

Desert

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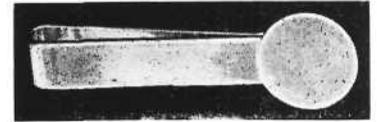
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To be published late September, 1954
\$7.50 per copy

This is a complete handbook to prospecting
for atomic energy minerals written by the
Deputy Asst. Director for Exploration of the
Atomic Energy Commission.



No. 67-13

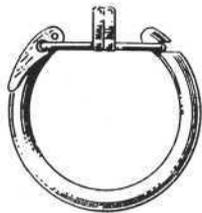
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DESERT CALENDAR

- Sept. 15-October 31 — Exhibit of Paintings of Desert Flora by William A. Hamilton. Southwest Museum, Los Angeles.
- Sept. 25-October 3—State Fair Rodeo, Albuquerque, New Mexico.
- Oct. 1-3 — Cochise County Fair, Douglas, Arizona.
- Oct. 2-3—Apple Day, Julian, California.
- Oct. 2-3—Santa Cruz County Fair, Sonoita, Arizona.
- Oct. 3 — Annual Rodeo, Sonoita, Arizona.
- Oct. 3 — Ranchos de Taos, Candlelight Procession, Santa Fe, New Mexico.
- Oct. 3-4—Feast of St. Francis, San Xavier Mission, Tucson, Arizona.
- Oct. 4—Spanish Fiesta, Ranchos de Taos, Feast Day St. Francis, also in Santa Fe, New Mexico.
- Oct. 5-9—Eastern New Mexico State Fair Rodeo, Roswell, New Mexico.
- Oct. 8-10 — Tri-State Fair, Deming, New Mexico.
- Oct. 9—Pegleg Trek and Liar's Contest, Borrego Springs, California.
- Oct. 11—Annual Aspencades Ruidoso, Santa Fe, New Mexico.
- Oct. 12 — Harvest Dances, Tesuque Pueblo, Santa Fe, New Mexico.
- Oct. 13-16 — Kiwanis International Southwest District Convention, Albuquerque, New Mexico.
- Oct. 16—Fall opening Palm Desert Art Gallery, Desert Magazine Pueblo. Open 7 days a week during winter.
- Oct. 16-17 — Graham County Fair, Safford, Arizona.
- Oct. 17—Tucson Fine Arts Gallery opens for season, Tucson, Arizona.
- Oct. 21-23—State Nurses Convention, Tucson, Arizona.
- Oct. 21-24—Pima County Fair, Rodeo Ground, Tucson, Arizona.
- Oct. 22 — Annual Historical Society Meeting, Salt Lake City, Utah.
- Oct. 22-24—YMCA Interstate Laymen's Conference, Albuquerque, New Mexico.
- Oct. 23-24—Papago Indian Fair and Rodeo, Sells, Arizona.
- Oct. 26-28 — Arizona State Garden Club Conference, Yuma, Arizona.
- Oct. 29-31—Arizona 100 Year Celebration, "Gadsden Purchase" Centennial, Yuma, Arizona.
- Oct. 31 — Hallowe'en Parade and Mardi Gras, Barstow, California.



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Five Acres of Desert Freedom

Much of the land is arid. Wells and electric lines and gas mains seldom are available, and often it requires a bulldozer to smooth a driveway to the front door. Yet in spite of these handicaps, Americans in ever increasing numbers are spending their weekends and vacation time building cabins on the five-acre plots Uncle Sam has made available for them under the Small Tracts Act of 1938. Jackrabbit homesteaders, they are called, and the writer of this story is one of them.

By CATHERINE VENN PETERSON

ONE EVENING last April the jackrabbit homesteaders from Section 21 gathered in the community Hall in Apple Valley, California for their annual meeting. They had many problems to solve. They wanted a community swimming pool and a playground for the youngsters. They needed a garbage dump—and no

one wanted to live near it. Something must be done to abate the dust from their dirt roads—perhaps a 15-mile-an-hour speed limit would help.

These were but a few of their problems—the same problems that have confronted frontier Americans since the settlement of America began.

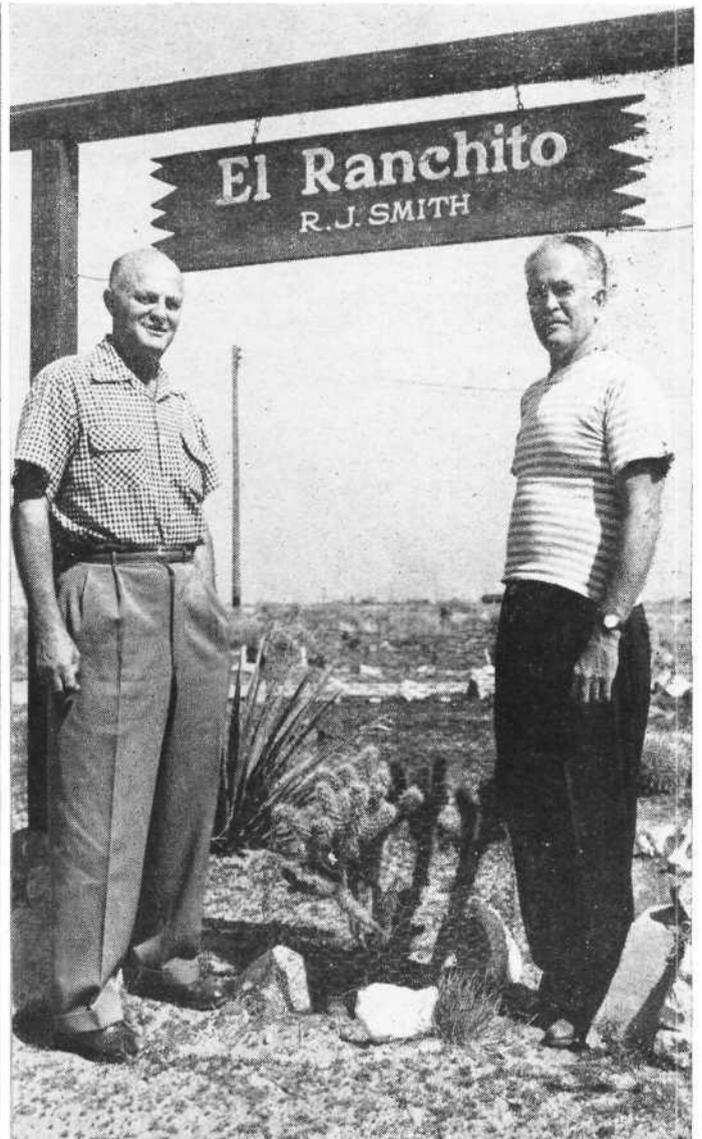
But this was a 1954 setting. These

pioneering folks on Section 21, most of them, have jobs and good homes in the Los Angeles metropolitan area. They came out to the desert because Uncle Sam was offering five-acre tracts at bargain prices, and they wanted to spend as much of their weekend and vacation time away from dazzling neon and honking traffic as they could.

There are no municipal laws or city police to discipline the 90-odd tract-holders in Section 21. When they want improvements they raise the money by popular subscription, and when they decide by popular vote to impose restrictions on themselves and their neighbors the obligation to obey is purely voluntary. This is democracy at its best.

Guernsey Close, one of the homesteaders in Section 21, planted fruit trees for the birds — and then had to devise these inverted funnel gadgets to keep the rodents from stealing the fruit before it was ripe.

Rolland Smith, left, secretary, and Frank Drunert, president of the Mariana Ranchos. They helped build a cooperative colony on the Apple Valley desert which is a model for jackrabbit homesteaders.



It was in 1945 that a little group of Los Angeles men heard about the Small Tract Act which Congress had passed in 1938. From Paul B. Witmer, manager of the U.S. Land Office in Los Angeles, they learned that any American citizen could obtain a lease on five acres of land in the public domain, and that by meeting certain requirements as to improvements, the tract could be bought at a nominal price. It was not necessary to live on the land, as was required under the old homestead laws.

Frank Drunert, a successful business man in Los Angeles, was one of the first to envision a little colony of urbanites with weekend homes on the desert at Apple Valley. His enthusiasm and vision were contagious and many of the owners in Section 21 are friends and business associates in the metropolitan area — folks who knew each other long before they became homesteaders.

Early in their planning the lessees in Section 21 decided they wanted a more distinctive name than jackrabbit homesteaders for their colony. Originally, Section 21 was an old Spanish land grant named Mariana Ranchos, after the daughter of the Spanish grandee landowner. It was decided to give this name to the colony—Mariana Ranchos.

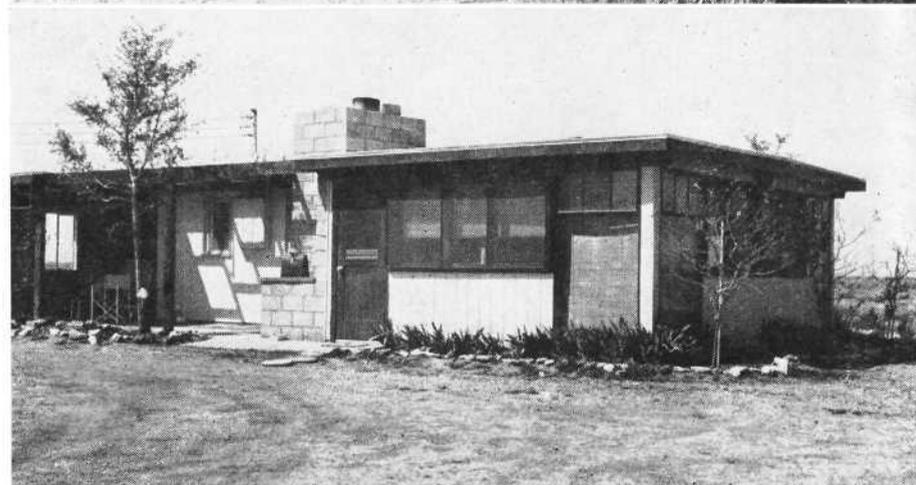
Since Uncle Sam offers his jackrabbit homesteaders nothing but the bare land and rocks of the public domain, there were problems of water, sewage, roads, electricity and telephones to be solved.

The San Bernardino County government helped solve the school and road questions, but the utilities which have brought most of the modern conveniences and comforts to this remote desert community were secured by cooperative effort—by a generous give and take attitude on the part of the colonists themselves.

The colonists formed the Section 21 Development Association. Drunert is president. Fifty-two of the original tract-holders signed as guarantors for the installation of a water system.

The tract was surveyed, and building requirements were set up, calling for basic floor space of not less than 400 square feet, cement floors, plumbing and wiring, proper septic tanks and cesspools. During the construction days a spirit of old-fashioned neighborliness prevailed — and still prevails.

There are now 75 homes in the section, the average ranging from \$5,000 to \$10,000 in cost. However, a few are more elaborate. Mr. and Mrs. Fred Merk have \$35,000 invested in a rambling ranch style residence



Typical homes in the Mariana Ranchos colony—homes that average from \$5,000 to \$10,000 in cost. Many of the homesteaders did the planning and much of the construction on these homes.

that is unique in the field of desert architecture.

Many of the tract-holders did much of the building themselves. Burton Duryea, colony treasurer, and associated with the Los Angeles stock exchange, worked for 38 days from sunrise to sunset to complete his home. Mrs. Duryea and their two boys were the interior decorators. By employing family energy and ingenuity they worked out an air circulation and central heating system which gives them complete comfort under all desert conditions.

Roland Smith, secretary of the association, says he owes his health and his Los Angeles job to the weekends he spends in his desert home. Mrs. Smith told how the wives of weekenders have their cars packed and ready so that when the bread-winners come home from work Friday afternoon they can head for the desert without a moment's delay. The children are always impatient to get back to their desert playgrounds. The Smiths, like many of their neighbors, have done an artistic job of landscaping with native shrubs and flowers,



Adaline and Herbert Anderson are building their own cement block home in the Mariana Ranchos. Herbert is hod-carrier while Adaline does the masonry.

and have set out fruit trees and planted a garden.

Mariana Ranchos is the most highly developed of any of the homestead colonies, but thousands of Uncle Sam's little five-acre tracts are in process of being improved all over the desert sector of Southern California.

Typical among these small tract owners is Art Kurth, an ex-Seabee, who formerly had a little cabinet shop in Los Angeles. He heard about the government's new deal for homesteaders, and began asking questions about it.

At the Land Office in Los Angeles he examined official maps and tract books, and learned there was a tract in Section 12 in the Joshua tree area which a previous claimant had forfeited.

Land office officials advised him to withhold his filing until he had made a field inspection of the land. A grab-bag homestead might well be on a mountaintop or in a rocky canyon, inaccessible and difficult to improve. He was told it would not be necessary for him to establish residence on the tract, but that before the end of the three-year lease period he would have to build a substantial cabin-type dwelling with provision for water and sanitary facilities for habitable living. He was warned that in his building plans he must conform to the existing zoning regulations of the area.

The lease figure of \$5.00 a year for the three-year term sounded reasonable. He was told that when he had built a cabin he could apply for a patent. Then the land would be appraised

on a basis of its previous unimproved state. Appraisals might vary from \$10 to \$80 an acre, but in Section 12 the average had been \$20. He learned that it is not the policy of the Land Office to renew leases except in unusual cases where special circumstances beyond the control of the applicant have made it impossible for him or her to complete their required improvements in the 3-year period.

Art was further informed that Uncle Sam assumes no responsibility for the character of the land, construction of roads, development of utilities or tract surveys, and that filing an application carries with it definite obligations as to the use and development of the land. These were set out in the printed matter which Art took home to read.

That Sunday the Furth's set out in their car for Joshua Tree village about 130 miles from Los Angeles. There they obtained directions to Section 12 two miles up Monument Road. Art parked too far off the pavement and the car became stuck in the sand. Luckily a jeep came to their rescue. After that Art tightened the laces in his sturdy marine boots, strapped on his canteen and started out through the Joshuas, cacti and boulders into the unscratched terrain. With the aid of the checkerboard section diagram he located the right cornerstone and paced off the distance to the claim. It brought him to the crest of a nearby knoll.

This was the spot! He knew it instinctively. He looked out upon the wide expanse of desert, bounded by distant hills blue-veiled in summer haze. Now more than anything else

he wanted to build a cabin in these picturesque Joshua-studded hills. Here was a new challenge perhaps more rewarding in time than anything he had undertaken. All the way back to the city the Seabee slogan "Can-do! Can-do," rang in his ears.

Monday morning Art was back at the Land Office when it opened and filled out the simple application form 4-776 and paid the regular filing fee of \$10 plus \$15 advance lease rental for the three-year term—a total of \$25.

On the display board were pictures of acceptable cabins built by jackrabbit homesteaders in various areas. Most of them were one room cabins with cement floors. Several showed the water tanks and septic type Chic Sales. In areas where water and power had been developed the dwellings looked as pretentious as most modern suburban cottages.

A little later Art walked away from the counter with his receipt—and with a feeling that one of these days he was going to have a real stake in Uncle Sam's domain. This was something more than a land lease—it was a new lease on life, and he looked forward with eager anticipation to the day when he could start building a little home of his own out there on the desert frontier.

Nineteen months' service as a heavy equipment operator in the South Pacific had taught Art many things. Aside from resourcefulness and ingenuity, he learned that it pays to put the horse before the cart. So conserving his limited capital he acquired the war surplus truck that hadn't run for six years and readied it for service again. Without it the Kurth homestead might have been like that of adjoining tractholders who would drive out and sit in their car down on the highway and longingly gaze up at a rock they had painted white to mark their future homesite.

With the truck in commission Art spent successive weekends opening the first roadway into the section, hand grubbing the stubborn growth and clearing off rocks. Out of timbers he built a drag which he used to smooth and pack the sand. He carried in water in a 50-gallon oil drum, pitched a tent and built a lath sun shelter. Occasionally relatives came out and put their backs to the project. The decomposed granite knoll was graded with hand tools, and by Labor Day the forms were in and the ready-mix cement slab was poured.

After his helpers had departed Art sat alone in the desert stillness and faced a decision. "The desert had been taking me over," is the way he expressed it. He decided he would put all he had into this undertaking and



The Art Kurths built a homestead cabin in Joshua Tree Valley—and then found a way to make a living out on the desert.

he felt sure that the desert would take care of him.

He returned to the city and sold his cabinet shop without waiting for a better price. Then followed six weeks on the desert with only his dog while the first cabin in Section 12 took shape.

With approximately \$1400 worth of materials and no labor cost except his time, Art built a 14x28 foot cabin of knotty pine and sheet rock walls with insulated sidings. There are three large picture windows and porch space extending the length of the house. The cabinet work and custom built furniture reflect Art's fine taste and craftsmanship.

A year had elapsed and in the fall of 1953 Art applied for and received the patent to his homestead for the purchase price of \$100.

Now Art Kurth is one of the busiest and most helpful men in the Joshua area. His business card reads:

"Can-Do"

*Custom-Bilt Desert Cabins
Five-Acre Road Work
Cabinets Built*

There are now 60 low-cost cabins erected or under construction in this area. Most of these settlers have 1000-gallon water tanks. A tank wagon will bring 850 gallons of water to them for \$5.00.

Here the underground water table is 100 to 500 feet deep.

If Art can't be found working on one of his numerous jobs, he is probably pulling some tenderfoot or visitor out of the sand with his four-wheel-drive marine truck.

Over on the other side of the San Bernardino Mountains is Section 36

where I pioneered alone on a jack-rabbit homestead. This section is in rough terrain, cut up with washes, rocky hills, canyons and mountain slopes. Roads were largely hand carved and packed, a tedious and backbreaking job. After much futile exploration for water, it still comes in cans and tanks of our own toting and hauling. Power has not reached us. Our light comes from the moon and the stars and lamp wicks. Our heat comes from the sun and oil burners. We cook over campfires and flames from tank gas. Our homes are the small cabin type, neat and well kept. We have no need for plumbers but we have no sanitation problems. Our roads skirt the bajadas and wind about the rocky hilltops. Our shovels are always out and often in use. Our flowers, shrubs and trees were here long before our predecessors, the Cahuilla Indians. Our nocturnal music doesn't come from a dial tone. Plaintive, haunting voices of coyotes often serenade us and the melodious notes of desert birds awaken us. Many of our friends and neighbors come on four feet and wing. The wind comes too and the heat, but being pioneers we can take it. We know that without it we wouldn't have a desert. It took patience, perseverance, hard toil and close budgeting in many instances, but you have never met more enthusiastic people. Our desert doesn't give up too easily, but the tract holders in Section 36 seem to like it that way.

If the prospect of five sunswept acres under desert stars quickens your pioneer blood, all you need do is hie yourself to the nearest Land Office or write to the State Superintendent, or

to Edward Wozzley, the new Director, Washington 25, D. C.

State what part of the country you are interested in and ask for the leaflet called "Facts on Small Tracts" and the circular of regulations. This leaflet gives the addresses of the State Land Offices, which you may write or visit, and the extent and location of available land in each region. Fine areas are still available in 24 states.

Southern California is the cradle of the jackrabbit homestead and Uncle Sam's big bonanza in small tracts, with around 8,000,000 acres of public domain land hardly scratched.

Paul B. Witmer, the revered dean of jackrabbit homesteaders, is manager of the Bureau of Land Management's Los Angeles office. This office has classified nearly 150,000 acres for small tracts, issued 24,000 leases, and in an average day receives 75 applications. Patents have been received by 1500 lessees and there are another 1500 in process. And though Uncle Sam is not in the real estate business, leasing and selling unproductive land to all of the people in small parcels seems to be putting idle land to its best use in developing home and community building. That is the intent of the Small Tracts Act passed by congress in 1938. The Southern California office alone has put \$2,500,000 worth of land on the tax rolls.

Land available for jackrabbit homesteaders is part of the public domain and is generally unsuitable for farming, pasturage, national forests or parks. It was set aside by the Congress for such purposes as home, cabin, health, convalescence and recreational sites. Un-

der the act, whether lease or patent, the United States reserves rights to all deposits of coal, oil, gas or other minerals on or under the surface.

Speculation on the part of leaseholders is precluded because land is not to be held longer than the lease term, nor can any family residing under the same roof hold more than one tract. Of course every lessee must be a United States citizen, 21 years of age or more. Subleasing is not permitted, but under certain circumstances leases may be assigned subject to the approval of the manager or appropriate officer. On land classified for lease only, the term is five years with a rental of \$25 for the term. No refund is made of rentals for the unexpired term of a lease relinquished by the lessee or canceled for cause by the manager. However, a period of 90 days is given within which to remove improvements from the land or make disposition of them regardless of how the lease is given up.

Passage of the Small Tracts Act has opened vast areas of land, not for profit or exploitation, but for folks who like to build with their own hands, and who are thrilled by the challenge of creating a home of their own, even if it is only a weekend or vacation home. These homesteads are for people who delight in watching the moon rise over purpled hills, for those who would call the stars by name, and who love the peace that is found only in remote places.

When rumors were circulated recently that drastic changes were to be made in the operation of the Small Tracts Act, the *Desert Magazine* sent a letter to the Department of Interior in Washington inquiring about possible revisions. In his reply, Director Wozzley wrote: "No changes in the regulations are contemplated which will in any way prevent the public from obtaining public lands which are adaptable to and classified for small tracts . . . no changes contemplated that will reduce the effectiveness of

the Act and the benefits it provides to the people interested in these tracts . . ."

This is reassuring to the Art Kurths and the Mariana Ranchos—and to the

many other Americans like them who sooner or later will have the time and opportunity to build their own cabins and become members of that growing fraternity of jackrabbit homesteaders.

Desert Quiz

Desert's monthly quiz is for folks who live in a big world—a world that includes geography, botany, mineralogy, history and the lore of the Southwestern country. It is seldom that anyone gets a perfect score, but most of the Quiz fans learn some new facts about their desert every month. Twelve to 14 is a fair score, 15 to 17 is good, 18 or over is tops. The answers are on page 21.

