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THE MAGAZINE OF THE WEST

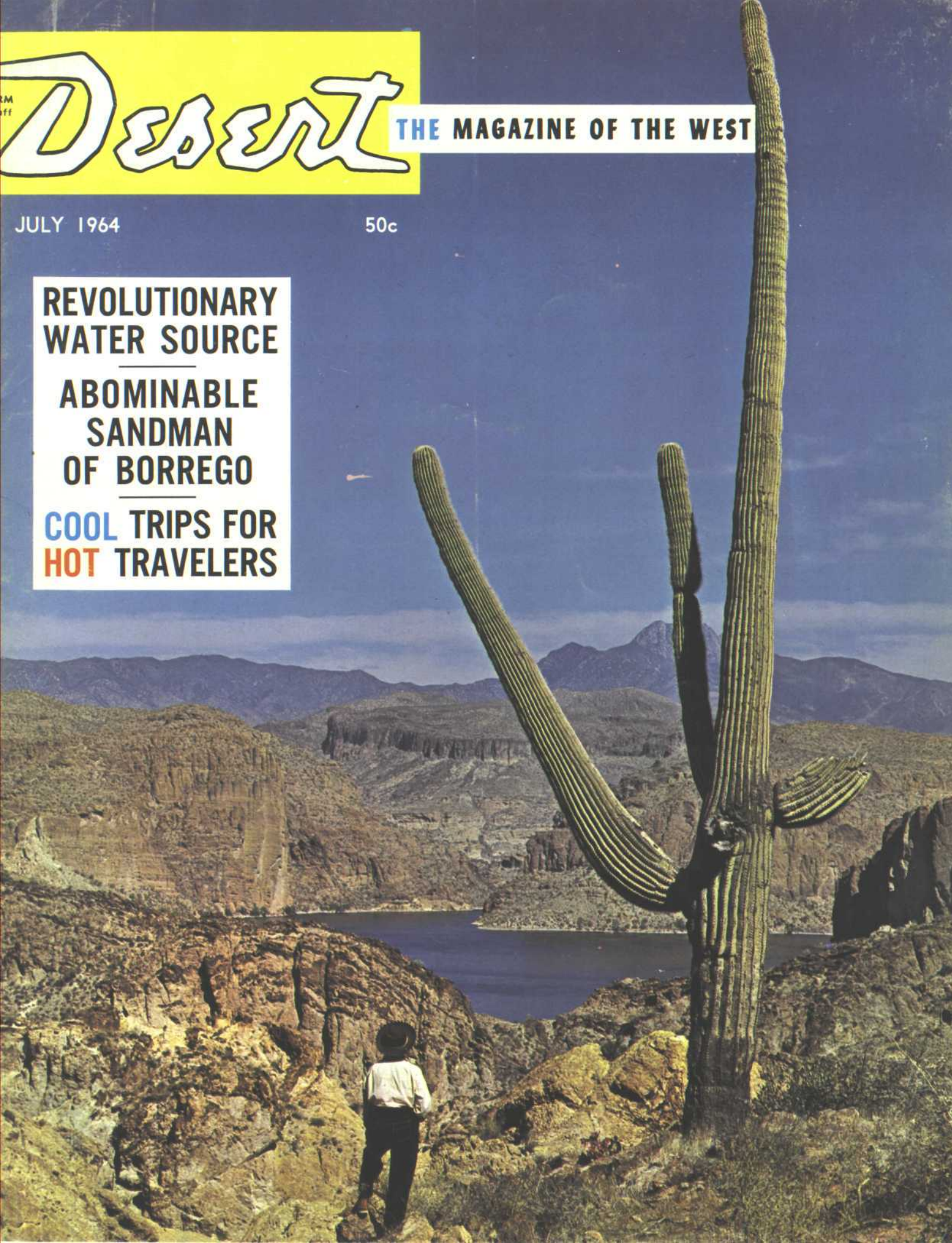
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CONTENTS

Volume 27

Number 7

JULY, 1964

This Month's Cover

Along the Apache Trail,
Canyon Lake, Arizona
By DARWIN VAN CAMPEN

4 Books for Desert Readers

6 "Dichos"

By RICARDO CASTILLO

7 The Man and the Process

By CHORAL PEPPER

9 Abominable Sandman of Borrego

By VICTOR STOYANOW

11 Wealth of San Gabriel

By ARTHUR ROULEAU

14 Whatever Became of Jenny?

By HARRIET FARNSWORTH

16 Coyotes Howl in the Lava Beds

By L. L. PROUT

20 Saga of the Sagamore

By BILL BRYAN

22 Red Rock Crossing

By JANICE BEATY

23 Photo of Red Rock Crossing

DARWIN VAN CAMPEN

24 Sierra's Sing a Siren Song

By DOROTHY ROBERTSON

26 Pan It In The Cariboo

By THOMAS H. WISER

28 America's Stone Age Neighbors

By H. N. FERGUSON

32 Bewitched By Baja

By CHORAL PEPPER

36 Ghost Town Series

By LAMBERT FLORIN

37 Desert Dispensary

By SAM HICKS

38 DESERT Cookery

By LUCILLE I. CARLESON

39 Snakes Alive!

By EVELYN CONKLIN

42 Letters from Our Readers

July Peppercorns by Jack Pepper

DAMN DAMS. As far as water is concerned, we'll wager Secretary of the Interior Stewart L. Udall at this point wishes his Republican predecessor Fred A. Seaton were sitting in the hot seat back in Washington. Already engulfed in a squabble over allocation of Colorado River water between Arizona and California, he's now in the middle of the Lake Mead versus Lake Powell controversy. When he recently opened the gates of the one-year-old Glen Canyon Dam (which forms Lake Powell) to allow Colorado River water to fill badly depleted Lake Mead (formed by Boulder Dam) he was damned by Northern Arizona and Utah. When he once again closed Glen Canyon Dam, the people in California, lower Arizona, and Nevada screamed. At this point Secretary Udall is damned if he does and damned if he doesn't.

GREAT BASIN NATIONAL PARK. A long struggle to have an area of "striking terrain, geologic features, weather conditions and plant and animal life" in the picturesque Snake Mountain Range of east-central Nevada declared a national park received a shot in the arm when it was endorsed by the U. S. Department of the Interior. Although endorsing the proposed park, the Interior Department says it favors a 123,360-acre area rather than a 53,120-acre park as proposed in a House of Representative bill. Ironical part about the proposal is that the originators of the park idea and long-time supporters have always advocated a larger area, but had to start compromising when hit by hunters and mining interests, plus hesitancy, on the part of a Nevada congressman. Lehman Caves National Monument will be part of the Great Basin National Park if and when selfish interests start thinking of the area as a place for the "greatest good for the greatest number of people." This might be the time for another of Teddy Roosevelt's sweeping proclamations.

SPEAKING OF PARKS. Travel to National Parks and other units of the National Park System rose 6.4 percent in 1963 with visits totalling 94,092,900, compared to 88,457,100 in 1962, according to National Park Service Director George B. Hartzog, Jr. An even greater number is predicted for this year. However, considering our population increase, the 6.4 jump is not as much as it should be. The parks and facilities are there, now the problem is to get people away from their television sets and night clubs and out into the fresh air where they will start to enjoy life. They will be amazed at how big the world, and how small their problems!

JULY CALENDAR. Nevada is celebrating its 100th Anniversary this year. So many events are scheduled throughout the Silver State they cannot be listed. For times and places write for "Nevada Centennial Events", Nevada Centennial Commission, State Building, Reno, Nevada. July 4th holidays will also be the date for celebrations throughout the West, including Prescott's Frontier Days Centennial Year Rodeo and Flagstaff's All Indian Pow Wow in Arizona and the Victorville, Calif. Stellarbration, among many others. San Diego County Fair and Southern California Exposition, San Diego, Calif. June 26-July 5. Navajo Tribal Fair, Prescott, Arizona, July 17-29. Culver City Rock and Mineral Club's 3rd Annual Fiesta of Gems, Rock and Mineral Show, Culver City, Calif. July 25 and 26. **(Editor's Note: If you want events listed they must be sent in two months in advance of date.)**

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Robert L. Brown

AN ILLUSTRATED, DETAILED, INFORMAL HISTORY OF LIFE IN THE MINING CAMPS DEEP IN THE ALMOST INACCESSIBLE MOUNTAIN FASTNESS OF THE COLORADO ROCKIES. THESE TOWNS WERE OF PRIME IMPORTANCE DURING THE GOLD AND SILVER RUSHES WHICH OCCURRED IN THE SECOND HALF OF THE NINETEENTH CENTURY, BUT THEY NOW STAND ALONE ON THE NEARLY FORGOTTEN BACK TRAILS THAT TRAVERSE THE HIGH-COUNTRY WILDERNESS. FIFTY-EIGHT TOWNS ARE INCLUDED AS EXAMPLES OF THE VIGOROUS STRUGGLE FOR EXISTENCE IN THE MINING CAMPS OF THE AMERICAN WEST.

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E. R. Jackman and R. A. Long

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New Books For Desert Readers

GHOSTS OF THE ADOBE WALLS

By Nell Murbarger

Good men and bad men, robust prospectors, river boat captains, gamblers and warring Apache Indians come to life in the pages of Nell Murbarger's new book.

Long known as the "Roving Reporter of the Desert," Miss Murbarger has once again compiled a fascinating chronicle depicting ghost towns of the old West—this time centered in Arizona.

Although historically accurate, this is not a pedantic book with footnotes. A detailed roster of the ghost towns is printed in the back. Miss Murbarger's main sources for information are those of oldtimers who either participated or whose parents lived during the episodes and old newspaper accounts which long ago flamboyantly reported actual happenings as they occurred.

These sources, combined with her own experiences in tracing down and visiting the sites of the Arizona ghost towns, makes "Ghosts of the Adobe Walls" a fascinating book for both those who stay at home or those who want to follow the author and once again live the days of the old west.

Containing 398 pages, the hardcover book is published by Westernlore Press and sells for \$7.50. It may be ordered through the Desert Magazine Book Service, Palm Desert, Calif. 92260.

JEEP TRAILS TO COLORADO GHOST TOWNS

By Robert L. Brown

It's doubtful that Washoe prospectors from Nevada ever suffered worse weather than those who sought gold in Colorado. The town of Caribou, 9,905 feet above sea level, was buried under snow nine months of the year and guests were often forced to enter or leave the Sherman House, its finest hotel, through upstairs windows. Drifts built up in back of houses to form one huge snowbank the length of town, along which children and adults traveled in toboggans, sleds and go-devils.

One of the world's most superbly preserved ghost towns is named Carson, after it's discoverer Chris Carson, and may be reached by what author

Brown terms the world's worst jeep trail. Consisting of a hospital, 18 houses, a false-fronted store with shelves and showcases, a water wheel in the stream and many items of mining machinery still on the site, it is rarely visited. Double bonanza for those rugged enough to reach this spot is another townsite located a few miles above it. This one is also known as Carson. Although there are a number of ideas on the subject, to date no one knows for sure which was the REAL Carson.

Mr. Brown's writing doesn't bring his ghost towns alive in the robust, exciting manner of many other ghost town writers, but as a practical guide book with reliable, thorough research and first hand information about Colorado towns and camps rarely mentioned by others, his Jeep Trails is unsurpassed. A history instructor at Denver's South High School, Mr. Brown has personally visited all of his ghost towns, illustrated his book with fine photographs, and included detailed instructions and maps for finding each one. Although he travels by Jeep himself, many of the towns are accessible by passenger car.

This 239-page hard cover book is published by Caxton Press, Lt., Caldwell, Idaho. Price, \$5.50.

CORTES, The Life of the Conqueror

By his secretary Francisco Lopez de Gomara. Translated and edited by Lesley Byrd Simpson

In his translation of Gomara's exciting work, Mr. Simpson loses nothing. Cortes lives as vividly on its pages as a modern hero. Perhaps more vividly. Conquests of exotic lands, explorations of new worlds, battles with uncivilized peoples—these don't happen today.

Courage, cunning, intelligence and wit combine with deviousness, deceit and prevarication to portray Cortes as he went about the business of conducting the most astonishing military exploit in the history of the New World. Battle after battle is described in detail, yet the saga never grows dull. Always there is a new challenge, an unexpected loss or victory, a surprising discovery.

Although the original Spanish edition of Gomara's book, titled the History of the Conquest of Mexico,

By Choral Pepper

has been sharply criticized for crediting Cortes with certain victories shared in and, perhaps, executed by others, his descriptions of the perils of the campaign, the land of Motezuma, its flora, fauna, temples, cities, artcraft with feathers and gold, and its religion are related in fascinating detail. Divergencies that may exist between his and other historians' accounts of the feats of Cortes are of little consequence.

Illustrations are reproduced from the Lienzo de Tlaxcala, a 16th century illustrated document depicting the Conquest of New Spain. The original painting disappeared during Maximilian's time, but copies had been made that are here reproduced.

Published by the University of California Press, this handsome 425-page hard cover book may be ordered from the DESERT Magazine Book Service, Palm Desert, California. Price \$8.50.

THE YELLOWSTONE NATIONAL PARK

By Hiram Martin Chittenden,
Edited by Richard A. Bartlett

Our generation takes Yellowstone National Park for granted, but it wasn't always like that. Especially, during the Robber Baron days when U. S. Grant was President, money talked in a commanding voice, and "for the people" meant little more than a phrase left over from Lincoln.

The first white man to discover Yellowstone was a famous trapper and guide named John Colter. Although he probably didn't see the Firehole Geyser basins, he saw and reported too much for his reputation as a man of veracity.

Another tale-bearer unjustly accused of prevarication was old Jim Bridger. In 1856 he told the Editor of the Kansas City Journal the story of the park with the geysers, at the same time drawing an outline of the route necessary to be taken should a railroad ever cross the continent. The Editor was interested, but didn't publish the account for fear he'd be laughed out of town for believing Jim Bridger's lies.

Not until gold was discovered in Montana did resulting curiosity spon-



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"Cosa mala, nunca muere."
Bad things never die.

"A mi me gusta la cerveza cuando la cerveza es buena. Pero cuando la cerveza es mala y el agua breña de una fuente, fresca y cristalina—prefiero la cerveza!"

I like the beer when the beer is good. But when the beer is bad and the water springs from the earth like a fountain, fresh and crystal clear—I still prefer the beer.

"Lo barato cuesta caro."
Cheap things always cost more.

"Si no puedes morder, no ensenes los dientes."

If you cannot bite, don't show your teeth. ///

New Books

sor official expeditions in Yellowstone. That of 1870 led the way, a railroad followed, and the Yellowstone National Park Protection Act of 1872 has preserved this spectacular region "For the Benefit and Enjoyment of the People" ever since.

Illustrated with historic photos and maps and published by the University of Oklahoma Press, this 208-page hardcover book may be ordered from the DESERT Magazine Book Service, Palm Desert, California. Price **\$1.95.**

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By V. Lee Oertle

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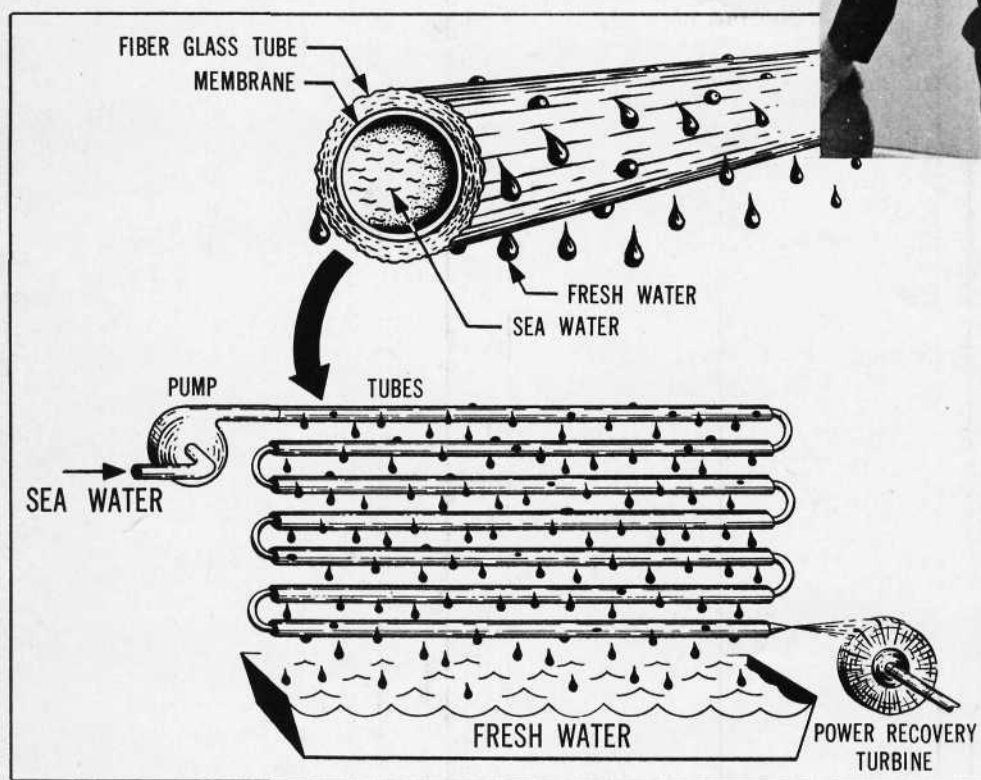
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the MAN and the PROCESS that will bring new life to desert lands

by Choral Pepper



Dr. Glenn Havens, who has developed the first economically feasible process for desalting ocean water. As illustrated in the diagram, pressurized sea water is pumped through Fibreglass tubing integrally lined with an osmotic membrane. Fresh water filters through the membrane and collects in trough, while remaining brine is exhausted through turbine to recover much of the pumping pressure energy.

