were filled with Philip's family. We sat in the homey kitchen and familiar strings of red peppers, ears of brilliant corn and here and there a Hopi waterjar gave it a familiar air. The stove was a gleaming kerosene range, and there was an electric sewing machine on a low table. The room was flooded with electric light and an immaculate white icebox held an important position. Taylor Tahbo fills water pitchers with ice cubes from his big box for those families still without refrigerators.

That swimming pool is the delight of small Hopi lads. More than one proudly boasted to me, "I can swim! I learned to swim as soon as we got here. Our fathers let us swim in the irrigation ditches when they are not too busy to watch us!" Enough water in which to swim—that for the Hopi Indians is amazing.

"What crops do you plan to raise?" I asked that question at every field where we stopped. Most of the farmers are planting barley and oats for hay. Others expect to get a yield of six tons of alfalfa to the acre, and Tom Preston and some of his neighbors plan to buy a truck and haul their feed back to the Hopi country where they know it will bring high prices. They bought cattle feed long enough to realize its worth.

No matter what the main crop was to be, I found that almost every farmer was retaining a small portion of his land for melons. One farmer had ordered 10 pounds of watermelon seed and seven of cantaloupe seed and expected to have tons of melons for sale. Philip Zeyouma is experimenting with Hopi corn, that hardy variety with blue and red kernels.

Some of the colonists want to plant peach trees and other fruits, but there is a sort of taproot fungus in that region which

makes that scheme impractical. Paul told me that they would experiment with grafting peaches on apricot roots. I have no doubt some way will be found to eliminate the taproot disease. Thompson seedless grapes are another discussed crop, and pecans and onions. The Hopis are not inclined to be truck gardeners.

They brought their own cattle from the Hopi country and more blooded stock has been purchased from the tribal herd of the Apaches. It is likely that stockraising will consume much of their time. The poultry pens are filled with pureblood chickens. One pen may contain Plymouth Rocks and the next one White Leghorns, but they are all pure stock. The women are putting in many hours caring for their chickens, and when I went out to the poultry yards with them I saw a few milk goats and half a dozen pigs. Two big lazy rabbits gave promise of industry in rabbit raising, and some pigeons cooed in their cages under the desert shrubs.

"These Hopi women will not be contented here unless they are busy all the time," I told Paul Phillips. "They have always worked every hour and if they are not working they'll get homesick. Isn't there any clay around here for pottery?"

"We intend to try and locate good clay for them, and if it isn't here and they want it, I'm sure a truckload can be brought down from the mesas. When hay or feed is trucked up there the clay could be brought back. There is plenty of willow along the river for basket making and near Parker dam grows yucca which I think we could arrange for them to gather. We are going to do everything we can to keep them happy here, because if they fail it will be a tragic thing for other Indians wanting to move to better land."

"Isn't that Albert Yava?" I asked Paul as we drove from one

project to another. A familiar figure was driving some cattle down a side road.

"Yes, that is Albert. We would have been up against it many times without his help. He has more good judgment and common sense than most white men, and the Hopis trust him implicitly."

Six years had passed since Albert and I sat together beside the Snake kisa on old Walpi and discussed the dance, but his greeting was as casual and calm as though we had parted yesterday.

"I been looking for you, E' Quatche! I knew it was about time for you to come down here and check up on us!" I looked at his strong serene face marked with the lines of many years of desert living, and most of my baseless worries about the future of these Hopis left me. If Albert thought it through and then decided to throw in his lot with the colonists, then the scheme is sound. He called his young Navajo brother-in-law to meet me, then sent him along in search of some of the cattle. His impish grin was as boyish as ever when he said: "Our Hopi cattle got scared at a ditch full of water, and they've hidden in the brush."

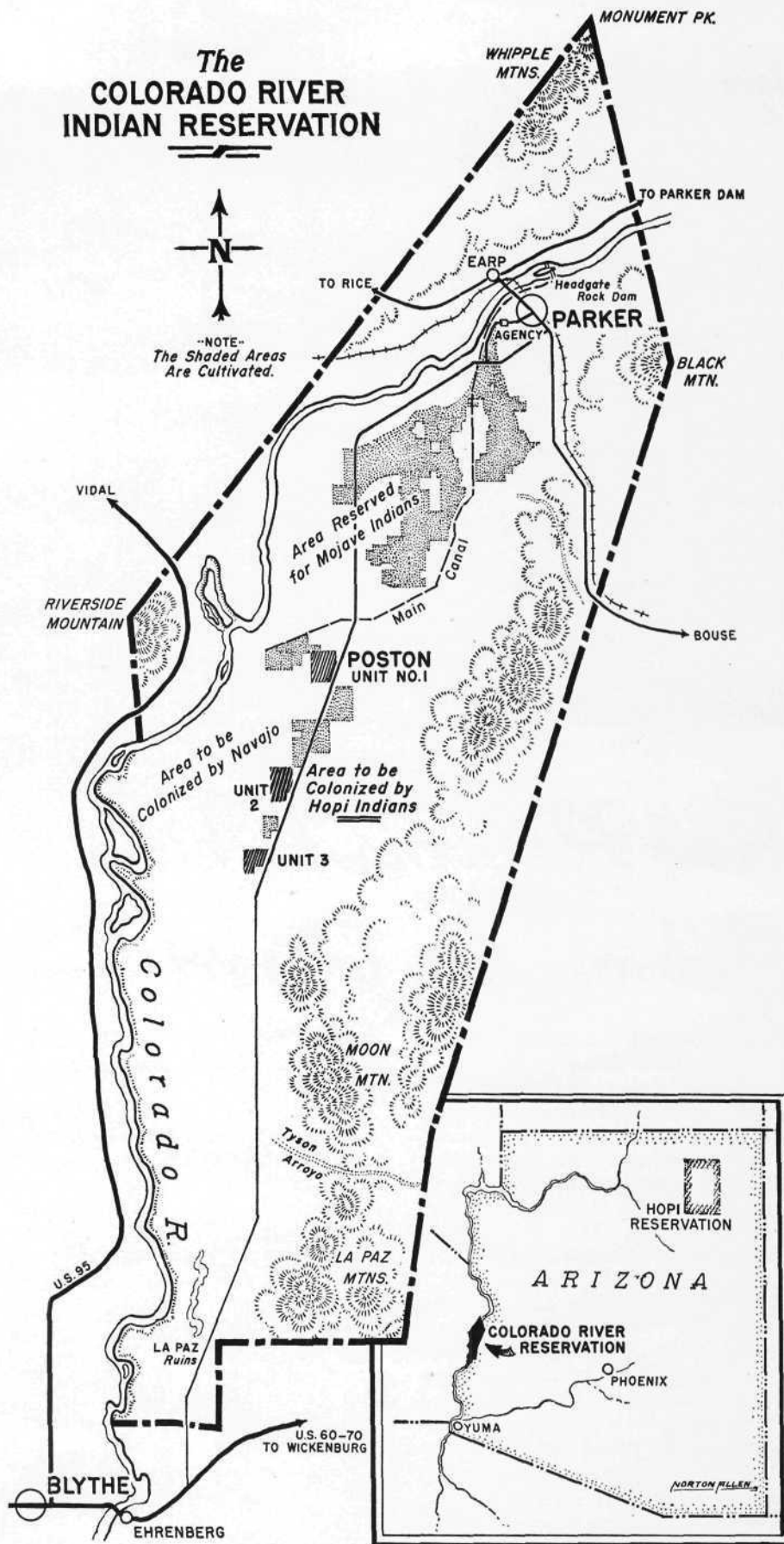
"Where is your allotment?" I asked him.

"I haven't selected one yet. You see I have only two more years to serve with the government and then I can retire. I want to keep my job until then, and after I retire I'll come here and live. Some of my wife's people have their plots already under cultivation and they'll want me near them. Then when you come to see me I'll have such a big pile of melons you can't see over the top of them. I'm going to raise melons." That night I visited his big barracks home flooded with electric lights and noisy with radio music. Albert's wife has a brood of young children, and she hopes they'll grow up to be good farmers.

"What will become of your Snake Dance clan down here?" I asked Albert. "You don't need any special prayers for rain in this irrigated land."

"We will go home for the Snake Dance as long as our old folks want us to. But of course we'll never hold a dance down here. On the other hand there are members of almost every Hopi clan down here, besides several religious sects, and it is understood that each one has the right to hold his own views on every subject. Personally, I think we must get away from the old beliefs and superstitions before we are ready to be good citizens. That is one reason the bringing of very old family members down here was frowned upon. They would be comparing our methods of drill seeding a field with the time honored rite of planting three grains of corn at a time by the aid of a planting stick. This is a new country for us, we must make a new start unhampered by the longhairs."

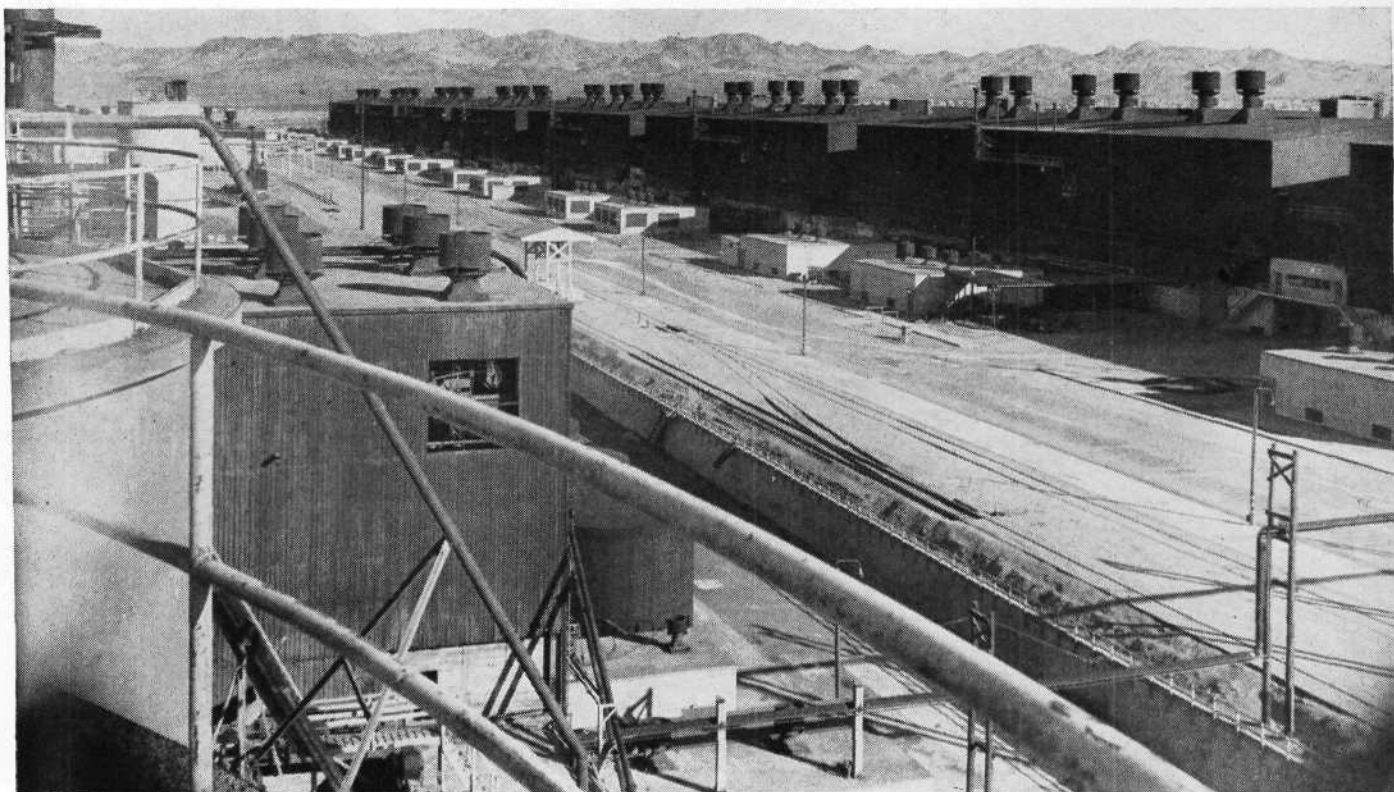
His Navajo wife slyly edged close to us and offered her sole contribution to the conversation: "I rinsed my clothes twice



today, and then had plenty of water left to scrub the floor." She looked nonplussed when Albert and I laughed.

Two years from now the result of this colonization scheme should be known. I believe the Hopis will stick and make a

success of it. Many other families are begging to leave the mesa and join the 24 households already there, and even if some of them weaken and go back to their highlands, there'll always be others with adventurous hearts.



Part of the Basic Magnesium plant on the Las Vegas desert.

Joe Returns to his Job on the Desert

For mining, for stock raising, for irrigation farming, yes, the desert is all right. But who would ever be foolhardy enough to try to industrialize the desert country? Workmen wouldn't live there. It is too hot and desolate—too far from the glamour of populated centers. Then the war came, and one of the largest wartime industries in the land was erected out on the arid desert near Las Vegas, Nevada—a plant where one-fourth of the emergency need for magnesium was milled. And when the war ended, many assumed that Basic Magnesium would revert to the desert—a white elephant that could not thrive in such a climate and location. But the white elephant did not die. The huge plant of Basic Magnesium is gradually being occupied by a group of industries who find it an ideal location for their purposes—and the wartime workers are flocking back looking for jobs because they like the Nevada desert.

By JOHN HILTON
Photos by Harlow Jones

THE CLANG of a workman's hammer echoed hollowly through the largest room that I have ever seen. He was working on a rusty pipe fitting while beside him others were cutting steel with sputtering acetylene torches, operating hoists and carrying things to and fro. It was a scene of almost feverish activity, but dwarfed to almost ant-like proportions by the surroundings.

Harlow Jones and I were standing in one of the huge units of Basic Magnesium, Inc., near Boulder dam and these men were playing their small parts in one of the biggest reconversion stories I have heard—a story so breathtaking in significance that I hardly know where to start the telling.

Finally the rusty pipe fitting gave way and the man with the hammer rose from his work to pass a sleeve across his forehead. I did not ask his name. It didn't matter for he was a type. A type who will write a huge page of future history in the West if I am not badly mistaken. Let's call him B.M.I. Joe.

His story was typical. Born in the mid-west, he had never been out of his own country until the war came. He had come West with a wife and youngsters to make magnesium. No, Joe didn't like the desert when he first saw it and his wife got homesick for her folks. They could hardly wait until the war ended and they could head back to "God's country."

"It was nice seeing the folks again," Joe said, "but first thing we knew we were bragging about all the wonderful things we saw out in Nevada—the nice house we lived in, the big plant we worked in, the friendly town of Las Vegas, Boulder dam and the lake and the bass fishing. First thing we knew we had a good case of homesickness for Nevada.

"Then the cold weather came along and we just packed up the jalopy and headed west again. I'm glad they are giving the old 'white elephant' a shot in the arm. We want to live here now, and on my next vacation we expect to see a lot more of this desert country. Suits us just fine!"

I walked away with the realization that the new companies which are moving in to take over the facilities of Basic Magnesium could never get along without Joe and his kind. Nevada is not heavily populated and it will take a lot of manpower to do the job.

I first heard about Joe's type out in the front office when we talked to M. A. Taylor who was in charge in the absence of H. H. Gillings. These men represent the J. M. Montgomery company, agents for the R.F.C., and their job is to put this huge \$140,000,000 project back on a paying



Plant Officer Oly T. Edgell holds a 3-pound bar of magnesium—part of the 20 million pound stock pile at B.M.I.

basis. Taxpayers had been calling the B.M.I. "Nevada's great white elephant" and predicting the whole thing would have to be "plowed under" as another war loss. But it looks different now. If courage and imagination plus scientific know-how will accomplish the job, Nevada and the West will have a permanent group of useful industries and a contented community of workers.

Taylor outlined for us some of the proj-

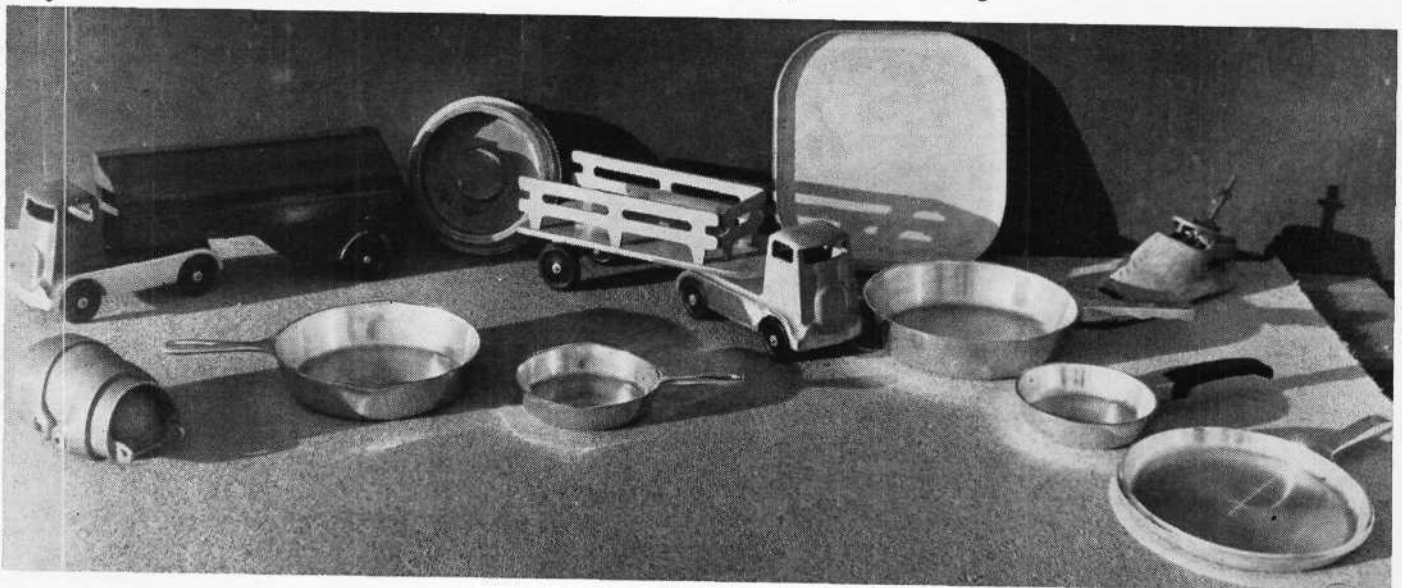
ects now under way which will use about 40 per cent of the tremendous facilities. Some of these are already in operation and the task of reconversion is going on as fast as possible.

Stauffer Chemical company will make chlorine and soda ash in vast quantities. These two chemicals are extremely necessary in almost all other industrial processes of today. Their use is an excellent index of the chemical development of any section of

the country. Not only will this company produce needed chemicals for western industries but the raw material (salt) will all come from western desert locations. These millions of tons of salt to be consumed will affect desert economy in widening circles for many years to come.

Western Electrochemical company is already in production of potassium perchlorate which is one of the essential chemicals in the manufacture of the famous lift-

Some of the peace-time products of magnesium at Las Vegas.





