

THE

# Desert

M A G A Z I N E



MAY, 1948

25 CENTS

# CLEANS YOUR ENGINE

EVEN IF YOU CHANGE OIL ONLY 2 TIMES A YEAR!

HOW CAN I CHOOSE  
THE **BEST OIL**  
FOR MY CAR?

PUT IT THIS WAY—  
WHICH IS BOUND  
TO BE BETTER—  
AN OIL GIVING A  
SAFETY MARGIN  
OF 1,000 MILES,  
OR TRITON, WITH  
A SAFETY MARGIN  
OF SIX MONTHS?  
OF COURSE,  
TRITON IS YOUR  
BEST AND  
**SAFEST**  
BUY!



YOU MEAN  
TRITON WILL

## CLEAN MY ENGINE?

YES, TRITON MOTOR OIL CONTAINS A SPECIAL DETERGENT COMPOUND WHICH GRADUALLY CLEANS YOUR ENGINE AS YOU DRIVE. THIS COMPOUND THEN HOLDS THE LOOSENED DIRT AND CARBON HARMLESSLY SUSPENDED IN THE OIL WHERE IT CAN'T SETTLE OUT TO FORM SLUDGE OR DAMAGE YOUR ENGINE.



### WILL TRITON TURN ACID?

NO. AN INHIBITING COMPOUND IN TRITON KEEPS YOUR ENGINE SAFE FROM HARMFUL ACIDS. IN FACT, TRITON FORMS LESS HARMFUL ACIDS IN 6 MONTHS OF DRIVING THAN OILS USED TO FORM AT THE END OF 1,000 MILES.

### HOW CAN TRITON LAST SO LONG?

THE MAIN REASON WHY OILS USED TO BREAK DOWN AT THE END OF 1,000 MILES OR SO WAS BECAUSE OF OXIDATION, WHICH RESULTED IN ACID FORMATION AND SLUDGING. UNION OIL SCIENTISTS HAVE DEVELOPED SPECIAL COMPOUNDS TO COMBAT THESE LUBRICATION EVILS. THESE COMPOUNDS ARE INCLUDED IN NEW TRITON MOTOR OIL.



## UNION OIL COMPANY

OF CALIFORNIA

ASK your Union Oil Minute Man about the amazing new purple oil—Royal Triton—and its sensational 30,000-mile endurance record, the equivalent of 3 years normal driving without an oil change.





## **PICTURES OF THE MONTH**

First prize winning photograph in the March contest, Fred H. Ragsdale's RANCHOS DE TAOS MISSION, is not reproduced on this page, as it is being held for a Desert Magazine cover illustration.

### **Storm . . .**

Second prize for March went to Daisy G. Roberts of Tucson, Arizona, for the picture (above) of a storm over Bountiful, Utah. It was taken by time exposure about 9 p. m., Eastman Junior 616 camera, Super XX film, f.11 opening.

### **Moonlight Oasis . . .**

The infra-red photograph of 1000 Palms Canyon (left) tied for second place in the February, 1948, Desert photo contest. It was taken by Don Ollis, Santa Barbara, California.

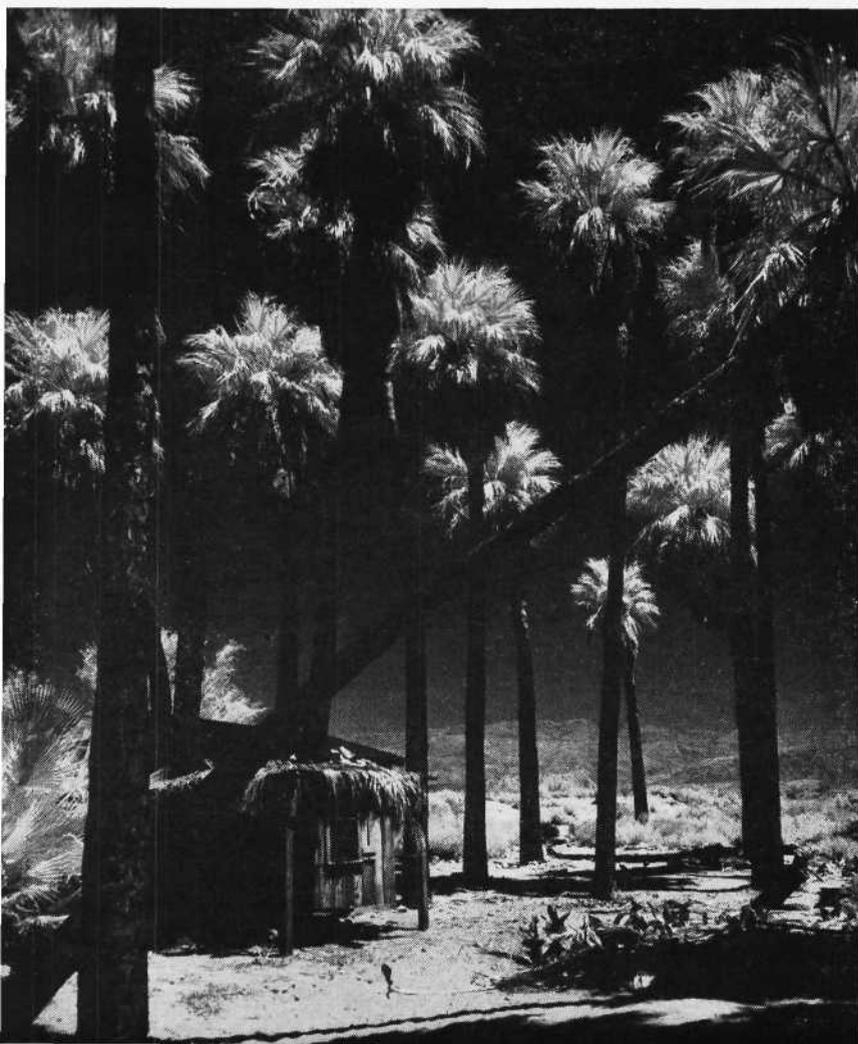
### **Special Merit . . .**

Outstanding pictures submitted in the March contest, in addition to the winners, were:

"THE OLD HORSE CORRAL," by Tudea Tapia Esquerra, Parker Dam, California.

"SHRINE OF ST. JOSEPH," by Jean A. Rowe, Flagstaff, Arizona.

"SAGUARO SILHOUETTE," by J. F. Orem, San Francisco, California.





*San Felipe bay at sunset. Looking toward the Gulf of California. The boats were idle because the weather was not right for fishing when this picture was taken.*

## *Fishing Village on the Gulf*

**The day is not far distant when motorists will be able to roll along a smooth highway to a remote little village on the gulf shore of Baja California and spend their winter vacation days boating and fishing and bathing in the hospitable atmosphere of Old Mexico—at San Felipe. Here is a progress report on the new highway to a locale many Southwesterners have long wanted to visit.**

By RANDALL HENDERSON

**I**F THOSE geologists who read the history of this old earth in the rock formations and the alluvial deposits have guessed correctly, the space now occupied by the Desert Magazine office in El Centro, California, was once many feet below the surface of the Gulf of California. This was a very wet spot.

But that was many years ago. The water is gone now, and Desert's staff is warm and dry—52 feet below sea level! Paradoxically, it was Ol' Man River—the turbulent Colorado—who did the engineering job necessary to convert the great Imperial basin in which El Centro is located into one of the driest places on earth.

The muddy river with its delta on the eastern shore, poured so much silt into the middle of the gulf a great dam of sediment was formed creating an inland sea of the upper part of this long slender arm of the Pacific. After a few hundred years the salt water in this newly formed sea evaporated, leaving the dry below-sea-level plain to be

discovered by Spaniards who came to the New World in search of gold.

Then in the 1890's an American engineer, C. R. Rockwood, came upon the scene and saw the possibilities of converting this inland basin into farms, watered by the same river that had created it. Today a half million acres in the Imperial Irrigation district bear evidence of the soundness of the idea. The 1947 production from this former gulf bed was \$96,000,000.

But the gulf—or what is left of it—still occupies a very conspicuous place on the maps of North America's west coast. True, it is growing smaller year by year as the Colorado continues to pour its burden of silt into the delta at the upper end. But it remains a sizable body of water—and one of the best deep-sea fishing places accessible to American fishermen.

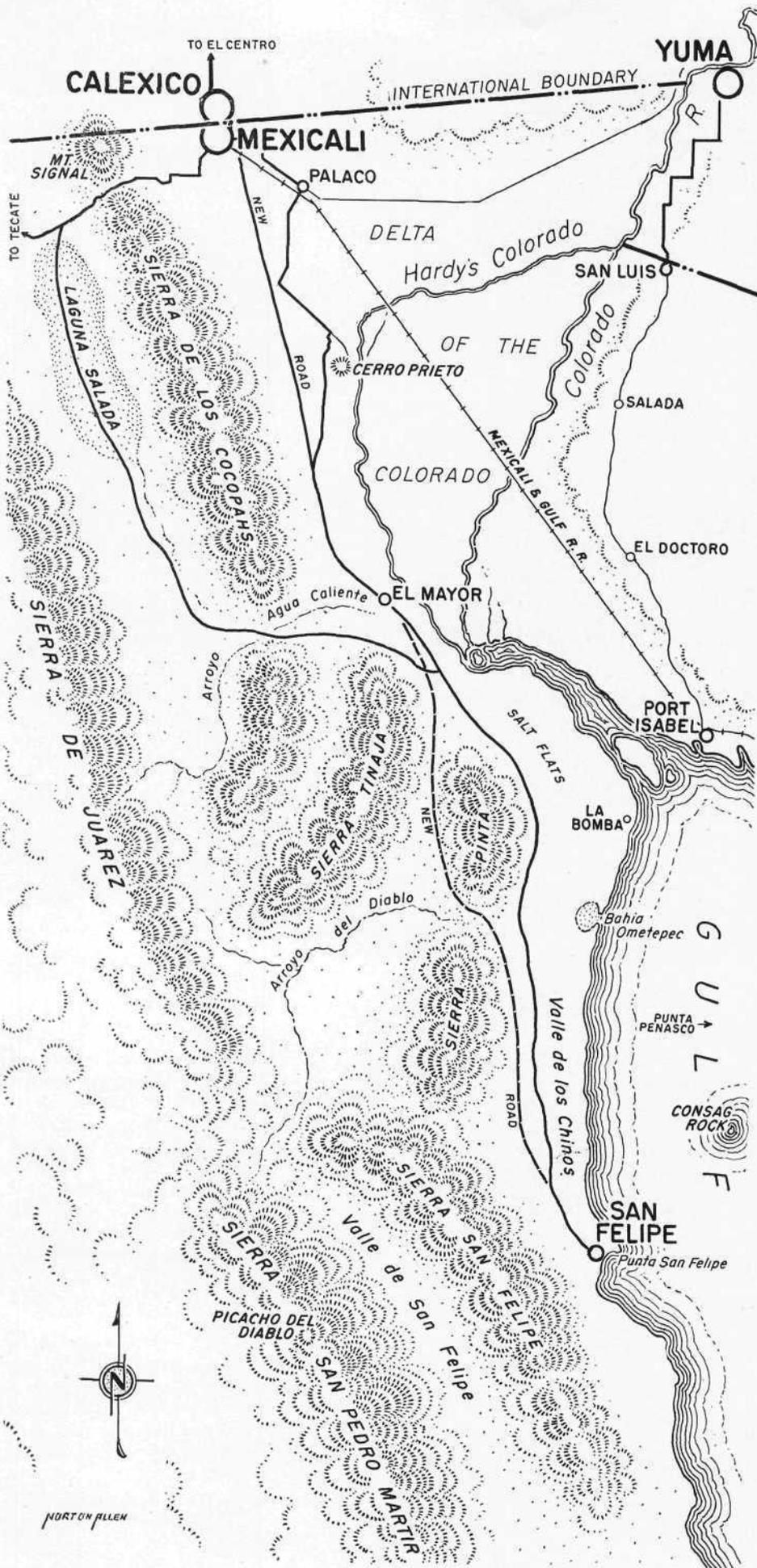
When the boundary lines were set up between Mexico and the United States the shorelines of those gulf fishing waters were

allotted entirely to Mexico, and Americans who would hook the 300-pound *totuava* which are so plentiful there have to travel many miles through a foreign land, and one of the most arid desert regions in the Southwest.

There are three roads from the United States to the headwaters of the gulf. The best one is the oiled highway that runs south from Ajo, Arizona, to Punta Peñasco on the Sonora coast. Increasing numbers of sportsmen are following this route each season.

A second road goes south from Yuma, Arizona, through the port of entry at San Luis to Puerto Isabel near the mouth of the Colorado. This is a sandy road and is recommended only for the more adventurous traveler.

The third road starts at Calexico on the California border and winds south across the delta to the fishing village of San Felipe 130 miles away on the Baja California side of the gulf. This story is concerned



with that road. It is a tortuous trail for an automobile. It is used mainly for trucking the *totuava* (sea bass) and shrimp caught in gulf waters to Mexicali, for reshipment to southwestern markets. The trip involves 10 to 12 hours of punishing bumps and ruts, with no service facilities along the way. Only the hardiest of the sports fishermen ever attempt it.

But a new highway is being constructed from Mexicali to San Felipe. It was for the purpose of giving *Desert Magazine* readers a report on the new road that I made the trip early in February. For, with a hard-surfaced highway to San Felipe this primitive little Mexican fishing village 130 miles south of the border is destined to become a popular mecca for both fishermen and tourists.

We had perfect equipment for such an expedition—three jeeps. Arles Adams, my companion on many a desert exploring trip, carried Larry Holland and Mike Thaanum as passengers. Luther Fisher of the U. S. border patrol was accompanied by two other patrolmen, Bill Sherrill and Harry Nyreen. My passenger was Glenn Snow, manager of the Automobile Club of Southern California office in El Centro.

It was still dark when we passed through the Calexico-Mexicali port of entry at 5:20 a. m. Tourist permits had been arranged in advance. There is no restriction on American visitors crossing the line to Mexicali for a few hours. But for an overnight trip beyond the municipal boundaries a permit must be obtained either at the Mexican consulate in Calexico, or at the Mexican immigration office at the international gate. The cost of such a permit is 10½ pesos, or \$2.10.

Two routes are available for the first half of the journey from Mexicali to San Felipe. The Laguna Salada route, shown on the accompanying map, is 18 miles longer than the direct road by way of Cerro Prieto and El Mayor. But when the Laguna Salada lake bed is dry, the longer route is less punishing to man and vehicle.

We chose to make the southbound journey over the Laguna. A glow of light was beginning to show on the eastern horizon as we bumped along over the dirt road through Mexican fields of alfalfa, cotton and grain stubble. Fifteen miles out we left the cultivated lands of the Baja California delta and climbed a low summit pass through the Cocopah mountains.

Beyond the pass the road turned south across the level hard bed of the lake, and for the next 68 miles we rolled along at speed unlimited. This road over smooth baked earth is a temptation to the driver. But occasionally there are treacherous pockets of alkali and sand to trap the unwary. Speed with caution is the rule across the Laguna.

It is a delightful trip in the early morning as the sun comes up over the Cocopahs on the east and brings into sharp relief the rugged escarpments of the Sierra Juarez

on the west. Juarez range is slashed with deep canyons where two species of wild palms grow in luxuriant forests along little streams which head down toward the floor of the desert—but always disappear in the sand before they reach their destination. The desert escarpment of the Sierra Juarez is a virgin paradise for the explorer, botanist, geologist, archeologist and photographer. Its approaches are too rugged for low-slung cars and picnic parties. One needs a jeep or a hardy pair of hiking legs to get far into the canyons of that little known range.

As we neared the lower end of the Laguna we saw a low embankment across the pass ahead of us. When we arrived there a few minutes later we discovered this was the grade of the new San Felipe highway.

The new road, costing millions of pesos, is under construction for 70 miles south of Mexicali. Part of the way it is a graded embankment across the overflow lands. At one place it leaves the floor of the delta plain and cuts through a pass in the Pinta mountain range.

We followed the incompleated roadbed a few miles, but below El Mayor a half dozen construction crews are working on different sectors and continuous passage on the new roadbed is still impracticable.

Leaving the new grade we headed south across the great salt flat which lies around the head of the gulf on the California side. This flat is composed of Colorado river silt highly impregnated with salt and alkali. Imagine a great salty plain so arid not a bug or a blade of grass lives there, and so vast the curvature of the earth prevents your seeing across it—and you have a good picture of the terrain we are covering. It is as level as a floor, and when wet becomes a bottomless quagmire.

Little rain has fallen on that area for three or four years, and the road across the flat is in the best condition I have known in 15 years. However, there are high centers in places and it is never possible to roll across this plain at high speed as one does of the bed of Laguna Salada.

Once, many years ago, Malcolm Huey and I tried to cross this salt desert too soon after a rain. We plowed along in our pickup for miles and finally bogged down near the middle of it. Then the motor quit and we were not mechanics enough to fix it. We ran out of water, but had a bag of grapefruit in the car—and that is mostly what we lived on for two days until a fish truck came along and hauled us into port.

A hundred miles below Mexicali we left the salt plain and rolled along over the coastal bench which borders the gulf at this point. Here we caught our first glimpse of *senita* (old man cactus) and elephant trees which grow thickly on the Baja California desert. Desert vegetation is prolific here, and most of the trees and shrubs are the old friends of the Lower Sonoran zone with which we are familiar in the deserts of Southern California and Ari-



Top—The salt flats at the head of the gulf, where not a bug or a blade of vegetation is seen for 60 miles.

Center—Just before reaching the fishing village the road winds through a pass in the hills.

Bottom—Members of the party: Left to right, Bill Sherrill, Harry Nyreen, Larry Holland, Arles Adams, Mike Thaanum, Glenn Snow and Luther Fisher.

zona—ironwood, palo verde, ocotillo and creosote. We saw salmon mallow, chuparosa, locoweed and lupine in blossom.

Mexicans call this coastal plain *Desierto de los Chinos*—Desert of the Chinese. A tragic story lies back of that place name.



*The road to San Felipe was once well marked with Auto Club signs, in both Spanish and English. This is one of the survivors of flood and vandals. Glenn Snow, El Centro manager for the Club, kept a record of these signs.*



*The lighthouse beacon at San Felipe stands above a shrine in which is a wax figure of the patron saint, Guadalupe. Beside the shrine is Jose Verdusco, fish truck owner, who volunteered for guide service.*

According to well-confirmed reports, the captain of a Mexican power-boat many years ago picked up a load of Chinese at Guaymas on the Mexican west coast. They wanted to go to Mexicali where many of their countrymen were, and still are, in

business, and paid him well for the passage. At San Felipe bay the captain put them ashore and motioned inland. "Mexicali is just over the hill," he told them. It was midsummer and the Chinese started inland practically without water or food. Days

later two of them stumbled into a cattle camp many miles to the north. The rest perished from heat and thirst. Occasionally one comes across an unmarked grave in that region.

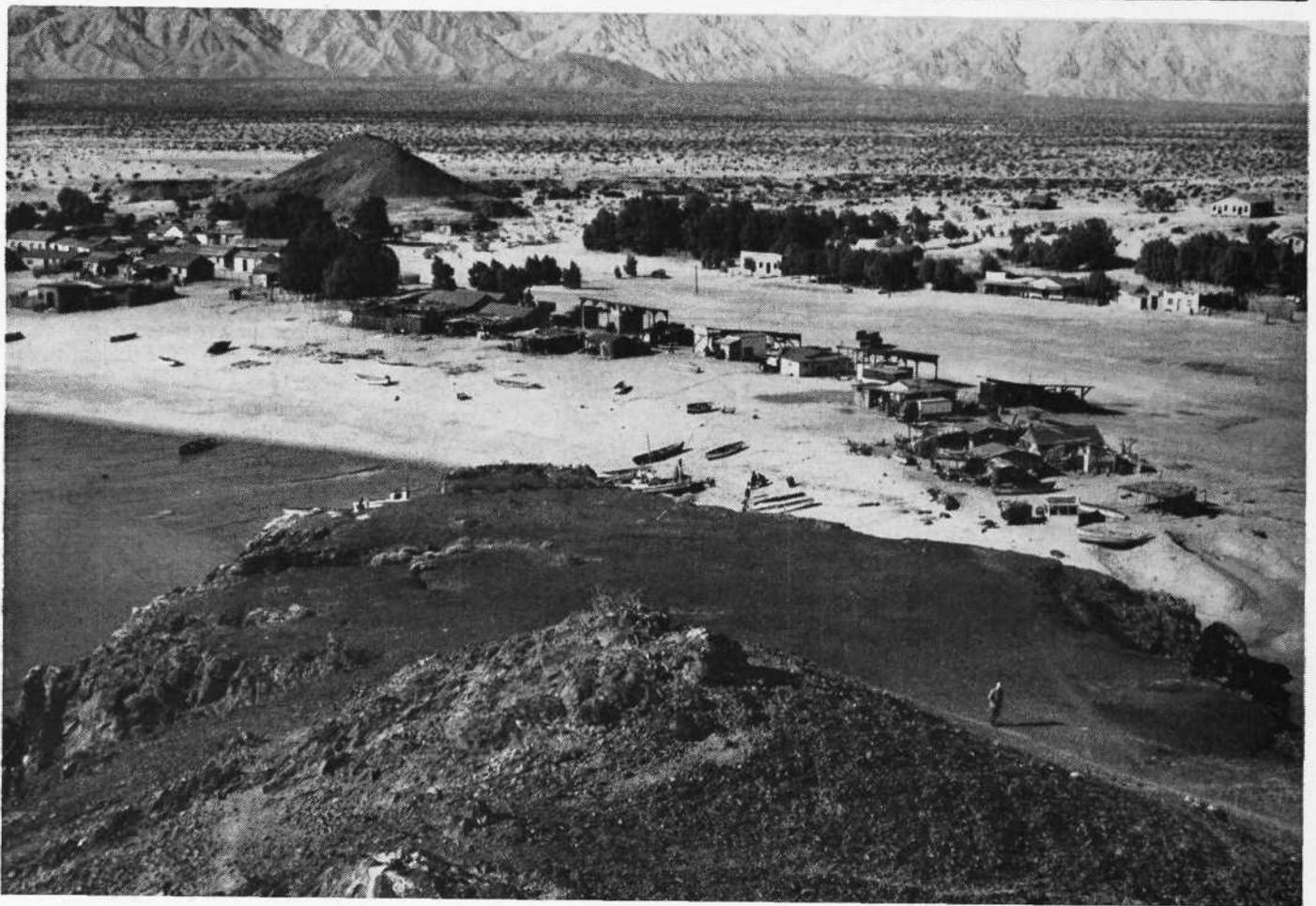
*San Felipe's 1000 people all get their water from one well a half mile from town. With a palanca and two 5-gallon cans a householder may carry 10 gallons—a day's supply—on one trip.*

Driving through the dense growth of ironwood, palo verde and elephant trees one catches an occasional glimpse of the blue waters of the gulf three or four miles away to the east. On the west the San Pedro Martir range rises to an elevation of more than 10,000 feet, capped by Picacho del Diablo, highest peak on the Lower California peninsula. Three times I tried to climb that peak from the desert side, and finally made it to the top with Norman Clyde in 1937. The story of that rugged adventure in unmapped mountain terrain will be told in a future issue of *Desert*.



Ten miles before reaching San Felipe a side road takes off down an arroyo to the gulf shore at Clam beach. The sandy waterline here is strewn with sea shells—tons of them extending along the shoreline for miles. I know little about the classification of shells, but I am sure this place is a paradise for collectors. We gathered some of the prettiest conches for souvenirs, and then drove the last lap of our journey into San Felipe.

It was 3:30 when we arrived at the little shack on the edge of the settlement which serves as a customs house, and passed in-



*Above—Bay of San Felipe on the Baja California shore of the Gulf of California.*

*Below—San Felipe is a primitive village whose sole industry is fishing. The nearest postoffice is 136 miles away over a 15-mile-an-hour road.*

spection. The Mexican officials were friendly, but were sorry to inform us that the water in the gulf was too rough for fishing just now. They could not under-

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stand why any one would come to San Felipe if not for fishing. We explained we had driven down to learn about progress on the new road, and about the million

dollar resort hotel which according to American newspaper reports has been under construction for some time.

We visited the hotel site, on a bluff



The road from Mexicali to San Felipe is strewn with the wreckage of ancient vehicles which failed to reach their destination.

overlooking the bay of San Felipe. It is an imposing site, with an airplane runway along the beach below. But the only construction work in progress is a substantial adobe dwelling which we were told is to be the home of the engineer who is to erect the hostelry. San Felipe residents—there are about 1000 of them—were divided in their predictions as to the hotel. Some were confident it would be built. Others were skeptical. My own conclusion was that it hardly would be a feasible project until the new road to San Felipe is completed—probably in another year.

Located in a cove on the shore of the bay, the sprawling village hasn't much to boast about in the way of architecture. But it is a lovely site, and despite the primitive conditions of their existence I am sure there are no happier people on earth than these Mexican fishermen and their families.

Fishing is the sole industry. Trucks from Mexicali haul ice on the southbound trip, and bring back fish packed in ice. The fishing season lasts through the winter months, and when it is over many of the families return in their boats across the gulf to their permanent homes in Guaymas and other Mexican west coast ports.

Jose Verduco, owner of a truck, was having a day off because there were no fish to haul, and he volunteered to serve as our guide. We paid a courtesy call at the home of Francisco Benjarebo de Chica, former police chief in Mexicali who is now the law in San Felipe. Then we went to the two town wells, dug in the sand along the bluff back of the village.

