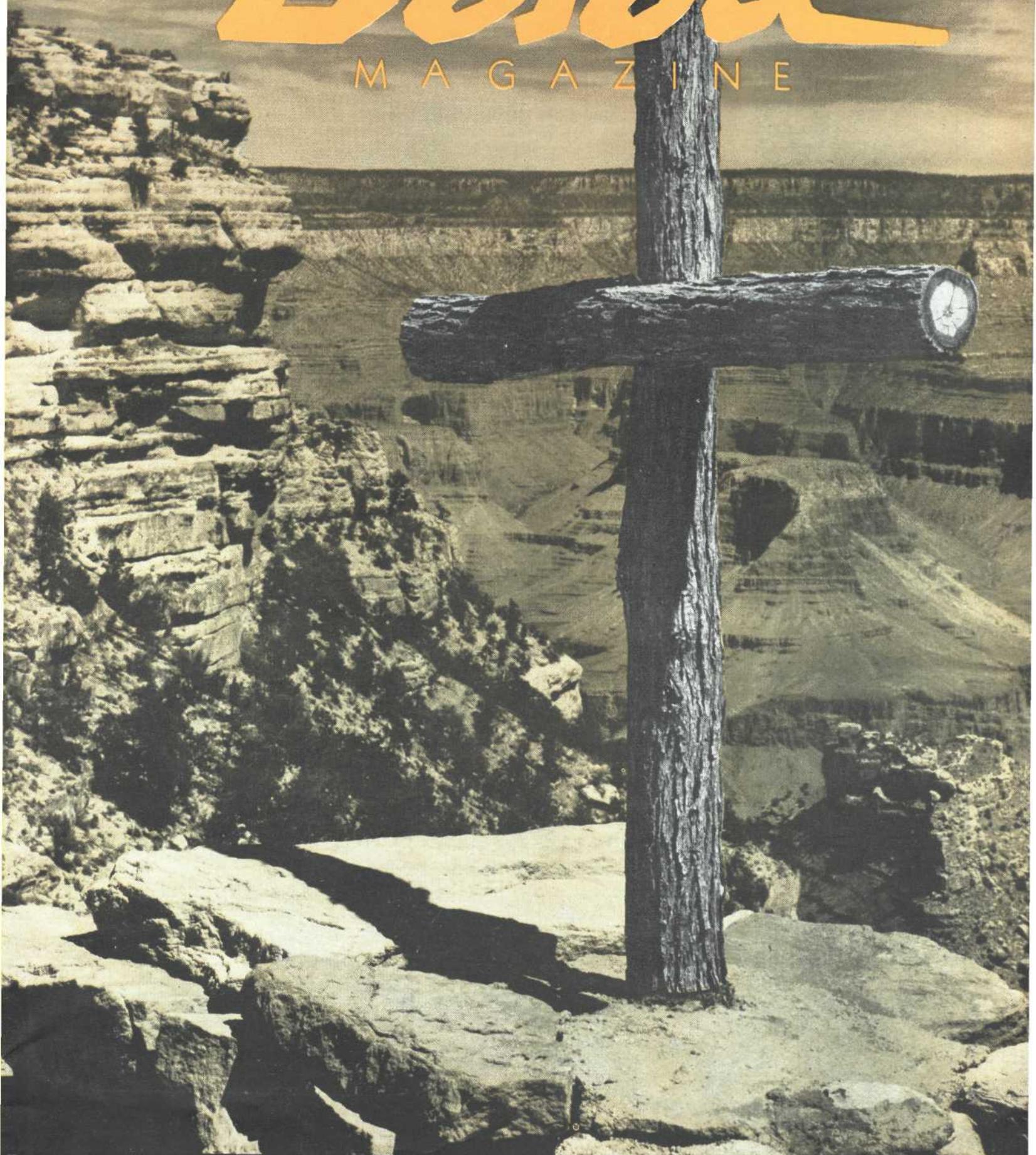


3-27-50

THE

Desert

MAGAZINE



APRIL, 1950

35 CENTS

You Will Be Wearing Rainbows

When you wear jewelry set with TITANIA. After years of experiments, synthetic Rutile is now available in facet cut brilliants. This magnificent substance has been given the name of "TITANIA."

When viewed under proper lighting, round brilliants of TITANIA appear to be polished bits of rainbows. Certain remarkable optical properties make this extreme refraction of light possible.

HERE ARE THE FACTS

SUBSTANCE	INDEX OF REFRACTION	CHROMATIC DISPERSION
AMETHYST	1.544 - 1.553	.013
EMERALD	1.564 - 1.590	.014
RUBY, SAPPHIRE	1.760 - 1.768	.018
DIAMOND	2.417	.063
TITANIA	2.605 - 2.901	.300 (APPROX.)

The ability of a gem to break up light into its component colors and produce a rainbow effect is measured by its chromatic dispersion. Note that TITANIA has 5—25 times more ability to produce this RAINBOW EFFECT than any of the first five natural gems in the above list.

Everyone to whom you show this new jewelry will wish to purchase a ring or pair of earrings. A free circular is available which gives you all the facts about TITANIA JEWELRY. This circular outlines a discount plan that will permit you to own one of these magnificent stones at no cost to yourself.

DEALERS INQUIRES SOLICITED

AN ARTICLE TELLS THE STORY BEHIND THIS AMAZING DISCOVERY

The 1950 Revised Edition of Grieger's "Encyclopedia and Super Catalog of the Lapidary and Jewelry Arts"

\$1.00 Per Copy

This is a 192-page book 9"x12" in size. There are at least 60 pages of instructive articles by authors of national fame. There are new articles by EMIL KRONQUIST and LOUIS WIENER on jewelry making. The 15-page article on jewelry casting by the LOST WAX METHOD using the new KERR HOBBY-CRAFT CASTING UNIT is alone worth \$1.00. "ROCK DETERMINATION SIMPLIFIED" by Mr. E. V. Van Amringe with illustrations and charts helps you to identify your field trip discoveries. Two excellent field trips are mapped.

Everything you need in MACHINERY, TOOLS, SUPPLIES and MATERIALS is illustrated, described and priced for your convenience.

VISIT OUR SHOP AND SECURE YOUR COPY OF THIS UNIQUE BOOK Sent Postpaid in U. S. A., its Territories and Canada for only \$1.00.

READ THESE REMARKS BY THOSE WHO PURCHASED THE FIRST EDITION—"I would still buy it at \$3.00 to \$5.00 as it contains as much if not more meaty information for the lapidary and jeweler than any of the books on the market selling in that price range." "It is better than most lapidary handbooks." "It is the only satisfactory catalog of lapidary supplies and materials that I have ever seen. It is superbly illustrated and superbly printed."

Grieger's

1633 EAST WALNUT STREET
PASADENA 4, CALIFORNIA.
PHONE SY6-6423

OPEN ON FRIDAY AND SATURDAY ONLY 8:30AM-5:30PM.
MONDAY THRU THURSDAY OPEN BY APPOINTMENT ONLY



DESERT CALENDAR

- April 1—Douglas Frontier rodeo, Douglas, Arizona.
- April 1-2—Desert Peaks section of Sierra club to climb highest peak in Providence Mountains, Mojave desert.
- April 1-8—Annual Death Valley expedition conducted by College of the Pacific, Stockton, California.
- April 2—Annual desert meeting of Western Mining Council, Inc., at Yucca Valley, California.
- April 2—Outboard motor races, sponsored by Blythe, California, Boat club.
- April 4—Annual 4½-day trek of the Desert Caballeros at Wickenburg, Arizona.
- April 7-8—Easter pageant, "The Master Passes By," in Box Canyon near Mecca, California. Sponsored by Mecca Civic Council.
- April 7-9—Annual Niland Tomato Festival, Niland, California.
- April 8—Field trip to Hidden Palms and the asbestos mines, sponsored by Palm Springs, California, Desert Museum.
- April 9—Easter Sunrise service on Mullet Island, Salton Sea. Sponsored by Northend Imperial Valley communities. 5:15 a.m.
- April 9—Easter Sunrise service at Grand Canyon. A capella choir from Arizona State college.
- April 9—Buffalo or Deer dance at San Juan pueblo, New Mexico.
- April 12-13—Arizona Federation of Garden clubs state convention, Prescott.
- April 15-16—Thirteenth annual mineral and gem exhibit, Southwest Mineralogists, Inc., at Palestine Masonic temple, Los Angeles.
- April 16—First Annual Imperial Valley Dance Festival at Holtville.
- April 16—Yuma Bandollero trek to Laguna Dam on the Colorado River.
- April 16-17—Annual gem and mineral show of Imperial Valley Gem and Mineral society. Junior College auditorium, El Centro, California.
- April 21-22—Eastern New Mexico university rodeo, Portales.
- April 21-23—Apple Valley, California, Woman's Club Flower Festival. Tour of wildflower areas on horseback April 23.
- April 21-23—State Mineral Society of Texas' annual rock show and 1950 convention, Austin, Texas.
- April 22-23—Fifth annual gem exhibition of San Jose, California, Lapidary society in San Jose Woman's clubhouse.
- April 22-23—Desert Peaks section of Sierra club to camp in Red Rock Canyon and climb Volcano Peak, Mojave desert.
- April 23—State amateur open golf tournament, Wickenburg, Arizona.
- April 24-25—Arizona convention of Masons, Flagstaff.
- April 29-30—San Diego Chapter of Sierra club to camp at Dos Cabezas on edge of Colorado desert.



Volume 13	APRIL 1950	Number 6
COVER	SHRINE OF THE AGES. Where Grand Canyon Easter service is held. Photo by Josef Muench.	
CALENDAR	April events on the desert	3
PHOTOGRAPHY	Contest winners for February	4
RELIGION	Brothers in an Ancient Faith By MORGAN MONROE	5
QUIZ	Test your desert knowledge	8
FIELD TRIP	Ridge of the Terrible Lizards By HAROLD O. WEIGHT	10
CLOSE-UPS	About those who write for Desert	15
GOLD	Gold Fever By LIEUT. CECIL P. LEWIS, USMCR	16
BOTANY	Crimson Splashes on the Desert By MARY BEAL	17
POETRY	Selected Poetry	18
EXPLORATION	Painted Canyon in Mecca Hills By WALTER FORD	19
ART	Artist of Snow Creek Canyon By BETTY SCHEYER	24
CONTEST	April photo contest announcement	24
WILDFLOWERS	Wildflower Prospects Improving	26
TAXIDERMY	They Bring 'em Back Stuffed By VENITA BLEDSOE	27
FICTION	Hard Rock Shorty of Death Valley	28
LETTERS	Views and comment by Desert readers	29
MINING	Current news of desert mines	30
NEWS	From here and there on the desert	31
HOBBY	Gems and Minerals	39
LAPIDARY	Amateur Gem Cutter, by LELANDE QUICK	45
COMMENT	Just Between You and Me, by the Editor	46
BOOKS	Reviews of Southwest literature	47

The Desert Magazine is published monthly by the Desert Press, Inc., Palm Desert, California. Re-entered as second class matter July 17, 1948, at the post office at Palm Desert, California, under the Act of March 3, 1879. Title registered No. 358865 in U. S. Patent Office, and contents copyrighted 1950 by the Desert Press, Inc. Permission to reproduce contents must be secured from the editor in writing.

RANDALL HENDERSON, Editor
BESS STACY, Business Manager

AL HAWORTH, Associate Editor
MARTIN MORAN, Circulation Manager

E. H. VAN NOSTRAND, Advertising Manager
Los Angeles Office (Advertising Only): 2635 Adelbert Ave., Phone Normandy 3-1509.

Unsolicited manuscripts and photographs submitted cannot be returned or acknowledged unless full return postage is enclosed. Desert Magazine assumes no responsibility for damage or loss of manuscripts or photographs although due care will be exercised. Subscribers should send notice of change of address by the first of the month preceding issue.

SUBSCRIPTION RATES

One Year.....\$3.50 Two Years.....\$6.00

Canadian Subscriptions 25c Extra, Foreign 50c Extra

Subscription to Army Personnel Outside U. S. A. Must Be Mailed in Conformity With P. O. D. Order No. 19687

Address Correspondence to Desert Magazine, Palm Desert, California



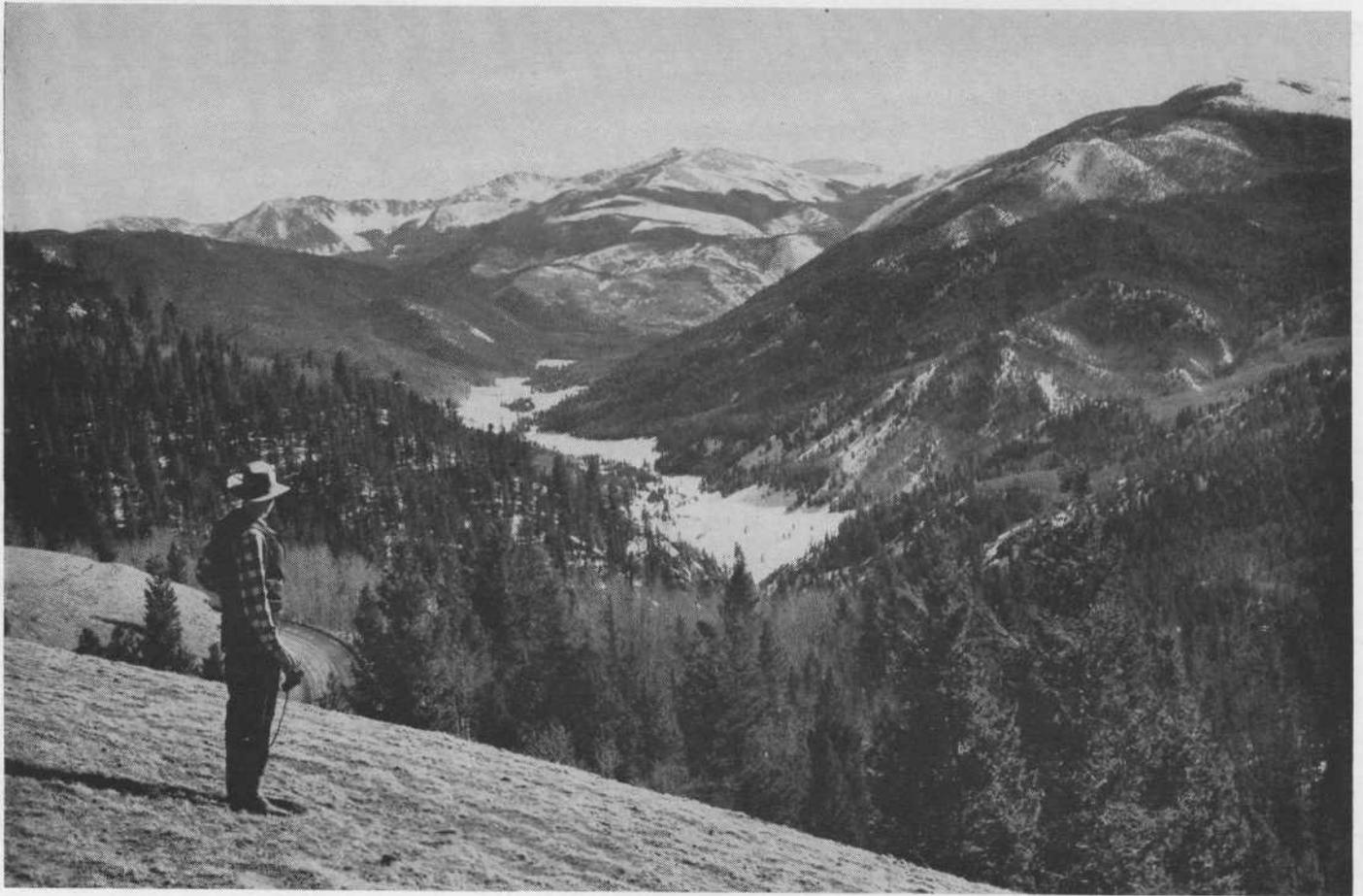
Pictures of the Month . . .

The Walking Hills . . .