M. A. Taylor, assistant manager of Basic Magnesium plant for the Reserve Finance corporation.

ing jets used to get planes off the ground or water in a hurry. Some of their other products are potassium chlorate which is used on match tips, and sodium chlorate which has many uses including that of an efficient weed killer. Their raw materials also will come mostly from the desert.

Then there is the Hardesty Chemical company which plans to manufacture a variety of chemicals—about 22 in all. Their's is a flexible system capable of changing to whatever product is needed most. Synthetic detergents are some of their products but others remain trade secrets until production begins.

The U. S. Vanadium people are the newest occupants of the plant with a large branch installation. Many other manufacturers are interested or have deals pending. The Montgomery company has faith that the entire plant will be in use within a reasonable time and that the lease income eventually will pay off the original investment.

They explain that Basic is not actually such a "white elephant" as some people have painted it. During the war it produced one-fourth of the magnesium used by all of the Allies in incendiary bombs. They closed down with a surplus of magnesium bars weighing over 26,000,000 pounds. Our informant went on to explain some of the opportunities for chemical

companies coming into the area. The water and electricity piped and wired to the plant at present are enough to furnish a city the size of Los Angeles. Ideal housing facilities, built and in operation, are capable of handling all of the employees of the various companies when in full production. These housing facilities include much more than a mere roof over the tenant's head. Schools, churches, theaters, recreation halls and playgrounds are all an integral part.

Then there is the climate which is almost ideal for electrochemical work. Most of these processes operate at a higher level when warm, and workmen are happier and more efficient if they don't have to shovel snow or trudge around in the rain.

The one thing the front office stressed above everything else, however, was the human element. There never has been nor is there likely to be a shortage of willing labor. Applications are piling up every day, from almost every other state in the union. Most of these men and women were wartime employees and have decided that they want to come back to the desert to settle down. Joe was a typical example.

The next office we visited was that of Tommy Bellis who served on the plant protection staff during the war years and is now chief of that department.

Tommy is one of those law enforcement

officers one likes to meet and know—but would never care to tangle with. His steel blue eyes are those of the typical old time western sheriff who enforced the law fearlessly at the point of a gun. Las Vegas is still a frontier town and Tommy Bellis fits perfectly into the picture. At least one murderer could testify to his prowess with a shooting iron had he lived to tell the story. Here is a man you could hardly imagine sitting in his office directing a man hunt. He would be out there leading the posse in the good old western tradition.

Tommy turned us over to Officer Oly T. Edgell who was to show us around the plant. After signing the necessary papers and leaving our fingerprints for the record, we were escorted to a waiting auto. Basic is too big a place to see on foot. The buildings had looked large from the outside but the interiors were simply colossal, especially the units now empty.

To give some idea of its immensity, our guide told us this was the second largest steel construction job in the world. Over 20,000,000 bricks went into the building. Enough paint was used to cover a three inch traffic strip three times around the world. Sufficient lumber was used to build a city of 40,000 inhabitants and there are over 350 miles of pipe including 22 miles of glass pipe. The plans and blue prints if spread out would cover an area of 46 acres. Even with such figures, one must see Basic to realize how big it is, and then it is difficult, for the desert setting dwarfs these man-made wonders into mere trifles.

We wanted to see the stockpile of magnesium. When Oly drove us there, Harlow said, "Gee, I wonder how many flash bulbs that would make." It would be an interesting figure if some mathematician would take the trouble and paper necessary to compute it. This magnesium will not be wasted. Right now new industries are springing up all over the country to use this surplus of the new light metal. Right in the edge of Las Vegas the Magnesium Casting company is producing a variety of

YOUTHFUL EXPLORERS PLAN SUMMER EXPEDITIONS

A limited number of boys of high school age are now being enrolled for the 1946 schedule of the Explorer's camp in southwestern Colorado, according to Ansel F. Hall, director of the project.

Under Hall's direction boys who can qualify for the rugged camp and field routine of the 10 weeks' outing, are organized into expeditions which include riding, packing, camping, archeological research, and nature studies in the Four Corners region.

The Explorer's camp will operate from June 19 to August 27 with base at Gold King camp. Director Hall, former chief forester of the National Park service, maintains his headquarters at Mancos, Colorado.

useful articles including children's toys and cooking utensils.

This brought up the subject of the inflammability of the metal. We were told that one could build a bonfire on top of the whole stockpile without any danger. It is only when magnesium is finely powdered or formed into thin foil or wire that it can be burned. Castings of the metal are quite safe for household use contrary to a widespread general belief. Mrs. Hilton has been using a cast magnesium griddle on her electric range and says that she has never had a better cooking utensil.

Probably the most interesting product of this new company will be the artificial knees and feet that will be built from magnesium. One huge contract is being negotiated by the Russian government. We were pleased to know that some of this metal which had been earmarked for human destruction was to be used for rehabilitation.

We went the rounds of the various units. Some empty, some under reconstruction and others in efficient operation. The feel of big things was in the air—the same feeling I experienced when I visited Boulder dam under construction.

We thought that it might be well to interview the head of one of the leasing companies so Oly took us to the office of Western Electrochemical company. There we



Tommy Bellis—the law at Basic.

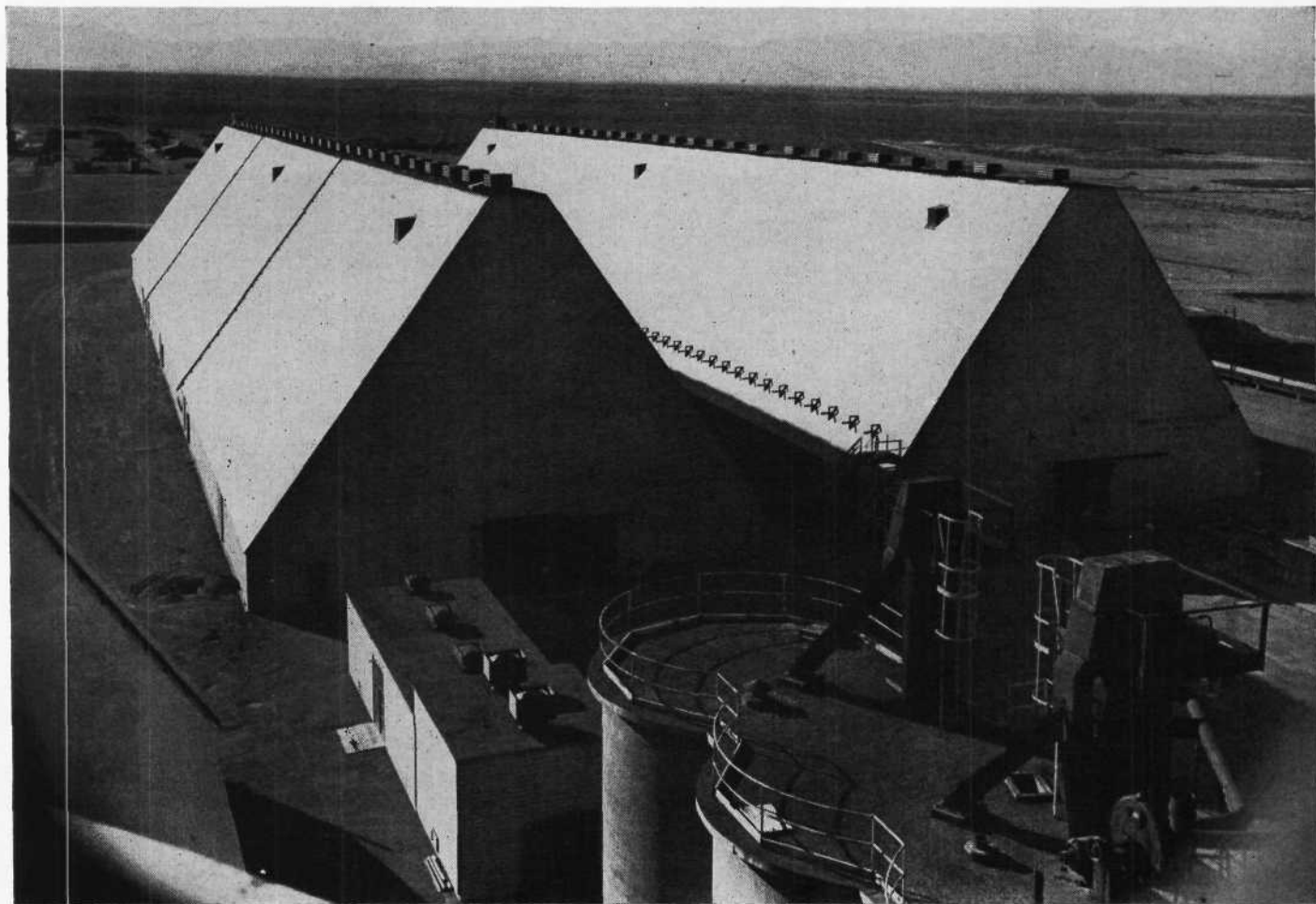
met Fred Gibson who talked pleasantly to us between long distance phone calls. He is a busy man but he had time to tell us of some of the wonders taking place there. I think the most interesting point he brought out was the fact that at present his company

has a waste product of hydrogen. There are such waste by-products in most chemical operations but when the whole group of units is occupied, he believes that one company may be able to utilize what the others discard.

We had heard of the huge stock of government silver that had been loaned during the war to be used as electric bus bars. It was with considerable awe that we were ushered into a heavily guarded room where these tons of silver are stored. It didn't look much like a treasure house. Parts of the bus bars were painted red and they looked like any other batch of used electrical equipment to us, rather than millions of dollars worth of precious metal. There were also many small flat boxes in this room and each box contained \$6500 worth of platinum plates which will be used in electrodes in one of the new chemical processes. This rather small pile of boxes represented more value than the tons of silver (about \$23,000,000 we were told).

Back in the car again we drove past the unit where I had talked to Joe. Hoists were still clanking, torches sputtering and above it all the blows of Joe's hammer rang in the huge steel building like a giant bell—a bell ringing out the good tidings of future industry in the desert.

Part of storage bins for raw materials at Basic Magnesium.



Sez Hard Rock Shorty of Death Valley



"Must have taken them trees a long time to grow," remarked the tourist by way of opening the conversation. He nodded toward the grove of tamarisks on the flat below Inferno store.

Hard Rock Shorty got up from the bench on the porch and sauntered into the store as if he had not heard the remark. A moment later he appeared with a broom straw and started poking it through the stem of his corn cob. "Thing kinda gets stopped up sometimes," he said.

The cleaning job finished, he turned to the newcomer. "You're all wrong about them trees, stranger. They're the fastest growin' things in the world. Somebody brought some cuttin's over here from Africa long time ago, an' now they're growin' all over the desert jest like cactus.

"You oughta ask Pisgah Bill about them trees," Shorty chuckled. "Pisgah went down to Barstow one summer an' bought a lot o' tamarisk fence posts. That was the year he got the notion o' breakin' wild burros fer pack animals. Burros brought good money in them days, and Pisgah offered the Injuns two dollars a head fer all the animals they'd bring in.

"The Utes would drive 'em up in dead-end canyons and then lasso 'em and Pisgah soon had more donkeys than his old corral 'd hold. So he brought in them fence posts and strung 'em with barbed wire, and had room enough fer all the burros in Death Valley. 'Fore long he had the lot full of 'em.

"Then one night we had one o' them August storms. Rained six inches in three hours. Next mornin' when Pisgah got up them fence posts wuz all full grown trees. The barbed wire fence was eight feet in the air, and there wuzn't a jackass in sight."

DESERT QUIZ

One way to gain a broad knowledge of the desert country is to take the quiz test every month—and then remember the answers you missed. These questions cover a wide field—history, geography, Indian lore, botany, literature and mineralogy—but they include information every desert visitor should have. The average person will get about 10 correct answers. A score of 15 is exceptional—and 18 is a goal that few readers ever attain. The answers are on page 36.

- 1—The cactus reputed to be a source of water for thirst-parched desert travelers is— Cholla..... Saguaro..... Bisnaga, or Barrel..... Prickly pear.....
- 2—A National Monument is established by— Presidential decree..... Act of Congress..... Petition of State Legislature..... Authority of the Secretary of Interior.....
- 3—Father Font wrote his famous diary as a member of the expedition of— Coronado..... De Anza..... Kino..... Escalante.....
- ✓4—The Mormons originally went to Utah to— Trap beaver..... Escape persecution..... Seek gold..... Hunt buffalo.....
- ✓5—The army officer in charge of the first camel caravan across the United States was— Kit Carson..... Gen. Kearny..... Lieut. Emory..... Lieut. Beale.....
- 6—The Indian story, *The Delightmakers*, was written by— Bandelier..... Lew Wallace..... Lummis..... James.....
- 7—In the annual Snake dance of the Hopi, the Snake clan is assisted by the— Corn clan..... Katchina clan..... Squash clan..... Antelope clan.....
- 8—Correct spelling of one of the most common shrubs of the desert is— Ocatillo..... Ocatilla..... Ocotillo..... Ocotilla.....
- 9—Hematite is an ore of— Copper..... Silver..... Iron..... Lead.....
- ✓10—The Humboldt river begins and ends in the state of— Arizona..... Nevada..... Utah..... New Mexico.....
- ✓11—New Mexico territory was captured in behalf of the United States in 1846 by— Gen. Stephen W. Kearny..... Gen. Fremont..... Col. Kit Carson..... Col. James H. Carleton.....
- 12—The famous annual trek of The Dons of Phoenix is to— Camelback mountain..... Catalina mountains..... Superstition mountains..... San Francisco peaks.....
- 13—Lorenzo Hubbell was a— Mining man..... Missionary..... Governor of Arizona..... Indian trader.....
- 14—The Epitaph is the name of a newspaper published in— Death Valley, California..... Tonopah, Nevada..... Tombstone, Arizona..... Tortilla Flat, Arizona.....
- 15—Stovepipe Wells hotel is located— In the Valley of Fire, Nevada..... Death Valley, California..... Along the Camino del Diablo in southern Arizona..... On the Painted Desert.....
- ✓16—The word "ceramics" is used in connection with— Pottery..... Weaving..... Basketry..... Painting.....
- 17—The blossom of *Encelia farinosa*, commonly known as incense or brittle bush, is— Yellow..... White..... Pink..... Lavender.....
- 18—To reach Tuba City, Arizona, you would cross the reservation of the— Hualpai Indians..... Mojave Indians..... Apache Indians..... Navajo Indians.....
- 19—Bill Williams mountain may be seen from— Blythe, California..... Prescott, Arizona..... Las Vegas, Nevada..... Tucson, Arizona.....
- 20—Desert mistletoe never grows on— Joshua trees..... Mesquite trees..... Ironwood.....



This is Meadow Creek canyon. Peak in right center has been variously named. Ives called it Ireteba after the Mojave Indian guide. Beale called it Frank Murphy's peak. Hedgepeth says the polite interpretation of the name given it by the Indians is "Papoose's Delight."

Stone Flowers in An Ancient Pass

By HAROLD WEIGHT
Photographs by the author

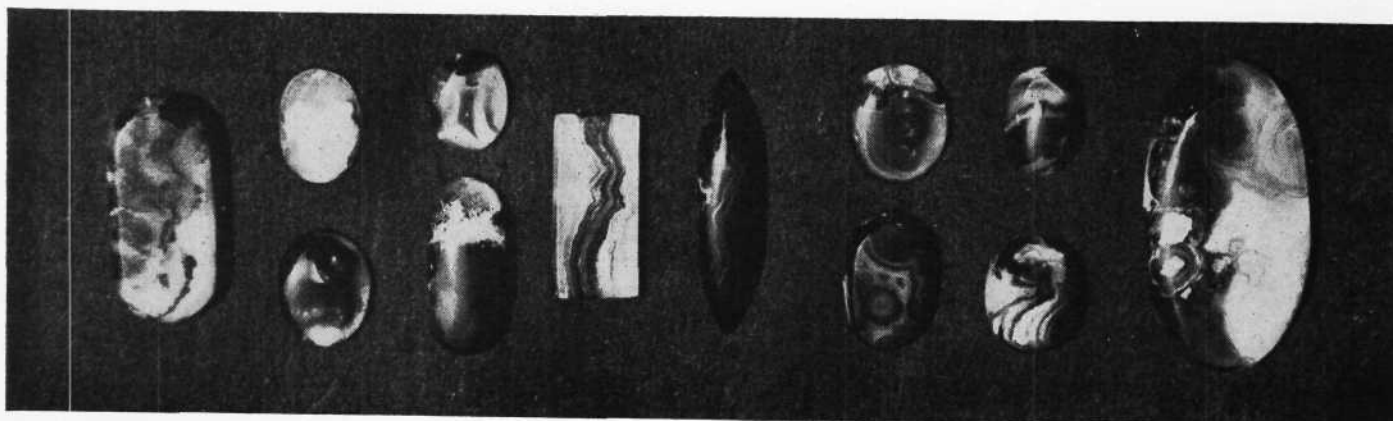
Eighty-eight years ago, the geologist for the Lieut. Ives Colorado river exploring party reported finding some beautiful stones which would be "highly prized by mineralogists." This find was mentioned in Ives' report to the war department—and it was from this old record that Harold Weight got his clue to the location of the semi-precious gem field described in *Desert Magazine* this month.

WHEN, on March 8, 1858, the *Explorer* crashed against a sunken rock at the mouth of Black canyon, Lieut. Joseph Ives thought for a moment the walls of the canyon had fallen in. The damage was slight, but the lieutenant decided he had gone far enough.

Since the previous December the clumsy iron boat had been making its way upstream from the mouth of the Colorado, part

of the time on its own power and partly by means of poles and tow lines. Lieut. Ives had been sent out by the war department to see if the Colorado was a navigable stream, and by various expedients he had been able to navigate it—until the boat hit the rock in Black canyon. That was the end of navigation as far as the *Explorer* was concerned. The damage was repaired and the return trip began.

Cabochons cut from the material found in the Meadow creek area.