IN A RELATIVELY short time desert dwellers will live where water is now too alkali to drink. Fishermen along isolated shores of the Arabian Sea will carry fresh fish to areas which cannot support human life today. Fertile areas of Baja will have water to thrive. Colorado River water allotted to Southern California coastal areas will be released to irrigate waterless land. Arid, burnished deserts will turn green. The complexion of the earth will change. And with it, so will man.

The balance of world economy will shift. Wheat will grow where it has never grown before. The Havenots

will become Haves. Commodity demands will alter and we of the desert will be among the first to benefit.

The potential for this world-shaking reality has long been with us. We've always known that someday man would make desalinization—converting salt water into fresh—economically possible. But, somehow, it just didn't seem that it would happen so soon.

On April 21, 1964—less than two weeks ago at this writing—a gentleman whose name sounds more like a housing development than a physicist, officially announced that an economically feasible method for desalting water had been proven. Dr. Glenn

Havens, president of Havens Industries of San Diego, delivered his announcement at the San Diego Gas and Electric Company's South Bay Plant in Chula Vista where a model has operated successfully for six months. This model, which produces 300 gallons of fresh water daily, would fit inside a bedroom closet and could be adapted to the individual needs of a home-owner on the Salton Sea, for example. Mobile units for boating, camping, or military use will be available in the future, as will be multi-million gallon plants to serve entire communities.

As for cost, other than the original unit cost of the converter, operational



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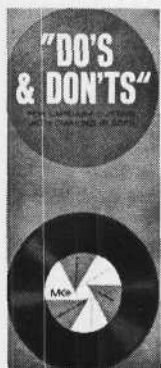
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and maintenance expenses are negligible. On a grand scale, total estimates range from 25c to 52c per 1000 gallons, depending upon the formula used, and to convert brackish water rather than ocean water, the cost would be 1/3 less. Furthermore, the larger the unit, the cheaper percentage-wise it will be to operate.

Because people of the desert will be so vitally affected, we called upon Dr. Havens to learn more of his process for sea water conversion. He explains it simply, "Birds, trees, roots, every cell of every living thing uses the phenomenon known as osmosis in one form or another. The process is as old as life. Living cells pass fluids in and out through the cell wall by diffusion resulting, in part, from differences in concentration. Foods and liquids enter the blood stream by osmosis. Plants absorb food and moisture from the soil by osmosis."

Salt water conversion, however, depends upon a process of *reverse* osmosis. "When fluids of different concentrations are separated by a membrane, the dilute solution will flow through the membrane into the concentrated solution, the level of the dilute solution dropping and the level of the concentrated solution rising, until an 'equilibrium' is reached. The pressure difference between these two levels is known as the 'osmotic pressure.'

"If a pressure in excess of the osmotic pressure is applied to the concentrated solution, the fluid will flow in an opposite direction. That is, from the concentrated solution to the dilute solution. This is 'reverse osmosis.'"

The suggestion that fresh water could be produced from sea water by reverse osmosis was made over 50 years ago, Dr. Havens is quick to emphasize. The problem then was the availability of a truly semi-permeable membrane. This problem lessened in 1936 when French scientist Madame A. Dobry found that the inclusion of magnesium perchlorate in laboratory membrane filters improved their yield. The most significant achievement occurred, however, in 1960 when Sidney Loeb, of U.C.L.A., developed a semi-permeable membrane of modified cellulose acetate with aqueous magnesium perchlorate and acetone which filtered fresh water out of sea water 100 times faster than any previous commercial films and also withstood the water pressure necessary for the reverse osmosis process. Then, from that point to this, Dr. Havens moved in to formulate a practical application. The membranes were cast into large disks and stacked in a frame press where salt water circula-

ted through the unit at 1,500 pounds per square inch to produce fresh water. Later, to enable the process to be brought from the laboratory and reduced to practice, Dr. Havens invented a resin-bonded continuous Fiberglas filament tube which contained the membrane as an integral layer of the tube.

The greatest challenge to the operation's success was in applying membranes to long tubes as development progressed from small handmade tubes to astronomically large ones. These tubes, non-corrosive and non-galvanic, have a projected lifetime of many years. The only energy required is enough to pressurize the water and that may be obtained from electricity, gas, steam, diesel or any form of mechanical power and largely recovered by connecting a turbine to the final stage of the process.

The Havens sea water conversion system is effectively described by the accompanying diagram and caption. When asked why it hadn't been conceived before, Dr. Havens replied, "Probably because it's so simple." Water conversion methods of the past have chosen to take the water out of the salt by evaporation processes—heating water up to steam and then changing it back to water again. To put the Havens system simply, it is one of taking the salt out of the water, rather than the water out of the salt.

It would be romantic to think of Dr. Havens as wrestling with this problem in a garret under gaslight, but that isn't exactly the case. Actually, he took it on as a civic contribution when he became Chairman of the San Diego Sea Water Conversion Commission instituted in 1958. By 1961 his interest in water conversion had become so acute that he dispelled a short-lived term of retirement from his obligations as Vice President and Director of Telecomputing Corporation and organized Havens Industries to undertake research and development, with this project its prime stimulus.

A handsome, distinguished man who appears much younger than his 56 years, Glenn Havens personally financed the initial development of his system, but its future development will be a joint venture with Richfield Oil Company. Details of the amalgamation have not been publicly announced at this writing, but will probably be available by the time we go to press.

Strictly a product of private enterprise, the results of this economically practical process for desalinization will contribute untold benefits to posterity, if handled with forethought and care. ///

AFFIDAVIT

GENERAL

STATE OF CALIFORNIA,

County of SAN DIEGO

VICTOR STOYANOW, Major, U. S. Marine Corps (Retired)

BEING FIRST DUTY SWORN, deposes and says:

1. That I am the author and sole producer of an article submitted on April 12th, 1964, for publication to the Editor, Desert Magazine, subject matter of which is: the question of existence of humanoid animal life in the Lower Borrego Valley - Carrizo Wash region of California, such question based on discovery by me in January - February 1964 of evidence of heretofore unexplained faunal activity of unusual manifestation in that region.
2. That all statements in said article, in the original text and in subsequently edited copy, appearing as facts predicated upon first-hand personal experience and action, are true to the utmost of my knowledge and belief, and have been subjected to no exaggeration, hyperbole, or distortion whatever, other than grammatically or semantically applied literary license.
3. That the primary purpose of the article was and is the generation and stimulus of thought along a controversial subject, and that some or none of the expressions of conclusion necessarily expose or are controlled by my action or absence thereof.

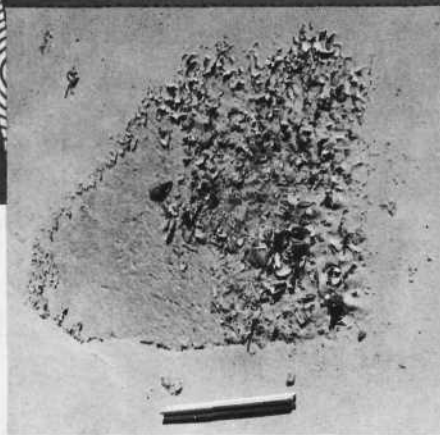
IN WITNESS WHEREOF I HAVE HERETO SET MY HAND AND SEAL THIS 16 DAY OF April, 1964

Victor Stoyanow
VICTOR STOYANOW

Subscribed and sworn to before me
April 16, 1964

R. J. MACHESKY

NAME (TYPED OR PRINTED)
Notary Public in and for said County and State.
(NOTARY SEAL)
R. J. MACHESKY
My commission expires Dec. 15, 1965



Unidentified humanoid tracks photographed in lower Borrego Valley by author Major Victor Stoyanow.

The Abominable Sandman of Borrego

by Major Victor Stoyanow

I ASK YOU, is there an Abominable Sandman dwelling in the badlands of the desert?

Does there exist in that detrital mass between highways 80 and 99 a hybrid to add to the international menagerie of weirdies? Or is it an illusion formed by some obscure phenomenon?

To me it is ridiculous.

Nevertheless, in January, 1964, while I probed San Felipe and Carrizo Creeks in lower Borrego Valley

seeking an access into the Superstition Hills—a phase toward tracing a perplexing lost mine—I first noticed the incongruous tracks.

Near a grove of tamarisk trees beside Harper's Well, I climbed a sandy promontory to obtain bearings. A magnetic resection on Fish, Toro and San Ysidro peaks was made and a fix established to orient my position with the rest of the world, but, unlike Pegleg Smith, I found no dark-skinned nuggets.

However, after descending I noticed

some foot tracks. Thinking it a cold time of year for a splay-toed kid to be running barefoot through the sand, I followed the indentations almost to the floor before realizing that these tracks didn't belong to a kid.

These tracks were faunal. They were also recently made, either during or after a heavy precipitation of the previous week. The prints ran in pairs, generally parallel and averaging about 14 centimeters in length and 9 wide at the "instep." Five

clearly definable, though blunt, digits appeared anteriorly, which terminated in tiny depressions as if made by spikes, long toenails or claws. The prints pointed downhill, each pair falling at an interval of some 40-inches from the preceding set. The heels were sharply and deeply indented, the prints growing shallower and with less definition as they approached the downhill, or digital, extremity.

Upon reaching the relatively level desert floor, the tracks continued into the bed of a wash. In this horizontal attitude, the toes were as clearly de-dented as on the slope, with the heels only slightly less dug-in. Then they disappeared in the fluid, windblown sand of the arroyo.

Search as I might, however, there were no tracks going up the butte. It was as if their unidentified source had materialized atop the dune.

I was only slightly surprised to find identical images on a neighboring dune, this time with pairs of tracks some seven feet apart and slightly larger. At least one deduction was simple. Whatever made those tracks was capable of prodigious leaping! But even so, to the top of a 20-foot dune?

Except for my own, the tracks were alone. No where in evidence were signs of a dune buggy, horse, vehicle, rickshaw or pogo stick. I even gave brief consideration to little green men from flying saucers, until my mind finally prodded me to get the hell out of there.

But curiosity continued to bug me. In some remote recess of memory a dim corollary flickered. Sometime, someplace, I'd heard of something similar. And then it came to me—a bear!

By virtue of physical configuration, a bear can move uphill with great alacrity, but, with the bulk of weight exerted along a vertical plane passing through the animal's heels, it has difficulty in descent. That's the reason for the old saying: If you're chased by a bear, run downhill! Whether erect or quadrup-poised, a bear with throttle open on a downhill grade is in trouble. Thus, perhaps, accounting for the deep heel-prints I'd found in the sand. And, of course, everyone knows that a bear's paw is shaped much like a man's.

Before returning for a more thorough investigation, I checked my topographical maps. Could bears have possibly survived several centuries of civilization on the desert without having been seen? The bad-

lands between Kane Springs and Coyote Wash and between Superstition and Fish Creek Mountains conform to a gigantic, gradually sloping bowl. This depression ranges from 200-feet above sea level to 200-feet below sea level, interlaced with twisting landscapes that defy description. The bed of the San Felipe, invisible from the roads, is in fact a zig-zagging, intermittent stream, passing through a series of sheer box canyons with walls 40-feet high. Moreover, these 40-foot canyon walls are *below* the level of the desert, hence the observable horizon of the terrain from any point on its periphery completely excludes more than two-thirds of the floor: that *below* the line of sight. But even discounting the possibility of having eluded detection, it was still hard to imagine bears on the floor of the desert, without water, without food, leaping with impunity to the pinacles of dunes and sliding down!

So, two days later I returned to Harper's Well, this time with a jug of plaster-of-Paris and two young men from Garden Grove, California—Robert Specky, an accomplished hunter, and Bob Wilson, an archeology student.

"More tracks on the big hill over there," Wilson volunteered, approaching with studied nonchalance to where I was casting some tracks.

"Something's been in the tree," whispered Bob Specky, also sidling to our side.

I examined both finds, remaining non-committal despite the adrenalin that was playing hell with my innards. Emerging from the area later in the day, I tried to form some concrete conclusions. The animal that had rummaged around inside the umbrella of the tamarisk tree was big and powerful. Dry needles had been shoved to one corner and the interior branches broken to a height of over six feet. Further, an ignorance of basic field-sanitation indicated sub-human derivation, and evidence that the creature is omnivorous. The idea that the mysterious despoiler was a speleophile kept recurring. There are many caves, crevasses and subterranean fissures in the Superstition Mountains, which sits athwart the San Jacinto Fault.

Unfortunately, our plaster-castings broke on the trip home, making a return visit imperative if I was ever going to solve this mystery. On the night of February 1st, I returned.

This time I chose an easier route. Taking the road from Plaster City along the Gypsum railroad northward toward Fish Mountain, I left

my car where the railroad cuts across the Sonora Trail—the parched track that Anza took in 1774 from Santa Rosa (Yuha Well) to San Sebastian (now Harper's) in his trek to the sea. From here I continued on foot.

Following in general the course of the Carrizo, I came to the edge of this sink graduating into the San Felipe. There, on the scarp of the West Mesa, and of very recent origin, were tracks similar, if not identical, to those of my sliding bear on the dunes. I followed them into the Carrizo Wash, where they disappeared.

About noon I reached the tamarisks of the Tarantula, where I'd seen the tracks before. It looked as though 'all hell had broken loose. More tracks, identical with the originals, criss-crossed the dunes, but there was a startling new development. Now there were diggings! Small, shallow gouges, with no apparent reason, clawed over large areas of the earth. One shallow set of scratches—the only one with a valid pattern—resembled badger diggings, but with claws an inch thick on hams seven inches broad. With less than three hours daylight remaining, I examined the few smoke trees and other shrubs for hair, fur, scale—anything at all—but I failed to find further evidence, even in the tamarisk tree. On this trip, I decided that photographs would be more reliable than casts.

Mysteries of the desert are not few. A dancing skeleton with a light in its ribcage cavorted through Borrego long ago, which I believe, was finally found to consist of a giant tumbleweed that had picked up a phosphorescent mineral along its route. And then there was a creature that Frank Cox killed, years ago, near Deadman's Hole in the vicinity of Warner's. According to accounts in the *San Diego Union*, it had a head rather small, large buck teeth like a carnivorous animal, muscular arms, enormous feet 24-inches long, weighed about 400 pounds, and was a cross between a man and some carnivorous animal, probably a bear.

And then, since the first of this year, there have been "positive" sightings of the screaming giant of Tuolumne County that terrorized residents of Pinecrest a year ago. A pilot observed the "10-foot man with an ape-like face" from the air and Deputy Albert Miller, investigating the "huge footprints," observed that they were "about six feet apart," and were not bear tracks.

In relating this experience for DESERT, I've tried to apply the rem-

(Continued on Page 31)

The Wealth of San Gabriel

by
Arthur Rouleau

When the desert's hot, San Gabriel is cool. Here's an easy trip for weekend prospectors who live in Southern California.

REFUGE FROM summer heat, a place to fish for trout, a spot to camp where the scent of pines is sweet and pungent, exists within easy motoring distance from most Southern California metropolitan areas. Those already aware of San Gabriel Canyon's primeval assets, however, are often unaware of its historic and mysterious aspects. The mystery involves a lost gold ledge.