First prize in Desert's February photo contest was won by Art Riley, Burbank, California, with above excellent shot of shifting sand dunes. Taken with a 4x5 Crown Graphic using panatomic X film, 1/75 sec. at f.11, 23-A red filter, in the early morning.

Indian Mother . . .

Taken in Lower California, cradle is handmade. This picture won second prize for Arthur Center, San Diego, California. He used a 4x5 Speed Graphic with Triple S Pan. Shot at 1/200 sec., f.11 with No. 5 flash inside Indian home.



The mysterious Sangre de Cristo Mountains mark the eastern boundary of New Mexico's desert country. Here, where sage, cacti and pinyons give way to snow-capped peaks, lies the Penitente country, hidden, quiet, locked in the strong grasp of an ancient faith. Photo by New Mexico State Tourist Bureau.

Brothers in an Ancient Faith . . .

The Penitentes believe in atonement by physical suffering—and they practice what they preach. Because the world does not approve their form of worship, they guard their rituals with the utmost secrecy. According to popular concept they are fanatics—but they do have a deep and abiding religious faith—and they are good neighbors and good citizens. Morgan Monroe, who wrote this story, is not a member of the sect, nor a Catholic, but he respects them for the courage of their convictions, and he tells us what kind of people they are.

By MORGAN MONROE

ON GOOD Friday as dawn's first light spreads across the Sangre de Cristo Mountains and spills out on the desert country to the west the most amazing religious spectacle in America is staged in many small communities in New Mexico and southern Colorado—without an audience.

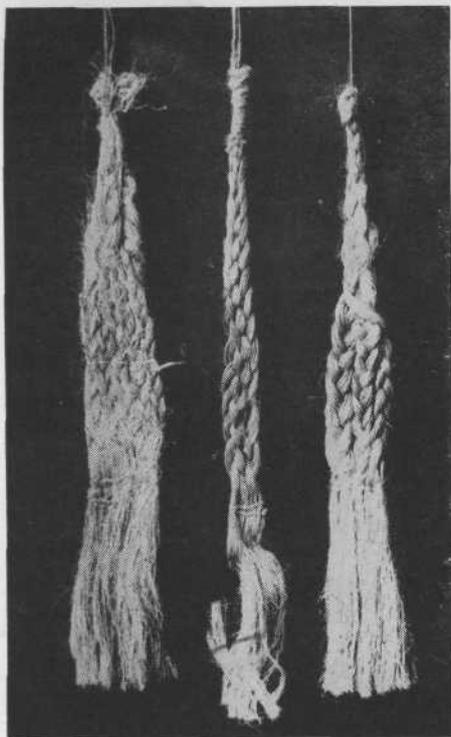
It is the annual *Calvario* procession and crucifixion ceremony of *Los Hermanos Penitentes*—an ancient religious brotherhood whose history has been closely interwoven with that of the Southwest since the days of the first Spanish padres.

Penitentes today continue the prac-

tise of atonement through physical suffering introduced in the Southwest in 1598 by Don Juan de Oñate and the Franciscans who accompanied him. It is a magnificent demonstration of deep, abiding faith, expressed in the form of a religious tragedy simulating the crucifixion of Christ. It has been termed "America's only real passion play."

Unless you have visited the Penitente country and experienced the rare privilege of witnessing this deep faith, as expressed in amazing medieval flagellation and crucifixion ceremonies, it is almost impossible to believe that such things still exist. But they do, and each Good Friday marks another chapter in the astounding history of a religious order that for more than three centuries has been an integral part of the desert and mountain country of northern New Mexico.

Almost everyone who has traveled in Rio Arriba, Mora, Guadalupe, San Miguel or Santa Fe counties in New Mexico, or through southern Colorado's Huerfano Valley between Waldenburg and Texas Creek, has heard stories of the Penitentes. Some of them are true; more often they have been



Three types of yucca fiber whips used by Penitentes to lash their backs in ancient Holy Week ceremonies. These were collected by Mrs. E. M. Bryce, who entered the Penitente country as a missionary in 1880. This and three other rare old photographs of Penitente rituals were made by Mr. Bryce in 1896. They were recently discovered by the author while doing research work for this article.

warped, distorted and colored until few elements of truth remain in them.

It is doubtful that any small religious group in our nation has been the victim of more sensationalism and deliberately colored fantasy than the Penitente brotherhood. To those who know and understand Penitentes this is doubly puzzling because the factual history of their ancient faith is, in itself, an amazing and absorbing story that requires no embellishment to make it one of the most fascinating in the southwestern desert country. The single fact that the Penitente brotherhood's deep faith in its teachings has withstood the test of centuries might be considered headline material at a time when faith in anything is at a premium.

Accurate stories of the Penitentes often sound more like myths than the truth that prompts their telling, and some deny that the brotherhood still exists. But observers may today see many Penitente *moradas*—or meeting places—and wayside crosses in lonely desert and mountain locations across northern New Mexico, each cross marking the final resting place of a

Penitente who gave his life in the amazing Holy Week ceremonies of his beloved brotherhood. Many pass these simple wooden crosses without knowledge of their tragic significance, for few outside the Penitente ranks have seen the awesome Good Friday crucifixion rites.

Complete with its *Cristo*, cross bearers and whippers, who beat their own naked backs with yucca or soapweed whips until their blood spatters the line of march from *morada* to crucifixion site, this primitive Spanish-American passion play is in almost every detail the re-enactment of Christ's torture on Calvary. It is an unbelievable spectacle, containing a deep religious fervor rarely encountered in modern society.

As dawn breaks over the Sangre de Cristo Mountains which form a well-named backdrop for most of the Penitente communities the *hermanos*, or brothers of the Penitente order, leave their *moradas* after all-night rituals and go out into the icy early morning air to reconstruct the crucifixion. This takes place in dozens of small Spanish-American towns dotted along the base of the Sangre de Cristos from Santa Fe to Texas Creek in Colorado.

Stripped to the waist, wearing only light, short cotton trousers, the brothers form in single file. Although no two Penitente processions are exactly alike, a piper who makes weird sounds on a reed flute known as the *pito* usually takes his place at the head of the line. He is followed by the *Cristo*, staggering under the weight of a huge wooden cross called the *madero*.

Directly behind the *Cristo* in most Penitente processions follow the flagellants—"brothers of darkness"—who wear black hoods over their heads during the march. The route often covers considerable distance to some previously selected spot in the mountains chosen for the *Calvario* site.

In some Penitente processions the whippers pull a crude two-wheeled cart, known as "the cart of death," upon which is mounted a wooden figure in the fierce, elongated, harshly-cut style of the old Spanish *santo* carvers. This figure represents death.

"Dona Sebastiana," as the figure is known among Penitentes, clasps a bow and arrow in her bony fingers. She is part of the ancient symbolism that means so much to the Penitentes. One of these strange carts with its symbolic passenger and three-foot wheels, carved from complete sections of tree trunks, may be seen in a small anteroom of the old church at Las Trampas, New Mexico, where the Penitente *morada* stands against the church wall.

PHOTOS TAKEN IN 1896

Judged by modern photo-journalism standards four of the photographs illustrating this article form a unique and dramatic picture story—yet they were made by E. M. Bryce in 1896 and have never before appeared in any magazine.

During three years of research for this article Morgan Monroe discovered these rare old pictures, but the scarred and faded old prints (the negatives could not be found), now in the possession of Mr. Bryce's daughter, Mrs. Robert McCulloch of Sunnyside, Colorado, had suffered so greatly from age and damage there appeared little hope of salvaging them for reproduction.

But with Mrs. McCulloch's permission the author, a competent photographer, tackled the job. He and a photographer friend experimented for many hours and finally succeeded in rephotographing the severely damaged originals by a copying technique employing special lights and multiple filters. The original pictures were returned to Mrs. McCulloch together with a set of restored prints. She was so happy with the results that she authorized Monroe exclusive use of the pictures reproduced on these pages.

These photographs are not up to the high standard of photographs usually required by Desert Magazine's staff. Due to the age and condition of the originals that is impossible. But these old pictures are so rare and of such story-telling interest that we feel their technical shortcomings are more than offset by their unusual subject matter and great historical significance.

Bringing up the rear in most Penitente processions—though he takes the lead positions in some—is the chief brother, the *hermano mayor*, who directs the *morada's* activities. Chanting the doleful psalm *Miserere*, the group begins the slow trudge toward the crucifixion site. All move slowly with a halting funereal gait.

It is then that each whipper begins swinging his lash, first over one shoulder, then the other. The yucca whips swish through the cold air and land with sickening sound on bared backs, cutting deeper into the flesh with every stroke. Each whipper continues the flagellation until the procession ends or he collapses from pain and exposure.

Upon the arrival at the *Calvario* site it is often necessary to revive the *Cristo*—the weight of the cross he bears is much greater than his own weight—or other members of the group who have fallen by the wayside. The combination of pain, exertion and freezing temperatures is one to which even the most fervent may succumb during the grueling procession. The *Cristo* is aided when necessary in lifting his heavy burden, but through most of the march he carries the heavy cross alone.

When the crucifixion location is reached the blood-spattered *hermanos*

prostrate themselves before the huge cross and the *hermano mayor* assists the *Cristo* upon it, where he is tightly bound with ropes. This often contributes to exhaustion by stopping his circulation. The brothers then raise the cross and its human burden, completing the final act in the outdoor passion drama.

After remaining on the cross for a period of time set by the *hermano mayor* the *Cristo* is removed and carried back to the *morada*. There he is revived—unless it is too late.

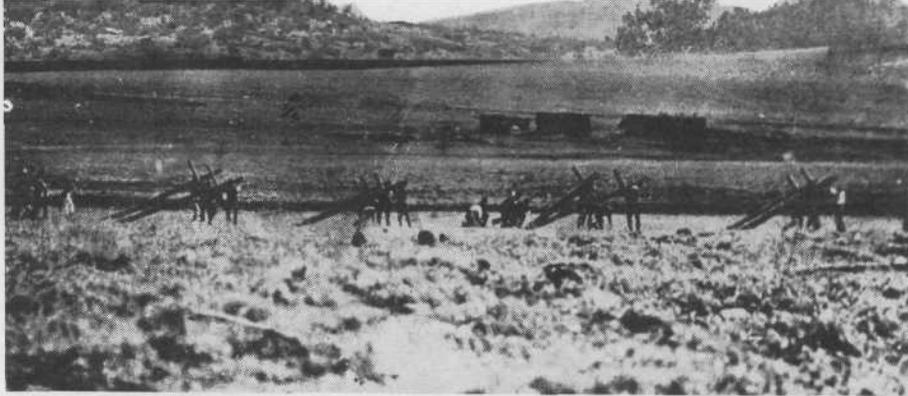
When a victim of the rite dies from his ordeal he is buried secretly by the brothers of his *morada*. They then send his shoes to his family as notification that he has paid with his life for his honored part in the passion play. Deaths are infrequent today, but each of the isolated crosses seen on the desert and in the mountains of the Penitente country marks the grave of some brother who died in this manner.

Although the *Cristo* is bound with ropes in present-day Penitente ceremonies, the practice formerly was to nail his body to the heavy cross. Stories of these real crucifixions in remote sections of the Penitente country still persist. Those who know such areas will tell you that it still happens, but much less frequently than in former years.

In Old Mexico, where the brotherhood flourishes, the last known real crucifixion took place in 1925 near the shore of Lake Patzcuaro in the state of Michoacan, with a Tarascan Indian giving his life in the *Cristo* role. When doing research on the Penitentes in 1946 I went to Mexico and talked with another Tarascan who had taken part in that ceremony. He revealed little about it except to confirm that it had been a real crucifixion in which he had been a member of the procession. Was his story true? I think it was; his back still showed the deep scars of his proud penance under the whip. But he was reticent and would tell me nothing more.

This same quality of reticence is marked among the Penitentes of our Southwest. One of them explained it to me after we had become friends. He is a Spanish-American who once had the distinction of being the *Cristo* in a Penitente ceremony:

"We are a little different from other people," he said, "but those who don't understand us think we are very different. They think we are freaks, or crazy in the head. That's why we Penitentes try to attract as little attention as possible and live by ourselves. My people don't wish to be known as freaks. That proves they are normal, for that is a normal reaction, isn't it? It's true that we are more serious



Top—Penitente Calvario procession with eight cross bearers heads into mountains from desert *morada* in right background. This is one of a set of four rare old pictures made in 1896 and only recently discovered.

Center—"Brothers of Darkness," wearing black hoods and white cotton trousers approach the Calvario site which marks end of their procession from *morada*. Bloody backs in foreground attest atonement agony of long whipping march. Behind the cross worshippers bend over prostrated *Cristo* who collapsed upon reaching crucifixion location. Small freshly cut evergreens on ground to left and right of procession route are markers indicating stations of cross.

Bottom—Yucca lashes bite deep into blood soaked backs in this amazing old photograph of Penitente group near termination of their annual Good Friday rites. The *Cristo* has just been removed from cross. Final act of atonement through physical suffering is being performed by group in circle.

about our beliefs than many and we do believe in atonement through physical suffering. That has been our faith for generations. As long as it doesn't bother others we feel we are entitled to worship as we have for so long."

These words came from a man whose hands still bear the torn scars of a real crucifixion, one of the few Penitentes living today who endured that ordeal in what he terms "the old days." Who would care to argue with such a man, particularly when he is a good citizen and operator of a tiny business whose meager profits go mostly to charity?

The Penitentes have been forced apart from their fellow men largely by thoughtless actions of the curious. An example of this unfortunate lack of consideration was evident several years ago at Alcalde, New Mexico. Because it is located near Santa Fe the little community's Penitente activities receive considerable attention. On the night before Good Friday many Santa Fe motorists drove to the Penitente *morada* at Alcalde and parked their cars to await the dawn procession. Then some thoughtless individual turned his car lights full on the *morada*. The idea caught on. Soon the lights

of a score of cars were blazing against the tiny building. The Penitentes remained inside and there was no procession to the cross at dawn for the first time in the community's history.

Despite the pressure of modern society the Penitentes are steadily increasing their numbers in New Mexico and southern Colorado. Informed estimates of membership run as high as 50,000, but 30,000 is considered more accurate. Unlike all other primitive religious groups, modern influences have not caused membership to decline. In New Mexico's Mora county the true story is related of an *hermano mayor* who returned home on leave during World War II to conduct the Easter rites in his uniform.

The Good Friday crucifixion procession terminates a week of secret ceremonies which are the high spot of the year for every Penitente. Little is known outside the brotherhood about these rituals which take place inside guarded *moradas*. Many other ceremonies take place throughout the year, but Holy Week marks the greatest time of each year and the most unusual of all Penitente rites.

Membership in the brotherhood, formerly sanctioned and later condemned by the Catholic church, is contingent upon renunciation by the applicant of all forms of luxury and exhibition. He must swear to live and practice charity and to perform certain obligations to his *morada* and his community.

Each applicant is sponsored by a member with whom he approaches the *morada* on the day of his acceptance rites. After reciting a secret creed he is admitted to the *morada* where the symbol of brotherhood—a cross—is cut into the flesh of his back with a piece of obsidian or glass.

Ultimate goal of every Penitente is to earn selection as the *Cristo* in the Holy Week ceremonial. It is the highest honor to be "the chosen one." Penitentes believe that life's greatest privilege is to draw *el ultimo suspiro*—the last breath—while playing the major role in the desert country's passion play.

What produced such deep primitive faith that life itself is of little importance when given for the Penitente cause? The answer to that question lies far back in history.

The Penitentes of the Southwest and Mexico are believed to be descended from the Flagellantes who swept Europe in the middle ages. The sect first appeared in Italy in 1210 and with remarkable rapidity their whipping rites of atonement spread in the following 50 years until thousands joined their processions throughout Italy, carrying crosses and lashing themselves with

TRUE OR FALSE

Here's another lesson for Desert Magazine's class in desertology. The questions include geography, history, mineralogy, botany, Indians and the general lore of the desert country. All the answers have appeared in past issues of Desert. A score of 12 to 14 is fair; 15 to 17 is good; 18 is excellent, and if you get 19 or 20 you can go to the head of the class. The answers are on page 44.