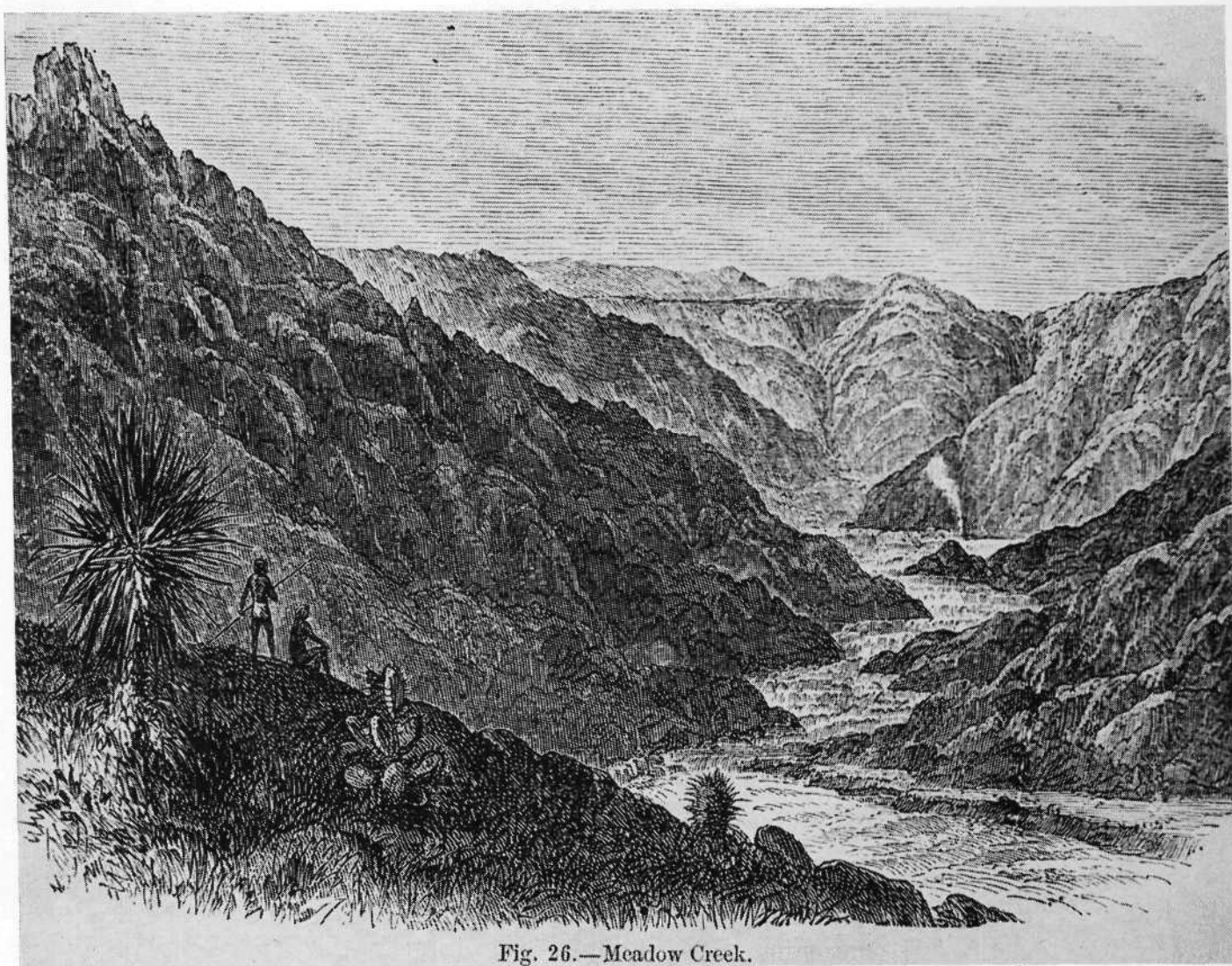


Fig. 26.—Meadow Creek.

Meadow creek canyon as sketched by an artist on the Ives expedition in 1857. Harold Weight says there must have been a cloudburst that day, as he found no such stream of water.

Less than three weeks later Ives was camped far south in a "snug meadow" in the Black range. He had left the river at the Mojave villages two days before to continue exploration on muleback. There had been poor forage the first night and the steep ascent of Sitgreaves pass, on a path "narrow and devious and attended with hazard to the weak and heavily loaded animals," had determined him to lay over a day when Meadow creek was reached.

During this day while the mules "ate so greedily," J. S. Newberry, expedition geologist, found "large surfaces strewed with concretionary and botryoidal masses of chalcedony, agate and crystallized quartz of different colors, and frequently of great beauty. Cartloads of specimens," he wrote, "which would be highly prized by mineralogists, might be collected here." Dr. Newberry must have seen many rocks in his time. These, he said, were beautiful.

I wondered if any of them could have survived the intervening three-quarters of a century. Perhaps the "cartloads" had become the truckloads of an avaricious collector. Then the war banished the subject from my mind.

Four years later, a civilian again, I recalled the mineral field described so vividly in Lieut. Ives' report. The search for Dr. Newberry's chalcedony field would be an intriguing pastime for the postwar vacation trip, and I resolved to seek the place.

When one attempts to pinpoint an old expedition on a modern map, it becomes apparent why lost mines stay lost. Black

range, located on the Arizona side of the Colorado river north of Needles, had borne the various names of Sierra de Santiago, River range, Blue Ridge, Ute, Piute, Sacramento, Black Mesa, Colorado, Hamookhavi, Oatman, and Gold Road hills. It is now called the Black mountains on the maps, but not by most inhabitants.

Neither Sitgreaves pass nor Meadow creek is listed on any modern map that I obtained. From other sources I learned that the pass lies a few miles north and east of Oatman, and that Highway 66 follows it and Meadow Creek canyon.

But where had Dr. Newberry found his specimens? In F. L. Ransorze's *Geology of the Oatman Gold District*, he mentioned filled cavities in the upper flows of latite beyond the crest of the high ridge east of Oatman and south of Sitgreaves pass. "When the rock weathers and crumbles," he wrote, "the opal and chalcedony in large part remain scattered in profusion over the ground." I liked that word "profusion" used as late as 1923. Apparently all I had to do was to go out to that section and start climbing ridges.

When I said, "Let's go to Meadow creek—we might find pretty rocks there," Mother and Dad started packing the car. We left Pasadena on a bright February morning. When we topped the long Cajon grade, the north faces of the San Bernardino were white, and little patches of snow lay unmelted at the bases of joshua and juniper, far down the slope. We began to estimate temperature against bedding supply.

It was past noon when we commenced dropping through enormous stands of jumping cholla to Piute wash. Below us was a vast panorama of Mojave valley, one of the historic crossroads of the pioneer west. Here, to the heart of the Mojave nation, came Garcés, Kit Carson, James Ohio Pattie, Jacob Hamblin. Near the Needles, in 1827, ten of Jedediah Smith's men were massacred, and with the eight remaining he fought and fled across the desert to California. Sitgreaves and his half-starved expedition reached the valley in 1852, and Whipple, Beale, Ives and Wheeler of the great government explorations followed him.

To this valley came the Oatman girls after 300 weary miles of marching. Here they were captive to the Mojaves, who had bought them from the Apaches. Here little Mary Ann died and Olive buried her in the garden they had sought to cultivate, "the first and only grave in all that valley."

Far below we could see the winding Colorado, the willows, cottonwoods and rich bottom lands. Across the valley, in Arizona, rose the dark, sculptured bulk of the Black mountains which, starting there, continue to the north 75 miles, then cross the river to form Black canyon and the site of Boulder dam.

About a dozen miles south of the town of Needles, the Mojave mountains shoulder in to close off the lower end of the valley, and the river is forced to narrow itself. Here, at Topock, both railroad and highway bridges have been flung across with reasonable surety that they would remain, no matter what the mood of the churlish Colorado.

We set the speedometer at zero at the Oatman fire station and headed north-eastward on U. S. 66. At 1.1 miles a graded road led off to the left to Silver creek, the Moss mine and Katherine district. We continued on the paving and at 2.4 miles passed through the center of Gold Road.

Above Gold Road the highway took to the mountainside in steep, looping curves. We had reached the pass which Ives said Sitgreaves had used. Elliott Coues asserted, and he usually was right, that Sitgreaves came through the next pass north.

It was from the divide toward which we were rapidly ascending that Beale first saw the Colorado and wrote joyously, "Only those who have toiled so far, with life, reputation, everything staked upon the result, can imagine the feelings with which I

looked down from the heights of this mountain upon the cottonwoods and the shining surface of the river far below us."

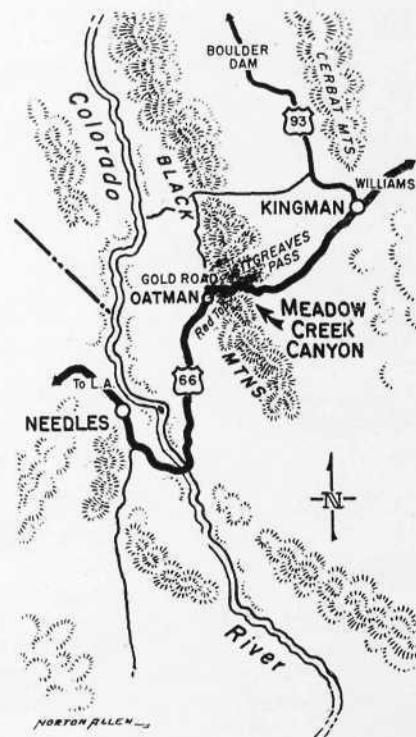
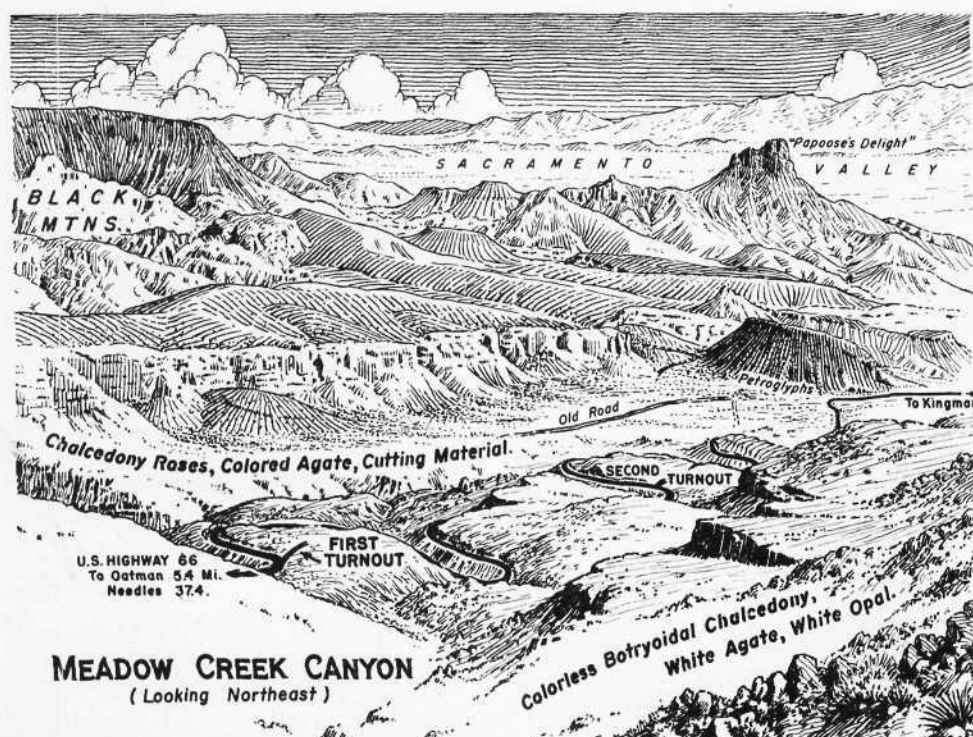
The present highway looked steep to us, and much of it required low and second gear. But Beale had to create the beginnings of a road down that pass and move his camels, wagons and mules across and to the river. The camels gave little trouble. They took the loads from the wagons and plodded over the divide. The mules managed to drag the empty wagons to the top.

We reached the divide at 4.5 miles and the road swung to the right and immediately plunged down the long grade of Meadow Creek canyon. At 5.2 miles, steps on the right, in a curve, led to a small and pretty spring developed by the highway men. At 5.4, we found our first opportunity to leave the highway. Here the road curves to the left around a small flat spotted with Mojave yucca and thorny fruited cactus. Straight ahead, slight ruts led steeply to the top of the flat.

We parked beside the road and investigated the turnout. Below us, already in shadow, was the small valley where Garcés had found his "Aguage de San Pacifico," where Ives had fed his mules and Beale had found pumpkin patches and rude Indian lodges. Across the broad Sacramento wash, the Cerbat mountains to the northeast and the Hualpai mountains to the east and southeast still shone in the sunlight. We caught the bright flicker of windshields as cars came down Railroad pass from Kingman.

The temperature went below freezing that night. But when the sun cleared the Hualpais and the dawn wind died away, we crawled from the bedding. Steaming coffee and sunlight soon thawed out the rockhunting instinct. If I wanted a high ridge, one rose almost behind us, with a peak at its north end conspicuously banded with red. Mother looked at the frowning bluffs and steep rocky slopes and regretfully decided that she would prospect around the camp. Dad was eager to be climbing.

We started up a narrow wash which ran past the camp and headed into the divide beside Red Top. A striking feature of the area was the abundance of vegetation. Paintbrush already was blooming on the little flat, and there were Nevada ephedra, nolina, beavertail cactus. As we climbed a little higher we saw the dead stalks of the desert agave, then Utah juniper.



The ascent was rough, with only a few pieces of colorless chalcedony to lure us on. But about half a mile up, where the latite bluff on the left dropped sufficiently to make a climb easy, we found a large boulder spotted with black moss agate. In some sections, fibrous bands of black, grey and white made it pretty cutting material, but spotty in quality.

We climbed to the slope above the first bluff. Almost immediately we found good sized pieces of colorless botryoidal chalcedony, some white opal, agate, white moss agate, and a few small bits of hyalite. We continued to climb, but Dad and I parted company to work toward Red Top from different angles.

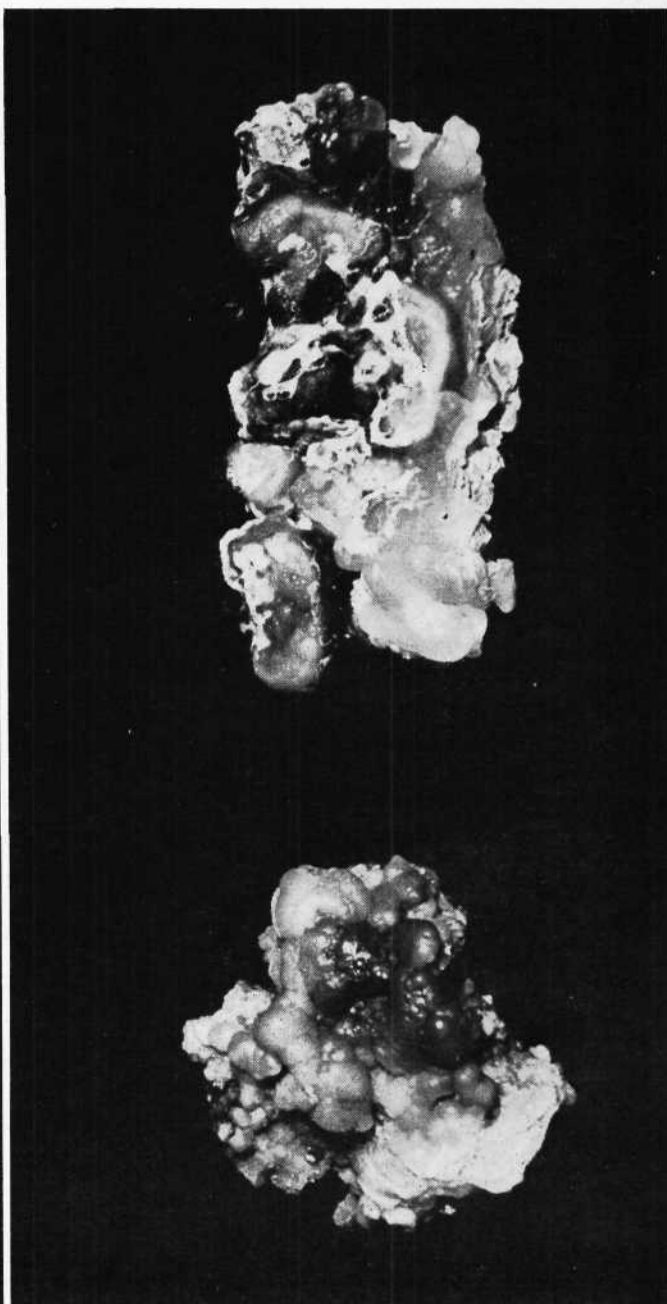
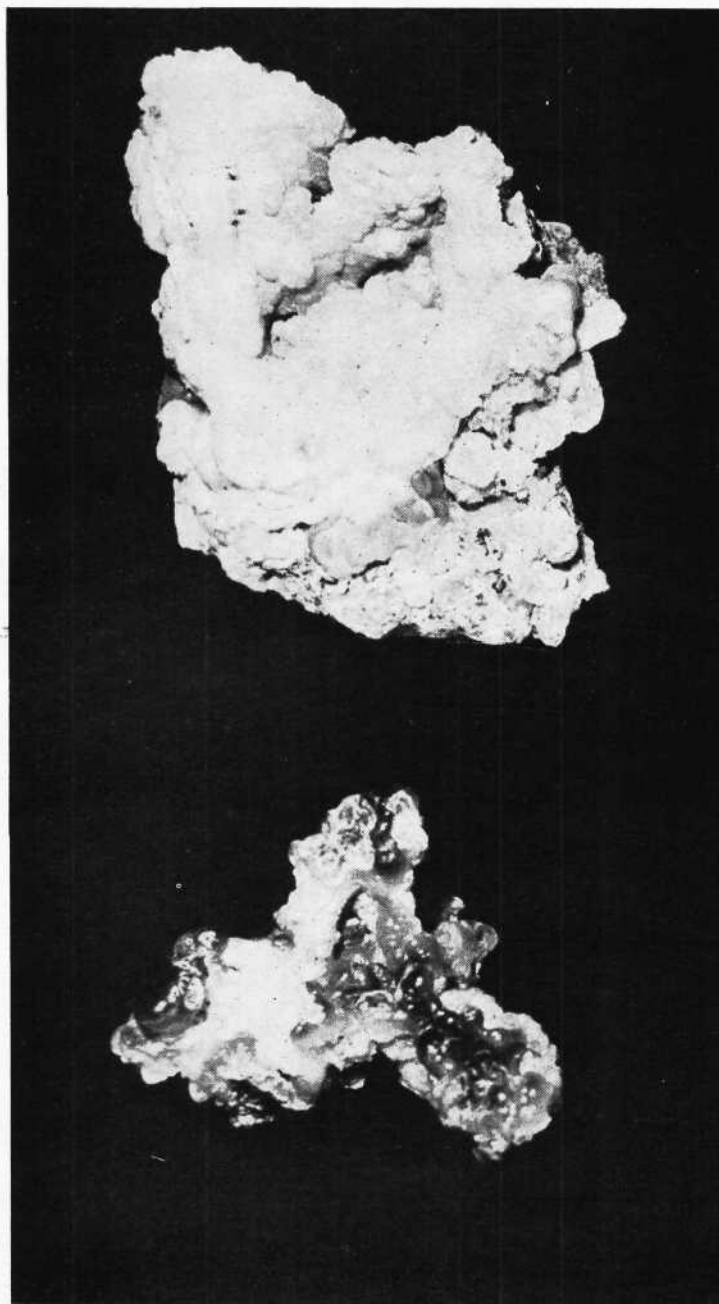
It was nearly dark when I returned to the car. I had circled Red Top completely and had looked down upon Gold Road and Oatman from a number of angles—most of them nearly vertical. I had slid down talus slopes and edged my way along ledges. I fully appreciated what May Stacey of the Beale party meant when he called this the "most rocky, hilly damnable country" he ever had seen. Stacey had broken down two mules looking

for water in these mountains. Here was another mule about on his last legs.