The earliest recorded inhabitants of this canyon, reached from California State Highway 39 north of Azusa, were the Shoshone Indians. Arrowheads, mortars, pestles, and other artifacts indicate that they camped near the mouth of the canyon in a village called Asuksa-gna, now a part of Azusa. Within an easy 10 minute hike from Rincon Ranger Station, visitors may see Painted Rock with its fading petroglyphs.

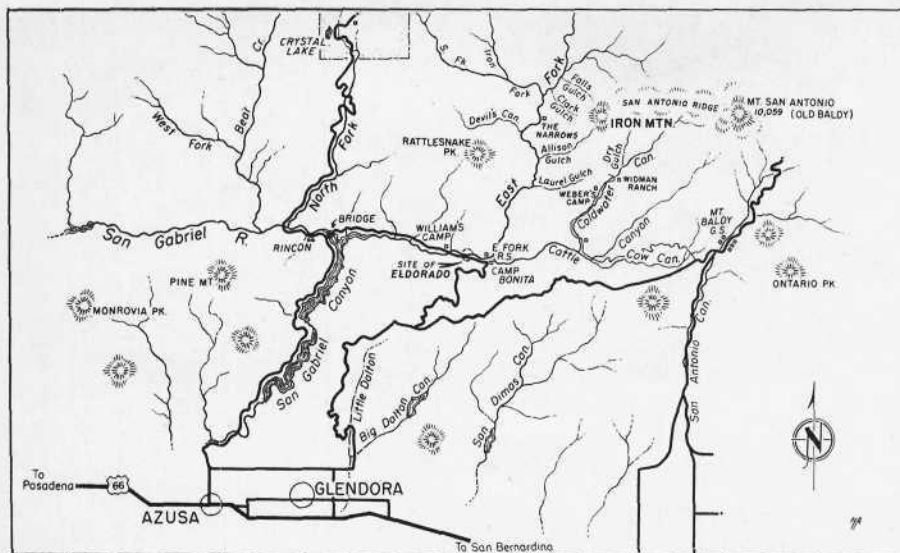
Although it's difficult to fix the date of the discovery of gold there, the first Indians to visit the San Gabriel Mission from the canyon area brought gold trinkets. There is a persistent, but unproven, rumor of expeditions from Mexico to the San Gabriel Canyon around the time of the founding of the San Gabriel Mission in 1772. It is an established fact that mining in the canyon on a considerable scale existed as early as 1855. In a period of 15 years subsequent to that date, \$12 million worth of the precious metal was mined. Hundreds of Indians, Mexicans, Chinese and others struggled to wrest the metal from the earth and a tent and shack town of 1600 to 2000 people, known as Eldoradoville, accommodated miners on the East Fork of the San Gabriel River.

As if jealous of man's mining success, nature loosed her wrath in the form of a massive flood on Saturday, January 18, 1862. A wall of water rushed down the canyon, tossing boulders like wood chips and demolishing everything in its path. Miners suffered incredible hardships that winter, but many returned—drawn by the irresistible lure of gold.

San Gabriel Canyon is rich with



The popular Follows Stages carried passengers and freight into San Gabriel Canyon the hard way, fording the river many times on each trip.



stories of mother lodes and fabulous lost mines. The following is a quote from my taped interview with Miss Ruth Hoag, born in 1884, daughter of Charles P. Hoag, a pioneer canyon rancher.

"Now up in the canyon—nobody knows where, the mother lode of the San Gabriel Canyon lies. It is called the Green Slate ledge. An old man of English stock found this ledge. His name was Hardy. If he ever recorded it, it was somewhere else. Once every year he would come up in the canyon. He camped at our ranch over night and then went on up. Of course everybody stopped at our ranch. They picked up the mail and passed on the news. Most of the time the road went through our place. He would take my mother's brother Billy with him and they would go up in the canyon and camp. He would tell Billy never to follow him. Billy knew where he went. He'd been all over the canyon. Hardy would be gone for about two weeks and come back with enough gold to keep him the rest of the year. On the way back out he would camp at our ranch again for a couple of days. We saw his gold. One time he brought out a nugget that was estimated at \$300. Unfortunately later on he was murdered in his cabin."

A story that some old-timers swear is true, is one about Luciano, an Indian of unknown tribal derivation who did nothing more than sleep or eat, but never lacked money. When his supplies ran low, he disappeared in the night so no one could follow him. According to the story, he went toward Iron Mountain near the old Stanley Milley mine, but nobody ever found the spot he mined. It must have been rich, however, because in two or three days he always returned with enough to grubstake him for months.

Today nothing is left of Eldoradoville. Its location is well established though, because there are still surviving old timers who knew the miners or are descended from them. It extended along the river bottom from where the Williams Camp is today to East Fork Ranger Station. This is a pleasant hike for those interested in exploring historic areas.

Mining operations of Eldoradoville are still much in evidence. Among the benches, ledges and walls of the canyon, above the reach of malevolent floods, are the tunneled mines and torn cliffs. Some reach deep into the earth, some are shallow and still others have collapsed. Portions of the walls of the canyon have been washed away in the hydraulic mining



Follow's Camp on the East Fork was a popular resort in early years. Ralph Follows left Liverpool on a stretcher in 1881 and found robust health in the canyon. Mine tunnels are unsafe for exploration, but interesting to photograph. There are many in the area.



operation. Old paths may still be found, but explorers must keep in mind the dangers of snakes and collapsing tunnels. The Recreation Department of the U. S. Forest Service, to accommodate an ever-increasing need, plans a picnic facility on part of the site of old Eldoradoville.

East Fork gold is still in evidence today. Week-end miners and campers bring their pans and sluiceboxes and there is seldom a weekend when they aren't engaged in man's ancient quest for gold. Those who don't own pans or sluiceboxes can rent them at the Williams Camp Restaurant.

Of the hundreds who came to the canyon in the early days, only a few put down their roots. One who stayed was William Potter. He came to the canyon in 1859. In 1863 he went to San Bernardino and married. A short time later he returned to San Gabriel Canyon, where his daughter, Mary Jane, was born.

On or before September 5, 1880, Charles P. Hoag, who held a ranch near the mouth of the canyon, saddled a pony. Trailing "Kitty," a pony that was a gift to his bride-to-be, he rode up through the canyon to the main fork and then east on the East Fork to the cabin of William G. Potter to claim Mary Jane as his bride. Nothing is known of the courtship that preceded this event, but the following letter, written on the occasion of its 17th anniversary, draws aside the curtain for a glimpse of that canyon wedding more than 84 years ago. It is given exactly as written.

"Azusa San Gabriel Canyon, Sept 7, 1897 Mr. and Mrs. Hoag, think, Seventeen years ago one of the prettiest and most interesting Wedding ever witnessed in San Gabriel Canyon was that of Charles P. Hoag, Mary Jane Potter, The ceremony was held in San Gabriel Canyon at the Brides Parents Wm. G. Potter and Ruth Jane Potter Precisely at 11 o'clock the Bride was companied to the parlor wher Judge Gates led the services, and the candidates of matrimony pronounced man and wife, Immediately the guests were led to, to a table wher a reception was given in the Shaip of a well fild table, in thoes days wild meat was plenty the Table was well suplide with the saim To maik Remembrance last I will give sum of the dainties that atpaired on a long table standing under the Boughs of a anchent oak tree, the Rosted ham of a larg mail deer, 100 12 inch trout, 12 larg mountain gray squirrels, 15 mountain quail rosted, 50 lbs sack of flour maid in to all kinds of pastrey as this was a mountain

wedding 17 years a go in California, tame florer decoration was carse in California but nevrr the less old timers though back when thei was boys and girls, and tuck them selves to the mountains in sertych of wild flours the Bride wore a large Muscall (Yucca flower) on top of her head, the groom had a bunch of posion oak in his buton hole

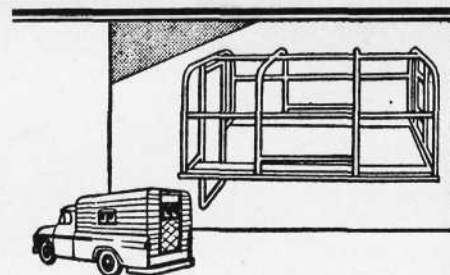
As this wedding tuck place in the year 1880 when Butey was not prised as high as this day we wont coment on that point only say feemales was carse and Butey wasn't in it.

Well 17 years is gon, where due we find this weddid cople living in San Gabriel Canyon at the saim old place one miles from the mouth All this long 17 years thei follided Bee Business only think the amount of Bee stingers that persted the Goviner (affectionate term for C. P. Hoag) He told me not long a go if he had a dollar for every sting he could by out United States and third of alaska, Bad Stung up Man, Well we will see what part of the Household duteys the Queen had done for California she brought fourth 6 Californiano 4 Girls and 2 boys The oldest was a girl if living wood be 16 years old then the balence run down as the Goviner could stand it.

We wish you 17 years more happy marige life

Your mother-in-law, Ruth J. Potter"

Yes, the years have brought many changes to the canyon, but it gives unstintingly of fresh air, romance, crystal waters, and adventure. ///



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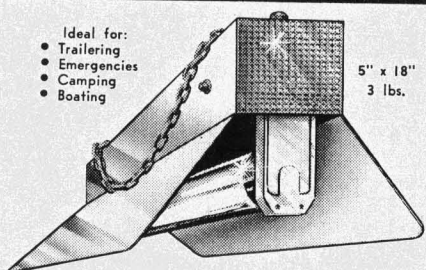


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THE LAZY RL RANCH

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REAMS HAVE been written about the hardy prospector of the West, but little about the burro plodding by his side. Without this long-eared beast of burden, fortunes in gold and silver would never have been discovered and untold numbers of prospectors would have met death along hazardous trails where burro skeletons still bleach in hot desert sands.

The burro was not indigenous to America. His ancestors, the ass and the donkey, served man before Christ was born, and Mary, His mother, rode one to the stable in Bethlehem. Later, Conquistadors brought them to America from Spain. When their explorations ended, the burro was given his freedom to roam and multiply. The padres, who remained to Christianize the Indian, found the burro so well equipped by nature to withstand heat and scarcity of feed and water that they continued to utilize him in their services to mankind.

Burros roaming the West today add a picturesque touch to the desert's landscape, and their antics and human-like intelligence contribute much to desert lore. Cautious and sure-footed as a mountain goat, when a burro decides a spot is too narrow or unsafe to pass through with his pack, no amount of prodding can budge him. According to Dolph Nevarres, Death Valley resident for over 50 years, the burro also possesses a keen sense of smell. A waterhole might be miles away, but the burro will make a beeline for it. Upon finding it, if the "desert canary" refuses to drink, man had better leave it alone because it isn't fit to drink. Because of these traits and an ability to thrive under conditions impossible for other herbaceous animals, a burro is a prospector's most valued possession.

"The burro's name—synonymous with stubbornness—is a warning to a sensible owner to never underesti-

mate its fixity of purpose," continued Nevarres.

"For example, a burro knows exactly how much he can carry comfortably. Just add another flapjack and see what happens! He refuses to budge. If prodded he will lie down, roll over, or in some manner get rid of the pack—or so badly disarrange it that the whole thing has to be packed over again.

"On the other hand, the little fellow's patience and loyalty is limitless. A kindly-treated, well-trained animal will be just as cooperative as he is stubborn. He will plod willingly through winter storms or summer heat over impossible trails and then rustle up his own grub or go without.

"In the old days a prospector sometimes left his burro in camp to be gone for a day and an accident prevented his return. Some pathetic sights were discovered later . . . the burro with its pack on its back, just where it had been left, starving or dead.

"A burro isn't all good, though," Nevarres smiled. "Sometimes they're conniving little thieves. Pete and Hank, two prospectors I knew, owned a burro they named Honest John because he was such a cunning camp robber. One time they left the valley for a prospecting trip in an area where they didn't need burros. To safeguard their grub while they were gone, they covered it with a heavy tarp, weighted down with rocks and left the burros browsing around a nearby spring.

"Several days later, on returning to camp, Pete let out a yelp. 'Whatin-hell's happened to them burros? They're not ours—these are all white!' And indeed they were. Honest John had pulled the tarp out from under the rocks and dragged out several sacks of flour. When the burros couldn't eat any more, they scattered it over the ground and wallowed in

Whatever Became of

Jenny?

by Harriet Farnsworth

it, leaving their owners without even a cupful for flapjacks."

Burros have played an important part in bringing wealth and growth to new territories. Because of their wandering habits and cussedness for hiding in unlikely places, prospectors declare this animal has discovered more gold and silver than they, themselves, did.

Today both the oldtime prospector and his burro are disappearing from the West; the new crop has taken to 4-wheel drive vehicles which carry bigger loads, move faster and go farther. Strangely enough, because of this, the burro fares better today.

Recognizing the need for a management program to control over-population of burros, the Death Valley National Park Service is live-trapping and hauling them from the monument for use as pets for children and for pack-stock on guest ranches. Their plan is to maintain all wild burros within the carrying capacity of Death Valley's food and water supply with respect for the protection of natural vegetation and other wild life for the proper enjoyment of the public, and for the most humane management of the burros themselves.

Several years ago Sears Roebuck & Co. advertised them for sale in their catalog. This, fortunately, has been discontinued. But burros for pets may be bought from individuals throughout the desert country, if a fellow can be induced to part with his little friend.

The most enjoyable Christmas party I ever attended was one held at Furnace Creek Ranch in Death Valley. When Santa brought presents into the big hall, he did not bring them on a sled hitched to reindeer. He brought the presents on the back of a humble little burro.

And so it was on the birth of Christ, when our faithful, loyal burro took Mary to the manger in Bethlehem. ///



THE COYOTES are howling in the Lava Beds tonight. On the rocky sides of Schonchin Butte, for miles across the lava plateaus, and far up the ridges toward old Fleener's Place and Poverty Flat, they point tan noses toward the moon and howl their strange, wild song of freedom.

There has been a price on their heads for 150 years—predators, chicken thieves, sheep killers. But they survive. How wonderfully they survive, in spite of guns, traps, and pellets of poison gas. And here in the Lava Beds National Monument is refuge. Their bellies are full of mice, kangaroo rats, reptiles, and rabbits. Their silent shadows prowl the purple sage and twisted lava like the ghosts of Modoc scouts of 100 years ago. Across the miles they call and answer until dawn, and then they find the shady side of a cool rock to sleep.

There is no place quite like the Lava Beds. They were born when the earth was heaving with volcanic convulsions. The soil is pumice, lava, and black glass. To the north near the Oregon border, is Tule Lake, formed when a gigantic rock strata faulted and fell. The valley filled with water and is now the stopping place for six million birds wandering along the Pacific flyway.

To the west are the Cascades, range after range, culminating in the glistening snow crown of Mt. Shasta. On the eastern horizon are Horse Mountain, Coyote Butte, Saddle Blanket Flat, Dead Horse Canyon, and lava, miles and miles of lava.

Rising to the south are Cougar Butte, Shotgun Peak, and the massive volcanic mountains of black glass.

The Monument itself is a vast museum of geologic, natural and human history. Here great rivers of molten lava once poured down the mountain slopes. The outer crusts cooled, while the hot interior continued to flow, forming miles of twisting, turning labyrinths that can be explored with the aid of gasoline lanterns furnished without charge by the U.S. Park Service. Each week the open caves are inspected to insure the visitor's safety. Skull and Merrill caves are floored with permanent ice. Early settlers held skating parties in them. The walls and ceilings of some caves glitter with bright mineral deposits; others bear the strange petroglyphs of pre-historic men.

Near the eastern Monument boundary, inaccessible to the public at present, is beautiful Fern Cave. The only known opening is a round hole which unexpectedly appears on a level plateau. This is a lava tube which, except for the small hole where the ceiling caved in, is completely obscured by a mantle of pumice. On the cave floor, up and down the tube, as far as sunlight can reach through the narrow opening, is a verdant growth of rich, green shield ferns. How and when they found their way down through that narrow opening, so many miles from any other representatives of their species, will perhaps remain a mystery forever.

A lone jackrabbit makes Fern Cave his home. He is warm in winter, cool in summer, out of reach of predators, with a year around crisp, green garden all his own. Who knows but what a Miss jackrabbit will one day fall through the hole and

make his paradise complete, or otherwise, depending upon the point of view of a male jackrabbit?

Schonchin Butte is the commanding point from which most of the Monument can be viewed. This old cinder cone is still criss-crossed with the trails of a species of mountain goat which long ago inhabited the area. High on the summit a fire lookout station has been built and laced to the mountain with steel cables to prevent high winds from plummeting it down the slope.