Nature has been kind to the housewives in this remote hamlet. In one well the water comes to the surface warm. This is the laundry well, where the women do their washing. A half mile away another well has cool water—for drinking.

All day long the men of the village may be seen trudging to and from the well with two 5-gallon gas cans strung on a *palanca* across their shoulders. To them it is no hardship that every drop of domestic water must be carried from the well, perhaps a mile away, along a sandy trail. Perhaps it is because the chores of everyday living require constant and arduous labor that San Felipe has seldom needed the services of a doctor.

San Felipe is a town practically without glass. And after you have driven over the only road by which glass might be transported, you will understand this. The buildings are mostly adobe, with variations of wood and sheet iron, hauled from Mexicali or brought across from the Sonora side in boats.

Parties of sportsmen who wish to charter a boat for fishing are charged from \$40 to \$50 a day for power boat and crew plus expert information as to the where and how of *totuava* fishing. There is no fixed fee for individuals who go out as passengers on the regular daily fishing trips. They settle for a generous tip to the skipper.

Jose Verduco took us to the top of a rocky point which flanks the village on one side, to a little lighthouse which serves as a beacon for fishermen caught out on the gulf after dark. The acetylene lamp was located in a tiny cupola over a shrine where a wax figure of Guadalupe, patron saint of the San Felipe *pescadores* reposes in a setting of candles and other altar symbols of the Catholic faith.

Forty-one fishing boats were anchored offshore. There is no wharf. They were waiting for better fishing weather. The fishermen loafed on the sand, or repaired their nets. Wood-cutters with burros make excursions into the surrounding hills and bring in firewood.

San Felipe lives at peace with itself and the world—untroubled by lack of such things as running water, window panes, inside toilets, street lights and motor cars. In American communities we regard such things as essential—and often overlook the price in spiritual values we have to pay for them.

We camped that night a few miles out of San Felipe near a little forest of elephant trees. We used some of the dead branches for firewood. This was my first experience cooking a camp dinner on this species of wood. It made a brisk warm fire with a pleasing aroma.

On the return trip we followed the same route through the desert of the ghosts of hapless Chinese and thence across the great salt wasteland. It was midday and mirages simmered on the horizon in all directions. Often we were completely surrounded by "water." Spurs of the Pinta mountains projecting out into the flat appeared to be floating islands. A tiny bush appeared as big as a tree. A car coming from the opposite direction went through strange contortions. At one moment it resembled a fat squatty house and the next moment it was as skinny as a telephone pole.

Below El Mayor we climbed to the newly constructed roadbed. It has been topped with rock, and although not finished, it already is a much better road than the old trail the fish trucks have followed along the Cocopahs for many years. El Mayor is a little settlement of three or four crude buildings on the banks of the old Hardy channel.

Since the completion of Hoover dam, the delta is not subject to the annual flood overflow which spread over the entire delta in former years. Mexican farmers are bringing more and more of these fertile delta acres under cultivation, and farms line one side of the road far below El Mayor.

We wanted to follow the new road all the way back to Mexicali, but when we reached a point opposite the volcanic crater of Cerro Prieto a bridge was out and we had to detour to the old road to Palaco and thence to the border gate.

Our log showed 136 miles to San Felipe by the El Mayor route, and 154 miles by way of Laguna Salada. One may reach the fishing village by either of these routes, but it is a punishing trip for a good car. At a later date when the new highway is completed this will be an inviting excursion for desert motorists seeking new landscapes.

Perhaps San Felipe will then have hotels and window panes and water hydrants and service stations. These civilized inventions will remove much of the physical discomfort and mental hazard of a trip to San Felipe. But I am not sure they will either add to or detract from the charm of this remote little fishing village on the shores of the ancient Sea of Cortez.

*Kit Carson often took his Arapahoe wife and small daughter, Adeline, on his trapping expeditions.*



## Utah Mountain Man

By CHARLES KELLY  
Illustration by John Hansen

**I**N DRY Fork canyon at the foot of the Uintah mountains, Uintah county, Utah, the Hall family had a small ranch and kept what was called a road house or stopping place for travelers. The trail over the mountains was not often used in 1890 and guests at the Hall roadhouse were few.

One evening near sundown, a lone rider came down the trail. He was an old man,

tall and bony, riding a decrepit old horse, followed by two rangy greyhounds. His cap was made of beaver fur and his clothes of buckskin, worn and greasy. On his feet were a pair of well worn moccasins and cradled in one arm was a long-barreled Kentucky rifle.

That was Uncle Louis Simonds as Henry Hall remembers him. The boy enjoyed these occasional visits. After a good supper

Louie Simonds was a companion of Jim Bridger and son-in-law of Kit Carson. He rode into Uintah basin in 1831 with the fur brigade. He lived in Taos when it was the rendezvous of the mountain men. All that seems ancient western history, but men in Uintah basin today still remember old Uncle Louie, who lived alone in the mountains. From their memories and other sources Charles Kelly has pieced together the story of a western pioneer

the old man would sit by the fireplace and spin tall yarns of Indian fights, bear fights and big sprees with other early day mountain men in Santa Fe. Uncle Louie, as he was known to everyone in Uintah county, was a relic of the old fur brigade. He claimed having come to the Uintah basin as a boy of 14 with the first group of white trappers. He spoke of Jim Bridger and Kit Carson with familiarity.

The Hall boys hardly knew what to believe in his tales, but Louie Simonds was a trapper and he was Kit Carson's son-in-law. Kit Carson, most famous of all the mountain men was married to a young Arapahoe woman Waa-nibe, or Singing Grass. She died at Bent's fort about 1838, leaving a daughter two years old. Like other early trappers, Carson had taken his wife and child with him on many trapping expeditions. Singing Grass pitched his tepee, did his cooking and looked after his horses, carrying the child on a cradleboard on her back. When his wife died Carson could not care for the baby, and left her with some of her Indian relatives.

In 1840 he married again, a Cheyenne girl called Making Out Road, to have someone to look after his baby daughter. But the high spirited Cheyenne girl tired of playing stepmother and left him within a year.

By this time Kit Carson was famous, a man of some substance with a house in Santa Fe. He thought of settling down and didn't want another Indian wife if he was to become a permanent citizen of Santa Fe. He had a young Spanish girl in mind but knew she would object to being stepmother to his halfbreed daughter.

With his young daughter Kit Carson went back to St. Louis in 1842. Returning to his old home in Howard county, Missouri, he left Adeline with his sister, Elizabeth. After making provision for her care and education, he returned to Santa Fe and in 1843 married Maria Josefa Jamarillo, then 14 years old.

Adeline Carson remained in Missouri until she was 13, attending school at Fayette. In 1851 Carson went to Missouri to bring his daughter back to Santa Fe. She was, he thought, nearly old enough to be

married and had already acquired a much better education than her father. Accompanied by a small party, Kit started back over the Santa Fe trail. In the vicinity of the Cimarron, his party was attacked by Cheyennes, and only Kit's quick thinking saved them from being massacred.

In Santa Fe Adeline lived with her father in his new home. But his Spanish wife, Josefa, herself only 22 years old, may not have been too happy over this arrangement, particularly since the girl was half Indian. At any rate Adeline was married the next year, 1852, to Louie Simonds, at Taos. The couple left immediately for California.

Louie Simonds was 35 years old when he married Adeline Carson—eight years younger than her father. He was a well known trapper in Santa Fe and Taos. He was born somewhere in Kentucky in 1817 and his full name was Luther W. Simonds. He had joined the old fur brigade as a boy of 14 and in 1831 accompanied a group of older trappers into the Uintah basin where he met and traded with Antoine Robidoux. That was the year of Robidoux's first expedition to the Uintah country and he had not yet built his trading post.

That is about all we know of Simonds' activities until 1846, when he was found in Santa Fe and Taos by Lewis H. Garrard, author of *Wab-to-Yab and the Taos Trail*. By that time Simonds was known as one of the best trappers in the Rocky mountains, a wild, brave, carefree mountain man, full of tall yarns and never hesitant in telling of his own exploits.

Presumably, Kit approved of Adeline's marriage to Simonds. No doubt Adeline was physically well developed at 14, full of spirit and half wild in spite of her schooling. Kit had married Josefa when she was 14 and probably believed it would be well to have his young daughter married to a man who could support her.

After 1840 the business of trapping had declined until by 1852 it was no longer profitable. But gold had been discovered in California in 1848, and thousands were still rushing to the golden state. Louie Simonds decided to try his luck in California.

Like many other trappers, Simonds could neither read nor write, but Adeline had a good common school education. For a while she kept in touch with her father and her aunt in Missouri. Then the letters ceased coming and Kit lost track of her movements.

Conditions in gold-crazy California were radically different from those in sleepy old Santa Fe. Louie Simonds seems to have found himself out of place in that dizzy whirl. All his life he had hunted and trapped. Mining gold did not appeal to him. Adeline, however, seems to have enjoyed her new surroundings. We can easily guess what happened. Her husband was 36 years old, and the bright lights of California's mushroom cities did not appeal to

him. She was 15, at an age when she wanted to be on the go every minute. She soon met a man with younger ideas and ran away with him.

Thousands of miners were rushing across California from one reported strike to another, seldom staying long in one place. In that wild melee it might seem an impossible task to trace the movements of any one or two persons. But Louie Simonds had tracked many a grizzly bear and many a Blackfoot Indian. The trail was hard to follow, but he followed it persistently, year after year. At last he found Adeline and her sweetheart in Mono Diggings where in 1859 she was known as Prairie Flower, Kit Carson's daughter. Without making his presence known he carefully studied the situation, then laid in wait. When the time was ripe, he gently pressed the hair trigger of his Kentucky rifle. They buried the man next day, but no one ever knew who had killed him.

With this matter off his mind Louie Simonds was ready to return to the mountains. But where? If he went back to Taos Kit Carson might ask embarrassing questions. Some of his old trapper friends had settled in various parts of the west. Jim Bridger had a fort on the emigrant trail, but Louie didn't want to be near a traveled road. He finally decided on the Uintah mountains, where he had first come as a young boy with the old fur brigade. It was one of the wildest spots in the west, far from the usual routes of travel. Robidoux's post had been burned and no white men were left in Uintah basin.

So Louie Simonds went back to the Uintahs and hid himself in Brown's Hole, used by Indians and a handful of half-breeds left in the wake of the fur brigade as a winter camp. He had a horse, a pair of greyhounds, a few traps and his Kentucky rifle. He knew how to live off the country. That was in the fall of 1859.

For 20 years Louie Simonds lived in the mountains more like an Indian than a white man. His old cronies supposed he was dead. Then, when he came out of the mountains in the spring of 1879, he discovered white settlers had moved into Uintah basin in their covered wagons to farm the flat valley along Uintah river. A troop of soldiers had formed an encampment at what they called Fort Duchesne, to protect the settlers from marauding Utes, who had just massacred the Meeker family in Colorado. His splendid isolation was at an end.

Uncle Louie was no longer worried about the dead man at Mono Diggings, but he had lived alone so long he had no desire to adjust himself to new conditions. He continued to live in a rude cabin in the mountains, eating nothing but wild meat, trapping a little and trading his pelts at Fort Bridger for powder, lead, and sometimes a little coffee and sugar.

As years passed he became a familiar figure in the Uintah basin. He sometimes made a winter camp near a ranch and on

his infrequent trips through the valley was always welcomed by the settlers. He told them only so much of his past as he cared to. Only trusted friends, like Pete Dillman and Finn Britt, ever learned why he lived alone in the mountains.

As he grew older he was afflicted with palsy but he shot his rifle with a "double wobble" as Bill Williams said, and brought down plenty of game. At bars in the frontier town of Vernal he had to sip whiskey from a glass sitting on the bar because his hands were too unsteady to carry the glass to his lips. No one knew his age but they guessed he must be nearly a hundred. He seemed to be as much a part of the country as the mountains.

In the winter of 1893, Uncle Louie lived in a little log shack in a canyon above White Rocks Ute Indian agency. He would ride down to the trading post occasionally for supplies or to spin yarns. Then a heavy snow fell and he was not seen for several weeks. In the spring soldiers hunting a strayed horse passed his cabin and found the old man helpless in his bed, nearly starved to death and suffering from frostbite. They took him to the military hospital at Fort Duchesne where he remained several weeks. But his long sickness had affected his mind and he was sent to the Utah state mental hospital at Provo.

The duty of conveying him fell to George Searle, then sheriff of Uintah county. Searle loaded him into a light wagon and in March, 1894, hauled the old man to Provo. He was entered as a patient on March 8, 1894, said to be suffering from senile dementia. But Uncle Louie wasn't quite finished.

On October 1, 1894 he was discharged from the hospital as cured. There is no record of where he went or when he died. Old-timers in the basin declare he never returned to his old haunts. On his way to the Provo hospital he gave Sheriff Searle a bundle of papers and letters for safe-keeping. He never returned to claim them. Searle, who still lives in the basin, kept the papers for many years, but they finally were lost. Perhaps they contained letters from Adeline Carson, the Prairie Flower. She died in 1860 and was buried on the shore of Mono lake. Her friends planned to erect a monument over her grave, but it was never done and the spot has been forgotten.

In his book *Wab-to-Yab*, Lewis H. Garrard tells many yarns about Louie Simonds who, with his friend Hatcher, another mountain man, guided Garrard in his travels around Santa Fe and Taos. Louie was 29 years old then, a seasoned mountaineer and trapper.

That seems long, long ago—ancient history in western America. Yet in the Uintah basin many old-timers like George Searle and the Hall brothers clearly remember Uncle Louie Simonds, son-in-law of Kit Carson.

# He Fights with His Tail

By RICHARD L. CASSELL

IN THE latter days of the trilobite, 200,000,000 years ago, the ancestor of this armed-to-the-teeth denizen of the desert was known as *paleophonus*, which means "ancient murderer." He adapted himself to dry land, and fossil remains found today indicate that through vast ages the scorpion has varied little in size or in morphology.

The scorpion is seldom seen in a rest posture with tail to one side and appendages huddled, for when his presence is discovered it is usually by overturning a large stone or board where the strictly nocturnal occupant has been sleeping during the day. This invasion frightens him to an instantaneous attitude of defense with tail reared over his armor plated back and claw-like sting ready to be plunged deep into the intruder. The pincers will be spread wide and the four scalloped jaws ready to tear into whatever tissue, man or beast, that might stay put long enough to chew.

Arizona studies have shown two of the 21 species recorded there as deadly. The deadly forms, according to Natt N. Dodge in *Poisonous Dwellers of the Desert*, can be distinguished from the chunky, non-deadly species by their streamlined appearance and long, slender joints of pincers, legs and tail. They are about two inches long and straw colored. These deadly forms have been found only across the southern part of Arizona and in the bottom of the Grand Canyon. First aid treatment recommended calls for tourniquet between sting and heart, application of ice pack or soaking the affected area in ice and water and, especially with children, medical attention as soon as possible.

The scorpion illustrated, *Hadrurus arizonensis ewing*, the large hairy desert form, is not deadly. His menu is made up of spiders and insects and Nature has found him valuable enough to keep on this earth through the eons as one of her instruments of balance. The vast majority of people who pounce upon scorpions the moment they scurry into sight should remember this.

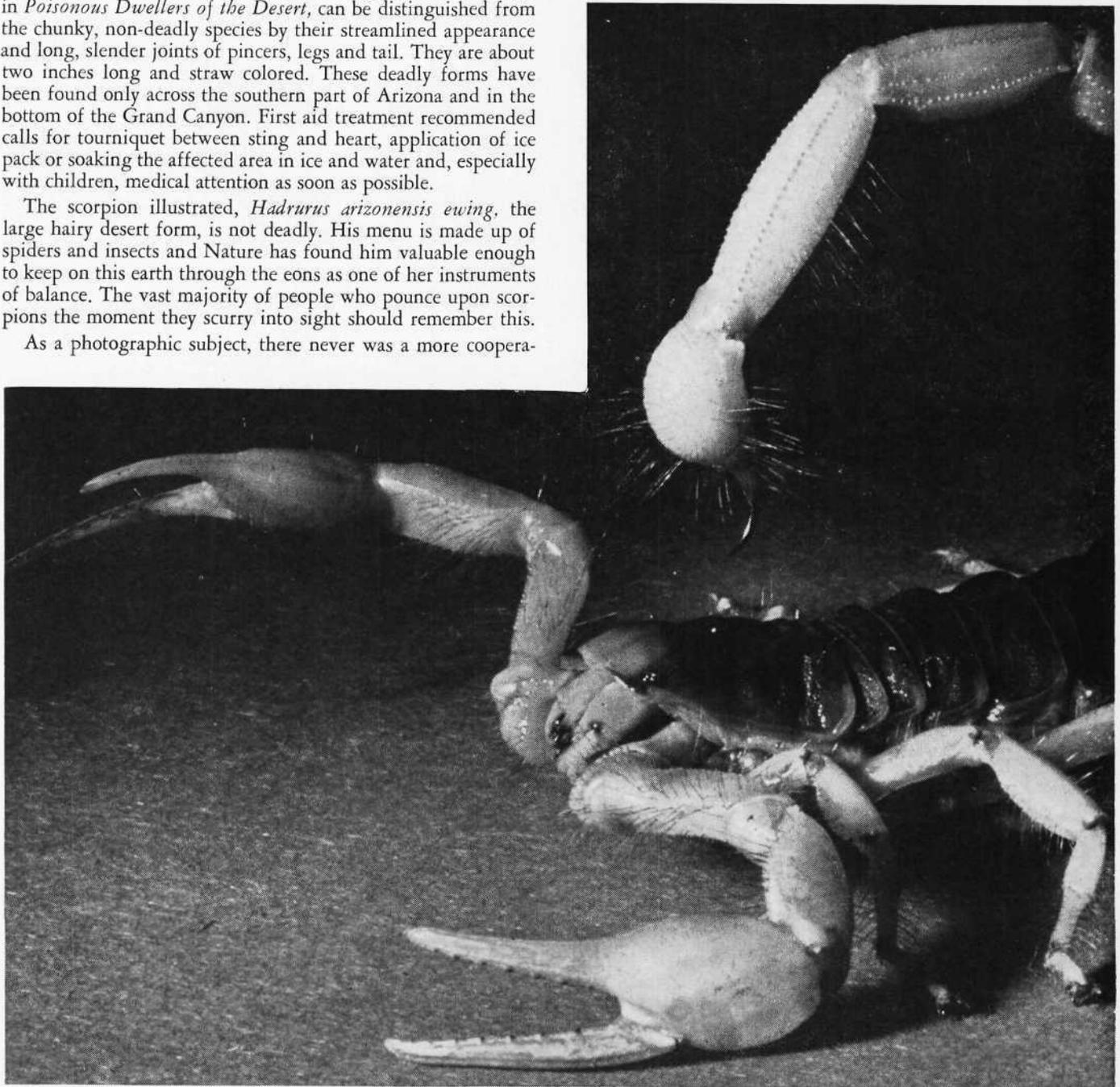
As a photographic subject, there never was a more coopera-

tive denizen than the scorpion. He will put on his worst and most frightening front upon the slightest provocation.

It is something to see a scorpion capture, kill and devour large spiders which form an important part of its diet. The spider must come quite near the scorpion's short-range sight and senses. Then the scorpion will make a lunge, kicking sand and pebbles in all directions, grasping the legs of its quarry in its dextrous tweezer-like pincers. A second later the thorn-like stinger will be jabbed into any portion of the spider's anatomy which happens to be in the line of fire.

The scorpion does not withdraw the hooked stinger immediately, but may allow it to remain a full minute, much as a lengthy hypodermic injection is administered.

Fortunately, the sting of most scorpions is hardly more serious than a bee sting as far as humans are concerned, and it is only on rare occasions in the areas mentioned that the two more venomous species are found.





*Julius Sombrero at Inscription House ruins. Julius is one of the more prosperous of the Navajo farmers in this area.*

## Trail to Inscription House

Did some wandering Spanish priest, explorer or adventurer carve his name and the date on a ruined cliff house wall in northern Arizona in 1661, or was the inscription the work of a practical joker among the pot hunters who visited the ruins before their official discovery in 1909? Archeologists and historians have not decided that question, but Inscription House, in Navajo national monument, received its name from those few letters and figures scrawled in the greyish clay. And no one can question the fascination of this thirteenth century metropolis of the Southwest, whose builders have vanished and whose walls have crumbled. Here is the story of the inscription and of the cliff ruins, told by a writer who knows the Navajo country.

By TONEY RICHARDSON

INSCRIPTION House ruins, hanging in their great cliff cavern, came into view with dramatic suddenness as we approached from the sandy floor of Neetsein into Navajo canyon. We reined our horses to a stop, Randall Henderson, Julius Sombrero—our Navajo friend—and I, to study this spectacle of a ruined city of another age, built by people long dead and gone. It looked, as one of my companions remarked, as if the former inhabitants might appear and go about their daily work at any moment.

We had been to the ancient ruin in

northern Arizona's Navajo national monument before this sunny July morning. But we wanted to make pictures of the cliff houses, known to the Navajo as the *Abnasazzie Bekin*. We had arrived at Inscription House trading post, six miles from the canyon, the afternoon before. We arranged with Julius for saddle stock. Since we had knocked around this remote area so much a guide was hardly necessary, Julius came along to visit. We hadn't been together for a long time.

Getting an early start we made the remarkable canyon trail without difficulty

and arrived at the ruins too early in the day to make photographs. Good pictures of Inscription House require the afternoon sun which streams into the cliff cave about three o'clock.

With hours to wait we decided to visit some of the Navajo farms spread over the floor of Navajo and its tributary canyons, wherever there is a level bit of ground and enough water for irrigation.

Once these tiny farms covered the floor of Neetsein canyon at the base of the great rock wall in which Inscription House is located. But tragedy has come to this area—

the tragedy of drouth. Over a period of years the little spring-fed stream in the bottom of the gorge had cut deeper and deeper into the silt floor until it had lowered the water table beyond reach of the roots of corn and squash. This, and two years of little rainfall, had forced the Navajo farmers to abandon their fields. Even the peach and apricot trees they had planted were dying.

We continued down the tributary to its junction with Navajo canyon and turned downstream along the channel. There was a generous flow of water in Navajo. Our immediate destination was Jones canyon, another tributary which flows into Navajo below. When we reached the mouth of this tributary Julius disappeared. A little later he rode up beside me.

"Our sister wants us to come to her place," he said.

"Our sister," a distinctly Navajo friendship term, proved to be Jeannet Manhammer, Julius' niece. With her in the arrowweed ramada were Eva Bluesalt and several small children.

Jeannet took us to task for not stopping as we had passed a little while before. Then seeing we carried cameras, she suggested that perhaps we would like to take pictures of the children. When we consented, she began changing their clothes and washing faces and brushing hair.

Jeannet and Eva had been cooking in dutch ovens over a fire in the shelter. We lounged on goatskins on the ground and answered their questions. They were interested in news of the outside world, and we discussed the problems facing their tribe. Everywhere in this land was desolation, but these people talk about their affairs realistically. They do not want charity. They want to help themselves.

We had some cans and boxes of food. While the women prepared boiled goat meat, coffee and tortilla-like bread we brought these from our saddlebags and had a grand feast there on the floor of the ramada.

Then we rode to the irrigated field up the tributary—the one field in this region where ample water is still available. About 20 acres had been reclaimed and it was a flourishing little oasis. The corn was shoulder-high and the ground between the cornstalks was covered with bean and melon vines.

This canyon soil is unbelievably fertile if it has water. The field would have furnished a fine living for one family. But it was serving 25 families. And since it is the only patch of ground with sufficient water to mature crops, it must somehow provide the food for them.

"It can never go around," said Julius sadly.

We followed a sandy trail around the little field and continued up the canyon to a place where a bubbling spring once gushed from the base of the canyon wall. The spring has vanished, likewise the

cabin which stood under a cottonwood tree beside it. Little by little the Indians have carried away the stones which once formed the walls of the building.

The cabin was built many years ago by Ben and Bill Williams. They had carved the figure of a scorpion, as I recalled it, in one stone in the cabin corner. I thought it might be lying around somewhere, but had given up the search when one of my companions picked up a rock.