- 1—Tallest cactus growing on the Great American Desert in the United States is—Cholla . . . Bisnaga . . . Organ Pipe . . . Saguaro . . .
- 2—Before the white man brought soap to the Southwest the Indians, for cleansing, used — Minerals . . . Yucca roots . . . Mesquite leaves . . . Nothing . . .
- 3—The settlement of Shoshone in Death Valley derived its name from—An early day trapper . . . A species of desert tree . . . A mineral found in that locality . . . A tribe of Indians . . .
- 4—Guide for the first party of white men to see Rainbow Bridge was—Kit Carson . . . John Wetherill . . . Bill Williams . . . John Wesley Powell . . .
- 5—Morro Rock in New Mexico was made a National Monument mainly because of its—Odd shape . . . Historical inscriptions . . . Its Indian taboo . . . Its unusual geology . . .
- 6—If you were planning a trip to the La Sal Mountains you would go to Utah . . . New Mexico . . . Arizona . . . Nevada . . .
- 7—Going by the most direct route from Tucson, Arizona, to Guaymas, Sonora, you would pass through the port of entry at—El Paso . . . San Luis . . . Nogales . . . Douglas . . .
- 8—Stalactites and stalagmites often found in caves generally are of—Quartz . . . Limestone . . . Feldspar . . . Lava . . .
- 9—The leases now granted by the U. S. Land Office to Jackrabbit Homesteaders generally are for—One year . . . Two years . . . Three years . . . Five years . . .
- 10—One of the following is not a painter of desert landscapes—John Hilton . . . Oren Arnold . . . Clyde Forsythe . . . Jimmy Swinerton . . .
- 11—Locale of the legendary Breyfogle lost mine is in—The great Salt Desert of Utah . . . Southern Arizona . . . Death Valley . . . Monument Valley . . .
- 12—Malachite most likely would be found in a—Tin mine . . . Iron mine . . . Gold mine . . . Copper mine . . .
- 13—Lincoln County, New Mexico, was given a conspicuous place in the history of the Southwest because of—The escapades of Billy the Kid . . . The surrender of Geronimo . . . A discovery of diamonds . . . A raid by Pancho Villa . . .
- 14—The species of fish most often associated with Salton Sea are—Sea bass . . . Mullet . . . Sardines . . . Salmon . . .
- 15—Trail shrines still found along the old Indian trails of the Southwest are of—Juniper boughs . . . Shells brought from the sea coast . . . Palm fronds . . . Rocks . . .
- 16—The Indians who once claimed the delta of the Colorado as their tribal lands were—Dieguenos . . . Cahuillas . . . Cocopahs . . . Mojaves . . .
- 17—The capital of Arizona is—Tucson . . . Phoenix . . . Prescott . . . Florence . . .
- 18—Wood most often used by the Hopi Indians in making their kachina dolls is—Mesquite . . . Willow . . . Juniper . . . Ironwood . . .
- 19—Timpanogos Cave National Monument is in—New Mexico . . . California . . . Nevada . . . Utah . . .
- 20—Cameron, Arizona, is on the bank of—Colorado River . . . Little Colorado River . . . Gila River . . . Salt River . . .

WHERE TO APPLY

Following are the locations of the U. S. Bureau of Land Management in the southwestern states:

Southern California, as far north as Tulare and San Luis Obispo counties, U. S. District Land Office, Post-office building, Los Angeles.

Northern California; U. S. District Land Office, Sacramento.

Arizona: U. S. District Land Office, Phoenix.

Nevada: U. S. District Land Office, Reno.

Utah: U. S. District Land Office, Salt Lake City.

New Mexico: U. S. District Land Office, Santa Fe.

Boatride in Desolation Canyon

During the 85 years from 1869 to 1954 the fast water boatmen who run the Colorado River and its tributaries have tried out many types of craft—wood, plywood, rubber and various kinds of metal. The latest is plastic fiber glass—and it is standing the tests of rock-strewn river navigation in a manner that promises well for the future. Here is the story of a trip through one of Utah's little known canyons in the new type of boats, powered with outboard motors.

By RANDALL HENDERSON

Map by Margaret Gerke

WHEN Major John Wesley Powell ran the 40-odd rapids in the Green River's Desolation Canyon in July, 1869, the water was so rough and his wooden boat so clumsy that on one occasion he was tossed overboard and had to swim for his life.

The water is still very rough in 97-mile-long Desolation Canyon, but during the 85 years since the Major piloted his historic expedition down the Green and Colorado Rivers the men who navigate white water streams have learned much about boat design and materiel.

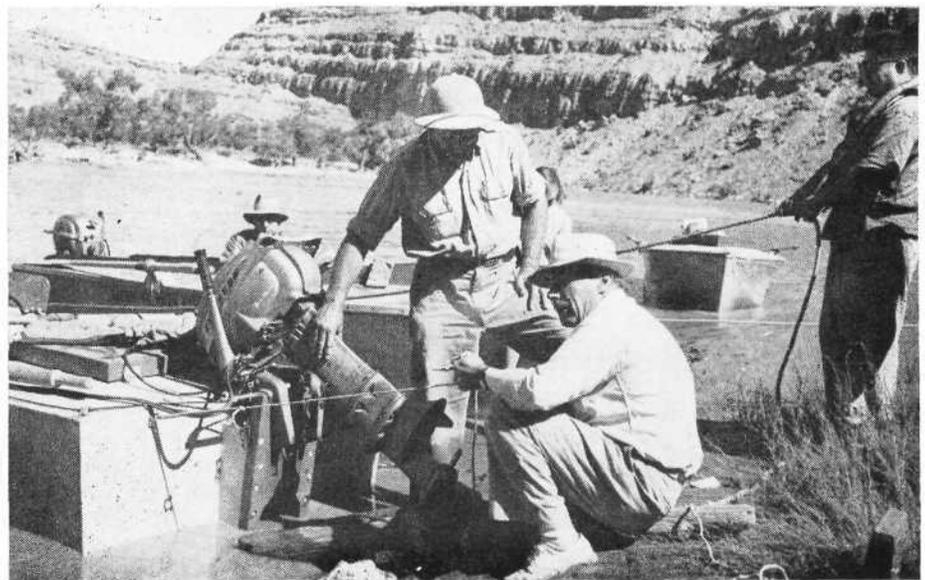
Plywood, rubber and various types of metal all have been given a trial. The latest, and according to many rivermen, the most practicable material so far developed is plastic fiber glass.

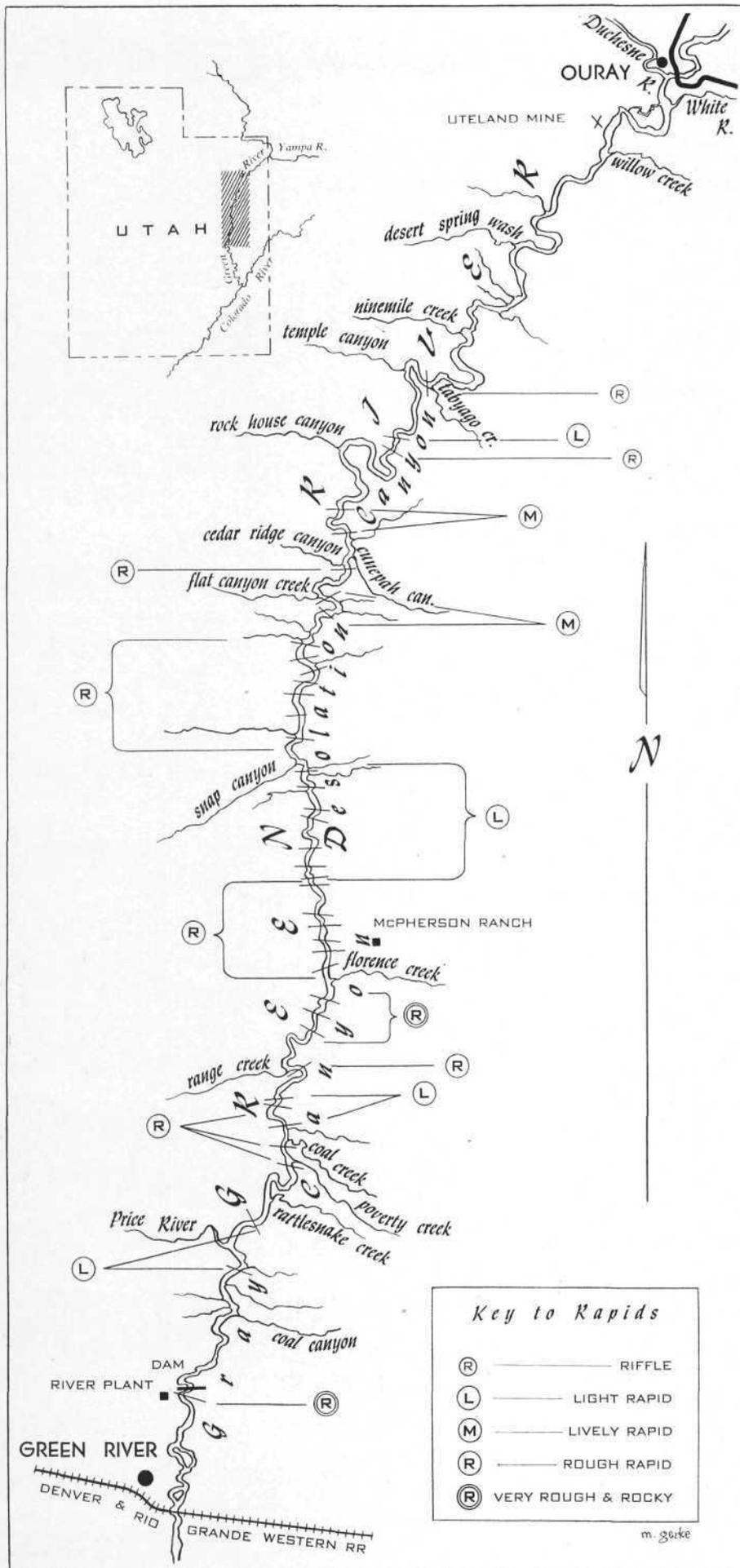
Last May I had the privilege of following Powell's route through Desolation Canyon in one of the new fiber glass boats. We not only had a boat which was much lighter and better streamlined than Powell's *Emma Dean*, but it had some other advantages. It had waterproof storage space for our food and bedding, and it was equipped with a Big Twin Simplex Evinrude motor—25 horsepower.

Above — Much of the way, the Green River in Desolation Canyon flows smoothly between deep canyon walls.

Center—But there are many rapids where the boatmen have to pick their way between boulders which could bring disaster.

Below—When the propeller hits a rock and a pin is sheared it takes but a few minutes to repair the damage.





Don Harris and Jack Brennan, a Salt Lake City team of boatmen who for many years have been piloting river trips on the Yampa, Green, San Juan and Colorado Rivers, bought two of the glass fiber boats from Wizard Boats, Inc., at Costa Mesa, California, and invited me to join them on their first scheduled trip on the Green River from Ouray to Green River, Utah.

Our rendezvous for the river trip was at Ouray, a little settlement near the junction of the Duchesne and Green Rivers. On the east side of the Green at this point is the Uintah-Ouray Indian reservation where three tribes of the Ute nation, the Uintahs, Uncomphages and Whiterivers have 384,000 acres—mostly desert.

In 1950 a federal court of claims awarded the 1547 Indians on this reservation, and a related tribe in Colorado, \$31,761,206 to compensate them for lands and rights of which they had been deprived by the white men.

Fortunately for the Indians, payment could not be made until Congress appropriated the money and set up protective terms under control of the tribal council, and expenditures are subject to approval by the Indian Bureau.

Although the greater part of the reservation is mountainous and arid, about 30,000 acres are under irrigation, and the tribesmen have done very well as stock-raisers and farmers.

Several families of the Indians crossed the bridge at Ouray and assembled on the shore to watch the operation of packing and launching the boats for the trip.

Here I met the Salt Lake City folks who were to be my companions on the voyage down the river. In addition to Don Harris and Jack Brennan, the skippers, there were Dr. Leslie White and his wife Rena and their three children: Mary Lou, a student in junior college, Georgiana, in the eighth grade, and Barry, aged 10. The ninth member of the party was Harry Ishimatsu, a Salt Lake postal clerk and a veteran of the U. S. Army in World War II.

A third boat in the expedition was *The Adventurer*, owned and piloted by Al Morton, with Dick Carman as passenger. Al and Dick are amateur photographers, members of the Cine Arts Club of Salt Lake City.

It was 11:30 in the morning when we shoved off from a grassy bank sheltered by aged cottonwoods. Don Harris, a hydrographer in the employ of the U. S. Geological Survey, was in the lead. He estimated the river was flowing 20,000 second feet of water. May is the month of high seasonal run-off from melting snow in

Wyoming and Colorado and the Green was at much higher stage than normal.

It is practicable to run this sector of the Green in motorboats only when the river is high, for the rapids in the river occur where tributary streams dump huge boulders into the main channel. At low stage, these boulders, many of them submerged just below the surface of the water, can play havoc with outboard motor propellers.

Below Ouray, the Green flows between drab arid hills. It is easy to understand why Major Powell gave the name Desolation Canyon to this sector.

But the shore was lined with cottonwood, willow, mesquite, tamarisk trees, and thickets of arrowweed, and there are little valleys on the reservation side where the Utes run cattle. Tamarisk, both salt cedar and the athel species, imported from Asia within the memory of the present generation of Americans, are now predominant shrubs along the Colorado and all its tributary streams. These invaders from the deserts of Asia and Africa evidently like their adopted home and the salt cedar is threatening to crowd out some of the native shrubs.

Five miles downstream we stopped in the shade of cottonwoods for lunch. The temperature was 77 degrees. Beavers had been working on some of the trees, and later as we continued downstream we saw several of the animals on shore or swimming. The fur trappers of the last century nearly brought extinction to the beavers along the Colorado and its tributaries. But under legal protection the animals in recent years have been coming back.

At mid-afternoon the hills began closing in, but we encountered no rapids, or even riffles, that first day. Our average speed was 10 miles an hour. At 6:15 we pulled into a sandy cove for overnight camp. We had traveled 46 miles the first day. High walls of rock flanked our campsite, and we were sure it would provide ample shelter for a comfortable camp.

Jack Brennan unpacked the culinary tools and prepared a delicious dutch oven stew with fresh meat. Half way through the meal a gust of wind sent campfire sparks flying in all directions — and that was the forerunner of a sandstorm which lasted through most of the night. It was such a blizzard that the Powell party encountered on its Green River trip in 1869. George Y. Bradley of the Powell party described in his notes the experience: "The sand from the beach buried our beds while that from an island below filled the air until the canyon was no comfortable place for repose as one



Left to right—Al Morton, Jack Brennan and Don Harris discussing a possible route through the boulders choking the stream at Coal Creek Rapids.

had to cover his head to get his breath."

We dug out the next morning none the worse for the experience except that some members of the party did not get much sleep.

It was overcast as we pulled out of camp at 8:45, and a mile downstream we ran into our first rough boating—a riffle that sprayed us with water but

involved no serious problems of navigation.

It is very proper at this point to ask the question: "when does a riffle become a rapid—where does one draw the line?" I can only answer that I have ridden with many boatmen and no two of them have the same definition. It is like trying to define the difference between sprinkle and rain.



Members of the Desolation Canyon Expedition—Above, Don Harris, Barry White, Harry Ishimatsu and Mary Lou White. Center—Jack Brennan, Georgiana, Rena and Dr. Leslie White. Below—Al Morton and Dick Carman.

Once I heard an old boatman remark: "If she's so rough she buried the boat it's a rapid. The rest of 'em are riffles."

On the Green River as on all other fast water streams one encounters all gradations of turbulent water, from a tiny series of waves that barely rock the boat to giant breakers which almost stand the craft on end.

One can get just as wet in a riffle as in a rapid of cascade proportions. The worst ducking I ever had was when riding the stern deck of a cataraact boat with Norman Nevills—in an insignificant riffle on the Colorado River below Lava Falls.

The water became increasingly rough after we passed that first riffle—

and then it began to rain, cold biting rain that chilled us through. There is no shelter on these river boats. One just sits there and takes it. Then we heard the roar of the first major rapid, and when skipper Don Harris decided to go ashore and look this one over before running it we were all grateful for the opportunity to build a fire and thaw out.

The rain stopped, and as we were huddled around the flames a big brown bear ambled down to the opposite shore. Evidently it intended to swim across, but when it saw us it turned upstream along the bank and crossed a half mile above. The photographers in the party bemoaned the fact that a dark overcast sky prevented them from getting good pictures.

The boatmen ran the rapids without difficulty, some of the party riding through and others hiking along the shore to be picked up below.

An hour later we landed at the mouth of Rock Creek, the only clear water tributary we encountered on the journey. We used river water for cooking most of the time, settled it overnight for drinking purposes. At Rock Creek we refilled our canteens and had lunch on some convenient rock boulders.

During the afternoon we ran one rapid after another. The canyon walls had closed in and much of the time we were riding between cliffs that rose from 1200 to 2000 feet on both sides of us. The gray coloring of the upper canyon had given way to many shades of brown, and great pilasters of chocolate-colored stone—the sculpturing of erosion—gave architectural beauty to the canyon walls. The lower sector of Desolation Canyon deserves a more fitting name than was given it by Powell.

We camped that night on a sandbar island where there were plenty of dead willows for firewood. The weather had cleared, and it was a delightful spot. Jack broiled our steaks over an open fire while he used the dutch oven to make apricot dumplings—a really fancy dinner for a crew of river voyagers over 50 miles from the nearest dining room.

At the upper end of the island was a beach of large size pebbles and I found a few good specimens of agate, jasper and obsidian among the softer rocks.

We embarked the next morning at 8:30 and an hour later came to the most vicious looking rapids of the trip—at Coal Creek. The boatmen spent some time studying a possible route through the huge boulders which cluttered the stream—and then ran

through with no more serious difficulty than a sheared pin in the propeller shaft of Jack's boat. This was the fourth pin we had to replace during the river journey.

The makers of outboard motors have built well for this kind of navigation. It is almost inevitable that a propeller will hit submerged rocks in such rapids. The pin which holds the blade on its shaft is made of soft metal so it will give way before damage is done to the propeller. Also, the motors are hinged to the boat so they can be tilted clear of the water with little manual effort. When a pin shears off, the boatman resorts to his oars and pulls to shore where it takes but a few minutes to make a replacement.

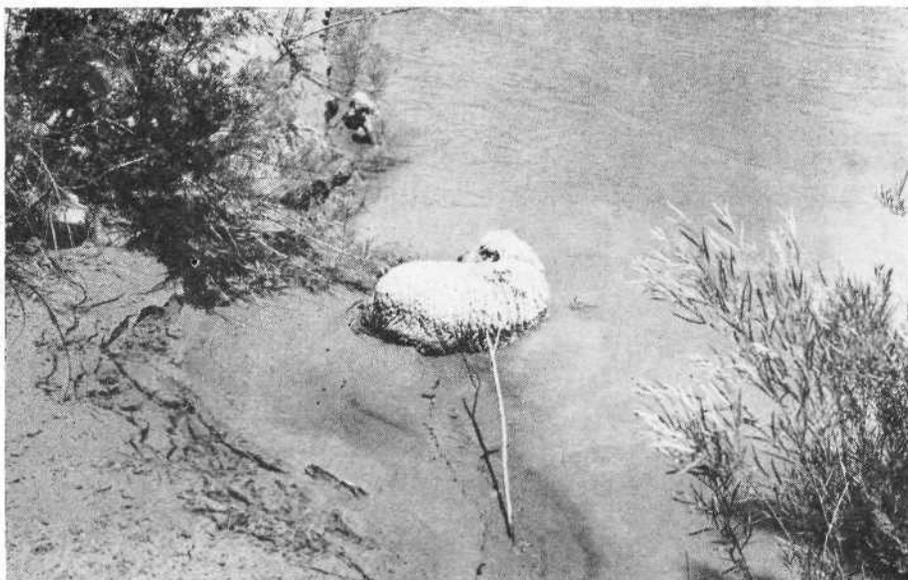
The pilots who run boats through this kind of water are all "cheaters." They brag about it. The idea is to ride the tongue of the rapid until it breaks into turbulent waves, and then pull hard to one side or the other and avoid the high combers directly below. The more they cheat the less hazard there is to the boat and the passengers. On this trip I learned that a boatman with a 25-horsepower motor on the stern of his craft can do a better job of cheating than one who has only his oars to keep him out of trouble.

When the water is high and the passengers want to get through the difficult places as quickly and safely as possible, the motorboat has its advantages. But an outboard motor is worse than useless in a low river when the channel is strewn with visible and submerged rocks.

Those who have the time and desire to run the rapids for the pure adventure of it will continue to use rowboats—perhaps of fiber glass, but powered only with oars. For there is a thrill in bucking those treacherous rapids with muscle and skill, which the boatmen and passengers on motor-powered boats can never know.

Don Harri. and Jack Brennan were boatmen long before outboard motors were brought to the rapids of the Green and Colorado Rivers and they know how to take the rapids with either motorpower or manpower.

It was in this sector of the river that Major Powell was thrown overboard. George Y. Bradley described the incident in his journal: "July 11, 1869. Sunday again and Major has got his match, for in attempting to run a rapid his boat swamped, lost all his bedding, one barometer and two valuable rifles which we could ill afford to lose as it leaves but seven rifles in the outfit and we may meet Indians who think our rations are worth a fight, though if



The day's good turn — rescuing a stray sheep that had become mired in quicksand.

they try it they will find them dear rations. The rapid is not so bad as some we have run but they shipped a neavy sea at the start which made their boat unmanageable and she rolled over and over, turning everything out. Major had to leave the boat and swim to land as he has but one arm

and her constant turning over made it impossible for him to hold onto her with one hand, and the other two (Jack and Dunn) brought the boat in below safe with the losses stated and the loss of our oars."

Our boats took the Coal Creek rapids and another bad one at Rattlesnake Creek later in the morning without difficulty other than the shearing of a propeller pin. Then Don told us the rough part of our journey was over.

We were now in Gray Canyon which merely is a continuation of Desolation Canyon. Gray formerly was known as Coal Canyon because deposits of coal were found near the stream.

The vertical walls had given way to open hill country and we were within an hour of our destination at the Green River Dam at 11:30 in the morning when we saw a large sheep mired in the quicksand at the edge of the stream. It gave a plaintive ba-a-a as we rode past, and the boatmen pulled to shore below and we walked back.

The ewe really was in trouble. It was mired to its belly with no chance of getting free without our help. Our boatmen, fighting quicksand themselves, spent a half hour extricating the animal from its prison. Its legs were wobbly when they finally pulled it up on the dry bank, and it lay down with its head in the shade to recuperate. There was evidence that large numbers of sheep had grazed in the vicinity, but neither the herder nor any others of the flock were seen.

Our voyage ended at the Green River diversion dam 10 miles upstream from the town of the same name. Trailers were waiting to ferry boats and passengers back to Salt Lake City.

Thanks to the design and stability of these glass fiber boats, and to experienced boatmen, it had been a safe pleasant journey despite the sandstorm and frequent wettings.

If Echo Park and Split Mountain dams are built in Dinosaur National Monument upstream from Ouray, as is recommended by the Secretary of Interior, the famed rapids of Lodore Canyon will be submerged in a great reservoir, and in that event the Desolation Canyon trip probably will gain popularity among white water boatmen as an alternative trip. For Desolation Canyon, despite its forbidding name, has both fast water and scenic charm.

AN INVITATION FROM DEATH VALLEY '49ers...

Plans are now in the making for the four-day program to be staged in Death Valley in November—the 6th annual encampment of the Death Valley '49ers.

Following the precedent of previous years, thousands of motorists from all over the West are expected to gather at the oases in Death Valley to take part in or be entertained by the varied program of exhibits and activities which a score of committees are preparing.

This year's program is to start on Thursday which is Veterans' Day (formerly Armistice Day), November 11 and continue through the weekend.

The Death Valley '49ers is an informal organization, a non-profit corporation formed to cooperate with the National Park Service in furthering the development of Death Valley as a historical shrine. Membership in the organization is open to all who make a contribution to the financing of the annual encampment. After the expenses

are paid, surplus money goes into a fund to be used eventually for the building of a museum in Death Valley.