With her year-old baby, a pretty 19-year-old lady "mans" the lookout post. Once each week she descends the steep foot trail to civilization. But she says she loves her job. It is cool, quiet, with the feeling of being a million miles away, and the view from the sunny veranda encircling her house covers 5000 square miles of northern California landscape.

The Butte was named for the Modoc Chief, Schonchin, one of notorious Captain Jack's lieutenants. Looking northward from the fire lookout toward Tule Lake is a great, rugged mass of black lava. The principal engagement of the Modoc War was fought among these ridges and ravines, when Captain Jack and his minute band of seventy warriors faced and slaughtered scores of the U. S. soldiers who were pursuing them.

The Modocs were of Klamath stock. Due to certain dissensions, they split away from the Klamath tribe at about the time of the Revolutionary War, and settled in Tule Lake Basin. As white men settled the fertile valley, the Modocs were forced onto the Klamath reservation. Since the two had become traditional enemies, the situation was untenable. Captain Jack and a small band of followers, 160 in all, including women and children, left the reservation and returned to their old haunts.

Fighting broke out when the U.S.

by
L.L.Prout
Coyotes Are Howling

Army undertook to drive them back with the Klamaths. There followed the most costly struggle in the history of the U. S. Army, considering the small number of the enemy. Scores of soldiers were killed or wounded. Throughout the long and bitter engagement, only one Modoc warrior died. The Indians were fighting for the right to occupy land which had long been their home. They were fighting amid familiar terrain, and out-maneuvering the army at every turn. At length the force of numbers got them. Captain Jack and three of his sub-chiefs were hanged. A few warriors were sent to prison at Alcatraz. The remainder of the band was removed to Indian Territory in what is now Oklahoma.

It was an ignoble victory for the army, a costly campaign from beginning to end. The old battle lines are still there—the rows of lava rock stacked up by the troops, the scouts lookouts, Captain Jack's cave, the Modoc stronghold. The blood has weathered from the rocks and the scraps of shrapnel have rusted away. Otherwise, nothing has changed. It is a great experience to climb through the rubble of that battlefield and reconstruct in your mind's eye the vivid events which transpired there nearly 100 years ago.

Far to the west is Gilem Bluff and Howitzer Point, from which so many balls were fired with such negligible result. Halfway between is Canby's lonely cross marking the spot where he was killed by Captain Jack while standing under a flag of truce, endeavoring to prevent further bloodshed. Here were two good men, strong men, facing one another, but neither could understand truly what was in the mind of the other. The Indians and the white each did what they felt they had to do. And history spilled its blood across the Lava Beds.

Time worked against both sides. Captain Jack was waiting for the snow to melt in the mountains. Then he could lead his people far into the wilderness where they could never be found. The troops were waiting for reinforcements. The snow did not

melt, but the reinforcements came. And the Lava Beds have the sorrowful history of the Modoc War.

Horse Mountain to the northeast of the Monument is an old Modoc landmark. It is a volcano cone sweeping upward from relatively level terrain. On top of the cone is a smoothly upcurving meadow of many acres, surrounded by precipitous cliffs. There is one gap in the rocky crown, one easy way up, located on the northeast rim.

The Modocs liked horses. There was little they would not or did not do to obtain them, much to the distress of the white man. The meadow on top of Horse Mountain provided

an excellent natural corral. Up through the gap in the rim the Indians would lead their newly acquired steeds, and turn them loose, closing the gap with ropes. Due to the cliffs, the horses would be there when they were wanted.

At that time Tule Lake was much larger than it is today. Water came near the base of the volcano cone, and was therefore sufficiently accessible to water the horses corralled on Horse Mountain.

It is a rough ride over to that old landmark, and the climb up through the gap is hard on legs and lungs. But it is an exhilarating experience for this is hallowed ground, and the

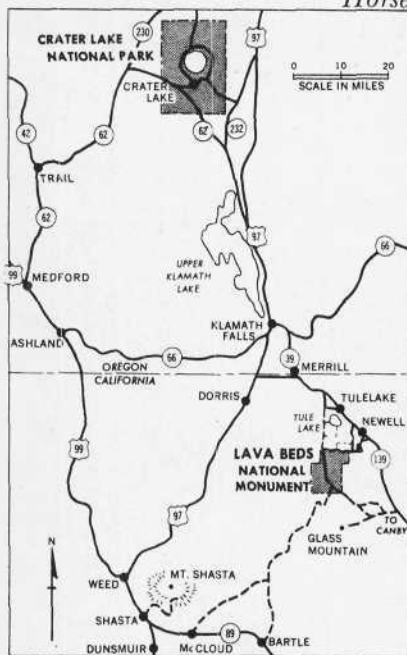
For Campers Only



In The Lava Beds Tonight



Horse Mountain



Fleener's House



view from the sky-high meadow is superb.

Prisoners Rock, a detached portion of the Monument lying a short distance directly east of Tule Lake, was also washed by waves when the lake was full. It, too, is a volcano cone, but the waves undermined the east and west sides, causing rocks to slough off, leaving tall, perpendicular



Glass Mountain

cliffs. Pre-historic men, traversing the lake on rafts or boats, left their peculiar messages carved in the stone. No one understands what they mean, and perhaps we shall never know. But they represent an effort of men to record what they have seen, or thought, or done.

Gillem Bluff, from which the howitzers were fired at the Modocs, is a

fault line. Paralleling it a mile farther west is a similar fault, though of lesser proportions. The Tule Lake bed was formed when the rock strata broke and sank along Gillem Bluff. When the sinking occurred at the fault farther west, the bed was formed for a series of wet weather lakes, known as Gillem Lakes.

It was at the north end of these lakes that an old settler named Fleener put down his stake. His cabin is still there, windowless and doorless, just a square box with a pitched roof and a rusted-out chimney. His marvelously preserved garbage dump still yields a few high-button shoes and similar relics. It seems the main things he did were to discover Fleener Chimneys in the Monument and to dig a well on his homestead. It was and is a marvelous well, hand dug with pick and shovel, straight down into the lava. When Gillem Lakes were dry and the land parched, Indians and whites alike would travel far for a sip from the pail at Fleener's well. It is a hard, slow drive through a coyote-filled valley, but no homestead looks quite as mystic on a film transparency as old Fleener's Place.

To the south of the Monument are the black glass, or obsidian, mountains. Heavy trucks roar down the steep, narrow roads loaded with pumice from the mines. They don't work on Sunday, so that is the day to get your chunk of obsidian. Flows stretch for miles down the slopes, but the real sparkling glass is at the top. When the sun is shining right it is like driving toward a million polished mirrors. The whole mountain top glitters and writhes as each turn of the car brings new reflecting faces into view. One instant, it looks wet and liquid, then the angles become right, and the mountain flames with white heat. Photographically, it is a gem, with plenty of pines to add interest to the view.

There are several routes into Lava Beds National Monument. The two best roads branch off from California State Highway 139 between Canby and Tule Lake, and enter from an easterly direction. Another road, entering the park from due north, is extremely rough and may seriously damage a car. Comfortable camps, without any charge, are located near Monument Headquarters, and rangers give campfire programs almost every night. No supplies are available in the Monument.

The public roads within the Lava Beds are good to adequate. Fire

(Continued on Page 31)

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SAGA OF

by Bill Bryan

SEVERAL WEEKS ago Vern Slankard of Indio mentioned that a friend of his, while deer hunting in the New York Mountains, came across an abandoned mining camp untouched by vandals. That was a pretty ambiguous bit of information to go on, but inquiries eventually led me to another Indio friend, Dick Ligman, who found a mine in this general location recorded as the Sagamore Mine and Well in his 1943 California Mineralogists Map and Handbook. It isn't often we hear of a mine left in its original condition anymore. I was determined to get to this one and take photos before it had been changed.

Nevertheless, along with several interested members of our Sareea Al Jamel 4-wheel-drive club, I was leery about the Sagamore. Located at the 6300-7500-foot level on the south slope of the New York Mountains some 17 miles south of Ivanpah, the handbook reported its ore samples to range from 5-50% lead, 3-25% zinc and an undetermined amount of copper. Usually such a description amounts to little more than a hole in the ground, but if Slankard's information was right, we'd be in for an agreeable surprise.

After days of preparation, a group of us finally took off in our 4-wheelers, towing trailers. It was a beautiful Friday afternoon with no wind. We journeyed through the Sheephole Mountains to Amboy, where we turned onto US66 to Essex. A couple of miles beyond Essex, we turned left onto an improved road that carried us to the old railroad and mining

community of Goffs, where we stocked up on supplies—last chance.

West of Goffs, we turned left again onto the improved dirt Lanfair Valley road, which is in good condition. You'll know you're on the right road if, after about 17 miles, you come to an intersection with another dirt road (the New York Mountain road) at which spot you'll find a telephone booth! This surprising compromise with civilization is the only visible structure for miles in any direction and is quite a sight to behold.

We made camp about four miles north of the telephone and set up our radios so we would be prepared to keep mobile contact with one another in the morning when we planned to search for a road or trail to the mine. The south slope of the New York Mountains began to look about the size of Texas as we plotted a course to follow.

Proceeding north at dawn, we passed a cattle ranch and an emergency landing strip where a pair of ruts to our left indicated our ultimate destination. About six miles along this trail we came to the Sagamore Mine. Portions of the road had been washed out by floods. We repaired the worst places by filling them with rocks, but we'd suggest to those who follow that they leave their vehicles at the first bad spot and hike the remaining distance.

Whereas our research indicated a small operation with few workers, the site proved quite the contrary. Its scattered ruins were situated on a



THE SAGAMORE

knoll beside a wash which is impassible to any vehicle other than a trail bike, so we hiked beyond the first group of structures and followed the old ore car rail bed. Most of the tracks are gone, having been removed long ago, probably for scrap, but the ties are still in place. After about ½ mile we came upon the main bunkhouse, still in good condition, and some offices, workshops and remains of unidentifiable stone buildings. Continuing up the wash, we found numerous prospect holes, tunnels, the head frame of the main shaft and a tailing dump, with many mineral specimens lying around. On the side of the hill were another shop building and an enclosure with a fireplace, which we decided had been another bunk house. Here there was a tunnel with water trickling from it and deer tracks in the mud. The main shaft is reached easier by continuing up the wash to a faint road, rather than climbing the tailings, some of us learned too late.

May I remind you not to enter any of the tunnels or shafts. I especially know how dangerous this is, as I was on hand when a friend of mine fell down a 100-foot shaft some years ago and was saved only because he was able to grab a rail. I know he'll never recover from the scare—and neither will I.

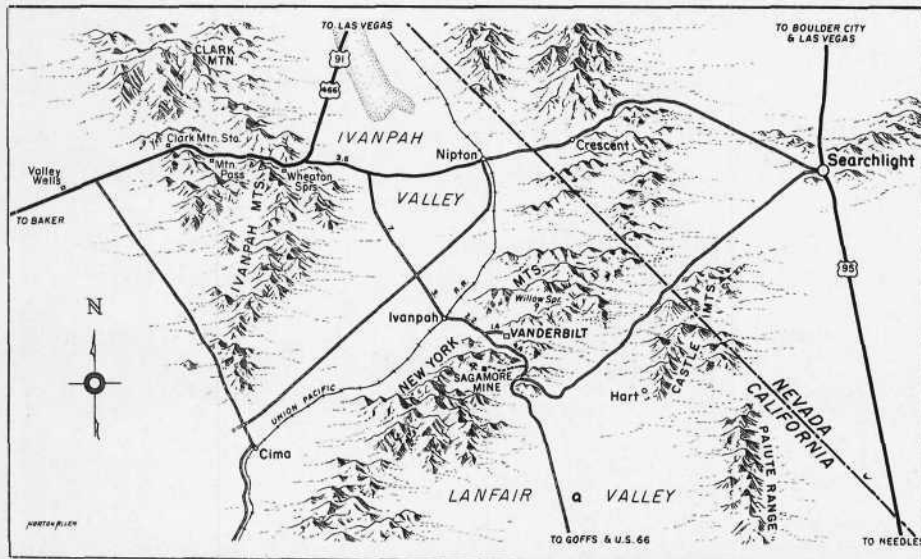
Above the main shaft of Sagamore, the wash leads to several more stone structures, shafts, tunnels, and a dam which was apparently used for water storage.

This was a far greater bonanza than we had expected, and there were

no signs that it had been visited prior to our trip. We were a bit doubtful that this was the same mine so vaguely described at the Sagamore, until one of our party happened upon a galvanized water pipe beside the wash that was addressed to the Sagamore Mine and Milling Company, Riverside, California. This proved the point.

It's things like this that make mine-chasing exciting—more so than when you know beforehand what to expect. However, discovery wasn't our only motive. Adamant as our club members are about destroying property, messing up landscapes with trash, or otherwise reducing the thrill of fresh discovery for those who follow, we see no harm in digging in abandoned garbage dumps for bottles.

This might sound funny, coming from former gold seekers and weekend prospectors like us, but a well-preserved whiskey bottle of rare vintage is today worth more than a pin-sized nugget. And the thrill isn't all in the value, either. We've collected books that tell the history of old bottles. We've learned to distinguish certain kinds by the formations of their tops and bottoms, how to examine air bubbles in glass, the years certain companies changed their bottle designs, and the vintage of a bottle capable of turning purple in sun. All such information contributes to our knowledge of the time and conditions that fostered, for a moment, challenge, risk and opportunity to an era long past. Through their bottles, we've learned to know them. And it's a heck of a lot of fun! ///



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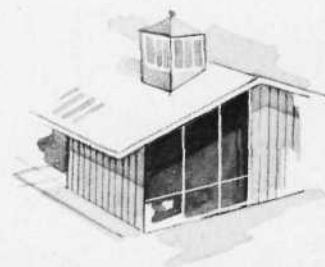


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Red Rock Crossing

By Janice Beaty

Photo by Darwin Van Campen

IT IS A FLEETING thing . . . this moment of summer. It may be shimmering and vibrant, or tranquil and cool . . . You may search all season and not discover it, or stumble upon it around the next bend.

But if you should drive through Sedona, Arizona, you will find it without fail. Turn left onto Red Rock Crossing Road five miles south of town. Keep left at the first fork, and right at the second, following the road for three miles to Oak Creek.

There, at Red Rock Crossing, summer awaits you. Rustling cottonwoods, rippling waters and sculptured buttes blend in a strange magic that leaves few untouched.

Perhaps it is the road. It has wandered along, meandering in the manner of the Creek, and now it suddenly dissolves into the Creek itself. Red Rock Crossing means exactly that: it is a creek-crossing on red rock . . . a ford. Only after summer storms is the Creek a torrent. Otherwise it is calm and crystalline . . . five inches deep most of the way across, and never more than eight inches. Your car will roll smoothly over flat red rock to the far side where the man-made road continues.