- 1—The roots of certain species of yucca are used by the Indians for soap. True..... False.....
- 2—Ironwood is too hard to burn. True..... False.....
- 3—Camelback Mountain may be seen from Phoenix. True..... False.....
- 4—The book, *The Winning of Barbara Worth*, was written by Zane Grey. True..... False.....
- 5—El Tovar is located on the North Rim of Grand Canyon. True..... False.....
- 6—Indian tribesmen in the Rio Grande valley were growing corn before Coronado came to that area. True..... False.....
- 7—Joshua Tree National Monument is located in southern Arizona. True..... False.....
- 8—Desert tortoises are hatched from eggs. True..... False.....
- 9—Cactus wrens often build their nests in Beavertail cactus. True..... False.....
- 10—Stage coaches on Butterfield's Overland Mail Line crossed the Colorado River at Ehrenberg. True..... False.....
- 11—Desert holly sheds its leaves when the winter frosts come. True..... False.....
- 12—If you wanted to visit the Dinosaur National Monument you would go to the state of Nevada. True..... False.....
- 13—One of the gates of the Petrified Forest National Monument in Arizona is on U. S. Highway 66. True..... False.....
- 14—Nogales, Arizona, is located in territory acquired by the United States in the Gadsden Purchase. True..... False.....
- 15—Rainbow trout are caught in the Colorado River below Hoover Dam. True..... False.....
- 16—Juniper trees grow on the floor of Death Valley below sea level. True..... False.....
- 17—Pumice stone is of volcanic origin. True..... False.....
- 18—Telescope peak overlooking Death Valley is in the Panamint Range. True..... False.....
- 19—The padres known in history as the "Black Robes" were Jesuits. True..... False.....
- 20—The superintendent of the Navajo Indian reservation makes his headquarters at Tuba City, Arizona. True..... False.....

Cart of death used by Penitentes of Las Trampas, New Mexico, in their Calvario processions. Primitive carved figure represents death. Called "Dona Sebastiana," the bow and arrow grasped in her bony fingers is part of Penitente symbolism. Entire cart is made of hand-hewn timber. Crude wheels are cross sections of tree trunks. Photo by Historical Society of New Mexico.



leather thongs. The movement continued to grow until it had spread throughout southern Europe. When it was brought to the new world has never been accurately established, but records of it appeared in Mexico soon after the Spanish conquest, indicating perhaps that it was introduced by the conquerors.

As the vanguard of Spanish power pushed northward into what is now New Mexico the belief in atonement through physical suffering was introduced in the desert country by Onate and the Franciscans who accompanied him. There is no doubt that the present brotherhood stems directly from the Third Order of St. Francis, of which Onate was a member.

As the Third Order was a Franciscan organization of lay members and, under the terms of its constitution, could only be governed by priests of the order, it ceased to retain canonical existence following the exodus of Franciscans from New Mexico in 1828.

But the centuries-old faith based on physical religious penance lived on, too deeply rooted to die out. What was left of the Third Order carried on as local brotherhoods in the same isolated communities occupied by Penitentes today. During the Mexican regime when there were too few secular priests to administer to widespread parishes members of the brotherhood performed many priestly functions and acts of mercy and charity enjoined in

the precepts of the original Third Order, of which religious penance was but a single phase.

Following the American occupation and the establishment of New Mexico as a bishopric under Bishop Lamy, officials of the Catholic church made repeated attempts to suppress the Penitentes, none of which were successful. The brotherhood continued to grow and is still growing. The primitive faith has successfully withstood war, oppression, public ridicule, accusations of "heathen practices" and today is stronger than at any time in its amazing history.

Those who don't know the Penitente country often read of the unusual rites and assume that the Penitentes must be barbarians. Nothing could be more unjust. Most Penitentes are of Spanish or Indian descent and those who have lived among them consider them excellent neighbors with an unusually high sense of civic duty and charity. Mrs. Robert McCulloch of Sunnyside, Colorado, whose father made the photographs that illustrate this article, says: "Penitentes are fine people. I grew up with them and I wouldn't want better neighbors."

Mrs. McCulloch's mother, Mrs. E. M. Bryce, entered the San Luis Valley of Colorado in 1880 when that area contained several concentrations of Penitentes. It was in that section and across the line in New Mexico that Mr. Bryce made his rare old photographs.

"He risked his life to get them," Mrs. McCulloch related, "not because the Penitentes didn't trust him—they did and he was welcomed at their ceremonies—but they have always resisted efforts to photograph their rites. Back in those days people who attempted it often disappeared and were never seen again."

Mrs. McCulloch explained that her father did not make the rare set of pictures for exploitation, but to preserve a historical record of Penitente practices which he thought might die out in later years. As everyone who lives in and near the Penitente country knows, cameras are forbidden at their rites and informed travelers who honor the religious beliefs of others are not foolish enough to insult Penitente courtesy—and perhaps risk their lives—by attempting to make pictures. The last known photograph of a Penitente crucifixion was made in 1909 by a man who was forced to run two miles through dense cactus to escape his pursuers. He later found that in his excitement he had focused his camera improperly and had nothing to show for his foolhardy effort but a blurred image.

That's the true story of the Penitentes, an amazing, primitive brotherhood whose deep faith in what they believe to be right has written a fascinating but little known chapter in the history of the desert country for more than three centuries.



Dinosaur Ridge, where fossilized bone has been found in great abundance and where collectors still gather good material.

Ridge of the Terrible Lizards

By HAROLD O. WEIGHT

Photographs by the author

No human being ever saw the giant reptiles which lumbered about on the face of the earth millions of years ago, but some of their bones remain and have become prize exhibits for museums—and for the gem collecting fraternity. Here is the story of Harold Weight's experience in one of the largest fossil bone areas in the West.

ACROSS the Colorado River from Fruita, Colorado, John Condon lives alone in a stone house in the middle of one of the world's biggest graveyards. But his eerie surroundings seem to bother John not at all, for he digs up the bones and takes great pleasure in showing them to his friends.

Actually, the last burial in this graveyard took place more than 60 million years ago. That was about the time when Nature, for mysterious reasons of her own, brought to an end her great experiment with gigantic reptiles.

Some of the bones of the disappearing monsters found a final resting place in the Mesozoic swamps of that period. Eventually they were buried deep beneath the sedimentary deposits laid down by milleniums of erosion. Their cellular structure was destroyed slowly and replaced, molecule by molecule, with minerals carried in solution. The

rocks and clays in which they lay were lowered and raised, tilted, twisted and broken.

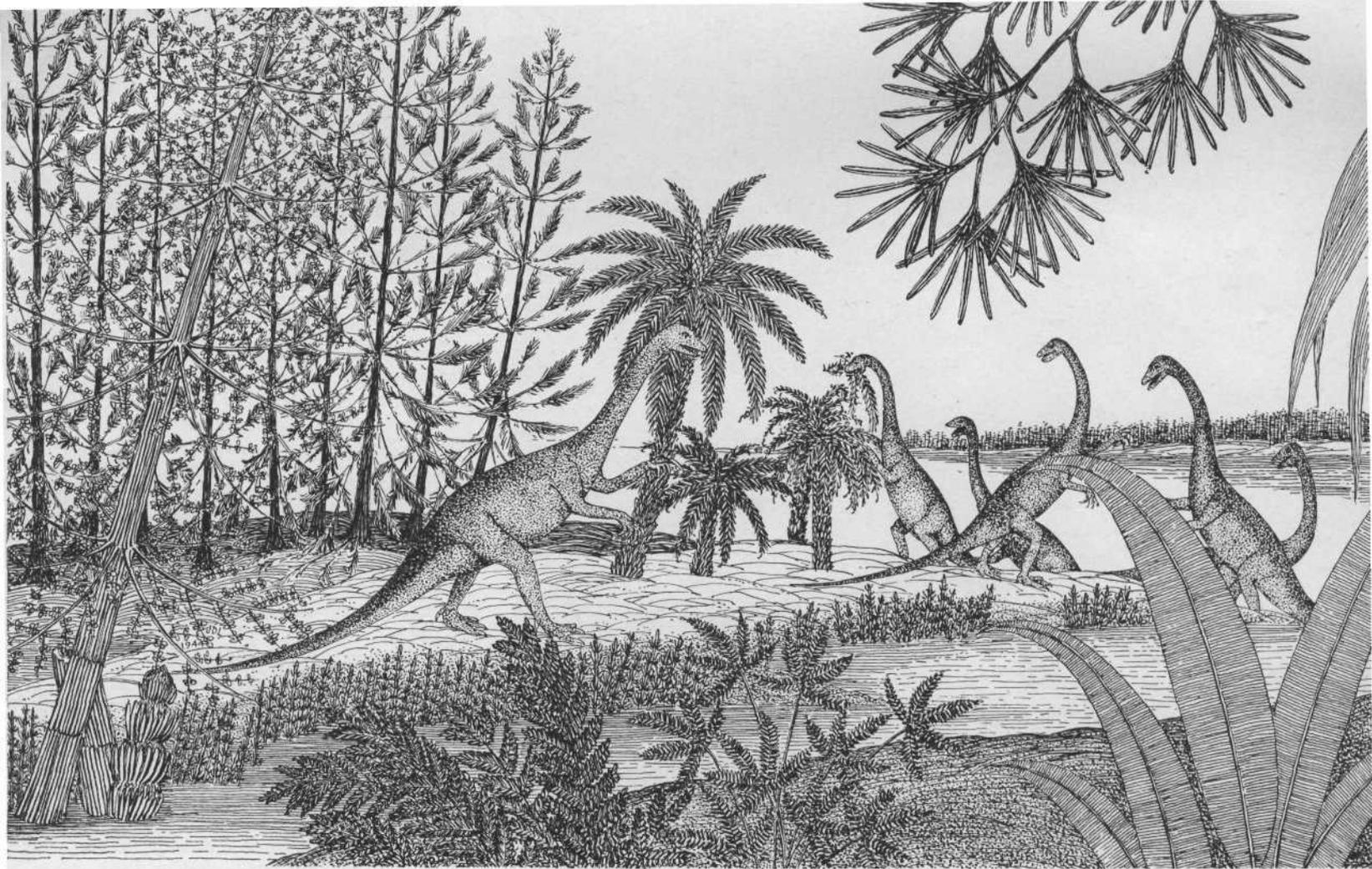
Finally new erosion brought this debris of a lost age to sunlight and open air again. But there was no rest for the bones. Harried by rains and freezes, tempests and runoffs, they have been wrenched from their resting places, broken and battered, and washed down onto flats and into ravines.

And now the rockhounds have taken over, hunting down the smallest fragments and re-shaping them with diamond saw, wheel, sander and buff. For these relics of the earth's fantastic past, turned to agate and carnelian and opal, hold an almost overpowering fascination for most collectors. From the day when I first saw a dinosaur bone it has been the ambition of my rockhound life to collect specimens. To my notion a rock you have hunted, found and brought home in triumph is infinitely

more valuable than the finest piece of the same material that can be bought.

Until last summer, my dinosaur bone hunt was just a dream. But when we visited Grand Junction, Colorado, our host Bill Henneberger took us out to meet John Condon. John could show us where to hunt for pertified bone, Bill guaranteed. As we drove northwest from Grand Junction on the fine paving of Highway 6 and 50, Bill sang the praises of his homeland. He told us about Grand Junction, the seat of Mesa County, and its factories, its flour mill, sugar refinery, fruit and vegetable canneries, meat packing and dairy plants, government uranium purchasing center, and the big shops of the Denver and Rio Grande Western railroad.

He pointed out the rich, irrigated farm lands of Grand Valley where two-thirds of the state's peach crops are raised and thousands of fruit



Artist's concept of that period millions of years ago when giant reptiles roamed the face of the earth. Sketch by Jerry Laudermilk.

tramps pour in during August to pick and pack. He told us about the tomatoes which brought premium prices on Eastern markets, and the truck gardens and big sugar-beet acreages.

As for natural scenery. He nodded his head toward the towering red cliffs to our left. Colorado National Monument was right up there—18,000 acres set aside in 1911. It had one of the most scenic roads in the country—Rimrock Drive—where you could look out from your car and directly down a thousand feet to valleys in which bison, elk and deer roamed freely behind an

eight-mile fence. You could get cold shivers from Cold Shivers point and you could see the Monolith Parade, the Squaws Fingers, the Coke Ovens, Independence Monument and many other natural wonders.

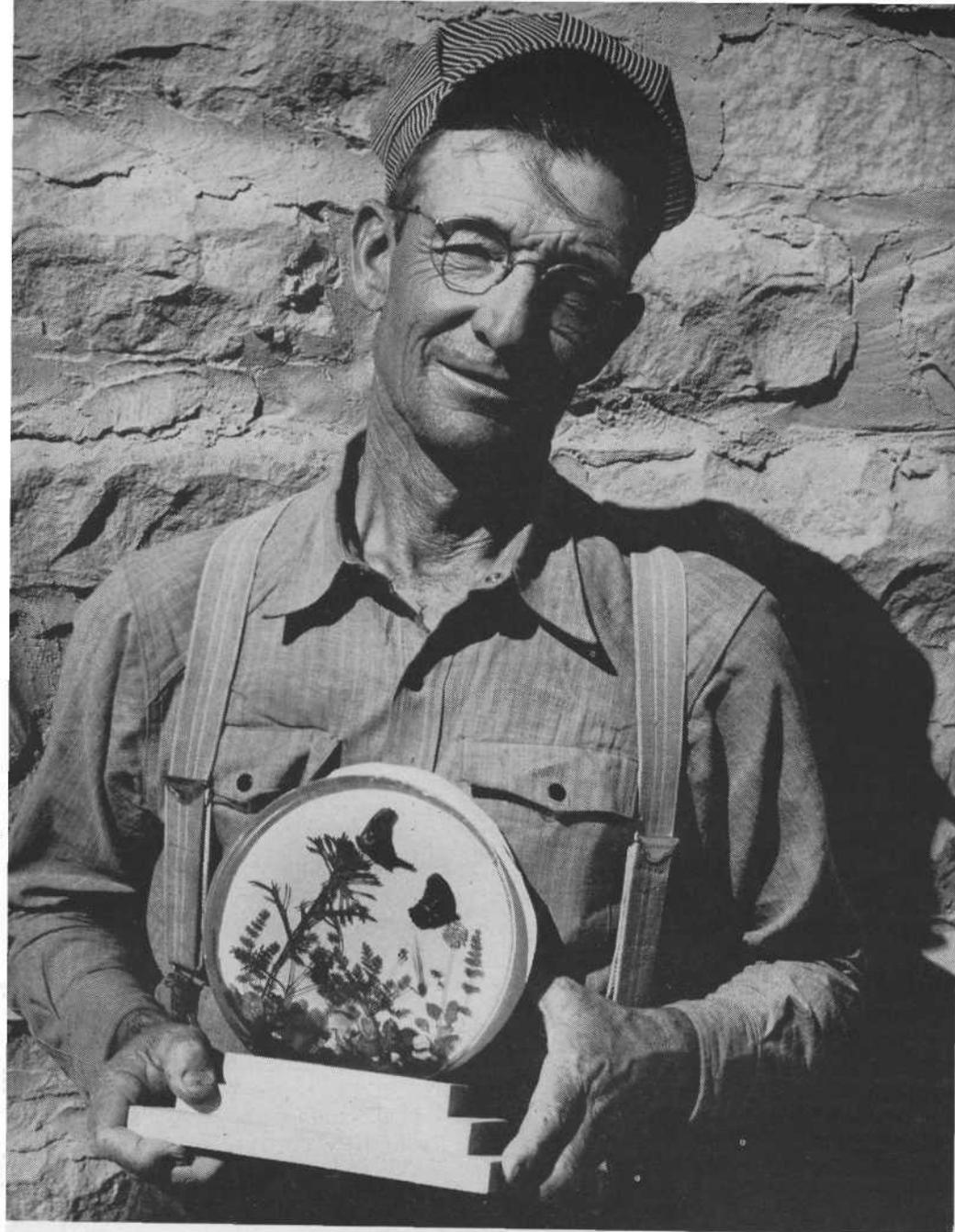
Beyond that on the plateau top, past Glade Park, he could show us Miracle Rock, the largest balanced boulder in Colorado, weighing 12,000 tons. If we got through with our rock hunt in time, Bill said, we would visit all those spots today, making the loop trip and coming down the Serpent's Trail to Grand Junction. As it turned

out, we didn't have time. But the next day Bill made good his promise and showed us the monument. And what he said was true. No visitor in the region should fail to see Colorado National Monument. Rimrock Drive, clinging to the canyon edges, is a miracle of road construction.