There are no admission charges to any of the events in the encampment program—but all those who attend are invited to participate to the extent of membership in the organization. The following types of membership are available:

Active membership	_____ \$	2.00
Sustaining	_____	5.00
Patron	_____	10.00
Sponsor	_____	25.00
Life membership	_____	100.00

Those who would like to receive a membership card and carry a Death Valley '49er windshield sticker on their cars should send their membership fee to:

Death Valley '49ers, Inc.
501 Hall of Records, Los Angeles

Membership cards and stickers also are available at the *Desert Magazine* office for those who will find it convenient to call at the Palm Desert Pueblo for that purpose.

PHOTO CONTEST . . . in October

October is a month for pleasant excursions on the Great American Desert, an autumnal pause between the fiery rays of summer sunshine and the chill of winter. It's an excellent month for photographers to record impressive desert scenes with huge white clouds scudding across the sky or perhaps to snap a pack rat (*Neotoma*) hustling a supply of tiny nuts, seeds and berries to its nest.

It is a busy month when nature and the desert's people are preparing for winter presenting myriads of suitable subjects for the photo contest.

Entries for the October contest must be in the *Desert Magazine* office, Palm Desert, California, by October 20, and the winning prints will appear in the December issue. Pictures which arrive too late for one contest are held over for the next month. First prize is \$10; second prize \$5.00. For non-winning pictures accepted for publication \$3.00 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 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.

Address All Entries to Photo Editor

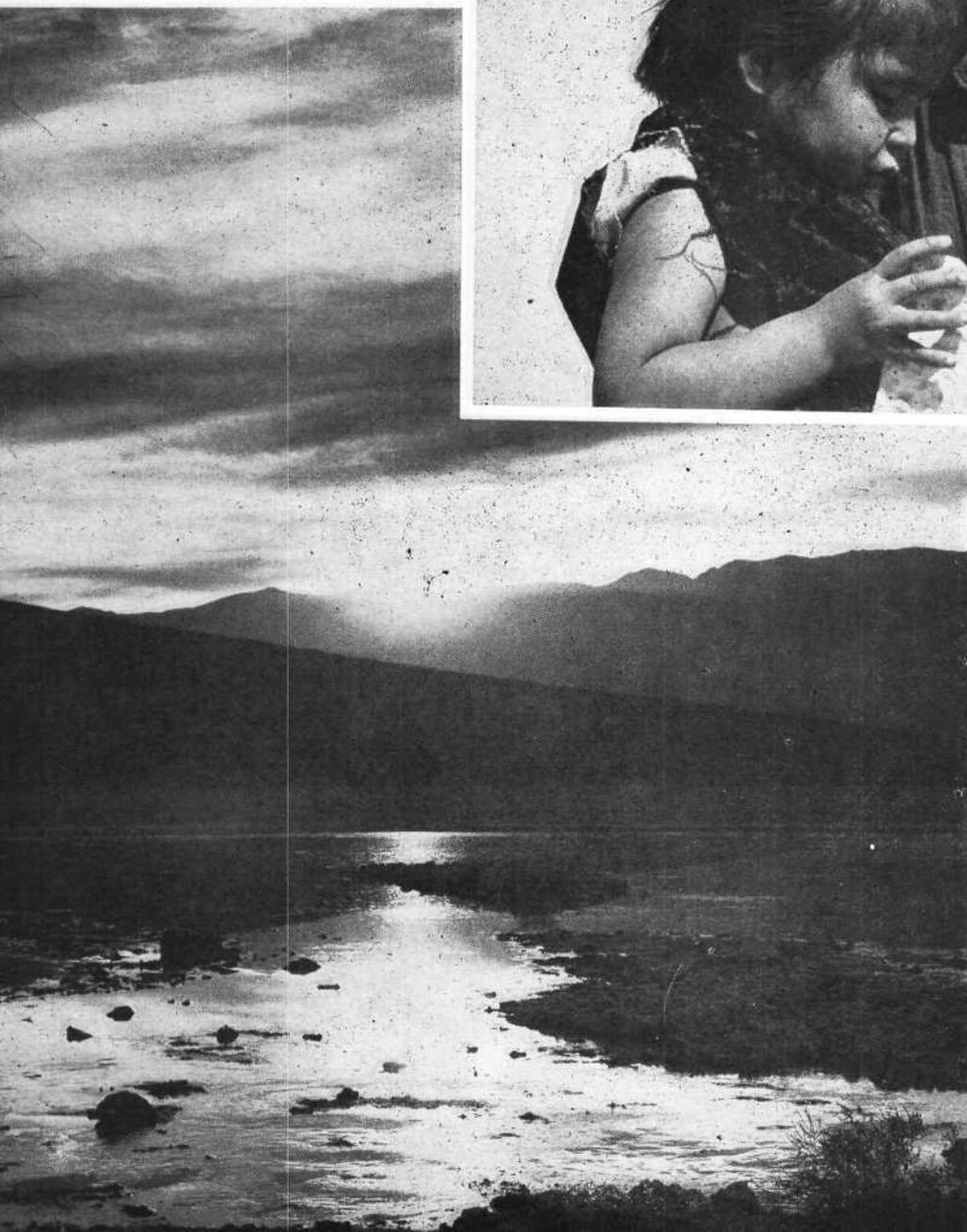
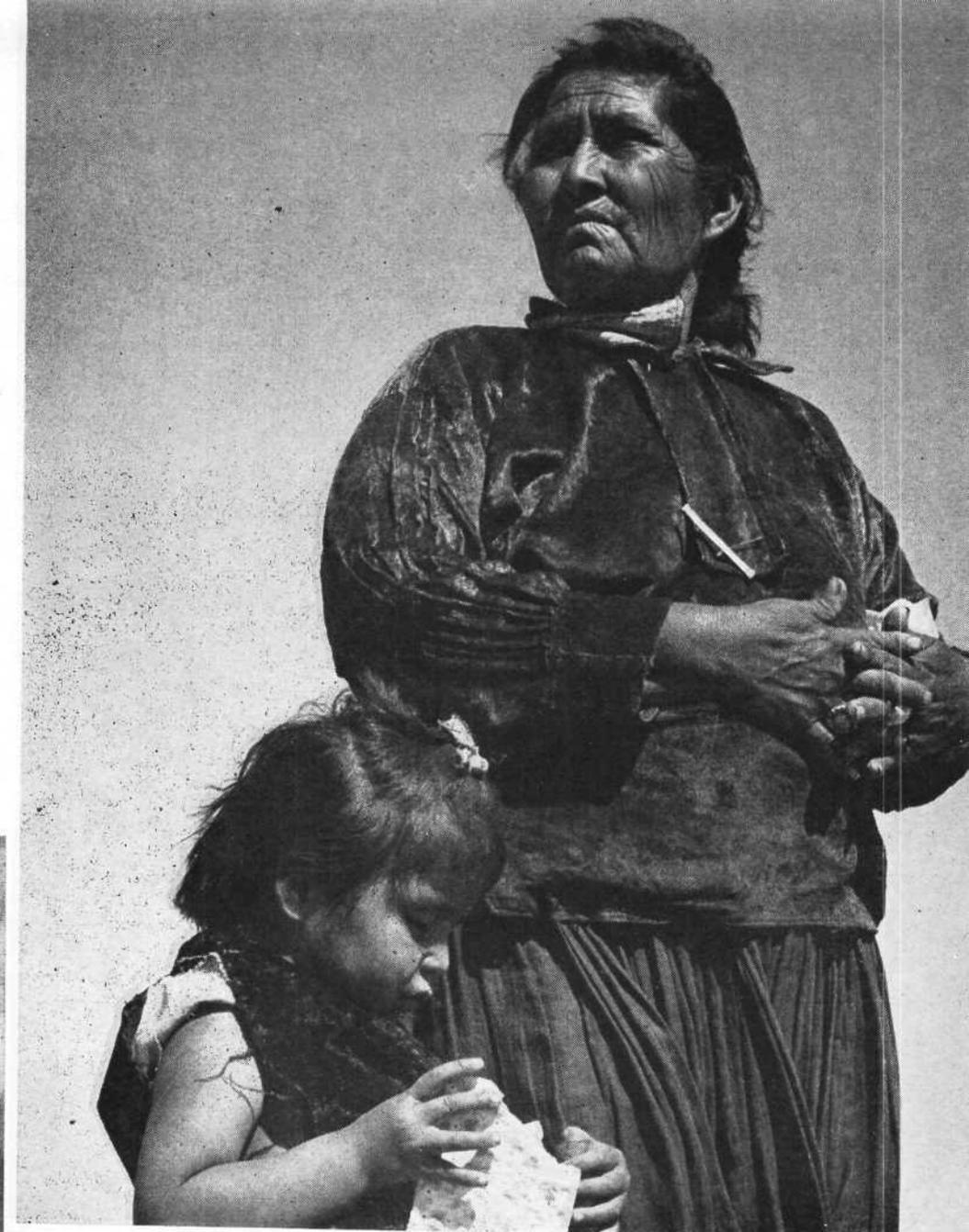
The Desert Magazine

PALM DESERT, CALIFORNIA

PICTURES OF THE MONTH

GRANDMOTHER OF THE PAINTED DESERT

This photograph of a Navajo woman and her granddaughter taken in the Painted Desert of northern Arizona with an Auto Rolleiflex camera, Plus X film at f. 16 in 1/250 second was awarded first place in Desert's Picture-of-the-Month contest in August. The photo was taken by L. R. Fantozzi of Venice, California.



SUNSET OVER BADWATER

Second place in the August contest was awarded to Nicholas N. Kozloff of San Bernardino, California, for this picture taken at Badwater in Death Valley. The photo was taken with a 4x5 Speed Graphic, SXX film with G filter at f. 16, time 1/25 second.



Gem Hill, on the Mojave Desert, as viewed from the first turn-off spur road that crosses the low pass (far left) between Gem Hill and the Rosamond Project.

Gem Hill on the Mojave...

It wasn't until he turned rockhound a few years ago that retired Oilman Allen Davis began to appreciate the gem stone treasures Nature had stored up in his boyhood back yard, the Mojave Desert near Rosamond, California. Now he and his wife, Fern, are making up for lost time. Recently they directed Jay Ransom to one of their favorite hunting grounds, Rosamond's Gem Hill, repository of autunite and agate—banded, geode, gray and blue—and an as yet unidentified mineral, a deep green radioactive cutting-grade stone which the author's mineralogist father calls "plasma agate."

By JAY ELLIS RANSOM

Photos by the Author

Map by Norton Allen

FOR MANY YEARS a popular gem hunting area less than 100 miles from Los Angeles has been known to a few rock clubs and individual collectors as "Gem Hill." Located in the western Mojave Desert approximately eight miles northwest of Rosamond, this tufaceous butte is still one of the finest agate producers in the Mojave.

Gem Hill rises as a low pointed

knob at the eastern end of a long volcanic ridge in the heart of an extensive mineralized region of abandoned gold, silver, and copper mines. The most famous of these is the well-known Tropic Gold Mine, a bullion producer since the early 1900s.

From Rosamond at the junction of the Willow Springs Road and U.S. Highway 6, Ransom Senior and I drove west 3.8 miles over smooth pave-

ment. At the crossing of the Tropic-Mojave Road, plainly marked by sign posts, we turned north. About a mile from the junction we passed the extensive workings of the Tropic Gold Mine. Corrugated steel buildings, housing the ore crushing stamps and what appeared to be a cyanide plant, slanted down the reddish face of a basaltic mountain to a tree-shaded community at its foot. Known now as the Burton Mine, the Tropic shut down in September, 1953, after nearly a half century of continuous operation. Exploration, however, goes on, with the hope that new ore bodies will be discovered.

Continuing northward, around the mine hill, we saw evidence of past mining activity scattered over the raw desert. Allen Davis, the genial rock enthusiast and member of Palm Desert, California's, Shadow Mountain Gem and Mineral Society who was

responsible for our visit to Gem Hill, had recalled that at the time his father was foreman of the Tropico before World War I, many of these abandoned mines were simply stock selling schemes. "There were no laws then to prevent draining Eastern capitalists of as much money as possible, even by salting worthless holes with high-grade," he had told us. "My father, though, would have no truck with such fly-by-nighters!"

At mile 8.1, the road crested out on a low ridge, with Gem Hill rising sharply on our left beyond a low knoll. Fronting the highway, we saw recent excavations in the form of two adits penetrating into a straw-colored formation for a short distance. A large signboard proclaimed in vigorous terms that these surface workings constituted a URANIUM MINE. The general public was cordially invited to "cease and desist" taking away specimens! Here, then, was the Rosamond Project which made news a year or so ago in the Los Angeles newspapers when a flurry of uranium prospecting covered the Mojave Desert region. Actually, the uranium mine stands at the eastern extremity of Gem Hill, connected with the latter by a low, rocky saddle posted with signs warning of blasting. Its geology is interesting, and the information which Government geologists learned at the uranium prospect provides a curious sidelight on some of Gem Hill's most lustrous cabinet specimens.

The uranium workings proved to be too low grade for commercial exploitation. No mining is going on, and visitors can feel free to look around. We stopped, of course, intrigued by the light colored tuffaceous rocks which crop out all around the gem stone area. Underlying the light strata is eroded quartz monzonite and pegmatite of late Mesozoic age. It is probably the pegmatite occurrence that accounts for the variety of gem stones which collectors have gathered in this area. California is particularly noted for its pegmatite gem producing districts, and both Ransom Senior and I were pleased that the Mojave Desert was not without similar promising outcrops.

Including Gem Hill in the Rosamond Project, the area is locally referred to as the Soledad, Rosamond, or Mojave mining district. It comprises a fairly large portion of the desert and was best known in former years for its production of gold and silver. In looking over some of the mine dumps within a few miles of Gem Hill, it was evident to us that these precious metals occurred with base metal sulfides in a series of quartz veins cutting dacite flows and plugs. Of particular



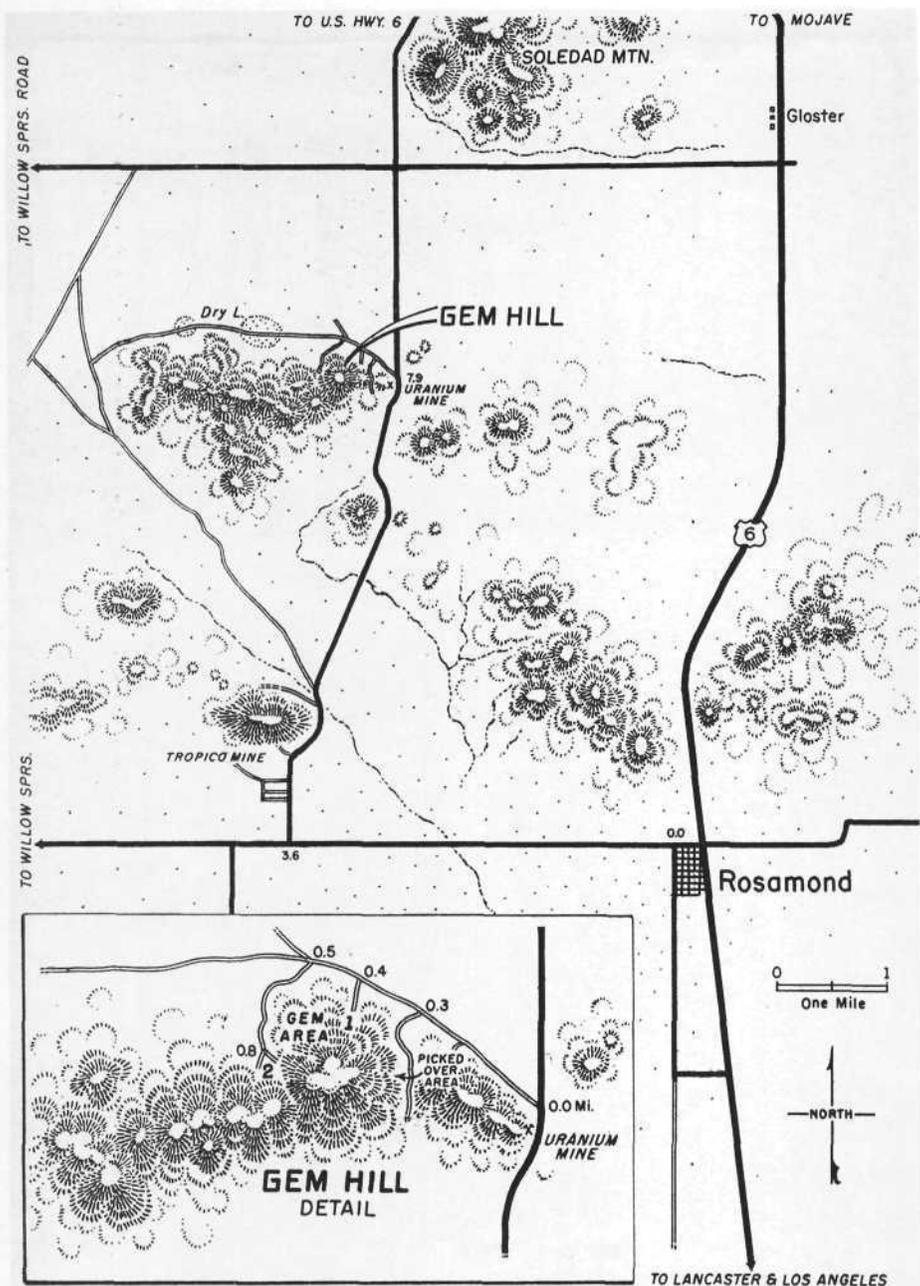
Above—Tropico gold mine between Rosamond and Gem Hill. William H. Davis, Father of Allen Davis, the author's guide, was the foreman responsible for much of the mine's production record.

Below—Uranium adits of the Rosamond Project. Radioactive and gem stone minerals occur in the light colored tuffaceous rock.

interest to the Government geologists who surveyed the Project was the occurrence of secondary uranium minerals as coatings on fractures and as disseminations in the light colored sedimentary rocks adjacent to Gem Hill's pegmatite outcrops.

On the gem stone knob proper, both my father and I picked up some unusually beautiful specimens which

defied our analysis. Of special interest to rock collectors looking over the area is the waxy, reddish-brown to black radioactive mineral which we found on the north slopes of the peak. Neither Ransom Senior nor I could identify this mineral, nor an apparently related deep green waxy stone which for want of another name, my father termed "plasma agate." This is one



of the most beautiful minerals we picked up in the area, and curiously enough it is quite radioactive. Later, in reading over the geological reports of the uranium mine, I was pleased to note that the geologists referred to this gem stone material as an "unknown" mineral! This unidentified rock occurs in the volcanic tuffs along with small quantities of autunite—hydrous uranium and calcium phosphate—and variously colored varieties of agate.

The most obvious uranium ore that we found while looking for agate was the familiar lemon-yellow autunite, a mineral often found in pegmatite. Specimens fluoresce brilliantly under black light, and collectors can find nice pieces by hunting after dark. However, of more than passing interest is the fact that the plasma agate—found in considerable abundance—is more highly

radioactive than can be accounted for by the small amount of autunite present in the district!

Wanting to explore this fascinating gem hunting ground more thoroughly, we zeroed our speedometer again, a hundred yards north of the uranium mine where a good dirt road turns west through typical Mojave Desert country along the flanks of Gem Hill. The high volcanic ridge culminating in the pegmatitic hill stretches due west, with the road following along its base for many more miles than we had time to travel.

Driving 0.4 mile to where a fork branched to the left, we climbed gradually through greasewood and cactus up the northeast flank of the mountain. This road crosses the saddle between the main butte and the uranium knoll. Five hundred feet of easy grade brought us to a slanting, rocky parking area

surrounded by several rock fire-rings where collectors may have camped.

Getting out of the car, we looked around critically. Obviously, a great many rock collectors had been there before us. At least, as far as this particular spot is concerned, it had been worked out. All we found was hammer-hounded trash and worthless chert. We picked up some black agate float, but did not attempt to follow it up. With fingers crossed, we returned to the car and went back to the main dirt road.

Continuing west an additional tenth of a mile we came to a short stub road striking abruptly south toward the center of Gem Hill's north side. At the end of this climbing spur—about 500 feet—we "struck it rich," gemologically speaking. I backed the car into the rough to turn around, and we got out to find ourselves in the midst of a rather large area of some really good gem stone hunting. Many rockhounds had preceded us, but nevertheless, we picked up a dozen pounds of assorted agates, hardly moving out of our tracks. The agates came in various types—banded, geode, gray and blue. Some were intricately striped with carnelian.

It was here that we found an abundance of the deep-green radioactive plasma agate, some with color verging on black. Because of its texture and weight, this unidentified mineral makes good cutting material. Scattered among the stunted creosote bushes we also found a lot of light green chert.

Although there was good hunting over several acres, here on the north slopes of Gem Hill, we filled our specimen bags from an area about 20 feet square. Ransom Senior liked the green plasma agate best, its color darker than jade. I found its related red, green and brown mixed varieties as attractive. All of it holds promise of taking a high polish.

Pausing to look over the field generally, I was interested in the growth of sparse coarse grass that allows ranchers to run a few head of cattle on the desert floor. Most of the obvious vegetation consisted of creosote bushes and squaw tea. Legend has it that early day prospectors used the pale dry twigs of this bush, steeped in hot water, as a cure-all.

The vista afforded by the rise of our road showed a long narrow arm of the Mojave Desert extending east and west for 20 miles or more. Rising sharp and jagged to an impressive height in the northwest stood the Tehachapi Mountains, a center of recent Southern California earthquakes, gashed by ragged gorges and buttressed by sheer granite cliffs. Across the in-

tervening flats, twisted Joshua trees raised their gaunt spiny arms at infrequent intervals. Around us, we identified needle-sharp agave and an occasional nolina, bare stalks six to eight feet tall, like withered staves thrust into the raw earth. Indian women once wove the stiff fibers of the dagger-sharp leaves into utility baskets.

This area is anything but a vast wasteland its first appearance might present. The observing traveler finds many interesting things to occupy his attention, even though he may not be especially trained in botany or zoology. Creosote is widespread and often dominates the landscape.

Between the larger plants, after winter rains, the desert floor in many places is literally carpeted with small annual plants that bear brilliantly colored flowers. The seeds are dormant until moisture falls.

Also there is an abundance of animals. Rodents of many kinds are present, though seldom seen. Kangaroo rat holes can be seen everywhere. Cottontail and jack rabbits are the most common mammals seen and coyotes roam the area, usually a safe distance from humans. Every bush seems to be the hiding place of a lizard.

This, then, was collecting ground No. 1. Deciding to see how far the mineralized area extended, we returned to the main dirt road and headed into the declining sun, commenting on the brilliant gold and mauve cloudlets riding the crest of the Tehachapis. Although the road is desert sand, constant local travel has kept the wheel tracks well packed and collectors need not fear getting bogged down.

The next turn-off was about a half mile from the paved highway, and again a branch road forked toward the volcanic ridge, winding over the flats. Three-tenths of a mile in brought us to another fork in the center of a frequently used campground. Sheltered in a bight of Gem Hill's western flank, the camping area was comfortable, though waterless. The numbers of campers who have poked around in the vicinity indicated to us that this spot must be gem hunting area No. 2, and indeed specimens are found all up and down the west side of the butte.

Getting out of the car again, we didn't have to look far to find our first gem stone—a huge, jasper-red, partly buried agate boulder. I noted that a great deal of elbow grease had already been expended trying to unearth it, obviously in vain. We estimated its weight at 2000 pounds.