I hadn't found the rocks for which I was looking. There was much more plain chalcedony—and pretty, too. Just below the band on Red Top I had found limited quantities of geodes and nodules weathering out. Most of them were filled with moss or clouded agate. A few had opal as filling or coating in the cavities. The opal proved to fluoresce a brilliant green under short wave-lengths, a softer green under black light. But most of these specimens already were broken by the worst hammer-hound of them all, old man weather. And where were the colored specimens Dr. Newberry had mentioned?

Mother nodded sympathetically while I bemoaned my lack of prospecting success. "I kind of hit the jack-pot," she said. She showed me fine, waxy roses spotted with carnelian, interesting chalcedony shapes mottled with browns, yellows and reds, clear chalcedony delicately colored with red and brown, and the dark banded agate known as sardonyx.

These chalcedony roses are typical of the better ones found in the Arizona field.



There, in fact, was what I had been seeking. Only I had gone about three miles up the mountainside and she had gone about 40 feet down the slope from the car. I lit the lantern and she showed me her find. The ground over a considerable space was sprinkled with pieces, most of them small, but the majority showing color. There was evidence that collectors had been at work, but a lot of good cutting material remained.

Dad appeared over the lower slope, his hands full of rocks. He had returned before I did, had seen Mother's specimens, and had taken off down the hill. He reported that the material continued below the highway and that the pieces down there were bigger.

During most of the next day, I wandered at random over the little buttes and valleys to the north of the highway. Everywhere I found specimens in varying quantity. I must have looked like some ungainly packrat as I dropped one rock to pick up another, only to drop that for one which appeared more attractive. Collecting had been done before, but some areas seemed to have remained untouched.

The section in which the prettiest material was found comprises about a square mile. It can roughly be bounded by the high cliffs of Sitgreaves tuff on the north, the highway on the west and south, and the flat little valley on the east. No chalcedony was found in short trips through the canyons in the Sitgreaves tuff and, while it does continue in considerable quantities to the west and south of the highway, it seems to lose color as it climbs. Some fine white roses and a few nodules were found there, however.

The god who watches over rockhounds seems to have taken a hand here, as the roses and more colorful cutting material are widely enough scattered to make truck collecting unprofitable. Anyone can find several cabinet specimens and enough material for a number of beautiful cabochons in a short time. But those who want quantity will have to work for it, while those who want something exceptional will find it if they get out and look.

In addition to the turnout mentioned, there is one at 5.9 miles. Anyone planning a long stay should investigate the pumping plant road which branches left some distance below this. It might be possible to work a car from this up the old road in the valley. Coming from Kingman, the distance to the lower turnout is 22.8 miles and to the upper, 23.3.

Next morning we must turn homeward. I lay in my blanket roll and the last flickering light of the lantern died away. Darkness swept in and became lighter as my eyes adjusted. The yucca and brush and mountain ridge drew together and shaped themselves out of blackness. A wind rippled up the canyon and washed my face with its tingling presence.

Overhead the clear Arizona stars were lanterns against the cobalt blue, shining with a near friendliness that they never have and never will have above city streets and moist coastal valleys. Orion thrust his great club across the sky. The Pleiades sparkled in miniature beauty. To the north the Dipper turned soundlessly and endlessly about Polaris.

Then the stars paled as the waning moon climbed over the far Hualpais. The cliffs shone and the old road in the valley below became a clear, light streak. It was easy, then, to summon up the processions of the centuries through this jagged gateway to the Colorado. Mojaves, Hualpais, Piutes and Navajo, trading and fighting. The heroic, lonely figure of Garcés. Beale and his splay-footed camels and Ives with his hungry mules. And all the long line of trappers and mountain men, emigrants, gold-seekers, miners, soldiers and settlers who made this a pathway to fortune or death.

Now, at night, there is the occasional mutter of a motor as some traveler who did not stop at Kingman or Needles climbs



Mother and Dad compare their specimens.

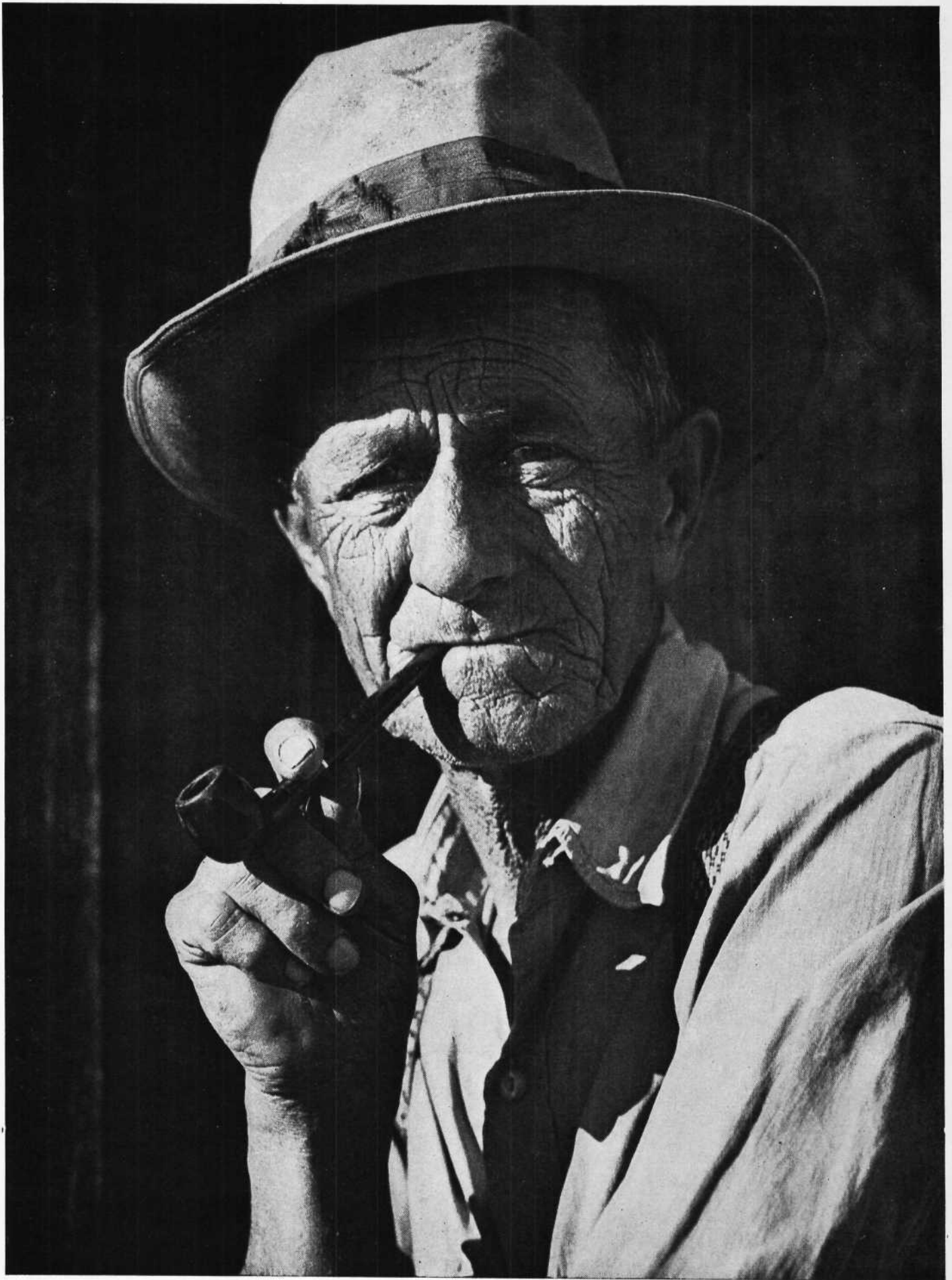
or drops through the pass, disturbed at the prospect of a late supper or bed. The lights of the car are eager, searching eyes, but they do not search for the past. The traveler roars on, heedless of the history unrolling beneath his feet, with no knowledge of the many who prepared the path he travels.

This is the Oatman grade. To the east is the high country, the Grand Canyon, the storied land of the Pueblo. To the west, the valley of the Colorado, and California the Golden. So he passes on, not knowing that he is a link in the great and endless chain of American restlessness. Those who went before him also moved with eyes on a distant and perhaps uncertain goal. But they stopped here, if only for water and food and forage for their animals.

Today's traveler would be well advised to pause, if briefly, on one side of the pass or the other. There will be something here to interest him, if he does not travel just to go from one place to another.

Savage figures will no longer cavort and shout upon the high light surface of the cliffs, nor will ominous fires burn in the darkness. The lights at the valley bottom will be those of a pumping station instead of an Indian wickiup by a spring. The traveler will not see camels on the thin white strip of road, nor the dust of groaning wagons.

But the night is the same, the stars and the wind and the quiet. And a sense of the ancient past and eternal peace of desert mountains will pour in upon him who is willing to accept it.





OLD TIMERS Prize Photos

Pop Epperheimer

Claude "Pop" Epperheimer of Calico Ghost Town (opposite page) is subject of first prize winning photo in Desert Magazine's Old Timer photo contest in April. Photo taken by Fred H. Ragsdale, Los Angeles, California, with 3½x4¼ Graflex, 6½ Tessar lens.

Lee Little

Second prize winner is photo of Lee Little of Calexico, California, a veteran "jerk line" driver who reorganizes his wagon train each year for the Desert Cavalcade at Calexico. Photo taken by Kay Coull, Calexico, California.

June photographic contest will feature the Desert in Bloom. Photos submitted may be either landscapes of blooming flowers or close-ups of blossoms in their native areas. This rule eliminates flowers under cultivation or otherwise removed from their natural habitat. See further specifications for the contest elsewhere in this issue.

Photos of merit were purchased for future use from the following April contestants: W. Ford Lehman, San Diego, California; Curtis E. Hayward, Montrose, California; Daisy G. Roberts, Bountiful, Utah; Harry Vroman, Three Rivers, California; Fred H. Ragsdale, Los Angeles, California.

Mines and Mining . .

Beatty, Nevada . . .

Discovery of a considerable body of ore running from \$10 to \$12 a ton in gold is reported by John J. Carr in the Clarkdale district 20 miles north of here. The strike is on a group of eight claims known as Yellow Gold Mines company.

Bisbee, Arizona . . .

After many years of prospecting and development work on Cave canyon zinc, lead and copper claims in the Huachuca mountains near the Mexico border, ore is now being shipped to Bisbee mills by J. W. Turner, formerly of Los Angeles. A 10-foot vein samples 12 per cent lead, 14 per cent zinc, 3 per cent copper and some silver.

Mexico City . . .

When the United States on September 20, 1945, raised the price of silver from 45 to 71.111 cents an ounce, the Mexican government absorbed 15 cents of the added margin as a tax. Now the Mexican government has removed the 3.23-cent export tax on silver. It is estimated this will give an additional profit of \$2,000,000 to Mexican mine owners, most of them Americans.

Eureka, Nevada . . .

In a field that already has produced \$80,000,000 in gold, silver and lead, development work is now in progress at the Richmond-Eureka mine on Ruby hill which is expected to yield a new fortune. Diamond drilling has established large bodies of zinc-lead-gold below 2500 feet, and it is to tap this rich ore body that Eureka corporation, subsidiary of Ventures, Ltd., of Canada, is sinking a new shaft. It is said to be one of the most costly operations undertaken in Nevada mining history.

Las Vegas, Nevada . . .

As a result of the vogue for blue gem stones, the Nevada deserts are being combed for turquoise and variscite, and stone of exceptional quality has brought as high as \$100 a pound, it is reported.

Tonopah, Nevada . . .

Dredging operations in black sulphide reported to assay as high as \$32 a ton in the Meadow canyon district 60 miles north of here, are to be started soon according to the announcement of John Sandberg and D. Carlson who exercised their option on the W. F. Flower property.

Representative Clair Engle of California has introduced a bill in congress authorizing the secretary of agriculture to issue permits for prospecting, development and utilization of mineral resources in the national forests.

After 41 years of service with the Phelps Dodge corporation, P. C. Beckett resigned as vice-president on May 1 and plans to make his future home in Tucson. Harrison M. Lavender, who became general manager of Phelps Dodge western operations in 1937, was advanced to vice-presidency as Beckett's successor.

Employees of the American Potash & Chemical corporation at Trona have subscribed 4892 shares of the corporation's stock at \$35 a share. An eastern banking syndicate recently acquired 478,194 shares of the company from the Alien Property custodian, and employees were given first opportunity to participate in the ownership. Heyden Chemical company has purchased 100,000 shares.

Mining activity in Nevada is still being handicapped by shortage of labor, according to State Mine Inspector Matt Murphy.

Weldon Newbury and H. W. Long, back from the navy, are taking clear blue turquoise out of mines in which they are interested with Bessie Long at Beowawe and Tenabo, Nevada.

A BIRTHDAY . . . MARKING TEN YEARS OF PROGRESS!

- Ten years ago, on May 18, 1936, the first consumer owners were connected to Imperial Irrigation District power lines. The record of growth and expansion achieved since that date stands as an inspiring tribute to the determination and wisdom of our people to develop fully a great natural resource.
- The original small Diesel generating plant was doubled then trebled in size—two huge hydro plants built and placed in operation—the extensive electrical properties of the California Electric Power Company in the Imperial and Coachella Valleys purchased and added to the District's system—and other advancements and improvements recorded.
- The "Little Acorn," constituting a distribution system serving only a small portion of the City of Brawley—has grown to the "Mighty Oak" whose branches of transmission lines now spread over two of the most fertile agricultural valleys in the world, bringing the blessings of electricity not only to all cities and towns in the area served but to thousands of rural homes previously denied the conveniences made possible by electricity.
- On December 13, 1945, the voters of Imperial Irrigation District went to the polls and voted overwhelmingly in favor of the District's 1945 Power Development Project, calling for \$6,200,000 in Revenue Bonds to finance additions and betterments to their publicly-owned Power System, including an urgently needed steam-electric generating plant, vital substations, new transmission lines, and other necessary facilities. The new installations will soon become added milestones to the District's power progress which is an important yardstick to community growth. Yes, Imperial Irrigation District Power becomes bigger and better with each succeeding birthday.

Imperial Irrigation District



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

Spring at the temporary home of the Souths has brought out the birds and bees and flowers. It also has brought out the annual crop of poetic expression. Since Rudyard is the "artist" of the family he was the first to feel the urge. This month readers are given a sample of Rudyard's poetry—along with a chapter from a blood-and-thunder story which one day might emerge as a novel, printed and published by the eight-year-old author.

Desert Refuge

By MARSHAL SOUTH

RESTS of the mountains are veiled in grey banks of smoking cloud. Upon the sheet-iron roof of the little house is the tinny drum of falling rain. Rains hang on late this year, perhaps to make up for their tardy arrival. As the children sit by the window, watching the dim shower squalls chasing each other through the distant miles of lowland creosotes it is hard to realize that yesterday the sky was cloudless; the hot sun beat down with electric life and our four desert tortoises—carefully herded by Victoria—ambled among catsclaw bushes in leisurely search for tasty young filaree leaves.

There is a homely satisfaction in having our queer tortoise pets as members of the household once more. At first glance there would not seem to be much in their gnarled, leathery exteriors to excite affection. But when you come to know them, there is something strangely lovable about these slow-moving inoffensive creatures. They ask so little of life or of attention that, as pets, they are in a class by themselves. We believe the keeping of any kind of pet—if it be a wild creature in captivity—is wrong. But in the case of these tortoises, so long as several are kept together, for company, and they are given water and sufficient range and proper food, it is probable that they do not suffer much by the curtailment of their liberty.

Unfortunately, little as they need, they frequently suffer at the hands of careless or forgetful owners. They need enough range so that they can pick up tid-bits and earthy substances which their peculiar organisms demand. They need enough green and dry food. And they need water. It is an illusion among many people that because desert tortoises make their home in arid lands they never drink. They do drink. And quite a lot. After heavy rains they drink eagerly and deeply from puddles. Like the camel they seem to have the ability to store moisture within their bodies and these reserves see them over long dry spells. But tortoises kept in restricted range, should have water available at all times. Sometimes they will not touch it for long stretches. Then suddenly they will drink thirstily.

Apart from food, water and reasonable range, desert tortoises need little except a cozy place in which to enjoy a long winter sleep. If they have a suitable outside enclosure in which they can dig holes for themselves in a well drained bank they will do their own housing. But even this needs some supervision, as sometimes they are guilty of bad judgment and run tunnels on a level that the flood waters will fill. We gather up our tortoises, when they become drowsy with the approach of their hibernation period, and stow them away in the house, in roomy boxes in which is a layer of warm dry earth. Over them we tuck old blankets or anything which will serve to insulate and protect them, taking care that they have enough air for breathing.

Tortoises in the depth of sleep usually are relaxed—not tightly drawn up in the shell, as many suppose. For this reason they need roomy sleeping boxes, where they have space to stretch their neck and legs. The date of the beginning of hibernation will vary with individuals. Last year Mojave, our largest, began his snooze November 13 and did not wake up until the



Victoria South—five years old.

27th of March. The other three went to sleep the 6th of November and began to stir again April 3. It is bad for a tortoise to be artificially awakened. So never be impatient. Undoubtedly their long resting periods, deliberate physical movements and extremely placid habits are responsible for the normally long lives which these creatures enjoy. Mankind could read here a valuable lesson. The popular craze of "Faster! Faster!" has certain disagreeable and inevitable results.

Hummingbirds are on the prowl, seeking good nesting material these days. The whirr of their wings as they hang poised before any wind-weathered tuft of fiber or old cloth or wool which the wind may have hung on post or bush is music in the still, sunny days. The little sprites will grasp drifting threads in their slender beaks and, backing away—under power—endeavor to drag the desired bit loose. Sometimes, when the particular thread is too firmly attached, they will have a long tugging battle. But they are persistent and will not relinquish their desires until thoroughly convinced that it will not come free. Their nests are models of design and camouflage. But, even when you know where to look, you seldom will find an old nest. Other birds, particularly purple finches, have discovered that a discarded hummer's nest is a grand treasure trove of the choicest building materials, and they will carry away every scrap of it to build their own.

We are going to miss our Yaquitepec bird colony this year. We have not put up any nest boxes at our present location. Nevertheless, we do have bird lodgers. There are birds building up under the roof. And a trustful little canyon wren has long considered herself owner of the porch. Quail roost nightly in the cottonwoods over the little lake which Rider and Rudyard built. And robins and juncos and flycatchers do pretty much as they like along the paths and in the doorways.

Uncle Sam has relinquished the gunnery range area which surrounds Ghost Mountain, so Yaquitepec is in no further danger of being liquidated by machine gun slugs. We are free to return home, but we have not yet decided when we will be able to do so. For there are other problems besides that which has been solved by the removal of war activity. For one thing the water situation is not promising. Our cisterns have suffered by our absence. And, since it is impossible to leave the roof run-off connected to the tanks when we are not in residence—because trash and impurities collect in the guttering if it is not kept clean—we have lost most of our seasonal supply of water. There are other things to be done too—little repairs to be made and improvements arranged for. Despite our own frequent visits and

the good cooperation of friends, wind and storm have left their traces on the little house. Right now, therefore, we are circulating back and forth between the two places. Meanwhile a whole new set of desert plans are building.