Opposite Fruita, we left the paved highway, taking the Colorado Monument road southward and crossing the Colorado River on the Fruita bridge. At 1.5 miles from the highway we turned right, leaving the monument road and crossing a cattle guard. From

Cross-sections of fossilized dinosaur bone make unusual cabinet specimens. Beautiful gems can be cut from small fragments.





Besides being prospector and rock collector, John Condon experiments in plastics. Here are local butterflies on desert wildflowers mounted on a base of gemstones, including fire opal, preserved in their natural color in clear plastic.

then on until we reached John Condon's home, it was a series of forks, washes and windings with Bill directing us when to turn.

You could tell from as far away as you could see the building that it was inhabited by a rockhound. Piles, boxes, bins and tables of rocks filled the whole area in front of it. But John himself was a surprise. Beyond the fact that he lives alone with two eager and intelligent shepherd dogs, and not having a car, must walk an eight-mile round trip for his food and supplies, he scarcely meets hermit qualifications.

While it is true that his distaste for certain types of humans may have played a part in his decision to live in the hills, he is actively and openly friendly once he decides you are his type of

fellow being. He is alert, widely read, and the gadgets in his cabin—including a hand-made, hand-operated lapidary outfit—indicate a mechanical aptitude not far from genius. In addition to his prospecting and rock hunting, he carries on an amazing variety of sidelines.

His special interest at the present is the preservation of desert plant and animal life in plastic. He took a correspondence course in the subject, but the principal thing he learned from it was that he would have to do his own experimenting—which he has. In rectangular and oval plastic bars he has a striking and life-like assemblage of lizards, wasps, bees, spiders, insects, and a great variety of scorpions. But his prize creation is a large circular

arrangement of wildflowers, butterflies and minerals, with colors perfectly retained. One that has attracted even more attention, and caused brief consternation among lizard experts who should have known better, is a Bailey's Collared lizard equipped with butterfly wings. John calls it the winged lizard of Goblin Gulch.

John Condon came to the desert from Illinois in 1913, in ill health. But he regained his health so thoroughly that the navy took him during World War I. After the war he came back to Colorado and, his health again impaired, sought work in the open. He has prospected and mined, but most of the time he was trying to build up a little cattle outfit. Each time when things looked hopeful, something—weather, prices, disease—would clean him out.

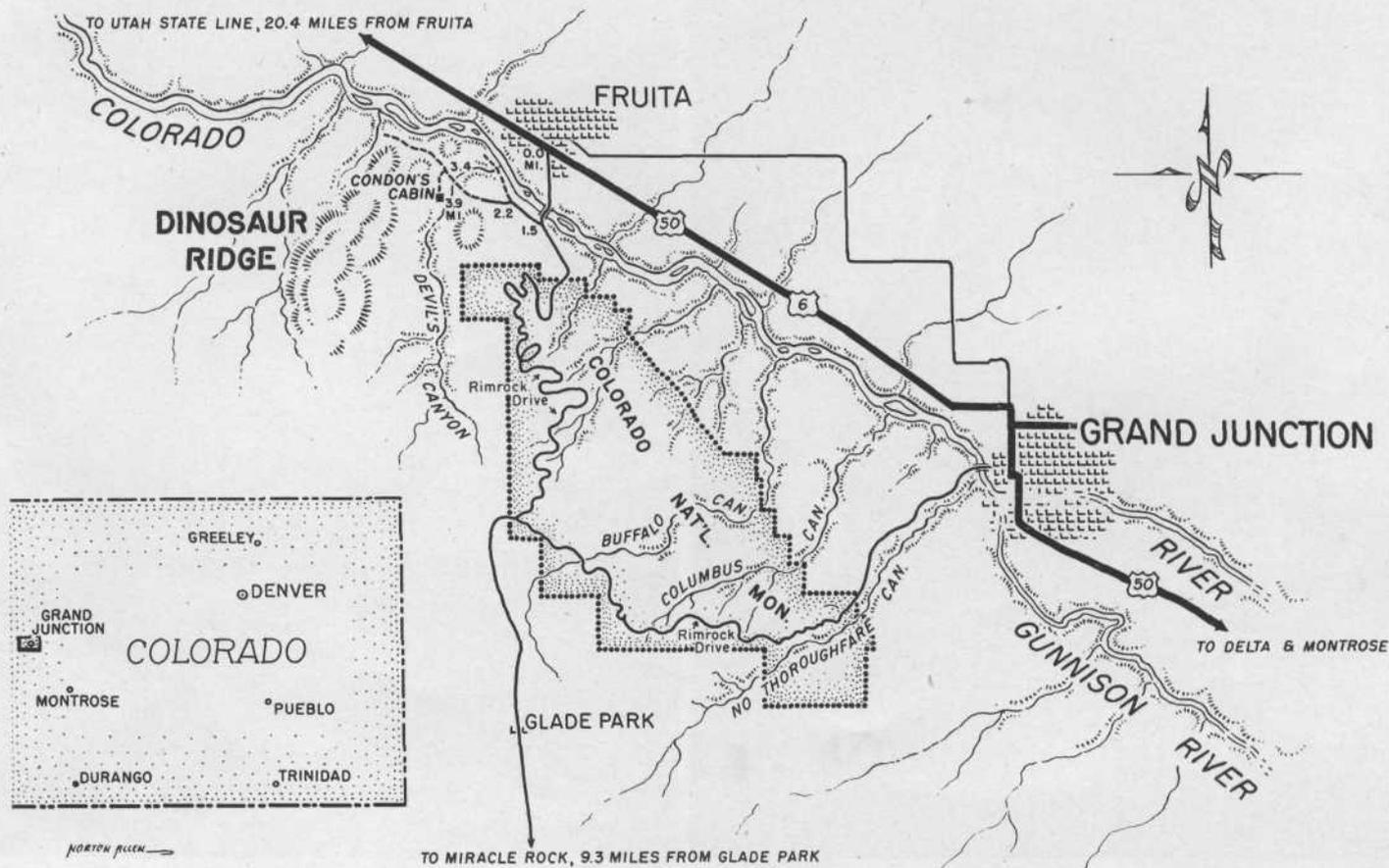
He had a ranch stocked and nearly paid for when we entered World War II. John felt he must play his part, so he came out of the hills and went to work for the railroad, "the kind of job they gave us broken-down fellows." While John did his war work, his ranch went to seed and he lost it. Then he came out to his cabin in the dinosaur graveyard where he has lived for the past six years.

John was willing to show us the dinosaur bone locality but first he took us to a little red hill less than half a mile north of his house where small gastropods replaced by carnelian could be found in the hard limestone. Searching carefully we found a few which had weathered from their matrix. They were beautiful little specimens. It also is possible, when breaking the limestone, to expose a shell or two and obtain a fine cabinet specimen.

According to John Condon, the shells can be freed by dissolving the limestone in citric acid. "I didn't have any," he explained, "so I tried to do it with lemon juice. It worked, all right. But three lemons for one shell—that's too expensive!" John sent a sample snail shell to one of the big companies which buys mineral specimens. The company wanted the snails but stipulated John must get them out of the limestone.

"I did a little figuring on the price they offered," John related, "then sent them a big slab full of snails. 'You can have this for nothing,' I told them, 'but you'll have to get the shells out.'"

To the west of the snail hill a tumbled ridge rose against the sky culminating in highly colored banded clay buttes. "This is all Morrison formation we're in," John said, "but that over there is what is known locally as Din-



osaur Ridge. Once you could find bone all over the flats and in the washes below that ridge. It's been pretty well picked over now, but you can still find some if you hunt harder and hike farther."

Looking across at the eroded masses of conglomerate, shale, clay and sandstone—debris of the Jurassic age which geologists have lumped together and called the Morrison formation—I tried to visualize the infinitely distant past when this was a happy home for saurians. If the experts are right, most of the world had a tropical or subtropical climate 200 million years ago. This land was flat and low then—a place of swamps and shallow lakes and marshes and slow-moving rivers. There were mud flats and bogs; fern jungles and palm jungles and endless vistas of green vegetation. The air was miasmatic—filled with moisture and rot.

And in this sort of world the dinosaurs—whose name means "terrible lizards"—flourished and spread. The vegetarians waxed fat on the lush plant growth and the carnivorous members of the family waxed fat on the vegetarians. This climatically and geologically peaceful period continued for a time almost incomprehensible to the mind of man—a period 20 million times longer than that of our own self-recorded history. And the dinosaurs came to rule

the world. Their remains have been found in almost every part of it.

Toward the end of this period—the times of the Morrison formation—the biggest of all the dinosaurs developed: Brontosaurus, the thunder lizard. He stood 15 feet at the hips, was 75 feet in length; 40-odd tons of meat, bone and muscle—and very little brain. As dinosaurs went, Bronty was a pretty good guy. He didn't eat his neighbors or go looking for trouble. He just sloshed about his swamp, well occupied with the business of gulping down about 4000 pounds of vegetation each day.

Of course he had to keep an eye open for the Allosaurus, the champion meat-eater of that period. But the Allosaurus stuck close to solid land, and if Bronty could see him in time he could retire into sloughs or deep water. Otherwise life was quite peaceful, feeding periods interspersed with long drowsy relaxations in the steamy heat of the tropical sun.

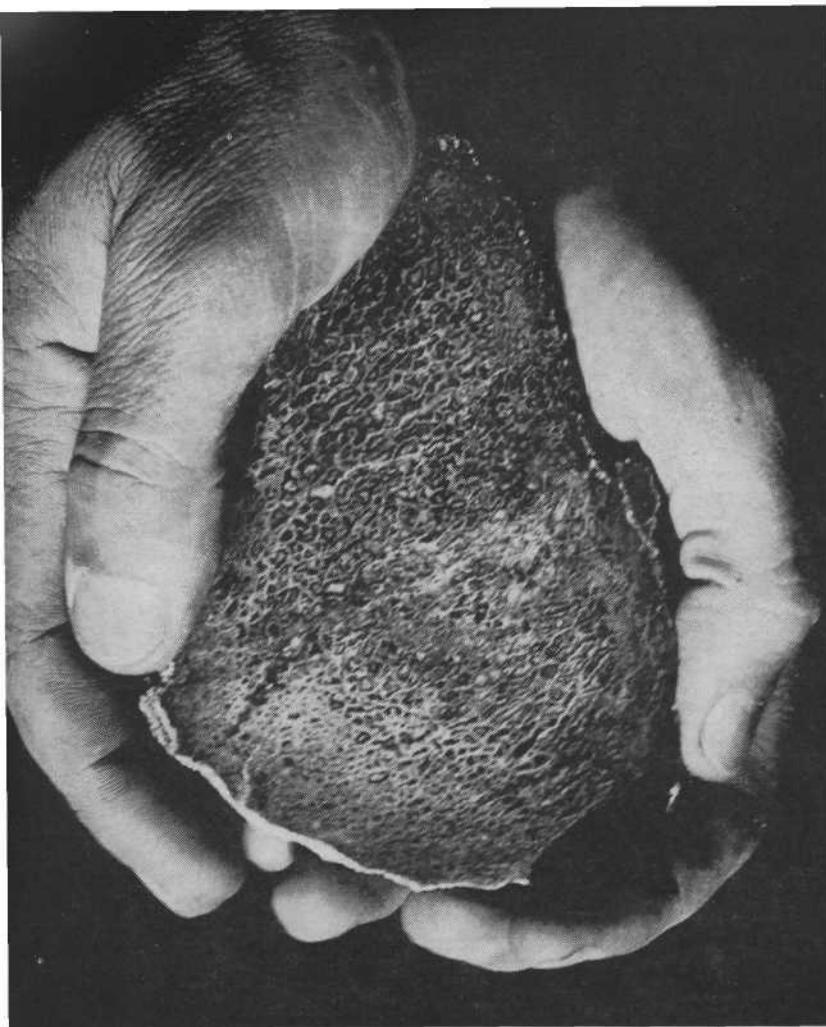
One particular specimen of Brontosaurus must have done a pretty good job of grabbing, gulping, grinding—and watching. At any rate he died under such circumstances that almost the entire skeleton survived, eventually to be exposed again in the little hill directly at the southwestern end of the Fruita bridge. He was excavated in

1901-02 and taken to the Field Museum in Chicago, and a plaque marks the spot where the body was found. Since that time several other fairly complete skeletons have been found in the area. At the present time the Grand Junction Junior chamber of commerce is developing as a tourist attraction the spot where three of them are still buried.

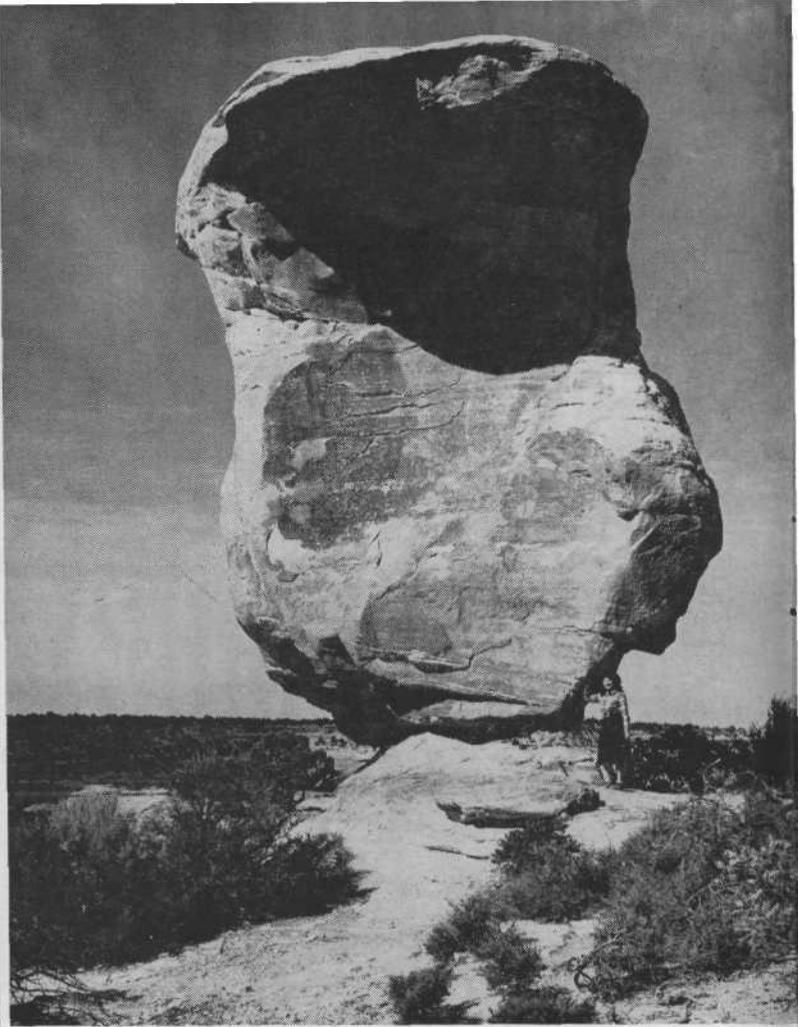
But, fortunately for rockhounds, most of the giant lizards did not survive as a unit, but have come down through the ages as scattered hunks and bits of fossilized bone. And while complete and nearly complete skeletons belong to paleontologists and museums, those little bits of agate and carnelian and jasper are the rightful property of the cutters and polishers.

As we hunted across the valley toward the ridge, John and Bill picked up bits of bone but neither Lucile nor I could find a fragment. In fact, I nearly had given up hope when, on the slope of the ridge, I recognized my first bit of bone. From then on it was easy. It seems that dinosaur bone is one of those stones which you can walk over without recognizing. But once your collecting eye becomes adjusted to it, it stands out among the other rocks.

I found no really large chunks. But there were many pieces of cutting size.



Molecule by molecule, the bone cells of an animal which lived more than 60 million years ago were replaced by agate, carnelian and opal.