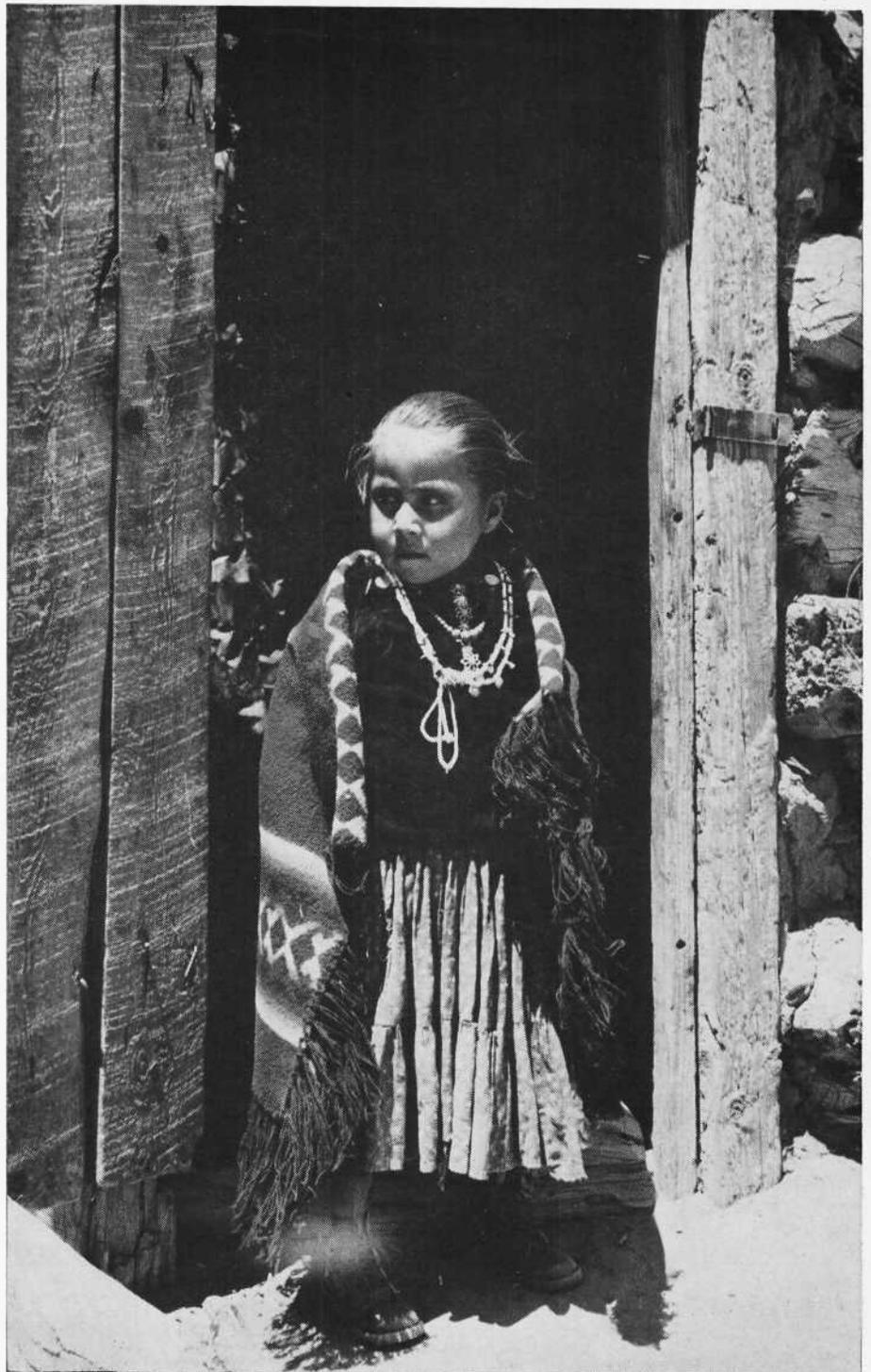
"Is this your stone carving?" he asked. On the surface was the dim outline of a lizard, common to the canyon country. It was

the rock, broken until only this small piece remained. But my scorpion turned out to be a lizard. Memory is tricky. Julius confirmed the fact this was the same rock. As a small boy he had seen it many times.

It was time to return to Inscription House. We followed another trail over a saddle and arrived at the old ruin when the afternoon shadows were just right for the pictures we wanted.

The ancient cliff houses are under a great over-hanging dome of sandstone 300 feet up the canyon wall. Crude toe-holds have been cut in the steep apron leading

*Lena Bluesalt in the doorway of the bogan in which she lives in Jones canyon, a tributary of Navajo canyon.*





*Inscription House ruins first were explored by archeologists in 1909.*

up to them—steps chiseled in the rock many hundreds of years ago with the primitive stone tools of the aborigines.

This city of the dead was occupied in the 13th century, and has approximately 75 rooms. It has several distinctive features, one being the T-shaped doors, with miniature open windows of the same design. Inscription House is smaller than Keet Seel and Betatakin, other cliff ruins in the Navajo national monument, but it is more spectacular. The adobe used in its construction was strengthened with chopped grass and yucca fiber. The largest kiva, once standing higher than a man's head, near a cave at the south end of the cliff, was made of a framework of interlaced reeds plastered inside and out. Only parts of the walls remain now, piled in a heap at one side of the kiva hole.

In one of the rooms at the head of the trail are the remains of the old inscription which gave the ruins its name when first explored by archeologists in 1909. The only decipherable part left is the date, 1661. Twenty years ago when I first viewed it the letters were somewhat clearer, but even then hardly decipherable.

As originally interpreted by the National Park service the inscription was "S——— Hapeiro Ano Dom 1661." Other authorities insisted the inscription was "Carlos Arnais 1661," and some read it, "Carlais Arnais Anno Dom 1661."

Indeed, American authorities on antique Spanish lettering have been unkind enough to remark that pot hunters who visited the ruins about 1900 whiled away a little time by making additional scratches which confuse the whole inscription, if a bona fide one ever existed.

Who was Carlos Arnais, or even this S. Hapeiro? Spanish documents fail to enlighten us, although there is proof explorers were in and out of the area. Navajo clan history mentions them at various times. We know, too, that all through the Southwest unauthorized adventurers in search of gold explored extensively. Could the man who carved the date 1661 have been one of them, exploring on his own in violation of Spanish law?

Returning to the physical facts of the inscription, the first time I saw it, there could be no doubt of the date. "Anno Dom," while separated from the markings as a whole, appeared quite legible. A photograph made by the late Dane Coolidge in 1927 is in existence, showing "Anno Dom 1661" plainly.

The other few scattered letters might once have spelled the name "Carlos Arnais," for the "Car——" was clearly defined. But definitely there was never enough to prove the name once adorning the wall could have been "S——— Hapeiro."

What about this "Anno Dom 1661?" On El Morro, the stone autograph album of New Mexico, which contains more Spanish inscriptions than any other spot on the North American continent, there are no 17th century inscriptions like it.

Important inscriptions there, appear: "16 de Abril AO 1605," by Oñate. "Ano de 1635," from an expedition dispatched by Governor de Baeza. "Ano de 1692," by Vargas. "Ano de 1629," by Nieto.

The abbreviations are, of course, for anno Domini: "In the year of (our) Lord." After 1700 the dates were usually

preceded by "el Ano" if it was not simply "Ano" or "Ano de."

Why should this unknown soldier, priest or adventurer have abruptly changed the customary writing "in the year of" in such fashion? By sheer accident or carelessness? Whatever the answer may be, whether or not the inscription was genuine, remains one of the secrets of time.

On the day of our visit, the recent repairs, and the deplorable wreckage remaining testified clearly that this monument should have come sooner under the protection of a man like the present custodian, Jimmy Brewer.

It was hot up there in the cliff, and we'd exhausted the canteen. We descended with mouths as dry as cotton, and drank copiously from the arroyo stream, wiggle tails, bugs and all!

Climbing out we headed back through Neetsein, across the wind riffled sand. Just at the turn of the 800-foot wall we paused, as earlier in the day, for a final view of the cliff ruin.

Distance and the shadows concealed fallen walls, heaps of rock and clay carried so laboriously from the canyon floor. Walls in existence yet, windows and doors, made the dead city alive. Only these were needed: vagrant grey smoke over a roof top to tell of supper cooking, and men climbing up from below, or workers coming home from the fields that once extended across the canyon at the base of the cliff. The same dead fields recently tended by the Navajo.

Saddle leather creaked. My companions stretched their legs, and we went on toward the foot of the trail climbing from shelf to shelf out of the canyon.

Many years ago Columbus, Nevada, was a boom mining camp producing much of the nation's borax. When the borax miners found other more profitable fields to work, the camp became a ghost town. And it remains a ghost town today—but it is not entirely deserted. There are turquoise veins in the nearby hills—and Grace and John Callahan are taking out beautiful blue gemstone that sells for \$100 a pound. Here is the story of two desert people who have found a living and contentment in one of the most arid regions of the arid Southwest.

# Ghost Town Miners

By HAROLD O. WEIGHT

HERE are degrees of ghostliness even among ghost towns, and the old camp of Columbus is so ancient and long-forgotten that most Nevadans are unaware of its continued existence. Often as I drove along the edge of Columbus marsh, on Highways 6 and 95, I stared across its shining surface toward the northwest shore, and wondered if any evidence remained of the spot where Nevada borax refining began.

Many oldtimers told me, "There's nothing left, now." Even the late W. A. Chalfant, usually a careful historian of desert mining camps, declared in *Tales of the Pioneers*: "Not a wall remains. It is not a ghost town but merely a place where a town once stood."

Walls do remain in Columbus, and its lone building is inhabited. Carl Sullivan of Mina, commissioner of Mineral county and 40-year resident of Nevada, told me about the camp and about Grace and John Callahan, who are mining some of America's finest turquoise from the hills behind it. "You will like Grace and John," he said. "They are desert people." Then he took me to meet them and proved his point.

We followed Highway 95 south from



John and Grace Callahan mine \$100-a-pound turquoise from stringers in the hills beyond the ghost camp.

Mina for 21.8 miles to Rocky Point, an isolated hill east of the road. Here, 8.3 miles north of Coaldale, we turned west on ruts that skirted the great salt marsh. Soon Sullivan pointed out the white waste dumps of early borax refineries. We passed four which lay close to the road, and others could be seen through the dancing August heat waves on the edges of the marsh.

Most of the men who became famous in the borax history of Death Valley and the Calicos made their start at Columbus marsh. The list includes William T. Coleman—for whom the borate colemanite was named—Francis Marion ("Borax") Smith, Chris Zabriskie, John Roach and John Ryan. Even Death Valley Scotty is said to have driven a wagon there when he was a boy.

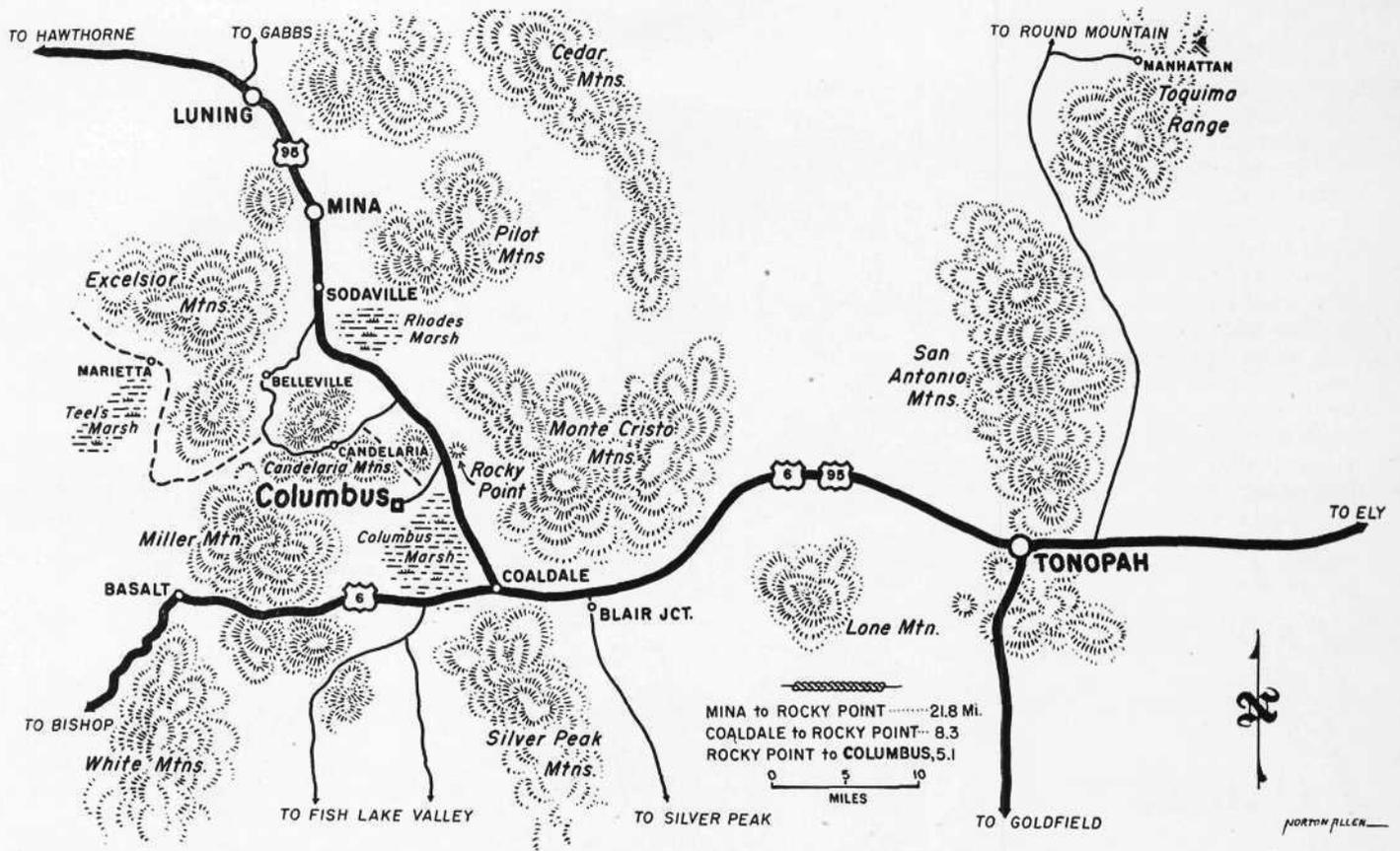
The early history of borax mining in the west is poorly documented. But Columbus, where William T. Coleman entered the borax business in 1872, evidently is the first desert marsh from which "cotton balls" were refined. This ulexite, with its silky fibers, was noticed in 1864 when claims were filed upon the salt in the marsh, to be used in the chlorination process at the ore mills. In 1871 William

Troup, a former Comstock miner, proved that it was borax when he refined some in a borrowed wash boiler.

Francis M. Smith—who was to become "Borax" Smith, make the trademark of the 20-mule team famous and build the Tonopah and Tidewater railroad—contracted to furnish wood for Coleman's refining furnaces. Later he found borax at Teels marsh, 25 miles northwest of Columbus, and mined it in partnership with his brother, B. G. Smith, a merchant with stores in the surrounding camps. Still later he bought his brother's interest, purchased Coleman's holdings at Columbus marsh and set up the headquarters of the Pacific Coast Borax company there.

We reached the remnants of Columbus at the end of 5.1 miles of good desert road, 26.9 miles from Mina. The town stood on alkali-hardened ground just north of the marsh on a site chosen for the water available—not for beauty. But the view across the white flats to Monte Cristo mountains in the east and Silver Peak and White mountains in the south can be breathtaking when desert clouds cooperate.

The Callahans are living in the old Molini home. How this part adobe, part wood, part tin structure managed to survive the ruthless desert years and the assaults of miners and boom town builders who stripped the old ghost town of almost everything usable, is a mystery.



You feel you know the Callahans as soon as you meet them. They are genuine and friendly and realistic enough to know there can be things more important than modern plumbing and a movie around the corner. They are newcomers to Nevada but not to the Southwest, having run a dude ranch at Bland, New Mexico, for 10 years. Grace, in fact, was born on the Navajo reservation at Aztec, New Mexico.

Grace's brother, George Spence, was an Indian trader. George obtained the turquoise claims at Columbus in 1931. When he died, in 1940, he willed them to his sister. Grace and John knew nothing about mining. But they did know and love turquoise. They came to Columbus in April, 1941, planning to stay two weeks to look the properties over. They stayed seven months. Then they went to Los Angeles, where John spent the war years working as a guard in a defense plant. They returned to Columbus on July 5, 1945.

"I had to shave every day down there," John said. "Every day for four years. Here I don't have to shave until I want to. I don't have to dress up unless I want to." He grinned broadly. "I like this desert."

The Callahans expected to start building a home when they reached Columbus. Today they are still trying to obtain lumber. There is a well in front of the house, but the water is unfit for drinking. They haul water, two barrels at a time, from Basalt, on Highway 6 near Montgomery summit. Basalt is about 25 miles away—in dry weather. In wet weather the distance nearly doubles. They can't use Columbus marsh for a highway then, but must go

around by their nearest neighbors at Coaldale.

"You don't sink in when it gets wet," John explained. "You just spin your wheels. It's like trying to drive on a big cake of wet soap. People usually ask us about the road before driving across. Once one of our neighbors didn't. Maybe he was in a hurry. It looked dry, but it had rained two nights before. Part way across the car quit going forward. It stayed there for three weeks. Our neighbor walked back and we drove him home."

In Nevada a neighbor frequently is any person living within 25 or 30 miles—sometimes 100 miles. People there still are pioneering. Living conditions in Columbus are more primitive in some ways than they were 70 years ago. Back in those days, the oldtimers say, the town had 1000 population.

It seems that most of the vanished mining camps had populations of 1000 or 10,000, or both, depending on the informant. Those are good round figures, easy to roll off the tongue, and nobody can prove anything, one way or the other. Some say that Borax Smith had a thousand Chinamen working for him at Columbus and living in the east end of town. Looking at the piles of rock and weathering fingers of adobe, these figures seem fantastic.

But there is enough broken glass, including some desert purple, scattered about to justify almost any estimate. This broken glass is going to be the most puzzling artifact of our time, when archeologists of some future race puzzle over the vestiges we leave. These mining camps, compared

with the ruins of big cities, probably will be looked upon as evidence of some primitive stage in our development, as we compare the pit houses of Nevada with the pueblo ruins of Chaco canyon.

But how will the prevalence of broken glass be explained? Will it be looked upon as the Glass-maker period, or will the investigators come to the not entirely erroneous conclusion that the savages inhabiting these primitive encampments subsisted entirely upon a liquid diet?

Next to the Molini house, the most prominent landmark is a quartz mill whose well-built stone walls stand south of the well. And the Callahans were able to point out fragments of adobe that marked Borax Smith's stores, the school house and the office where W. W. Barnes printed the *Borax Miner*.

"Columbus was founded as a mill town for the silver camp of Candelaria, about five miles northwest from here," John Callahan told me. "This was the nearest water, and salt for the mills was handy." The salt was roasted with the silver ore to form chloride of silver which, in turn, was converted to metallic silver by a process similar to that used to develop photographic images.

Columbus mining district was organized in 1864. The miners met 100 miles away from their claims, having been driven out by the Indians. The laws were unique in that they specified that the recorder might live outside the district until it was safe to live in it.

The town was started in 1865. Colonel Young brought in the first mill, a four-

stamper which he freighted from Aurora. Operation was delayed while Young assembled his equipment, after the freight teams were caught in a canyon cloudburst and the mill scattered over the desert. Candelaria ore had to be rich in those days. Milling charges were \$60 a ton and it cost \$8 a ton to have the ore hauled to Columbus by Mexican-operated pack train.

Columbus was a rough town. It had a number of killings and at least one lynching. The good citizens bitterly repented the lynching when they found, two days later, that the lynchee would have been worth a \$2000 reward if turned over alive to the San Bernardino county sheriff who came looking for him. Once the twice-daily stage of boom days was robbed in the canyon behind Columbus, and the payroll for the Candelaria mines taken from it. The loot supposedly was buried in the canyon and many fruitless searches have been made for it.

The town had a sort of wild west show every afternoon when Chinese teamsters, bringing their wagons back from Candelaria, took a short cut down the canyon road. They would come down upon Columbus full tilt, the horses galloping to keep the wagons from riding over them, and the Chinamen standing up, waving, screaming and whooping. The citizens

couldn't figure out how much of it was necessary and how much was Chinese fun.

Departure of the borax interests about 1875 broke Columbus. But there were other factors. A. J. Holmes, Young's partner in the quartz mill, was forced out after litigation. He departed, declaring that grass would grow in Columbus' streets. The townspeople thought it quite a joke. They doubted that grass could grow in the town's chemical-filled soil. But Holmes gained control of Candelaria's biggest mine, and he saw to it that the ore from the mine was not milled in Columbus.

Arthur Mason, an English author who prospected in Nevada during the Goldfield boom of 1904, tells of coming upon Columbus while hunting his burros. He found 20 adobe buildings still standing and "a pair of rabbit ears sticking up behind every bush." There was one long-whiskered inhabitant who claimed to have been there since the boom collapsed.

In the houses Mason saw black walnut bedsteads, dishes, cookstoves. The whiskered inhabitant explained that when the town folded, freight rates were 20 cents a pound. The miners and millmen couldn't afford to ship their belongings. They walked out to look for work, leaving wives and children behind. When they found

jobs, they sent for their families who took what they could carry and left the rest.

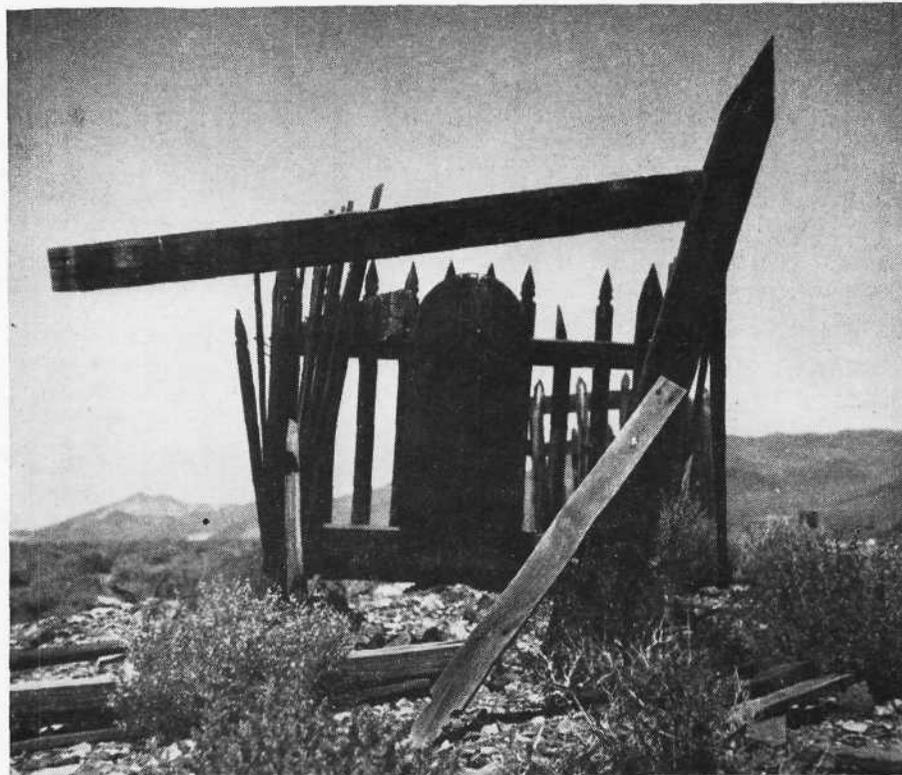
The furniture and adobes are gone now—most of the rabbits, too. But miners have come back to Columbus. The Callahans came because they like the desert—not to make a quick fortune. Mining turquoise is hard work, but they can think of few greater thrills than breaking into a pocket of spider-webbed blue gem.

Turquoise long has been a favorite with Southwestern Indians. Few outcroppings are found that do not show the work of primitive miners. In one burial room in Pueblo Bonito 24,932 turquoise beads and 700 turquoise pendants were discovered. Turquoise amulets have been found in graves in Yucatan and in the sacred well at Chichen Itza, in tombs in India and Persia. The first stones known to Europeans came from the great mines near Nishapur, but they were distributed through Turkish ports and so received their name of Turkish stone.

Turquoise, a hydrous phosphate of aluminum and copper, is a desert stone, found usually in arid regions and at shallow depths. It was formed by deposition from mineral solutions and has a hardness of about 6. It occurs in many shades of green and blue. The matrix frequently is limonite. Other common associates are

*Until building material becomes available the Callahans are living in the old Molini home, sole remaining building in Columbus.*





*Above—Carl Sullivan at the ruins of one of the ore-reducing mills.*

*Below—Old Columbus graveyard. The desert is slowly but surely erasing the scars left by men.*

quartz, feldspar and kaolin. It frequently is found "blind"—that is with a coating of limonite or a blackish stain which gives no hint of the gem beneath.

"You find a stringer of turquoise and follow it," John Callahan explained. "It may be knifeblade thin, but somewhere it will open out. You drill down one side of the stringer, then blast, using short holes and light charges. It's not a happy experience to blast a good pocket all over the country. After blasting you pick off the narrow vein carefully and follow it down again. A streak of good grade usually will

open into a lens or pocket of good grade."

Three of the Callahan claims are in limestone, some are mixed through the malpais and some are in a black, metamorphic rock. But all that John has found is in volcanic country.

"We are following four stringers now," John went on, "and we can sell all the high grade that we can get, at \$100 a pound. We find lots that we could oil up and make look pretty, but it would be hurting our own business to put inferior turquoise on the market."

Grace nodded. "During the war when

turquoise became so popular, some sellers cashed in by doctoring poor stones. Now many people are suspicious of any turquoise. They don't want to pay a lot of money, then have a pretty blue stone turn a greasy green."

The finest blue turquoise may fade slightly soon after it is mined. But it does not continue to bleach if properly preserved. Some authorities advise that it be protected against heat, too brilliant sunshine, perspiration, skin oils, perfumes and soapy waters. The tendency of some stones to fade is the basis for much folklore which is attached to turquoise. Paling of color was supposed to warn the wearer of approaching sickness or danger. The remedy, in many cases, was to obtain a stone of deeper color, then dye the fading one and sell it to a stranger.

Doctoring of turquoise is mentioned by a Persian of the thirteenth century, who suggested use of butter or mutton fat. The Southwestern Indians used tallow and grease as far back as 1883. But only in recent years has this deception reached such a scale that it threatens the popularity of turquoise.