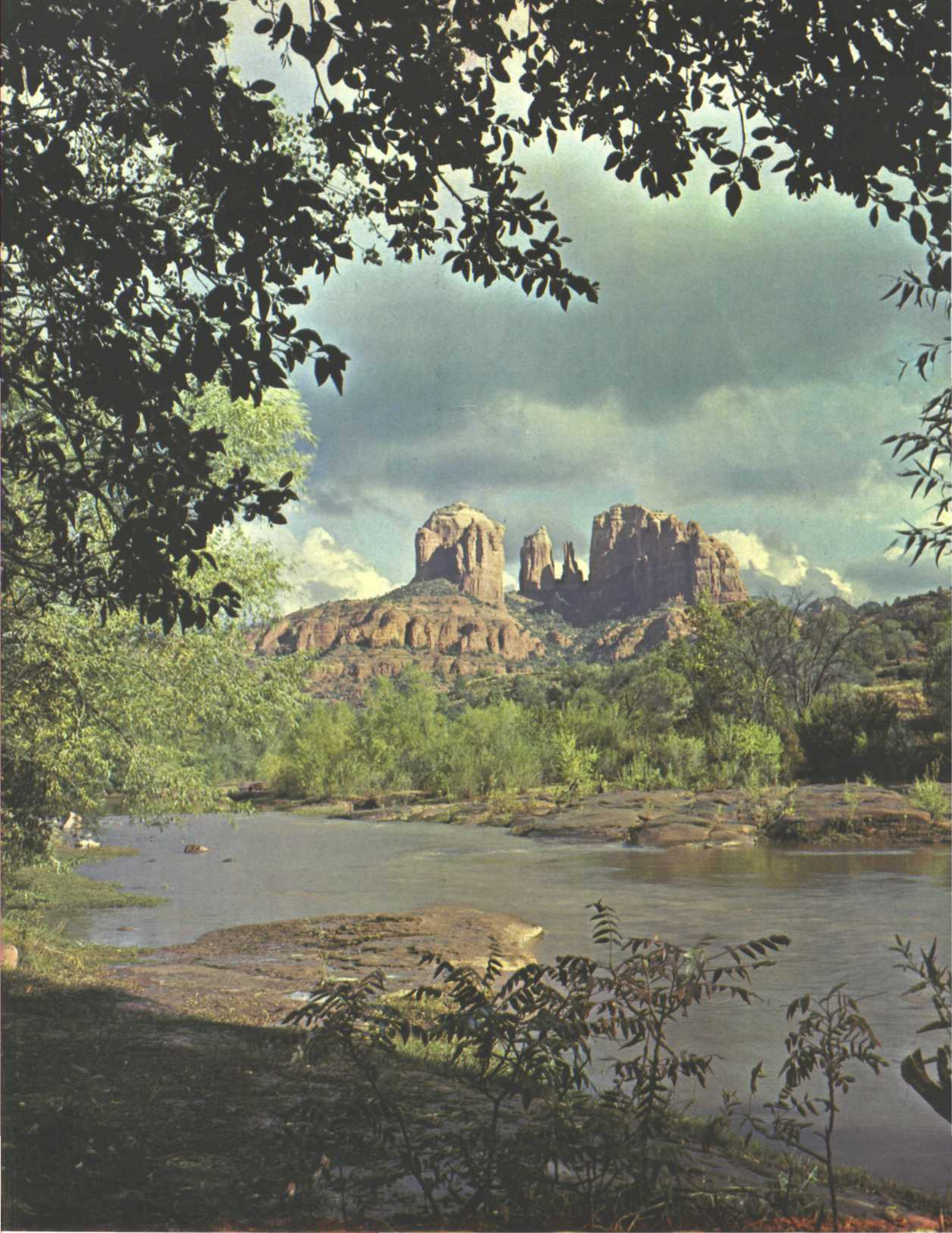
But the spell of the Crossing is more than the road. Above and below you is Cathedral Rock, most majestic carved butte of the Red Rock country. Look up or down and it is there . . . high against the desert sky or reflected in the stream at your feet.

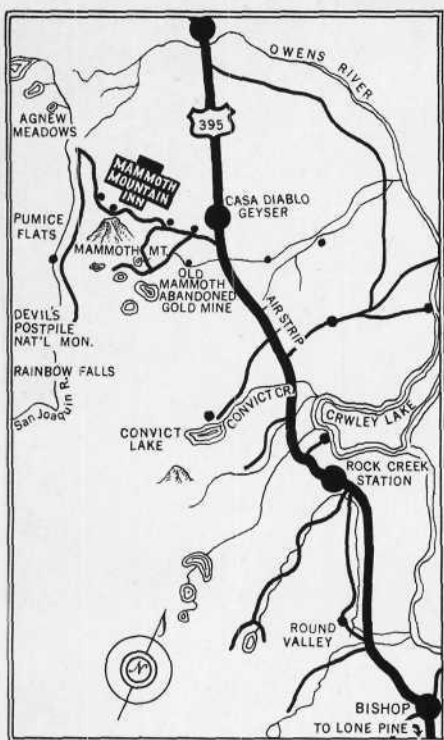
Wondrous Oak Creek begins as a spring from a rock fault at the head of Oak Creek Canyon and roars for 20 miles through the Canyon before it calms down below Sedona and winds its way 30 miles more to the Verde River. It is cold enough for trout and big enough to grow giant cottonwoods and sycamores and willows on its banks. A truly remarkable stream in this desert land.

It provides wading pools for kiddies on shelves of smooth red rock, and natural holes for swimmers up to four feet deep. On its north bank you may picnic or camp up to 14 days (but there is no room for house trailers, says Forest Service, and please bring your own water).

Stay an hour or a day; it makes little difference. For whatever it is about Red Rock Crossing . . . it is something that will stay with you forever.

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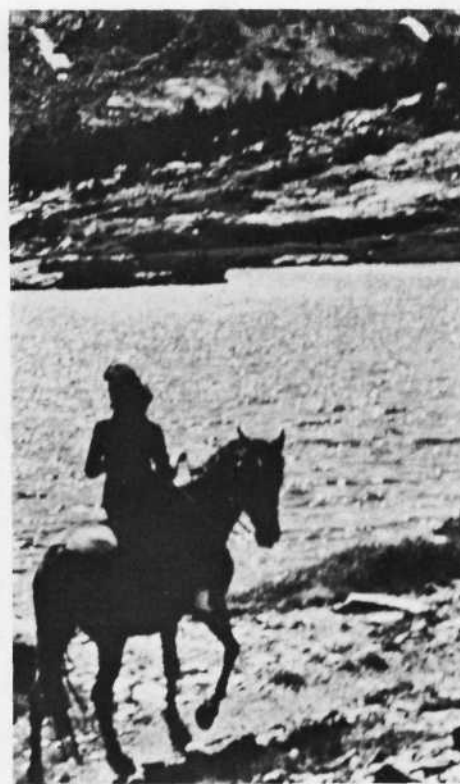


Desert's

trip of the
month

The Sierras Sing a Siren Song

by Dorothy Robertson



WHEN SUMMER comes to the lower elevations, many of us desert dwellers yearn for singing streams, deep, cold mountain lakes and snow-hooded Sierran peaks where tall pines shade forested trails.

The most popular and the most widely known of California's fabulous mountain playgrounds is the spectacular Mammoth Lakes high country in the heart of the Inyo National Forest, a six hour drive north of Los Angeles, and only three hours south of Reno, Nevada. Here where the air is sharp and thin, mountain winds sweep through canyons, pines and meadows to make exhilarating music for low-country ears.

And here we have vacationed for over 30 years. When warm weather comes to stay we can hardly wait to stow fishing gear, hiking boots, boat, camera and knapsacks into the camper and be off.

Owens Valley is the southern gateway to this lovely Sierran wilderness. Travelers from the south coming up U.S. Highways 395 and 6 usually rest overnight at picturesque little Lone Pine, the half-way stop, which nestles under the shadow of the soaring Mt. Whitney group of sky-piercing pinnacles.

With a day to spare in Lone Pine it is well worthwhile to take in Chuck and Eva Whitney's guided tours to the region's old ghost towns and mines and see the battlefields and the famous earthquake fault of 1872, the

Camp Independence site, the Camp Commander's home (now restored) and the Soldier's Cemetery.

At Bishop, U.S. 395 separates and U.S. 6 leads north into the ranchlands of Chalfant Valley on the first leg of a fascinating Petroglyph Loop Trip through almost 50 miles of the best concentration of ancient Indian rock-art in the country.

This should be a "must" trip on your vacation itinerary. Nine miles north of the Inyo-Mono County line, a sign points to the first group of petroglyphs 2 miles down the dirt road left of the highway. A short walk along the base of the chalk-bluffs brings you to some of the largest known petroglyphs in the West with circle designs five feet in diameter. Traveling north, the route bends away to the west, leading to the top of the volcanic tableland and the Red Canyon display. This group is so extensive many people like to return again and again in order to see it all. Be sure to carry plenty of drinking water.

From Bishop the Sierra Highway sweeps up through Round Valley and broadens into a four-lane speedway into the Inyo National Forest country. This eastern approach to the High Sierra is a most dramatic one; massive granitic mountains rise precipitately from the valley floor and you notice a swift change both in climate and flora. Pastel pink volcanic rocks called Bishop tuff contrast with the dark

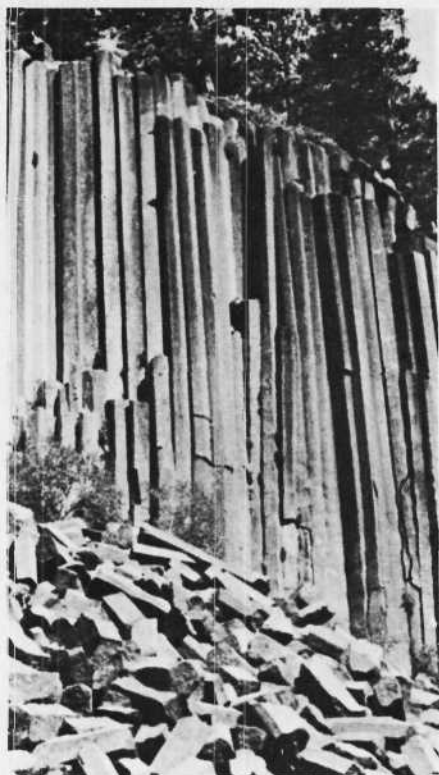
gray of towering mountains. Sage, artemisia, bitter brush and junipers give way to forested slopes, streams and lakes, flower-starred alpine meadows and snow-brushed peaks. Colorado has its Rockies. We Californians have our glorious, unrivalled High Sierra!

Beyond man-made Crowley Lake, teeming with boats and fishermen, is a turnoff view of the barren, sheer cliffs of Convict Canyon. An important geological discovery was made in the dark ridges of this region of small fossils called "graptolites" which were found to be 400 million years old and the oldest life form yet found in the area.

Convict Lake acquired its name in 1871 when 29 desperate convicts—horse thieves, murderers and train robbers—escaped from Carson City, Nevada penitentiary and 6 of the group headed south. The posse finally caught up with them at Monte Diablo Creek, later renamed Convict.

Many people consider the road to Mammoth Lakes with its varied scenery, the Devil's Postpile National Monument, Reds Meadows with its exquisite display of wildflowers from early July through August, and lovely Rainbow Falls to be the *piece de resistance* of the high country.

A good place for a base camp is the Mammoth Lakes campground, near the all-year resort's shopping center, post office, church and cafes. If you are not camp-minded, how-



The Devil's Fence Post

ever, you will enjoy the beautiful Mammoth Mountain Inn—one of the finest family lodges in the West.

One of the area's most unusual sights is the Devil's Postpile, a weird assortment of crystallized rock monsters that dwarf everything else in sight. To reach it, the road passes through towering red fir trees, skirts Agnew Meadow, crosses grassy Pumice Flat, and draws near to the meandering middle fork of the San Joaquin River.

To the right of the main road is a spur that leads to the Devil's Postpile National Monument with a parking area, Ranger Station and Campground. Ages ago fluid basaltic lava poured down the Middle Fork Valley from volcanic vents near Mammoth Pass, reaching a maximum depth of 700 feet. Cooling, the solidified lava shrank. Cracks radiated outward, eventually joining one another; they also grew downward. This resulted in the many-sided columns that resembled honeycombs.

Later an enormous glacier moved down the valley, gnawing away at the columns and leaving only the remnants seen today. The Devil's Postpile is the largest remnant. Frost action is slowly but surely destroying the Postpiles, for the freezing water which collects within the great cracks forces the columns outward. Eventually they fall and shatter.

If you are a hiker, a two-mile trail leads down-stream to beautiful Rain-

bow Falls. Or retrace the road towards Reds Meadow and follow the sign. A half-mile beyond a short spur on the left leads to shallow Sotcher Lake, often called Pond Lily Lake, famous for the golden lilies that cover its surface around July. Beyond the lake the road passes the famous spring-fed Reds Meadow campground, the Forest Guard Station and public bathhouse with hot and cold water from natural springs.

The road continues toward a resort, store and packstation, then heads down half a mile to the beginning of the trail to Rainbow Falls. This trail is an easy hike. The sound of thundering water reaches your ears as the Middle Fork plunges over a basalt ledge into a mist-showered pool at the base. Noon time is best to view its fairylike rainbow mist that sprays into the sunlight, some two-thirds the height of the falls.

With so much scenic mountain beauty to enjoy and capture on film, it is wise to space your itinerary to include every interesting beauty spot in the region. When winter comes you'll be glad you did, as you relive and enjoy again your carefree summer fun in the Mammoth Lakes high country. *///*



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PAN IT IN

By Thomas H. Wiser



WHEN YOU decide to visit America's largest state (Alaska, not Texas), you will follow the famous Cariboo Trail from Cache Creek north into British Columbia's up-country. Whatever you do, don't miss Barkerville—a town in the middle of the Cariboo—which looks today just as it did 100 years ago. It's only 52 miles east of Quesnel and its creek beds still hold gold nuggets. Who knows? You might pay for your entire holiday!

Had you ventured into the Cariboo a century ago, you would have followed the footsteps of a wooly-bearded Cornishman, Billy Barker. On an August day in 1862, his mining shaft was 40 feet into the bedrock of Williams Creek and he was broke and ready to quit. In fact many of the 4000 miners thought him a little tetch because their claims "above" the Canyon had yielded over \$2 million in gold. On one claim, 200 pounds of nuggets, specs and dust (\$38,000 then) was recovered in a single day. However, Billy Barker was tough and stubborn. He dug on. Then two feet further down he struck it so rich that he eventually realized \$1000 a foot for 600 feet!

Log shanties, saloons and false-fronted stores sprouted around Billy's strike, overnight. Nudging the foot of a mountain along Williams Creek, Barkerville's stilt-legged buildings multiplied to become the largest town west of Chicago and north of San Francisco.

Today Barkerville lives as it did in the boisterous gold rush days. When you cross into the "outskirts" of the town, set your timepiece back 102 years. First, you see the bar in Kelly's Hotel just as it was when miners came to town, pockets bulging with nuggets; you peep through curtains into John Bowron's barber parlor; there's even Billy Barker's mine shaft exactly as it was, and the antiquated office of the Gold Commissioner.

If you should wander into Bar-

kerville's cluttered General Store, you will almost rub elbows with rough bearded miners turning over small pouches of ore for six month supplies. Should you tire walking, board a stagecoach and drive through town.



Never let it be said, "They got it all." In riverbeds and along creeks and gulches, there's still gold. You might not have to risk life and limb, as did 30,000 miners, but you may like the challenge of actually panning gold.

You can rent equipment, at reasonable cost, and set out with a guide to Lightning, Williams or Grouse Creeks, then again, Conklin Gulch or Jack of Clubs Lake may sound like a better place to "strike it rich." The odds are in your favor, because you'll be working right in the area which bore the "mother-lode."

Here are a few items the miners carried on their backs, which you don't have to worry about: knee-high hob-nailed boots, rice, flour, ham, salt, pepper and sugar, chewing tobacco, a shovel, pick, iron ladle and wire screen. You might inquire about a mallet-shaped hammer to test "float"—a sandy chunk of gravel with yellow specs. If you can find where it rolled from, your name may become as famous as Billy Barker's.

When you have been out on the rocky creek-bed most of the day, you'll be glad to know that "slap-jacks" — Rocky Mountain dead-shot style" are still available, and milk is much less than the gold rush price of \$1 per pound. In the days of '62, you could have snapped up a pair of good walking boots for \$50, a hundred pounds of potatoes for the slight sum of \$90, a cake of soap for \$1.50, and a mirror or stove for the tidy sum of \$700. Believe it or not, but a lonesome miner could reserve a dance with a buxom "hurdy-gurdy" girl for \$10. At one spot, men played 10-pin bowls with champagne bottles for pins and roving minstrels, acting Shakespeare, were paid in gold nuggets.

Though Barkerville burned to the ground in '68, it was rebuilt with great plans for its future. However, the gold supply dwindled and miners drifted away. By the turn of the century it became a ghost town except for a handful of diehard pioneers. Not until 1958 were steps taken to restore Barkerville to its picturesque 1869 to 1885 period.

Five years prior to Barker's strike, the autumn of '57, prospectors found yellow ore on gravel bars of the Fraser and Thompson Rivers. The following spring, one word flashed to the far corners of North America and rebounded into Europe and Asia, "GOLD!" Like a flash flood, prospectors poured into the struggling province of British Columbia where once only the most durable trappers and fur traders had ventured. By oxen, mule-team, in canoes and on poled rafts, fortune seekers swarmed over rich bars and benches of the Fraser, south of the Cariboo. By 1860, "Doc" Keithley and George Weaver had pushed north and found the rich deposit at Keithley Creek. Discoveries were made on nearby streams tumbling down Bald Mountain—Cunningham, Snowshoe, Harvey Grouse, Antler. William "Dutch Bill" Dietz crossed the mountain ridge (of "Baldy") and descended into a deep narrow valley to find the richest stream of all, Williams Creek.



That was when Billy Barker came upon the scene. When swashbuckling Barkerville reached 10,000 there was concern about law and order. Nearby Indians made the situation explosive. Stern, yet fair, Judge Matthew Begbie kept lawlessness from getting the upper hand. By '63, prospectors could make more money packing gold along the trail to the coast (\$20-\$50 a day) than they could mining.