One of the geological curiosities of Colorado's dinosaur country is Miracle Rock—a 12,000-ton balanced boulder 9.3 miles south of Glade Park.

Of course, a good deal of that was not cutting grade. Some of it was replaced by calcite or other soft minerals, or had holes or soft spots in the silica. And almost all the "marrow" was patterned with tiny lines of softer stuff which undercut when polished. But there were many bits which took a fine polish and were tough enough to cut into beautiful stones. We also found brown and purplish nodules with small centers of chalcedony, carnelian or a kind of pastelite, bits of carnelian and small green opalite nodules which proved to cut nicely. For those seeking odd specimens there are heavy white barite balls.

While we were hunting that afternoon, we saw beautiful examples of what we call sun-bows in the thin layers of the cirrus clouds: a play of pastel colors, especially pink and green, far more delicate than a rainbow and seeming to shimmer with a lovely iridescence. In all our desert travels we had seen this phenomena only three times before—twice near the Salton Sea and once near Randsburg. Each time it had been visible in cirrus clouds and we had seen it in the afternoon. One explanation which has been advanced for the beautiful spectacle is

that it is the effect of sunlight through the tiny ice crystals which make up the miles-high cirrus. This display lasted almost until dusk, and we spent as much time watching it as we did collecting rocks.

The sun was down when we said goodbye to John Condon and started back to Grand Junction. As I drove,

DINOSAUR RIDGE ROAD LOG

- 0.0 Junction of Colorado National Monument road with U. S. Highway 6 & 50 at Fruita, Colorado. Turn south on monument road.
- 1.2 Cross Colorado River on Fruita bridge. Hill at south end of bridge has plaque commemorating excavation of dinosaur skeleton there by Field Museum, Chicago, in 1901-02.
- 1.5 Turn right from monument road, go through fence.
- 2.2 Road Y. Take left.
- 3.4 Road Y. Take left.
- 3.9 EOR at John Condon's stone cabin.

I was thinking of John living in his stone house in the dinosaur graveyard. He seemed to symbolize man, the mammal—the warm-blooded, warm-hearted thinker who has risen to control the earth after the destruction of the dull-witted, cold-blooded lizard monsters who had ruled so long without learning to apply their tremendous physical power to any ends except killing and eating.

I would like to think that men like John—kindly, tolerant, generous, intelligent—eventually will replace the contemporary dynasty of business, political and social tyrants. When we look about us and see the destruction, intolerance, waste and stupidity—can we truly say that we have been more just and far-seeing rulers of the earth than were the terrible lizards? Are we more likely to survive than they?

We humans are inclined to sneer at the saurians. They couldn't change with the times, we say, so they made way for better creatures—meaning us. But the dinosaurs did change. They grew from the size of jackrabbits to 40-ton monsters. They branched out and specialized. And they lasted for 140 million years while man has yet

to reach his millionth birthday since his first emergence.

As for adaptability, isn't it possible there is a limit to the adaptability of any creature? At the end of the Cretaceous period, 60 million years ago, there were great changes in the earth and its climate. And if you weighed 40 tons and needed 4000 pounds of vegetation a day and your swamps dried up and your vegetation died and the air grew cold—what would you do? Probably the same thing the dinosaurs did.

Long, long ago the terrible lizards were monarchs of their world, and when they walked the earth shook. Paleontologists say that no human ever saw a living dinosaur, nor they us. Millions of years separated us. If we had co-existed, the dinosaur's principal interest in us would be our possible food value. Our principal interest in him would have been in avoiding his appetite.

Yet today we little creatures cut and polish bits of the monarch's bone and wear them for ornamentation. No dinosaur could have imagined such a reversal. Of course, dinosaurs couldn't imagine much of anything. Their brains were very small.

But it is possible that the very smallness of their brains kept the dinosaurs in the saddle so long. They had to take evolution as Nature intended it and couldn't hasten their own destruction. Whatever the reason, we humans have a long way to go before we can approach the existence record of the stupid saurians whose bones we gaze at in museums. And it is not inconceivable that 100 million years from now some sort of creature will be fashioning jewelry out of the fossil bones of *Homo sapiens*—the wonder mammal—long extinct because he was too smart for his own good.

TEXANS REPORT FINDING LOST DUTCHMAN MINE

The famed Lost Dutchman mine, reputed to be located somewhere in the Superstition Mountains of Arizona, has been "found" again according to a statement given to the Houston, Texas, *Chronicle* by one of the locators.

According to legend the mine was worked originally by members of the Peralta family of Mexico. After considerable gold had been taken from the rich deposit, the Apache Indians, resentful of the intrusion in their territory, attacked the mining party and massacred all but one of the workmen.

At a later date a German, Jacob Walz, reported that he had discovered the old Peralta workings, and exhibited rich gold ore to prove his claim. He never revealed its location.

Most recent claimants to rediscovery of the old workings are Robert C. Drury and O. T. Hanning, a mining engineer. They say they have located a 200-foot shaft about 20 miles from Casa Grande. It had been covered with mesquite. An old hand-made ladder leads into the mine. They assert they found gold in the ore at the bottom of the shaft, and believe that eventually they will locate a cache of arrastremilled ore said to have been buried at the time of the Apache attack.

THE *Desert* MAGAZINE CLOSE-UPS

Venita Bledsoe's neighbors are the animals and birds and reptiles mentioned in her story "They Bring 'Em Back Stuffed" in this issue of *Desert Magazine*. She lives with her mother on a tiny ranch near Hereford, Arizona, and has daily opportunity to observe the wildlife in the hills and canyons that surround her home.

Mrs. Bledsoe is a native of California, but when she was quite young her family moved to Arizona where she has resided for many years. Following the death of her husband she moved from Bisbee to Tucson and entered the state university where she completed her undergraduate work and then with characteristic enthusiasm won her master's degree, majoring in English with a minor in journalism.

When she was asked why she selected this remote part of Arizona for a home, she answered: "Oh, I like horses and dogs and pet skunks better than golf and bridge and tea parties."

Her neighbors are Mr. and Mrs. Weldon Heald of the Flying H ranch. Weldon is a well known writer. He was one of the authors of *The Inverted Mountains* and has contributed to many magazines including *Desert*.

J. Wilson McKenney, one of the associates who launched the *Desert Magazine* in 1937, and who later returned to the field of weekly newspaper journalism, recently acquired an interest in the weekly *Nugget* at Nevada City, California, and has assumed the editorship of that paper. Until last August Mac was the owner and publisher of the *News at Yucaipa*, California. Following the sale of that property he has been devoting his time to free lance writing, but the lure of a printshop was too strong and when an opportunity came to assume the role of editor again he promptly accepted it.

McKenney's most recent contribution to the pages of *Desert Magazine*

Wetherill Memorial

To the Contributors of the John Wetherill Memorial Fund:

The preparation of the memorial to John and Louisa Wetherill has been moving very slowly. To the fund, \$790.00 was contributed by 33 individuals.

With these contributions the committee has planned to erect a bronze plaque on a large natural boulder to mark the graves at Kayenta and publish a memorial volume of Mr. Wetherill's notes on Navajo Ethnology.

It had been the original plan to include also an account of John Wetherill's archaeological explorations but the death of Ben Wetherill within a year after his parents' death made the interpretation of the scanty notes impossible, for no one else is sufficiently familiar with John Wetherill's work.

Harry Dixon, the sculptor, has been commissioned to prepare the bronze plaque for the sum of \$278.50 F.O.B. San Francisco. There will be some additional money needed to place the stone but I am told a number of Navajos wish to contribute their time. The stone probably will be placed this summer.

The committee contemplates using the balance of the fund to help defray the cost of the publication of the notes which are being edited by Dr. Clyde Kluckhohn of Harvard University. Dr. Leland Wyman of Boston University has been working on the sand paintings and additional funds probably will be required to make the color prints.

We regret the slow progress of the project but hope that it will be completed within the year 1950.

Very truly,

HARRY C. JAMES

JAMES SWINNERTON

DR. CLYDE KLUCKHOHN

DR. EMIL HAURY

DR. HAROLD S. COLTON

Treasurer for the
Committee

was his story of Willam Blake, surveyor, engineer and naturalist who played an important role in the development of the Southwest nearly 100 years ago. The Blake article appeared in the March issue of *Desert*.



Gold Fever

By LIEUT. CECIL P. LEWIS, USMCR

SOON AFTER World War II ended, I was assigned duties as officer-in-charge of Camp Robert H. Dunlap. The camp was a marine corps installation located north and east of Niland, California, in the Colorado desert and was about midway between the Chocolate mountains and the Salton sea. During the early days of the war it had served as a training ground for a great many marine artillery and tank units. With the war ended, there was little left but a few scattered buildings, several thousand acres of desert land and the All-American canal which ran through the middle of the property.

While my title may have looked impressive on my letters home, the truth was that I was nothing more than officer-in-charge of an 18-man guard unit charged with seeing that the few remaining buildings remained where they were. I was green to the desert country and most of the men assigned to my outfit were equally so.

One man in my outfit was a big Swede from Milwaukee who was possessed with gold fever. He and a buddy were forever going on gold-seeking expeditions in their off-duty hours and returning empty-handed. There was considerable surprise in camp when they came racing back in our jeep one Sunday afternoon screaming that they'd hit it. In the bottom of an empty tobacco can, they had half a dozen flakes of yellow looking dust.

We were in the habit of hauling in drinking water and since it was the only safe water for miles around, we served as a base of operations for a number of bonafide prospectors who worked

the area. One of these grizzled old-timers with a burro was filling his water-bags when the gold-seeking pair arrived in camp. We all gathered about, listening to their tale of newly-found riches, when Joe, the ancient prospector, ambled over.

"Look, Joe, we've struck it rich!" Swede shouted at him, sticking the tobacco can under his nose. "We've found it!"

Joe seemed unimpressed. "How long you been workin' up there in the hills?" he wanted to know.

"About a month," Swede told him. "Why? You know where our claim is?"

The old man nodded, scratching his beard. "Yep. I run across your diggin's the other day as I was passin' by."

Swede was suspicious right away. I suspect that he had read enough dime western novels to know all about claim jumpers.

"Come on over here for a minute and I'll show you something, the old man offered, pointing to our water wagon. Still clutching his tobacco tin, Swede followed him. The rest of us were right behind.

The old-timer picked up a pan that stood on the bench beside the water tank cart and scooped up a bit of sand. Turning on the water tap, he held the pan beneath it, sloshing the sand and light gravel about. He had to do it with several pans full of sand before he finally pointed to one of the tiny flecks of yellow dust in the bottom.

"There's gold right here in camp," the Swede marveled.

"Yeah, and it's worth all of 50 cents or so a ton," Joe informed him a little sarcastically. "You'd break your back before you got enough to pay for your

tools. This stuff runs the same way up where you've been diggin'. Doesn't pay to dig for less than six or seven bucks a ton."

That put a damper on the amateur prospectors, but Swede had his revenge a few weeks later when Joe came into camp close behind Eleanor, his burro. The poor animal was carrying a load that had her walking stiff-legged. One of the PFCs on guard duty saw them through a pair of field glasses and spread the word that it looked as if Joe had something big. The entire camp was waiting as he came into camp. Swede was right in the front rank.

"What'd you get, Joe?" he asked, a trace of his old gold fever apparently returning. "Get anything good? Strike it rich?"

The old fellow shook his head as he patted the bulges that were carefully lashed beneath the heavy canvas that covered the pack saddle.

"Dunno," he said. "Got somethin' here that I can't quite figure. Dug it up out in the hills. Ain't never seen nothin' like it before."

As he ripped back the heavy canvas, every marine present made for the nearest shelter. Lashed to each side of the wooden pack saddle was a 155-millimeter dud. The old prospector had dug the shells up out in the old artillery impact area, not realizing that the slightest jar might set them off!

• • •

THE "MUSICAL ROCKS" OF NORTHERN ARIZONA

In a remote part of northern Arizona, Guy Hazen of Kingman was doing some prospecting. He sat down to rest among some curious-looking black rocks, after a few minutes idly hit one with his hammer. He was surprised by the musical tone that rang out.

Hazen dug out some of the black rocks, took them home and experimented. He has sawed them into various-sized slabs and arranged them into chimes. The tones are said to be beautiful and true, ranging from low notes to high.

The rocks are augite phonolite. They belong to the pyroxenes, one of the rock-forming minerals. They are an intrusive rock—a molten mass which pushed up into the over-lying rock but did not quite reach the surface. The musical dark rock contains magnetite iron and traces of plagioclase feldspar. Mrs. Moulton B. Smith, Phoenix, has a set of chimes made from the rocks.

Hazen operates a rock shop and museum in Kingman, has the musical rocks on display there. In their natural state, the dark rocks are covered by lighter rock, but the dark rocks are the musical ones.

Crimson Splashes On the Desert . . .

By MARY BEAL

Mother Nature is inclined to be frugal in her use of vivid red for flower color, but she does vary the landscape with an occasional splash of scarlet brilliance. One familiar flash of color comes from the Paint-Brush, belonging to the large and interesting Figwort Family, which includes several groups with red flowers. The Paint-Brush section goes by the name of *Castilleia* botanically, honoring the Spanish botanist Domingo Castillejo. Differing from most of its kindred and the usual floral custom, the showy color does not come from the corollas but from the calyxes and the large petal-like bracts, which quite eclipse the inconspicuous corollas.

Most of the Paint-Brushes are perennial, and like some others of the Figwort clan are inclined to sponge on their prosperous neighbors. They are not out-and-out thieves, in the class with the predatory Mistletoes and Broom-rapes, but indulge in petty larceny, now and then reaching over to tap the assimilated juices in the roots of next-door neighbors. Not that they need hand-outs; their own root-systems are entirely adequate for all requirements.

In parts of their range some species rate as fairly good forage for livestock but the palatability varies greatly. Certain Arizona Indian tribes attributed medicinal value to the Paint-Brushes and found the flowers a tasty addition to their foodstuffs. The commonest Paint-Brush in desert areas is

Castilleia angustifolia

In bloom one of the handsomest of the genus, with several hairy, herbaceous stems 8 to 18 inches long, springing from a short woody base, the herbage gray-green, a rather dull bushy plant until Spring paints the tips of the branches with flaming scarlet, varied by shades of crimson and salmon. The leaves are slightly rough and margined by fine white hairs, and are usually slashed into 3 spreading linear lobes, the middle one apt to be broader, the lowest leaves often not lobed. The flowers are mixed in with showy scarlet bracts and all crowded into terminal spikes. The corolla has a small green very short lower lip and a long slender beak-like upper lip, the thick central green rib bordered by red. Almost concealed, it protrudes only slightly from the tubular 2-lipped, white-hairy calyx, which is vividly colored like the bracts. The capsule is ovoid and filled with minute pale seeds that are very curious under the lens, like tiny corks with deeply honeycombed surface. This striking species high-lights mountain slopes, hillsides and washes, preferring gravelly soil, in the Inyo, Mojave and northern Colorado Deserts, Nevada and Utah at 2000 to 7000 feet elevations.

Another species that includes the desert in its extensive home-steading is known commonly as narrow leaf Paint-Brush, long-leaved Paint-Brush, and Wyoming Paint-Brush.

Castilleia linariaefolia

This State Flower of Wyoming has also a wide desert domain at higher elevations. Its long slender leafy stems are 2 to more than 4 feet tall, often branched above the middle, several to many of them riding erectly from a woody crown. The herbage is hairless except about the flower spike, the stems sometimes purplish. The dark-green leaves are very narrowly linear, 1 to over 3 inches long, the upper ones quite small. The slender greenish-yellow corollas, an inch or more long, are often tinged with scarlet or salmon, the long beak-like upper lip protruding noticeably from the calyx. The red of the needle-pointed, 3-lobed bracts and calyx is variable, displaying scarlet, crimson and rose hues. It is a mountain-lover, seldom found below 5000 feet, about springs and seeps, in washes and canyon floors and on rocky slopes, unfurling its red flags in summertime from June to September. Look for it in the eastern Mojave Desert, Nevada, Utah, New Mexico, Arizona and Mexico.