The Candles of God, as the Mexicans call the blooming flower-stalks of *Yucca whipplei*, lift in glory upon the hillsides. We did not have any of these at Yaquitepec. There evidently was some condition in the Ghost Mountain region which was not suitable to their growth—just as here, neither mescal nor juniper are to be found. These tall, white flower fountains of the Whipple yucca are quite a change from the defiant golden banners of mescals. But they are equally glorious in a different way. It has been interesting, too, to make the acquaintance of this yucca, which has a host of useful qualities all its own. Like the mescal it dies after flowering, in which respect it differs from its relatives the Joshua tree (*Yucca brevifolia*) and the Mojave yucca (*Yucca mohavensis*). The dead flower shoot of the *whipplei* is stouter and, for primitive purposes, in some ways more useful than that of the mescal. And its leaves are more adaptable for basketry than are those of the Mojave yucca.

But it requires the pressure of enforced close-to-earth existence to reveal all the virtues and properties of natural things.

These warm sunny days when flowers sway to the passing of desert breezes and the air quivers to the drone of bees, butterflies drift past in increasing numbers. The other day Rudyard, lying upon a blanket on a sunny slope and contemplating their wafting flight, was moved to inscribe the following:

THE BUTTERFLY

*A butterfly. A flower floating
in the air. A little spark of
animal life-wave is a butterfly.*

*The wind blows it along, like a
flower cut off its stem.*

How innocent a little thing.

But Rudyard's literary output is not confined to poetic phil-



"I thought YOU brought the shovel!"

osophy. Here is another sample, from a jumbled collection of scribbles entitled, "Adventures of Gilbert"—

Gilbert was speeding along in his new car. Suddenly a call of "Stop, you demon!" caught his ear. He slowed down.

A body of armed men stepped out of the bushes. The man at the head rode on a horse. He shouted again: "Stop, you demon!"

Gilbert knew better than to stop. He put the car in high gear and left the body of armed men behind. Presently a shot was fired at his car, but the man who shot missed.

Gilbert drove about half a mile when he sighted his Mexican friend riding on a horse. As he passed him he yelled: "Rebels! Bandits!" and went on.

Gilbert was in Mexico when this occurred.

This highly edifying piece of literature has been set in type by the author who, when the spirit moves him, hunches himself over a type case, somewhere out under the shade of a tree and, composing stick in hand, sets up his copy, scowling fiercely while he selects his type and his spaces and his periods. Someday, when he has enough of these thrillers set up in type, Rudyard plans to "publish" a book. But it goes slowly. Staggering along under the weighty burden of his eight years Rudyard steers a vacillating course between "bloody murder" literature and tender poetry.

The rain that ushered in the morning has stopped. Through the cloud banks that stoop sluggishly away across the desert until their grey bellies mist the piñons on the distant mountain crest, scattered shafts of sunlight strike down upon a wet and fragrant world. Out on the front porch, hanging from a beam that spans two pillars, Rider's sack of drying "coyote melons" (desert gourds) sways back and forth, tracing a blotch of moving, lumpy shadow across the glistening surface of the wet cement floor. Thoroughly dry and with a coat of hard varnish over their decorated or undecorated rinds, these coyote gourds make attractive bits of color about the house.

Time was when gourds—not of the "coyote" variety, but the larger sort—were important items as water containers and carriers. They have been displaced, as have so many other things, by the gadgets of progress. But they have their seasons of mocking laughter still. For when you drop your beautiful crystal glass water jug or bottle it promptly shatters to fragments—whereas the homely gourd merely grins and rolls away intact. Not a matter of much moment, certainly—if you are protected by the shapely arm of civilization. But if you are on the desert in mid-summer, with no other water available, it may mean much.

It is in this respect that the Apache water bottle of basket-work, calked with desert resin, has the advantage of the haughty canteen. The canteen like so many other "conveniences" is all right, so long as you are close to the artificial sources that produced it. But if it springs a leak or gets a hole rusted in it, and you have not the facilities to solder it, you are at its mercy. Your temporary repairs—be they plugs of cloth or of wood—will go out on you when you happen to forget them. ALWAYS at the worst possible time. The primitive old wickerwork water bottle, on the other hand, was light; it would not break easily; if it developed a leak it could be easily repaired by native materials, always at hand.

AWAKENING

*There is awakening through strife.
There is a deepening through grief.
Thus do we earn a higher life,
And a more true, more broad belief.*

*Fear not that evil days have come,
But rouse your courage for the fray.
What have we greater than the sun
And substance of the Godly Way?*

—Tanya South

HERE AND THERE... on the Desert

ARIZONA

Davis Dam Officially Started . . .

BULLHEAD CITY—Explosion of 24,000 pounds of dynamite on a razorback hill overlooking Colorado river 67 miles below Boulder dam officially started work on \$77,000,000 Davis Dam project April 19. When it is complete four years hence it will pour another 225,000 kilowatts hourly into the basin lands of Southern California and Arizona. New dam, sixth on the Colorado, will serve threefold purpose: regulate Colorado between wet and dry seasons, comply with Mexican treaty which guarantees equitable distribution of water to Mexico and produce additional badly needed power.

Scientists to Seek Relics . . .

TUCSON—San Carlos Indian reservation area south of White mountains, now virtually untouched archeologically, will be visited this summer by an expedition from Arizona state museum and University of Arizona anthropology department, according to Dr. Emil Haury, director of the museum and head of anthropology department. Camp will be set up at Point of Pines, from which Dr. Haury and Edwin Sayles, curator of the museum, will conduct exploration with 10 students from Harvard, University of Pennsylvania, University of Southern California and University of Arizona from June 10 to first week in August.

Feud a-brewin' over Wyatt Earp . . .

TOMBSTONE—Col. Jeff Milton, desert oldtimer and former ranger, is riled over 20th Century-Fox Film corporation's recent suggestion that a statue be erected here to memory of Wyatt Earp. "I have known peace officers for 70 years and I suggest that if a monument to any one of them be erected in Tombstone, it should be to John Slaughter . . . Earp had to leave Tombstone just ahead of a sheriff's posse, the sheriff of Pima county holding a warrant for his arrest on charge of murder, as reported in *Hellorado* by Breakenridge, who was a deputy in Cochise county at the time." The film company this summer will make a picture, "My Darling Clementine," based on life of Wyatt Earp, peace officer in Tombstone's wild and woolly days in the '80's as told in Stewart Lake's *Wyatt Earp: Frontier Marshal*. Film company was to go on location in Monument Valley in May.

"Seed-Bombs" Hit Arizona . . .

SELLS—Specially fitted airplanes were scheduled in April to drop more than 500,000 pellets containing grass seed over 10,000 acres of Papago Indian reservation in southern Arizona. Interior department has contracted with Dr. Lytle S. Adams, developer of the reseeding system to reseed 100,000 acres in Arizona and New Mexico. Made with special machinery, the pellets consist of seed, fertilizer and rodent repellent embedded in balls of soil from the area being planted on theory that seed so broadcast will bury itself in soil.

Officials expect 10,000 Indians to attend the All-Indian Pow-wow to be held in Flagstaff July 4-7. Daily Indian style rodeo, Indian beauty contest, Indian baby contest.

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BOOKS — MAGAZINES

READY MARCH 15th: "Lost Mines of the Old West" by Howard D. Clark in collaboration with Ray Hetherington. Original pen and ink sketches by Cedric W. Windas. Featuring the lost "Peg Leg" along with 24 other famous lost mine stories. See your nearest book dealer or order direct from distributor. Price \$1.10 postpaid. Western Book and Magazine Shop, 331 1/2 So. Hill St., Los Angeles 13, California.

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Navajo Want Vote, Education, Roads . . .

FORT DEFIANCE—About 20 delegates from Arizona and New Mexico were to leave May 10 for Washington to present Navajo economic plight to congressmen and Indian bureau officials. Problems to be presented included right to vote, greater educational opportunities, improved medical service, building of roads and establishment of central employment agency. Highlights of demands were given by tribal leaders and others at preliminary meetings in the two states. Inadequacy of education was stressed by Rollah E. Aston, Arizona state education department, who said there are school facilities for but 5500 of the 20,000 school age children. "The waiting list in the land of Navajos is long, in spite of a treaty signed in 1868 in which the federal government guaranteed these Indians a teacher and a schoolroom for every 30 children," Aston declared. He further reported that intelligence tests revealed the Navajo to be the equal of children in a "highly selected urban community in the East." Another demand was voiced by Chief Scott Preston who declared the Navajo could improve their economic status if roads were built to link their communities with the outside world. "We want to be able to build stands and sell hot dogs and soda pop to tourists just like they do on the highways of the white men," Preston said. "Indians want to make money too. Roads bring money. We want roads." Perhaps most insistent demand, especially with return of Indian war veterans, is right to vote. Navajo tribal council now is instructing war veterans and English-speaking tribesmen to register for next national election. If they are denied right to register, full report will be sent secretary of interior and attorney general to be used in test suits. It is estimated about 5000 such cases will be on record when suits are ready for hearings.

Charles Di Peso, Phoenix archeologist, has estimated that bones and clay urns unearthed at Tempe near a machine shop were buried 700 years ago, during the Hohokam era.

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EL CENTRO — — — CALIFORNIA

Fisherman's Luck . . .

FLAGSTAFF—Oak Creek, they say, is a grand place to fish, but not in the area set aside as a game refuge, as one fisherman recently learned when he paid a \$15 fine for fishing in the closed area. Effective May 30 the Forest Service camp grounds were to be placed under two-week camping limit to permit more people to use the grounds. "If the canyon gets too crowded, under the two-weeks' limit, we may have to shorten the time limit even more," Ranger M. C. Oleson said.

How Cold is Ice Cave? . . .

FLAGSTAFF—When it's freezing outside, how cold is it inside an ice cave? To find the answer to this and other puzzlers, Robert N. Wing, war veteran and science student at Arizona state college, Flagstaff, is conducting series of observations in ice caves at Sunset crater east of here. He won't predict answers until observations are more complete.

. . .

Largest crowd in 12-year history of Grand Canyon Easter services attended April 21, when more than 5000 gathered on brink of canyon to witness colorful rites which included appeal for universal brotherhood delivered in Hopi language by Porter Timeche, member of Bear clan of Hopi tribe.

Work on 265 mile Nogales-Guaymas highway got underway April 22 with laying of first asphalt just south of Nogales.

. . .

Based on all-time high of \$40,000,000 in tourist trade in 1945 for Arizona, state hotel association in April estimated Arizona will take in \$100,000,000 this year. Biggest drawback is lack of accommodations, only 15,000 spaces being available in the state.

. . .

CALIFORNIA

New Equipment Due for Parker . . .

NEEDLES—E. A. Moritz, director of bureau of reclamation region III office, announced April 11 awarding of equipment contracts totaling almost \$450,000 for Parker Dam power project (Arizona-California) to Allis-Chalmers Manufacturing company of Milwaukee, and Westinghouse Electric corporation of Pittsburgh. Major expenditure covers fabrication of three giant transformers each with a capacity of 30,000 kva, and for three oil circuit breakers, one rated at 230,000 volts, the others at 161,000 volts. Temporary structures at Parker dam now are being replaced with permanent works. During the war this project produced and, through interconnections, served power to the army's flying fields and to other installations in Arizona. Now, interconnected with Boulder and Davis dam power plants, Parker dam will provide hydroelectric energy for industrial and agricultural expansion of Southwest.

East Mesa Project Assured . . .

HOLTVILLE — Secretary of Interior Krug in April stated that reclamation bureau is planning for early construction of irrigation system to serve 10,000-15,000 acres on East Mesa in Imperial county adjacent to All-American canal in general vicinity of power drops 3 and 4. Following action will be necessary before work can begin, Krug said: (a) completion of detailed field surveys, plans and specifications; (b) negotiations with Imperial Irrigation district, looking to execution of supplemental repayment contract to cover construction costs; (c) appropriation of construction funds. In meantime, Krug said, a 540-acre predevelopment plot has been established adjacent to All-American canal to demonstrate behavior of typical mesa soils under irrigation.

Indians Discover Mineral Spring . . .

BANNING—Indians of Morongo reservation have discovered abundant source of mineral water at base of San Jacinto mountains south of Cabazon, it was reported in April. Spring was found at Clarence Birney ranch when a tunnel was dug into mountain. It is proposed to close tunnel entrance to make a reservoir for bottling of water, which is described as palatable, soft, odorless and crystal clear.

OUT OF THIS WORLD

There's a story about a Nice Old Lady watching an oil exploration crew unload a lot of scientific equipment on or about Signal Hill.

Pretty soon she asked one of the crewmen: "What's all this fuss about?"

The crewman replied, "We're trying to find petroleum."

"You're what?"

"I say, we're looking for some oil."

"That's kinda silly, ain't it," said the Nice Old Lady, "you can get all you want down there at the corner service station."



At that, the average motorist seldom stops to think of all the various operations that must take place before petroleum products reach his automobile.

To begin with, crude oil is tucked 'way down in the earth. Long before gasoline comes out of the service station pump, it has to be taken out of this world.

And before it can be taken out it has to be located. Shell oil maintains a big staff of geologists, explorers and scientists to find underground spots that *might* produce petroleum.

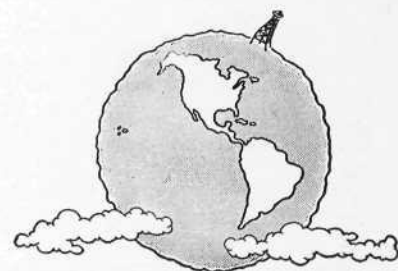
The Company has vast laboratories given over to the study of where and how to unearth this vital resource.



Shell's oil exploration proceeds unceasingly over hill and dale, across deserts and even to the bottom of the ocean.

And all this "fuss" is carried on so that the oil-using motorist can continue to "get all you want at the corner Shell service station."

— BUD LANDIS



Night and day there's fun at...

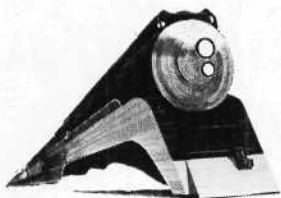
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Indians Unite for Rights . . .

BISHOP—Federated Indians of California, coalition of Indian organizations, communities and individuals formed at Sacramento in March, have drafted a bill to be introduced into congress by Congressman Ellis Patterson. Bill is to ask appropriation of balance of \$93,000,000 which Indians claim is due them as damages for loss of their rights in 75,000,000 acres occupied by them in California until in the 1850's, at which time they were removed to reservations promised them in 18 treaties made at that time with the government. These treaties subsequently were rejected by U. S. senate, said to be because of pressure brought by California gold miners and others already occupying the proposed reservations. United States court of claims recognized their rights when it awarded them \$5,000,000 under suit brought in their behalf by attorney general of California. Due to flaws in wording of the act, this was largest sum that could be awarded; therefore Attorney General Robert Kenny advised them to seek additional damages direct from congress.

Canyons Proposed as Park Site . . .

PALM SPRINGS—Riverside county board of supervisors adopted a resolution in April asking California state park commission to study feasibility of including Palm-Andreas-Tahquitz canyon area of San Jacinto mountains in state park system. At present park commission is investigating possible park sites in inland counties as result of recent state appropriation of \$5,000,000 for recreation areas. Funds from this appropriation must be matched by other than state money. Possibility that Palm canyon-Tahquitz strip, if available from federal government which now holds it in Agua Caliente Indian reservation, might be an addition to the existing San Jacinto Mountain state park is suggested since this canyon area lies contiguous to eastern and southern boundaries of San Jacinto park. Also at present is a revived move to include the canyons in a national monument.

Havasu Site Inspection Continues . . .

NEEDLES—Investigation of Havasu Lake state park site was continuing in April, when state senator Ralph Swing, state engineer Olmsted and Ralph Motherspaw, San Bernardino county highway engineer, inspected and approved the road into park area, which leaves Highway 95 at Needles boat landing intersection and follows boat landing road east to point where the high lines cross road. Park site road angles south at this point, follows power lines several miles, then follows a mine road around lake. It is believed work on park will start this year. Area, which includes several sections of government land, is along Colorado river about 40 miles south of Needles.

Prospector Heads for Turtles . . .

BLYTHER—George "Chuckawalla Pat" Twedell of Boulder, Colorado, was on his way into the Turtle mountains late in April to search for—not a lost mine—but strategic minerals for the government. Twedell, 92, pioneer mineral scout and prospector, was flown to various Central American countries during the war scouting minerals for the government.

Big-time Races in Mojave . . .

JOSHUA TREE—Residents of this Mojave desert village 135 miles east of Los Angeles take their races seriously. Twenty-four entries were lined up for the super event May 12 at the town square. Colors were flying, jockeys tense, crowds breathless—waiting for the starting signal. But since the racers were desert tortoises, spectators might have had quite a wait before the mood moved the "steeds." Anyway, speed or no speed, a lot of fun was planned for the classic desert "turtle" races.

Judge Guy S. Pinney, Palm Springs, died April 3. He was city's first city clerk, served as city judge, township justice of peace, city treasurer.

In five-year period 1939-1944 individual civilian income of Imperial county increased 149.3 per cent, against state average of 144.6 per cent and national average of 109.8 per cent.

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NEVADA

Town Ownership Still in Doubt . . .

SEARCHLIGHT — Controversy over ownership of this town was still going strong in mid-April, when a second, amended complaint was filed by Frank Emberling, a miner who claims surface rights to business properties in the Clark county town. Emberling tossed a bombshell several weeks previously when he claimed the land on which the town is built because of mining claims filed in 1939. Both plaintiff and defendants (property holders and Clark county, tax sale holder of several parcels of real estate involved) hoped for early decision. Feeling over situation was running high and old fashioned gunplay was threatened in the town which blossomed overnight due to construction of Davis dam nearby.

Big Lake is Low . . .

BOULDER CITY — Although Lake Mead is at lowest ebb in history and a dry winter in the watershed indicates runoff will be about 53 per cent normal, bureau of reclamation officials declare situation is not alarming. Present low level is attributed largely to fact that since 1941 there has been an over-normal drain on power production for war industries, Boulder dam having supplied more than half the energy used in Southern California during that period. Energy consumed surpassed the planned capacity throughout war years, hitting a peak in 1943-44 with 6,251,000,000 kilowatt hours output. Expected decline in power demand following end of war has not materialized, so coupled with irrigation needs and subnormal watersheds, lake level probably will continue below normal for some time.

Boulder Dam Pioneer Dies . . .

LAS VEGAS — Ed W. Clark, pioneer Nevada politician and civic leader, died April 15 in Las Vegas. Among the many capacities in which he served was as member of original Colorado River commission, a post he held 25 years. He conceived the "Nevada Amendments" to Swing-Johnson act which gave Nevada and Arizona right to share in power and water from Boulder dam and revenue from sale of power. He also played important part in bringing Basic Magnesium to southern Nevada.

Want to Celebrate Boulder Power . . .