Green turquoise is pretty and some people prefer it to the blue. It has a definite place in the gem world, both as specimens and in jewelry. It is only when such stones have been treated to give them false and temporary color that the purchaser has just cause for complaint. But it is difficult to tell a dyed or grease-treated stone when it is sold. The only certain protection is the word of a reputable dealer who will stand behind his sales.

The rise of blue turquoise among American gem stones has been spectacular. The Callahans fear that if the doctoring of the stones continues, its fall may be equally spectacular. They are doing their part to prevent such a happening by refusing to sell inferior material that might be treated. They like the way of living that they have found on the Nevada desert. They want to continue mining turquoise.

In the forlorn graveyard on the flood-cut slope north of town lie those who reluctantly became permanent residents of Columbus. Even some of the dead escaped. Open, erosion-filled graves mark the places where, about 1900, the Chinese were removed and shipped to the land of their ancestors.

The desert has been busy in the graveyard, erasing the scars man has left. Streams have cut through mounds, railings are collapsing and markers have been washed away. The names of few buried there are decipherable.

I wonder what they think, the dead of Columbus, if they know that people of a new generation, lured by the desolate beauty of the wastelands, have come willingly to live in the ruins of their town. Probably it would be incomprehensible to them. And yet they might understand. They have been with the desert a long time now.

The cities perish. And the "learning" goes.  
Empires depart—and darkness comes again.  
But, trodden in the dust by naked toes,  
The fragments of old urns and pots remain.

And in their testimony, lone and mute,  
Declare the riddle of the marching stars—  
Bare feet, and clay, and singing minstrel's lute,  
Rise ever from the dust. Life knows no bars.

—M.S.

## Desert Trails

By MARSHAL SOUTH

THE MORNING sun was high and bright over the desert as we headed our jeep up the steadily mounting slopes toward the upper end of California's Borrego valley. Tints of rose and turquoise and that mysterious ashy grey which is so hard to define clung to the slopes and battlements of the towering Santa Rosas. And upon a heaving brown shoulder of the mountains, as though sculptured there by the chisels of a long-vanished race of giants, the weird, white figure of "The water boy" trudged his monstrous, burden-laden march along the foothills. Just as he has done, mayhap, for the last five million years.

The road was good and our little car made good time. Jeeps are so efficient one can almost forgive them for the way they slaughtered up the desert scenery in war days. And, though my resentment dies hard, still, in spite of myself, I could not help a feeling of admiration for the sturdy little mechanical contraption that was presently racing us without effort through the green marching ranks of the ocotillos toward the De Anza ranch.

The De Anza ranch, which comprises the property homesteaded in the canyon mouth many years ago by "Doc" Beatty, flashed us a cheery greeting from its picturesque white walls as we wound down over the bluff and through the scatter of old buildings which were, for long, Doc's headquarters. The spirit of the desert by-trails began to close in with the crowding approach of gaunt mountain flanks and the rush of lonely canyon waters flowing down over a ruddy, stony roadbed that was, for much of its length, nothing but the floor of Coyote creek.

There was a good deal of water in the creek and our jeep carried a considerable load of camp equipment in addition to our party of six. Nevertheless, piloted by Mrs. Alma Loux, its owner, it made good time, splashing through stretches of foaming water and shouldering nonchalantly out of cavernous holes that would, in the old days of less versatile cars, inevitably have spelled disaster. One of the pioneer homesteaders of Borrego valley, Mrs. Loux possesses an inexhaustible fund of desert legend and regional information. Her anecdotes of the early days, together with the many stops which Mrs. Myrtle Botts, head of the Julian Annual Wildflower show, insisted on making to investigate floral possibilities, put wings under the passage of time—despite the road difficulties. Shortly before noon we plunged our chariot down a break-neck bank, forged across a broad wash of white, deep sand and broke out into the wide brush-grown mouth of Indian canyon, a tributary of Coyote creek.

The day was perfect and there was a wine-like fragrance to the gentle wind that stirred through the mellow sunshine. Monster yellow and brown boulders, reminiscent of Ghost mountain, clung in teetering awesomeness to the abrupt lift of the nearby ridges. Against a sky that was flecked by tufts of white cloud, the mountaintops, in breath-taking precipices of ragged, up-tilted strata, bared savage fangs above the deeps of rock-choked



*Our jeep in the waters of Coyote creek—on the way to Indian canyon.*

canyons. Across the wide wash a lone palm lifted its trunk and tangled crest against the hillside like some sullen Papuan sentinel. And beyond it—beyond the clutter of mighty rocks and the green of sycamore trees which marked the confluence of Sheep and Cougar canyons—a green headed cluster of at least a dozen more palms bulked in the distant shadows above a ledge.

The whole world was hushed, and wrapped in a silent peace that seemed as though you could almost reach out and touch it. But we were not alone. Along the sides of the canyon lay spots of reddish-brown color—the tents of a party of state employes engaged in the business of rooting out and destroying infected wild grape vines. But the landscape had swallowed the workers. The stillness gave no clue. We knew that they were up the canyons somewhere. But they might as well have been on some other planet for any hint of their existence. No sound of voice or echo of blow came down on the faint wind. Even when we saw them—much later—filing down a trail between the bushes, they seemed more like ghosts of the old-time Indians than living men. Silently they passed, and were gone. The hush of the desert mountains had laid its magic upon them. They were men in a dream. We also were caught up in the same fantasy. It was as though we had stepped out of the world.

But those silent canyons, cutting deep into the shadows of the San Ysidro mountains, held a lure for us that was stronger than dreaming. One of the old time residents of Borrego valley, whose early-day hobby had been the exploring of its most solitary corners, had told us a story of a wild goose which, many years ago, had been shot as it winged with its companions overhead. Falling, the bird had plunged among a clump of boulders, upon the top of which was a heap of brush, looking, at first glance, something like the huge abandoned nest of an eagle. Curious however, as he investigated where the goose had fallen, our informant had poked with his gun barrel amongst the heap of brush and dead branches. His probing struck sudden resistance in the center of the pile. Further investigation revealed the fact that the heap concealed a perfect and very finely decorated olla. It was almost full of ashes. Ashes which experts declared subsequently were those of some highly venerated Indian chief.

Decorated ollas are rare in this section of the desert. So rare that it has sometimes been asserted that the early Indians never made them. It is declared that the few specimens that have been found were importations from a long way away, or even from south of the Mexican border. This last argument is, however, open to doubt. I have found occasional decorated fragments. And I am of the opinion that, on occasion, some rare pot maker did indulge in art flights. Usually the decorations are crude. But occasionally one finds markings which measure up to a very



*From the mouth of Indian canyon looking north across Collins valley to the Santa Rosa mountains.*

high standard. At any rate this story of the decorated olla had fired a craving to investigate the region. There were other stories too, equally, if not more, intriguing. But these, for the scope of this narrative, must wait.

So there we were—practically on the scene of the great discovery. Were there other ollas here? So many years had passed since that wild goose fell. Besides, suddenly, all the mountains and canyons roundabout seemed very vast. Ollas are little things. And the dusky, old-time makers were experts at hiding them.

Said Sterling Loux, our mechanic—who, by virtue of his uncanny skill with tools and also because he had once been part of a previous expedition into these parts, had accompanied us:

"I'm just sure this is the place my brother and I came last year! See that rock . . . Well, now I remember! That's the place where we found a cave! And in the cave . . ."

His eyes were shining. And he was breathless with excitement—and all the importance of his ten, very-wide-awake years. He ran on, words tumbling over each other as he pointed out landmarks. But presently he began to falter. The solemn mountains grinned down on him. They seemed to wink sardonically. In the end Sterling wilted and gave up. "I'm not so sure," he said. "Maybe this isn't the place. Still, that rock . . ."

In the end the silence laughed at us. Our mechanic and guide admitted defeat. We split up our party and went our ways—up into hushed canyons amidst grey rocks and the murmur of cold gurgling crystal water. Old pottery cracked beneath our feet. Sherds. Big and little. Sometimes the almost perfect necks of old ollas. Traces of old camp fires. Old guide stones piled beside the weather-dim trails. Silence and the rustle of sycamore trees. The papery whisper of solemn palms.

No, we did not find any more painted ollas. We did not find any old sweat houses or decorated burial caves. But we had the feeling that all those things—somehow—mysteriously—were there. We sensed the spirits of the Old People among the rocks.

But we did find a fragment of gaily decorated pottery. A very tiny fragment. The lines of color were firm and bright and clear. No crude daubing hand had drawn those lines. It was like a star of hope to us. But, search as we would, we found no more.

In late afternoon we came back to our pre-arranged meeting point. And in the shelter of a mighty boulder, where undoubtedly the Old People had camped many times before, we lit our fire and cooked our meal. The wind had risen a bit and the fire tossed and flared. Squatting around the blaze one could not help reflecting on the cyclic path which man treads. He rises from the state of the open fire and his bare hands in the wilderness. He progresses and he toils and he schemes. And he collects gadgets and worries and income taxes. And, this being done, his soul craves, more than anything else, to return once more to the open fire—and his bare hands against the wilderness.

And this is the reason that so many people nowadays, who have been "blessed" with riches and this world's gee-gaws, will flock out eagerly to dude ranches and to resorts where, for fantastic sums per day, they can go back once more to at least a feeling of the primitive.

Verily the human being is a strange animal. Not yet, even dimly, does he begin to understand himself or the true value of life.

#### VETERANS AWARDED DESERT HOMESTEADS . . .

At a drawing held in the Yuma American Legion hall March 10, 26 veterans of World War II out of 541 who qualified were awarded homestead farms in the Yuma valley and on the Reservation divisions of the Yuma project. Nine Yuma-area men were among those receiving farms and the other 17 were from California, Oregon and Washington and from other Arizona cities.

The applicants who qualified met rigid tests of character and experience, and other requirements established by reclamation and homestead laws. Drawing was made from a glass bowl by commanders of veterans organizations of the Yuma area.

The Yuma project was said to be the bureau of reclamation's first major development on the Colorado river, authorized in 1904, only two years after creation of the bureau. From a few thousand acres, the project has grown to 55,000 acres. In 1947, farmers on the project produced crops worth \$13,900,000, a per-acre gross value of \$252.

A. B. West, supervisor of operations for region three of the bureau of reclamation, told of the bureau's objectives in homesteading new lands, in a talk preceding the awarding of the homestead farms.

*Capture the Rainbow*

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WRITE BILL WILSON, TONALEA, ARIZONA, FOR RATES AND A BROCHURE DESCRIBING "THE RAINBOW"



Arizona Rainstorm . . . . . By George O. Bonawit, Parker dam.

**MIRAGE**

By ENOLA CHAMBERLIN  
Los Alamitos, California

They say it's desert, hounding at the hills;  
A place where restless winds forever run.  
They say there is no water and no tree,  
But only bushes crackling in the sun.

But I have looked and seen a vivid lake  
Reflect the mountains, blue and grey and brown;  
And watched a ship stand smartly out from shore  
Where bulked the trees and houses of a town.

And I have held my breath in listening  
To hear a signal gun boom out the hour,  
When on a point that leaned into the sea  
There blazed the silver of a lighthouse tower.

They say it's desert, hounding at the hills,  
With never water for a crop or green—  
But I have watched it through ten thousand  
days—  
And Oh, what more than desert I have seen.

**DAME DESERT**

By LEE STROBEL  
Indio, California

Thou harsh and austere dame  
Oft hast thou seared me  
With the breath of flame,  
Or chilled me in an icy blast.  
Oft have I cursed thy bleak domain  
And sworn to ne'er return again.  
Yet, when I'm gone I seem to yearn  
To feel again thy freeze or burn.  
Repulsive art thou. Nonetheless,  
I seem to like thy fierce caress.  
You kiss me with thy arid maw  
And pet me with a withered claw.  
Witch thou art, and Dame of Hell,  
But yet I can't escape thy spell.

*Desert Shower*

By MARGARET SCHAFFER CONNELLY  
San Bernardino, California

Like saddle leather creaking,  
It brushes and it weaves  
Across the saffron mountains  
And imagery retrieves.  
The boulders start in laughing  
A hollow trumpet sound,  
And then my heart starts singing  
To watch the thirsty ground.  
Ten million tiny feet pat  
Upon the desert's breast,  
Ten million tiny crystals  
Break e're they come to rest.

I'll brave the noisy streamlet  
That leaps in ecstasy,  
The rain is falling steady .  
As far as I can see!  
The west wind and the raindrops  
And I will dance together,  
To where a small house beckons  
To shield me from the weather.

**THE JOSHUA TREE**

By GYNETHA KIRKPATRICK

I went to the Antelope valley  
And stood by a Joshua tree,  
Its branches bent and twisted,  
Brought a pondering mood to me.  
I thought: How like God's children,  
Some upright and tall,  
Some grotesque and twisted,  
But the same God made them all.  
I stood, and looked, and listened,  
And the wild wind spoke to me,  
Saying, "All cannot be perfect  
But each fills his destiny."

**SOMEWHERE IN THE BROWN  
MOJAVE**

By F. A. LYDIC  
Lakeport, California

Somewhere in the brown Mojave,  
Where the desert lizards run,  
And the western skies at evening  
Flame to the setting sun;

I want to build a cabin,  
Just a simple little shack  
With bricks of grey adobe,  
Where I can wander back;

To rest a while when I am tired  
Of noisy city cries;  
Where soul and mind may know the joy  
Of sequin spangled skies,

Above the hills when night comes in  
And flings his million stars  
To shame the scattered fleeting lights  
Of distant motor cars.

The flaming torch of dawn will wake  
Me to another brilliant day.  
And then perhaps, I will decide  
To settle down and stay.

*LOFTY THOUGHT*

By TANYA SOUTH

Try cultivating lofty thought.  
Each day to some high purpose bend  
A willing heart, till you have caught  
Some inspiration or some trend  
Toward high attainment. Thus you'll find  
Your duties will be lighter done,  
And you shall have a happier mind  
And greater courage in you born.

# Fossil Hunters at Catarina

Long ago, five-foot, jet propelled ink-squirting tanks abounded in our prehistoric seas. But they could not meet the challenge of evolution, were buried and turned to stone. Scientists, finding the giant, snail-like fossils, named them ammonites. Here is the story of their misadventures through 70,000,000 years, and how they came to be entombed in mudballs in the lonely Lower California desert where Lewis Wayne Walker and his companions found them.

By LEWIS W. WALKER

*The author with two prize ammonites from the field near Catarina landing, which geologists consider one of the finest deposits in the world.*



WE HAD driven 400 miles over the roughest, dustiest roads in Lower California on the trail of fossil ammonites—those giant mollusks which teemed in ancient seas. Four miles east of Catarina landing Ramon, our Mexican guide, led us into a lonely dry gully. He pointed to dark brown spherical objects, resembling giant geodes, which protruded from the eroded walls. Some of them were coconut size and some as thick as a man is tall. But, unlike geodes with crystal-studded hollows, the center of each contained a petrified animal of the past.

We had reached the deposit of ammonites which geologists consider to be one of the finest in the world.

Approximately 70,000,000 years ago, the last of these giant mollusks had become extinct; and for 70,000,000 years before that, their race had been dying out—fighting a losing battle with new and more modern forms of creatures. The lifeless shells, which resemble tremendous snails, rolled around on the ocean floor, and no doubt many disintegrated. But some became buried in the primeval ooze. Those that did not break up were preserved in a peculiar way as water worked through the soil, dissolving the limes of the shells and then carrying it in solution to the surrounding dirt, where it hardened and formed a stony tomb.

During the passage of uncounted millions of years, dust storms, lava flows, and the sedimentary deposits of rivers covered the hidden animals to depths of a thousand feet or more. In this period constant change was taking place within the balls of hardened mud as the organic cells were replaced by minerals and the matrix was being solidified in a manner that would preserve the minutest details.

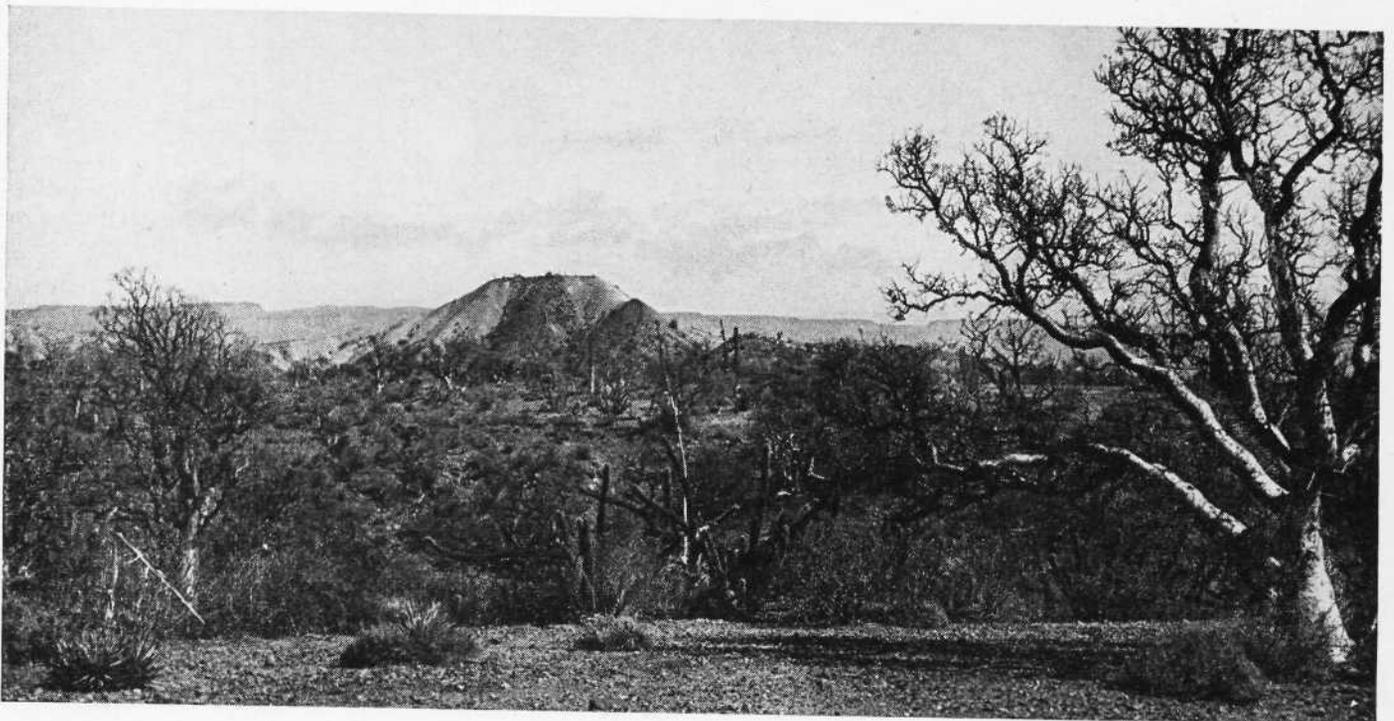
Now, as fossils, most ammonites still remain buried under tons of debris, but in a few localities the same elements that caused them to be covered commenced to work in reverse. The erosion of wind and water, aided by frequent earthquakes, peeled off one geologic layer after another, and finally exposed some of the balls of mud to the light of day. These, due to the impregnation of lime from the original shell, were harder and heavier than the surrounding soil and thus were not carried off to be lost forever.

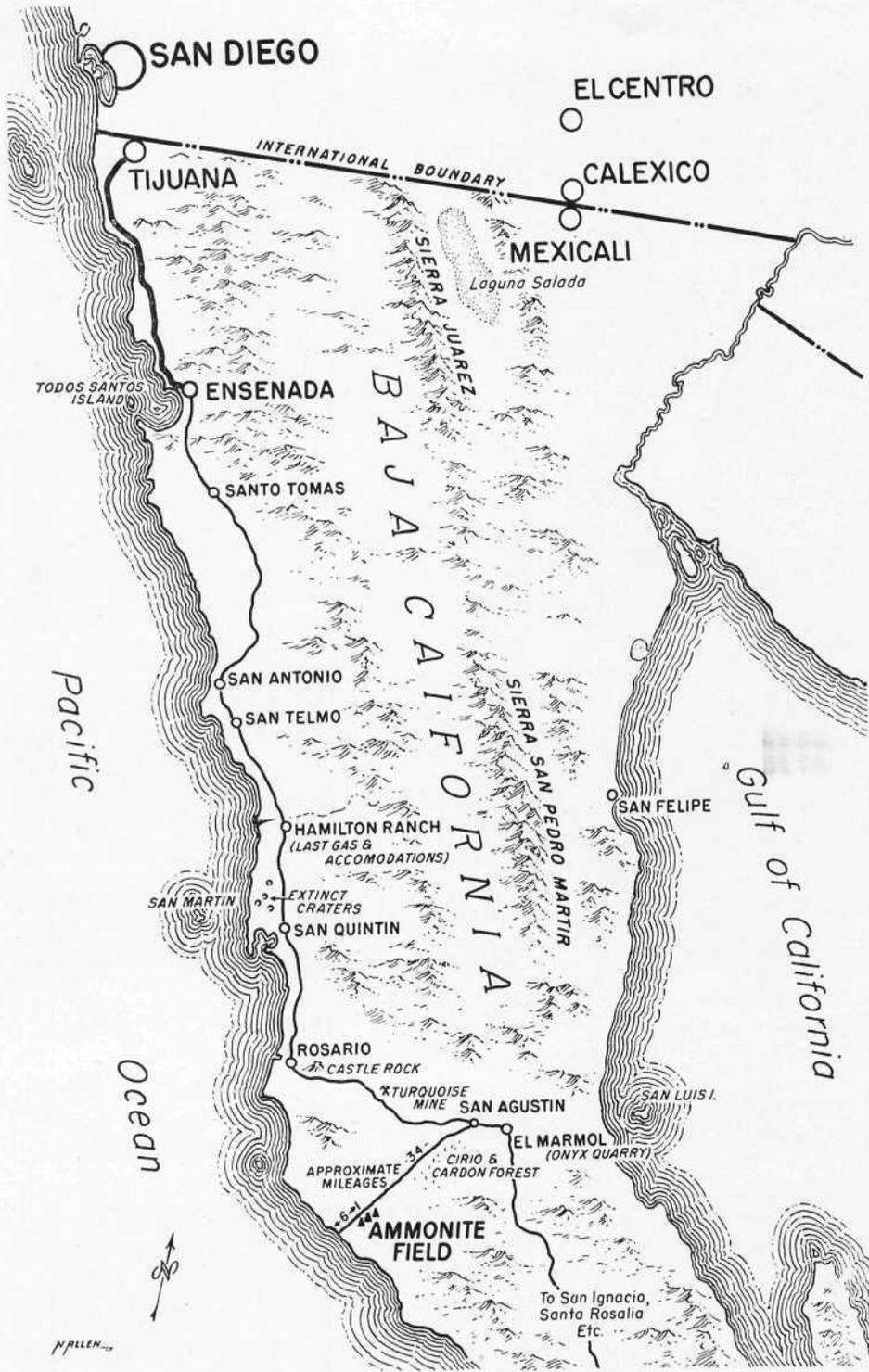
Despite the snail-like appearance of these fossils found at Catarina, the extinct owners actually were related to the chambered nautilus, their only living counterpart. In life the ammonites must have been sluggish creatures. At that distant date, however, evolution had not progressed very far, so perhaps their prey was sluggish



*Fossil ammonites from Lower California. The largest specimen illustrated is more than two feet in diameter. The fossils are found in claystone nodules, one of which is shown under the pick handle.*

*Elephant trees like the one shown, right, while rare north of the border, are common in the Lower California area where the ammonites are found. This view was taken near the fossil deposit.*





also and so could be caught by these traveling tanks.

The scientific name for this family is *Cephalopoda*, which means "head united with feet." In the same contemporary period there were other animals that had heads which separated the feet from the rest of the body, but through the ages their protective armor was gradually sacrificed for speed and eventually they developed into the squid and octopus as we know them now. Unlike these eight or ten armed survivors, the ammonites had a mass of tentacles, which could either be drawn within the shell and capped with a protective door, or extended to reach around for food.

Utilization of the shell as a home was no doubt confined to the outside whorl (probably like the nautilus of the present). The inside sections were sealed off; but these empty spaces were not entirely wasted, for this later animal manufactures and secretes a buoyant nitrogen gas and stores it in the unused chambers.

The octopus and squid travel by jet propulsion, and perhaps the ammonites were endowed with a similar form of locomotion when off the ocean bottom, but whether they too were capable of discharging an ink as an underwater smoke screen has not been determined. However, as many of the present cephalopods use such

a shield for escape, it is not improbable. If these five-foot, jet propelled, ink-squirting tanks existed to the present day, the tall tales of the Loch Ness sea serpent would soon be forgotten in deference to this awesome creature that really lived 70,000,000 years ago.

Although several thousand different forms of ammonites have already been classified from all over the world, most of the known deposits are sadly depleted. The accumulation at Catarina landing is practically untouched. A few specimens have found their way into colleges and museums, but the remoteness of the spot has been its salvation. Over-zealous amateur fossil hounds who destroy more than they save have been deterred from the journey by 400 miles of the roughest roads that can be imagined.

Extra tires, water and gas must be carried for a full four-day trip from Hamilton Ranch, which is the last gas station this side of the ammonites. Mechanical help in any form is scarce below Ensenada, and I have passed days on this auto trail without seeing a single truck going in either direction. If after this warning the trip is still contemplated, remember you are on your own; and when the ammonites are encountered, so far unharmed by vandalism, let your conscience be your guide.