There are a few other species that venture into the desert but as they seldom go beyond its borders we'll pass them by and be content with the two prominent desert Paint-Brushes.



Above—Most common desert Paint-Brush, *Castilleia angustifolia*.

Below—Wyoming Paint-Brush, *Castilleia linariaefolia*.



Springtime in the Algodones Dunes. Photo by Leo Hetzel

Springtime in the Desert

By BARBARA MALIK
Ione, California

There's a breath of desert sweetness
In the gentle morning breeze,
As it whispers through the valley
'Mid the stately Joshua trees,
There's a breath of Heaven too
In the early morning hours,
When the desert's treasure garden
Unfolds its precious flowers.
There's a rapture and a beauty,
And a peace that no one knows,
Who hasn't seen the desert
When it blossoms like a rose.

• • •

WESTERN SUN

By MARION STURGES BURTON
Albuquerque, New Mexico

What I love best in all the world
Is a western sun, her red flags furred,
Sinking in wild cloud banks of wind and
darkness—rank on rank.
Then steal those tones of all the best,
Rose, mauve, and amethyst—
With many a thread of pellucid light,
Fading off into darkest night.

• • •

EASTER MORNING!

By GRACE PARSONS HARMON
Los Angeles, California

O, bury me high, where no shadows creep,—
When that last, low note is sung,—
High, high on a peak where the great winds
sleep,
And the midnight stars are flung!
Where the lark sings free in the endless
blue,—
Where anemones nod and sigh!
And we'll catch the gleam from those Great
White Gates
That morning—
My soul and I!

YOU'LL RETURN

By PAUL WILHELM
Thousand Palms, California

Never say the desert's lonely, 'cause it ain't
pard, not a bit,
Leave it once—you'll miss its silence, like
a friend who understands,
'Cross the distance it'll reach you—place
a hand into your own,
Offerin' perfume of greasewood, pleasant
memories of sage,
Travel where you will—it calls, and pard,
I know—I've heard it call,
You'll come back into its silence, you'll
come back because it's home. . .

• • •

UBEHEBE CRATER

By MYRTLE M. PEPPER
Los Angeles, California

I stood upon a crater's yawning lips
And dared to view the rough and tortured
throat.
Once many centuries past this living thing
Had spit its flame and rock across the miles
'Til spent, its spume ran slowly down the
side,
And wearily it coughed and died.

The Night is Past!

By TANYA SOUTH

The night is past! Now daylight creeps
O'er fields and plains and sloping
steeps.
I watch inspired the sun's advance
In flaming radiance to entrance
Each heart anew. The night is sped.
Now can we clearly see ahead
The vista wide. And a sublime,
A deeper Faith this does impart.
Do not despair, oh anguished heart,
Each night will always pass in time.

Paradise of Art

By LEOTA MOHR
Redlands, California

Springtime's breezes ring the Yucca's fairy
bells,
But no careless ear can hear the accent of
their knells,
Blue bells, and buglers join in on the tune
While sand verbenas perfume yonder lonely
dune.

All the desert carpet with color is ablaze,
What a lovely garden to feast my wonder-
ing gaze,
The hand of God has touched with ardor—
Nature's heart.
In the desert has perfected a Paradise of
Art.

• • •

DESERT SUNRISE

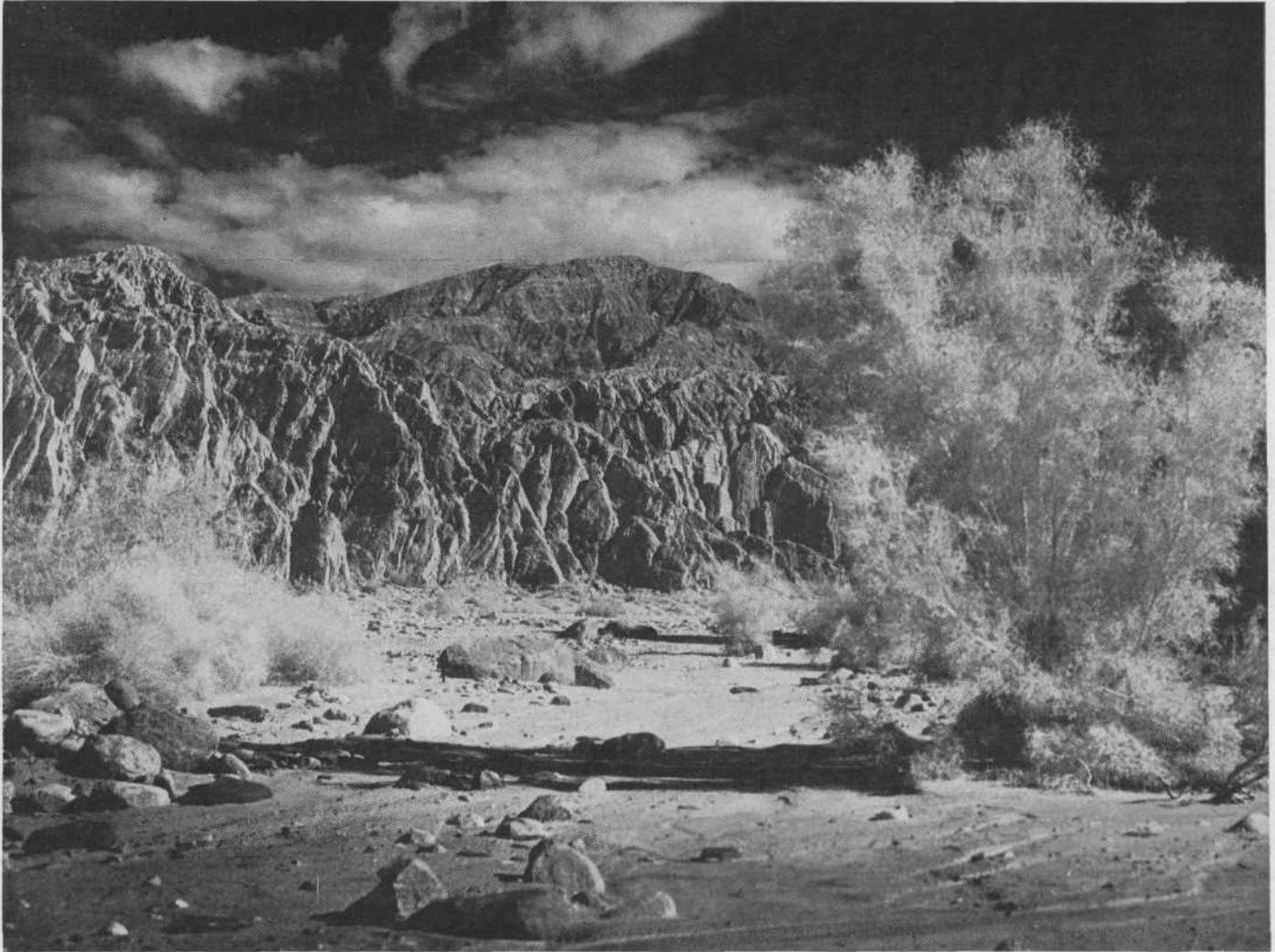
By ARTHUR A. CRAWFORD
Evanston, Illinois

A sunrise almost anywhere
Is wonder to behold,
But sunrise on the desert
Beats them all a thousand-fold.

A sunrise over city roofs
Or fields of corn, or sea,
Is pretty, but will never match
The desert dawn for me.

The waking sense of endless space,
Of vastness, awesome, grand,
Comes only when the desert sun
Appears across the sand,
When silhouetted cacti,
Like giants standing there,
Are sharply stamped upon the glow
Of morning's rosy flare.

Perhaps you think you'll equal it
With dawn o'er field or tree,
But the sunrise on the desert
Is best of all—for me.



Entrance to Painted Canyon—a wild rugged desert where the most conspicuous landmarks are eroded hills and smoke trees. Photo by Robert Matthews.

Painted Canyon in Mecca Hills

One hardly would expect to find beauty in the somber clay hills that extend along the north side of California's Coachella Valley—and yet there are many precipitous canyons in this sedimentary formation to lure those who go to the desert for hiking and exploration. One of the best known of these is Painted Canyon—and here is the story of this colorful gorge with clay and sandstone and conglomerate sidewalls.

By WALTER FORD

"THE PASSAGE way became yet narrower, the cliffs more vast. I do not think five-hundred feet is an overestimate of their height in some places, and the nearness of the walls to the beholder doubles or trebles their towering effect. One feels as if he were at the bottom of a well . . ." So wrote J. Smeaton Chase in his "California Desert Trails," in telling of his trip to Painted Canyon more than a quarter of a century ago.

Some years ago when U. S. Highway 60 extended east from Mecca through Box Canyon, Painted Canyon, then only three miles from one of the

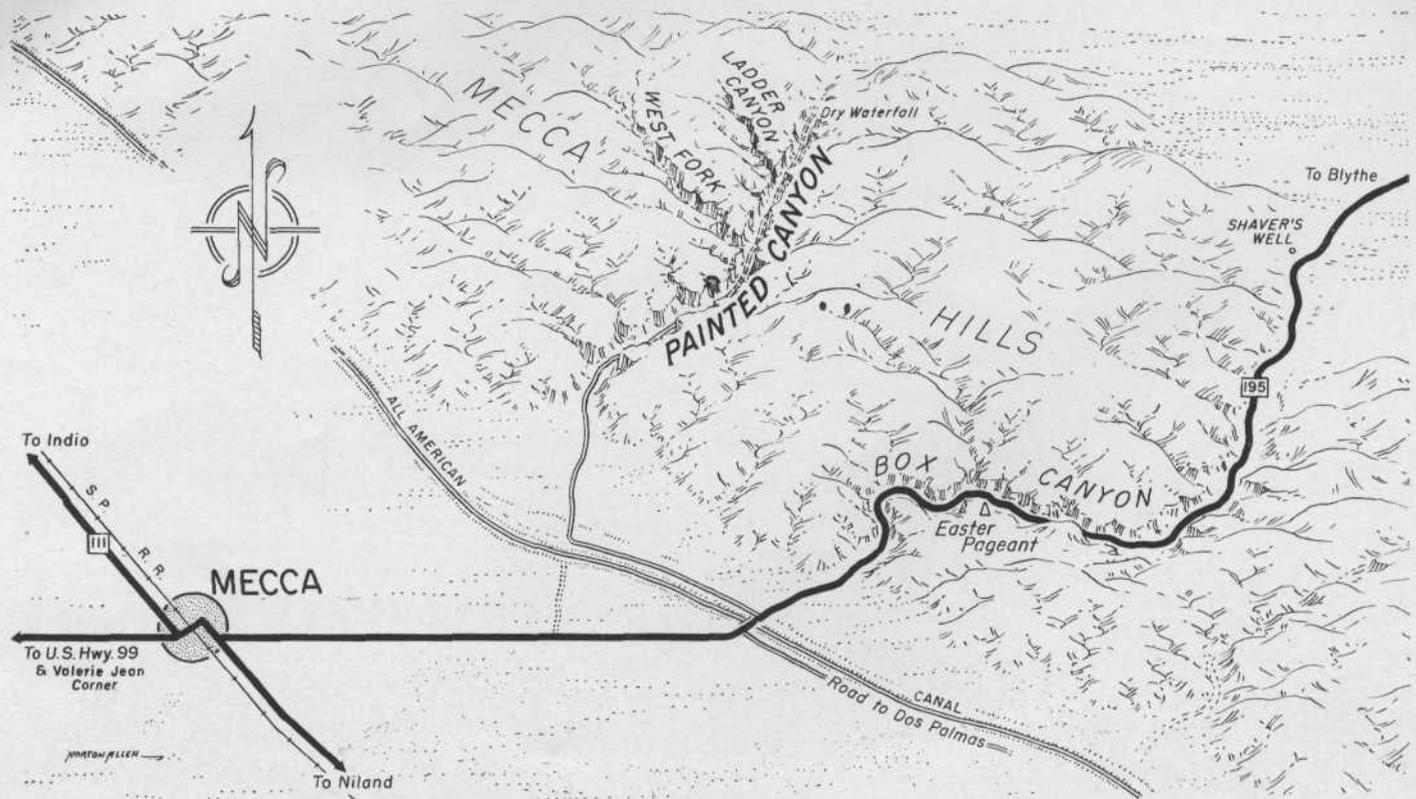
main transcontinental highways, was a popular rendezvous for motorists. But due to frequent floods in Box Canyon the road was relocated to get it out of the path of cloudbursts. Since then Painted Canyon has dozed in semi-obscurity.

In recent months I have made repeated trips into Painted Canyon to take pictures and log the trail for Desert Magazine readers. Unlike many of the scenic attractions of the West which become commonplace after several visits, Painted Canyon becomes more fascinating with each return trip.

From the kaleidoscopic array of col-

ors at the entrance from which the canyon derives its name, to the somber depths of the steep-walled grottos there is a never-ending play of lights and shadows to intrigue the visitor. And without drawing too heavily upon the imagination, one may pick out human and animal figures, outlined in stone against the skyline and seemingly guarding the mysteries of the chambers below.

Once within the confines of the perpendicular walls, the canyon becomes a world unto itself. No sound other than the dropping of rock or earth from overhead heights can be heard.



And only the narrow strip of blue above preserves the illusion of reality. How easily we harken back with Chase to that hot morning in July when he sat in the shadows and wrote: "The silence was profound. No breeze penetrated thus far, no rustle of wing, piping of insect, nor hint of delicate footfall broke the trance-like stillness."

Painted Canyon has been in the making some two or three million years, yet when measured by the geologist's time table it is of very recent origin. As late as the Miocene or Pliocene age, the sandstone plateau through which the gorge has been cut formed part of the floor of a vast inland sea. According to Jaeger in his "California Deserts," the sea covered all of the present Salton Trough and perhaps extended nearly to the San Gorgonio pass at Banning. With the drying up of the sea and the sinking of the basin to form the existing trough, the sea floor was forced up gradually to its present level. Evidence of the tremendous upward pressures that were applied may be seen in the folded and distorted layers of sandstone at many places in the canyon. As the terrain was being slowly forced upward, the sand-laden storm waters rushing down from the Mecca hills began a cutting action through the plateau that has continued down through the ages with each additional storm.

There is no established road into Painted Canyon. The first driver into the canyon after a storm usually deter-

mines the route others will follow, until a new storm erases all signs of wheel tracks and prepares the wash for new trail breakers. The old adage that he who hesitates is lost could well become an axiom of all those venturesome drivers who follow uncharted trails through sandy arroyos such as Painted Canyon. Timidity on the part of the driver is undoubtedly responsible for more cases of getting stuck in the sand than is bad judgment in selecting the route.

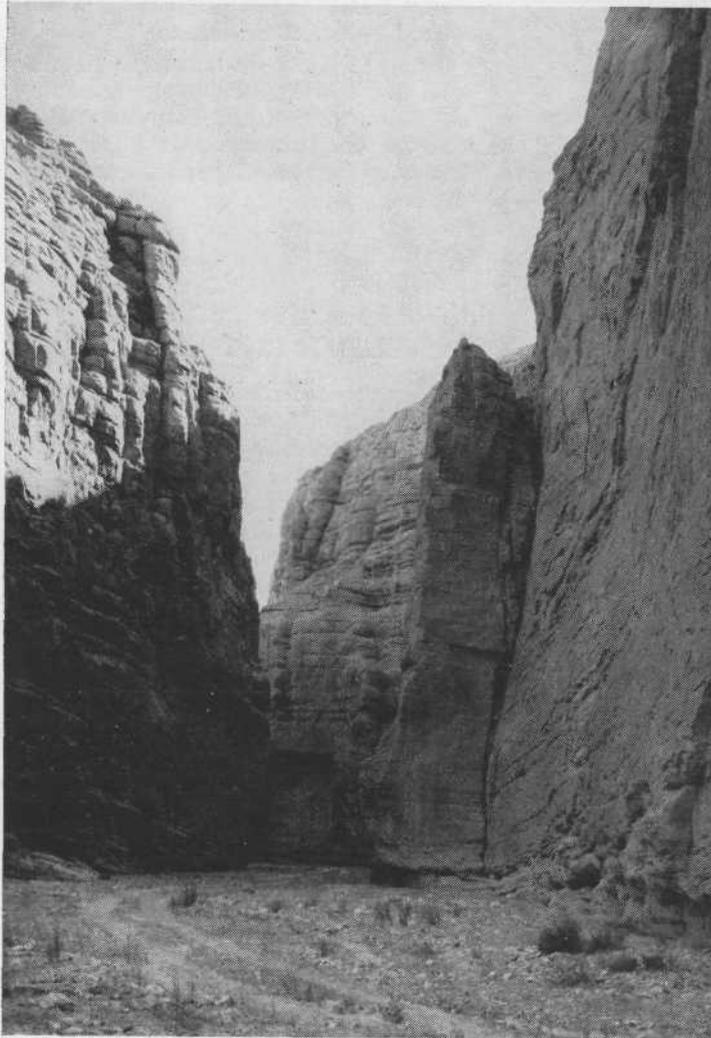
As Desert Magazine writers have pointed out from time to time, the car must not lose its momentum from the start until the destination or solid ground is reached. And as an added precaution, the car should be headed down the wash before it is stopped. Such driving calls for alertness. There are few opportunities for day dreams in such terrain. "Shall I skirt that patch of sand?" "Can I clear that boulder looming up ahead?" You will find yourself making split-second decisions on such questions as those, for better or worse. The exercise will be strenuous, but once your objective is reached you will be able to relax with a feeling of real accomplishment.