Finally, when we had filled new sample bags, we turned reluctantly back toward the highway. Far in the

west, sunlight glinted like burnished copper where a distant high tension line angled between widely spaced ranches and abandoned mines. Closer at hand, an old mine beckoned to us from across the flats.

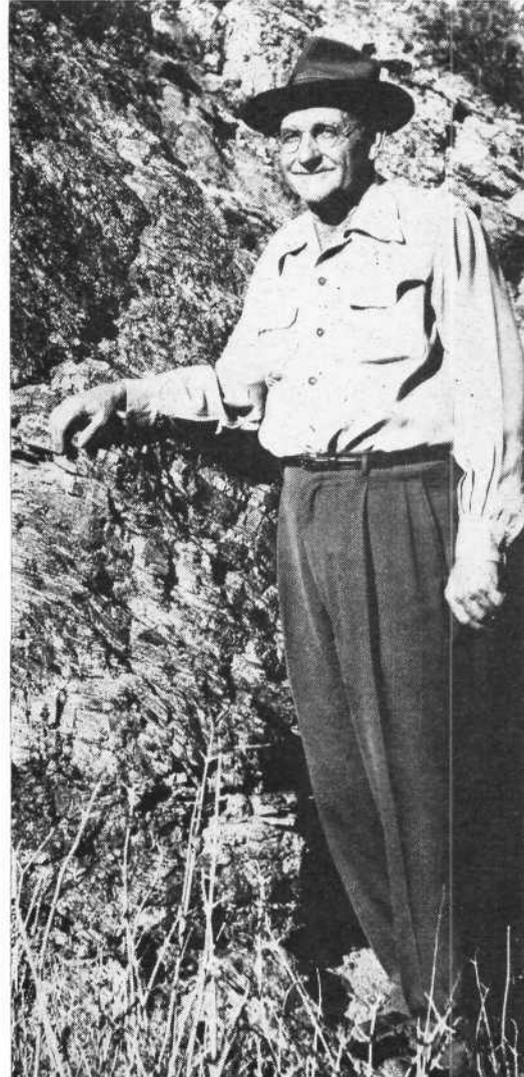
This desolate yet hauntingly beautiful western part of the Mojave Desert appealed to me. Perhaps it was the blue, lazy December day. Or it might have been because we had come here at the behest of one of its own sons—Allen Davis.

Allen Davis is, at 62, a genial, retired business man. Born in Bakersfield, California, he spent most of his early boyhood in the great gold camp of Randsburg. During his early school years, he lived at Willow Springs and in Rosamond while his miner father worked as foreman of the Tropic Mine. This mine was opened only a few years before World War I, and the elder Davis was responsible for most of the development work that made it a great producer for its owner, V. V. Cochrane.

In those hectic years nobody gave a thought to gem stones. Agates, crystals, geodes, nodules and all such desert oddments were simply kicked out of the way as worthless rock.

Between school sessions in Willow Springs, the boy Allen used to hike back of town to steep volcanic bluffs. There, in early times, Mojave Indians left thousands of arrowheads in the sand at the base of the cliffs, crudely chipped pieces of the chert commonly found over so much of the surrounding desert. Quite possibly the Willow Springs bluffs provided a natural supply house for a particularly desirable chert easily chipped into arrow points. At any rate, Allen accumulated a good collection of prehistoric spear and arrow tips. No doubt, later comers still can find arrowheads in the same places.

Because Allen's father was a good example of how not to make money in gold mining, the boy elected not to try his hand seriously at his father's profession. He had an astute appreciation of certain side-line practices, however. Although he couldn't interest himself in mining, Allen early recognized gold amalgam as a source of wealth. The old mines of the desert region were characterized by rusted, abandoned machinery, broken down stamps and worn-out amalgam plates over which quicksilver had flowed to dissolve metallic gold from crushed ore. Somehow, when the last cleanup was made before shutting down the mines forever, the workmen forgot to scrape off the amalgam adhering to the plates. Whenever Allen's dad took over a lease on an abandoned claim, his son got "first dibs" on the rusted



Allen Davis of Palm Desert, California, spent part of his boyhood in the Rosamond area. Recently turned rockhound, it was he who directed the author to Rosamond's Gem Hill.

plates, cracking off the dirt-encrusted amalgam and selling it. "I made as much as \$500 out of each of Dad's claims," he explained to me, smiling at the memory, "even with gold selling at \$21 an ounce and the buyers cheating me out of my eye teeth in the bargain."

Allen Davis eventually started his own business following the discovery of oil in the great fields of Taft and McKittrick in Kern County. For outdoor sports he became a trout fisherman and until his retirement last year spent many hours seeking the finned denizens of the Sierra. Now his interests have turned to collecting beautiful rocks and cutting and polish them into glowing gems.

"I didn't know what delightful fun rock collecting could be," he said, "you never know what might be on the other side of the mountain."

It took Allen Davis 50 years to make the acquaintance of Gem Hill and its fascinating gem stones right in his own back yard, covered with rocks he had always considered worthless desert debris. Today, Allen and his wife Fern are doing a lot of making up for lost time.

LIFE ON THE DESERT

It was a grand adventure for the Indian boys on the basketball team—but not so much fun for the tenderfoot teacher who went along as chaperon.

By DOROTHY DOUGLAS AYLWARD

I HADN'T BEEN long at Toadlena, New Mexico, before I learned that teachers at the Navajo school there often doubled as chaperons.

The first snow of middle autumn lay heavy and wet on the ground, and storm clouds still hovered over the desert below. It was Saturday morning, and I was walking from the employes' club to the classroom at the main school building, expecting to plan lessons for the coming week, when Mr. Wahlenberg, the principal, hailed me. "Miss Douglas," he called, "how would you like to take the boys' basketball team to play in the tournament today at Farmington?"

I gazed doubtfully across the desert. The upper outline of Bennett's Peak could barely be seen hovering like a ghost in the thick atmosphere. Table Mesa and the end of Beautiful Mountain were entirely obscured. It was no fair day for a journey, even for a seasoned desert traveler. And I was a tenderfoot. Farmington was 75 miles away—not far in that land of magnificent distances, but quite a distance to my Middle Western mind.

The principal seemed to read my thoughts. "You don't have to go if you don't want to," he said. "But Mr. Cook can't be spared to make the trip and no other driver is available."

I remembered that I was a new employe, that I was on probation, and that above everything I wanted to make good. "I'll go," I answered.

"The truck will be in front of the Boys' Building in half an hour. Be sure and dress warmly," he cautioned me.

I returned to my room and changed to my warmest clothing, then went to the Boys' Building where the pick-up truck was waiting. Mr. Cook approached with the basketball team stalking behind him. When I agreed to become skipper of the expedition. I had not greatly considered my crew. Now I looked at them in dismay—seven tall youths swathed in army blankets up to the chin, muttering in Navajo among themselves.

I said to Mr. Cook: "I do hope there is a spare tire, and all the tools are in, and that these boys can help if we have to change a tire." I hoped that I didn't sound as weak and uncertain as I felt. I had visions of my charges vanishing in four directions if that truck ever stopped.

"Everything's in good shape. I saw

to it myself," reassured Mr. Cook. Turning to the boys he said: "climb in behind. Henry Ford, ride in front with Miss Douglas." Turning again to me he explained: "Henry's father has a truck. Henry understands a little bit about driving and can maybe help you out some if necessary. Well, so long, and good luck."

He turned and reentered the building. The responsibility was now mine. I backed the truck out, turned, and we started down the slippery road to Nava. I kept the car in low gear most of the way, proceeding slowly, and we arrived at the graveled highway without mishap. I drew a big sigh of relief, for I had dreaded the first lap of the journey with its dips, washes, and sand. I stole a glance to the rear and saw that the boys were still present. Henry Ford sat impassive beside me. He was a remarkably handsome boy of perhaps eighteen, with clear, comparatively light complexion, ruddy cheeks and a pleasant expression. He was in the first grade at school—not by reason of mental deficiency but because his parents had not seen fit to bring him to school at an earlier date.

We sped along Highway 666 mile after mile. It was necessary to maintain some speed in order to avoid jarring the daylight out of my passengers on the highway's corrugated surface. Soon Bennett's Peak and Ford's Peak lay behind us. We crossed Nostee Wash bordered on either side with bare cottonwoods. Table Mesa loomed up as a dark cloud closed in rapidly. At Castle Rock, notorious among the Navajo as a dwelling place of many devils, the storm struck. In a moment the windshield was plastered with heavy, wet, wind-driven snow, and visibility was zero.

Henry Ford motioned vaguely with his hands. I stopped the truck, reached around in front, rubbed off the accumulated snow and proceeded all of ten feet before the windshield was covered as before. I stopped again. "Henry," I said, "somebody must keep the windshield clear while I drive. (The ancient truck boasted no windshield wiper.) Tell two of the boys to stand on the runningboard on each side and wipe the snow away. Do you understand?"

Whether thanks were due to Henry's first-grade English or to his common sense, I could never know, but he nodded and crawled out of the truck. A short consultation in Navajo followed. In a moment Henry resumed

his seat beside me, and the blanketed forms of Calvin and Luke took their places on either side, facing the storm while their brown hands busily brushed aside the snow. We inched along. At times the driving snow was so thick I could barely see a yard in front of the radiator cap. It was a miracle that we stayed on the road. At length the storm diminished, then finally ceased. I stopped while Calvin and Luke dried their wet hands and returned to their seats in the back. We were now near the Red Rock trail and approaching Shiprock.

I glanced at my watch. The storm had delayed us so much that it was now well past the noon hour. We were to have stopped at Shiprock for lunch, but now we dared not stop if we were to reach Farmington in time for the tournament. Beyond the reservation, on the other side of Shiprock, we ran into mud and road construction, but the way was mostly downhill. We pulled on. I tried not to think how difficult the return would be.

We reached the Farmington gymnasium at a quarter of two, with the games scheduled to start at two o'clock. I turned the boys over to the Farmington coach and found a seat in the balcony to watch the play. Even the Shiprock team had not come on account of the storm, the coach said. The Toadlena boys did not win, but they played a good game in spite of the hunger, cold, and exposure they had undergone. Being Navajo, they probably counted what they had endured as a very minor inconvenience.

After the game was over and the boys were back in the truck, my responsibility again began to weigh me down. At length I hit upon a solution. I drove slowly down the long hill from the high school to the main street, and stopped before a restaurant. "Come boys," I said, "hot dogs and coffee for you." They followed me grinning into the restaurant and I motioned for them to sit in a large booth. The proprietor looked somewhat aghast at his guests, but after I explained to him that they were a hungry ball team he readily complied with my order. Soon the boys were busy with sandwiches, pie and coffee, and I calculated these would keep them occupied and in place for some time.

I paid the bill and slipped out, going quickly to a garage a few doors away. I remembered how we went through the mud back in Missouri and hoped

the same method would work in New Mexico. I ordered a pair of chains for the truck, to be put on immediately, charging them to the Indian agency. I was pleased with having concluded that important business, and judging that the boys would soon be through eating I went back to the restaurant. Soon the boys came out, their gaze wandering up and down the street.

"We must go back now," I said, and the lads climbed willingly enough back to their places and settled down among their blankets. Henry Ford took his seat beside me. I started the truck and we were on our way. What a relief to have been able to hold that group of wild young Navajos together and be on the homeward journey with the number intact!

The chains helped and we proceeded satisfactorily, although slowly. Finally the last long hogback, the steepest, muddiest hill we had encountered, remained between us and gravel road on the reservation. I took as much of a run for it as possible but did not gather sufficient momentum to carry us through the clinging mud that dragged at the wheels. Power and speed rapidly decreased as we pulled the incline. The car almost stopped. Henry Ford motioned mutely toward the gearshift. I quickly put the car into low gear and it slowly wallowed on through the mud, gaining power and speed. Then we were at the top. I realized with gladness that we were over the worst part of our road, shifted gears and sped joyously along the reservation highway toward home.

We had gone a mile or so when I felt a pull at my sleeve. I knew Henry was not being familiar for, as a rule, the Navajo consider *Bellicana* women unattractive. I pretended not to notice.

There was another more insistent pull on my sleeve. Puzzled I glanced at Henry. Concern was on his smooth brown face. He pointed to the back and opened his lips. The words came one by one, from the depths of his careful, first-grade English, to make me understand: "Where—are—the—boys? Where—are—the—boys?"

This was it. The thing I had been dreading all through the trip. The rear of the truck was empty—nary boy nor blanket. Even now they were scattered over the desert in all directions, I feared, each bound for his family hogan.

Heartsick, I turned the car around and started back toward Farmington. I would at least see if any stragglers were still in sight. I had gloomy visions of my quick return to Missouri in disgrace when this became known. The car topped a small rise. Would

wonders never cease? Running up the road toward us in a compact group, blankets flying in the wind, were all the boys. They were as glad to see the truck coming back as I was to set eyes again on them.

"We think you run off and leave us," Luke said accusingly. It appeared that on the last hard hill, when pulling through the mud became most difficult, the boys had slipped off the car to push, and great was their consternation to see the truck go on without them. They were faithfully coming back to school

in the only way that remained. I did not tell what I had been thinking.

We stopped at Shiprock for the boys to eat supper, then proceeded to Toadlena. After darkness had fallen, the roads had frozen, and the stars shone in cold brilliance. Henry sat silent beside me, and the boys whiled away the miles chanting Navajo songs. We reached home without further misadventure.

I had worried needlessly, and it served me right that the boys had regarded me as the runaway.

THE *Desert* MAGAZINE CLOSE-UPS

Jay Ellis Ransom, author of this month's *Desert Magazine* field trip to Rosamond, California, was recently appointed staff journalist to the fourth University of Michigan scientific research expedition to the Aleutian Islands. Ransom has a speaking acquaintance with Aleut-Eskimo and will also serve the party as linguist.

"We will be working westward from Kodiak doing archeological excavations in various islands, and part of the expedition will go into the Arctic around Kotzebue and Point Barrow to do dental work for the Eskimos," he explains. After the expedition completes its work, Ransom will accompany the group's ethnobotanist on a side trip to the Alaskan interior.

Ransom also has been appointed to the Board of Directors of the newly incorporated Institute for Regional Exploration which is carrying on a broad program of anthropological,

archeological and linguistic studies, with headquarters at the University of Michigan, Ann Arbor, and Unalaska, Alaska. * * *

Dorothy Douglas Aylward, this month's Life-on-the-Desert author, entered the Indian Service in 1930, a bachelor of arts degree from the University of Missouri under her arm and several terms of rural teaching experience to her credit. Her first assignment was to Toadlena, New Mexico, on the Navajo reservation. She relates one of the experiences of her seven-year stay there in her story.

In the fall of 1937, Mrs. Aylward was transferred to the Indian school at Pipestone, Minnesota. She left the service in 1941, and was married. She, her husband Paul and their 10-year-old son live on her grandfather's farm in northeastern Missouri. * * *

Margaret Gerke, associate editor of *Desert* the past two years, resigned her position late in August to devote her time to free lance writing and art work. She is now making her home in San Francisco. Among her many fine achievements during her association with the *Desert Magazine* staff was the art work and the format design for John D. Mitchell's *Lost Mines and Buried Treasures*, which has been in popular demand since it was published a year ago. * * *

Catherine Venn Peterson, author of "Five Acres of Desert Freedom," gained her first-hand knowledge of jackrabbit homesteading the hard, and satisfying way. Six years ago she filed on a 5-acre tract in Section 36 at the base of the Santa Rosa Mountains in Riverside County, and later wrote about her experiences in a series of articles for *Desert Magazine*.

Catherine left a well-paying job and her "squirrel cage" in Los Angeles for her desert homestead. She soon became intimately acquainted with the desert, its animals and plants, freedom and quiet. Though she long ago returned to her job, she still spends many happy days on the desert.

DESERT QUIZ ANSWERS

Questions are on page 8

- 1—Saguaro cactus.
- 2—Yucca roots.
- 3—A tribe of Indians.
- 4—John Wetherill.
- 5—Historical inscriptions.
- 6—Utah.
- 7—Nogales.
- 8—Limestone.
- 9—Three years.
- 10—Oren Arnold is a writer.
- 11—Death Valley.
- 12—Copper mine.
- 13—The escapades of Billy the Kid.
- 14—Mullet.
- 15—Rocks.
- 16—Cocopahs.
- 17—Phoenix.
- 18—Willow.
- 19—Utah.
- 20—Little Colorado River.



Photograph of Jerome in June, 1954.

A DESERT NIGHT

By JACK POSS

Antelope Valley, California

It happened on a starlit night, beside a Yucca tree.

When all the joy in this big world, enthralled the heart of me.

Near, cactus bloomed with incense rare, and tender was the night.

For, I was caught in mellow mist, a web of sheer delight.

Deep stillness, only broken by the cricket's click-clack sound;

Made everything so wonderful my heart began to pound.

Yes, I was truly happy in this most heavenly place.

And I was held by tenderness; within the night's embrace.

A friendly moon reached down to me, I felt a kind of bliss.

And all the worries of this world seemed to have gone amiss.

Then, as I turned to journey home, I knew that all was right;

For I had just been privileged to embrace God's desert night.

VEILED BEAUTY

By JUNE WILDMAN LELAND

Riverside, California

The desert hides a lovely secret face

All veiled in gray and dun for passers by.

Within my bus my seatmate wonders "Why

Should any soul prefer this dreary place?"

The chaparral has mauve and coral tints;

The bold mesquite may shade a primrose flower.

Above the plain the yucca's candles tower;

Roadrunners in loose sand have left their prints.

The covers of a book are not a gauge

Of lore within: the desert, like a book

Waits to be read. No traveler's quick look

Beholds the beauty of her hidden page.

FOREFATHERS

By ELSIE MCKINNON STRACHAN

Santa Ana, California

Because they trekked uncharted trails

With faith for map and guide,

Because their wagons forded depths,

Alien and untried.

Because they conquered rugged heights,

Knew days of thirst and dust—

Yet never failed to offer thanks

Nor faltered in their trust.

They came at last to this wide west,

To till the frontier loam,

To plant and love this sun-rich land,

That I might call it home.

Ghost Town

By CONSTANCE WALKER

Los Angeles, California

Silence claims the mining town,

Empty street and shuttered home,

Rusting car and splintered beam

Mark the fabulous Jerome.

Once the Mingus mountainside

Was a hive of copper ore,

Where the hardy came to swarm

Through an open tunnel door.

Yet the idle yawning shaft,

Past the pit of gleaming shale,

Whispers of a hidden lode

For a future miner's pail.

THE PIED PIPERESS

By GRACE PARSONS HARMON

Desert Hot Springs, California

Desert Spring is a light-hearted damsel,

Not a care 'neath her wind-blown crown!

Here, she snatches a clowd from the hill top

To style her a dancing gown;

There, she ruffles a bloom from a cactus

To star on a sotol frond,

Then she dances away to a meadowlark's

note

Making magic at touch of her wand!

A light-hearted siren, spreading beauty and

laughter,

She calls— and the flowers come rollicking

after!

SPRING, THE GREAT ARTIST

By GEORGIA JORDAN

San Diego, California

With brush and palette in her hand,

She touched the barren desert land

And rainbows blossomed on the sand.

The Lesser

By TANYA SOUTH

Life is so full of lesser lights.

Of lesser gods, and lesser rights,

And lesser problems all the way,

And lesser happenings each day,

And lesser souls upon the Path,

Struggling, with all too little Faith.

Oh, lesser Tide, you are the great

Full force of Fate!

DESERT ENCHANTMENT

By EVA L. ROBINSON

Los Angeles, California

The Desert calls—
Its calm, mysterious power
Bids me to walk where canyon wind
And silent mountains tower.

Far from the stress of cities,
With changes moving fast,
I find a peace and quiet—
A kinship with the past.

I glory in the solitude—
The vastness, changing hues
Of crimson, gold and silver,
With deeper shades of blues.

The eons of creation
Before the time of man,
Left monuments and records
For those to read, who can.

A bit of shard or artifact
Stirs my desire to know
The histories of eras
Long ago—so long ago.

The mystic Desert calls.
If, like a waif I roam
Now here, now there, the Desert voices
Call me—call me—Home.

DESERT WIND

By AMY VIAU

Santa Ana, California

The strong young wind is very gay

As it blows over the desert way

This sunny day.

It stirs each bush from root to crest

And shakes the cacti with great zest

On its windy quest.

And from the ground it lifts such things

As bits of sand and small dust rings

And gives them wings.

It rushes, swerves and flows along

With sounds of cadenced desert song,

For its wings are strong.

But suddenly as tired wings close,

The wind will sink into repose

I would suppose.

For at last the Desert wields its power

To allay whatever would devour

Its silent hour.

DESERT CODE

By SARAH PHILLIPS SALINGER

Santa Barbara, California

D stands for Drouth, companion to Death
when earth cries for water and finds no
redress.

E stands for Earth, of which Desert's a part
—a problem for Nature; a prayer for
the heart.

S is for Silence and Sunshine and Sand—
a trinity worthy of dry desert land.

E 's for Eternity's countless light years of
life with its struggle; of hope with its
tears.

R 's for Redemption that follows spring
showers fulfilling a promise with desert-
born flowers.

T stands for Time without reckoning or
end—time everlasting! The Desert's best
friend.

This is the code of desert's strange
story

Be it muted and still, or vibrant with
glory.

Burro Man of Corn Springs...

To the old-time desert prospector, the burro was something more than a mere beast of burden. It was a friend and companion — and you will better understand the importance of this friendship when you have read Edmund Jaeger's story of Gus Lederer and Frank Coffey — two of the best known prospectors on the Colorado Desert during the early part of the present century.