BOULDER CITY — Tenth anniversary of the start of generation of Boulder dam power will be observed here and at Las Vegas September 11, if plans outlined by Las Vegas chamber of commerce in April are completed. A committee was appointed to form more definite plans for the event.

Million dollar resort hotel named "New Horizon," owned by Frank Sinatra and associates, is under construction on Los Angeles highway near Last Frontier hotel, Las Vegas.

Deadend Road Crisis Averted . . .

SEARCHLIGHT — Tentative plan framed by Governor Vail Pittman, county commissioners Ira J. Earl and M. E. Leavitt and J. M. Murphy, resident engineer, late in April appeared to avert crisis brought about by closing of road to Davis dam area from the Nevada side two miles from Colorado river. Utah construction company, who had not allowed commercial travel into the area for "safety precautions" explained the bridge at that point is a temporary one not safe for regular traffic and that the two-mile area was to be used as a disposal area for about four million yards of rock and sand that will be dredged from the river and stored there. Compromise provided for the construction firm to assist state in cutting temporary road to skirt closed area and lead to construction camp, to save expense of companies holding supply and other contracts going across Boulder dam and around by way of Kingman to make deliveries.

NEW MEXICO

Rio Grande Runoff Below Normal . . .

ALBUQUERQUE — Although spring runoff of melting snows on Rio Grande watershed started late in April, Hubert Ball, conservancy engineer, warned that all possible irrigation water must be saved. He reported 816 second feet flow past gauging station 10 miles below Otowi,

whereas 1100 to 1200 second feet are needed to keep all irrigation ditches in the conservancy district full.

Picacho Trading Company store, historic Lincoln county landmark constructed in the 1870's recently was destroyed by fire.

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- LADIES' READY-TO-WEAR
- MEN'S FURNISHINGS
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(Average Daily Minimum)



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Please send your free booklet to:

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Congress Renews Indian Contract . . .

ALBUQUERQUE — Bill authorizing secretary of interior to contract for another 10 years with Middle Rio Grande conservancy district for payment of irrigation operation and maintenance costs on Indian lands was sent to President Truman in April. About 12,000 acres, belonging to the pueblos of Cochiti, Santo Domingo, San Felipe, Santa Ana, Sandia and Isleta, are benefited.

. . .

M-G-M film company, headed by Spencer Tracy and Katherine Hepburn, was expected to arrive in Gallup late in April to start work on film adaption of Conrad Richter's *Sea of Grass*, which depicts life in New Mexico in the early '80s.

NON-RATIONED . . .

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DESERT SOUVENIR

A four-color picture suitable for framing shows the Covered Wagon Train of '68 crossing the desert; now on display at Knott's Berry Place, Highway 39, two miles from Buena Park out of Los Angeles 22 miles. This remarkable oil painting 20x60 feet took over one year to complete. A copy will be mailed you together with the special souvenir edition of our Western Magazine jam-packed with original drawings and pictures and complete description of Ghost Town and Knott's Berry Place. Both will be mailed with current issue of our 36-page magazine for 25 cents postpaid in the U.S.A. Thousands have already viewed this great work of art and acclaim it a wonderful contribution to the history of the West. Admission is without charge whether you stay for the chicken dinner and boysenberry pie or not. Send 25 cents for all three: picture, souvenir and current issue to Ghost Town News, Buena Park, California.

Will Build A-Bomb Research Machine

LOS ALAMOS—Dr. Joseph McKibben, nuclear physicist of Los Alamos atom bomb laboratory, in April revealed plans for construction of world's largest voltage accelerator, to aid atomic research and practice. Machine will be powered by eight-million volt generator. Pilot generator, carrying 2-3 million volts, the scientist said, will be built this fall, and construction of the eight-million volt generator is expected to get underway next year.

Navajo Friends Ask More Aid . . .

SANTA FE—While house and senate committees on Indian affairs were considering reassessment of Indian policies in April, spokesmen for the Navajo emphasized importance of more educational and medical facilities for the tribe. Dr. George Boyce of Window Rock, Arizona, superintendent of Navajo education, declared, "If we face the facts, it is difficult to hold our heads up. We are not only neglecting these people, but we are guilty of withholding our knowledge from them in medicine, education and ways of being better citizens." Commissioner of Indian Affairs William A. Brophy, in disclosing that one third of Indian families have less than \$500 annual income and nearly two thirds have less than \$1000, said the figures emphasized need for "greater educational advantages, wider health service, and more aid in improving their land, livestock and other services . . ." At same time Mrs. John J. Kirk of Gallup was urging passage of the Forand bill or similar legislation to finance extension of public welfare benefits to Arizona and New Mexico Indians.

. . .

More than 5000 persons celebrated first postwar Playday at White Sands national monument in April. Oldtimers' reunion, sports, folk and Indian dances were on the program.

. . .

Dr. Clyde K. M. Kluckhohn, former assistant professor of anthropology at University of New Mexico and authority on Southwest Indian culture, has been awarded a Guggenheim Fellowship. He is a former Rhodes Scholar, is now at Harvard.

. . .

UTAH

Rubber Product Plant to Start . . .

NEPHI — A rubber manufacturing plant, employing more than 300 workers will be established here "in the near future," it was announced in April. Thermoid company of Trenton, New Jersey, had made arrangements for purchase of 24-acre factory site just north of Nephi. Rubber or synthetic products and asbestos will be used as raw materials for manufacture of Thermoid brake linings, nationally-advertised product, it was said.

Take First Steps in Huge Project . . .

SALT LAKE CITY—Central Utah irrigation and power project, estimated to cost \$300,000,000, was held by bureau of reclamation to be feasible, it was announced at conference of Utah delegates in office of secretary of interior J. A. Krug in April. While the secretary was favorable to the proposal it was agreed the first step called for a four-state compact apportioning waters of the upper basin of Colorado river among Utah, Wyoming, Colorado and New Mexico. Secy. Krug planned to visit Utah in late May or early June to investigate further.

Southeast Utah Geology Mapped . . .

GREENRIVER—Geology of more than 2000 square miles in desert and canyon country of southeast Utah is shown on new map published by geological survey, Director William E. Wrather has announced. Region lies west of Green and Colorado rivers in Emery, Wayne and Garfield counties and includes Cataract canyon of the Colorado. Map is on scale of one inch to two miles, 28x45 inches size, has table describing geological formations.

New Dam Will Change Landscape

PRICE—With Scofield Dam project virtually complete, filling of reservoir had started April 15. Lake eventually is expected to hold approximately 73,000 acre feet of water. As the reservoir fills, several private cabins on the north shore will be inundated unless they are moved. About one mile of state road also is below estimated water level. Construction of dam was started in 1943. Cost will total about \$900,000.

. . .

Days of '47, scheduled to be held in Salt Lake City July 15-24, will include pioneer costume ball, tabernacle choir concert, parade and pageant.

LOOSE-LEAF BINDERS

—each holds 12 copies of Desert

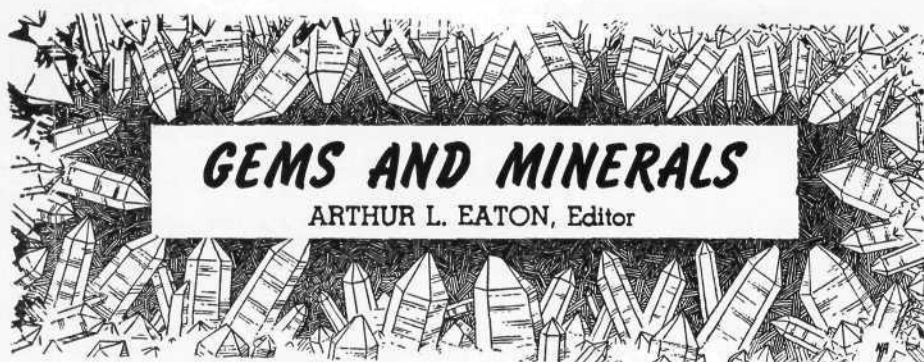
It takes just a few seconds to insert your magazine in those handsome gold-embossed loose-leaf binders the Desert Magazine office sends well-packed and postpaid.

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DESERT MAGAZINE
El Centro, California



GEMS AND MINERALS

ARTHUR L. EATON, Editor

S. W. MINERALOGISTS LIST ANNUAL SHOW WINNERS

Southwest Mineralogists, Los Angeles, recently sponsored the most successful annual mineral show in their history. Besides the exhibit of gems they showed physical properties testing equipment, a library of text books, fluorescent and faceting demonstrations.

Following awards were made:

Best display—Alwilda Dartt.

Crystals—1, Dr. Foster; 2, Alwilda Dartt; 3, Pearle Arnold.

Best crystalline specimen—1, Dr. Foster, smoky quartz; 2, Alwilda Dartt, fluorite; 3, Don Stokes, barite.

Minerals—1, Alwilda Dartt; 2, Dr. Foster; 3, Sally Mack.

Best mineral specimen—1, Dr. Foster, cinnabar; 2, Alwilda Dartt, hematite; 3, Sally Mack, smithsonite.

Hand craft—1, O. C. Barnes, Death Valley onyx; 2, Florence Owen, ceramics; 3, Harold Eales, spheres.

Jewelry—1, Oma and Loren Foote; 2, Charles C. Cook; 3, Dorothy Craig.

Specials—A. C. Gustafson, faceting; Stanley Trimbur, junior display; Florence Ingledue, concretions; Harold Eales, figurines; Leo Cotton, spectroscopic; Homer Mack, fluorescent.

Special commercial—Ellsworth Beach, Granville Campbell, W. S. Shirey.

Judges were Jack Streeter, president Mineralogical Society of Southern California; A. B. Meiklejohn, Los Angeles lapidary society; Edward G. Anderson, jewelry instructor George Washington high school.

Any rockhound finding himself in Los Angeles vicinity between May 4 and June 28 should visit fifth annual exhibition of Los Angeles lapidary society in Los Angeles county museum, Exposition park.

NORTHWEST FEDERATION TO MEET AT BOISE IN AUGUST

Annual convention of Northwest Federation of Mineralogical societies, the first to be held since 1941, has been set for August 31 and September 1 at Boise, Idaho. Idaho Gem club of Boise, host club, had committees working on arrangements as early as April, according to President J. A. Harrington. Ample space will be provided for gem displays and for lapidary equipment and supply firms.

Tentatively programmed is a field trip to opal beds and areas of agate and petrified wood.

BARSTOW CLUB COMPILING MOJAVE DESERT MATERIAL

Mojave Desert gem and mineral society, Barstow, has a wide field of interest, including lapidary arts, silversmithing, geology and allied earth sciences, and Indian pictographs. It is receiving cooperation of persons living at widely separated points on the desert, who report road conditions, new finds in minerals and rocks.

Club recently outlined attractions to be thoroughly checked and reported for benefit of all who are interested in the Mojave desert. First on list is Devil's Playground. Among others are Mitchell's caverns in Providence mountains, Inscription canyon noted for its Indian pictographs; Bicycle lake, with its hills of amygdaloidal basalt and massive agate; Newberry mountains with their "potato geodes"; Ludlow salt pits where salt crystals are found; Mule canyon with its colorful clays.

Plans are complete for annual convention California federation of mineralogical societies, when they meet June 14-16 at Glendale civic auditorium, 1401 N. Verdugo road. Mineralogical Society of Southern California, Pasadena, is host.

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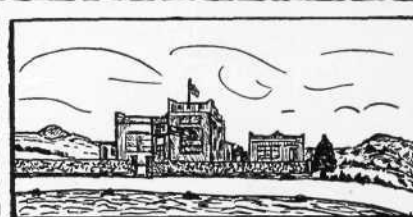
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MINERAL COLLECTION including lapidary equipment, gem material, specimen used as magazine illustrations, water-clear quartz crystal clusters, etc. \$250.00. J. D. Thompson, 1640 N. Alexandria Ave., Hollywood 27, California.

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FLUORESCENT MINERALS (mineralight) from the Colorado desert. Calcite banded with fluorite. This material makes beautiful cabinet specimens and fluoresces in wavy bands of red and blue. No blank spots. Supply limited. Pieces approx. 2x3 in. \$1.00, a few chunks approx. 10x12 in. for spectacular display \$15.00. Cal-spar (calcite) the vivid red glow of this 'spar is unsurpassed and it can be cut into novelties. Specimens 2x2 in. 50c. Slabs up to 6x8 in. 25c per inch. Chunks 10-12 lbs. \$1.00 per pound. Other fluorescent material. No order for less than \$1.00. Postage please. Ed Rochester, Winterhaven, Calif.

FLUORESCENT CALCITE fossil slabs from Texas. In rough or polished, Llanoite (opaline granite) in rough only. Beautiful polished paperweights of assorted minerals. Sent on approval, prices on request. Clay Ledbetter, 2126 McKenzie Ave., Waco, Texas.

CHOICE SPECIMENS that should be in your collection. Clear gemmy Apatite crystals 25c to 75c. Bright showy Wulfenite crystals 25c to \$5.00, both from Mexico. Brilliant Vanadinite crystals from Arizona 25c to \$2.00. Mail orders only. Gaskill, 400 No. Muscatel, San Gabriel, Calif.

QUARTZ CRYSTALS with green chlorite inclusions. The rarest quartz crystals ever found. Small singles and groups at \$1.75 to \$3.75 each. THOMPSON'S STUDIO, 385 West Second Street, Pomona, Calif.

"PERRY" DRILL—Drill your own, hearts, beads, pendants, etc., for pleasure or profit. For professionals or amateurs. Pays for self in short time. Sturdy, proven, fast. Materials limited, order now. Price only \$12.50. L. E. Perry, 111 N. Chester, Pasadena 4, Calif.

COLORFUL TEXAS ARAGONITE—Massive crystallized opaque, brick-red aragonite and translucent amber acicular aragonite crystals on highly colored limonite. Amber crystals fluoresce and phosphoresce unusual buff color; best with long wave. 2x2 in. 50c, 2x3 in. \$1.00, 3x4 in. \$2.50 and 4x6 in. \$5.00. Choice Museum Specimens. FRANK DUNCAN AND DAUGHTER, Box 63, Terlingua, Texas.

MEXICAN MINERALS—Cobalt ore—\$1.50 lb. Ruby copper in quartz—\$1.50 lb. Trade your surplus. Doubly terminated quartz crystals, small, ten cents each. Also Mexican jumping beans—\$1.50 hundred. (Agts. wanted). Mexico's strangest miniature—pair dressed fleas \$1.50. Large antique, handmade iron door keys, Spanish—\$2.00. (No two alike.) Everything postpaid and guaranteed. Alberto E. Maas, Alamos, Sonora, Mexico.

10 SQUARE INCHES sawed Petrified Wood from the Painted Desert. Red and Yellow Jasper, Agate and Amethyst. \$2.00 post-paid if cash with order. The Knicky Knacky Shop, Box 1497, Flagstaff, Arizona.

FORTY FOSSILS and Minerals \$1.00. Uncut geodes, 10 pounds \$2.50, 100 lbs. \$18.00. BRYANT'S ROCKS, Rt. 1, Alton Sta., Ky.

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FAMOUS HAUSER Beds Specimens. You have to see and cut for yourself these geodes and agate nodules from this desert location in the Little Chuckawalla Mts. Some of these contain drusy quartz, sparkling, water-clear quartz crystals, and amethyst crystals. Solid, clear and fortified agate in white, blues, and reds. Colorful matrix. You will want several for your collection. Up to 2½ inches diameter, 25c apiece. No order less than \$1.00. GEM ARTS COMPANY, 4282 Marlborough, San Diego 5, California.

URANIUM VANADIUM (Carnotite) Specimens. The sensational Atomic energy element, direct from the mines. For display and study by students, collectors and prospectors. Will furnish specimen for \$2.00 postpaid, anywhere in United States and Alaska. Larger amounts for mineralogical research upon request. C. F. Tobelman, 1528 W. 92nd Street, Los Angeles 44, Calif.

150 LARGE UNCUT Thunder Eggs. Agate, Chalcedony and Crystal interiors. Sardonyx slabs, assorted Agate cutting material, several hundred Chalcedony concretions including Desert Roses imbedded with crystals. Several pounds jet black Tourmaline crystals. Many nodules. Hundreds of other beautiful Arizona specimens, Jaspers, wood, ore, etc. Will sell entire lot for \$300.00. Separate collection of beautiful agate lined Thunder Eggs, \$1.00 each, six for \$5.00. Approximate weight 2 lbs. each. Postpaid. H. C. Mick, Box 571, Wickensburg, Arizona.

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WHOLESALE ONLY: Lazulite, Agate Wood, Nevada Agate, Nevada Variscite, Obsidian, black, Obsidian, black and red. Amygdaloids, Carnelian, Travertine, Death Valley Onyx, Lone Mt. Onyx, Paymaster Onyx, Death Valley Curly, Box 495, Goldfield, Nev.

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

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BEAUTIFUL LEAD SULPHIDE or Galena at fifty cents per specimen. Petrified Wood, red with crystallization, fifty cents per pound. Calcite, obsidian, fire opals, mica, vermiculite, gypsum and salt crystals, twenty-five cents each specimen. Orlando Tanner, Box 345, Whitney, Nevada.

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A LIMITED QUANTITY of black Petrified Wood. This wood is hard and will cut gem stones of jet black with a high luster. \$2.00 per pound, transportation prepaid. Address orders to V. C. Hague, 600 W. Hill St., Gallup, New Mexico.

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IN STOCK for immediate delivery. Felker Di-Met Saw Blades, 6" \$4.60, 8" \$6.65, 10" \$8.70, 12" \$10.75, 14" \$14.80, 16" \$16.85. Give bushing size. RX Lapidary all in one unit \$125.00 F.O.B. Torrance, Calif. Grinding wheels, Sanding Cloth, Cerium Oxide polish powder \$2.50 per lb. Residents of Calif. should add 2 1/2% State Sales Tax. A. L. Jarvis, Route 2, Box 350, Watsonville, Calif. Closed on Wednesdays.

JUST RECEIVED a lot of fine Amazonite crystals from eastern Colorado. A few clusters but mostly singles. \$10c to \$1.00. Colorado Gem Co., Bayfield, Colo.

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LARGE ASSORTMENT of good quality gem stone. Prices in the rough run from \$2.00 per pound up. Sawed slabs assorted \$3.50 per pound up. One pound of slabs will cut dozens of excellent cabochons. Selection of cabochon blanks sent on approval priced from 15c up. Custom silversmithing and lapidary work estimates on request. Sterling silver sheet and wire in small quantities. I purchase good quality gem stone in the rough. Correspondence invited. Satisfaction or money-back guarantee. Paul F. Fryer, Walpole St., Dover, Mass.

AMONG THE ROCK HUNTERS

The Conglomerate, official bulletin of Michigan mineral society, schedules Helen Martin to speak at April 8 meeting on resources of the glacial drift in Michigan. Michigan group recently has joined Midwest federation of geological societies. Officers are: J. F. Mihelcic, president; L. R. Bacon, vice-president; E. O. Goddard, secretary; F. Peabody, treasurer; Henry P. Zuidema, editor Conglomerate, 130 Lawrence avenue, Detroit 2, Michigan.