On my first trip to Painted Canyon I traveled up the wash a distance of two and one-half miles without mishap. The second trip did not prove so fortunate, but there curiosity was my undoing. A previous camper had strung a radio antenna between the canyon walls, just about car height from the

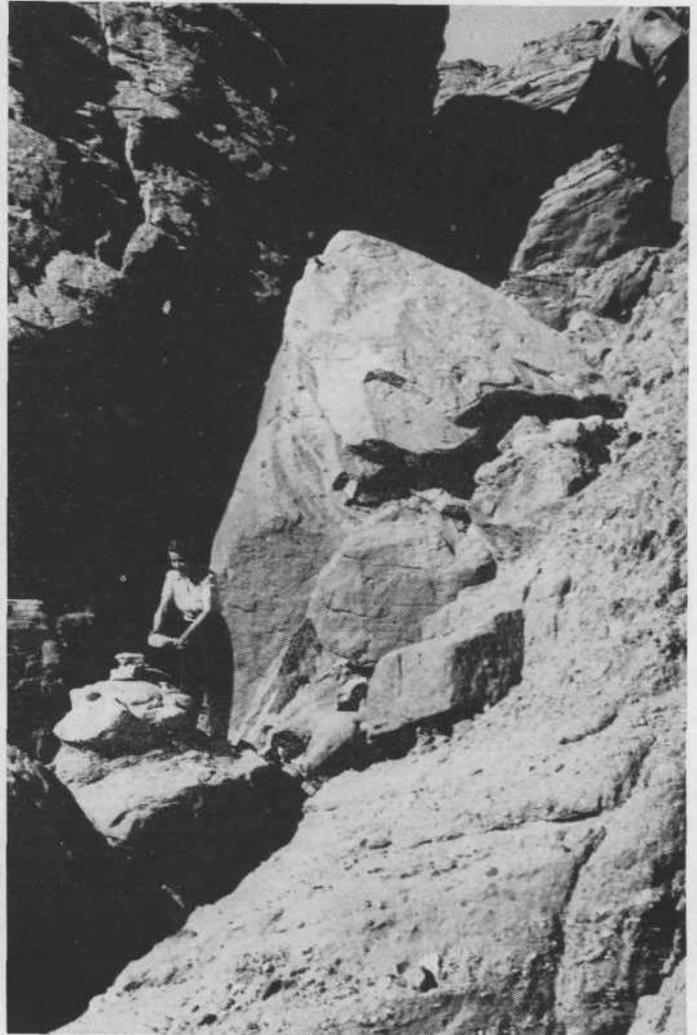
ground. As I approached the wire I unconsciously slowed down and leaned out to see if it would clear my car. Before I realized what was happening the rear wheels were churning in sand and I found myself thoroughly bogged down. Incidents of that kind need not be taken seriously if one has provided for such contingencies. In my own case it was a simple matter to place beneath the wheels of my car the piece of heavy netting that I usually carry on desert trips and pull out to firmer ground.

Every experienced driver seems to have his own method for getting out of sand. Some prefer the shovel-and-hand blister method, while others carry a couple of old Model T running boards for such emergencies. Once in Borrego Valley I met a motorist who carried several pieces of old rubber belting of the kind used around pumping plants and mines. He insisted that I accept some extra pieces that he had. Fortified by his claims and minus the usual netting, I later drove into a sandy area that I ordinarily would have shunned and spent several torturous hours with a shovel before I was able to get back on solid ground. Perhaps I lacked the technique of using the belting, but when it was placed beneath the wheels of my car there was about as much traction as one would get from a sheet of smooth metal.

Chase gave the length of Painted Canyon as four miles, which is approximately correct, although no two motorists will get exactly the same speed-



The road up Painted Canyon is between colorful walls that sometimes rise to 500 feet on both sides.



A visiting motor party stops to rebuild the rock cairn which marks the entrance to Ladder Canyon.

ometer reading for the reason that the mouth of the canyon is not a well-defined starting point. The colorful hills gradually close to form a V-shaped gateway. The driver, busy with the problem of getting his car over the rough winding road, eventually finds himself in a narrow gorge between precipitous walls.

Actually, there are two main forks of Painted Canyon and both of them extend entirely through the range—a distance of six or eight miles.

The right fork generally is regarded as the main canyon, and this ends abruptly at a dry waterfall which may be scaled only by skilled hand-and-toe climbing. The waterfall consists of two steep pitches with a natural tank between them, and there was a seepage of water in this tank the first time I visited it—a watering place for birds and animals.

On one of the side walls a small swarm of bees was busily engaged in digging holes in the earth above the water line. I had seen Mason bees at

work in drier sections, and although the bees at the spring resembled Mason bees in appearance, they did not have all the characteristics described by Jaeger in his *Denizens of the Desert*.

By using one of my camera lenses as a magnifying glass, I was able to get a close-up view of their activities. Jaeger tells of the bees squirting a sort of saliva on the dry earth to soften it, then forming it into pellets and removing it from their burrows. The bees at the spring merely grabbed chunks of the moist earth and pushed them from their holes. Perhaps this was just a case of adaptation to a new environment. As I watched the bees at work I could not help wondering how soon after the burrows were filled with their treasure of honey, some lucky coyote would make the discovery and have the treat of his life.

While the end of the main canyon marks the end of the trail for a car, it opens up new adventures for the hiker. After scaling the second pitch I found myself in an area that was in

sharp contrast to the lower canyon. The formations carry the same bright colorings, but the precipitous sides are missing. The walls break away from the canyon floor in rounded contours and appear scalable at many points. The stream bed, down to bed rock in many places, is almost level. Time did not permit my exploring the second canyon to its end. I wanted to get some pictures in the main canyon before the shadows got too deep, so I did not proceed farther than three-fourths of a mile up the wash. From a high point at that location it appeared that the canyon extended several miles.

Like many other situations in life, ascending the upper pitch of the waterfall is much easier than going down. On one of my trips I met a recently discharged veteran of the Pacific area who with his wife was spending some time camping in the canyon. He had managed to get his wife up the second ledge but was having difficulty getting her down. After offering every conceivable suggestion without results, he finally climbed half-way up the ledge

in exasperation and ordered her to jump into his arms. "Art," she exclaimed, "If I jump, I'll go by you like the Santa Fe Chief." I did not wait to see the end of that little drama, but I hope the little lady made a safe landing. I have made the descent loaded with camera equipment and I know how few and far between the toe holds are.

When George Wharton James wrote his *Wonders of the Colorado Desert* 40 years ago, he indicated the site of the present Painted Canyon as Castle Gorge on the map accompanying his text. It is difficult to determine when or by whom the current name was first applied to the area. I have talked to several old-timers, each of whom claimed to be the first to use the term, or knew someone who was the first, but regardless of the merits of the individual claims, one has only to visit the canyon to confirm the fact that it is decidedly well named.

To reach Painted Canyon follow the Box Canyon road out of Mecca for a distance of 4.6 miles. Just beyond the new All-American canal bridge, turn sharply to the left and proceed along the dirt dyke that parallels the canal for a distance of 1.8 miles. At that point drive down into the borrow-pit made by the canal contractors and cross to the opposite side where the old Painted Canyon road may be found. The distance across the borrow is .2 mile. Proceed along the old road to the canyon entrance, a distance of 1.4 mile. At 2.1 miles from the canyon entrance a tributary to the main canyon branches off to the left. Keep to the right at that point, where the steep walls of the most picturesque section of the canyon may be seen directly ahead.

The prospective visitor to Painted Canyon should keep in mind that driving conditions in the canyon can vary sharply from good to impassable within the space of one storm. And that it is a rare occasion when anything but a four-wheel drive such as a jeep can proceed to the end of the canyon. However, such limitations need not deter anyone from enjoying the beauty Painted Canyon provides. The careful driver will know when the trail becomes too heavy to proceed safely and even under the most undesirable conditions that point is not apt to be reached until he is well into the canyon. The remaining distance can mean at the most a hike of little more than two or three miles, which, perhaps, is the more pleasurable way of seeing Painted Canyon.

At .5 mile beyond the junction of the two forks a great pile of sandstone blocks partly closes the entrance to

ROAD LOG Mecca to Painted Canyon

- 00.0 Mecca
- 4.6 All-American canal bridge. Turn left along dike.
- 6.4 Leave dike and drop down into borrow-pit on right.
- 6.6 Out of borrow-pit to the bajada leading to mouth of canyon.
- 8.0 Enter mouth of Painted Canyon.
- 8.4 Hard road ends about here. Passable to experienced drivers.
- 9.5 Canyon becomes narrow. Only specially equipped cars or jeeps should try to go beyond this point.
- 10.0 Canyon divides, take right fork.
- 10.5 Ladder Canyon on left. Marked with small cairn.
- 11.0 End of road at dry waterfall.

Ladder Canyon, a tributary on the left. Only a small cairn of rocks marks the spot. Entrance to Ladder Canyon is gained by crawling through a sloping tunnel into a dark gorge which is little more than a wide crevice in the great sandstone massif. Just around the first turn is a 20-foot dry waterfall which would block further progress if some helpful person had not brought in a ladder and left it here as a permanent aid to those who would explore this canyon further.

Above the ladder one may continue for a quarter-mile along a slot canyon scarcely three feet from wall to wall. The sun never reaches this dim passageway. Obviously it is a fault line or crevice which occurred in the upheaval of this range, and storm water has never come in sufficient amount or for a long enough period to erode it into a full-fledged canyon. Interesting geology here.

Just over the ridge in Box Canyon, the next gorge east of Painted Canyon, a marvelous natural setting has been found for the presentation of the Easter pageant, "The Master Passes By."

This outdoor production, sponsored by the Mecca Civic Council and staged by the Mecca Easter Pageant committee, will offer its fifth annual presentation on the evenings of April 7 and 8 this year.

Written by Helen Drusilla Bell, the drama covers the events of Christ's trial before Pontius Pilate, and His resurrection. A cleft in the sandstone walls of Box Canyon provides an impressive backdrop for this spectacle.

The production is entirely non-commercial, the workers and players performing their parts without pay and there is no admission charge. Last year more than 5,000 spectators sat on the

sandy floor of Box Canyon and witnessed two performances.

Many of those who come to this annual event bring their camping equipment and spread their bedrolls in Box Canyon or on the bajada at the entrance to Painted Canyon a few miles away.

• • •

NEVILLS BOATS PURCHASED BY VETERAN RIVERMEN

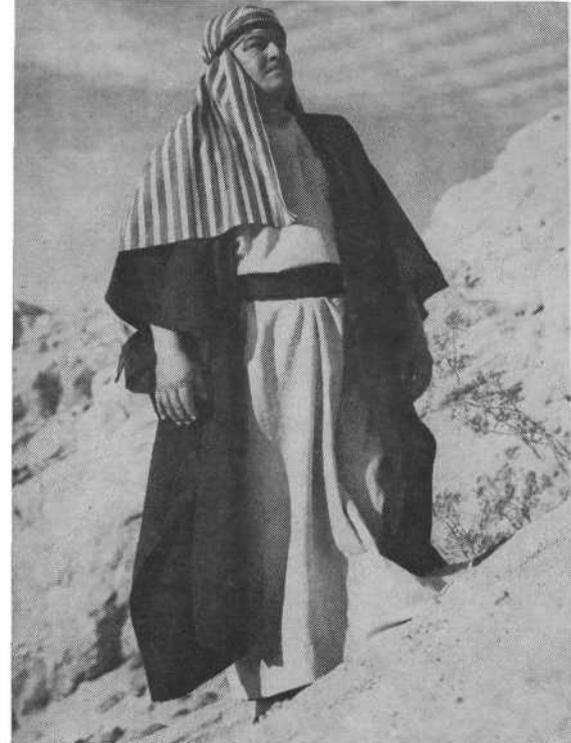
With the exception of three cataract boats which have been retired from active service, the river craft and equipment used by the late Norman Nevills on his many expeditions down the San Juan, Green and Colorado rivers have been purchased by J. Frank Wright and Jim Rigg from the Nevills estate. They plan to continue the river runs made famous by Norman.

Wright was second in command on all Nevills trips in 1948 and 1949. Rigg, owner of the Rigg Aviation Service at Grand Junction, Colorado, made many trips, including one Grand Canyon run, as boatman for Nevills. Both men are regarded as well-qualified boatmen on the fast water of the desert rivers.

Previous to his death in an airplane crash last September, Norman Nevills had announced that the three oldest of his cataract boats would be used no longer. His command boat, the *Wen*, is to remain on exhibit in the museum at the South Rim of Grand Canyon. The *Joan* is to go to the state capitol building in Salt Lake City for permanent exhibit purposes. The *Mexican Hat II* was sent to Carlisle, Pennsylvania for the private museum of F. E. Masland, Jr., who had made several trips with Nevills as a passenger. The fourth boat, the *Sandra*, named for Nevills' youngest daughter, was the newest cataract boat in the fleet and will be continued in active service. Wright and Rigg acquired this craft and also five other boats used by Nevills on his San Juan river runs.

Mexican Hat lodge, formerly operated by Mae Nevills, Norman's mother, has been purchased by John B. Rigg, brother of Jim, and will provide accommodations for passengers preparatory to the San Juan River runs.

Wright stated that no Grand Canyon runs will be made this season as new cataract boats will not be completed in time, but that beginning May 1 the seven-day trip down the San Juan to Lee's Ferry will be scheduled every nine days.



Ace Escobar, who plays one of the roles in the annual Easter pageant to be held in Box Canyon April 7 and 8.