By EDMUND C. JAEGER, D.Sc.
Curator of Plants
Riverside Municipal Museum
Sketches by the Author
Map by Norton Allen

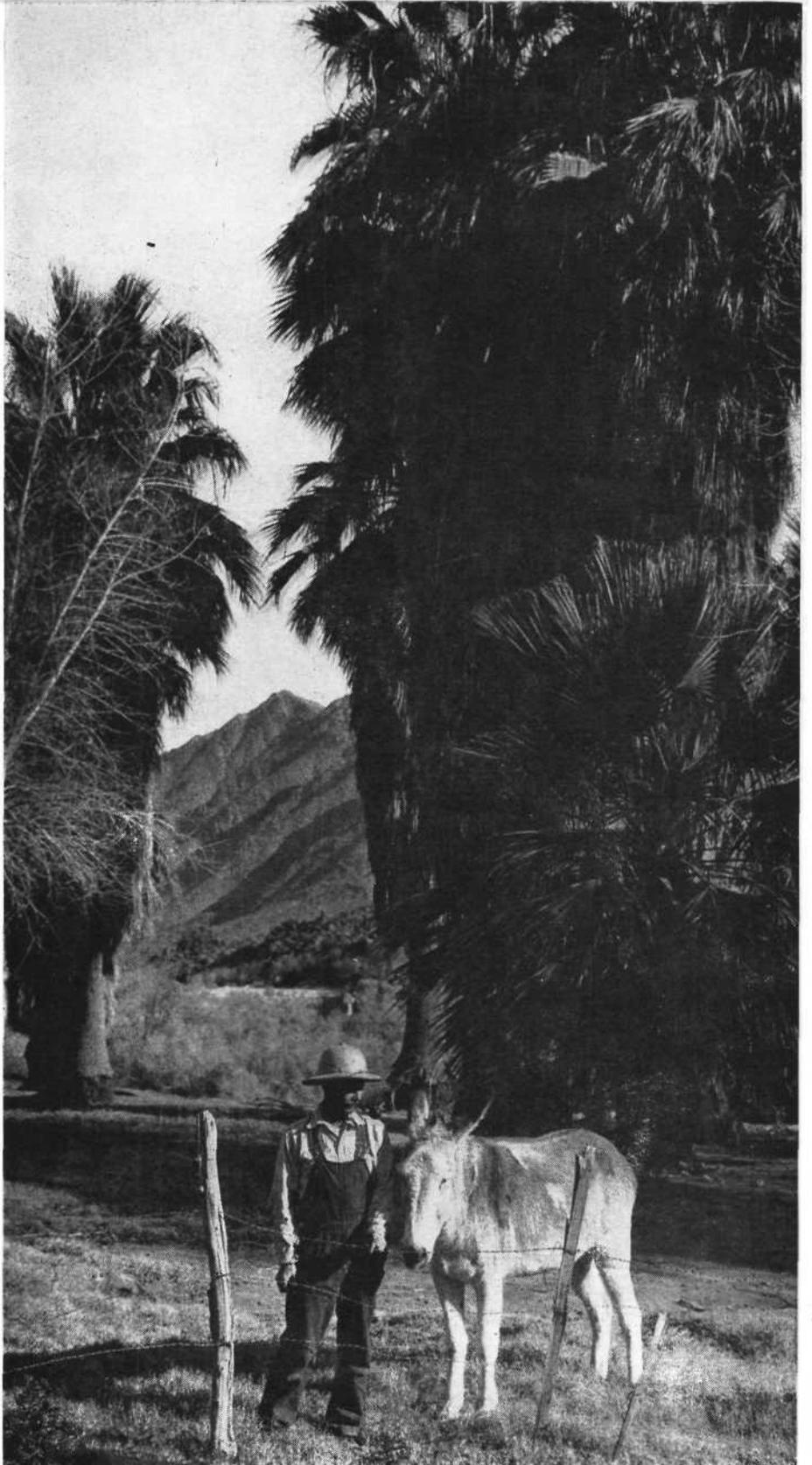
IN THE SPRING of 1919, a young world traveler, Bob Doolittle and I decided to make the "Grand Tour" of the Colorado Desert on foot, using two burros to carry our beds and provisions.

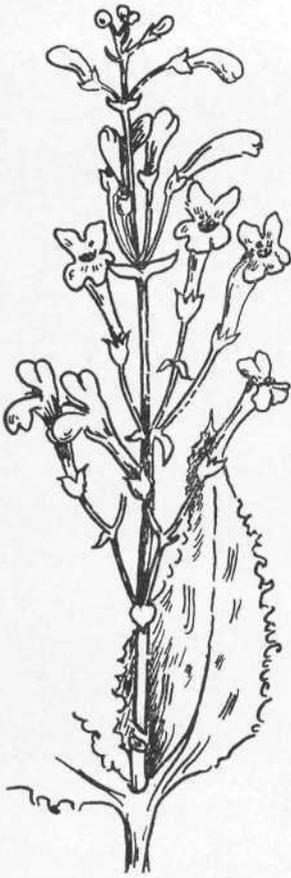
Though one burro had a colt only two weeks old, our journey was to take us across the rugged desert face of the Santa Rosa Mountains, on a descent to the Salton Sea and then eastward along the old stage trail to the Colorado River. We would return by Granite Well in the Chuckawalla Mountains and visit Keys' Ranch in the Little San Bernardino Mountains. Our vagabond journey was to take months.

We left Palm Springs in early March. When we reached Mecca we camped in a thicket of screw-bean trees near the old school house so our burros could feast on the newly ripened beans. Here, by merest chance, we came upon the famous prospector - story - teller, Frank Coffey (*Desert Magazine*, March, 1951) who insisted that we "put up" with him for a day or two at his renowned "Milk Spring" at Dos Palmas. From there he said he would direct us up Salt Creek to see Coffey's Needle, a remarkable narrow spire of clay and sandstone 60 feet high.

When we reached Coffey's place next day we found him in the midst of big preparations for his annual jour-

Gus Lederer and one of his good friends at his little desert oasis, Corn Springs. When Edmund C. Jaeger and Bob Doolittle visited Old Gus in 1919, he had a "family" of 18 burros. Photo by Loyd Cooper.





Two rare plants Edmund C. Jaeger, curator of plants at the Riverside Municipal Museum, collected on the "Grand Tour." Left: Mojave Beard-tongue (*Penstemon pseudospectabilis*), and right: Orocopia Sage (*Salvia Greati*).

ney to visit Gus Lederer, "Mayor of Corn Springs," Coffey called him. Corn Springs was in the Chuckawalla Mountains—two days' burro journey away, according to Coffey's calculation. It had long been a custom for the Mayor of Dos Palmas, as Coffey labeled himself, to honor the Mayor of Corn Springs with a yearly visit.

Later Gus Lederer and his donkeys—there were 18 of them—would spend a week or more with Frank Coffey and his five burros. For the two desert men it was always a great time of swapping lies, telling tall tales and mapping strategy for prospecting trips to the nearby desert hills and arroyos.

"You bet," said Coffey, "those were bully good occasions, not only for ourselves, but for all our burros, too. The burros had a good visit just as we did. Why those jacks and jennies almost wept when it was time to part company and go home."

Coffey's recital of the beauties of Corn Springs and the hospitality that would surely await us if we called on his friend, Lederer, moved us to change our itinerary. A wise decision it was.

Next day, after Coffey regaled us with descriptive stories half the night, we packed our burros and started up Salt Creek Wash, the baby burro tag-

ging along. This was a botanically important locality I had long wished to visit. Here on an alluvial fan a few years earlier my friend, Dr. Harvey H. Hall, University of California botanist, and his companion, Louis Greata, had discovered one of the world's rarest shrubby sages.

From the description Dr. Hall had given me I thought I knew the plant's appearance. But when I finally saw it I was both delighted and surprised. We found it in full flowering, and a pretty sight it was, blue tipped flowers in plumed panicles against a dome-like background of holly-like silver-green leaves.

There were probably not more than 200 or 300 plants. Realizing their isolation in this dry wild habitat and how near extinction they were, I could understand Dr. Hall's rejoicing over his discovery. To honor his companion on that journey, the shrub was given the scientific name of *Salvia Greati*. I took a few fresh sprigs of the rare sage and put them in my botanical press, determined to send them to the directors of the leading herbarium in Europe.

That first night out we stopped near Canyon Springs in Red Canyon, so named because of the red clays and

sands in its bed. Here too we saw Coffey's famous needle. It was an inspiring sight and I am sorry it is no longer in existence. It tumbled into a jumbled heap during an earthquake in the early 1920s. We found the water in the spring so salty and bitter even our burros wouldn't drink much of it. We pushed on early the next day, hoping to find water at the old Red Cloud Mine. It was only a deep dry hole. To find something moist for our poor beasts I scouted around until I found some barrel cacti. From these I stripped the armature of heavy hooked spines with my hatchet, exposing the water-filled pulp. The animals devoured them with relish.

Next morning we spent some time inspecting the remaining mine buildings. And, sure enough, we found the stone foundation Frank Coffey built for a smelter that never operated.

"They had me build it," said Coffey, "but I don't know yet what for. Not unless it was to smelt stockholders in." The masonry was so well constructed it can still be seen.

Fortunately, we found water before noon that day at Aztec Well. After filling up we made our way down a rocky canyon to Corn Springs. The late morning air was balmy with gentle breezes. Corn Springs was a small oasis. Sun-drenched palms, bright green mesquite and other trees nestled around the spring and nearby was Gus Lederer's weather-stained cabin. It was a peaceful and refreshing sight to weary travelers. As Coffey predicted, Lederer greeted us warmly. It particularly pleased him that we were "burro men, able to go places on your own hind legs in the good company of burros, and not in an automobile."

I started to untie the diamond hitch holding the pack on my burro. "Not yet," Lederer said abruptly, "mister, you wait until I show you where you stay. We'll put your things where they'll be safe. In about an hour all my 18 burros will come in for their afternoon drink and then you'll see why I want you to put your packs where they can't get at 'em. Those animals of mine are such an inquisitive bunch they'd be in your food boxes 'fore you knew it, eatin' everything you have."

We were led to a sun-weathered two room board-and-batten shack.

"That's your hotel while you're here. And be sure to write your name on the inside door. That's the only guest register we've got. And won't I be proud to have the name of a botanist on it, you bet. Put your name way up on the top where everybody can see it."

"But what's this I smell," I asked as I pushed my way through the door.

"Oh, that smell isn't going to hurt you. It's mild now, not near what it used to be. To tell you the open truth it's only last week that a little spotted skunk, you know the kind the boys call a 'phobey cat,' was shot in the kitchen, there on the stove, right off the top of the bean kettle!

"A greenhorn of a young prospector was stayin' here. First night he yelled 'Come out here quick, Gus.' He spoke in a way that made me know he was excited. When I came running, he says to me, hollerin' out loud, 'What kind of cats you got here, playin' on top of my bean kettle?' In the moonlight streaming through the window I saw him sitting up there on the side of his bed with shot gun in hand.

"I said right quick, 'Johnny don't you shoot my pet skunk,' but before I could further protest he fired away and the little fellow fell over on the cold stove, dead as a dollar."

"You ought to feel ashamed of yourself," I shouted, "That little skunk wasn't hurtin' nobody. Skunks are always a man's good friend."

Then Gus turned to me, slapped me on the shoulder and said, "But didn't my little animal friend leave something good and strong behind to let folks know he'd been here. I just guess Johnny Jones never'll try shootin' skunks in my bunk house again. Why the odor was so strong he had to move out."

This was the building in which we were supposed to eat and sleep while at Corn Springs. My anxiety was relieved when our host said we could



Frank Coffey's masonry work for a smelter at the old Red Cloud Mine was built to last, but was never used. Remains of the building can still be seen.

cook and sleep outside.

"But be sure," he said, "to keep your packs inside away from the burros."

Having disposed of our things, Bob and I walked to the palm-screened spring to take a bath. As we were dressing Gus came from his house and called out excitedly, "Here they come, all of my burros, and you'd better put that jennie and her baby inside the fence quick."

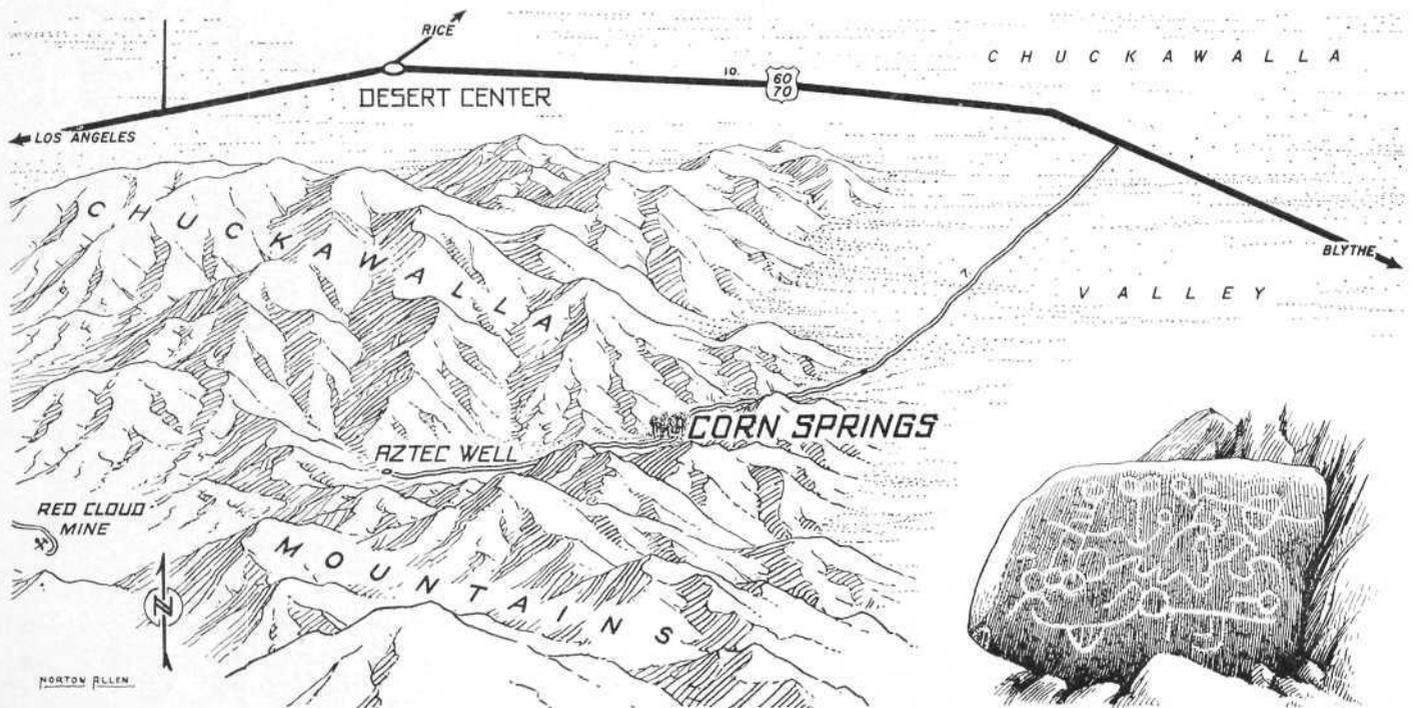
Soon all the animals were pressing in upon us. They were especially interested in the mother burro and her

baby and the herd jockeyed to touch and smell them. They pushed, jostled and brayed.

"All so ill mannered," said Gus. "But who doesn't want to see a baby. It's just like us humans."

Fearing for the safety of the young burro, I leaped into their midst and rescued her, and put her and the mother inside the fenced enclosure. It was a small grass plot about 25 feet across, near the spring where Lederer sometimes had a garden.

The small burro was now more than ever the center of all donkey eyes. All



18 jacks and jennies took positions outside the fence. As the mother burro and her wooly-headed daughter wandered within the fence, the donkeys shifted places outside to be as near as possible to them.

For two hours interest in the baby never lagged. Those burros stared, brayed and sniffed and kept their long ears raised high as they listened. Hunger finally diverted their interest to the brush-covered canyon to the west. One by one they wandered away. It was amusing to see some of them start to leave, then come back for another look at the baby.

I was able now to take some time off to look for rare plants found on near-by mountain slopes, among them the beautiful rose-flowered penstemon (*Penstemon pseudospectabilis*). It was found here and in the Sheephole and Turtle Mountains by Marcus E. Jones, the bicycling botanist of the bleak desert ranges, who pushed when he couldn't peddle.

The rest of the afternoon we neither saw nor heard more of the burros. At day-break though we could hear intermittent trumpeting brays up-canyon. As they grew louder we decided they were slowly coming nearer, probably browsing along.

By sun-up they were at a little pool by the spring, drinking. This over, they went over and inspected the baby burro and then leisurely walked to the back door of Lederer's cabin. Their ears were very erect, as if they were searching for a sound. While some listened others looked in the kitchen window, all quiet and orderly but very alert.

This went on until about 7 o'clock. Then noises could be heard from the cabin, the sounds of Gus Lederer getting up. The burros had been quicker than we were to sense the meaning of it all. Immediately they were wild with excitement and set up a jubilant and ludicrous medley of brays, partly suppressed whinnies and almost heart-rending pleadings.

A few minutes later the clinking of a metal spoon on tin could be heard from within. The burros' excitement knew no bounds. They jostled for positions at the four-paned rear window. Some rubbed their noses against the wooden door, others raised their noses and opened their nostrils wide for a better smell.

Then the gray, slab door opened and there stood old Gus, full of smiles and with a huge platter of freshly-made pancakes, one for each of the 18 "reptiles" as he affectionately called them. And now, in spite of their very evident satisfaction, the strangest of all things happened. The burros quieted and were soon at their best behavior.

Each burro, in his turn, received one of the flapjacks, wheeled and left the crowd to quietly chew and swallow his morsel in peace.

Old Gus, as so many affectionately came to call him, loved his big family of burros almost with parental affection. He knew each one by name. His kind, soft-spoken words and frequent pettings were to the burros signs of deepest friendship.

"Why do you have so many burros?" I asked.

"Just plenty of them makes good company," he replied. "I wouldn't want to part with one of them. A good burro you raise yourself with kindness is like a faithful dog and I think just as intelligent. Burros have minds of their own, but I can't say I think mine are ever stubborn. Why, they even have a good sense of humor. Once in a while I put the packs on a few and get out on the trail and let the rest just wander along as they please, and we are all as happy as kings, you bet."

Lederer called his lead burro Old Diamond. "One spring," said Gus, "I got the idea I would like to spend a year at the Colorado School of Mines. But I was not going unless I could take some of my burros along. So taking Old Diamond and some of the best, I started out on the long road to Golden. It took me all summer to get to my destination. While I was in school learning more about mines and minerals I put my animals out to pasture. At the end of the half-year I thought

I had better see how they were getting along. I reached them at a time when it was snowing.

"When I saw those poor shivering beasts, most of all the forlorn and reproachful look on Old Diamond's face it just about broke me up. I surely felt mean. I just couldn't take it. Went right back to Golden and got my belongings, packed up those burros fast as I could and drove them back to the sunny warm desert and the rocky brush-covered hill of Corn Springs. That's the last formal schooling I ever had."

Since those memorable days when Bob Doolittle and I were at Corn Springs, many years have passed. One day many years ago, I picked up my morning paper and read with sadness that the Mayor of Corn Springs was no more.

At once I pictured the burros coming as usual and no master to greet them; how they would hang around the cabin not understanding why their friend didn't feed them and how they would come back again and again, but only to disappointment.

I found out later that Lederer's burros were not forgotten. Prospector friends of Old Gus, among them Steve Ragsdale of Desert Center, drove the animals to new feeding grounds.

But knowing the constancy of friendship and the retentive memory of a burro, I am wont to say they remembered all through their remaining days the simple but magnanimous kindness of their great good friend, Gus Lederer.

New Snake Bite Treatment . . .

A new method of treating venomous bites and stings, which may replace the old cut and suction therapy, has been devised.

Dr. Herbert L. Stannke, head of Biological Sciences and director of Poisonous Animals Research Laboratory at Arizona State College, recently developed the new treatment.

It is the ligature and cryotherapy method, which simply means the use of a tourniquet and application of cold. After a constricting band is placed above the bite to halt or slow the flow of poison into the rest of the body, the punctured limb is placed in near-freezing ice water. An ice pack can be applied to a part of the body that cannot be submerged. In the place of ice, ethyl chloride can be sprayed on the bite area until frost is formed. This will reduce the temperature even more quickly.

A bite affects the body in two ways. The toxin has a chemical effect on the tissue and bacteria induced by the

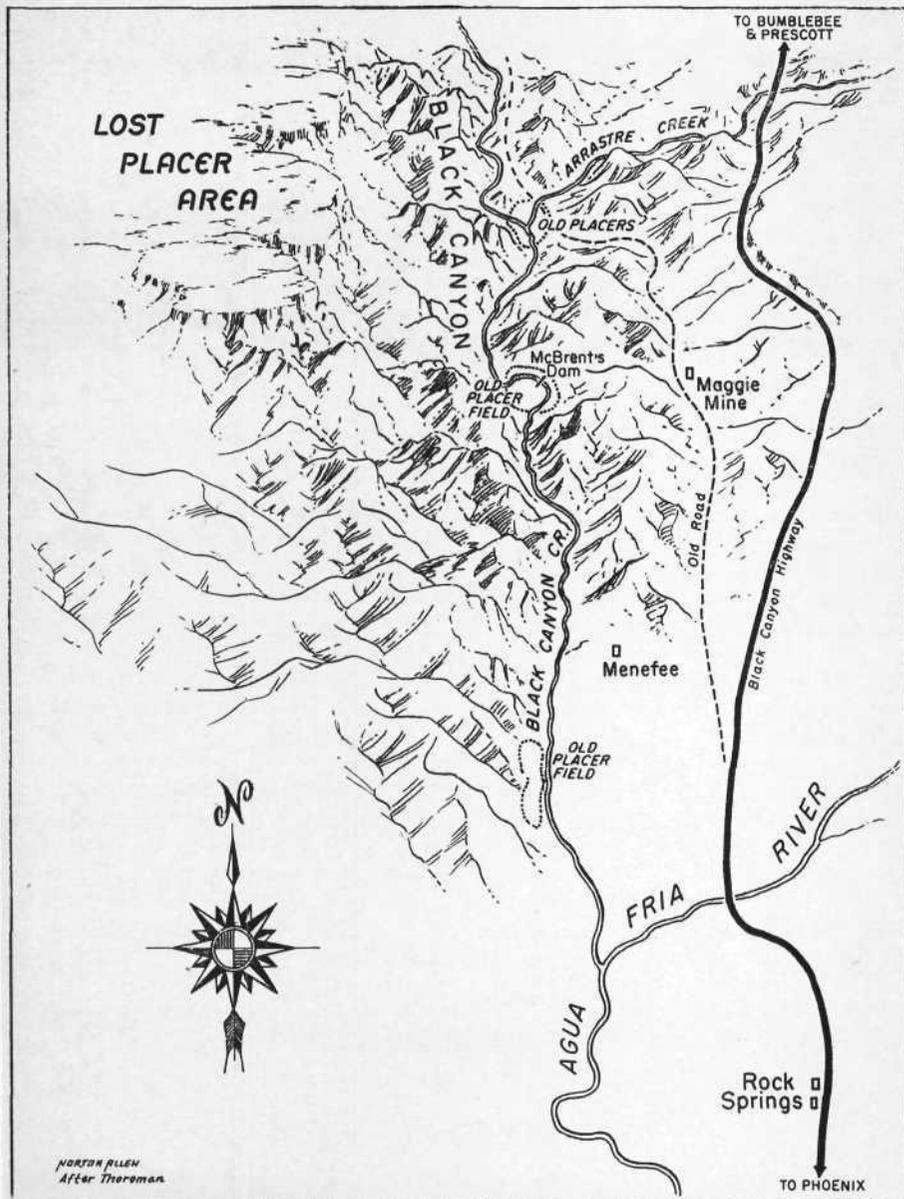
bite or sting thrives.

For every 10 degrees C the temperature is reduced, the chemical action of the venom is cut in half. When the temperature is reduced approximately 30 degrees, the harmful bacteria cannot multiply.

With this method the constricting band holds the poison in the area near the bite until the temperature is reduced. When the temperature is down the capillaries and arteries constrict so that the poison enters the body slowly and diluted. The body is not overwhelmed by the venom and takes care of it by natural processes. Besides this there is an anesthetic action in the cold.

Dr. Stannke recommends that campers going into wild country carry several tubes of ethyl chloride to be used until ice can be secured. One tube will last about 30 minutes so two or three tubes, under normal conditions, would allow a person enough time to reach a doctor and/or secure ice.