Had you visited Barkerville then, your stagecoach driver would have reined in the horses at one of the Mile Houses on the Cariboo Wagon

THE CARIBOO

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Road. Passengers were glad to have a roof over their heads and didn't complain at having to share rooms. By summer of '64 (the 1900 variety), however, you'll find excellent accommodation in the neighboring towns of Wells, Quesnel, Williams Lake and Prince George. There's fine rainbow trout fishing in Quesnel, but don't forget the license—\$7.00 for adults and under sixteen, only \$1.

Seventy-six miles north of Quesnel there is a valley formed by junction of the Fraser and Nechako Rivers, and in it is a center that no longer can be called a town. Prince George has passed 25,000 population and sports a long string of fine lodges and auto courts.

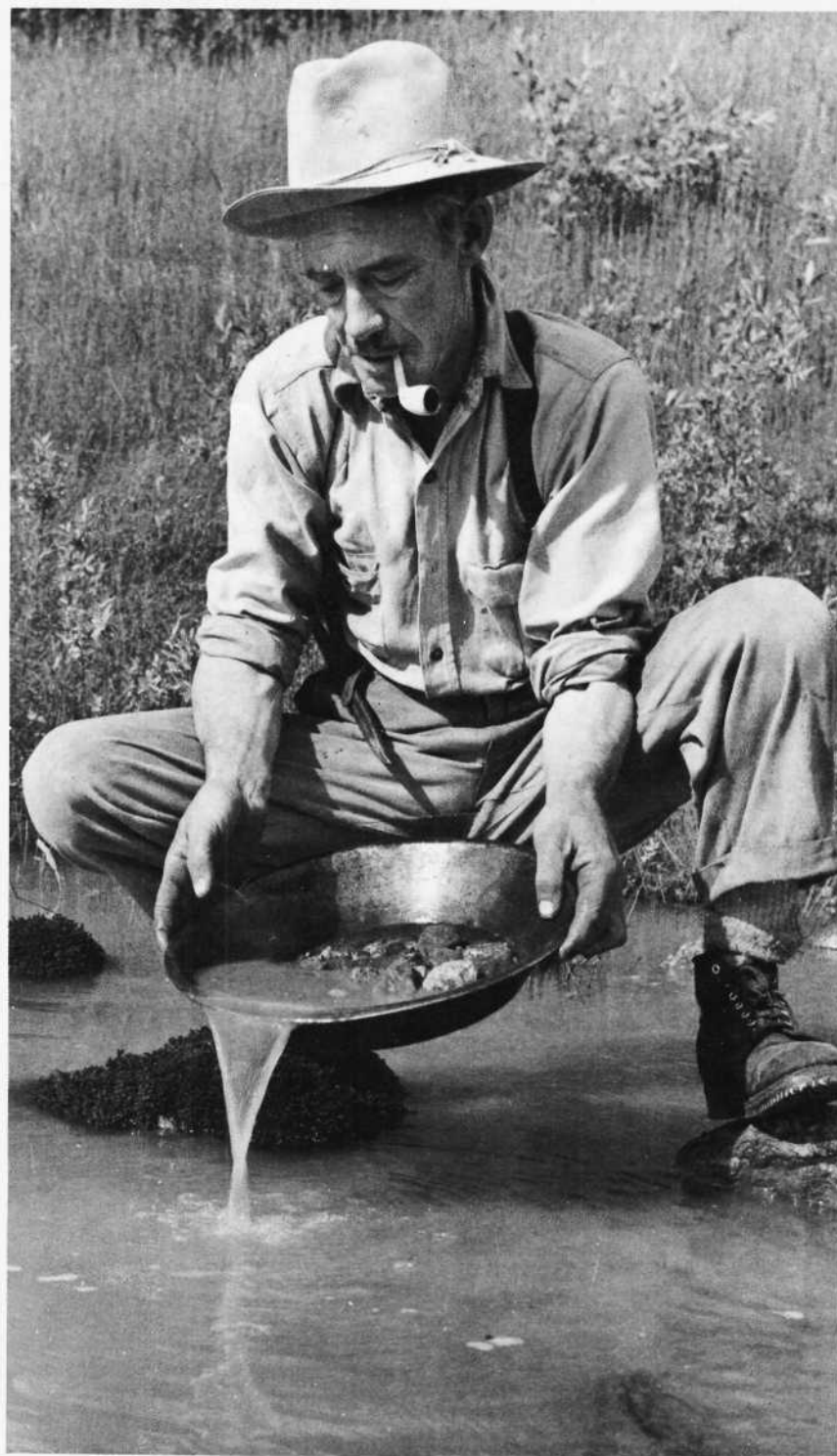
Along #97, the Cariboo Highway, you'll find picnic sites and camp grounds; guest ranches with trail riding, fishing, swimming and water skiing. If you're akin to nature-in-the-raw, the Cariboo country rests in some of the most glamorous scenic areas on the continent.

What ever happened to Billy Barker's fortune? He married a merry widow with expensive tastes and died a pauper in Victoria, 32 years after his strike. Somewhere, in there, is a moral, especially if you rest your head at Quesnel's Gold Pan Motel, go out the next morning and—

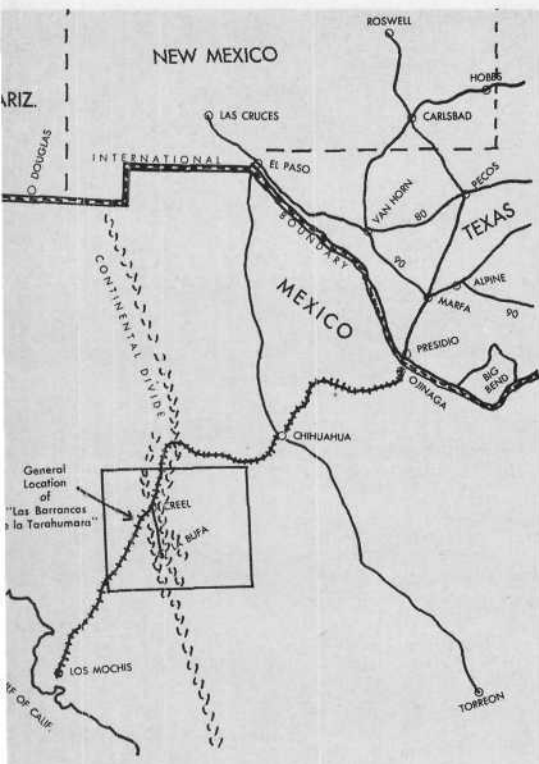
"See yonder shanty on the hill
'Tis but a humble biggin'.
Some ten by six within the wa's
Your head may touch the riggin'.

Good luck!

///



You probably won't pan enough to pay for your vacation, but you can try!



A wealthy Tarahumara's home. No roof is needed. The kitchen is an open space in front of the dwelling.



AMERICA'S

by H. N. Ferguson

A HAT THROWN into a barranca may fall 2000 feet and then suddenly boomerang upward on a powerful air current. Because of these treacherous drafts, airliners avoid flying over the jagged country of Las Barrancas de la Tarahumara, which at one point is 2000 feet deeper than Arizona's Grand Canyon.

In this Stone Age country of northern Mexico, Indians pop up everywhere. The Tarahumara Indian is an uncivilized troglodyte, a cave-dwelling anachronism. Humble and shy, he exists without most of the things that modern society considers essential. His constant use of the words *reko* (please) and *matetrava* (thank you) depicts his character. He will not eat until his guests have been fed. He refuses to sit down in the presence of strangers until he is invited to do so. No matter how scanty his food supply, he shares it with others.

These and other interesting customs are now being witnessed by civilized man for the first time. Tarahumara land, a primitive region along the spine of Mexico's Sierra Madre Mountains of Chihuahua, below southwest Texas, was inaccessible until 1962 when an air-conditioned rail line, the Ferrocarril Chihuahua al Pacifico, was completed to connect the Texas border with Mexico's Pacific coast. But to reach the country of Las Barrancas de la Tarahumara it is necessary to leave the train at Creel and travel by 4-wheel vehicle.

Archeologist Douglas Elliott of Brownsville, Texas, who conducts one of the several tours combining train

travel and 4-wheel drive vehicles, says that the few parties who have tried it on their own have had a difficult time. One group, traveling in two jeeps and a truck, wound up only as far as Creel with the truck such a complete wreck that it had to be welded together there. Although the tour with an experienced guide is advisable, the trip is possible for experienced drivers with enough desert savvy to take along adequate supplies, and an unlimited amount of time.

Among the primitive customs of the Tarahumara is that of delivery at childbirth. A prospective mother leaves her cave and walks to a previously selected spot where she fashions a crude nest of grass under a tree. Then, standing erect and gripping a limb for leverage, she gives birth to her baby. On the third day she takes the child home and resumes her duties.

There is an 80 per cent mortality among children of these mountain people. However, those youngsters who reach the age of five years have an excellent chance of living to be 100.

A child of seven is free to leave home at will, and boys of 14 and girls of 13 are marriageable. A young couple simply moves into a vacant cave and when their first child is born, they return to the family for a marriage ceremony.

The Tarahumara religion is a mixture of paganism and Christianity. It comprises legends of the Creation, the Flood, the coming of a Savior, a heaven and a hell. Long before the coming of the Spaniards to Mexico, the Tarahumaras related that a div-

STONE AGE NEIGHBORS,

the Tarahumaras

ine being had come into the world to help people. They claimed that such a being lived on earth for a while before returning to heaven. Scholars have been unable to determine how or when the Tarahumaras developed these legends.

The Tarahumara people have a strong belief in life after death and the immortality of the soul. They also have a superstitious fear of the dead. They feel that because the dead are lonely they will return in order to hasten the demise of their family and friends. Consequently, when someone dies, he is privately admonished by each member of the family not to come back and bother anyone in the home.

Only the wealthier Tarahumaras enjoy the luxury of a house. The crude structure is usually just four log walls; sometimes it is made by piling rocks in an irregular manner. By leaving out a few rocks in a wall they make a door. There is no roof. The kitchen is merely a level spot in front of the house with neither roof nor walls. When it rains the household moves to the nearest cave.

The typical Tarahumara lives in one of the thousands of caves that dot the Barrancas, and is likely to move several times during a year. He prefers to keep distance between his home and that of his neighbors. A so-called village may consist of half a dozen houses or caves covering several square miles of territory. The Tarahumara will welcome a visitor during the day, but when night comes he will politely ask his guest to leave or else will arrange for him to sleep in a nearby cave. A number of these





Access to the upper level of this two-story cave is by means of this notched log. Below; Indian children can travel like this for hours, facing the sun, without injury to their eyes.



caves are decorated with ancient petroglyphs.

Through the centuries the greatest development made by these Indians has been in the field of scientific farming—they are now at just about the stage reached by agriculturists around 4,000 B.C. They have devised a crude oak plow, with an upright stick inserted to guide it. The tongue is held in place by an ingenious use of wedges which can be set to determine the depth of the plowing. A plow is usually pulled by a yoke of oxen.

These mountain aborigines brew a crude beer by grinding corn that has sprouted and adding grass seeds for fermentation and flavor. The beer serves many purposes: it is used to anoint a baby's body at birth; it is a cure-all for ailments; it is an important feature at ceremonies, such as weddings and funerals. Sometimes it is used for pleasure: a drinking bout will often be prolonged for days and may result in a neighborly exchange of husbands and wives for the night. However, this courtesy is never extended to a stranger and prostitution is unknown among the Tarahumara women.

The fleetness and endurance of these Indians is truly awesome; they are probably the greatest distance runners in the world. They run everywhere they go. When a brave says, "I believe I'll run over to see my friend Tagus," he isn't kidding. It makes little difference that Tagus may live many miles away, across high mountain ranges and deep valleys; the brave will run all the way.

Their incredible running ability has been officially checked on many occasions. A Tarahumara brave can—and has—run for days without stopping. A distance of 65 miles in less than 10 hours is no feat at all. He often prefers to run his game to earth rather than kill it with a spear or bow and arrow. When the Spaniards first visited this region they hired these Indians to run down wild horses for them.

Tarahumara runners were often employed to bring fresh fish to the table of Montezuma; running in relay they could deliver it from the coast, more than 200 miles away, in less than 24 hours.

Often a group of Tarahumaras will be sitting around discussing whatever Stone Age people discuss. Someone suddenly speaks up: "Hey! Let's have a game of Rara Hipa." Quickly the men choose sides and team members enlist the aid of their favorite medicine men.

The players agree on a course that may extend for 150 miles through thick forests, down winding green valleys and across turbulent mountain streams. Each side receives a black wooden ball that cannot be touched by the hands, but must be kicked for the entire distance. The side that first gets its ball across the finish line wins.

The starter fires a signal with his bow and arrow and the contestants are off in a cloud of bewitched powders and herbs flung into the air to slow down the opposing team. The women and children race along with the players, forming a mobile cheering section.

Considering their low status on civilization's totem pole, it is incongruous indeed to watch a Stone Age craftsman putting together a beautiful violin with only a knife and crude stone for tools. The early Spaniards instructed them in this art and also taught them to play the instrument. Violins are fitted together with glue made from the leaf of an orchid. It is not unusual to have a brave stride into the firelight and entertain with a free concert.

On the eve of my return to the States, I paused on the rim of a vast Barranca and looked out across the incredible expanse of empty, up-ended land. In the fantastic shadows of early dusk it seemed that this must once have been the playground of giants who amused themselves by gouging out great chasms.

A full moon rose and mellowed the harsh Barranca walls. Then I realized that the emptiness was just an illusion, for, on the distant side of the canyon fires burned in front of caves. On the canyon floor, 7000 feet below, a light glowed where a housewife prepared supper. Miles away, on the other side of the Barranca, Indians burned brush to plant corn. On the night breeze came the sound of a mountain mother soothing her child to sleep with a primitive lullaby.

Scientists have often pondered why some branches of the human family have reached the Atomic Age while others remain as living fossils of the Stone Age. The Tarahumaras may be the answer: they simply want no part of civilization. And why should they? They have no laws, no jails, no ulcers. Their beautifully savage land is perfect for their peculiar culture. The uncharted mountains harbor these simplest of people in a Shangri-La where time stands still and progress has no meaning. Here is a retreat blessed with the tranquility of eternity. ///

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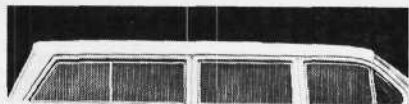
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BORREGO SANDMAN

(Continued from Page 10)

nants of a "military mind." That something or someone could remain continuously undetected in that forgotten triangle is not unreasonable. And that a humanoid exists is no more invalid there than in the Himalayas or Yosemite. Desert survival courses enumerate roots which sustain rabbits, gophers, birds, and coyotes, and potsherds (which I have found near the surface of the same ground) give mute evidence that Indians, probably the Cocopahs, survived there for many years. An entrance to the subterranean labyrinth of Superstition Mountain has never, to my knowledge, been discovered, but in it there is undoubtedly water, and possibly even some kind of fish.

But since I am more interested in locating a lost desert placer than I am in meeting an Abominable Sandman face to face, I'll leave further deductions to you. All I know for sure is that there's been some mighty unusual activity in a mighty unlikely place. And, curious as I am, I sorta hope that the person who finally discovers just exactly what kind of beast it is, doesn't happen to be me! ///

LAVA BEDS

(Continued from Page 18)

trails crawl laboriously through many sections that are closed to travel. If, in the small hours of the morning, you should be astir in your camp and see headlights moving through the wilds far out in the valley, you will know the wildlife ranger is making his weekly nocturnal survey of animal life in the Monument. He is jolting over impossible roads, counting and tabulating all the wild life he sees. In this way he knows when species are increasing, decreasing, or remaining static. It is all a part of helping our diminishing wild life find a refuge from the predations of man.

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BEWITCHED BY BAJA

BY CHORAL PEPPER

Third in a series featuring the adventures of DESERT's editor and publisher on a recent expedition to Baja California as guests of Erle Stanley Gardner.

"WE'D BETTER have an *habla*," Uncle Erle said. *Habla* is Gardnere Spanish for "talk," but nothing so simple as that can describe the outcome of an Erle Stanley Gardner *habla*.

This one resulted in an abrupt about-face. For one thing, the truck equipped to transport the two Butterflies to the fringe of the roadless country where Erle wanted to explore needed a new part. Mulege could not supply it, so Erle decided to send Leo Roripaugh back to San Diego on the plane soon due with Jack Pepper and have him return to Baja with the truck's part on the plane's next scheduled flight. This left us with three unplanned days.