Thirtieth annual meeting of San Diego museum association was held April 23. It is estimated that more than a year will be required to get the museum in good running order with all exhibits in place and an active educational extension program under way. California building which houses the museum served as a naval hospital during the war. Cooperation of the public is requested for making the institution of maximum service to the community. Write any suggestions to San Diego Museum of Man, Balboa Park, San Diego, California. Malcolm F. Farmer is curator.

Malcolm J. Rogers, who resigned last December as curator and acting director of San Diego Museum of Man after 20 years of active work for the museum, will continue his affiliation with the institution in an advisory capacity as a research associate. He is an authority on early Indians of California and the Southwest.

Richard R. F. Lehman talked on Selling (wire rope) and Collecting (minerals) at April 17 meeting of Searles Lake gem and mineral society. Dick is a past president of Los Angeles mineralogical society and a director of the California federation. Edward Ridenbach assisted by LeRoy Bailey led Searles Lake annual Death Valley field trip April 26-28, visiting Stovepipe Wells, Rhyolite, Beatty, Goldfield, Scotty's Castle and Wildrose.

Imperial Valley gem and mineral society and Imperial Valley lapidary guild scheduled first annual joint exhibit May 18-19 in American Legion hall, El Centro, California.

Mae McKibben, secretary Mother Lode mineral society, Modesto, California, reports that 36 members enjoyed a field trip and pot luck dinner in Del Porto canyon April 7. This was the second jaunt of the year for the Modesto group, who found gypsum, sand balls, petrified wood, jasper, calcite and quartz crystals.

Officers of the newly organized Glendale gem and lapidary society were installed by Leland Quick May 6 at a joint meeting of that society with Los Angeles lapidary society. They were President, Dan White; 1st Vice-President, Dr. Malcolm Hebard; 2nd Vice-President, Frank Fuller; Secretary-Treasurer, Ruth Rowan. Anyone interested in joining the group should write to the secretary at 448 Federal building, Los Angeles. Those who know nothing at all about gem grinding or rocks are particularly invited as the group is composed almost entirely of novices at the art of gem cutting.

Vern Cadieux has been elected president Santa Monica gemological society for the fifth consecutive term. Aiding him as officers are W. R. B. Osterholt, 1st vice-president; Edward L. Oatman, 2nd vice-president; Estelle Y. Tesh, recording secretary; Violet Marcus, corresponding secretary; Clarence Chittenden, treasurer. W. R. B. Osterholt, geology professor at S. M. city college, gave a talk on origin and development of petrified wood at April 4 meeting. Sound motion pictures were presented by member Delmer Taves. March field trip took the group to Shark's Tooth mountain near Bakersfield. April excursion was planned to agate and jasper deposits near Rosamond. Visitors are invited to attend regular meetings held first Thursdays in Bungalow 28, City College, Santa Monica, California.

Alden De Vore discussed smelter practice at April dinner meeting of Los Angeles mineralogical society. De Vore was formerly with Marsman and company, spent many years in the Philippines and is now with Dr. Herman, a past president of Los Angeles mineralogical society. April field trip was slated for Imperial Valley.

Ralph Merrill succeeds Ann Talchick Whitener as vice-president of Searles Lake gem and mineral society.

Ernest and Norton Allen are proudly displaying some fluorite beads made by the Hohokam Indians of the sedentary period—about 1000 A. D. The spherical type beads are of green and clear color fluorite about 3/8 inch in diameter. The Allens also found over 200 tiny turquoise beads of the same period. The Hohokam Indians represent the most highly developed prehistoric culture of the lowland desert regions. They are noted for their pre-Columbian reclamation projects in Gila and Salt river valleys, Arizona.

Leland Quick, Desert Magazine writer, gave a lecture on gems of California in the auditorium of the Museum of Science, History and Art at Los Angeles May 4 and 5 during the fifth annual display of gems and lapidary art of the Los Angeles lapidary society.

Lamoin Mullin, recently returned from overseas naval duty, told of his experiences in collecting rocks in the Philippines at March meeting of Desert gem and mineral society, Blythe, California. Mullin and others, equipped with diving apparatus, chiseled out coral at a depth of 40 feet.



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Visit our convention display June 14, 15, 16 at the Glendale Civic Auditorium. For the convenience of out of town customers who have come to the convention, our shop will be open June 17, 18 and 19th. Our store will then be closed for the balance of the month.

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CANIPS

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Dr. John Harris who has traveled extensively in Mexico showed moving pictures of his recent trip at April meeting of Long Beach mineralogical society. Preliminary work has been started on 3rd annual mineral and lapidary show to be held October 20, 1946. Salton sea area was objective of April field trip.

Ila Nelson, secretary, reports that 40 members of Gem Stone collectors of Utah went on their first field trip of the season March 31 to the Jericho agate locality. Despite wind and rain the trip was quite successful, yielding iris agate, opalized wood, jasper and Indian relics.

Ernest Chapman, honorary member, was guest speaker at April 12 meeting of Pacific mineral society, Los Angeles. He talked about minerals of Broken Hills, New South Wales, and displayed specimens from that great silver mining district. Dr. P. A. Foster, president, exhibited some minerals he recently received from Langben, Sweden. The group planned a prospecting trip over Angeles forest highway hoping to find garnets, andesite, plagioclase crystals and limonite.

Mrs. A. F. Wade, secretary Orange Belt mineralogical society, Redlands, California, reports 124 members and guests present at April meeting to enjoy pictures shown by C. E. Rogers of Standard Oil company. Attendance prizes were awarded.

Umpqua mineral club, Roseburg, Oregon, forecasts an influx of summer visitors as many inquiries have been received regarding collecting areas in the locality. Everett Teater instructed the group on the making of gold and silver mounts for cut gems at April meeting, illustrating his talk with crayon drawings. Roy Rose was unanimously elected president to fill the unexpired term of Alvin Knudtson. Meeting night has been changed to second Thursdays.

Thomas S. Warren of Ultra Violet products company, Hollywood, talked to April gathering of San Fernando Valley gem and mineral society on fluorescence. He demonstrated various types and sizes of ultra violet lamps, using minerals from New Jersey and western states. Kilian Bensusan and son Guy displayed Brazilian gems and minerals.

Kern county mineral society announces following officers: Carl Bangle, unanimously elected president, was unable to fill the position due to recent business transactions, so office of president remains open; Floyd Johnson, vice-president; Mable O'Neill, secretary-treasurer; Gunnar Petersen, field scout; Gilla Kennedy, curator. March field trip was to Horse canyon.

East Bay mineral society, Oakland, California, plans an annual banquet June 1 at Park Boulevard club house, with a members' exhibit of specimens and polished work and also a sale of gem and specimen material.

Harold and Nathalie F. Mahoney have compiled an alphabetical list of minerals showing old and new Dana numbers, and will send a copy to any East Bay club member who sends them a self-addressed stamped (6c) envelope.

Junior division of Mineralogical Society of Arizona put on an exhibit and program at April 4 meeting. Major L. F. Brady was scheduled to describe meteorite craters. At second April meeting J. Lewis Renton, Portland, Oregon, was to discuss minerals in color, illustrating his talk with color photographs from his collection which is probably the most outstanding collection of color photographs of minerals in the U. S.

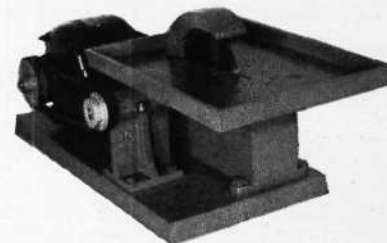
New Jersey mineralogical society, Plainfield, New Jersey, lists the following 1946 officers: Joseph D'Agostino, president; Dr. S. S. Cole, vice-president; H. E. Millson, vice-president; G. R. Stillwell, secretary, 1023 West 5th street, Plainfield; Miss E. Hensel, treasurer.

C. A. Morrison discussed synthetic crystals at April 18 meeting of East Bay mineral society, Oakland, California. Morrison recently returned from a trip east where he made an intensive study of the manufacture and use of synthetic crystals. Field trip to Pescadero for beach pebbles April 14 brought forth about 50 Oakland people who joined 30 from San Jose. Custom of swapping was started on this field trip.

Of the 50 hobbies exhibited April 13 at the Kiwanis-sponsored hobby show in Gallup, New Mexico, the exhibit of Southwest minerals entered by 15-year-old John Havens won award for the most outstanding hobby shown.

Alvin A. Hanson, president of Yavapai gem and mineral society, Prescott, Arizona, officiated at a successful auction of Arizona minerals, petrified fossils and polished slabs at April meeting. Proceeds will buy cups and thermos jugs for the club.

Imperial Valley gem and mineral society, instead of their regular meeting April 20, took a weekend field trip to Crystal hill, in the northern end of Castle Dome range, western Arizona. They brought home approximately 100 pounds of quartz crystals and many iron pyrite cubes. At one point along Yuma-Quartzsite road they gathered crinoid fossils.



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DALLAS STORE EXHIBIT STOPS THE CROWDS

Texas mineral society, in an effort to arouse wider interest in Texas and southwestern mineralogy, assembled an exhibit of members' choicest specimens and exhibited them in a downtown store window in Dallas. Even they were surprised by the great enthusiasm shown. Not only was it crowd-stopping, but it inspired an editorial in a local newspaper and a feature article by the science editor of Dallas Morning News.

The editorial says in part, "Hurrying Dallasites, too busy to get to their offices on time or otherwise diverted, are missing a first-hand opportunity to become acquainted with the beauty and charm of Texas and southwestern minerals now on display in a store at Murphy and Main streets. Those who stop long enough are apt to hold their breath at the magnificence of colors and tracery which Mother Nature combines in her supreme artistry and workmanship . . . Lovingly the Texas Mineral Society has assembled what may well be appreciated as a collection not only to intrigue the eye of nature lovers sensitive to beauty, but to educate, as well . . . The collection of quartz, calcite and other crystals brought together in one display under direction of R. C. McIver of Dallas, president of the state mineral society, deserves more than fleeting observation. It may well lead to increased interest in something with which Texans should develop closer acquaintance . . ."

"The esthetic side of life has been sorely neglected in the recent years of war . . . Geology need not be confined to locating oil deposits. Many a returned war veteran who has stood before that Murphy street window display finds himself deeply stirred not only by nature's wonders but through their sheer beauty in geology and mineralogy as great new fields of endeavor . . ."

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SYNTHETIC RUBIES or GENUINE GARNETS, per carat\$1.25
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JACK FROST

59 E. Hoffer Street Banning, California

Cogitations . . .

Of a Rockhound

By LOUISE EATON

What duz sum folkes think desert road signs is for? Jus targets? It shure is disgustin to find evry marker illegible. Sumtimz besidz havin th' inscription shot off, th' posts is chopped down 'r pulled up an' transplanted. Th' latter is a despicable trick an' may lead a traveler far astray. Therz scarce a single unmarred 'r untampered-with sign on th' Colorado desert between hiways 80 an' 60. It's a shame, too, to reck saguaros by heedless shootin. Respeck th' uther fella's rights an' do-as-you-would-be-dun-by is a good principle to apply ennywhere.

'Tis said that evrywun, bad 'r good, shuns wun kind ov vice—ad-vice. But here's a bit uv counsel f'r tenderfoot rockhounds 'r f'r eny who lack a sents uv direckshun: When on a field trip allwayz carry matches. Then if south feels like west an' yu can't recall whether yu walked north 'r east away frum yur car jus stay put, hunt up sumthin that'll burn, an' light a signal fire to guide searchers to yu. It may take a little scoutin to find enuf fuel, but therz allways sumthin on th' desert that'll burn.

DESERT ROADS FOR ROCKHOUNDS

Most of the roads in the lower Colorado desert region are in surprisingly good condition due, probably, to army operations and to lack of rain.

Coyote Wells south to Pinto mountain—passable, but rough and sandy.

Road to Alverson canyon and Painted Gorge—passable but rough in places.

Oyster Beds, Yuha Basin—no road open.

Coyote Wells to Dos Cabezas—passable, fair. Niland through Beal's well through Chuckawallas to Highway 66—open.

Salt Creek road (old Butterfield stage route) skirting the Orocopias—open, sandy, not advisable for inexperienced desert drivers in hot weather.

Ogilby road to American Girl and Tumco—open, good condition.

Ogilby-Blythe road—open, good.

Glamis road—good.

Picacho—passable, rough as usual; unsafe for inexperienced desert drivers in hot weather.

Yuma to Quartzsite—excellent; paved about 25 miles out from Yuma.

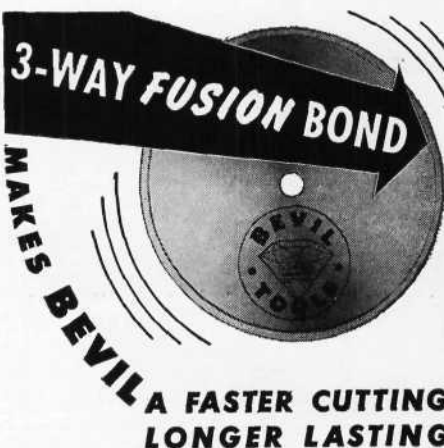
Sentinel, Arizona, to Caliente hot springs—rough but passable.

From Highway 66 via Wiley's Well to Black mountain, Little Mule and Hauser geode beds—good desert road.

Some of these districts, notably north of Niland, Glamis district and north of Ogilby, are still posted as bombing areas, but quite evidently not in use. On Chuckawalla road a guard inspects each car as it enters and leaves south gate of Camp Dunlap.

No unexploded ammunition should be touched. It should be marked and immediately reported to nearest army, navy or highway authority.

Desert travel, far from paved highways, is not safe in summer weather for any one car alone, whether or not the driver is accustomed to desert roads.



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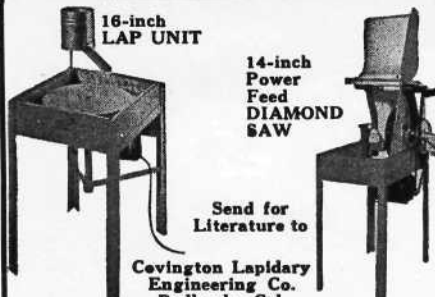
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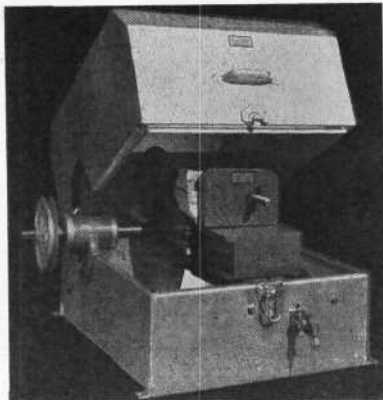
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Norwegian scientists announce that their country is now able, due to its vast hydroelectric powers, to produce ships made entirely of aluminum. The ores of the metal are abundant everywhere, and the countless waterfalls of the country furnish ample electricity for smelting and welding.

Prospectors and collectors in the Mesa Grande district of Southern California have found books of mica (muscovite) which show rich stains and sometimes tiny crystals of garnet. When sheets are separated from the books they often show the interior stains and on the surface brilliant rainbow iridescence. Some thin slabs, when struck by a hard pointed instrument, also show a distinct star.

Dr. Robert I. Jaffee of the Pattelle memorial institute, Columbus, Ohio, at a meeting of the American institute of mining and metallurgical engineers in Chicago, described a new low-melting gold alloy which has several remarkable qualities. It is an alloy of 88 per cent gold and 12 per cent germanium, a little known but cheap metallic element, mined in several parts of the U.S.A. Most unusual property of the alloy is its low melting point—673 degrees F. or about 355 degrees C., slightly higher than the melting point of lead. Gold germanium alloy is much harder than pure gold, somewhat cheaper, and wears much better. Dr. Jaffee states that this should make it useful to both amateur and professional jewelers. The low melting point makes it especially useful as even an amateur can successfully use it as a solder to repair gold jewelry.

Among the rarer elements found and extracted from the zinc ores around Joplin, Missouri, are gallium, indium, cadmium, iron, tin and mercury. Some of these, such as cadmium, while rare, are coming to have great importance in laboratories as a rust proof coating for instruments.

Owners of zircons will be glad to know that their favorite stone heads the list of precious and semi-precious stones in heat resistance. Some gems, such as opal and turquoise, contain water of crystallization which makes them crackle and break when heated, but the lordly zircon seems quite indifferent to ordinary temperatures.

ANSWERS TO DESERT QUIZ

Questions are on page 14

- 1—Bisnaga. 2—Presidential decree.
- 3—De Anza. 4—Escape persecution.
- 5—Lieut. Beale. 6—Bandelier.
- 7—Antelope clan. 8—Ocotillo.
- 9—Iron. 10—Nevada.
- 11—Gen. Stephen W. Kearny.
- 12—Superstition mountains.
- 13—Indian trader.
- 14—Tombstone, Arizona.
- 15—Death Valley, California.
- 16—Pottery. 17—Yellow.
- 18—Navajo reservation.
- 19—Prescott, Ariz. 20—Joshua tree.

WILDFLOWERS . . . Picture contest

Desert Magazine readers will be interested in seeing the best of the wildflower pictures taken on the desert by the camera clan this season. With that in mind, Desert will award its June photographic prizes for the flower photographs. They may be either landscape or close-up views in their natural garden. Name of the subject and location should be given.

Prizes are \$10.00 for first, \$5.00 for second place winners, and \$2.00 will be paid for each non-winning photo accepted for future use in Desert Magazine. Entries must reach the Desert Magazine office by June 20, and the winning pictures will be published in July.

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 and full 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

AMATEUR GEM CUTTER

polishing equipment. Leland Quick, who conducts this department, is former president of Los Angeles Lapidary society. He will be glad to answer questions in connection with your lapidary work. Queries should be addressed to Desert Magazine, El Centro, Calif.

By LELANDE QUICK

Recently I was introduced to an intensely interesting sidelight of gem cutting and mineralogy when I saw my first series of thin section slides. There was hardly anyone present at the viewing who didn't want to run off immediately and make some. These slides were projected for me by an originator of the idea, William Pitts, honorary curator of gems and minerals at California Academy of Sciences, San Francisco, and referred to for years as "dean of the amateur gem cutters." Billy visited me on his way through from Florida where he had been "wintering," which he explains quite satisfactorily as "having to visit my sister who is too old to come and see me." He offers no opinion at all as to the relative merit of Florida and California winters. But his visit was fortunate for it opened new vistas of the beauty of rocks.

"Will you write me how you do this?" I asked him. "My Desert Magazine readers will enjoy it and be grateful."

"Never wrote a line in my life," he replied, "but I'll tell you and you tell the readers."

I told him it was a deal so he began, "Well, first you search through all your rough material, particularly those pieces you know are no good for cabochons but you don't have the courage to toss 'em out. Select a piece with color or marking and hold it to a strong light to determine its likelihood as slide material. After finding a piece, you slice and grind it to a thinness where light will come through. The thinner the section the less color will show when you project it. Pieces should be lapped down to about 1/8 inch for agate and about 1/16 inch for denser materials. Remember that the finished slides will be only 2 inch squares so that the thin rock sections should be smaller, preferably about 1 1/2 inches. The section should be lapped smooth on both sides but need not be polished. It should be glued to the 2 inch piece of glass with Canada balsam applied with a soft brush."