#### PLENTY OF LAND FOR JACKRABBIT HOMESTEADERS

Paul B. Witmer, acting manager of the U. S. land office for the Southern California district, says that there are approximately 6,500,000 acres of unreserved and unappropriated lands in the district. They are distributed by counties as follows: Imperial, 629,000 acres; Kern, 70,000 acres; Los Angeles, 32,000 acres; Orange, 93 acres; Riverside, 1,074,000 acres; San Bernardino, 4,546,000 acres; San Diego, 246,000 acres; Santa Barbara, 398 acres; and Ventura, 3575 acres.

Practically all these lands are located in the desert regions with no known sources of water for irrigation, and it would be impossible to raise crops on them without irrigation.

However, the principal possibility for a use of these unappropriated lands lies in the Small Tract act of June 1, 1938, popularly known as the Jackrabbit Homesteading act. Under this the secretary of the interior is authorized to sell or lease tracts, not over five acres, for use as home or cabin sites to individuals. In an attempt to liberalize the use of public lands under this act, Oscar Chapman, undersecretary of the interior has asked the senate for changes in the act. The law now limits home site selections to individuals. Chapman proposes that communities, corporations, associations, states or municipalities be permitted to lease such property. Leases can be made for residences, recreation and business. To these Chapman would add community use.

In 1853 Mormon converts were pouring into Utah from all parts of the world. In the confusion of tongues, how were the people of Zion to understand one another? The Mormon church thought that it had found the answer—the Deseret Alphabet—a new set of symbols based on phonetic principles which everyone in Utah would learn. Only three books were printed in the Deseret Alphabet, and they are collectors' items now. But the story of that half-forgotten attempt to rewrite the English language is a fascinating bit of Western history.

# When Zion Wanted a New Alphabet

By LESLIE L. SUDWEEKS

**D**ARKNESS had fallen upon Salt Lake City that October evening in 1853 when Heber C. Kimball, First Counselor to President Brigham Young, called to order a meeting which might have changed the written language of the West.

"Brethren," said Kimball, his bald pate shining in the dim lamplight, "the board of regents of the University of Deseret has appointed us three a committee to submit proposals for a textbook based on a practical system of phonetic spelling."

George D. Watt, church reporter asked: "What is President Young's attitude on this matter?"

"President Young originated the idea," Kimball replied, "and he asked the board members to see what they could work out."

"Such an assignment presents many difficulties," said Parley P. Pratt, an Apostle of the Mormon church. "We aren't the first ones to attempt to reform the English language. I recall hearing some agitation on the subject while on my mission to England some years ago. Can you tell us more about that, Brother Watt?"

"That was the movement sponsored by Sir Isaac Pitman," Watt responded. "When I was sent back to my native England on a mission, one of my assignments was to learn Pitman shorthand. In addition to pioneering in shorthand, Sir Isaac waged a vigorous battle for phonetic spelling. I brought a copy of his book on the subject when I returned from England."

"I move," said Pratt, "that Brother Watt report the details of Pitman's method of phonetic spelling to us at our next meeting. That may help solve our problem."

Kimball agreed, and the committee adjourned for a week.

There was a great need for alphabet reform in Utah in 1853. While the original Mormon pioneers were predominately of New England stock, it was not long until people from every state in the Union and most of the civilized nations of the globe joined the pioneers in the Great Basin.

With the arrival of these new converts in Deseret, as the Utah pioneers called their provisional state, a serious problem of understanding one another arose. How were thousands of

Long Sounds.		Letter.	Name.	Sound.
		ᄀ	...p	
ᄁ	...e...as in...eat.	ᄂ	...b	
ᄃ	...a " ate.	ᄄ	...t	
ᄅ	...ah " art.	ᄆ	...d	
ᄇ	...aw " aught.	ᄈ	...che as in cheese.	
ᄉ	...o " oat.	ᄉ	...g	
ᄊ	...oo " ooze.	ᄊ	...k	
Short Sounds of the above.		ᄋ	...ga...as in...gate.	
ᄌ	...as in...it.	ᄌ	...f	
ᄍ	" et.	ᄍ	...v	
ᄎ	" at.	ᄎ	...eth...as in thigh.	
ᄏ	" ot.	ᄏ	...the " thy	
ᄐ	" ut.	ᄐ	...s	
ᄑ	" book.	ᄑ	...z	
Double Sounds.		ᄒ	...esh...as in flesh.	
ᄓ	...i...as in...ice.	ᄓ	...zhe " vision.	
ᄔ	...ow " owl.	ᄔ	...ur " burn.	
ᄕ	...ye	ᄕ	...l	
ᄖ	...woo	ᄖ	...m	
ᄗ	...h	ᄗ	...n	
		ᄘ	...eng.as in length.	

The Deseret Alphabet, reproduced from page three, Deseret Second Book.

foreigners to master the inconsistencies of the English tongue, in which a single letter sometimes represented as many as eight different sounds and in some words might not even be pronounced at all.

At the following meeting, Watt presented his report in detail, pointing out that Pitman's phonetic alphabet, published in 1847, retained 23 letters of the Roman alphabet (rejecting c, q, and x) and added 17 new characters, making a total of 40.

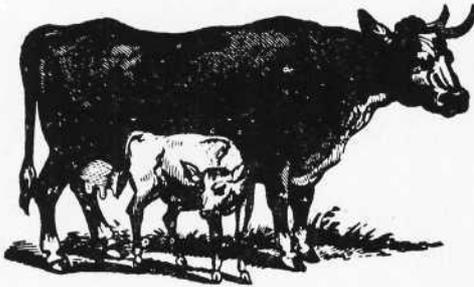
"I think Pitman went too far," remarked Kimball. "I favor retaining our present alphabet and making our reforms within its structure."

"I agree in principle," replied Watt, "but I believe we cannot have a truly phonetic system of spelling with a 26-letter alphabet when there are at least 38 separate and distinct sounds heard in speaking English. That leaves two alternatives: assign several sounds to some letters as has been done in present-day English, or add more characters to represent these additional sounds."

"Then what is your recommendation?" inquired Kimball. "Should we adopt Pitman's alphabet?"

"No," replied Watt thoughtfully, "I believe we can create a better one ourselves. Pitman made one serious mistake. He retained too many letters of the Roman alphabet. Since all the

ᐃᑭᓄ XXIII.



ᐃᑭᓄ ᑭᓄᑦ ᑦ ᑭᓄᑦ ᑭᓄᑦ ᑭᓄᑦ ᑭᓄᑦ. ᐃᑭᓄ ᑭᓄᑦ ᑦ ᑭᓄᑦ ᑭᓄᑦ,  
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Lesson XXIII from the Deseret First Book, the story of the red and white cow with the brown calf.

vowels and a number of the consonants have from two to eight sounds apiece, it will be much harder for people to learn to restrict these familiar letters to one sound than it would be to associate the 38 sounds with an entirely different set of characters. I suggest we discard all or most of the letters of the present alphabet and adopt an entirely new one."

"But," protested Pratt, "isn't it too great a break with the past? Have we any assurance such a drastic change would be successful, involving as it does the creation of an entirely new literature?"

"As a church we have never feared to strike out on unbeaten paths," replied Watt. "We broke with tradition in setting up a religion founded on new principles and in establishing ourselves on a new frontier. Could there be a more opportune time for such a reform? Do we not boldly proclaim to the world that we accept truth and reject error in whatever guise or condition we find it?"

In the end the committeemen were convinced. Going much farther than Pitman, they retained only the letters c, d, l, o, p, s, and w (although giving new sounds to most of them) and added 31 new characters. Some of them were taken from reproductions of ancient alphabets found in the front of Webster's unabridged dictionary, while others were figures of Watt's fertile imagination. To improve the wearing qualities of the type, which would have to be cast especially for the project, it was decided to delete any tops or tails on the characters.

Enthusiasm for the new reform was prodigious. In the first public announcement, January, 1854, the *Deseret News* optimistically asserted:

"The board of regents in company with the Governor and heads of departments have adopted a new alphabet, consisting of 38 characters . . . These characters are much more simple in their structure than the usual alphabetical characters . . . The written and printed hand are substantially merged into one . . . The orthography will be so abridged that an ordinary writer can probably write one hundred words a minute with ease, and consequently report the speech of a common speaker without much difficulty."

In his message to the territorial legislature in December,

Governor Young championed the reform. Referring to the progress made in science and industry through the introduction of steam engine power, he pointed to the need for similar progress in the method of teaching and learning the English language. Accordingly the legislature voted the sum of \$2500 to the board of regents for the procuring of fonts of type and the printing of books in the Deseret Alphabet.

Orson Pratt, recently professor of astronomy and mathematics at the University of Deseret and one of Utah's outstanding scholars, was assigned the responsibility for the publication of suitable textbooks. He personally made a trip to St. Louis to arrange for and oversee the casting of the type so it would be correct in every detail.

There followed an unexplained delay of nearly a decade. The *Deseret First Book* did not come off the press until 1863. In the meantime, however, the new system of writing was given a try-out in the keeping of the church records. And the Deseret five-dollar gold pieces, minted in Salt Lake City in 1858, bore the crouching figure of a lion surmounted by the legend "Holiness to the Lord" in the peculiar characters of the Deseret Alphabet.

As its name implied, the *Deseret First Book* was a beginning reader containing 36 pages of lessons based on simple pictures. For example, Lesson XXIII showed a cow and a calf with the following reading exercise: "We have a red and white cow. She is a quiet cow and does not kick when you milk her. She has a brown calf with a white face. My father gave the calf to me. The cow gives us milk. We churn the milk and make butter."

The *Deseret Second Book* was similar in format but had twice as many pages. It contained the "Lord's Prayer" and the "Sermon on the Mount" from the Bible. There were simple science lessons and practical instructions on such subjects as how to dig a well and how to train a colt. The moral virtues were taught in lessons dealing with honesty, obedience to parents, and kindness to animals. Literature was represented by such favorite verses of childhood as "Twinkle, Twinkle Little Star" and "Little Drops of Water, Little Grains of Sand."

These volumes were printed by the Deseret News Printing Company of Salt Lake with the type which Orson Pratt had brought from St. Louis. A portion of the *Book of Mormon*, designed to be used as an advanced reader, was printed by the same press. In 1869, the latter work was published in full for the church by Russell Brothers of New York.

The new alphabet had zealous champions who looked upon it as the greatest advancement made in the English language in centuries. Territorial Superintendent of Schools Robert L. Campbell, in his annual report for 1868 had this to say:

"The superintendent takes great pleasure in seconding the efforts of President Brigham Young and the board of regents of the University of Deseret, in the introduction of the Deseret Alphabet. That English orthography needs reform is patent

WHEN UTAH WAS DESERET

When the Mormon pioneers at Salt Lake set up a provisional government in 1849, they adopted the name Deseret for their proposed state. It was a Book of Mormon word interpreted as meaning "honey bee," and the Mormons felt that the name typified the industry of the colonists. In 1850, congress denied admission to the provisional state of Deseret and formed instead the territory of Utah, named for the Ute Indians who inhabited much of the region. The beehive was retained as the official emblem of Utah and Deseret survived in the names of many institutions. Deseret, as originally proposed, included in its boundaries most of what is now Utah and Nevada, a large part of Arizona and parts of Idaho, Wyoming, Colorado, Oregon and New Mexico, and reached the California coast at San Diego.

to all who have given the matter the slightest consideration. To follow in the footsteps of our venerated fathers in a system of orthography so inconsistent and ridiculous and which has never helped to make the comers thereunto perfect, is unworthy of a people whose constant and highest aspirations are to be associated with truth and intelligence, and who discard error in whatever form it is presented.

Had Utah retained her isolation, the experiment might have succeeded. But in 1861 the telegraph lines reached Salt Lake, and a flood of news dispatches followed. In 1869, the transcontinental railway was completed bringing an influx of outsiders to the Mormon mecca and opening up the territory to the flood of printed matter then issuing from the presses of the nation. With the ending of isolation, failure was inevitable.

"I do not think the alphabet was officially discarded," said T. W. Ellerback, former secretary to Brigham Young, when questioned years later, "but it was found in practice that the monotony of the lines of type without tops or tails made it more difficult for the eyes to follow than the old style . . . Busier times coming on, the characters of the Deseret Alphabet gradually disappeared."

Thus ended an ingenious experiment in phonetic spelling.

## WILDFLOWER REPORT FOR MAY

### CALIFORNIA

Late March flower reports are similar in tone: no mass displays this year, but many varieties of wildflowers for those who are willing to look for them. Eva Wilson found a great deal of seepage along the Coachella canal road, and incense bush, phacelia, beavertail, deerhorn and forget-me-nots blooming. She feels that the trip along this road should be well worth while during May, since palo verde, ocotillo, incense bush, and beavertail will be at their best then. A great variety of flowers were observed in washes near Desert Center, but no desert lily in sight anywhere.

Myrtle Botts made a tour of the Borrego desert and observed dozens of varieties of wildflowers in bloom. On the Banner grade, many blue lilac and white buckbrush were flowering. Bladderpod, sunray and desert sunflower were seen through Sentenac canyon. All in all, she reports, prospects look much better for the wildflower crop. The annual Julian Wildflower show, of which Mrs. Botts is chairman, has been set for May 1 to 16 this year, and visitors should be able to see and learn a great deal about many flower varieties.

Outlook for May in the Twentynine Palms area is good, Sara M. Schenck believes. Late rains and rains in the mountains will give many desert shrubs and cacti the ability to put forth blooms. Indigo bush, cats-claw, mesquite, desert willow and the smoke tree, which always blooms late in May, should all be good. Many of the buckwheats, mimulus, mallow, and some of the lilies, such as brodiaea, onion and mariposa lilies, will bloom well. Locoweed and some of the lupines may be in flower.

Wildflower prospects on the Mojave are less encouraging. Mary Beal finds that no rain and much wind have discouraged proper development. And thousands of sheep brought from the Bakersfield area in trucks and released on the mountain slopes to eat their way back home literally have nipped the wildflower probabilities in the bud wherever they passed. There are a few flowers along most of the roads in the Daggett area but the general prediction is for a disappointing season.

Jane S. Pinheiro finds the probabilities near Lancaster more encouraging. Rain has helped growth, and almost every spot shows some green. A few venturesome poppies are out, chia and sand verbena plants are plentiful, a few fiddlehead are blooming with more promised. Several varieties of primroses and buckwheat are plentiful. All blooms, even the fruit trees, are at least a month late.

There are no mass floral displays in Death Valley, L. Floyd Keller, park naturalist, finds. Total precipitation for the calendar year was 0.09 inch. Creosote bush is best, but unless more rain is received, the valley will not have much of a show. But flowers can be expected in the Panamint range during May and June, because of the supply of snow there. In the Furnace Creek area, brittlebush, beavertail, phacelia, creosote bush, desert gold, aster and the parachute plant are in bloom and will be at their best through April.

### NEVADA

The southern Nevada flower prospects are better, Dora Tucker reports. There hasn't been too much rain, but the ground seems moist and the desert flowers are taking advantage of that and of the cool spring. Lupine, verbenas, chinch weed, primroses, rock gilia, California poppies, desert stars, yellow saucers, wild chicory, fiddlenecks and phacelias are abundant with many others coming on to bloom later. There will be some flowers all summer, especially along Lake Mead and the Colorado river and in the desert washes.

### ARIZONA

Most hopeful Arizona report comes from Earl Jackson, custodian of Tumacacori national monument. He does not think there will be a very exciting floral display, so far as mass blooming is concerned, but flower hunting will be very interesting for the person who will get out of his car and walk a bit. Spring flowers, aided by .30 inch of rain in March, should be the best in several years, but not nearly as abundant as in wet springs. Poppies coming out should be abundant in April. Ocotillo are close to blooming and coveña plants on nearby hillsides are pushing up flowering stocks to start blooming in April. Hedgehog cactus plants are heavy with buds and should start blooming the second week in April, with the other cacti following.

But the outlook at Saguaro national monument is down, according to Don W. Egermayer, custodian. Rains in February were heavier than normal, but nights were colder than usual. Late in March the only flowers blooming on the monument were the transplanted specimens around monument headquarters parking area, which had been watered. Visitors were advised not to come to the area simply to see "the desert in flower."

William R. Supernaugh's report from Organ Pipe Cactus national monument followed the same line. Earlier it looked as if an exceptional display was in prospect, but many of the plants frosted. There are some nice brittlebush displays, and hedgehog cactus will be good and is just starting to bloom.

As the summer and the tourists move on the flower display will move farther north and to the higher desert lands. Usually good flowering of many species can be seen along the central Nevada highways in June. From Zion national park, Utah, M. V. Walker, park naturalist, reports that a late spring and considerable stormy and cold weather will cause blooms to appear later than usual, with the major flower display on the canyon floor likely to develop in late April to the middle of May. Probably this will result in bringing a greater variety of plants into flower at the same time. The most showy roadside flowers will be Palmer's penstemon, white-flowered astragalus, prince's plume, yucca, purple sage, phacelia and various species of cacti. In Zion canyon narrows, monkey flower, shooting star and venus hair ferns promise to be unusually luxuriant.

Louis Schellbach, park naturalist at Grand Canyon national park expects an excellent flower display in that area. There has been much snow this winter, the fall being so heavy on the North Rim that it might be late May before the road to Bright Angel point is open. During late April and early May, on the South Rim, wild candytuft, wood betony, larkspur, pussytoes, sand verbena, fenderbush, woodland-star, Indian paintbrush, white phlox, beardtongue, heartleaf twistflower and baby white aster will be found.

# LETTERS . . .

## The Nuts Who Chase Rocks . . .

Desert Center, California

Friend Randall:

You know I've liked Desert Magazine ever since the days when you first talked to me about it—long before the first issue was printed.

But I have one kick. And I think others feel the same way about it. You're giving too d—d much space to those nuts who chase around over the desert looking for rocks. If you'd take the six or eight pages you give to the rockhounds every month and really tell us more about the desert and the two-legged and four-legged desert rats that live on it, we'd think Desert was the greatest magazine on earth.

DESERT STEVE RAGSDALE

. . .

## Give Us More Rocks . . .

Lexington, Missouri

Dear Sir:

Have just renewed my subscription to Desert Magazine. I for one would like a few more mapped trips to the gem fields. Also, more about desert gems, agates and such. We are fond of rock collecting. In fact we eat and sleep rocks—and surely have enjoyed the past year of Desert.

DORA A. LENTZ

. . .

## Witchery of the Tribesmen . . .

Cottonwood, Arizona

Dear Editor:

I read with interest "Wolf Men of the Navajo" in the January issue, because it was about a phase of folk lore that was not covered in the extensive book "The Golden Bough," (meaning the superstition of the mistletoe) by Sir James G. Frazer (Macmillan), that I had been perusing.

The "Wolf Men of the Navajo" might be an adaptation of ritual as of one of the totem clans of Canadian Indians, the Wolf Clan. The Indians of Nootka Sound have a secret society totem clan called "Tlokoala," whose members imitate wolves by wearing wolf-skins and wolf-masks. The description of them is given in the chapter titled: "The ritual of death and resurrection," and initiation into the clan involved a pretended killing of the novice by supposedly putting a magic quartz stone into his body which must be removed by their wizards before he can come back to life. The "Wolf Men" apparently are some sort of Navajo "zoot-suiter" outfit, using their witchery for homicidal means rather than in purely religious social clanning.

Also, in folk custom, there is an idea that the soul may be deposited in some inanimate thing (such as the wooden totem figurine and the dolls painted upside-down on the wall in the Navajo cave).

As for the mystery of primitive society

and its power, as feared in the story's warning of bad luck through possession of such a witch-doll, that might be purely superstition—that's up to the reader to decide—for it also might be "Evil Power," for even the Good Book upholds the fact that the "Devil is the God of this world!"

S. SCHIRMACHER

. . .

## About Clean Service Stations . . .

Gila Bend, Arizona

Desert Editor:

In your March issue you gave us an editorial lecture on the subject of clean service stations. The major companies keep theirs clean because they simply tell the hired help to clean up—or else.

As one of the little independents, I want to assure you we would all like to operate clean orderly stations—but there just aren't enough hours in the day. We do the best we can with the time available, but we never quite get caught up.

But I hope you'll keep prodding us. Perhaps we could do better—and I am well aware that the neater our stations, the more business we'll have.

FIN ERICKSON

. . .

## Those Thirsty Mesquites . . .

Daggett, California

Dear Mr. Henderson:

Don't let those mesquite experts from New Mexico and Arizona worry you. There are few places in either state that do not have more rainfall than large areas of wheat-growing land in California, Washington and Oregon. I have traveled in all five states.

On Mojave desert in California a mesquite tree is almost a sure indication of high water table, and in very rare instances when this is not true you may be sure water was there to nourish the tree when it was young.

The Arizonans should read the bulletins published by their own state university and learn about the climate and vegetation of their own state. Mesquites do require some water and if there is no underground water table to serve them, you may be sure they are getting it from rainfall greater than comes to the Mojave and Colorado deserts of California.

DIX VAN DYKE

. . .

## Mojave Field Trip . . .

Saltdale, California

Dear Sirs:

Many of your readers may be interested to know that Last Chance canyon is open to the public. Road is very good, and collectors are finding a variety of specimens.

F. W. CLARK

## He Wants 'em Alive . . .

2709 N. Ontario St.  
Burbank, California

Dear Sir:

Having read in some past issue of a party catching rattlesnakes, I am writing to ask if any of your readers have live rattlers for sale. Would like to have anyone in a position to get rattlers send me details as to the quantity available, and what they will cost, either by the foot or pound.

T. MORELA

. . .

## In Defense of the Raven . . .

Red House, Nevada

Dear Mr. Henderson:

I am especially grateful for "Old Man Raven" by Edmund C. Jaeger in the April number of Desert Magazine.

In this state ravens are persecuted as crows by the gun clubs. They pay ten cents for every head brought in and encourage school children to participate with the result that untold damage is done to many forms of wildlife. It isn't a pretty thing for a child to climb a tree and pull the heads off young ravens or magpies in the nest; yet such contests have been encouraged through past years.

For seven years a pair of ravens lived on the Pinger farm in the Fallon country. Wild ducks and quail also nested on this farm. Never once did these ravens molest these nests for they were very carefully concealed. It appears that nests molested are in regions where cover is scarce. On the other hand the ravens caught many ground squirrels which they would bring to a levee near where the Pingers were working, lay the squirrel down, caw, and when proper notice had been given they would carry the squirrel to their nest. The Pingers felt that these birds were very valuable to them on account of the insects and rodents consumed. When one remembers that a grasshopper will eat its weight every day in produce, and a squirrel 23 pounds of forage, usually in a season, one can see that each raven is probably worth \$20 or \$30 a year to the farmer on whose land he resides. Of course these birds eventually fell prey to bounty hunters.

Magpies are also a much maligned bird in this state and the same process of reduction is carried on as against the raven. Yet these same Pingers had a pair that nested on their farm for five years and observed them eating many mice and insects. If they went near the tree where orioles nested the orioles promptly drove them away. It appeared that they too did not find quail and duck nests because these were well concealed. Personally I have seen blackbirds and orioles chase a magpie until it hid under a bush practically exhausted.

Yours for good sense in control measures and a scientific approach to all conservation problems.

MRS. EDITH L. ST. CYR

# HERE AND THERE . . . on the Desert

## ARIZONA

### Meteorites Displayed . . .

WINSLOW—A display of more than 1000 meteorites obtained from northern Arizona's Meteor Crater has been arranged by the American Meteorite museum, according to Dr. H. H. Nininger, museum director. Purpose of the display is to show the wide variation in size and form of meteorites obtained from the crater and surrounding areas. The museum is located opposite Meteor Crater on Highway 66.

### Death and the Lost Dutchman . . .

FLORENCE—Lure of the Lost Dutchman mine has brought death to another searcher. A skeleton brought out of the rugged Superstition mountains has been identified by Sheriff Lynn Early as the remains of James A. Cravey who disappeared last June while hunting the fabulous mine. Cravey, reportedly the 20th victim of the long search for the Dutchman's gold, had himself flown by helicopter into the Superstitions. When he failed to return to his camp an extended but futile search was made. Winter visitors came upon the scattered bones while hiking, and identification was made by a wallet.

### Museum Expedition Planned . . .

FLAGSTAFF—First archeological expedition by the Museum of Northern Arizona since before the war will spend a month and a half this summer excavating small 12th and 13th century Indian dwelling sites east of Flagstaff, Dr. Harold S. Colton, director, announces. Dr. Watson Smith of Harvard university will direct the expedition. Dr. Smith worked with the Rainbow Bridge-Monument Valley expedition in Tsegi canyon and with the Peabody museum expedition to the Hopi mission site of Awatovi.

Permanent Gold embossed binders for

## DESERT

These easy-to-insert binders are made especially for Desert Magazine readers who want to preserve the maps and other travel information for future use.

They open flat, and each binder has space for 12 magazines.

Mailed postpaid for \$1.50

THE *Desert* MAGAZINE  
El Centro, Calif.

### But It Wasn't Silver . . .

WILLCOX—Memories of a train hold-up of 1895 were revived when two section hands working on Southern Pacific tracks between Cochise and Willcox unearthed a 108-pound bar of bullion. The bar was marked "Tombstone M. & M. Co.," and if it had been silver as first believed, would have been worth about \$1400. But Phelps Dodge assayers proved it to be lead. The Tombstone Mining and Milling company no longer exists, but according to local authorities, the pig was poured at Charleston and probably contains mineral from Lucky Cuss, Contention and other Gird-Schiefelin mines.