But not for long.

En route with the ground crew through San Ignacio, Sam Hicks happened to meet a former German seaman who, following a lethal fight aboard his ship many years ago, escaped ashore and made his way inland to San Ignacio where he settled down, married, raised a family and became a leading citizen. This gentleman's name is Frank Fischer. In addition to his colorful life history, he also told Sam about a cave painting different from any Sam had ever seen in Baja. This one portrayed the usual giant-sized black and red striped people, but was further embellished with a serpentine figure which wound a dividing path through what appeared to be settlements of people. Mr. Fischer believed this particular prehistoric cave painting represented a map. He showed a photograph of it to Sam, and Sam agreed that it looked like a map.

The minute Erle heard the word "map," he tingled. Here is why. Although Baja's cave paintings have been known to exist for several hundred years, no one knows who the people were who made them, where they came from nor whence they went. Not as an archeologist, which he has never professed to be, but rather as an adventurer-explorer, Erle Stanley Gardner in his Baja books has done more to bring these splendid paintings to the attention of the public than has any other person or organization. If he keeps hammering the subject long enough, scientific investigation might ultimately be undertaken. In the meantime, these cave paintings prove that Baja was once inhabited by a race far more highly developed than that which the Spanish found when they first came ashore in 1533. So highly de-

veloped, in fact, that Erle has privately nourished a theory that the black and red divisions of the bodies of these paintings might represent some sort of metaphysical positive and negative polarization, such as male-female, good-bad, etcetera as was true of certain highly developed prehistoric cultures elsewhere. If so, such people would be capable of plotting a map; and a map could contribute an important clue to their history and culture. Uncle Erle couldn't contain himself. The more Sam talked, the more Erle had to see that map.

It was Sam's understanding that this particular cave was located about three hours each way by mule from San Ignacio. To give ourselves time to explore, we decided to set up a temporary camp at the cave site, taking only what we could carry or pack in, as vehicles couldn't travel over the rough terrain.

Within a matter of moments, Sam was leading a caravan of vehicles to Mulege where they'd meet Jack at the airstrip, dispatch Leo and then continue on to San Ignacio. Meanwhile, Erle, Ricardo Castillo, and I would fly with Francisco Munoz to San Ignacio to talk to the German Frank Fischer about the cave, hire mules for the trip, and arrange for a guide. Then we'd select a camping spot at San Ignacio and await our land party, due to arrive about dinner time.

By air, San Ignacio was less than two hours from the Conception Bay camp. Munoz circled the town three times, a method for signaling a taxi, and when we landed on the gravelly strip overlooking the town an automobile already rattled up the hill.

In San Ignacio, Francisco Munoz is a celebrity. Men and women waved and children, following our car along the street, displayed their proprietary interest as here it is believed Munoz delivers them in his plane, rather than the stork. Basking in reflected glory, we were surprised when an ingratiating gringo stuck his head in the car window and said, "We've been expecting you, Mr. G."

We were surprised because we'd hardly expected ourselves more than two hours before. But that's the way it goes all over Baja. Everyone knows what's going on everywhere. This man, apparently an ex-patriot



The major point of interest in San Ignacio is the lovely 18th century mission in the center of the town. Date palms, fig trees, and tropical shrubs crowd along the banks of a river that meanders through the little town.



Erle Stanley Gardner asks permission to take photo of the belle of San Ignacio. This young lady is the daughter of a storekeeper and was the beauty elected to present flowers to the Governor of Baja on a recent visit.



California Redwood that drifted to Scammon's Lagoon.

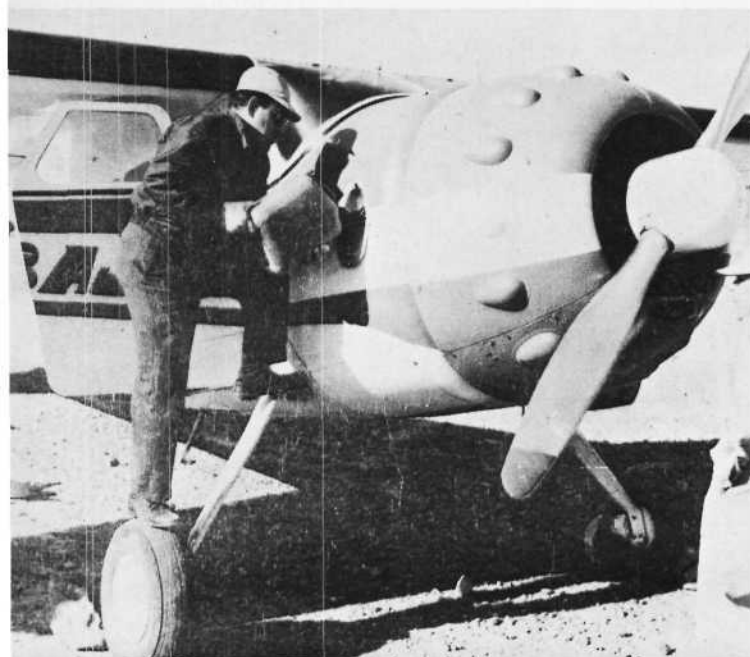


Cave paintings discovered by Gardner in 1961.

American, had more than mastered the art. Like a grinning gargoyle, he popped up at every bend. We stopped to buy fruit juice at a market and there he was, preceding us by seconds. The next encounter took place at the casa of Frank Fischer where our ubiquitous friend confessed to being an aspiring writer. After that we made bets among ourselves as to where he'd anticipate us next, but none of us guessed it would be in Mulege several days later!

Although it probably didn't bother Uncle Erle, I was somewhat annoyed at our gringo friend's omnipresence because, like most writers, when I'm hot on a story I'm not too interested in being followed. However, Frank Fischer's son informed us that his father would be out of town until late that evening, so our activity was temporarily frustrated anyway. We also learned from the son that the site of the cave was three days each way, by mule, rather than three hours. This jarred us, as we didn't have that much time to investigate it, but there was always a chance the son didn't understand which cave we referred to. All we could do was await evening and Mr. Fischer's return.

Captain Francisco Munoz, Baja's finest pilot.



Meanwhile, a full day lay ahead. One thing about Erle Stanley Gardner, he doesn't waste time. Some people are born old—at 30 they're already rotting to death. But this man was born young. At 75 he's as vital as a rocket. Ideas bubble from him visibly. He rocks on his toes, a chuckle jogs his middle, a twinkle sparks his eyes, a smile overwhelms his face, and wow! He's in action!

"Let's go to Scammon's Lagoon," he said.

This is a place I'd read about, but hadn't expected to see so soon. A favorite breeding place of the great gray whale, Scammon's Lagoon is located on the Pacific coast in such a way that currents and prevailing winds deposit maritime refuse on its beaches from just about everywhere in the world. Beachcombers adventurous enough to visit its shores have found all sorts of treasures, such as a 16th-century European clay urn (DESERT, Jan. '63), glass floats from Japan, hordes of purple bottles, and exotic packing cases from the Orient. I was almost as excited over this prospect as I was over seeing the cave with the snake.

Our driver delivered us back to the airstrip and away we flew. In no time at all we overlooked the naked Vizcaino desert where skinny claws of luminous water scrounge into its salt terrain. A pair of sharks, swimming in a stretch of water, were so clearly etched against the white salt underneath that they appeared outlined in black, as if painted by Cezanne.

The first whale I saw came in two parts. It required a double-take to figuratively attach its stern to its bow. Then a spout foamed above the waves where the lagoon met open water and my nose all but pressed a hole through the plane's window. When Munoz swooped down to make a landing on the beach, I almost expired with excitement.

It was like old home week for Erle. He hadn't revisited Scammons since the year he wrote HUNTING THE DESERT WHALE and his group set up camp on the beach where we wandered now. A redwood log remained in the same place, although buried more deeply in the sand, but the colored glass balls so abundant before were scarce now—possibly due to the time of year. Enormous whale bones lay everywhere, forming bleached patterns in the shadowless white sand. A hull of a ship, light tubes, catsup bottles, a wine jug replete with a note (not a nice one)—each item produced shouts of discovery from us. But time passed too fast.

Scammon's Lagoon, strange, empty and white, casts an hypnotic spell. It's like no other place on earth. Some day I'll return to walk barefoot through its dunes, find treasure in its sands, or just sit and speculate on eternity. It's a great place for eternity. There seems to be more of it there than anywhere else.

More or less adjacent to Scammon's Lagoon is another called Guerrero Negro, or Black Warrior, which is occupied by the Exportador de Sal Corporation, a company that harvests salt and transports its all over the world. This property is company owned and so are its roads made of salt. The area is closed to the public, but I suppose that if you were stranded on its outskirts and starving to death they'd let you enter. Munoz landed on the company airstrip, which is also composed of hard salt. The area is run much like a military installation, but we were met with friendliness and directed to the company restaurant. There I ordered turtle stew, a new gourmet experience for me, and found that it tastes much like beef.

While we were enjoying lunch, the General Manager of Exportadora de Sal, S.A., Mr. P. J. Cutting, came in to invite us to his house for coffee and to meet his wife. A true Eurasian beauty, Mrs. Cutting is half Scotch and half Chinese and during World War II held the important position as assistant to the Chinese Director of Intelligence. Erle was delighted to have someone to converse with in Chinese, a language he learned years ago during a stay in China. While the rest of us listened, fascinated, to their lively conversation, I thought about how refreshing it is to meet a man who admits to being wildly in love with his wife. Tall, rugged P. J. Cutting is impressive in himself, but when he remarked about how miserable his life had been with his wife away the previous week, he appeared doubly impressive to us for having attracted such a fabulous woman.

Again, we departed reluctantly. (At this writing Erle has already been back.) Guerrero Negro, as strangely mysterious as its threatening name, is a place that leaves you kind of up-in-the-air. You see it, but you don't quite understand it. Maybe another time . . .

As we flew back toward San Ignacio, Ricardo erupted with a practical thought. "If the ground crew should break down," he said, "there are no hotel nor tourist accommodations in San Ignacio and our sleeping bags and gear are with the trucks!"

"Hmmm, maybe we'd better hop back over their trail and see that all is well," the Leader suggested.

But when we did, concern was needless. Several

From Tijuana, we flew to Mulege, drove to our camp at Conception Bay, then flew back to San Ignacio and Scammon's Lagoon. Members of our party traveling from Conception Bay by land met us in San Ignacio, a distance they covered in one long, hard day.



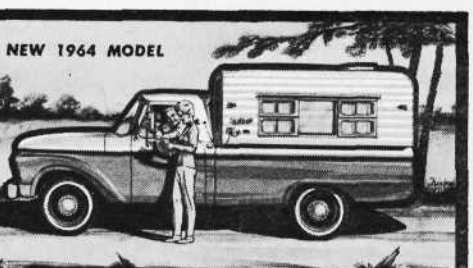
thousand feet below, passing slowly alongside a great volcano called Las Tres Virgines, the caravan of three vehicles courageously fought rocks, makeshift passes, washed-out trails and lumpy roads. I thought of Jeanie, riding in a truck below, who'd chosen to go by auto so she wouldn't miss the fun! And they did have fun, as Jack will relate in a forthcoming article, after I've finished telling about the fun we had by air—and about the snaky cave. ///



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ATLANTIC CITY, WYOMING

BY LAMBERT FLORIN

A monthly feature by the author of *Ghost Town Album*, *Ghost Town Trails*, and *Western Ghost Towns*.



WYOMING'S FIRST brewery was built at Atlantic City, and a large part of its foaming product was quaffed on the spot, or at least in the bistros of "French Town" which adjoined it. While Atlantic never equalled in size her sister town, South Pass City, her sin spot sufficed for both and likely accounted for the fact that she was still going long after the larger camp was very dead.

Roaming dissatisfied prospectors from South Pass City had found the Atlantic Ledge in 1867. In a matter of months the new boom camp had grown to boast a population of several hundred. It wasn't long before

Atlantic City was found to be in the center of a veritable network of gold-bearing quartz deposits. For a time the upstart threatened to outstrip South Pass City in size, but growth steadied as miners came to realize that gold extraction from quartz deposits took capital.

Indian scares were a limiting factor, also. Hardly a week passed without raids by tribesmen who resented the muddying of their streams and slaughter of their game by intruding whites. Sentries had to be posted at all times on convenient nearby hills. On at least one occasion a guard took a bottle of Wyoming red-eye to accompany him on his lonely

vigil. Frequent swigs of the fiery liquid lulled him into a fatal slumber. Indian scouts killed him and raided the town.

Atlantic City became a metropolis in 1870 when solid buildings, mostly false fronted, lined both sides of Main Street. There were more hotels than any other type of business, excluding saloons. The Atlantic Hotel was advertised as the only suitable one for a stay of any length, but several smaller ones extended a more tepid welcome for those intending "only a transient stay." These included the Democratic Club Room, Eldorado Billiard Hall and Saloon and the Main Street Club Room.

As the easily harvested placers in the stream beds played out, miners attacked the lodes. One of these, the Caribou, produced \$50,000. Grandiose schemes to clean the golden harvest other than by hard labor were dreamed up, but all failed due to lack of capital or poor planning. In 1884 a French company sent a representative, Emile Granier, to work out an elaborate scheme that would recover large quantities of gold from superficially exhausted gravels by hydraulicing. Granier first bought up several miles of ground along Rock Creek, then spent quantities of company money laying a system of hard-to-come-by pipes along the entire length. At last came the gala day to inaugurate the new system. Aiming the monitor at the stream bed, Granier expected to see a high pressured stream gouge out the rocks and gravel. But he didn't. Lack of water and an insufficient drop in the line to build up force brought forth a meager dribble.

Called back to France to explain the fiasco, the unfortunate Granier was selected to be the fall-guy, spending the remainder of his life in prison. But his effort wasn't entirely in vain. Friends back in Atlantic City named a brightlight section near a gulch filled with rusting pipes "French Town" in his honor. ///

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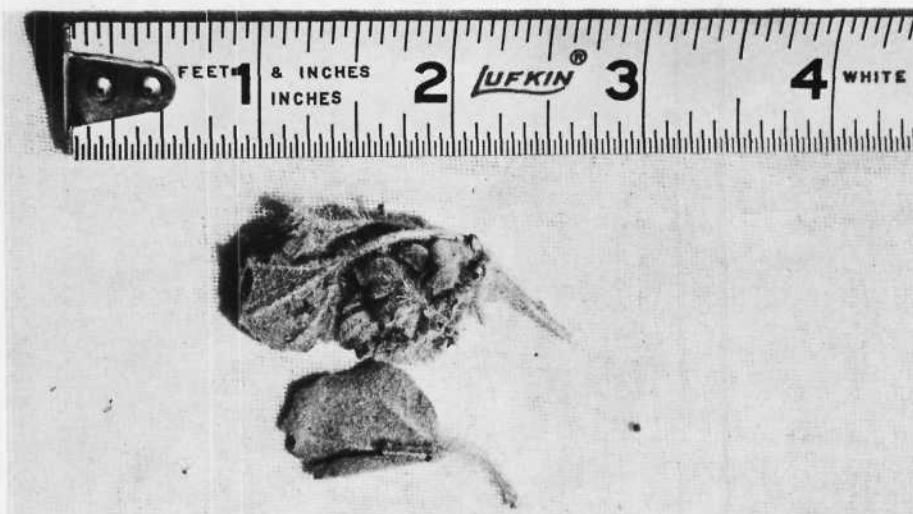
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DESERT DISPENSARY

by Sam Hicks

Part of a series of articles relating Sam Hick's first-hand observations of the uses made by primitive peoples of nature's products.

MELON (PRONOUNCED may-lone) is widely used throughout the Southwestern United States and Mexico as a powerful disinfectant and a moist healing agent.

In late August and early September, 1963, I watched the treatment of a tremendous chronic ulcer on a man's leg. The ulcer was bathed in Melon tea twice daily and each treatment lasted at least an hour. After the first week signs of healing were very apparent and the treatment was reduced to one a day.

From my limited knowledge of the situation, it appeared that the original cause of the ulcer—which was the size of a man's hand, an inch and a half deep with three inches of the shin bone exposed—could be attributed chiefly to poor circulation. After regularly cleansing and soaking the ulcer with strong Melon tea for a month, the gaping cavity filled with a healthy, pink flesh and the man regained the use of his leg, even though the lesion had no covering of skin.