He continued, "I make a lot of slides at one time and place them on a saw blade in the sun to bake for a day or two. Then I make a cream mix of Handeewood and spread it around the specimens. After drying for a couple of hours, I lap 'em down to size, varnish the side away from the glass and next day the specimens are ready for showing. I usually grind off the corners of the glass slides and then bind them with tape to preserve them against breakage. They should be shown with the glass side to the lamp."

My good friend Herbert Monlux immediately hastened to Pitts' shop at San Francisco to see how it was done and then shortened the whole process by making some fine specimens and mounting them on Kodachrome slides supplied commercially for colored photography. However, if you want to follow the Pitts method and have the satisfaction of making the slides yourself, and probably more durable ones, here are the inexpensive materials you need:

Slide cover glass—2x2 inches—	
3 dozen in a box50
Slide binding tape (ready gummed)—	
24 yards to box25
Canada balsam	
Xylene (Xylol)—Mix a small amount	
in a jar with 50 per cent balsam for	
varnish (Sold as Dake's Varnish).	
Small soft brush for spreading	
balsam-xylene mixture10

Pound of Handeewood (at hardware or paint stores)50

You have never seen to maximum advantage a spray in a Nipomo agate or a plume in an Oregon agate until you have seen their beauties revealed in a projected thin section slide. Every detail is magnified far beyond the highest power glass. You don't have to squint at it and the colors are the natural colors as they exist in the stone. The thin section slide idea is boundless in its possibilities for study and entertainment for both lapidaries and mineralogists and proves to be of great interest even to those who usually are bored with rocks. This is an excellent way to salvage beauty from the rocks you possess that are valueless as gems, particularly those cabochons that are cracked that you haven't the courage to discard.

I see no objection to using the Kodachrome slides that Monlux uses but I do think they should be supplemented by the Handeewood to shut out the excess light around the corners of the specimen to show it off to better effect. One could make a whole series of petrified woods alone. Thin sections of many rocks that are not particularly gem materials could be made for geological study. An eye from the Morgan Hill orbicular jasper, a root stem from a section of petrified palm root, an opal chip or a tiny crystal pocket from a beach pebble could be made entrancingly clear and beautiful. I even imagine that a section of a Petoskey stone could be most interesting under this treatment. And a large collection of beautiful slides could be made from Lavic jasper, it is so abundant in so many varieties. Remember that you are projecting a naturally colored specimen that is only 1 1/2 inches in size to a screen where the reflected image may be as large as ten feet square. Your enjoyment and appreciation of the details is enhanced that much—which is plenty.

Next month I will list a directory of gem and lapidary societies. Little did I think when I undertook the task that there were so many. I don't hesitate to predict that in another year or so the number will be twice as great.

I hope you had a lot of fun with the gem fable last month. Here are the names of the 14 gem materials in order of their appearance: Opal, Variscite, Sard, Petoskey Stones, Lapis, Amber, Cameo, Peridot, Ruby, Jet, Agate, Spinel, Pearl, Amethyst.

The new lapidary groups I previously have mentioned organizing have been formed in Beverly Hills and Glendale, California. Another group of 20 at San Pedro, California, has petitioned my aid and I will help them effect an organization in July. If any reader is interested in any of these groups I will be glad to put you in touch with them if you will send me your name.

Eighth printing of revised edition of W. T. Baxter's *Jewelry, Gem Cutting and Metalcraft* lasted just 60 days. Ninth printing is on its way and judging by depleted stocks of dealers all over the country, this printing probably will go as fast if not faster, as lapidary arts become more popular.



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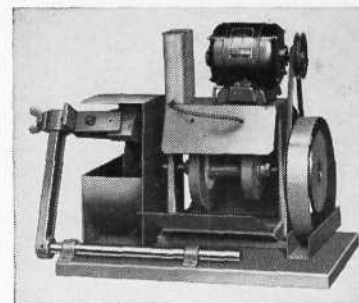
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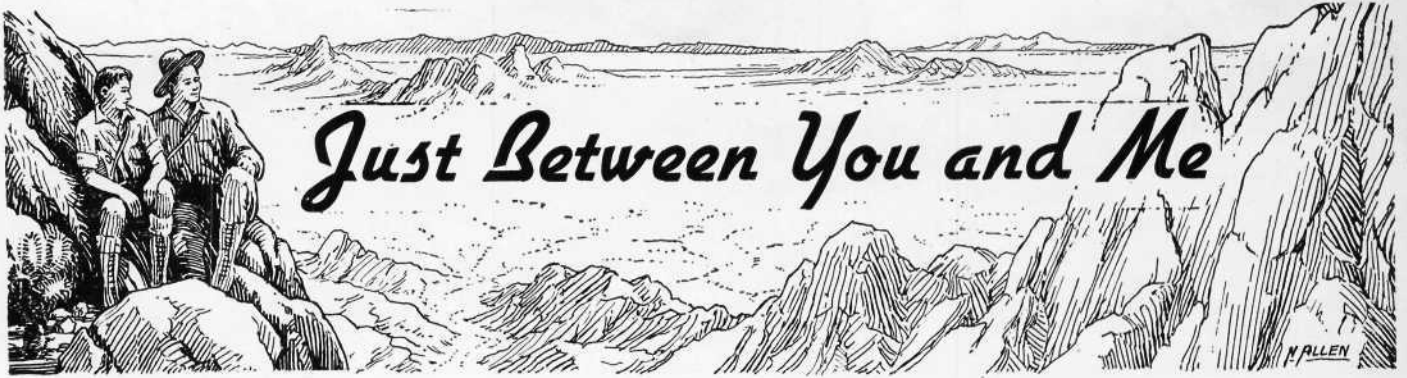
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By RANDALL HENDERSON

IF LIEUT. Joseph C. Ives, who explored the Colorado river in an iron boat in 1857, could return to the scene of his river adventure today he would be quite chagrined at his own lack of vision. Referring to the country through which the lower Colorado flows he wrote in his diary:

"The region . . . of course is altogether valueless . . . and after entering it there is nothing to do but leave . . . Ours was the first and doubtless will be the last party of white persons to visit this profitless locality. It seems that . . . the Colorado river . . . shall forever be unvisited and unmolested."

Today there are five dams in the Lower Colorado, and at Bull Head, north of Needles, workmen are erecting a boom town in preparation for the construction of a sixth—Davis dam. The lower Colorado river valleys are criss-crossed with power lines, checkered with irrigation farms, cluttered up with dude ranches, and the barren hills and plains are sprouting real estate subdivisions at every cross-roads. The desert that men once feared and shunned, is now the mecca for vacationists from all over the continent.

As one of the agencies which has helped bring all this to pass I am not sure whether the *Desert Magazine* staff should be commended—or condemned to a concentration camp—for encouraging all these "furriners" to migrate to what was once a quiet and peaceful country.

* * *

Eighty-three years ago in April, members of five Indian tribes in the Southwest signed a treaty at Fort Yuma to keep peace among themselves and with their pale-face neighbors. Recently representatives of these tribes—the Yuma, Chemehuevi, Hualpai, Pima and Maricopa—met on the Gila reservation to celebrate the anniversary of the treaty. The pact has never been broken.

One of the speakers was Chief Cyrus Sunn of the Maricopas. "The white people were once in the same position we are in," he said. "Then they got educated. And look at the fix they are in today."

The old chief posed a question we well may ponder. Perhaps the essayist, Pope, knew the answer when he penned these lines:

"A little learning is a dangerous thing;
Drink deep, or taste not the Pierian spring;
There, shallow draughts intoxicate the brain,
And drinking largely sobers us again."

Perhaps we should re-examine this educational system of which we are so proud, and see if it really is doing its job. Much of the trouble on this earth stems from fear as expressed in greed for power and wealth. I am unwilling to believe fear is a curse passed along from one generation to the next by inheritance.

Turn to another page of *Desert* and look at the picture of Tommy and Dolores. They are Indian children, but they are made of the same stuff as the millions of other youngsters—

white, brown, yellow, black and red—on the face of this earth. Those kiddies were not born with greed and hatred and treachery in their hearts. If they acquire those traits in the environment in which they are raised, then the failure is in the content and methods of our educational program.

One of the things one learns in close association with the desert is that the greatest teacher on earth is old Mother Nature. She teaches humility, tolerance, cooperation, integrity, courage. And these values are far more important than English IV, algebra, bookkeeping, shop, domestic science and a score of other subjects now being taught.

Training the intellect, as the schools are now doing, has developed an age of miracles in science and invention—but of what value is that if we are still so primitive emotionally as to use the gadgets science has created for our own destruction?

We will never end wars by teaching mathematics. We may be able to do so by teaching humility. Old Chief Sunn was half right. We've gotten our world tangled up in a lot of trouble. But it isn't due to too much education. Rather it is the penalty for the wrong kind of education. We've been placing all the emphasis on intellect and science. It is time to begin learning more about emotions and morals.

* * *

Friends of the late John and Louisa Wade Wetherill of Kayenta, Arizona, will be interested to know their fine collection of archeological and ethnological materials, gathered during a lifetime on the Navajo reservation, has been turned over to the Arizona State museum. The donor was Ben Wetherill, the son.

One of the most important items in the collection is Mrs. Wetherill's herbarium of 250 specimens with notes as to their medicinal and ritualistic use by the Indians. A committee with Dr. H. S. Colton of Flagstaff as chairman, has been named to arrange for publication of Mrs. Wetherill's unpublished notes on sand paintings, mythology, history and botany of the Indian country.

* * *

I don't mind going without butter and bacon and wearing my before-the-war duds. Those things are trivial as far as I am concerned. But when I cannot get enough paper for the printing of my favorite magazine, then I really am "regusted."

Of course I am writing about *Desert Magazine*. We had a very readable 48-page issue planned for this month—the cuts made, the type set, and everything ready for a pressrun of 30,000, which is our current circulation.

Then they cut our paper quota—and we had to lop off eight pages and put them away for future use. So if *Desert* seems a little skinny this month, please be as tolerant as you can. We'll put those extra eight pages and more back in circulation as soon as we can get the paper stock. Gosh, I'll be glad when this war is over.

LETTERS...

Honor to Leroy Waco . . .

Santa Monica, California

Dear Sir:

Enclosed you will find two pictures of a one-armed boy working at lapidary. This story will go a long way toward helping handicapped people and some timid souls who would like to become lapidarists but haven't because of some reason or another which really should never stop 'em.

To begin, I teach lapidary to our Scouts as a hobby. Have had some remarkable experiences with youngsters along this line. I furnish the equipment and the time. The Veterans Service league which sponsors these troops supplies transportation for field trips and materials necessary in the work in the lap shop. However, the boy whose picture you see is a most remarkable person. Let me tell you about him.

He is Leroy Waco who lives at 1108 Cedar street in Santa Monica. He came to me a couple of months ago and asked if he might join my class. Naturally I hesitated at first because the boy had only one hand. On second thought I decided there was no reason why he couldn't get by with dop-sticks—which we do not use in our work.

He came to the house in the evening and worked about two hours. Then the following week he had two more hours' instruction. Then he comes up with the idea of building his own outfit. Naturally, I promised him all the assistance possible. But he didn't ask for help. He just gave my outfit a good looking over, took a few measurements, a few notes and went home.

Occasionally he came around to report on progress, and to ask for a few pointers. Told me he was getting along just swell, and that he would let me know when he was finished. One day he called me. I went to his home and had the most pleasant surprise. The machine you see in the picture he had assembled himself. The wheels, he turned out on a machine at the school he attends. The sander and polisher are 10-inch. The drum sander you see standing on the shelf is a combination drum and disk. This boy does excellent work. The copper pipe leading from a tank to the wheel gives him the advantage of the drip system which isn't nearly as sloppy as when the wheel runs in water. The water pan he had made to order.

Leroy is 17 years old, been in scouting 5 years. He lost his arm in an auto accident at the age of one year. He is a Life scouter, runs a crew of newsies, helps provide food for a family of nine, raises chickens, builds his own pens, is modest, honest and dependable. This should go a long, long way toward helping others to take the venture into lapidary.

EDWARD LANG



Leroy Waco in his lapidary shop.

Morons Will Be Morons . . .

Jacumba, California

Dear Desert:

Your April cover is beautiful.

Is there any way to stop people from painting their names on the rocks through these mountains? They look terrible, and we people here resent them very much. At one time the highway department made the writers erase them. I wish they would do that now.

MRS. F. H. STANLEY

For Navajo Babies . . .

Washington, D. C.

Dear Randall Henderson:

On page 43 of the April issue of Desert Magazine inquiry is made for the name of the cradleboard used by Indian women for their babies.

The Navajo call this cradleboard *awe t'sol*. The name used by the Pueblos is closely similar in sound and certain Navajo linguists spell the word out as follows: *awee bits'aal*. As nearly as I could sound the word it would be "witsol."

CHARLES F. THOMAS, JR.

Food From Devil's Claw . . .

Corbett, Oregon

Dear Sir:

I enjoyed Jerry Lauder milk's article, "There's a Reason for Those Barbs and Snares." He speaks of the Devil's Claw, *Martynia parviflora*. I spent some time among the Utes and found them eating the seeds. They have a nutty flavor and are quite oily and easily hulled. They are very good, and perhaps that is the reason the Indians encouraged their growth. The whites also used the Devil's Claw. It was pickled when the claw is young and tender, the same as the gherkin.

J. JAMES

Culture in Kern County . . .

Bakersfield, California

Dear Mr. Henderson:

We read with a great deal of interest your "Just Between You and Me" column in the April issue of Desert Magazine, particularly that part which read something to the effect of "chamber of commerce secretaries and real estate men know less about the natural history and natural resources of their communities than the average teen-age high school boy..."

Our department may be unique among chambers of commerce, but it might be of enlightenment as well as interest to you to know that for the past ten years the job of the Kern county chamber of commerce has been "... to make known the human, economic and natural resources of the county to those who can and will develop them."

You also said that "some day, an enterprising little town with a lot of vision in its leadership is going to abolish its chamber of commerce and organize a chamber of culture..."

The Kern county chamber of commerce serves 77 towns in Kern county—all enterprising, some little and some big.

Two years ago, the Kern county chamber of commerce set up a recreation and cultural "chamber" or commission, for the express purpose of developing and making known the human, historic, recreational and cultural resources of the communities and county. The organization is now known as the Kern County Recreation and Cultural commission.

One of the precepts of this department always has been that "Without Vision the People Will Perish," which we sometimes interpret as "Wealth Comes from Understanding." We thought you might be interested and enlightened to know that the Kern county chamber of commerce has vision in its leadership and has not overlooked the all-important human, historic, natural, cultural and recreational resources of the 77 communities it serves and represents.

JIMMY M. RADOUMIS
Publicity Director

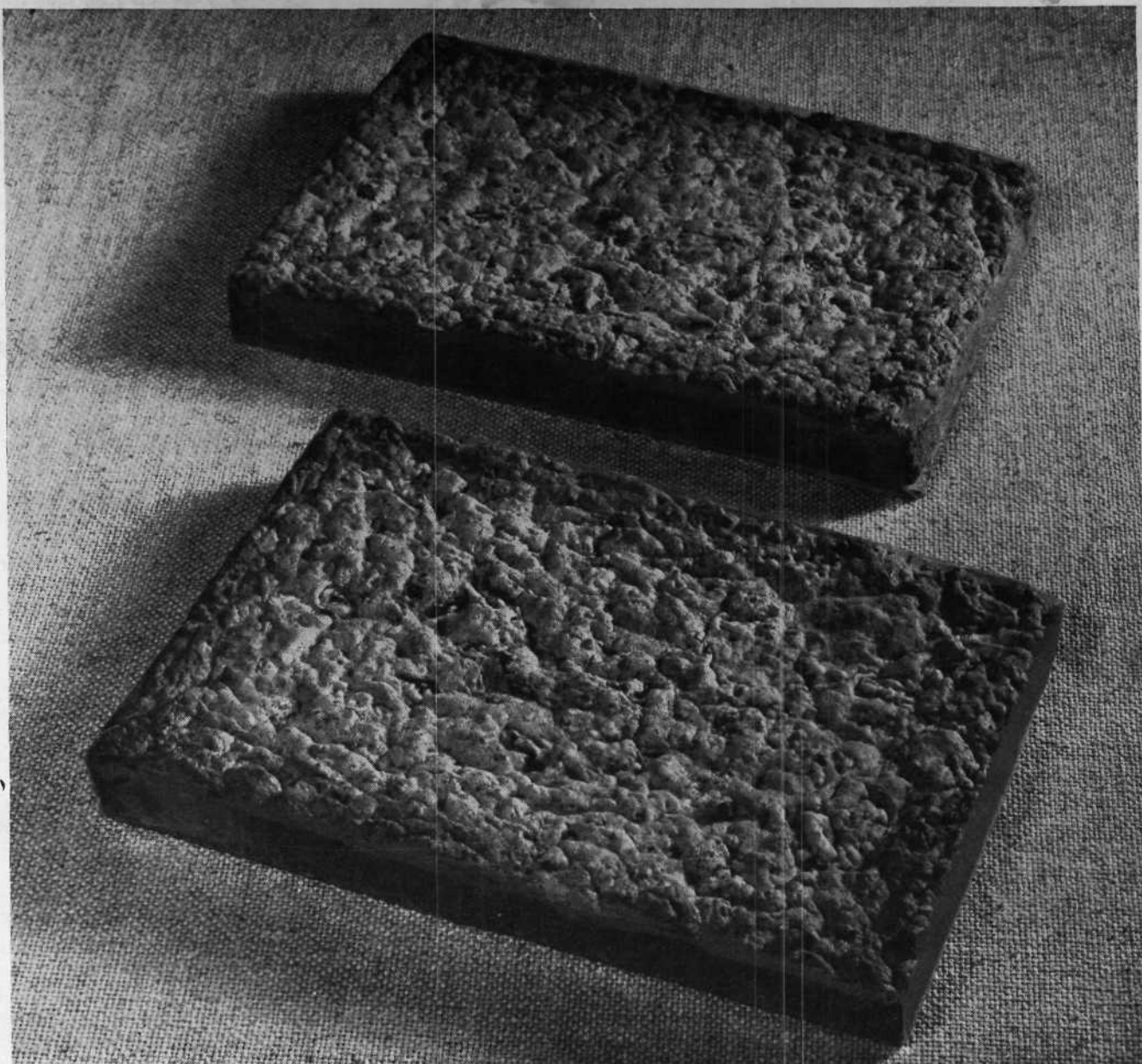
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Monterey Park, California

Dear Sir:

A friend loaned me a dozen of your d—d magazines and for a week I couldn't somehow or other seem to do anything else but read each issue from cover to the last page. Missed a few shows and sports events just on account of those non-interesting stories you print. It's all a lot of bunk and there ought to be a law against such material as you publish in Desert. Enclosed find check for subscription. I wouldn't be without that blankety-blank magazine.

LARRY LAWRENCE



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