### Powell Records Acquired . . .

TUCSON—Complete records of the Powell Colorado river expedition of 1871 have been acquired by the Arizona Pio-

neers' Historical society. The collection, known as the Dellenbaugh papers, includes diaries of Frederick S. Dellenbaugh, Stephen V. Jones, Captain Francis M. Bishop, Almon Harris Thompson and Robert Brewster Stanton, all members of the expedition. With the diaries are the original notes for Dellenbaugh's books, newspaper clippings, court records of cases involving the river basin, exploration and settlement records of the Mormon church and 300 stereoscopic views. The papers were presented to the society by W. J. Holliday.

Ernest W. McFarland, senator from Arizona, in a statement filed with the senate public lands committee, declared that enough Colorado river water is flowing each year into the Salton sea, from California irrigation projects, to supply the entire Central Arizona project.

Plans reportedly are underway for a memorial at Lee's Ferry, commemorating establishment of the ferry by John D. Lee in 1871.

## TRUE OR FALSE

This quiz is a yardstick by which you may determine how much progress you have made in your acquaintance with one of the most interesting regions in the world—the Great American Desert. The questions touch the fields of geography, history, mineralogy, botany and the general lore of the desert. This feature in Desert Magazine each month actually is a school of instruction for those who would broaden their knowledge. Twelve to 15 is a good score. Sixteen to 18 is superior. Perfect scores are very rare. Answers are on page 37.

- 1—The road-runner never leaves the ground in flight. True..... False.....
- 2—Free gold is often found in quartz. True..... False.....
- 3—Sunset crater in Arizona is believed to have been formed by the falling of a large meteorite. True..... False.....
- 4—Ultraviolet rays of the sun are believed to have caused the fossilization of the wood in the Petrified Forest national monument. True..... False.....
- 5—Bill Williams was a famous steamboat captain on the Colorado river. True..... False.....
- 6—The capital of Nevada is Reno. True..... False.....
- 7—Certain species of desert birds build their nests in cholla cactus. True..... False.....
- 8—The Lost Breyfogle mine is believed to have been located in the Death Valley region of California. True..... False.....
- 9—Blossom of the Palo Verde tree is blue. True..... False.....
- 10—Deglet Noor is the name of one of the species of dates grown in Coachella valley of California. True..... False.....
- 11—Prehistoric desert Indians used the foliage of the tamarisk tree for weaving baskets. True..... False.....
- 12—Largest river flowing through New Mexico is the San Juan. True..... False.....
- 13—Azurite is a copper ore. True..... False.....
- 14—Kit Carson was a troop commander in New Mexico's "Lincoln County War." True..... False.....
- 15—Rainbow Natural bridge in southern Utah may be reached only by a foot trail. True..... False.....
- 16—Cathedral Gorge state park is in Nevada. True..... False.....
- 17—Hassayampa is the name of an Indian tribe in Arizona. True..... False.....
- 18—Bright Angel creek comes into Grand canyon from the North Rim. True..... False.....
- 19—Hopi Indian reservation is entirely surrounded by the Navajo reservation. True..... False.....
- 20—Pauline Weaver was a famous woman stage driver. True..... False.....

# THE DESERT TRADING POST

Classified advertising in this section costs 7 cents a word, \$1.00 minimum per issue

## INDIAN GOODS

ALWAYS THE BEST in Indian things. Old and new Navajo rugs a specialty. Fine jewelry and baskets. Our thirty tons of rocks and minerals include many hard to get items. Always welcome. Daniels Indian Trading Post, 401 W. Foothill Blvd., Fontana, Calif.

4 VERY FINE ancient Indian Arrowheads \$1.00. 4 tiny perfect bird arrowheads \$1.00. 1 Ancient Stone Tomahawk \$1.00. 2 Flint Skinning Knives \$1.00. 1 large Flint Hoe \$1.00. 2 Spearheads \$1.00. 10 Arrowheads from 10 states \$1.00. 20 Damaged Arrowheads \$1.00. 10 Fish Scalers \$1.00. 10 Hide Scrapers \$1.00. 4 Perfect Saw Edged arrowheads \$1.00. The above 11 offers \$10.00 Postpaid. List free. Lear's Kirby, Arkansas.

INDIAN CAMP SITES—Visit old historic camps. See your artifacts in situ. Form a valuable collection. There's no thrill like discovery. Send for the first of a series of beautifully and accurately prepared maps 9½x12" showing two camp locations with detailed mileages. \$1.00. Guaranteed satisfaction. Neva Greminger, 4058 E. 52nd St., Maywood, California.

OLD SIOUX Beaded Pipe Bags, \$55.00. Excellent Sioux beaded saddle blanket, very old, \$85.00. Allover beaded Sioux baby carrier, excellent \$85.00. Klickitar baskets \$10.00 to \$20.00 each, fine shape. Apache water jugs \$5.00 to \$20.00. Beautiful Aleutian Island baskets, fine colors and condition, \$7.50 to \$15.00. Ripper's Indian Arts & Gifts, Booth 6-W, 100 W. Ocean, Long Beach, Calif.

FRED AND JESSIE Porter welcome you to the Pow-Wow Trading Post, Yermo, 14 mi. east of Barstow, Highway 91. Complete and new stock of Indianoccasins, jewelry, rugs, souvenirs, etc. Rock specimens, fluorescent and cutting materials. See your own cut. Free maps for rockhounds.

## BOOKS — MAGAZINES

SCENIC GUIDES—"The Key to Western Travel." Maps, descriptions and pictures, all alphabetically arranged for quick reference. Guides to Nevada, Northern California, Southern California, Arizona and Utah are available now. Price \$1.00 each at your Book Store or by Mail from—Scenic Guides, Box 288, Susanville, California. Write for information.

100,000 BOOKS—Old, new, unusual books. Send wants. Hellar's, Box 2507, Los Angeles 53, Calif.

\$50.00 BUYS Desert Magazines and binders. Dec. 1937 to Dec. 1948. W. A. Goldschmidt, 629 N. Findlay Ave., Montebello, Calif.

IMMACULATE COLLECTION of Desert Magazines, 10 complete years, first six volumes in binders. Make offer. Walter Moore, 4839 Pescadero, San Diego 7, Calif.

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

BOOKFINDERS—Scarce, out of print, unusual books quickly supplied. Send wants. Clifton, Box 1377d, Beverly Hills, Calif.

RATTLESNAKE BOOK, written by W. O. Read, world famous herpetologist and naturalist. Fallacies, facts and treatment, 7 pages. 50c postpaid. W. E. Long, Waterford, Calif.

## BUSINESS OPPORTUNITIES

FOR SALE—Wonder rock claims, silver, gold, lead and copper claims. Also a lease on gold property, very promising. Peter Moser, Box 176, Goldfield, Nevada.

FOR SALE: Agate & Mineral Shop, vicinity Los Angeles, 2 year lease. Ill health cause of sale. Address Box S, Desert Magazine.

## REAL ESTATE

OCOTILLO: Visit and buy in the land of the blooming flaming Ocotillos. New Desert Resort on Highway 80, 26 miles west of El Centro, Lots 100 ft. by 100 ft. \$200.00, acreage \$100 up. Highway 80 frontage, electricity, abundance of good water. Send for folder.

ALPINE: 1 acre and fraction home sites at \$650.00 per acre near Alpine on Highway 80, 30 miles east of San Diego. Abundant latent water source, good soil to grow garden and fruit, moderate all year climate, electricity, grand view of mountains, valleys and ocean. DESCANSO: 1½ acres choice land; large rock garage building, 3 furnished cabins, good location for business, water, electricity. On well traveled highway, in healthful Descanso, \$5000.00, terms. John C. Chalupnik, Ocotillo, via Plaster City, Calif.

FOR SALE: 10 acres 76-77-Sec. 21, Township 6 North, Old Woman Mountains, San Bernardino Co., Calif. Address Box 243, Sunland, Calif.

## MISCELLANEOUS

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

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

35MM COLOR ART Transparencies—Paris, Florence, Rome, Capri, Naples, Venice, Grand Canyon. Send 50c for sample and list. Globalfilms, Box 2976-C, Hollywood 28, California.

FREE, to all my friends. Send me your name and address and I'll mail you one of my Block Printed desert postcards as a free souvenir. Marshal South, Julian, California.

FOR SALE or will exchange, fine Tri-state mineral specimens for guns, Indian relics, stamp collections or antiques. Boodle Lane, Box 331, Galena, Kan.

THE NEW fast moving Photo Color Lamp Shades, now available to dealers in the west. Write for information and price list. Norval Johnson, Western Distributor, 217 North Main St., Lone Pine, Calif.

HOLLYWOOD Postmark. Letters remailed, 25c each, ten for \$2.00, monthly \$5.00. Forwarding, \$3.00 monthly. Arr-Dee, P. O. Box 17, North Hollywood, Calif.

GEOLOGIC & SCENIC color slides for Educational Entertainment. Catalog Free. Heald-Robinson, Dept. 2, 2202 N. Santa Anita Ave., Altadena, California.

PANNING GOLD—A side line hobby for Rockhounds and Desert Nomads. You should know how to pan gold, recognize gold bearing gravel and valuable quartz ledges. The places you go are where rich virgin ground is found. Send your name for new folder on panning gold, with pictures—list of mining books and equipment for prospector beginners. Old Prospector, Box 21B107, Dutch Flat, Calif.

WESTERN PICTURES—Beautiful, hand tinted third-dimension photo-illustrations of cowboy subjects; 8x10 in, hand decorated projecting frame ready to hang. Each \$2.00 postpaid. Fairall Fine Art Studio, 3244 Community Ave., La Crescenta, California.

NATURE'S EXQUISITELY formed beads, make colorful necklaces, bracelets, etc. The early California priests used them to make rosaries. Enough beads in graduated sizes to make 2 large necklaces sent postpaid for only \$1.00. Address Mojave Desert Novelties, Box 158, Randsburg, Calif.

FOR SALE OR TRADE—5 room modern house and garage located in Tonopah, Nevada, on Highway U. S. 6. Large lot. \$975 cash or trade. Write K. W. Dillwith, Cienega Star Route, Hollister, Calif.

POCKET RADIO (5 tube miniature) 1x3x6 in. Hearing aid phone, \$75.00. Anozira Agency, Box 164, Cottonwood, Ariz.

FOR SALE: Karakul wool bed blankets, colors blue, green, natural and maroon. Money back guarantee. Price \$17.50. Write Addis Kelley, 4637 E. 52nd Place, Maywood, Calif.

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

LIVING ROCK, Rosary Plant, pheasant's tail and nine other interesting succulents, named, plus ceramic planter, brochure \$2.00 P. P. aRm Ranch, Holtville, California.

YOUNG MAN, single, desires work in desert area. Has experience in printing, photography and clerical work. Now managing weekly newspaper in partnership. Has complete camera and darkroom equipment. Available after June 1. Charles W. Fry, Box 179, Earlham, Iowa.

CALIFORNIA'S NEW Oil Field: Free copy of story. Carrizo Plain, Cuyama Valley area, San Luis Obispo County. Semi-desert. Lots 50 ft. by 150 ft. (½ oil rights) \$60.00. Pay \$10.00 down, balance \$5.00 per month. "Lucky Delk," 2219 W. Venango St., Philadelphia 40, Penn.

ELECTRIC GENERATOR for sale (5000 W), good condition. Address P. O. Box 1208, Palm Springs, Calif.

THE DESERT MAGAZINE

## CALIFORNIA

### Sixty More to Civilize? . . .

PALM SPRINGS—The first official delegation from the Agua Caliente band of Mission Indians in 50 years has petitioned Washington for the return of their reservation lands to tribal control. The petition declares a government agency, at present, collects the tribe's \$60,000 annual income, takes out \$27,000 for the cost of collection, withholds another \$15,000 and distributes the rest among the 60 surviving tribal members. Each member's annual income, thus, is \$300 out of the \$1000 collected. The petition states the tribe wishes to develop its land and increase its income and tribal funds to give proper housing, subsistence and hospitalization to members and so stop the decimation that has reduced membership from a reported 6000 to 60 since the United States invaded their lands. A recent court decision held tribe members had the right to ownership of individual allotments made in 1927, but the interior department declared, it was said, "The Indians of the Agua Caliente band have not reached that state of civilization necessary to qualify them for individual ownership of their lands."

### Locomotive Follows Stage Coach . . .

MECCA—A locomotive rumbled up Salt creek wash, between the Orocopia and

Chocolate mountains early in March, along a route once used by the Bradshaw stage line. It hauled construction materials for the half-completed Kaiser company's 51-mile railroad which will link Ferrum, on the Southern Pacific main line below Mecca, to the Iron Chief mines in the Eagle mountains 15 miles northwest of Desert Center. The railroad is planned for completion by April 30, when the company's 150-ton diesel-electric will haul iron ore from the mines to the Southern Pacific, where it will be shifted to the main line and delivered at the Fontana steel mill. About 250 men are employed in the rail construction.

### Deer on the Desert . . .

BARSTOW — Twenty-two deer, trapped from the inter-state herd in the Modoc national forest, have been released in the Hole-in-the-Wall area of the Providence mountains north of Essex on Highway 66. The deer were part of a herd of 150 which will be moved to other parts of the state due to overgrazing in the Modoc region. The deer consisted of 12 does, six female fawns and four male fawns. They were reported by Assistant Game Manager Nathan L. Rogan to be in excellent condition when released 90 miles west of Barstow, after their 600 mile truck trip.

### Well, It Looked Like a Camel . . .

INDIO—The skeleton of a camel was reported discovered in the desert sands near Willis Palms, northwest of Indio, in March. Local historians immediately associated it with the camels said to have been abandoned by the U. S. troops after experiments with the animals for pack trains prior to the Civil War. The story had made the national news wire when Lloyd Mason Smith, director of the Desert museum at Palm Springs visited the find and checked the bone formation. The camel, he said, was a mule.

### Trona Rocket Mail . . .

TRONA—The second experiment in rocket transmission of letters was planned for March 27 when 10 rockets, each carrying 300 letters, were to be shot across Searles dry lake to Trona by the Reaction Research society. Each letter will carry a rocket mail stamp and the regular California gold centennial stamp. Rocket stamps will be cancelled by the society and the others by the Trona postoffice. First rocket mail flight was conducted last June by the group, between Winterhaven, California, and Yuma, Arizona.

### Salton Park Progresses . . .

COACHELLA—The state park commission has given tentative approval to the

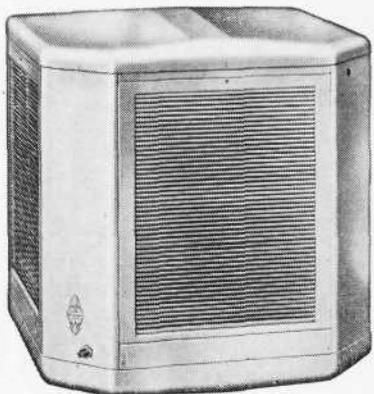
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project of a General Patton memorial park on the Salton sea. The commission instructed Col. E. C. Kelton, commission engineer, to launch an immediate study of the proposal and prepare a report for the commissioners.

**Vandals at Tumco . . .**

OGILBY—Vandalism at the old ghost mining camp of Tumco, in the Cargo Mucho mountains, eastern Imperial coun-

ty, is reported by E. C. Yeater, El Centro. When he visited the camp he found the old headquarters building smouldering and young visitors battering down an adobe wall while their elders looked on. Yeater also reported that a grave in the old cemetery had recently been dug into, the shovel being left at the scene.

Harvey Taylor, prospecting near the Carrizo camp, 40 miles north of Yuma on the California side of the Colorado river, sent word to his friend, Louis Peterek at Yuma that he was running short of food. The road from the west is passable only to four wheel drive vehicles, so Peterek had Haskell Yowell, local flier, parachute supplies into the camp. A strong wind blew the chute half a mile from its destination, but it was recovered by Taylor.

The house appropriation committee has recommended transfer of the Bard agriculture irrigation experiment station from Bard, near the Colorado river, to Brawley, California.

**NEVADA**

**Basic Magnesium to Nevada . . .**

HENDERSON—Jess Larsen, War Assets administration representative, has signed a formal letter of intent covering transfer of the huge Basic Magnesium plant at Henderson to the state of Nevada. Covering all details of terms of transfer, the letter of intent is a binding commitment on the part of the federal government to turn the plant over to the Colorado River commission, as agent of Nevada, for \$1 in cash and further payments out of revenue over a period of 20 years. Governor Vail Pittman said a formal contract will have to be prepared and signed and Nevada probably will not actually acquire the plant before July.

**Seek Toiyabe Skiway . . .**

TONOPAH—C. C. Boak and A. L. Russell have made a survey of the southern slope of the Toiyabe mountains studying possible sites for a skiway. Boundary canyon, 72 miles north of Tonopah in Smoky valley was believed to be the most feasible spot. A run of two miles or more with plenty of room for jumps could be developed easily, it was said. Plans are in the speculative stage but Tonopah, seeing dozens of Southern California automobiles topped with skis heading for Sun Valley, Idaho, wonders if they wouldn't be attracted by a spot hundreds of miles closer home.

**Monument for Forty-Mile? . . .**

BEATTY—The department of the interior reportedly has asked Nevada whether the state still desires withdrawal of an area in Forty-mile canyon, east of Beatty, for a national monument. The late Senator James C. Scrugham first asked for

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(Statistics Compiled by Agricultural Commissioner B. A. Harrigan)

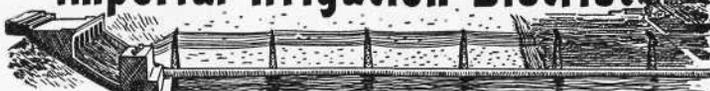
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the withdrawal of a nine-by-nine mile section. C. C. Boak and Dr. C. W. West, president of the state park commission, later made a survey of the area and found ancient Indian ceremonial grounds and thousands of petroglyphs. The region now is largely within the boundaries of Tonopah air base, one of the largest withdrawals of public land for military uses in the west.

### High Grade at Goldfield . . .

**GOLDFIELD**—Jay Bettles, general manager, and Jim Smith, superintendent, of the Goldfield-Eureka Mining company toured the firm's Goldfield property, sampling drift faces and cramming their pockets with specimens. Outside the mine they emptied their pockets, pounded the rock to a pulp in the mortar and panned the results. Smith yelled: "We've really hit it. Wire gold!" While they were celebrating, Bettles examined the gold more closely. "There are rivets in it," he said. For 20 minutes the men pondered the problem. Then Bettles remembered he had put his bridgework in a shirt pocket—and pounded up teeth, brace and rivets when he emptied the pocket. Bettles sighed. "It sure was fun while it lasted. Imagine, wire gold!"

### Carp Cleanup at Lake Mead . . .

**BOULDER CITY**—An agreement has been reached between the states of Nevada and Arizona and Nick N. Capalia of San Pedro, California, for the removal of carp from Lake Mead. Carp is a non-game species, reportedly highly destructive to other types of fish in the lake. Under the contract, the two states will share equally in the proceeds, with a guaranteed minimum of \$500 a month and a graduated scale above that figure according to the tonnage of fish removed.

The old Austin railroad station, east of the courthouse, has been torn down and will be replaced by a service station and cabins. The station was built in the early days by the Nevada Central narrow-gauge from Battle Mountain. The grade was too steep for a train to run up Austin's Main street, but the rails were laid and the station built and cars containing supplies for upper Austin were hauled up by mule power.

Churchill county ranchers complain that hordes of wild geese, who know that they are protected by federal game laws, are feasting in grain and alfalfa fields. A representative of the fish and wildlife service has been asked to recommend a solution of the problem.

George Wardle, 65, Austin, Nevada, native who followed the boom towns from Tonopah in 1903 through Goldfield, Fairview, Buckhorn and others, died in Tonopah in March.

## NEW MEXICO

### Tax the Trader . . .

**GALLUP**—Interior Secretary Krug and the Navajo tribal council have approved a system of price ceilings for the 105 traders on the Navajo reservation, and a one to four per cent tax of the traders' gross sales as a rental fee for the lands their posts occupy. Tax and ceilings are part of a 10-year plan of rehabilitation and industrialization proposed by Max M. Drefkoff, Indiana furniture manufacturer appointed by Krug to study the Navajo problem. Drefkoff's plan also calls for 49 small plants on the reservation for processing wool, leather and other resources. Drefkoff said that clothing manufacturers in Los Angeles, San Francisco and other western cities could supply work to thousands of Navajo sewing machine operators, pressers and

cutters with a minimum wage of 40 cents an hour. Traders declare that some portions of the Krug-approved Drefkoff plan are unfair to them and will work additional hardships upon the Navajo. The Arizona house of representatives has asked congress to make a critical investigation of the plan, charging that it contemplates an important expenditure of government funds which in a great measure would inevitably be wasted. "It is spiced with injustices alike to the Navajo and those who serve them," the resolution said.

## COUNTY MAPS

**CALIF.:** Showing—Township, Range, Section, Mines, Roads, Trails, Creeks, Rivers, Lake, RR, School, Ranger Sta, Elev, Canals, Ntl Forest, Pwr Lines, Boundaries, etc.

**Sizes: 20 x 30 to 73 x 100 inches**

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San Bernardino, 73x110—\$15.00. No. or So. 1/2—\$7.50. NW, SW, NE, or SE—1/4—\$3.75 ea.

Also Oregon, Idaho and Washington County Maps

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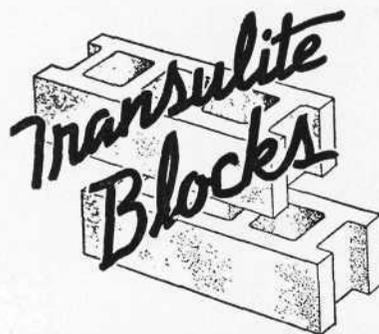
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### New Mexico Liar No. 1 . . .

ALBUQUERQUE—State Game Warden Elliott Barker is the biggest liar in New Mexico, and he has the state game protective association's golden bull trophy to prove it. At the association's annual dinner Barker won over other contestants, telling of the department's success in breeding short-legged quail for short-legged hunters, drouth-resistant trout with retractable legs, and pheasants crossed with parrots so they could warn hunters of their sex. Barker also won the title last year.

### Indians Abandon Appeal . . .

SANTA FE—The state supreme court dismissed an appeal from an Indian vote test case when the attorney for the plaintiffs wrote that the Indians had dropped action and the appeal would not materialize. The Indians, William Lewis, Jesse Simplicio and Watson Gibson, brought action against the McKinley county clerk, declaring she had refused to accept their registrations as voters. The district court dismissed the complaint and appeal to higher court was brought.

### Place Name Dictionary Planned . . .

ALBUQUERQUE—New Mexico Folklore society is compiling a New Mexico place name dictionary, similar to the ones already published by Arizona and California, under sponsorship of the American Dialect society. Mrs. Ina Sizer Cassidy is president of the folklore society, and Dr. T. M. Pearce will be editor of the dictionary. Histories of famous New Mexican place names already have been traced, and a large committee representing various parts of the state is gathering material.

### Navajo Reading Made Easy . . .

SANTA FE—At a lecture sponsored by the Archeological society and the Historical Society of New Mexico, Irene Hoskins, linguist, demonstrated how two Navajo girls who could neither read nor write could be taught to read and understand a complete sentence in their own language in less than 15 minutes. Miss Hoskins, who has her office at the Good Shepherd mission at Fort Defiance, used phonetic symbols for Navajo sounds, which were combined into a Navajo language sentence. She is working on a project sponsored by

the Home Missions council and the Committee on World Literacy, and explained her plan for the Navajo reservation, showing how one adult could pass his knowledge on to the next.

### UTAH

#### Seek Uintah Fossils . . .

VERNAL—With the opening of the new \$200,000 Utah Field House of Natural History at Vernal state park scheduled for May, G. E. Untermann, field house director and his wife are making a tour of eastern states to secure fossil material from the Uintah basin for exhibit. It is estimated that 17,000 fossil specimens of 2000 species have been taken from the basin, and Untermann is trying to recover as many species as possible where the organizations holding them have a surplus or will release specimens. If he is successful in obtaining the fossils for a display for students and scientists, it will save years of digging in the basin. Mr. and Mrs. Untermann have just completed a tour of Utah counties to invite displays of Utah's tourist attractions.

#### Parks for the Pioneer Trail . . .

SALT LAKE CITY—The Pioneer Trail Memorial Highway committee has proposed development of 11 roadside parks along the highway, which follows the path used by the Mormon pioneers when they came to Salt Lake valley in 1847. Three of the parks would be named for the three women members of the first pioneer company. The parks would be located between the This-Is-the-Place monument at the mouth of Emigration canyon and Henefer. The committee, composed of representatives of organizations interested in development and utilization of the monument and the Pioneer Trail, plans a pioneer day program July 24 on the summit of Big mountain where the Mormon pioneers first glimpsed Great Salt lake 101 years ago.

#### Indians for Utah Farms . . .

SALT LAKE CITY—Plans for bringing 2500 Indians into Utah from Arizona and New Mexico for farm labor were made at a meeting of the Utah State farm labor board. The group comprised representatives of state farm labor organizations, U. S. employment service, and processors of various farm crops. Navajo Indians worked on Utah farms last year.