Melon is pale green in color and can be recognized by the fine thistle-down which lines the stalks and the top and bottom surfaces of its rounded leaves. The plants generally grow in clumps of approximately six to eight inches in height and diameter. The furry thistledown covering the entire plant is soft to the touch and there is enough of it on the leaves to make them feel almost like felt.

Teas cooked from medicinal herbs of the Southwest, like Melon, have long been used to sterilize and heal serious wounds. A long-time friend of my family by the name of Harv Nibarger had once been shot in the knee by an unknown assailant using a high-power rifle, while Harv was driving a bunch of cattle. He rode as fast as he could to an Indian camp in the area where one of the women helped him into her brush hogan and administered first aid. The Indian woman splinted the shattered knee joint and then rigged a tripod over Harv's leg from which she suspended a pot of herb tea. The pot was carefully arranged so the tea would slowly drip into the wound.

I've forgotten how long Nibarger told us it had taken for the wounded knee to heal, but I'll never forget the expressions of gratitude he lavished on the Indian lady who had saved his leg. Harv was an old man when I knew him, but an extremely active person and the best beaver trapper I ever saw.

During the Mexican Revolution in 1916, Pancho Villa received a similar knee wound and underwent the same dripping herb tea treatment in a nondescript little ranch house near Casas Grandes, and escaped detection there until he had sufficiently recovered to ride again. He was more fortunate than Nibarger in that, according to history, his knee healed up without being stiff. ///

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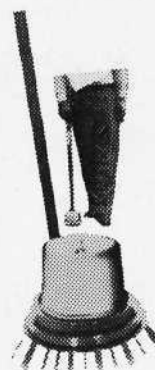
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Desert COOKERY

Food Editor

Lucille Iredale Carleson

BEEF AND BEAN CASSEROLE

- 1 lb. ground beef
- ¼ lb. bulk sausage
- 1 large onion, chopped
- 1 clove garlic, minced
- 1 can tomato soup
- 1 can kidney beans
- ¼ cup chili sauce
- 1½ teaspoons salt
- ¼ teaspoon pepper
- ¼ cup crumbled corn flakes
- 2 to 4 tablespoons Parmesan cheese

Combine both meats in a heavy pan and cook a few minutes to render out some of the fat. Add onion and garlic and brown until meat is crumbly and onions are tender. Stir in tomato soup, kidney beans, chili sauce and seasonings. Bring to a boil. Spoon into 1½ quart casserole and sprinkle top with cheeses and crumbled corn flakes. Bake in 350 degree oven for 45 minutes. Serves 6.

This is our favorite bean salad.

KIDNEY BEAN SALAD

- 1 No. 2 can kidney beans
- ½ cup French dressing
- 1 cup chopped celery
- 3 tablespoons finely chopped onion
- ½ cup sweet pickle relish
- ¼ teaspoon chili powder (optional)
- Cooked crisp bacon bits

Drain beans. Combine salad dressing and seasonings. Toss all together carefully. Chill for a few hours and garnish with bacon bits. You may also use some sliced hard-cooked eggs for garnish.

FOUR BEANS SALAD

- 1 can green beans
 - 1 can wax beans
 - 1 can kidney beans
 - 1 can garbanzo beans
- Drain all beans.
Chop 1 large Bermuda onion, 1 green pepper and 1 bunch of celery. Mix with beans and cover with:
- ¾ cup sugar
 - ½ cup vinegar
 - ½ cup salad oil
 - 1 teaspoon salt, pepper
- Let stand for a day before using. Serves 10. Instead of the Bermuda onion, you may use a bunch of green onions, chopped, tops and all.

NAVY BEAN CHOWDER

This is a very hearty dish or one-dish meal.

- 1 lb. navy beans, washed and rinsed.
- Put in large soup kettle with 2½ quarts water and soak overnight. Next day, add the following:
- 2 smoked ham hocks.
 - ¼ teaspoon pepper
 - ½ teaspoon ginger
 - 1 bay leaf
- Cook until soft in skillet, but do not brown;

- 1 cup diced salt pork
 - 1 onion, diced
- Add these to soup kettle. Cover, bring slowly to a boil; reduce heat and simmer gently for 2 hours. Remove hocks and discard skin and fat and bone. Cut up meat and add to soup. Add ½ cup diced carrots
- ½ cup diced potatoes
 - ½ cup chopped celery

Continue simmering soup until vegetables are tender, about 40 minutes. If you wish, you may add several frankfurters cut in ½-inch pieces and cook over low heat for about 5 minutes or until heated. To dress this chowder you might add any of the following to the servings:

- Chopped chives
- Pimento stuffed olives
- Sour cream
- Grated cheese
- Garlic or cheese croutons
- Teaspoon of Sherry

RANCH BEANS

- 4 cups pinto beans
 - 2 large onions
 - 4 cloves garlic
 - 1 green pepper
 - 2 8-oz. cans tomato paste
 - ¼ teaspoon pepper
 - 1½ tablespoons chili powder
- Wash beans well and soak overnight in water to cover. Bring to boil in the morning and drain. Cover with water, about 1¾ quarts. Add all other ingredients except salt and chili powder. Simmer for three hours. Add small ham hock, salt, chopped onions and chili powder and cook for another hour. When done, take out ham hock and take meat from bone in chunks and add to beans. Serves 12 or more.



EASY BAKED BEANS

- 2 cans baked beans without tomato sauce
 - 1 small onion
 - 1 apple
 - 1/3 cup molasses
- Grease casserole and place thinly sliced onion in bottom. Slice apple in very thin slices and add to beans, which are undrained. Add molasses and mix together. Pour into casserole and bake, covered, for 40 minutes at 350 degrees.

ALMOND BEAN CASSEROLE

- 2 packages frozen French style green beans
 - 2 tablespoons butter
 - ½ lb. American cheese
 - ½ cup chopped onion
 - 1 cup dairy sour cream
 - ¼ cup milk
 - ½ cup slivered toasted almonds
- Cook beans just until tender and drain. Melt butter in large saucepan. Saute onions in butter until lightly browned. Grate half of the cheese and add to onion mixture. Remove pan from heat. Stir until cheese melts. Fold in sour cream. Blend in milk. Combine cheese mixture and beans, mixing lightly but thoroughly. Reserve some of the almonds for garnishing, and add others to mixture. Place in 1 quart casserole. Cut remaining cheese into small cubes and scatter over top. Garnish with remaining almonds. Bake, covered in 350 degree oven for about 20 minutes or until heated through. Serve at once. 6 servings.

GREEN BEANS en CASSEROLE

- 2 cans green beans
 - 1 can undiluted mushroom soup
 - 3 tablespoons cheese sauce
 - 1 can French fried onions
- Melt cheese sauce in mushroom soup. Drain beans and add to soup. Heat thoroughly and pour into casserole. Sprinkle French fried onions, either frozen or canned, over top. Place in 350 degree oven for 15 minutes or until onions are crisp.

SNAKES ALIVE!

BY EVELYN CONKLIN



SCIENTIFICALLY, THE rattlesnake is classified as a pit viper. Slightly forward and below the eye level are small indentations or pits. Snakes are deaf to air-borne sound and these pits are heat sensitive organs which convey the presence of warm-blooded animals. On the darkest night, if even a small rodent were to pass within 18 inches, without seeing it, a snake would know of its presence and direction and be able to strike accurately.

The tongue is an organ of scent, not, as erroneously thought, a stinger. By protruding it periodically, a snake can follow the trail of a rodent as it winds among the rocks and shrubs until capture is effected.

That rattlesnakes travel in pairs is a myth. They are solitary in habit, coming together only for the purpose of mating. The young are born alive. However, the unfertile eggs are passed on by the snake, causing some people to believe rattlesnakes are hatched. There is no parental affection and the young snakes are on their own from the moment they are born, fully equipped with venom and fangs.

The age of a rattlesnake cannot be determined by its number of rattles, as a snake must shed its skin periodically in order to grow. A new rattle is formed each time the skin is shed, which may be as many as four times the first year of life. Thereafter, rate of growth is dependent upon good hunting and amount of food obtained. Rodents provide the main food supply for the rattler.

While traveling about the desert always keep an eye and ear cocked for any sign or sound of a rattlesnake. A few good rules to practice are:

1. Wear good boots and long pants.
2. Watch where you step.
3. Never step over a rock. First step up on it and check the other side.
4. Never put your hands where you cannot see.
5. Spring and Fall are the most dangerous periods to encounter rattlers, for they are feeding after or preparatory to hibernating.

Keep the area about your house or cabin clear of lumber, brick and rock piles, and low structures which provide shade or living quarters for rodents.

A rattlesnake will avoid striking you if at all possible by sounding its rattles. Only if cornered or suddenly alarmed will it strike.

If placed in a position where you must kill a rattler, completely sever the head from the body before removing the rattles as souvenirs. At no time touch the head with the hands. Even though the head is completely separated from the body, it can still attempt to bite and will continue to do so for some time. Always bury the head well and never toss it away. By removing its head, there is no chance for it to heal its wounds and go on living without its rattles, which has been known to happen. This makes a snake far more dangerous, as it is unable to sound a warning. ///

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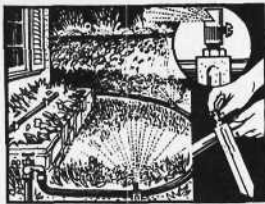
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LETTERS FROM OUR READERS

Letters requesting answers must enclose stamped self-addressed envelopes.

Lost Faith in Lost Mines . . .

To the Editor: I became interested in prospecting and Lost Mines about 20 years ago and since then have faithfully followed all directions set forth in pseudo-true stories about the Lost Mines with no success. I've made the mistake of always contacting a bearded historian in the vicinity of the Lost Mine for local information. I always "found" a character with an unquenchable thirst for high powered beverages, who always disagreed with the printed story, but who in three "moist days" in a local spa would pinpoint the exact location for me.

Anyone believing there's a Lost Pegleg Mine in the hills of Southern California has lost his senses. Every time that a horse thief wanted a grubstake he had a "conversation piece" of rich ore to show around. When enough interest was aroused and his audience was well "oiled" he sprang his grubstake plea and went merrily on his way. Where did he get that rich piece of ore? Almost everybody had a piece of rich ore highgraded from a good mine.

I've searched for the Lost Gunsight on Tucki Mountain quite thoroughly and if someone had dropped a dime from a passing jet I'd have found it. Yet this lost mine loser was picking up pure silver and trying to fit it in the groove of his gunsight. Nothing can convince me that all lost mine stories were not invented by very "dry" wanderers of the desert who claimed they were dying of thirst when they found these mines. They were "lost" between water holes, chasing a braying jackass who stood astride a fabulous outcropping or by a semi-honest prospector looking for a grubstake.

JACK YEAGER,
Minneapolis, Minn.

About Nellie Cashman . . .

To the Editor: I recently read the article on Nellie Cashman, Angel of Tombstone, in the DESERT, Oct. '63 issue and thought your readers might like to know what became of Nellie. I am a registered nurse and I took care of Nellie in St. Joseph's Hospital in Fairbanks, Alaska, in the Fall of 1923. Our three doctors were unable to do the necessary operation, as her intestines were blocked (most likely cancer) so she went to St. Joseph's Hospital in Victoria where she died. Few people know that she was buried in Rock Bay Cemetery there. The Sisters of St. Joseph's in Victoria are of the same order as those at St. Ann's in the Klondike where Nellie helped so much when she first went to the Yukon and then later to mine in Alaska.

EDITH HARRISON,
Ontario, Canada

DESERT's Envelope . . .

To the Editor: May I express my appreciation to you for now mailing DESERT in envelopes? It was a shame for such classic covers as DESERT's to arrive mangled, as they were under the former shipping system.

J. B. DOWNS,
Birmingham, Alabama

Utah Issue . . .

To the Editor: I have read with the utmost interest your April edition of the Desert Magazine of the West and was thrilled with the many stories and beautiful pictures of Utah's desert land.

I am confident you know that I am the author of proposed legislation to establish a Canyonlands National Park in the desert areas of southeastern Utah. As a result of this activity, I do have tremendous demand for articles and pictures of this desert land, and if you could supply me with a few extra copies of your April edition, I would be most grateful.

FRANK E. MOSS,
United States Senator

An Angle on the Mangle . . .

To the Editor: In your Baja article (June '64) you wrote that although the Mangle grows into the tide line of salt water, its roots grow only in fresh water. Are you sure of this?

GLENN VARGAS,
Thermal, California

Comment from the Editor: According to Shreve and Wiggins new book, *Vegetation and Flora of the Sonoran Desert*, the mangle (or mangrove) is found along the "muddy shores of bays and esteros of both coasts of Mexico." There is nothing in this reference to suggest that they root in fresh water. However, the species of mangle which the natives of the Mulege and El Coyote regions refer to as "quebracho," meaning axe-breaker, is used by these natives as a guide in finding water fit for use, even though it may be limited to drinking water for animals. Manuelo Diaz has two wells on his property which were dug because of his positive knowledge that brackish to sweet water would be found in them due to the proximity of the mangrove. I don't lay claims to personal botanical authority, but in this case have reported the fact as it was acquired. This might be an interesting subject for further scientific investigation. C.P.

Happy With June . . .

To the Editor: I especially wish to commend the June issue of DESERT for the beginning of the fascinating series by Sam Hicks about the wonderful people he knows and their wise ways with plants and herbs. I enjoy your variety of reading fare, the illustrations, and even the ads.

VERA BRUBAKER THOMPSON,
Bakersfield, California

So What Do You Have? . . .

This guy Omar Khayyam

Must have a real good line,

To lure a gal to the desert

With some bread and a jug of wine.

J. W. CUTHBERT,
Encinitas, California

JULY PHOTO CONTEST WINNERS

PHOTO CONTEST RULES

1—Prints for monthly contests must be black and white, 5x7 or larger, printed on glossy paper.

2—Each photograph submitted should be fully labeled as to subject, time and place. Also technical data: camera, shutter speed, hour of day, etc.

3—PRINTS WILL BE RETURNED ONLY WHEN RETURN POSTAGE IS ENCLOSED.

4—All entries must be in the Desert Magazine office by the 20th of the contest month.

5—Contests are open to both amateur and professional photographers.

6—FIRST PRIZE will be \$15; SECOND PRIZE, 8. For non-winning pictures accepted for publication \$3 each will be paid. Although not part of the contest, Desert is also interested in viewing 4x5 color transparencies for possible front cover use. We pay \$25 per transparency.



First Prize ▲

DESERT COFFEE BREAK

Addie T. May

JULIAN, CALIFORNIA

An Antelope Ground Squirrel or Desert Chipmunk is captured while stealing a sip of cold coffee at Agua Caliente Springs Park, California. Data: Rollicflex, f11 at 1/500, Verichrome Pan.

Second Prize ►

CLOUDY SUNRISE ON THE DUNES

William E. Mackintosh

CHULA VISTA, CALIFORNIA

Unusual cloud formations over Death Valley, California allow sun to come through and light the sand dunes below. Data: 4x5 Linhof, 1/2 sec. at f22, Plux X, red filter. 7:40 a.m.



PRACTICAL DESERT KNOWLEDGE



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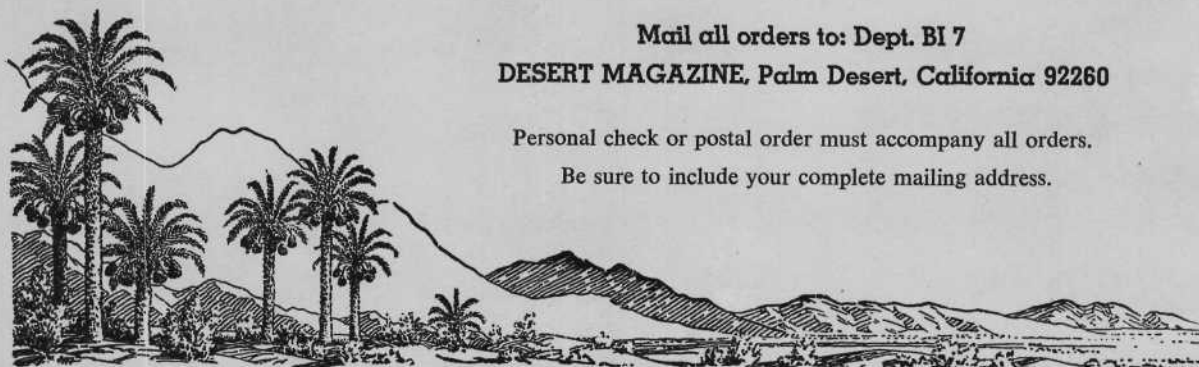
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