Lost Black Mesa Placer



By E. C. THOROMAN
Map by Norton Allen

TWO RANCHERS were deer hunting on a high mesa northwest of Rock Springs, Arizona, in the fall of 1901. Pausing to rest his horse, one of them noticed evidence of an old placer diggings.

"Look," he called to his friend "I believe someone has been working a dry washer here."

The other hunter rode over, looked at the holes, which were about the size of a wagonbox, and agreed.

The men continued their hunt, and no more was thought about the incident until the spring of 1916. Then one day, two old Mexicans came to the ranch, their burros loaded down

with placer equipment. They told a strange story.

They had come from Old Mexico, they said, at the insistence of their mother, who was past 90 years of age. Their father, she had told them, had discovered a fine placer field many years before. She described it as being an old streambed on a "high black mesa." The father had worked only a short time, but had been able to obtain considerable gold and, with his burros, had then made his way back to their home in Mexico. Lack of food and water had forced him from the mesa.

Before his death the father had drawn a map. This map the mother had given them, and because of hard times, she had urged them to make an effort to find the gold.

"Along an old streambed on a high black mesa" near Phoenix were the only directions the aged Mexican widow could give her two sons. They failed to relocate their father's lost placer—nor has anyone else been able to rediscover this rich gold mine in the wilderness region near the mouth of Arizona's Black Canyon Creek.

The map which the brothers carried showed a high mesa flanked by rugged hills and a winding stream to the east of it. It lay at the edge of a large rolling plain, another stream running along its eastern edge. No cities or towns were shown, nor were the names of creeks or rivers given. Much of the information and directions which the brothers had, came from their aged mother, who told them it was about 50 miles north of a place she believed to be Phoenix, and to the west of a creek that paralleled the road. Although the present Black Canyon Highway is somewhat to the east of Black Canyon Creek, the old road is still traceable in many places.

After camping at the ranch that night, the old Mexicans, both past 70 years of age, started across the rugged hills which separated them from the mesa, which they believed to be the source of the hidden gold. Unfortunately, the Mexicans were unable to find the placer, and after days of fruitless search, they came down from the mesa, exhausted and disappointed.

For years Black Canyon Creek has been placered, and along its bed fine gold is still obtainable. Below the junction of Arrastre Creek, near McBrent's dam, sizable nuggets, some weighing as much as an ounce, are said to have been recovered.

Several years went by, and at last the rancher, who occasionally did some placer work, came to the conclusion that the old placer bed he had stumbled upon on his hunting trip on the mesa was the one which had proved so rich for the Mexican, but which his sons had been unable to find. He also concluded that the coarse gold in Black Canyon Creek had filtered down from the old streambed on the mesa.

Unable to interest anyone in his venture, the rancher at last saddled his horse and in 1921 made a trip alone to the mesa in an effort to find the placer bed he had seen 20 years before. But the terrain had changed, mesquite and palo verde had sprung up, water courses had altered. Water and food ran low, and he was forced to give up without locating the placer. Circumstances prevented his making another attempt.

Such people as Menefee, Poester and Gold Nugget Eddie and a few old prospectors around Bumblebee have found gold of nugget size in Black Canyon Creek, but no source or mother lode has ever been found. Perhaps this gold has filtered down the watershed from the mesa.

The terrain between Black Canyon and the mesa is extremely rugged and formidable. No roads lead to the remote area. No water is obtainable on the mesa. Forbidding cliffs, rock slides, steep canyons make the area almost inaccessible. Few persons have ever made the trip.

It is now more than 50 years since the last evidence of the diggings were seen, and many more since the Mexican made his strike. But some day, some adventurous prospector may conquer the natural obstacles and, with luck, rediscover the wealth of the Lost Black Mesa Placer.

Songbirds Without Songs . . .

Tucson, Arizona

Desert:

In your July Desert Quiz you gave "false" as the answer for the statement, "The roadrunner is a song bird."

They may have a call that is anything but musical, as you stated, but the U. S. Fish and Wildlife Service has classified the roadrunner as a songbird in Arizona.

This decision was the result of a dispute in Arizona a few years ago when the Game and Fish Commission declared year-long open season on the birds.

Many birds that do not utter a note that qualifies as music by human standards are still songbirds. Among them are the woodpeckers, flycatchers, nighthawks, creepers and gnat-catchers.

MRS. R. J. THORNBURG

Water When Needed . . .

El Monte, California

Desert:

Thanks to the thoughtfulness of the Griffith Construction Company, there is an ample supply of water for autos that balk on the long climb over California's Cajon Pass on a hot day.

Through the inspiration of Walt Cody, assistant superintendent, the company has placed barrels of water on the up-grade side of the pass for free use by owners of heated cars. They are replenished daily from a fire truck owned by the company, which will be working on the road for about 15 months.

On one hot day, Sunday, June 13, I counted 25 cars stopped on the 17-mile stretch of Highway 66, filling up with free water.

LETTERS

It is a courtesy our family would have appreciated on one hot day in 1918 when we were traveling by car from Arizona to Riverside, California, and had engine trouble.

Not being desert-wise, we were carrying only milk for two small children. Before a day-long repair job was completed we were forced to drink rusty water from the radiator and finally bought two gallons of water, at a dollar a gallon, from a passing motorist.

A. G. McCOLLUM

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Nickel Production . . .

Azusa, California

Desert:

I wish to make a correction in your August Quiz in which it was stated that there are no working nickel deposits in the United States. There are two deposits in Oregon now being worked: One of these is at Cave Junction, and the other at Roseberg.

A. A. JOHNSON

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Black and White Seagulls . . .

Torrey, Utah

Desert:

Charles B. Lockwood, I believe, erred twice in his article, "Why Utah Loves the Sea Gull." His description of "black and white" sea gulls on the Great Salt Lake does not tally with my own observations of 35 years. Though I have visited Bird Island many times, I have never seen a black and white sea gull.

On the second count, the Mormons arrived in Utah in 1847, not 1837 as his article stated.

CHARLES KELLY

• • •

Discovers Old Graves . . .

Reno, Nevada

Desert:

I have discovered evidence of what might be the old emigrant trail and graves of some of the early pioneers in Arizona.

While camped near the remains of an old stone cabin about 60 miles north of Yuma and 30 miles south of Quartzsite on Highway 95 last spring, I discovered a group of graves nearby. They were located between two small hills just north of the cabin remains on the bank of a dry creek bed which probably carries water during a wet spring. Ancient, illegible markers are over some of them.

Close by is evidence of what might be the old emigrant trail. I followed it for a half mile.

RADER L. THOMPSON

The Gold Isn't There . . .

Costa Mesa, California

Desert:

You may consider this out of your field, but if the attention of *Desert's* readers could be called to a grievous misstatement carried recently in the newspapers, it might save many persons from great disappointment, as well as from a long journey they, possibly, can ill afford.

During the first week of August, 1954, newspapers subscribing to the United Press Service published a feature article by Jerry L. Reynolds, United Press Staff Correspondent.

Carrying a Sacramento, California, dateline, the lead paragraph of this article stated:

"Gold is still so plentiful in the Mother Lode Country of California that anyone can put in a day or two of digging and come up with \$15 worth of gold. A steady flow of weekend prospectors is doing just that . . ." etc.

Mr. Reynolds, to put it more charitably than I would choose, has been grossly misinformed.

More than 20 years ago I was engaged in buying and mining gold in the Mother Lode district, of California, and I am thoroughly familiar with economic conditions then prevailing among "snipers" on the American, Klamath, Yuba, Sacramento, and Feather Rivers—the richest gold producing streams in the state. At that time, men with a lifetime of placer mining experience considered themselves fortunate to average \$1 per day, per man. True, there were occasional pockets where a miner might take out an ounce or two in one afternoon; but these were once-in-a-lifetime finds; and for every rich pocket there were long, hungry weeks when a good, experienced miner might work every daylight hour and not average 50 cents a day!

As I say, this was 20 years ago; but I'm dead certain of one hard truth: Gold is no more plentiful in the Mother Lode today than it was in 1934. It hasn't been multiplying. On the contrary, the diggings have been growing leaner with every sniper who has worked them, and with every season that has rolled around.

Any "weekend prospector" who forsakes his present means of support on the strength of Mr. Reynolds' assurance that he can go to the Mother Lode and make \$15 a day digging gold, is in for a terrific jolt—because it can't be done!

NELL MURBARGER

Here and There on the Desert...

ARIZONA

Postpone River Project Vote . . .

WASHINGTON — Action on the billion dollar Upper Colorado River project was postponed until the next session of congress as legislators brought the curtain down on the 1954 session. One of the main reasons for delay on the bill was the opposition to the proposed Echo Park Dam. Legislation to authorize the Upper Colorado development program has been approved by both house and senate interior committees. The two bills differed in several particulars. The project calls for construction of several large water storage and power generating dams on the Upper Colorado River and its tributaries, along with a number of irrigation units in Utah, Colorado, Wyoming and New Mexico. The controversial Echo Park Dam would be built at the confluence of the Green and Yampa rivers in Dinosaur National Monument. Conservation groups contend the dam would destroy the scenic values of the Lodore and Yampa canyons in the monument. — *Phoenix Gazette*

Smokis Stage Bean Dance . . .

PRESCOTT — The Smoki people of Prescott successfully staged their 33rd presentation of dances and ceremonies of Indians August 9, in spite of protests by the Hopi Indians. The Hopis objected to the presentation of their snake and bean dances by the Smokis, a group of Prescott business men, on the grounds they are two of their most sacred ceremonies that can only be presented properly by Hopis on the Hopi reservation. As thousands of spectators watched, the Smokis presented the Naakai of the Navajo, the sacred Bean Dance of the Hopi, Zuni dances and others. Grand finale of the program was the Hopi Snake Dance in which live bull snakes were used. The Hopis use live rattlesnakes. — *Phoenix Gazette*

Flagstaff to Have Flagstaff . . .

FLAGSTAFF — To commemorate the original flagstaff after which Flagstaff, Arizona was named, a new 66-foot flag pole will be erected by the Junior Chamber of Commerce. It will be located at the junction of Highway 66 and Highway 89-A. The first flagstaff was raised on July 4, 1876, by a band of pioneers celebrating Independence Day. The community that sprang up around the pole took its name from it.—*Coconino Sun*

Halt Reservation Prospecting . . .

SAN CARLOS—A growing amount of prospecting on the Apache San Carlos Indian reservation, apparently for uranium, was halted recently by the Apache Tribal Council. Over 100 notices advising that such prospecting is unlawful were posted at all entrances to the reservation and tribal police were ordered to arrest violators. — *Battle Mountain Scout*

Havasu Creek Flow Changed . . .

GRAND CANYON—In the worst flood since 1911 the course of Havasu Creek above Topocoba Trail was changed in August. Victor Collins of the Indian Agency, said that Havasu Falls, considered the most beautiful of three along the creek because of three columns of water gushing over it, now has only a single stream. The heavy rains pushed the creek over its banks below the Havasupai Indian village and cut a channel 30 feet deep. The village escaped damage.—*Yuma Sun*

Hard Rock Shorty of Death Valley



It was Easter week in Death Valley — and the roads were thronged with vacationists, most of them school teachers from the coast. Bus after bus stopped at the Inferno store, and while tanks were being filled with gas the passengers flocked to the cold soda box for refreshments.

Hard Rock Shorty, in the shade of the lean-to porch, was trying to patch up an old pack saddle. But the dudes kept pestering him with questions. Did he have a mine up in the hills somewhere? Where were his burros? How hot did it get? Were there any snakes?

Then there was the young lady interested in botany. Where could she find an ironwood tree? Did the Indians really eat the beans on mesquite trees? How did smoke trees get their name?

"That's easy," he said. "Because they look like smoke. Even some of the ol' prospectors can't tell the difference.

"Reminds me o' the time Pigsaw Bill's nephew came out from Boston to spend his summer vacation up at the lead mine on Eight Ball crick. He was a student in some hi-falutin' school, an' all he knew wuz to ask questions. He expected to find a rattlesnake under every rock and an Indian behind every tree.

"An' bandits! He wuz all the time talkin' about bandits. Carried two guns in his belt an' wuz

always tellin' what he would do when the masked robbers showed up. We sorta encouraged him. Told him the country wuz full o' bad men—some of 'em with their guns covered with notches.

"The boy wuz no good at workin'. Jest set around all day playin' with his guns. The men workin' over in the mine decided it wuz gonna be an awful disappointment if no bandits showed up, so one of them came into camp one day an' said ol' Trigger Tom an' his gang wuz campin' down the wash, an' we'd better git ready fer a raid.

"The Boston boy wuz all excited. 'Let's git the drop on 'em,' he suggested.

"Miners agreed that'd be a smart thing to do, so they took Mr. Boston on a round-about trail over the ridge. And when they got to a place about three miles down the wash they pointed off in the distance.

"'See that smoke coming up outta that ravine over there?' they said to Boston. 'That's where the bandits are campin'. Now you sit here behind this rock with your gun cocked in that direction, while we go down an' herd 'em up this way.'

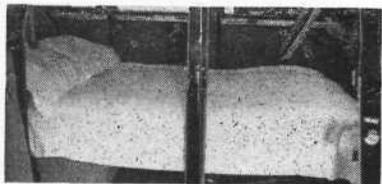
"They left 'im a canteen o' water. An that boy sat there watchin' that bandit camp fer two days before he found out that smoke wuz nothin' but a smoke tree."

THE DESERT TRADING POST

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CLOSING OUT: We are in a hurry to dispose of remaining Indian Artifacts, better bargains than ever, dealers welcome. Daniels Indian Trading Post 16299 Foothill (Highway 66) Fontana, Calif.

FROM THE KLAMATH COUNTY—Rare beautiful black Obsidian. 3 bird points \$3.00; 3 arrowheads \$3.00; 1 spear point \$3.00; 1 knife \$3.00; 1 fish arrowhead \$1.50; all for \$10.00 with this advertisement. Illustrated Catalogue 50c. Moise Penning 158 Dolorosa, San Lorenzo, California.

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CALIFORNIA

Trona Homes Sold . . .

TRONA — Three hundred and thirty-six residences at Trona have been sold to employes of American Potash and Chemical Corporation. The community has been owned by American Potash and Chemical Corporation since its construction during World War II. Under private ownership, Trona becomes a San Bernardino County Service area. — *Los Angeles Times*

NEW CALIFORNIA State Topographic Map 64 x 90" \$2.50. Lost mines of 10 Southwestern states, with map \$1.75. Sectionized County maps: San Bernardino, Riverside \$1.00 each, Inyo, Mono, Kern, Los Angeles 75c each, Imperial, San Diego 50c each. New series of Nevada County maps \$1.00 each. Joshua Tree-Twenty-nine Palms area \$1.56. Township blanks, all sizes, Lode or Placer location notice forms 5c each. Topographical maps in California, Nevada, Utah, Arizona and all other Western states. Atomic Energy Commission Airborne Anomaly, Uranium Location maps. Westwide Maps Co., 114½ W. Third St., Los Angeles, California.

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Seek Ancient Ship Remains . . .

LOS ANGELES—An 1870 newspaper account of discovery of a Viking ship or Spanish Galleon baroque frontal piece in the Salton Sea area has stirred three UCLA students into a search that may take them into the Laguna Salada in Baja California. Original account of a party of Americans discovering the remains of an ancient ship plainly visible in a saline lake, were published in the *San Bernardino Guardian* September, 1870. Location given was 40 miles north of the San Bernardino and Fort Yuma roads and 30 miles west of Dos Palmas. Believing the ship may have wandered up a flooded Colorado River, John English, Tom Fee and Robert Kildick said their expedition would probably take them to the dry lake west of Mexicali, Mexico.—*Yuma Sun*

Select Lucerne Valley Granite . . .

LUCERNE VALLEY — Lucerne Valley Engineering Company will supply its distinctly beautiful golden buff granite for facing the new \$20,000,000 Courts Building to be erected in Los Angeles. The stone comes from Lucerne Quarries and has been used in many prominent Southern California buildings. The Courts Building will be the largest in Civic Center, extending from Grand Avenue to Spring Street on First Street. The granite required is the largest quantity ever ordered from the company for one building. Several plants will be used in its fabrication.—*Victor Press*

Suggest Burro Refuge . . .

BISHOP — Undomesticated burros that roam the desert may soon have a California refuge they may call home. An interim committee of state legislators heard testimony at a Bishop meeting this summer that burros are making a nuisance of themselves on cattle ranges and a recommendation that a 300,000-acre sanctuary be established for them. Virgil L. Bottini, Bakersfield, bureau of land management chief for 13 Southern California counties, suggested the sanctuary be in Inyo County's Saline and Panamint Valleys, west of the Argus range and south into San Bernardino County. The burro population of Inyo County was estimated at "several hundred." The committee will make recommendations at the next session of the legislature. An emergency measure, which expires in mid-September, 1955, was passed in the last session protecting the burro from ruthless slaughter. Violators can be sentenced to one year in jail, fined \$1000 or both.—*Inyo Independent*

Bodie Landmark Burns . . .

BODIE—One of the west's most famed mining camps, Bodie, suffered a major structural loss this summer when fire razed an old cyanide mill there. The 300-foot-long mill, located about a half mile from town, was built near the turn of the century.—*Humboldt Star*

Oppose Monument Mining . . .

SAN BERNARDINO—San Bernardino County Supervisors went on record this summer opposing the opening of Joshua Tree National Monument to prospecting and mining. Action followed a 2½ hour hearing in which geologists, biologists and others testified. Dr. J. P. Buwalda, professor of geology at Cal Tech, said the possibility of discovering and developing profitable deposits of minerals in the Monument is very remote. Others testifying included John Rogers, who is writing his doctor's thesis on the geology of the Monument; Dr. John Goodman, biologist of Redlands University; Clinton Schoenberger, biologist of Valley College and Dr. Edmund Jaeger, eminent student of the American Deserts. Sam H. King, superintendent of the Monument, said 172,423 persons visited it in 1953 and 150,000 had already registered by mid-summer this year.—*The Desert Trail*

NEVADA

GABBS—Basic Refractories, Inc., recently purchased Gabbs townsite for \$275,000 from the U. S. Government. The company, which controls a large mining and milling operation in Gabbs, has been leasing the 60 dwellings, utilities and recreational facilities. A company official indicated plans are being laid for an ambitious expansion and improvement program at the townsite.—*Tonopah Times-Bonanza*

Lake Hazards Appear . . .

BOULDER CITY—As the drouth-induced lowering of Lake Mead reached levels under anything recorded since it first filled, reefs that were once the peaks of hills and ridges are creating a multitude of uncharted hazards. Acting Superintendent W. Ward Yaeger has warned boat operators to travel on the lake with extreme care. Many boating accidents have resulted from ramming the reefs just below the surface with one resulting in a fatality. The National Park Service is marking as many of the hazards with buoys as possible, but noted it is impossible to cover all of them.—*Las Vegas Review-Journal*

Tahoe Swims Stopped . . .

STATELINE, LAKE TAHOE — Further attempts to swim Lake Tahoe were temporarily halted in August after a 20-year-old Oakland swimmer was pulled from the rough frigid water only 33 minutes after beginning an attempt to swim the 23-mile length. Describing Dominic Spasto's effort as both unfair and unsafe, the coast guard said no more swimming attempts would be permitted until sponsors provide maximum safety precautions. The Lake Tahoe Swimming Association had offered a \$1000 prize to the first person to swim the length of the lake. Fred Main, commander of the U.S. Coast guard auxiliary at the lake, said swimmers must now register and receive permission before attempting the swim.—*Las Vegas Review-Journal*

Many Tour Hoover Dam . . .

BOULDER CITY — Hoover Dam maintained its reputation of being one of the west's major tourist attractions this summer as 44,209 paid admissions were recorded in one month, July. Total number of persons to tour the dam, since its opening January 1, 1937, reached 5,172,927. As the daily average hit 1791 persons, dam officials conducted an unusual number of foreign and miscellaneous tour groups through the dam. Thirty-three visitors representing 19 different foreign countries were included as well as ROTC students from many colleges and universities and many school groups.

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Study Ichthyosaur Preservation . . .

FALLON — Nevada State Park Commission is studying the possibility of preserving the fossilized Ichthyosaur where it was found east of Fallon. The Ichthyosaur was a sea-going reptile, about 50 feet long, that existed 160 to 200 million years ago. Several of the scientists who uncovered the remains recently discussed with Thomas W. Miller, chairman of the park commission the possibility of preserving them. Miller who planned to visit the discovery site, said the park commission, would seriously consider their preservation along with other priceless archeological deposits and historical sites in the state.—*The Pioche Record*

NEW MEXICO

Act to Help Indians . . .

GALLUP—Action is being taken to eliminate the three enemies of the Indians, ignorance, poverty and disease, Glenn L. Emmons, U. S. Indian Commissioner, said during an August visit to New Mexico. Trained sani-

tarians are teaching the Indians sanitation methods and "eliminating the reservoirs of infection which exist in so many Indian communities." Educational facilities are being expanded and a non-profit organization is being created to survey the Indian's economic conditions. During a swing through New Mexico, Emmons visited all 19 pueblos where he found some of the Pueblo Indians plagued by drouth and grasshoppers. He promised them some relief. At a seminar on Indian problems at Gallup, Emmons said that Congress is carefully releasing from federal control only those tribes that are eager and ready to withdraw from federal administration.—*New Mexican*

Measure Earth's Crust . . .

SOCORRO — How thick is the earth's crust? A seven-man seismic observation team has been conducting tests in the Rocky Mountains of western New Mexico in an attempt to find out. The team is using the New Mexico Institute of Mining and Technology in Socorro as its base. Crust depth there is estimated at 35 miles, based on preliminary tests. Similar tests have shown the earth's crust is about 25 miles thick in Minnesota and 22 miles near Washington, D.C. Measurements are taken by firing huge charges of TNT and measuring the vibration waves, as they travel through the crust and back, at scattered observation posts.—*Phoenix Gazette*

Indian Education Improves . . .

WASHINGTON — Supplying all Southwestern Indian children with educational facilities, a problem that has plagued Indians for generations, was at least partially solved late this summer. The Indian Bureau successfully

put a program into operation that will provide schooling for an additional 8000 Navajo children. Last year 14,000 of a total of 27,000 Navajo children were enrolled in schools. The monumental program has seen the Indian Bureau make an abrupt change in its former policy of attempting to carry on the school program within the reservation. According to Indian Commissioner Glenn L. Emmons, the approach now is to put Indian children in school as rapidly as possible, and it doesn't make any difference where the school buildings are. Many of the children are being integrated into regular white schools through financial support from the federal government. New Mexico alone, this school year, will receive about \$2,560,000 from the government for new buildings and facilities in connection with the program. In 1951 only 900 Indian children were attending New Mexico public schools; this year there will be almost 5000.—*New Mexican*

Drouth Poses Damage . . .

ELEPHANT BUTTE — At mid-summer only 12,000 acre feet of water remained in Elephant Butte Dam, which has a capacity of over 2,000,000 acre feet. As a result farmers faced serious drouth damage to their crops and sportsmen expected the loss of hundreds of tons of fish. The rainy season was past and little hope was held for improvement of conditions this summer. On August 1, there was not enough water to complete irrigation of crops or to grow enough grass to provide an ample winter supply for cattle. If the reservoir goes completely dry, sportsmen believed it would take at least two and probably more years before the reservoir could be restocked.—*Socorro Chieftan*

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Indian Artists Honored . . .