#### Orphan Road Reclaimed . . .

MOAB—Through passage of a special legislative bill, the portion of the Colorado river highway from Richardson to Cisco via Dewey is again a part of the state highway system. A clerical error in the highway bill passed a year ago, dropped four state routes from the system, and the state road commission has refused to use state and federal funds to keep the roads in repair. Grand county has been unable to

## DESERT PHOTOS . . . . Prize Contest

Desert Magazine wants the best pictures its reader-photographers bring back from their wanderings in the outlands. There is no limitation on the subject matter, so long as it is essentially of the desert, and winning pictures are reproduced in Desert. Pictures are judged on originality, technical quality, subject interest and suitability for magazine reproduction.

Entries for this month's contest must be in the Desert Magazine office, El Centro, California, by May 20 and winning prints will appear in the July issue. First prize is \$10; second prize, \$5. For non-winning pictures accepted for publication, \$3 each will be paid.

### HERE ARE THE RULES

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

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THE *Desert* MAGAZINE  
EL CENTRO, CALIFORNIA

keep the river road in repair, and cloud-bursts last summer have washed it badly. State maintenance was expected to be resumed as soon as Governor Maw signed the corrective measure.

## Hard Rock Shorty of Death Valley



"Wind's mighty contrary sometimes," observed Hard Rock Shorty from his seat on the dilapidated porch of the Inferno store.

"Minds me o' the time them Los Angeles real estate fellers staked out a townside over on Juniper Flats the other side o' Scorpion Holler. They wuz tenderfeet all right 'cause that section o' land they picked out was the windiest stretch this side o' the Rockies.

"First thing I knowed they wuz haulin' in lumber an' sheet iron an' then they started puttin' up buildin's. Nearly blew the carpenters off the scaffold, but the head man kept 'em at it. 'The wind won't last long,' he told 'em.

"But the wind kept blowin' and the harder it blew the more proppin' and bracin' they did on the lee side o' the buildin's. Them real estate salesmen even got so they walked with a permanent slant, leanin' agin the wind.

"But they wuz stubborn. Got two houses an' a store up, an' them buildin's was pretty good except they had a cockeyed look on account o' slantin' into the wind. The day the last nail was driv they held a big shindig to celebrate. But right in the middle of the party the wind got contrary and quit blowin'. Never happened before.

"One minute that town wuz standin' up an' the next it wuz flat on the ground. You'd think a earthquake hit it. You see, it wuz built leanin' on the wind and when the wind stopped there wasn't nothing to hold them buildings up an' they just plain collapsed.

"Won't do no good to go out an' look at the spot. The wind started up again next day an' blew all them boards an' iron roofs clean across the Funeral range, an' it hasn't stopped blowin' since."

## Western Custom Dies . . .

**BINGHAM CANYON** — The Old West is dead. City councilmen of this copper mining camp, which is spread two miles along a single street in a narrow gulch in the Oquirrh mountains southwest of Salt Lake City, have passed an ordinance making it unlawful to carry unregistered firearms. Until that action was taken, it was said, Bingham Canyon was the last town in the west where no such law was on the books.

Utah state department of publicity and industrial development has announced that recreational facilities for 11,000 people in Millard county will be opened up with approval of an access road into Oak Creek canyon. An oiled road will be built from Oak City to the recreational area.

Twenty-five civilian and military engineers have toured Utah and Colorado to ascertain suitability of sandstone and shale sites for a series of underground explosion tests planned by the army to determine resistance of these materials to blasts.

"Wild Horse Range," first production of Kanab Pictures corporation, has been completed and the color film will have a Salt Lake opening soon. The picture, set in the late 1880's, was filmed in Escalante and near Kanab, and street scenes were taken in St. George, Kanab, Ivins and Santa Clara. Jacob Hamblin's home in Santa Clara was used in one sequence, and Santa Clara camp, Daughters of Utah Pioneers, in heirloom costumes served as extras.

## TRUE OR FALSE ANSWERS

Questions are on page 31

- 1—False. The road-runner while not equipped for sustained flight does leave the ground for short distances.
- 2—True.
- 3—False. Sunset crater is of volcanic origin.
- 4—False. Fossilization of wood is believed to have taken place through the crystallization of minerals in solution.
- 5—False. Bill Williams was a trapper and mountain man.
- 6—False. Capital of Nevada is Carson City.
- 7—True. 8—True.
- 9—False. Blossom of the Palo Verde is yellow.
- 10—True.
- 11—False. Tamarisk was brought to the United States during the present century.
- 12—True. The San Juan's annual discharge of 2½ million acre feet is nearly double that of the Rio Grande.
- 13—True.
- 14—False. Kit Carson died in 1867. The Lincoln County war was from 1877 to 1881.
- 15—True. 16—True.
- 17—False. Hassayampa is the name of a river in Arizona.
- 18—True. 19—True.
- 20—False. Pauline Weaver was a guide and mountain man.

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# Mines and Mining . . .

## Austin, Nevada . . .

Nevada Equity Mining company has discovered commercial amounts of platinum in the ores it is exploring and developing on Lander Hill, according to the *Reese River Reveille*. The precious mineral was first detected in ores from the Hillside and Belle Wilder shafts last August, and tests reportedly have been made in reliable laboratories including those of the largest fabricators of platinum in the world. Platinum content, so far, varies from \$2 to \$60 per ton of crude ore. The Lander Hill ores also have been found to contain a good percentage of indium, a silvery metal widely used in bearing alloys, it was said. The announcement of the find was released by Robert H. Raring, Nevada Equity vice-president.

## Goldfield, Nevada . . .

Ted Kirk and Tony Notti have leased the old Jumbo property, adjacent to the Mohawk, and hope to develop extensive quantities of marginal ore which can be handled in the proposed Newmont mill. Announcement that Newmont would handle custom ore has led to renewed activities among Goldfield leasers. Kirk and Notti have their eyes on an unexplored section of the property at the 50-foot level, heading into the footwall of a mill-grade ledge. Samples indicate large amounts of \$12 and \$15 ore in the area, and the leasers hope they may strike a pocket of high grade.

## Goldfield, Nevada . . .

"Death Valley Curly" Wright of Goldfield has prospected Nevada pretty thoroughly but from his last trip he brought back 40 pounds of metallic crystals that have him stumped. They are black, very heavy and hard. They range in size from 2½ inches down, but all are octahedral with all edges bevelled. Wright thinks they are franklinite, an ore of zinc. He found them along the course of a big contact 100 miles south and west of Goldfield, in California.

## Salt Lake City, Utah . . .

Kennecott Copper corporation has announced plans to build Utah's first copper refinery on the south shore of Great Salt Lake, near Magna and Arthur mills and the Garfield smelter of American Smelting and Refining company. The plant will have an initial capacity of 12,000 tons of refined copper monthly, using more than half the present output of Kennecott's Utah Copper division. The new refinery will take copper through the final step in preparation for use by industry. At the present time, blister copper has to be shipped to Tacoma, Washington, or the east coast for electrolytic refining.

## Milford, Utah . . .

A new mill being constructed at Frisco by Metal Producers will treat 500 tons of silver ore per day, it was announced. The mill will process low grade dump ore from the old Horn Silver mine and low grade ore from underground. The project will be the first major milling operation for the area since the early part of the century.

## Barstow, California . . .

Western Talc company, of Los Angeles, is erecting a new crusher mill on the Union Pacific right-of-way near Dunn, midway between Yermo and Baker. The mill reportedly will cost \$100,000 and the crushed talc will be shipped to Los Angeles for use in the manufacture of cleansers. Several miles east of the talc mill, adjacent to the railroad, the California Pipe and Fittings company of Los Angeles was said to be erecting a smelter to handle iron ore from nearby mountain ranges. At Cronise lake, farther east, the Taft Warner company of Los Angeles has completed a modern electric diesel mill with 500 tons daily capacity. The firm mines silt and clay used in paint manufacture.

## Tonopah, Nevada . . .

In an abrupt increase in the demand for turquoise, Ralph Swafford of Swafford Gem and Jewelry company of Tonopah reports orders from a Hollywood jewelry company for 30,000 cut and polished stones. Another Southern California company has told him to "start cutting and polishing, and we'll let you know when to quit." Swafford has been busy trying to round up enough turquoise, so far reportedly without success. Few new turquoise mines have been opened in the Western states in recent years, he declared, and most of the old deposits are pretty well worked out.

## Pumice, Utah . . .

Articles of incorporation have been issued to the Utah Pumice and Perlite company, operating an open-cut mine at Pumice, Millard county. The concern, formerly known as the Utah Pumice company, has been shipping pumice for a year and a half, and recently started to ship perlite. Two draglines and a portable crushing plant with conveyor belts are being operated at the mine, and a mill for classifying acoustic granules of pumice will be installed soon. Carlot shipments are being sold regularly to consumers in Utah, on the Pacific coast and at eastern points.

## Morristown, Arizona . . .

Veteran prospectors and dudes are rushing to file claims in an area six miles northeast of Morristown from which Prospector John Laskowsky reportedly brought \$1750

worth of gold. Laskowsky was said to have dug 150 pounds of ore from a spot to which he was attracted by the color of the soil. He milled 50 troy ounces of gold from the ore and shipped it to the San Francisco mint. John Herr, operator of the Wickenburg ore market, said a sample brought by Laskowsky was "the richest piece of ore I have seen in 50 years." It has not been determined whether the strike was a pocket or an extensive vein, but Laskowsky has returned to the desert to continue mining.

## Deming, New Mexico . . .

Milton Benjamin and Dan Jones recently were given some old claims located southwest of Deming near the old Mahoney mine. Joe Winners, who held the claims which had not been touched since 1928 and before that time had not been worked since the 1880's, declared he was too old for the hard work of rehabilitating the workings. First assay of ore taken by Benjamin and Jones revealed 19 ounces of gold, it was said. Then, while removing an old forge, the new owners found it was on top of high grade which assayed 32 ounces to the ton. The third assay was much lower but the owners reportedly are certain they have a lucky vein coming up.

## Grand Junction, Colorado . . .

Independent producers of uranium-vanadium ores from western Colorado, eastern Utah and northern New Mexico met in Grand Junction in March and formed the Uranium-Vanadium Cooperative association to act as a bargaining unit in the marketing of ores. F. A. Sitton, Dove Creek, Colorado, was named president; H. W. Balsley, Moab, Utah, vice-president; John L. Robinson, secretary-treasurer. The association, with headquarters at Dove Creek, hopes to include on its membership rolls all independent producers of carnotite ores. The federal government will be the buying unit.

Standard Oil Company of California is drilling for oil in an area east of Cedar City, Utah, near Zion national park, in an effort to find new sources of supply for mounting demands for petroleum.

Fire in March destroyed the headframe and timbering of the Tranquillity shaft in the Tombstone district, Arizona, doing an estimated \$100,000 damage. The shaft, built in the early days, recently repaired and used until World War II, offered the only access to upper level workings in that part of the district.

Robert Early Phelan, prominent mining engineer, died in Carson City, Nevada, recently. At the time of his death he was making metallurgical tests of Virginia City mine dumps in an attempt to find treatment for low grade ores. In 1942 Phelan was appointed manager of Basic Magnesium and instituted open pit mining at the Gabbs Valley plant.

# GEMS AND MINERALS

## FEDERATION COMPLETES PLANS FOR NATIONAL CONVENTION

Plans for the first national convention of the American Federation of Mineralogical societies, to be held in Denver June 13-16, are nearing completion. Mineral and lapidary specimens will be exhibited in the Lincoln room of the Shirley-Savoy hotel, where the convention is being staged. Fluorescent displays will be shown in the Centennial room and lapidary equipment will be operated in the Colorado room. Display tables three feet wide and eight feet long will be provided. The Northwest Federation of Mineralogical societies has offered to loan some display cases and they will be made available for society exhibits at the cost of transportation to and from Denver.

Entry fee of \$2.00 for each 8-foot table reserved will be required for society exhibits. This will cover all members of the society who wish to participate and also a non-member when sponsored by the society and exhibiting with it. Dealer exhibits will be arranged around the outside wall of the Lincoln room. Non-commercial reservations should be made through Ress Philips, 1001 Pearl St., Denver 3, Colorado. Commercial space should be reserved through M. F. Wasson, 637 U. S. National Bank Bldg., Denver 2, Colorado.

Registration fee for those attending the convention will be 25 cents, and it will include a copy of the official program, registration favors, admission to all meetings, talks, pictures and entertainment and participation in drawings, field trips and sightseeing tours. Admittance to the exhibit halls will be free to everyone without registration.

Business meetings of the Rocky Mountain Federation of Mineralogical societies and the American Federation of Mineralogical societies will be held Tuesday afternoon, June 15, in the Silver Spruce and Blue Spruce rooms. Dealers in mineral specimens, lapidary equipment and related material will meet at the convention to organize a dealers' association under leadership of Col. Fain White King. Richard M. Pearl is general chairman of the Denver convention.

## THOUSANDS ATTEND FIRST DESERT GEM EXHIBIT

The first annual Desert Gem and Mineral show, presented by the Indio, Blythe and Banning mineral societies, was held at Indio March 5-7 and 2000 visitors attended. Officers who were in charge of the exhibit were: Jack Frost, chairman; Glenn Vargas, vice-chairman; Mrs. Leah Hambly, secretary; Charlene Vargas, treasurer; Victoria Vogel, publicity chairman; Orland Rush, judging; James Rusk, machinery; Mrs. Neva Rush, food sales; Mrs. Alice Frost, welcome committee; Jerome Kein, show arrangements. Glenn Vargas was in charge of the field trip to the Hauser geode beds in the Black Hills, Imperial county. Societies sponsoring the show, held in one of the big buildings of the Riverside county fair grounds, were the Desert Gem and Mineral society of Blythe, the San Geronio Pass Mineral and Gem society of Banning, and the Coachella Valley Gem and Mineral society, Indio. The show cleared about \$100, which will be divided between the clubs.

On exhibit were desert geological specimens of infinite variety. Nearly 50 ribbons were awarded to show winners, including the following first places: General exhibit, Major and Mrs. C. T. Kennedy; special exhibit, Dr. V. E. Larrick; educational exhibit, Mrs. Leon Coronnes; individual crystal, Omar Kerschner; broken geodes, Glenn Vargas; book ends, polished, Major and Mrs. C. T. Kennedy; California desert cabochons, Dick and Felice Gilmore; most attractive tray cabochons, Eddie and Dorris Neuschwander; quality of polishing, Mrs. G. B. Nash; unpolished petrified wood, Mrs. C. S. Mayflower; rock garden, Mrs. Leah Hambly; polished collection, general, Buddy and Mary Carpenter; California desert, polished, Horace Miller; petrified wood, polished, Mrs. D. H. Clark.

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## AMONG THE ROCK HUNTERS

After soothing members of the Long Beach Mineralogical society at the February meeting with color slides of Yosemite, California desert scenes and Oregon, Ted Reddick presented his collection of color slides of lizards, snakes and turtles found in California and neighboring states. He declared that the rattlesnake is the only poisonous reptile in California and pointed out that the killing of harmless lizards in the cities accounts for the increase in the number of black widow spiders. In addition to the slides, Reddick brought several live specimens, including a rattlesnake and gila monster. February field trip was to Opal mountain with nine cars in the caravan. Common opal and jasper were found. March meeting of the Long Beach group was to be the quarterly potluck supper. Roy Wagoner, president, was to show slides taken on recent field trips.

Dr. Austin F. Rogers was to lecture on silicate minerals, quartz, chalcedony, opal, tridymite and cristobalite, at the March 17 meeting of Northern California Mineral Society, Inc., at the San Francisco public library. Grand opening of the club's new headquarters, 1001 Oak street, was planned for March 14. March field trip was to the Reed ranch near Belvedere, to look for garnets and actinolite. February field trippers found fossilized bones, some of which showed gem material when cut.

Dr. D. F. Hewett, member of the U. S. geological survey and author of a number of papers on geology and mineralogy, spoke at the March meeting of the Mineralogical Society of Southern California on the "Discovery of the Vanadium Mines of Peru." In 1905 there were only about 12 vanadium minerals known. With the opening of the mine at Mina Ragra, Peru, in 1906, seven new vanadium minerals and three new minerals not vanadium were discovered. Notable among these was Hewettite, named for Dr. Hewett. The mine at Mina Ragra was discovered by Dr. Hewett when he traced down a rock brought in by a herder of llamas. It lies on a barren hillside near the crest of the cordillera at 16,000 feet. Since its finding it has produced \$80,000,000 worth of vanadium and has been the world's principal source of the mineral.

March meeting of the Colorado Mineral society was to be held at the Colorado School of Mines museum, at Golden, Colorado. Dr. J. Harlan Johnson, professor of geology and curator of the museum, was to tell about his trip to Bikini and show colored slides of the coral reefs which he studied along with the organisms which build them. After the talk, the museum was to be open for inspection. Attendance at the club's February meeting was largest of any regular meeting, 125 members and guests being present when Carl Blaurock, mountaineer and photographer, showed colored pictures of his tour of Mexico.

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MICRO-MOUNT boxes 90c dozen, \$7.00 per hundred, J. E. Byron, 1240 Pearl Street, Boulder, Colorado.

## DEALERS TAKING AVAILABLE CALIFORNIA CONVENTION SPACE

Convention Chairman Roy Wagoner reports that the space allotted for dealers at the state convention of the California Federation of Mineralogical societies is rapidly being reserved. The convention will be held at the Long Beach municipal auditorium, July 16-18. Invitations now are being prepared for the member societies, asking them to be represented with an exhibit. A glass show case will be furnished for each display. Besides club exhibits, individual exhibits will be allotted a large space this year, and all rockhounds were invited to make the big "field trip" to Long Beach.

Officers of the Dona Ana County Rockhound club of New Mexico were installed officially at the March 5 meeting of the organization in Las Cruces. Installation was made by 26 members of the El Paso Mineral and Gem society who came to Las Cruces especially for the purpose. President R. H. Miller and Past-President A. S. Imell, of the El Paso group, officiated. Regular March meeting was held at the home of Mr. and Mrs. W. E. Evans, and the Rockhounds voted to request affiliation with the Rocky Mountain Federation.

Eleventh birthday dinner of the Sequoia Mineral society was held February 6, with 136 participants, in the social hall of the Belmont Christian church. Tables of specimens and 32 display cases attracted much attention and favorable comment. The organization was asked to put on a display at the hobby show to be held in Fresno early in April.

Sacramento Mineral society met at the Clunie club house February 27 with the newly elected officers presiding. A paper on arsenical ores was presented by George Winslow, club member and associate highway engineer of the state highway department. Twelfth birthday of the society was celebrated at a banquet March 6 at the Coca-Cola club rooms. Speaker was Orlin J. Bell, president of the California Federation of Mineralogical societies, and his subject was "Igneous Rocks," pictured by slide and diagram. First field trip of the season was planned for March 21 to the ranch of Mr. and Mrs. G. R. MacClanahan where specimens were to be "salted" for members to find.

Officers nominated at the previous meeting were elected at the February 26 meeting of the Feather River Gem and Mineral society, at Oroville, California. Membership cards were issued to paid-up members. Douglas Ward, Jack

Stooksberry and Alma Hogge were appointed to design a pennant and F. E. Rankin and Charles Bush to the field trip committee.



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"NATION'S LARGEST MFGRS OF FINE LAPIDARY EQUIPMENT"

January meeting of the Gem Stone Collectors of Utah was held at the home of Glenn Rottman, with 41 present. A. M. Buranek, local mineral dealer, spoke on labradorite. The stone is a new find, a clear yellowish variety suitable for faceting. Discussion as to filing claims on portions of the area of the occurrence, in order to preserve collecting for all, followed the talk. First field trip of the season, a joint excursion with the Mineralogical Society of Utah, was planned for February 22 to Clear Lake, Utah. K. O. Stewart, club secretary, 67 South State street, Salt Lake City 1, announced a club plan to have one dealer display a collection of slabs or rough cutting material at each meeting so members can gain better knowledge of the minerals suitable for cutting.

Hot Springs County Mineral society, Thermopolis, Wyoming, meets the first Tuesday of each month in the high school at Thermopolis. Special classes in paleontology are conducted in the same building on the first and third Tuesdays. Club president is Harold Cahn; vice-president, Dr. W. F. Petrusch; secretary, Mrs. Gertrude McCormick.

Dr. Don McLachlan was to be guest speaker at the March meeting of the Mineralogical Society of Utah, with his subject: "Determination of Minerals by X-ray Analysis." At the February meeting, Professor H. D. W. Donahoo, University of Utah, spoke on geophysical prospecting.

Albuquerque Gem and Mineral club has an annual display at the New Mexico state fair in conjunction with the New Mexico bureau of mines and mineral resources.

Alice Gathercole is chairman of the Historical Record committee of the Rocky Mountain Federation of Mineralogical societies for the 1947-48 period.

Regular March meeting of the Mother Lode Mineral society of Modesto was presided over by the new president, Ira Marriott. Speaker of the evening was Professor J. H. Jonte of the College of the Pacific who showed colored motion pictures of a desert trip. Retiring President Julian Smith presented the club with a blue and white plastic gavel made by club member Lee Darling.

As a follow-up of the mineral show held by the Mineralogical Society of Southern Nevada, March 6, M. G. Mastin, Boulder City, spoke on chemistry applied to mining. Mastin is a graduate of University of Minnesota and formerly technical director at the Oak Ridge project. Five hundred persons attended the gem show.

Mrs. Gladys Babson Hannaford, diamond expert, spoke to a special meeting of the San Diego Lapidary society March 2. Her talk was illustrated by cut and uncut stones, replicas of the most famous diamonds, and a fine set of slides showing maps of the South African fields and methods used in mining from "blue ground." Steps in cutting and faceting were shown, and methods of dopping. Mrs. Hannaford traced diamond history from the first discovery in India to the present. A mine, she explained, may produce only 4 1/2 carats of stones out of 35 tons of blue ground. Three-fourths of the diamonds found can be used only for industrial purposes and there is a 50 per cent loss in cutting the remainder. The red diamond is the rarest. They are found in most colors and in black.

Regular monthly meeting of the Texas Mineral society was held March 9 in the Baker hotel, Dallas. D. D. Bones, passenger agent for the Santa Fe railroad, entertained members of the society by showing color movies of Palm Springs and Yosemite national park, California.

## SOUTHWEST MINERALOGISTS ANNUAL SHOW MAY 1-2

Plans for the Southwest Mineralogists annual spring show, to be held May 1-2 at the Palestine Masonic Temple in Los Angeles, are nearly complete. Members plan to display many individual crafts in the lapidary, gem and mineral fields. Hubert Monmonier was to present a travelogue to the Monument Valley, Bryce canyon, Utah, Arizona and Hawaiian islands, illustrated with Kodachrome slides, at the March 22 meeting of the club. A trip to the Opal mountain area was scheduled for March 13.

Napa Valley Rock and Gem club started its second year with Neal C. Gardner, president; Erwin Kron, first vice-president; W. F. Dorward, second vice-president; Mrs. Neal Gardner, secretary-treasurer; Mrs. Frank Level, publicity chairman; and Philip Everett, study chairman. Everett is setting up a chemical laboratory and is starting beginners' courses in identification and chemical analysis of rocks and minerals. The club has 30 members, and seven families have secured lapidary equipment while others have equipment ordered.

At the February 18 meeting of the Albuquerque Gem and Mineral club, William Parker described his first visit to the Bingham, Utah, mining district, in 1889. He told about the minerals found and the mining methods used at that time. In addition to scheduled talks at each meeting, each member is required to present a specimen of some mineral and to tell about it. Failure to do so results in a fine assessed for the benefit of the club treasury. Another program feature is a mineral identification quiz conducted by G. M. Shockley, club president, and A. W. Gunnell and William Parker. At a recent meeting 10 different iron specimens were used, and 12 different copper specimens at another.

Cold weather caused postponement of the annual election of the Chicago Rocks and Minerals society from February to the March 13 meeting. E. Goff Cooke's lecture on the Southwest, illustrated with Kodachrome slides, featured the February meeting. In addition he displayed miniature models of pueblo ruins which he and his family had made.

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## GEM VILLAGE ROCK SHOW PLANNED FOR JUNE

The annual Gem Village, Colorado, rock show has been set for June 19-20, 1948. Gem Village people, mineral and lapidary dealers and collectors, planned the show for this date to fit into the schedule of the first national mineral convention of the American Federation of Mineralogical societies at Denver, June 13-16. One of the convention field trips to this section of Colorado starts on June 17.

George R. Fansett, of the Arizona bureau of mines, University of Arizona, spoke on "Field Tests for Common Minerals" at March 6 meeting of Tucson Gem and Mineral society. He gave a floor demonstration of testing methods and also demonstrated two styles of Geiger counter. The club made a field trip to the San Pedro river near Oracle, February 29, and a few obsidian boulders and some good blue agate were found. A field trip March 14 to the Washington Camp area was taken by 30 people in seven cars. Some good specimens were collected. An outstanding society event was a public exhibition of the Oracle school rock collection in the auditorium of Roskruger school. It is estimated that 700 children viewed the 800-piece collection which won first place at the Arizona state fair in 1947 in competition with 31 other school rock clubs in the state.

Eddie Redenbach, Bob Cartter and Roy Bailey, representing Searles Lake Gem and Mineral society, were in charge of the general mineral exhibit held in conjunction with the citrus display at the National Orange show at San Bernardino. The Searles Lake group was asked to run the exhibit as a result of their successful staging of the event at the Orange Show last year.

Mrs. Florence Gordon, vice-president of the Long Beach Mineral society spoke on "The Story of Diamonds" at the March meeting of Pomona Mineral club. She told the qualifications for a precious stone: hardness, rareness and beauty. Seventy-eight per cent of all diamonds are industrial stones, she said; used to turn machine parts, make grinding wheels and draw wire. One of the latest uses is as an abrasive on fingernail files. Some diamonds are fluorescent, some phosphorescent. Scientists recently have discovered that diamonds can be "fingerprinted" by microphotographing the crystal structure within the cut stone, she explained. Mrs. Gordon told the story of diamonds from their discovery in India, 800-600 B. C., to the great finds in South Africa in 1867.

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John Maxwell of Randsburg presented a display of fluorescent minerals at the regular March meeting of Searles Lake Gem and Mineral society. In addition, it was planned to run a color picture of Carlsbad Caverns, New Mexico. February field trip was to the opal fields of Last Chance canyon. March field trip was planned for the Little Lake area for "desert diamonds." The society's annual Death Valley trip was scheduled for April 17-18.

San Gorgonio Mineral and Gem society has issued the first number of its mimeographed bulletin, *Rock Bits*, containing club news and general information.

Thomas Warren, of Ultra-Violet Products, Inc., lectured on fluorescent minerals at March 11 meeting of San Fernando Valley Mineral and Gem society, held in the Sepulveda Women's club. He demonstrated how minerals could be identified by their fluorescence and showed how invisible mercury fumes could be made visible by ultra-violet light. Mr. and Mrs. Al G. Foulger, first president and secretary of the San Fernando society were present and were welcomed back to the valley. The field trip February 21-22, west of Camp Irwin, brought out a caravan to gather moss agate and fluorescent material. A camp Rockhound City was set up overnight and a campfire program was staged. Sunday the fury of the desert broke loose and most of the party brought back "sand and rocks." Field trip for March 21 was to Tick Canyon for bloodstone.

A Grand Canyon voyage depicted in color movies and Kodachrome slides was shown at the March 3 meeting of Santa Monica Gemological society. Pauline Saylor and Rosalind T. Johnson, members of the 1947 Nevills trip down the Colorado, presented the pictures and gave an account of the exciting experiences encountered.

March meeting of the Kern County Mineral Society, Inc., was planned as annual potluck dinner and election of officers. At the February meeting, Mr. Van Leuven showed colored pictures, and 33 members and seven visitors attended. February field trip was to Chuckawalla springs and on to the Mule mountains in Imperial county. Nineteen members and three guests made the trip. At Chuckawalla springs, February 19, they found members of the Los Angeles Lapidary society and the Glendale club, and 67 persons gathered around the big campfire. Sunday the Kern group went on to the Mule mountains. Good rock hunting and a heavy wind were reported.

Eddie Pape, vice-president of the Junior Rockhounds of Prescott, talked on petrified wood at the March 4 meeting of the club. He described the process by which, in the course of ages, minerals replace the cells of the wood without changing its appearance. Petrified wood illustrated his talk. Mrs. E. D. Fontaine was scheduled to speak on "Silver Mining in Mexico" at the April club meeting.

The Los Angeles Lapidary society now has in its library a complete set of Kodachrome slides on "The Story of the Gems." The slides, presented to the society by Roland E. Willis, are available to any local gem or mineralogical group. Money received from the showings will be placed in the society's permanent fund.

The Faceteers, a section of the Los Angeles Lapidary society, elected Thomas Daniel new group chairman, and Ted Bennett new secretary. At the last meeting Douglas McDonald gave information on the synthetic star ruby, illustrating his talk with one of the new stones. Faceted stones were displayed and Ray Merz brought a diamond—the third which he has cut. Rose Clement, Goldie Wood and Maude Robinson brought in faceted stones.

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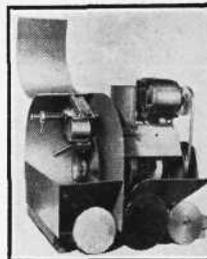


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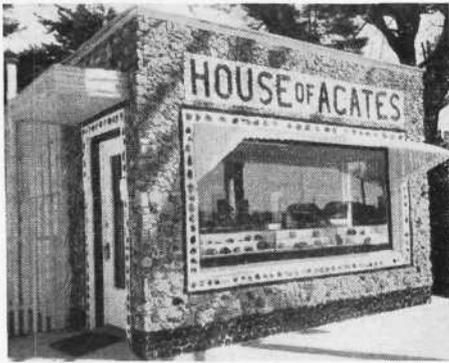
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Attention is called to a correction in the post-office box number of the Los Angeles Lapidary society. The mailing address of the society is P. O. Box 2184, Terminal Annex, Los Angeles 54. Gladys Babson Hannaford, representative of N. W. Ayers & Son, New York, told the society about the diamond and the diamond industry at the March meeting.

Mrs. Viola Jimulla, of the Yavapai Indians and said to be the only woman Indian chief in the United States, spoke at the March meeting of members and friends of the Yavapai Gem and Mineral society, of Prescott. Mrs. Jimulla, 67, told the story of her people from the early days around Granite mountain near what is now Prescott. She explained how they made knives and axes from white quartz, manos and metates from malapai, and arrow points from white quartz and flint. The other guest speaker was Prescott artist Kate Cory, who lived with the Hopi Indians from 1905 to 1912 and painted their ceremonials and learned much of their way of living. Miss Cory exhibited some of her paintings of the Hopi. Two films, one on Arizona's most important mineral, water, and the other on forest conservation were to be shown at the April 15 meeting, with a talk to be given by Forest Ranger Stewart.

Orange Belt Mineralogical society held its March meeting in the San Bernardino Valley college social hall March 2. Plans for the annual meeting and election of officers were set in motion. Dr. Clements, professor of geology at U. S. C. talked on "Emeralds of Colombia," showing colored slides of his trip to the mines in South America. Field trip of the month was to the old gem mine near the head of Bautista creek, out of San Jacinto, California.

The new year for the Redwood Empire Gem and Mineral society of Santa Rosa, California, started with the election of Arthur Ellis, president; Frank Level, vice-president; Leo Connolly, secretary; and Dora Bacon, treasurer. January 10 the club exhibited 28 cases of petrified woods, polished slabs, cabochons and mineral specimens. The show was so successful the club was invited to exhibit at the annual four-day Citrus fair at Cloverdale and displayed 17 cases there.

At a recent reorganization meeting of the Canon City Geology club of Colorado, Dan Flaherty was elected president; Karl Pinnell, vice-president; and F. C. Kessler, secretary. The president opened the meeting by giving a resume of the history of the club since its organization in 1928 for the purpose of conserving and developing our natural resources. He pointed out that numerous gem and mineral prospects are being located throughout the Royal Gorge region, and developed so that touring science groups can benefit by a visit to the area.

A trip through the mines at Butte, Montana, was described by James Underwood, who showed colored films to illustrate his talk to the February meeting of the Pacific Mineral society of Los Angeles. There are 3000 miles of tunnels at Butte, he said, and it requires 45 minutes for some workers to change shifts. Numerous specimens from Butte were on display, including one which came out of the Leonard mine 35 years ago. The specimen came from the 900-foot level, now known as the Fire Country since it has burned constantly since catching on fire several years ago.

The State Mineral Society of Texas planned a mineral show April 17-18 at Austin, Texas, according to J. J. Brown, club president, 302 Walton building, Austin 11, Texas. Ribbon prizes were to be awarded, and polished cabochons, slabs and mounted stones featured. It was expected to be the largest showing of fine Texas agates ever brought together under one roof.

Dr. D. M. Davidson, geologist for the E. J. Longyear company, was to speak at the annual banquet and birthday party of the Minnesota Mineral club of Minneapolis, March 13. His subject, "A Sojourn in Siam," was to be illustrated by Kodachrome slides. The annual exhibit of the organization was scheduled for April 11 in the East room of the Curtis hotel.

Nebraska Mineralogy and Gem club was to hold its annual dinner Tuesday, March 23, at the Park Forest Presbyterian church, Omaha. Guest speaker was to be Dr. C. B. Schultz who planned to show pictures and describe the work of a museum field party at the Lime creek campsite near Cambridge, Nebraska. Evidence was found there, it was said, that man lived in the area as long as 35,000 years ago. The site will be flooded in 1949 by the Medicine creek reservoir.

Mr. and Mrs. J. E. Stack, who will be remembered in Phoenix for their rock and mineral collection, have located at Fox City Geode Trails near Kahoka, Missouri.

Meetings of the Mineralogical Society of Arizona, through May 21, will be held on the first and third Fridays of the month in the assembly hall, 1736 West Van Buren street, Phoenix, Arizona. The March 5 meeting was planned as discussion night, with each member bringing a specimen and telling where it was found and what is known about it. March 19, Dr. G. G. McKhann was to give a lecture on Arizona topography, illustrated with Kodachrome.

After a slogan and emblem contest, the East Bay Mineral Society, Inc., of Oakland, selected "Where Science and Hobby Meet" as the slogan, suggested by Mr. White. A symmetrical design by Dr. Houston won the emblem contest. Winners were presented with faceted stones. Commander T. R. Vogeley, executive officer of the U. S. naval training station, Treasure Island, was to speak at the April 1 club meeting, giving the illustrated story of "Operation High Jump" in the southern polar regions.

The Ramona, California, Rockhounds club was one year old on March 14. The club was organized when Mrs. Charles F. Harper held open house and displayed all her rocks. Everyone who came was asked to register and state whether they would like to belong to a rock club. The society was organized with 20 members.

At the March 12 meeting of Cherokee Gem and Mineral club of Cherokee, California, Mr. and Mrs. Lee Reeves showed colored slides of the January and February rock hunts and also displayed thin slabs of agate by placing them in the projector. The club planned a field trip for March 21 and a potluck dinner at the Cherokee school house, club meeting place, on Easter Sunday.

Midwest Federation of Geological societies will hold its annual convention in Chicago, August 21-23.

The periods of the earth's construction were outlined by Guy Woodworth at the March meeting of San Geronio Gem and Mineral society of Banning. Dr. Marko Petinak told of a trip to the vicinity of Travertine Point and Joe Bennett told about a recent trip to Crystal mountain, Arizona. April field trip was planned to the Calico mountains section, and several members of the club made a visit to the Obsidian butte area near the Salton in March. Plans for a gem and mineral exhibit for Banning Pioneer days were discussed. Howard "Barney" Barnes spoke at the February meeting, describing the different types of agate, telling where they are found and how to cut them.

# AMATEUR GEM CUTTER

By LELANDE QUICK, Editor of The Lapidary Journal

In the March issue of Desert Magazine we offered a correspondent's solution for grinding gems in the desert regions where there is no available electric power, with a foot-powered outfit. Len Bennett of Kernville, California, now writes that his friend, E. S. Kirkland of Red Mountain, has been experiencing satisfaction with a complete lapidary outfit operated by a one-horsepower gasoline engine. He continues, "He runs a grinding wheel, sander, buffer and a small lap. He also operates a 12" cutting saw. For a jack shaft he uses a 3/4" pipe, set in three 2x4 pieces of lumber, which has babbit bearings and a four-step pulley on a pipe shaft. He also has pulleys on the grinder, sander, buffer, lap and saw so he can regulate the speeds. The mercury clutch operates at higher speeds and when the engine is idled the pulleys remain motionless. This allows a change of cloth on the sanders or a change of the rock in the saw while the engine idles."

Bennett and several other correspondents have written to ask for a description of the Savonius type of windmill mentioned in the March article and we hope to have details about it in a future issue.

Another correspondent, whose constructive comments have appeared here on several occasions, offers provocative thoughts on equipment speeds. H. H. Meigs, of Sacramento, California, writes, "When I first broke into the gem cutting hobby all the dope was to run everything slow—saw, lap, grinders, etc. I could see the sense of that with a lap—running it slow to prevent throwing off all the grit. I proceeded to experiment a little. My saw was running about 450 r.p.m., with a 1 1/2" pulley on the motor. I put on a 3" pulley and doubled the speed. The saw cuts faster, smoother and better and I don't believe it wears out as fast, for with the increased speed less pressure is needed. I tried speeding it up more but since the blade runs in a well of coolant, it whipped the coolant to a froth and I was afraid it wouldn't lubricate properly. I know a man who runs his saw at motor speed of 1750 r.p.m., using a water spray directly into the cut. Incidentally, after trying a number of coolants I'm back to the old original except that I use cleaning solvent instead of kerosene as it's less smelly. I run my grinders about 2000 r.p.m. and my sanders and polishers about 1800. I don't use a lap as I see no need for a lap except for faceting and I don't facet."

Indeed there are lots of uses for a lap if you don't facet. You can do little but make cabochons unless you have a lap. But we are in agreement with Mr. Meigs on speed. If one wants to run diamond saws at high speeds however, there should be an oil pump arrangement to spray lubricant right into the cut. What would have happened in the war if quartz crystals had been cut at the slow speeds used by most amateurs?

The early saw blades would not stand high speeds, but great advances have been made in sawing equipment. We have heard a lot of argu-

ments about blade wear. The man who runs his saw slowly claims long life for the blade and the man who runs it fast claims the same thing. We have seen amateurs very carefully measure each sawed slab and keep a record of the number of square inches in it. They thought they were calculating the life of the blade. The work involved often got into higher accountancy and when it was all done what did it prove? It would be necessary to keep a record of the number of inches sawed in the various grades of hardness of sawed material if the figures were to mean anything. Perhaps the wear and tear on the blade is recorded but the wear and tear on an individual under such a system is terrific. There are more factors involved in saw wear than speed. We doubt that anyone could prove any substantial saving in slow speed over high, or vice versa. Or can some one do so? Possibly some meticulous reader has tables from his own experience to prove a point. They should be interesting. Send them along and we'll publish them.

As for other equipment, we are definitely for high speed on really wet grinders but for slow speeds on dry sanders and polishers. Speed means heat and heat is bad. The proper use of speed comes only with experience, of course, and the beginner is urged to use slow speeds until he has the feel of gem grinding and polishing.

Information coming to us about the Federation conventions indicates that the first national convention of the American Federation of Mineralogical societies at Denver, June 13-16, and the convention of the California Federation of Mineralogical societies at Long Beach, California, July 16-18, will be the largest, finest and most efficiently run shows ever held. We will attend both and expect to speak at the Denver conclave. We look forward to both events with great anticipation.

We commend the California Federation for their reported stand that display of lapidary items must include geologic materials. Freak flotsam and jetsam, whittle sticks and carved plastics are not acceptable for display. They have their place among hobbies but not at a mineral and gem show. But we condemn the Federation for advertising their show as "the world's largest mineral convention." We predict that gem minerals in the form of lapidary pieces will outnumber purely mineral specimens three to one and that lapidary equipment and gem dealers will defray 90 per cent of the cost of the convention by buying exhibition space. It should have been called "the world's largest mineral and gem convention." Many are allergic to the word gem but eight out of every ten societies who have joined any federation in the last five years have had the word gem in their names. One of the oldest, largest and most respected members of the California Federation itself recently changed its corporate name to the San Diego Mineral and Gem Society, Inc.

This page of Desert Magazine is for those who have, or aspire to have, their own gem cutting and polishing equipment. Leland Quick, who edits "The Lapidary Journal," will be glad to answer all questions in connection with your lapidary work. And he would like details about new short cuts or devices which lapidary workers have discovered, to pass on to readers. Queries and information should be addressed to Desert Magazine, El Centro, California.

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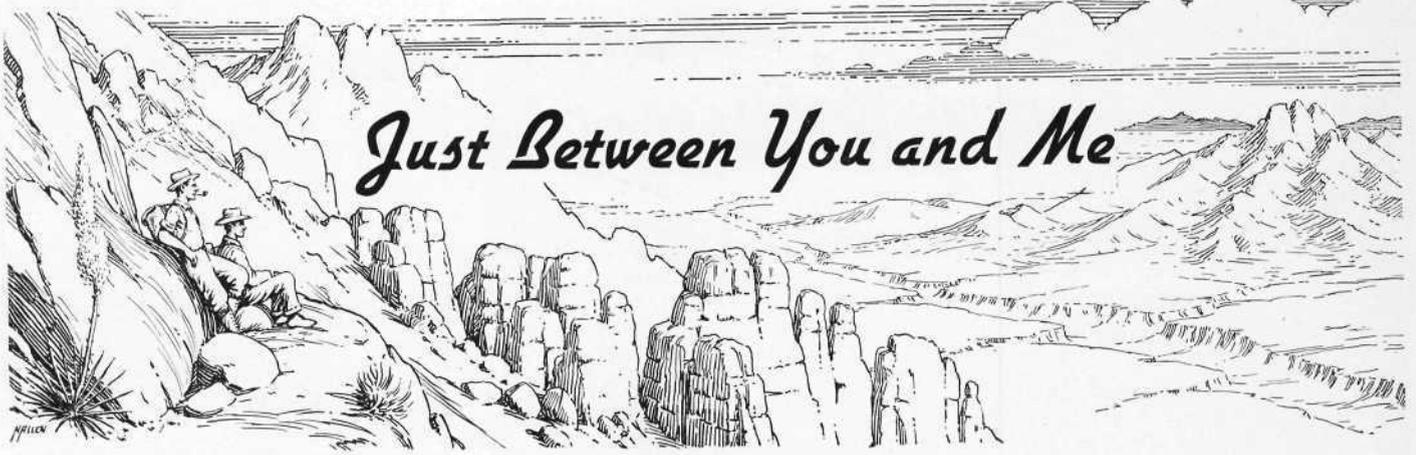
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LELANDE QUICK, Editor and Manager



## Just Between You and Me

By RANDALL HENDERSON

**M**Y FRIEND Raymond Morgan of the Rancho Dos Palmas near Salton Sea writes as follows:

"For the past two or three years I have been concerned to see the mistletoe attacking and ultimately killing so many fine desert shrubs and trees. A couple of years ago I sent our Mexican boys out with machetes to clean out this parasitic growth. I have been delighted to see these mesquites and other varieties take a new lease on life and develop into fine blossoming beauty spots in the desert. It is very easy to rid small trees of mistletoe and it seems to me if readers of your magazine who like to travel the desert roads and trails would set aside a day or two each season to go after this parasite great good could be accomplished. Not only are these shrubs and trees beautiful, but they provide firewood and they certainly are worth saving for this, if for no other reason."

Maybe Raymond is right. But I can see a controversy looming for the Letters Page of Desert Magazine. For among Desert's readers there are some who regard desert mistletoe as a natural scenic asset of no less value than the ironwood, mesquite and catsclaw on which it preys—and who would feel that its destruction in order to insure wood for the family fireplace would be like curing the convict's stomach ulcers so he will be alive on the day set for his hanging.

I do not know the answer. But generally speaking I am averse to anything that upsets Nature's balance. When we humans do that we nearly always invite trouble from some unexpected source. For instance, in Arizona the ranchers made war on the coyotes. Coyotes prey on rodents, and as their numbers decreased the rodent population increased. Rodents eat seeds, and as they became more numerous there were fewer of the Giant Saguaro seeds left on the ground to germinate replacements for the aged cacti which are dying of disease and old age. One of Arizona's greatest scenic assets is endangered. Any Park Service naturalist can relate innumerable examples of the woe that follows when we disturb the natural order of things.

We humans know so little about the Great Plan of life on this earth it is rather surprising we have survived as long as we have. And while our knowledge of the intricate manner in which Nature maintains a balance in the world of plants and animals is infinitesimally small, we know even less about the fine art of keeping the world of man in equilibrium. We permitted so much selfishness to creep into our capitalistic system we opened the door for a vicious alternative which we call communism. And now we are between the devil and the deep sea. I suspect that when we have learned more about natural law, we will have gone a long way toward solving the problem of human relationships.

In the meantime, perhaps Raymond Morgan actually is giv-

ing Nature a helping hand in cutting out the mistletoe—but neither he nor you nor I can be entirely certain about that.

\* \* \*

From Washington comes the information that the Indian Service is preparing to bring an additional 8000 acres of land under cultivation on the Colorado River Indian reservation below Parker, Arizona, for Hopi and Navajo farmers. That means subsistence for 200 Indian families—and that many less to be fed on the arid northern Arizona plateau where they are now living.

This is one occasion when the Indians are getting the best Uncle Sam has to offer. There is no more fertile land in the West than the 85,000 acres along the Colorado river between Parker and Blythe. It was allotted originally to river Indians—mainly the Mojaves and Chemehuevis—but these tribesmen have never made use of more than 10,000 acres. The utilization of this entire 85,000 acres would go a long way toward solving the problem of over-population on the Hopi and Navajo reservations. And now if the Indian Service will implement its good intentions with prompt effective action I can see a ray of hope for some of those hungry tribesmen in northern Arizona.

\* \* \*

Sometimes I think chambers of commerce have about as much vision as an Indian totem-pole. But there are refreshing exceptions.

For instance, in the current issue of the Yuma, Arizona, Sun, I note that the Yuma chamber is a joint sponsor with the city recreation commission of a trek in which 300 residents of the community spent a weekend exploring the rugged canyons of the Kofa mountains in northern Yuma county. Another such trek was arranged for a later date to the famous old watering place at Tinajas Altas on Camino del Diablo in southern Arizona.

Among the many things a chamber of commerce might do for a community, I can think of nothing more worthwhile than the sponsorship of such outings. For most business men live in a tiny world bounded by the business office, the home, the lodge or service club and a two weeks' annual vacation which seldom takes them beyond easy walking distance of a paved road.

It is good for them to break out of this squirrel-cage routine and go out and become acquainted with the fundamental things of this earth. Too continuous association with other humans in the superficial environment we have created breeds only confusion and a sense of insecurity. It is in thoughtful contact with the world of Nature that men and women most readily develop the poise that comes from inner peace. One cannot live close to the desert without acquiring a reverent respect for the God who created all this—and a faith in the ultimate survival of that which is good and true.



**GUIDEBOOK TO CALIFORNIA  
ROCKHOUND ROADS**

Darold J. Henry's booklet, CALIFORNIA GEM TRAILS, will be an entertaining and useful addition to the library of all active rock collectors who have hunted or who expect to hunt in Southern California areas. One of the most refreshing features of the paper bound volume is that it does not attempt to minimize the unpleasant aspects of some of the trips and it does not offer inflated estimates of the material to be collected. If there are sandblasting winds, heat or rattlers, Henry notes the fact. If the locality has been picked over, and work and prospecting required, he says so.

The book has been planned as a practical field guide and there is an introductory section containing general advice on emergency equipment to be taken, hazards likely to be encountered and—especially important—a rockhound code of ethics. Localities discussed include Imperial county's Black hills and fields near Coyote wells, Riverside's Crestmore and Wiley well districts, the Cadys, Afton canyon, the Calicos, Pisgah, Lavic, Eagle Crags and Lead Pipe springs in San Bernardino county, Last Chance canyon and the El Paso mountains in Kern county, fields in San Diego, Inyo, Santa Barbara and San Luis Obispo counties, and others.

Some of Henry's instructions should not be taken too literally. In the Yuha basin trip, he tells collectors to drive across the international boundary and park in Mexico. They should understand that, in crossing the border without a permit or the formality of passing through a checking station, they subject themselves and their car to possible difficulties with the border patrols of both nations. Some persons under similar circumstances have been haled into Mexicali and forced to do a lot of explaining. Also, some of the areas listed have been taken over by the armed services again, in their renewed drive on the desert.

Practical experience has shown that many of the gems and specimens are difficult to find, even with sketch maps and instructions more explicit than those Henry gives. The reader should not expect to step out of the car, guide book in hand, and pick up a fortune in gems. But CALIFORNIA GEM TRAILS does put you in the right locality and tell you what has been found there. Many of us who have found our collecting fields through hard and expensive trial and error, would have

given a good deal for this book when we started.

Mineralogist Publishing company, Portland, Oregon, 1948. 63 pps., mineral locality tables, maps and illustrations. \$1.50.

**EVERYTHING HAPPENED ON  
THE BAR NOTHING RANCH**

Clair Noelke came west in 1912 with a musical comedy company and met and married W. T. Webb. He took her home to a two-room adobe on his cattle ranch near the foot of Mt. Graham in southern Arizona. There the girl from the east became accustomed to outdoor plumbing, kerosene lamps and wood stoves. She learned to ride and rope, to bait wolf traps, stretch wire fence, grub locoweed and shoe horses. The story of her life and the history of the 76 Cattle and Dude ranch is told lightheartedly by Rosemary Taylor in BAR NOTHING RANCH.

Probably the book is part fact and part fiction, but it is a worthy successor to

*Chicken Every Sunday* and *Ridin' the Rainbow*. The Webbs lost the ranch, got it back again and decided to run dudes if they couldn't afford to run cattle. They improvised bunks and patched together guest houses. When the dudes paid profits, the Webbs bought cattle and soon had their guests paying for the privilege of working the herd. Of course, as W. T. said, it took six dudes to make a cowhand, but they had a lot of fun.

The readers will have a lot of fun as they meet the odd assortment of humans who came to the 76 ranch. And they will learn a lot about the ranch business as Mrs. Taylor tells the experiences of the dudes and regular hands with the cattle.

BAR NOTHING RANCH is definitely light entertainment, but it will brighten anyone's outlook.

Whittlesey House, New York, 1947. 239 pps. \$2.75.

One of the most fascinating books on Virginia City and the Comstock Lode, Wells Drury's *An Editor on the Comstock Lode*, has been republished in a Centennial edition by Pacific Books, Palo Alto, California. *An Editor on the Comstock Lode* is good reading and living history. 307 pps., photographic illustrations, index, \$3.75.

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