GALLUP—Twelve American Indian artists were specially honored on the last day of the Gallup Inter-Tribal Ceremonial August 15 when they were awarded the French Government's "Awardees Palmiques." Believed to be the first such awards made to American Indians, they are given by the French government to writers, artists and craftsmen. Receiving the awards were Marie Martinez, "The Potter of San Ildefonso"; Fred Kabotie, Hopi artist from Oraibi, Arizona; Pablita Velardi, Albuquerque; Awa Tsireh, San Ildefonso painter; Ma-Pe-Wi (Velino Herrera), Zia Pueblo; Joe H. Herrera, Cochiti Pueblo; Harrison Begay, Santa Fe; Ambrose Roanhorse, Ft. Wingate; Alan Houser, Brigham City, Utah; Andrew Tsihnahjinnie, Scottsdale, Arizona. Mrs. Dorothy Dunn Kramer, pioneer artist, was the only white person honored with the Indian artists.—*New Mexican*

. . .
UTAH

Attendance Records Topple . . .

ZION NATIONAL PARK — Attendance records toppled at Zion National Park this July when 88,448 persons signed in at park entrance stations. Last year's total for July was 84,625. Attendance at Bryce Canyon, however, dropped 1422 visitors, from 57,257 in 1953 to 55,835 in 1954. Zion Park Superintendent Paul R. Franke said that one reason for the increase was the extension of operating park entrance stations to 16 hours a day.—*Vernal Express*

Cyanide Gun Blasts Trio . . .

MOAB—A cyanide gun used in the destruction of coyotes became a booby trap that ended a picnic outing this summer with a poisonous explosion. Two men and a woman were sprayed with deadly cyanide when one member of the party, Art Thomas, pulled on a stick protruding from a well-marked trail and triggered the death trap. The charge caught the heel of his hand, and sprayed Ione Winbourn and Fred Thomas with fumes. Their injuries were minimized by speedy treatment.—*Times-Independent*

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Utes Receive Payment . . .

OURAY—The Ute Indians received another interest payment this summer on the \$31,761,206 judgment awarded them in court action against the federal government four years ago. Each of the 1792 tribal members received about \$300 or a total of \$537,000. It was the last of interest payments in a three-year program that brought the tribe \$4,000,000. Remainder of the interest money will be held in abeyance until Congress passes a bill dividing the assets of mixed blood and full blood Indians.—*Vernal Express*

. . .

579 Run Green and Yampa . . .

VERNAL—A total of 579 people ran the Green and Yampa Rivers in June and July on Bus Hatch's river expeditions. During July 35 boats were used to carry 286 persons on the trip. Only four of the trips were during the first half of July because of low water. Eleven trips were made from Lodore Canyon to Dinosaur National Monument headquarters; four from Echo Park to headquarters; two from Lily Park to headquarters and two from Mantles ranch to headquarters. One each was made from Red Canyon to Greendale and Island Park to headquarters.—*Vernal Express*

Peak Named After Scouts . . .

SALT LAKE CITY — Honoring Explorer Scouts who first conquered it, a 12,875 foot peak in the Uintah range was named Explorer Peak this summer. The peak is on the boundary of Wasatch and Ashley National Forests on the divide between Rock Creek and Lake Fork. It was originally climbed by a group of Explorer Scouts from the Great Salt Lake Council in 1948. On August 28 a group of Explorers were to rendezvous on the peak.—*Date Palm*

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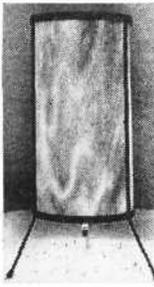
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MINES and MINING

Battle Mountain, Nevada . . .

Indications of uranium have been discovered and the rush is on in the extreme mid-western part of Lander County, about 45 miles southwest of Battle Mountain. Location monuments have been springing up over a 10 square-mile area from the mouth of Dacies Creek canyon on the west to the headwaters of Fish Creek. Extensive aerial surveys have been taken and pin-pointing of "hot" areas is under way by prospectors on foot and in jeeps. Initial discovery was reputedly made by Sandy Mendieta, Winnemucca, who first found petrified wood with high radio-activity. The area, in general, is covered by late rhyolite flows which are underlain by rhyolitic "tuffs." The uranium occurrences are believed confined to the tuffaceous material, bleached white and possessing a marly texture. Fishures in the tuff give promising readings.—*Humboldt Star*

Tungsten, Nevada . . .

One of the largest tungsten operations in the country became even larger at Tungsten, Nevada, in August when the Massachusetts Company stepped up mine production and mill processing to 500 tons daily. Each day 125 tons from the open pit and 375 tons of higher grade ore from deeper workings are handled. The mine is one of the largest and longest producers in the United States. With the government backing a five year production program with a guaranteed price, the outlook for tungsten is one of the brightest of any of the minerals.—*Pioche Record*

• • •

Bisbee, Arizona . . .

Boosting Arizona's copper production to nearly half of the nation's total, the Lavender Pit copper mine at Bisbee is now in production. The pit opened with dedication rites August 8, with Governor Pyle giving the principal address. Phelps Dodge Corporation has invested \$25 million in development of the huge mine. Special recognition was given Harry Lavender, who recently died, for his vision and genius in developing the 155-acre pit mine. During the ceremonies Lavender's son, Harrison, Jr., unveiled a plaque honoring his father.—*Phoenix Gazette*

• • •

Sacramento, California . . .

Discovery of three "very encouraging" uranium prospects in Southern California has created the possibility a uranium processing plant may be established in the area. Ernest E. Thurlow, chief of the Salt Lake exploration branch of the Atomic Energy Commission, said the three discoveries are in the eastern half of Kern County, the San Bernardino Mountains and eastward and the Mojave Desert area. Thurlow said maps were made from airborne prospecting and "several areas of high radioactive background were detected from the air." While a mill is being considered for Southern California, no serious plans have been made, the AEC official said. The first production of uranium ore in Southern California was the recent shipment of 45 tons mined in Kern River Canyon near Miracle Hot Springs about 35 miles northeast of Bakersfield.—*Yuma Sun*

Mesquite, Nevada . . .

A multi-million dollar vein of tungsten ore has been blocked off this summer at Mesquite, Nevada, in the first mining operation in the past eight years. Described as virtually inexhaustible, the vein is believed to be one of the world's largest tungsten deposits. It is located about 15 miles due east of Mesquite by the Virgin River in wild, remote country. It was first discovered nearly a quarter of a century ago by Ernest Walker, until recently an unsuccessful prospector who is now 86 years old. W. F. King, advised of the deposit by Walker, continued exploration of the area and after a lengthy time interested T. J. Loats, mid-west development expert, in the possibilities there. Since last November roads have been constructed over difficult terrain, expensive equipment hauled in and a \$200,000 mill erected. Several weeks ago the vein was opened at the 90 and 600 foot levels and the extent of the immense deposit verified. The ore is 10 to 70 feet thick and has averaged two percent tungsten. The new mill, which employs many of the company's 40 men, is geared to turn out 75 tons of finished ore daily for the refinery. — *Las Vegas Review-Journal*

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Uranium City, Canada . . .

Prospecting for uranium by helicopter has apparently proved an effective way of exploring huge areas in a short time with minimum effort. For the second year a Bell helicopter has been equipped with a Scintillometer for uranium prospecting. Operating north of Uranium City, Canada, the prospecting helicopter flies less than 100 feet off the ground at an average speed of 35 miles an hour. Near the earth and moving comparatively slowly, accurate readings of "hot spots" can be made. Working with fixed-wing planes, the helicopter can take over a hot area located by fast moving planes and explore it more thoroughly. Many large companies have used this method as well as Eldorado Mining and Refining, Ltd., the Canadian equivalent of the U.S. Atomic Energy Commission.—*Tonopah Times-Bonanza*

• • •

Tooele, Utah . . .

Uncertainty of metal market prices was given as the reason for a temporary shut-down of International Smelting and Refining Company, Tooele, Utah, July 15. F. A. Wardlow, Jr., general manager, said 500 workers were idled by the move, and that he could not estimate the length of the shutdown because of what he said were "deplorable conditions in the lead-zinc ore mining industry."—*Pioche Record*

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By JACK C. MOOMAW

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I realize now that I had wanted a jade vase since I was a sailor on the Battleship Oregon 40 years ago. But even in those days such bric-a-brac was beyond the financial reach of a mere sailor. And now, after almost half a century of subconscious yearning, my smothered dream has come true.

It came into reality a few years ago when one evening my wife, who must be psychic, said, "You are clever at making things. Why don't you make a jade vase?" I liked the idea and we made plans to go to the Red Desert and mountains of southern Wyoming where boulders of jade were said to be scattered over the landscape.

It was mid-autumn. We left the main highway near Rawlins, Wyoming, headed north into the wilderness, and dry camped in the Green Mountains. Only they were not green. A snow storm came up during the night and in the morning the barren buttes and rolling hills looked like giant frosted cakes and bon-bons. It was a beautiful scene but we were too miserable to pay much attention to it. We were cold and cramped from trying to sleep, with two dogs, in the car where we had been driven by the storm in the night.

No jade had been found during the previous day. The only living things we had seen were a distant band of sheep and later a herd of wild horses—pintos that looked like Shetlands—who came snorting out of a wash and went galloping away to the far horizon.

By various "roads" we slithered north over into the valley of the Sweetwater which the storm had missed. All day we wandered in and out of the gulches and over the badjadas of the Granite Mountains. No jade! And then the storm invaded the valley. We turned the car toward the paved highway. Just before reaching it, we stopped to let the dogs out and I found a piece of jade about half the size of my hand. Definitely not vase material.

Later, while going over maps with rockhound friends, it appeared that we must have stumbled over tons of jade. Do not get excited. It is not there now. At least, not in ton lots.

While telling a neighbor of our trip, he casually remarked that he had a chunk of jade that he would sell reasonably. It was about the size of a shoe box, only much rougher. But it did not look like jade to me. A rough, brown stone was all that I could see. However, the neighbor pointed out one corner he had ground off and a rich, mottled-green color was visible. For \$19.50, the cost of his jade trip, I lugged the stone home and thought that in a few days I would have my jade vase.

After several days of trying to shape the thing on a farm grind stone, it dawned on me that by the time it was finished by this



There is no "for sale" sign on this jade vase for the creator, Jack C. Moomaw, feels it is almost a part of himself after months of trial and error tribulations, a thousand hours of labor and \$700 invested in lapidary equipment.

method, I would be long-past wanting a jade vase or anything else.

Some lapidary friends explained that I needed a diamond saw. So, I sent for one. Cost, \$105.50; plus saw blade, \$18.80; plus motor, \$23.75.

The diamond saw was set up in the garage, connected to the house and entered

through the kitchen. For hours and days, with unbelievable slowness, the saw crept through the jade as I shaped the stone much as one would square out a log in a saw mill. But, long before that part of the job was finished, the wife complained about the fumes of kerosene and oil that seeped into the kitchen. To keep peace in the family I bought a can of soluble oil supposed to be almost odorless when mixed with water for cooling and lubricating the saw blade. When the stuff became warm the stench was terrible and soon the saw began to groan. Then it gummed up and buckled. Result: a new diamond saw blade, \$18.80.

With equipment, oil and electricity, to say nothing of time, the cost of my masterpiece was mounting. But I was enjoying myself and had mental pictures of a treasure that, I hoped, would be handed down through generations.

While waiting for the new diamond saw blade, I tried to bore out the vase cavity with a small carborundum grinding wheel. Don't try it, it can't be done, I contacted several lapidary supply houses and they informed me that the best way to make a hole in jade is with a small, hollow bronze tube that could be chucked into a small electric hand drill. By using the abrasive grit, silicon-carbide, with water on the end of the tube, a pilot hole could be made and then successively larger tools could be inserted with the abrasive paste to enlarge the hole. Cost of tubing and abrasive was only a couple of dollars but the hand drill set me back \$17.20.

Two days later I had a hole about the size of a lead pencil and about three inches deep. As the cavity grew larger and deeper, it progressed slower and slower. And then the small electric drill went "phutt." A larger hand drill was indicated. Cost, \$24.60. Many evenings, after a long day's work, the wife would inspect the project and remark that it looked just the same as it did that morning.

About this time we noticed that the neighbors seemed to be getting more and more unfriendly, some of them almost sullen. Then, one evening one of them rapped on the garage window and demanded that

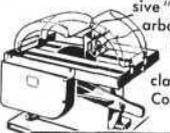
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BEAUTIFUL COLORADO specimens or cutting material, 10 lbs. \$1.00. Jack The Rockhound, P. O. Box 245, Carbondale, Colorado.

STOP AT THE DOWSES: Tons of choice agate, snowflake obsidian, petrified wood, nodules, dugway, geodes, dinna bone, Jade and Jasper. Lots of mineral specimens. 329 Reed Ave., Salt Lake City, Utah, Phone 3-8722.

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RARE OPALIZED Wood. In slabs and cutting material. For prices write J. Guth, Truth or Consequences, New Mexico, P.O. Box 492.

IF YOU ARE interested in gems, minerals or jewelcraft and want to know where to buy anything connected with the hobby, where to go after rocks, what to read about the crafts, you need *The Rockhound Buyers Guide*. This book has 192 pages of absorbing information, the name and address of nearly every dealer in America, field trips in 9 states and Mexico. Only \$2.00 postpaid from *Lapidary Journal*, Box M, Palm Desert, California.

THE PROSPECTOR'S CATALOG

We are pleased to announce the advent of a new *Minerals Unlimited Catalog*, specifically designed for the amateur or professional prospector. If you are interested in *Geiger Counters, Mineralights, Blowpipe Sets, Gold Pans* or any of the other equipment necessary to a field or prospecting trip, send 5c in stamps or coin for your copy. **MINERALS UNLIMITED, Dept. D**
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"OVERLOOKED FORTUNES"

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Find war minerals! Here are a few of the 40 or more strategic rarer minerals which you may be overlooking in the hills or in that mine or prospect hole: columbium, tantalum, uranium, vanadium, tungsten, nickel, cobalt, bismuth, palladium, iridium, osmium, platinum, rhodium, ruthenium, titanium, tin, molybdenum, selenium, germanium, manganese, cadmium, thallium, antimony, mercury, chromium, etc. Prices booming; many much more valuable than a gold mine: cassiterite now \$1000 a ton; bismuth \$1500 a ton; columbite \$2500 a ton; tantalite or microlite \$5000 a ton; tungsten \$3 pound; platinum \$90 ounce, etc. Now you can learn what they are, how to find, identify and cash in upon them. Send for free copy "overlooked fortunes"—it may lead to knowledge which may make you rich! A postcard will do.

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

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FOR SALE: Beautiful purple petrified wood with uranium, pyrolusite, manganese. Nice sample \$1.00. Postage. Maggie Baker, Kingman, Arizona.

ONYX BLANKS, unpolished, black 25c each; red, green, blue 35c each. Perfect cut titanium. Fine cutting and polishing at reasonable prices. Prompt attention to mail orders. Juchem Bros., 315 West 5th St., Los Angeles 13, California.

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OPALS AND SAPPHIRES rough, direct from Australia. Cutting opal, 1 ounce \$5, \$10, \$20, \$30 and \$60. Blue sapphires, 1 ounce \$10, \$30, and \$60. Star sapphires, 12 stones \$10, \$20, and \$30, etc. Post free and insured. Send international money order, bank draft. Australian Gem Trading Co., 49 Elizabeth St., Melbourne, Australia. Free list of all Australian stones rough and cut, 16 pp.

FIFTY MINERAL Specimens, 3/4-in. or over, boxed, identified, described, mounted. Postpaid \$4.00. Old Prospector, Box 729, Lodi, California.

GEMS A-PLenty: Beautiful baroque gems, large variety, tumble polished all over, \$10.00 for one pound (about 100 stones). 10 lbs. of top grade gemstone prepaid for \$7.00. Wholesale price to dealers on baroque gems and gemstone in the rough. Satisfaction guaranteed on every sale. San Fernando Valley Gem Shop, 6329 Lindley Ave., Reseda, Calif.

Vase of Jade . . .

if I didn't turn off my "dad-blasted machinery," they were going to call the police. I gathered that my electric motors were raising hob with radio reception in the neighborhood. I had things done to the motors. More expense. But it was not a success. This forced me to do some of my work between midnight and dawn. Later, to prevent open warfare, I moved my operations to our farm several miles away.

When spring came, if you knew what I was making and by using your imagination a little, you could recognize a jade vase.

During the summer I spent a few hours now and then puttering over the project. But most of the time I just looked at it and tried to figure out ways and means of completing the job with less effort and more speed, and in trying out new drills, arbors, and grinding wheels. During that time I purchased around a hundred dollars worth of new equipment.

Winter came again and I set to work in earnest. I was now determined to have a jade vase, come fire, flood, or accident. I ended by purchasing a drill press and several diamond drills, two more motors, many tungsten-carbide bits, and quantities of abrasive and polishing powder.

After somewhere in the neighborhood of one thousand hours of labor and the spending of nearly seven hundred dollars for equipment and supplies, the vase was finished. And, strange as it may sound, I had a sort of lost feeling.

An elderly woman saw my masterpiece and immediately exclaimed: "But jade vases (she pronounced it vases), are always displayed on ebony bases."

I forgot to ask her why, and have been unable to learn the reason for this custom. Anyway, I visited the lumber yards from Cheyenne to Denver but it seems that ebony is harder to find in this part of the country than jade, and I was unable to locate any of the black wood. Then one day I saw a burl on a pine tree and it occurred to me that, since this jade came from pine-tree country, it would be fitting to set my vase on a pine-wood base. So, that is what you see under it in the picture.

A nearby farmer dropped in the other day. He noticed the jade vase (he could not have missed it) and remarked, "Heard that you had been making some kind of a stone jug. My! but that is a purty thing. Bet you could sell it for 15, maybe 25 dollars."

I have since made several jade dishes and vases. With the know-how acquired and the tools on hand, I have been able to cut down the time to around one-fourth of that spent in making the first one.

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coins, jewelry on beaches. Free from false detections. Each unit supplied with two different search coils. Ask for free literature.

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WARNED NOT TO PICK UP FLUORESCENT RATTLESNAKES

If prospecting or rockhounding with black light be careful what you pick up. If you don't you might find yourself with a handful of rattlesnake. Lee Johnson, safety engineer at Northrop Field, Hawthorne, California, recently advised that rattlesnakes fluoresce as brilliantly as many rocks. According to the *Northrop News* cases have been reported in which prospectors have been bitten in reaching for what they thought were rocks.

• • •

Jade, jasper and rhodonite were to be the objects of a field trip search by the Gem and Mineral Society of San Mateo County, California on August 22. The field trip was to be to Limekiln and Willow Creeks, about 37 miles from Big Sur, California.

• • •

Mr. and Mrs. S. Gene Parks opened their summer cabin at Mt. Charleston, 32 miles northwest of Las Vegas, Nevada, to 38 members of the Clark County Gem Collectors for the club's July meet. Members brought and exchanged rock specimens. Last club field trip was to Lee Canyon, near the Charleston Mountains, at which Park Ranger Russell Grater of Boulder City lectured on the earth's sciences, wildlife and nature.

• • •

August meeting of the Compton Gem and Mineral Club centered on a vacation theme. Minerals from Utah, Arizona and California and maps showing their locations were to be displayed for the benefit of members planning vacations. A film, "This is Aluminum," and a silent auction were planned.

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New 10-12 inch powerfeed slabbing saw unit.

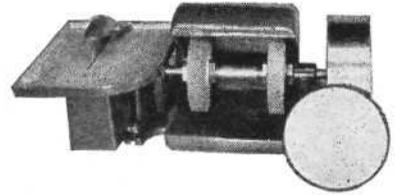
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Geiger Counters—The Prospectors Pal Model DG-2 with three scale sensitivity meter.....\$98.50

The only low cost counter calibrated on all three scales

Model DG-7—same as above with separate, detached probe.....\$135.00

METAL DETECTORS—The **Model 27 Deluxe** (with meter) for prospecting for metallic minerals, gold and silver included (Depth range maximum 7 ft.).....\$110.00

Model 711. Metal case, light weight, easy to carry (depth range 21 ft.) \$138.50

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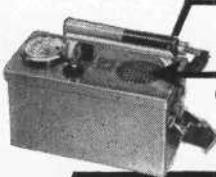
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TECHNICAL ASSOCIATES, Dept. 48
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A study-work group organized within the Delvers Gem and Mineral Society, Downey, California, for members wishing to devote more time to their hobby, has proved a big success. Jean Haygood, publicity chairman, said the group, called the Rockriders, have enjoyed lectures and demonstrations on crystal making, opals, faceting, petrified wood, marcasite, Navajo jewelry, field trips geology and jade. Field trips by the group have been to such interesting rock collecting areas as Black Canyon and Quartz Hill.

Rudolph von Huene gave an informative talk, illustrated with slides, on minerals at a recent meeting of the Hollywood Lapidary and Mineral Society.

GEM AND MINERAL GROUP IS ORGANIZED AT TUYCINGA

First regular meeting of the newly organized Verdugo Hills Gem and Mineral Society was held recently in Tuycinga, California.

Louis Marks was elected chairman of the group; Gilbert Moore, vice-president; Mary Koltz, secretary and John Phillips, treasurer. The society meets on the fourth Thursday of each month at the McGroarty Recreation Center. There are 30 members.

Paradise Gem and Mineral Club, Paradise, California, will present exhibits at the Paradise Fall Festival October 1, 2 and 3 at the Memorial Hall. Secretary M. Ruth Kline reports that outstanding displays of local material, rough and polished, will be shown as well as an outstanding fluorescent display. Grab bags and sales tables are also planned.

An August 22 field trip was planned by the Wasatch Gem Society of Salt Lake City to a location about 40 miles from Lemmerer, Wyoming. Program at the regular August meeting, an outdoor gathering at the W. H. Sayler residence, was on the identification of minerals.

TIN OXIDE \$1.50 PER POUND

If you buy \$5 worth of **Basic Lapidary Supplies** from the following list. A \$10 purchase entitles you to buy 2 lbs. **Tin Oxide** at \$1.50 per lb. A \$25 purchase entitles you to buy 5 lbs. of **Tin Oxide**.

NORTON CRYSTOLON GRINDING WHEELS . . .

Size	6x1/2"	6x1"	8x1"	8x1 1/2"	10x1 1/2"
80 grit				\$7.50	
100 grit	\$2.65	\$3.60	\$5.35	7.50	\$11.35
220 grit	2.95	3.95	5.90	8.25	12.50
320 grit	3.35	4.50	6.70	9.40	14.20
Shipping weight	2 lbs.	3 lbs.	5 lbs.	6 lbs.	9 lbs.

Crystolon Wheel Dressing Brick 6"x2"x1" . . . 95c

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Grit Size	1 Pound	5 Lb. Lots	10 Lb. Lots	25 Lb. Lots
80, 100, 120, 18, 220	\$.83	\$.52	\$.39	\$.30
2F (320), 3F (400)	.38	.57	.41	.32
Graded 400	1.09	.73	.57	.48
Graded 600	1.35	.94	.78	.69

DURITE (Silicon Carbide) ROLL SANDING CLOTH—
Available in 120, 150, 180, 220, 330 grits

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2" wide, 25 ft. long—\$2.00; 150-foot roll—\$ 9.00
 3" wide, 15 ft. long— 2.00; 150-foot roll— 13.25
 10" wide, 5 ft. long— 2.00; 150-foot roll— 39.77
 12" wide, 5 ft. long— 2.25; 150-foot roll— 47.70

Wet Rolls

3" wide, 10 ft. long—\$2.00; 150-foot roll—\$21.60
 10" wide, 40 in. long— 2.60; 150-foot roll— 71.25

DURITE SANDING CLOTH in round disks . . .
Available in 120, 220, 320 grits

Wet		Dry	
6" 5 for \$1.00; 25 for \$ 3.90		8 for \$1.00; 25 for \$ 2.25	
8" 3 for 1.10; 25 for 7.00		5 for 1.00; 25 for 4.10	
10" 2 for 1.15; 25 for 11.00		3 for 1.00; 25 for 6.45	
12" 2 for 1.65; 25 for 16.00		2 for 1.00; 25 for 9.45	

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4" diameter by .205" thick . . . \$ 7.80	10" diameter by .040" thick . . . \$14.80
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When ordering please state arbor hole size

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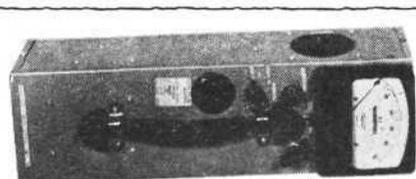
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The model L3TSM-55 has the following features:

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3. Powerful 3 1/2" built-in speaker for use in car, climbing over rocks, and in snake country — wherever you can't watch the meter.
4. Big supersensitive 4 1/2" meter with:
 - a. Eight meter ranges—two for airborne or mobile use in locating radio-active areas, five for prospecting the areas, and three for testing the veins and ore samples.
 - b. Eight meter speeds, giving you four meter speeds on the supersensitive ranges and four on the regular ranges.
5. Heavy aluminum rustproof case which is light-weight but strong enough to stand on.
6. Large comfortable handle, which makes carrying it a pleasure.
7. Weight approximately seven and one-half pounds, length seventeen inches, height four inches, and width five inches.
8. Powered by two one and one-half volt flashlight cells, two No. 455 Eveready forty-five volt B batteries, and one No. 467 Eveready sixty-seven and one-half volt B battery.
9. Tropicalized for use anywhere.
10. Directional for quick determination from which direction the radiation is coming.
11. Fully guaranteed as are all Oremasters.

The list price on the model L3TSM-55 is \$295.

Easy payment plan available if desired
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ORANGE BELT SOCIETY HOLDS SEPTEMBER SHOW

The Orange Belt Mineralogical Society planned its eighth annual gem and mineral show this year for September 25 and 26 at the Orange Show Industrial Building, San Bernardino, California.

The displays were to include 200 cases of the finest gems and minerals, demonstrations of all phases of rock cutting and polishing and a large exhibit of homemade lapidary equipment.

Other show features planned were rock talks by Mrs. Erna Clark, one of the largest fluorescent sphere displays ever exhibited, gem and mineral grab bags and home made foods at the society's chuck wagon.

Members of the Santa Barbara Mineral and Gem Society were advised to bring their "own eating utensils and a good disposition" to the August meeting by the club bulletin. The meeting was their annual picnic and talkorama, held at Manning Park. Besides a pot-luck dinner and games, members enjoyed a popular silent auction.

PRICES SLASHED!

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HERE ARE A FEW OF THE ITEMS

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Special Offer — Brilliance Unequaled

Approx. 1 ct. Titania set in beautifully styled ladies solitaire ring—14k yellow or white gold—\$14.95.

Approx. .75 ct. Titania set in men's belcher type ring—14k yellow or white gold, \$19.95

GENUINE AGATE MARBLES (mixed sizes 1/2" to 1")—per doz. \$7.50. 5/8" to 3/4" ea. 75c

EARRINGS (made from agate spheres) — Different — unusual. S.S. or G.F., pair \$2.75

LARIAT TIES with 25x18 mm. cabochon. The latest type sport tie—blue, red, yellow \$2.65

CUFF LINKS (S.S.), swivel base, mounted with 30/22 mm. cabochon. In attractive gift box. Available in various materials. Give 1st and 2nd choice color of stone desired, pair—\$6.95

GENUINE SYNTHETIC TURQUOISE STONES—Very beautiful and hard to tell from the real ones. Drilled drops (approx 3/4" long)

Per doz. \$1.00

Baroques, approx. 5/8" diam. per doz. \$1.00

Mixed cabochons (2 mm. to 8 mm. round) per 200 \$1.00

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CABOCHONS (mixed sizes and material)—Fine finish—excellent polish. 1 dozen different ring stones \$6.00

1/2 dozen different brooch and pendant stones \$5.00

SUPER SPECIAL (never before offered) — 1 dozen mixed cabochons—16x12 mm. to 30x40 mm., 1 dozen \$8.75

FACETED HEARTS (genuine amethyst and topaz citrine) drilled for studs. They make beautiful pendants, necklaces, earrings, bracelets, etc. While supply lasts — Small, each \$1.00

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Order yours right away

HAND CARVED ANIMALS (genuine amethyst) frogs, bees, lizards, turtles, etc, ea. 75c (make attractive jewelry)

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Add 10% fed tax to all items—3% Calif. S tax

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PAULINE BRAUN NEW PREXY OF MONTEREY BAY SOCIETY

During recent elections, Pauline Braun was named president of the Monterey Bay Mineral Society, Salinas, California, replacing Hubert McIntosh. Other new officers include Art Scattini, vice-president; Helen Russell, secretary; D. E. Perry, treasurer; Louis Braun, federation director and Dr. K. W. Blaylock, director. Hold-over directors are Sherwin Smith and Robert Scheffler. Gaylord Nelson was appointed advisor to the society. Installation of officers was planned for September 13, preceded by the annual pot-luck supper.

The Harvard University collection of mineral slides was to be shown at the August meeting of the Delvers Gem and Mineral Society, Bellflower, California.

Maps showing the location of gems and minerals from Nebraska to California were displayed at a recent meeting of the Compton Gem and Mineral Club. Giving tips to prospective vacationers, cases of specimens of the gems and minerals found at the various locations supplemented the maps. The maps were prepared by Rhoda Brock and the specimens were furnished by club members. Attending were 97 members and 31 guests.



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A home talent program was the feature of a recent meeting of the Delvers Gem and Mineral Society, Downey, California. Exhibiting their talent were Tom and Murdell Holbert who projected light through their tin slices of sagenite, petrified wood and agate to show the composition and color of the minerals.

FAMOUS TEXAS PLUMES

Red Plume, Pom Pom and many other types of agate. Slabs on approval. Rough agate, 8 lb. mixture postpaid, \$5.00. Price list on request.

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"Treat yourself to the best"

Heavy-Duty Super-Chgd. Standard

8" \$ 9.03 \$ 7.98

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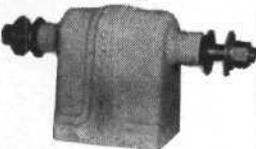
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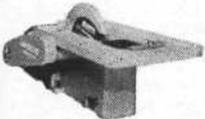
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HOLD SEPTEMBER 25 SHOW

The South Bay Lapidary and Mineral Society set September 25 and 26 as the dates for its annual show to be held at Clark Stadium, 853 Valley Drive, Hermosa Beach, California. Admission was to be free and the show was to be open from 12 noon until 9 p.m. Saturday and from 10 a.m. to 6 p.m. Sunday.

Members of the Montebello (California) Mineral and Lapidary Society planned to search for beach stones on an August 22 field trip to Moonlight State Park at Encinitas.

The San Fernando Valley Mineral and Gem Society planned to hammer out pink alabaster August 22 on a field trip to Quatal Canyon Bridge. The Quatal Bridge is about 62 miles from Ventura, California.

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ILLINOIS EARTH SCIENCE CLUB REVIEWS FIVE YEARS' GROWTH

Reviewing five active years as an organization, the Earth Science Club of Northern Illinois boasts a growth from 13 to 312 members and the birth of two "offspring," a junior group and an archeology group. Among the club's accomplishments during the past year, listed in the *Earth Science News*, were a well-received display at the Downers Grove Annual Fall Festival, successful efforts to have an evening class in geology, mineralogy and jewelry making taught, many interesting field trips, 10 meetings and publication—in the black—of a club news pamphlet.

October 30 and 31 have been selected as the dates for the San Antonio (Texas) Rock and Lapidary Society's show. The club recently announced that it will be held in the Witte Museum auditorium. Speaker at a recent meeting of the society was Bill Seimer, chairman of the Department of Geology at St. Mary's University, who talked on quartz.

The American Prospectors Club, Los Angeles, assigned themselves a big task for September. Over Labor Day weekend they planned to prospect 400 acres of land where "you can get a color almost anywhere you try," according to their publication, *The American Prospectors Journal*. The field trip was to be to the cabin at Monte Cristo Mine in the Big Bear District.

Hal Stephens of the U. S. Geological Survey was to talk on "Occurrence of Uranium Minerals in California" at the August meeting of the San Francisco Gem and Mineral Society.

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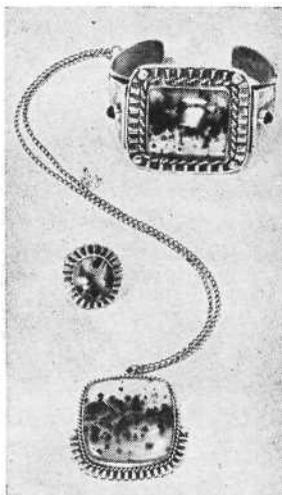
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AMATEUR GEM CUTTER

By LELANDE QUICK, Editor of The Lapidary Journal

Last month we discussed the importance of the rockhound looking for uranium minerals while searching for his gems in the field during the coming field trip season. We also suggested that all program chairmen schedule a talk on uranium prospecting so that members would be informed about what to look for. The subject was too complex for a single installment and we continue it by telling our readers about the equipment used in uranium prospecting and how to use it.

There are many styles and varieties of counters ranging in price from \$50 to \$1000. Of three fundamental types the most common in use is the Geiger counter (pronounced to rhyme with tiger). The second type is the scintillation counter, a very sensitive instrument which costs more than most Geiger counters but is becoming more popular. The third type is the ionization chamber, not as popular and beyond the comprehension of the average rockhound. A list of the manufacturers of this equipment will be supplied upon request if a postage paid reply envelope accompanies the request. Almost all dealers carry some type of equipment today and you should visit their shops first or consult the advertising in these pages before requesting the list. Obviously, we cannot recommend any particular make of equipment.

It should be remembered that all radioactive elements register on the counter so that any activity does not necessarily mean that the prospector has found uranium. He may have discovered a deposit of thorium or even radon. Further chemical tests are required therefore after samples have been taken.

In testing for radioactivity the background count must be taken into consideration. As most things are slightly radioactive, including cosmic rays striking the earth from outer space, the counter is constantly being bombarded by gamma rays which produce this background count. The count will vary with the counter and will change from time to time and place to place. A little experience in using a counter will make the prospector aware of any unusual activity beyond the so-called background count.

The mass effect is important on the counter. Obviously, a large piece of rock will give off more gamma rays than a small piece. This can be demonstrated by taking the reading on a hand specimen compared with one taken in the crevice of an outcrop. You should know the limitations of your counter in this respect and take into account many other factors such as equilibrium, radon and underground effects. Don't depend on your dealer to give you a course of instruction on how to use the counter. Most makes include instructions for the use of the particular instrument you buy. You should also buy a copy of *Uranium and Fluorescent Minerals* by Dake from your dealer or from our Desert Crafts Shop (\$2.00).

In looking for uranium the prospector should always be on the lookout for tungsten for this mineral is in great demand as a hardener of steel. Many profitable mines have been discovered by rockhounds in the west. The instrument used for this purpose is the ultra-violet light and several portable and lightweight outfits are now on the

market. One is equipped with a dark chamber so that examinations can be made in the field.

Here is a uranium test that can be made in the field if one has a light but no Geiger counter. Powder a sample of rock. Take a piece of wire (20 gauge platinum or even iron wire) about 3/16 inch and make a small loop at one end. Heat the loop in a bunsen burner and dip it into a bottle of powdered sodium fluoride or lithium fluoride, procurable from any chemical supply house. This will make a bead on the loop. Dip the bead into your powdered rock sample until a few grains adhere. Heat the bead in the lamp until the rock grains disappear. Allow the wire to cool and then examine it with the ultra-violet lamp. If it fluoresces a bright yellow then uranium is present. This method is very sensitive and dependable. It will detect very minute amounts of uranium (as little as 0.05 percent). Tungsten minerals will also fluoresce when tested with lithium fluoride beads but not with sodium fluoride.

To encourage the rockhound to look for uranium the U. S. Government has developed a new three point program for rewards. They have guaranteed minimum prices for uranium ore for ten years until March 31, 1962. You will receive a \$10,000 bonus for each discovery of 20 short tons of ore that will assay 20 percent uranium content. Although uranium deposits on public lands are reserved by the United States by authority of the Atomic Energy Act the government encourages prospecting on privately owned lands, but a license is required from the Commission. In the unlikely event of the discovery of uranium unassociated with other valuable minerals the Commission will take steps to protect the prospector's equity. A circular describing the new policies in detail is available without cost from the U. S. Atomic Energy Commission, Box 30, Ansonia Station, New York City.

We are aware that if the rockhound went into a Jasper location for a little cutting material loaded down with a Geiger counter, a lamp and a chemical kit he wouldn't have much atomic energy of his own to haul back a sack of pretty rocks to his car. As in all things, this prospecting requires intelligent planning and use of facilities.

Certainly it is expensive to acquire all these things. We suggest that if you belong to one of the more than 500 rockhound clubs that you examine the condition of its treasury and if it contains more than \$500 (as most of them do) take the floor and make a motion that equipment be bought by the club for the use of all the members on field trips. This is a way to get something for your dues and this is a way for each club to make itself more worthwhile and valuable to its members.

Inevitably some of our readers are going to find some uranium. If you do we'd like to hear about it. But don't send us any samples or send your friends any samples or do any mail swapping for you may get in trouble. Drop a package containing some uranium ore into a mail sack in which someone has sent some film to be developed and poof — no pictures. It is therefore against the postal regulations to send uranium ores through the mail.

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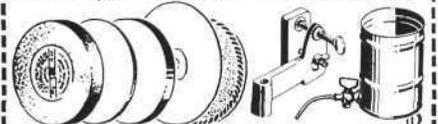
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By RANDALL HENDERSON

7HERE'S A TINGE of autumn in the air this morning as this is written, early in September. Out here on the desert we look forward to the coming of fall weather in the same way folks living in zones of snow and ice look forward to spring. It is the season when doors and windows may be left open—when outdoor living and recreation are compensation for the months of indoor confinement.

July this year was a scorcher. August was one of the most moderate summer months I have ever experienced on the desert.

But all that is in the past, and ahead of us are the months when the desert has the most delightful winter climate in the United States. The desert landscape has been sterilized by the intense rays of the summer sun. The rocks are clean and the air is pure—and on the dunes the winds have swept away or covered up any evidence that human beings have ever disturbed this place.

After an absence of four months, our mocking bird was perched on the electric pole near our home this morning trilling his first fall concert, and a couple of Say's Phoebes were scouting around the patio looking for a possible nesting place. We are hoping they decide to spend the winter with us.

* * *

One of my friends in the U. S. Office of Land Management showed me a letter which recently came to the office. The writer wanted to know how he could obtain 20 to 50 acres of the public domain which would be suitable for a small hunting camp, lodge or resort. He specified that the land should "be covered with timber, have a running stream or a lake, an elevation of from 4000 to 5000 feet, a good access road, and good scenery." Thousands of such letters are received at the U. S. Land Offices every month.

The facts are that public land which will meet these specifications was mostly taken up by homesteaders more than 50 years ago—and today can be obtained only upon payment of a price that will run well up in five figures.

Uncle Sam does have a lot of real estate, but the description of the most of it reads something like this: "Rocky terrain, slashed by a boulder-strewn dry wash, infested with lizards and a few jackrabbits, section corners hard to find, and no paved road within 40 miles."

It isn't Uncle Sam's fault that the good land is all gone—but the clerks in the U. S. Land Office have to do a lot of explaining to folks who write such letters.

Fortunately, we've had a few far-sighted presidents and private citizens who had the vision to see what would happen, and who have reserved some of the choicest tracts for national parks and monuments—so that all of us may continue to enjoy them. With population growing at a rapid rate, there will be increasing pressure to take these lands away from the public and divert them to pri-

vate gain. It is for you and me to see that this doesn't happen.

* * *

I have been reading the proofs of Catherine Peterson's story in this issue of *Desert Magazine* about the jackrabbit homesteaders on the Mariana Ranchos in Apple Valley, California. These 5-acre ranches are mostly city folks who come to the desert for their weekends and vacations and their community is a fine example of cooperative achievement.

There is nothing socialistic about their enterprise. They are all rugged individualists — who have learned that as a team they can make greater progress, and have more fun doing it, than if they were playing a game of each for himself and the devil take the hindmost.

I like these cooperative enterprises. I think they are the most effective agencies for combating the threat of socialism. It is important that the difference between socialistic enterprise and cooperative enterprise be clearly understood. Under state socialism a more or less invisible higher authority is in supreme control. You cooperate because you have to—or else. In a cooperative democracy you cooperate because you want to. Cooperative democracy is possible only when there is a high level of intelligence.

The homesteaders on the Mariana Ranchos have set a pattern which is reassuring to those of us who would like to halt the creeping socialism in this country.

* * *

From my scrapbook this month a quotation from Aldous Huxley in the *Los Angeles Times Magazine*:

Huxley referred to a bit of philosophy written by Henry David Thoreau: "If a man does not keep pace with his companions perhaps it is because he hears a different drummer. Let him keep step to the drummer he hears."

Huxley quoted that passage, and added: "Each man's drummer is invisible. Some of us hear the tomtom, and march to the rhythm of a passion, an obsession. Others march to the banging of the big bass drum of ambition. Others can hear only the monotonous one-two, one-two of routine . . . Among many other things, democracy is non-interference, is leaving other people alone. As long as they are doing no positive harm the temptation to regiment non-conformists ought to be resisted.

" . . . For example, if you spend any time on the western deserts, you will find not a few of their sparsely scattered inhabitants are there because they are non-conformists. The drums which keep the majority marching along in the cities make no appeal to them. They hear another music. That some people should prefer living on nothing in the wilderness to living in town with television and all the trimmings is a fact which is good for the rest of us to know, and occasionally to think about. . . . Every man should be allowed to keep step to the music he hears."

BOOKS of the SOUTHWEST

HARDY PIONEERS OPEN FIRST WAGON ROUTE TO CALIFORNIA

Without map or chart, the Stevens Party in 1844, broke trail from Humboldt Sinks in Nevada to the Truckee River, up into the High Sierras, over Donner Pass and into California to open the first cross-country wagon trail to the state.

The story of the Stevens trek from Council Bluffs to California is recounted in *The Opening of the California Trail*. The account itself is taken from an 1888 publication *Pen Pictures from the Garden of the World* and is believed to be the story told by Moses Schallenger, a member of the party.

In an extensive introduction and detailed notes, George R. Stewart illustrates the significance of the story, showing that this band of pioneers should be given credit for discovering the Truckee Route and Donner Pass.

Interestingly told, the story records a cautious pause at Humboldt Sinks where the group finally decided to head for the Truckee River. Near-fights with Indians are related as well as the great push over the Sierras in a race with approaching winter weather and diminishing supplies.

Young Moses Schallenger was left behind near Donners Summit to guard abandoned wagons that were to be reclaimed and was forced to survive largely on wild fox.

Published by University of California Press. 115 pages. Lengthy introduction and copious notes. 14 excellent photographs. \$3.75.

RENEGADE APACHE WITH \$6000 ON HIS SCALP

For over three score years semi-fictionalized stories about one of the most famous renegade Apaches, Apache Kid, have filled pages of newspapers, magazines and books. But they have never been as fascinating and forceful as the facts about the Kid in Jess G. Hayes' *Apache Vengeance*.

The Apache Kid was an Indian scout for the U.S. government in the mid-1880s and figured prominently in the apprehension of Geronimo and his band of renegades in 1886. Three years later he was a renegade himself, one of the most hated and hunted of them all. In 1888 he was convicted of "assault with a deadly weapon," sentenced to 10 years in prison and then released on a legal technicality. He

was later taken into custody again, charged with the same offense and sentenced to seven years in the penitentiary.

With seven other Apaches he escaped while enroute to prison, murdering the sheriff and his deputy and wounding a stage driver. Apache Kid disappeared into the desert waste. He was never captured again.

The Kid eluded sheriffs' posses and military patrols in the long search that followed. He was blamed for a long list of crimes, though his actual guilt is still speculative, and the reward for him soared to \$6000. The last official entry in the case of Apache Kid still stands—"whereabouts unknown."

Hayes' book is not only an authenticated account of Apache Kid's escapades, but also a study of Apache rebellion against injustice and a social study of the government's handling of the Indian problem.

Published by the University of New Mexico Press. 185 pages. Appendices. \$3.50.

SAGA OF AMERICAN HISTORY MAKES THRILLING READING

"Tevis, I shall burn you alive and dance while you are burning," Cochise threatened the Army Captain. But James Tevis held off the marauding Indians and lived to tell the tale.

Arizona in the '50s is Capt. Tevis' autobiography of his years as an Indian fighter in the far west. Between breathtaking adventures, he gives a real picture of life in the frontier territory.

In the 1850s, Arizona was little more than a name on the maps. The average American thought of it as a barren country inhabited by a few Mexicans and thousands of hostile scalp-raising Indians.

This impression — which neglected the unsurpassed scenic beauty of the state, its pioneer white settlements and friendly Indians like the Pimas, the Papagos and the Yuman tribes—was partly the result of sagas like that of Captain Tevis. Frontiersmen were not given to understatement, and they were more impressed by action than by scenery.

Albeit exaggerated in some places, here is history as those who made it told it, and it is history that reads like the most exciting Western novel.

Published by the University of New Mexico Press, 237 pages, pen illustrations by Horace T. Pierce. \$4.00.

Books reviewed on this page are available at Desert Crafts Shop, Palm Desert

LIFE WAS RUGGED ON THE NEW MEXICO FRONTIER

When Ann, a tenderfoot girl from Chicago, married Jim Counselor, a sheep rancher in the northwestern New Mexico desert, she had to readjust her life to an entirely new scale of values. And Jim had to make some readjustments too.

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It was during their years as traders that the Counselors became intimately acquainted with the plight of the Navajo Indians in the eastern reservation lands of New Mexico. They liked the Indians and gave them what help they could, but it seemed always that the odds were against the tribesmen.

Ann, with a keen memory of the 25-year struggle for life and self-respect on a frontier where luxuries are never known, has written a warm and very human story of those years — *Wild, Woolly and Wonderful*.

Published by Vantage Press, New York. 392 pp. \$3.75.

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