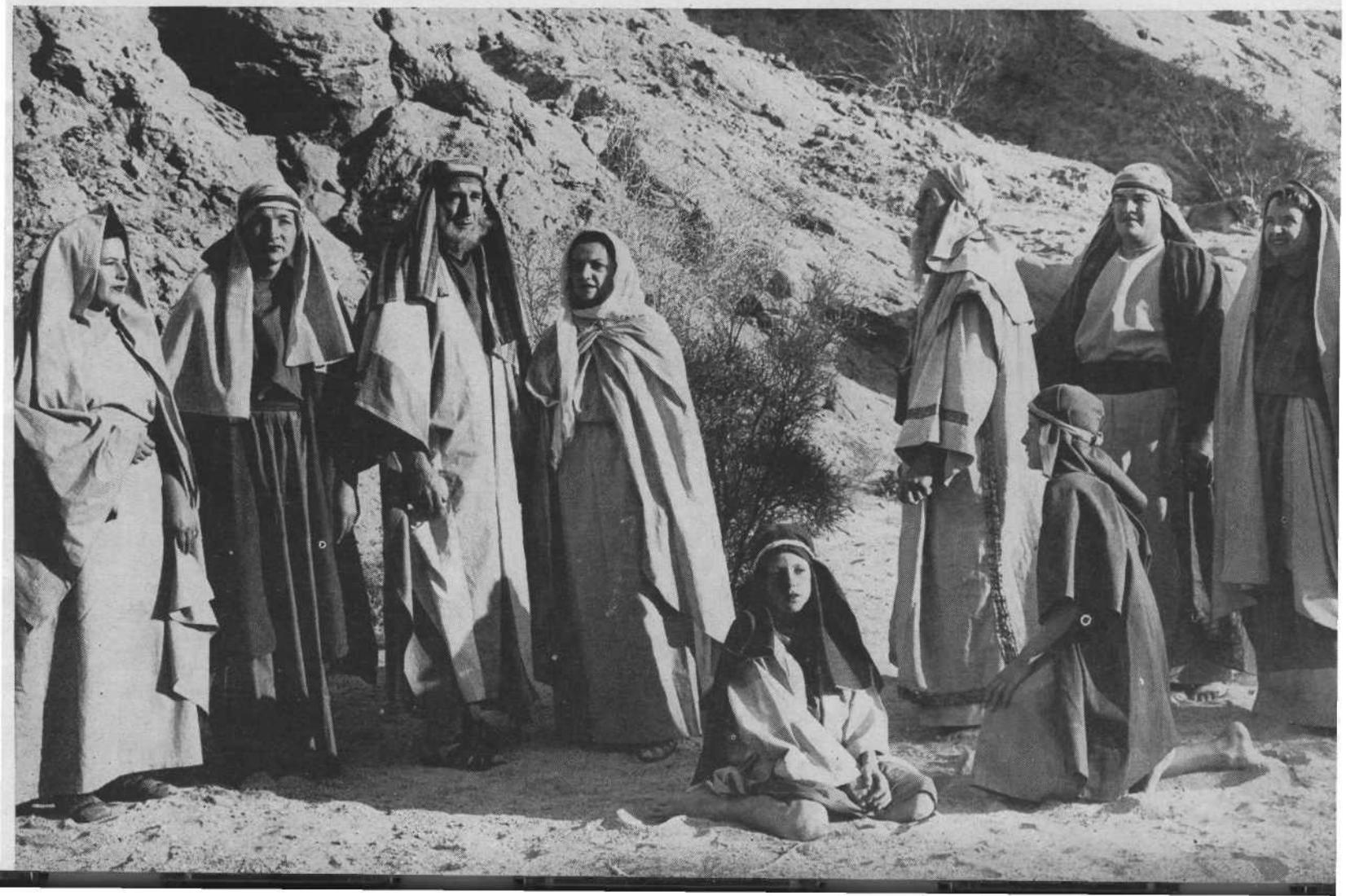
Virginia Schrock, garbed as a kitchen maiden, kneels at the throne of Pontius Pilate to plead for the life of Jesus.



Herb Ovits playing the part of the Man from Jericho. The parts in the community drama are all taken by local people.

Easter Pageant in Box Canyon

Picture taken during a dress rehearsal in preparation for the annual presentation of the Easter pageant in Box Canyon.



Artist of Snow Creek Canyon

By BETTY SCHEYER

HIGH UP on Snow Creek which tumbles down the north slope of southern California's San Jacinto Mountain is the little studio home where Axel Linus does much of the painting which has brought him wide acclaim. He divides his time between his Snow Creek cabin and Palm Springs.

When I met him he was wearing his version of desert attire—a Stetson hat, plaid shirt and riding boots. He was smoking the pipe which is almost as much a part of him as is his beard.

"When my wife and I came to the desert eight years ago," he said, "it was this little home on Snow Creek that invited us. We thought it would make an ideal studio, and we bought it at once. I have found this a place of peace and inspiration, and have done some of my best work here.

"The late Madame Ellen Beach Yaw also liked this spot and passed our

Axel Linus' life-long quest for beauty ended on the desert when he found a little cabin along Snow Creek at the base of San Jacinto Mountain. He and Mrs. Linus bought the cabin for a studio and there he does much of his best work. When not painting he goes to Palm Springs where he is an active member of the desert art colony.

cabin on her walks up the canyon. Once we invited her into the studio. She was in her late years, but she consented to pose. She liked the portrait. She had great charm, even though she was not well at the time, and I tried to capture this charm.

"Other paintings I have done here in Snow Creek Canyon include one of

the studio itself shaded by the foliage and surrounding trees. Another is of a young Indian maiden as she is sitting by the stream."

Mr. Linus told me that the artists of Palm Springs have an organization, the Allied Artists. Their idea is to bring the artist, the writer, musician and layman together so that they may study and appreciate the fine arts. This organization will sponsor exhibits, programs and entertainment of an educational and cultural nature.

Born in Orebro, Sweden, Axel Linus began drawing when he was four. He won a prize when he was 14, and this success determined his career. The prize drawing was a poster used nationally for advertising. The first prize was a scholarship in the Royal Academy of Arts in Stockholm. Later he studied in Paris, and soon after completing his studies came to the United States.

He visited friends in Chicago, and was induced to remain long enough to do some commercial art work. "I had planned to go to California," he recalls, "and expected to remain in Chicago only a short time. But work kept piling up, and it was 20 years before Mrs. Linus and I were able to carry out our original plan of a little art studio in California."

In Chicago he gained fame in both commercial art and fine art. His mural "Vikings' Feast" on the wall of a private club attracted widespread attention. Gradually his commercial work gave way to murals and portraits. A number of Chicago's high ranking industrialists commissioned him to do their portraits. His work has been exhibited in Brooklyn Art Museum, in Chicago Art Institute and Los Angeles Art Museum. Some of his work is now hanging in the Palm Desert Art Gallery in Desert Magazine pueblo.

Mr. Linus paints only in the traditional styles, never having turned to abstract or sur-realistic art.

He and Mrs. Linus came west from Chicago in a trailer, stopping wherever Mr. Linus saw a landscape he wanted to reproduce on canvas. In the Indian country he did an exquisite still life picture of an earthenware jug in an appropriate background.

He travels much. Life for Axel Linus is a constant quest for beauty—and a never-ceasing effort to reproduce the beauty of both life and the landscape on canvas.

Prizes for Desert Pictures . . .

Cash prizes are paid each month to photographers who send pictures of unusual quality to Desert Magazine as entries in the monthly contest conducted by Desert's staff. The contest is limited to desert subjects, but includes a wide range of possibilities: Landscapes, Wildlife, Rock Formations, Mining and Prospectors, Rock Collecting, Indians, Waterholes, Cloud Effects and Human Interest pictures of any phase of desert life. Contestants are urged to read the rules below before sending in their entries.

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

HERE ARE THE RULES

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

Address All Entries to Photo Editor

The Desert Magazine

PALM DESERT, CALIFORNIA



Axel Linus with two of his paintings now hanging in the Palm Desert Art Gallery. Above, painting of the artist's cabin in Snow Creek Canyon. Below, his painting of an Indian olla. Photograph by Gayle.

Wildflower Prospects Improving . . .

Warmer weather and a few belated spring rains have brightened the prospects for a colorful wildflower display on the Southwest desert, but even the most optimistic forecasters admit Nature won't be as lavish with her favors as she was last season—a wildflower year that may not be equalled for a long time.

The warm weather which came this year in late February and March—following unseasonably cold weather—would have offered ideal growing conditions were it not for the lack of rainfall. In this respect, reports from all over the desert country are almost identical. Starting with California's Death Valley, here are on-the-spot forecasts of wildflower prospects:

DEATH VALLEY—By early March a few scattered turtlebacks (*Psathyrotes ramosissima* (Torr.) Gray) were beginning to produce flowers and the spreading creosotebush (*Larrea divaricata* Cav.) was adding color. The creosotebush can be depended upon to produce a good show in April, according to T. R. Goodwin, superintendent of the Death Valley National Monument. Maximum temperatures in Death Valley have topped 85 degrees, and it would be ideal weather for all flowering plants, except for the lack of moisture. In the mountains, where there has been some precipitation, there is "greater assurance of blooming, starting in April," Superintendent Goodwin says.

ANTELOPE VALLEY—Here, in one of the more easily accessible wildflower regions, prospects are better. Jane S. Pinheiro writes from Quartz Hill, near Lancaster, California, saying she has been over a good part of the desert within the past month "and from my observation

this little southwest corner is the only piece that is showing much sign of getting green." She reports that going up El Cajon pass from San Bernardino she recently noticed some lupine in bloom. The wild peonies were luxuriant and were beginning to bloom on that side of the mountain. In her own area tri-color gilia and Fremont phacelia were blooming by early March, but it is the same story—without more rain no mass blooming can be expected. There will, however, be poppies and at least a few larkspur—a good display of both if it rains.

MESA, ARIZONA—A good rain in February plus continued warm weather without drying winds has helped the situation in this region, according to Julian M. King of King's Ranch Resort. In more favorable locations the scarlet bugler, desert marigolds and others were in good bloom by the first of March. A few hyacinths were already blooming, and a fine growth of shoots promised more blooms late in March and April if there is another rain. Cactus was expected to be blooming by mid-March, with the hedgehog and staghorn leading the parade. The ocotillo had leafed out by February's end and in March was dotting the higher levels with its brilliant red blooms. King concludes that, despite the dry season, "our desert should be very beautiful the latter part of March and throughout April."

MOJAVE DESERT—"It's still too early for a good estimate of what the wildflower season will bring our desert in the way of a display," wrote Mary Beal, desert botanist of Daggett, California, as February gave way to March. "The only definite promise of flowers I've seen is on the lower slopes of the Providence Mountains on the way to Mitchell's Caverns. There the young plants are plentiful and an inch or more high. In this area the plants are barely above ground, but this fine warm weather and a shower or two should boost them along toward an April blooming." She added she is "sorry our Mojave desert can't make a better showing."

LAKE MEAD NATIONAL RECREATION AREA—Temperatures in this region remained cool later than over most of the desert, but the same lack of rainfall is reported by Maurice Sullivan, park naturalist. Total for the past five months has been only 0.6 of an inch, much below average. Naturalist Sullivan still held out hope that a good rain during March would start growth and might lead to a good flower display. A few brittle bushes (*Encelia farinosa*) are blooming in sheltered places and filaree is blooming in the Davis Dam section.

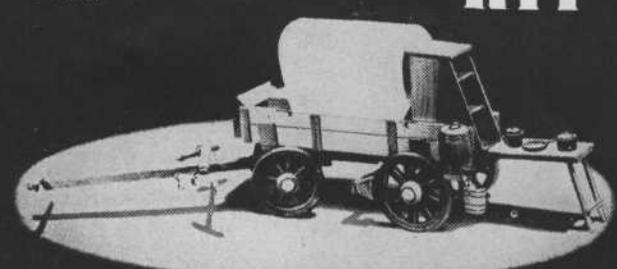
CASA GRANDE NATIONAL MONUMENT—Following a pessimistic forecast a month ago, A. T. Bicknell, Superintendent of the monument, reported early in March that "there may be a change" in the prospects as result of a good rain in February and continuing warm weather. Flowers will probably be early, but there will not be a lavish display of poppies as last year. Cactus, he says, will provide an excellent display.

SAN JOAQUIN VALLEY—Late soaking rains plus warm early spring sun have combined to bring out a profusion of colorful wildflowers in California's inland San Joaquin Valley. The Kern County chamber of commerce early in March predicted a near-record wildflower year for southern part of the valley. Poppies had already appeared on hillsides, the purple lupine was beginning to appear. The showing this year is ahead of last season's outstanding display, may be even better. Brodiaea, tiny phacelia and forget-me-nots are other popular flowers that are adding color to the valley floor and the foothills.

DEATH VALLEY RANCHO

CHUCK WAGON

HALF-INCH SCALE CONSTRUCTION KIT



"GRUBS ON"

A true replica of the picturesque "Chuck Wagon"—looking today as it has for generations out on the Western rangelands. On the ringing cry, "Grub's On!" the cowboys crowded around the "Chuck Wagon" for beefsteaks and pan bread.

This "Chuck Wagon" construction kit is of the highest quality to meet the demands of the most discriminating hobbyist.

All wood parts are accurately machined to insure easy assembly, and working brake parts are fully formed so that no special tools are required to build a truly professional model.

Fully assembled wheels of seasoned birch, miniature pots and pans, turned barrel and bucket— together with a completely assembled chuck box. Photo-visual recognition of parts make this kit so easy to assemble.

Each kit is packaged in a beautifully lithographed box in three colors, with separate compartments to protect each part.



Express
\$3.95
prepaid

Warrior Products Company

8212 SUNSET BOULEVARD LOS ANGELES 26, CALIFORNIA

They Bring 'em Back Stuffed

Since it is not always possible for eastern teachers of zoology and nature subjects to spend months in the field getting acquainted with wildlife in its native habitat, they often do the next best thing—they have the zoological specimens brought to their class rooms and laboratories. And that is the job of Woody Goodpaster and his competent wife—to capture, stuff and mount the mammals found in a given locality. Here is the story of their experience last summer in Huachuca mountains in southern Arizona.

By VENITA BLEDSOE

Photograph by Weldon Heald

MY introduction to Woody Goodpaster was one day last summer when he rang the doorbell of my Huachuca mountain home in southeastern Arizona. There stood an earnest looking young man who came right to the point.

"Do you have any bats around here?" he asked.

"Bats?" I said vaguely.

"Yes, bats," said the young man firmly. "My name is Woodrow Goodpaster. I am collecting mammal and reptile specimens for the natural history museum of the University of Illinois and I understand you have a cave on your property."

Woody Goodpaster had been a little boy who liked snakes. Fortunately

his mother looked with a tolerant eye on his hobby, for had she put her foot down on such nonsense the country might have lost one of its most efficient collectors of animal specimens, a man whose services are sought by universities and scientific institutions.

Woody stalked the Huachuca cave for two days, came out with 25 specimens, one a tail-less bat which was new to science. That is the way he works—quick, unemotional and thorough.

He chose our Huachuca mountains in southeastern Arizona because they straddle the Mexican line and contain a scrambled mixture of northern and southern forms of animal, reptile, bird and insect life. On the high slopes of

the Huachucas the black bear, mountain lion and whitetail deer cross trails with the Mexican mule deer, peccary or wild pig, and the weird coati mundi which resembles what might be the result of crossing a cat, monkey, anteater and skunk. Even jaguars, ocelots and parrots have been known to stray north of the border. So to a young man whose business is collecting animal specimens, the Huachucas were a gold mine, a field day, and a vacation with pay rolled into one.

Woody's assistant is his pretty blonde wife, Lois, who is almost as enthusiastic about the work as he is. Between the two of them they collected, stuffed and mounted more than 500 individual animals during the month they spent in our Huachucas. In order to keep up this average of 17 specimens a day, Woody and Lois became trappers, hunters, stalkers, surgeons and taxidermists 12 hours out of every 24.

Most of the specimens were trapped. For smaller animals like rats and mice the Goodpasters ran a line of a hundred traps which was relocated every three days. Regulation steel traps were set for the larger mammals. But Woody did a good business on the side

Woodrow and Lois Goodpaster here prepare for study by scientists a few of the 500 animal specimens which they collected in a month.



in unfortunate snakes and lizards who happened to cross his path. Cave bats he gathered by hand as they hung upside down fast asleep in the dark, and tree bats he shot at night, using a dust-shot 22 which does not injure the delicate skulls.

Every day in came Woody from his trap lines looking like a modern Kit Carson loaded with limp dangling peltries—and there sat Lois at a table waiting for him. On the table was a baffling assortment of instruments, bottles, spools of coarse waxed thread, wads of

cotton, mysterious chemicals, mounting boards, tags, pins and notebooks.

Efficiently Woody and Lois went to work. Each animal was speedily skinned, stuffed with cotton, legs and tails wired, labeled and mounted on a flat board. This part of the specimen is called the scientific skin, and it is tagged with a description of where it was found, elevation and environment. But naturalists like to have a look at the skulls too. So Woody and Lois preserved all 500 skulls whole, numbered them to correspond with the

skins and sent them to the "bug room" at the University of Illinois where they were obligingly cleaned out by a hungry variety of beetle known as *dremestid*. As far as I could learn that was the only outside assistance the Goodpasters got during their month's work.

Over this table went a cross section of Huachuca animal life to be transformed into scientific skins. The smallest was the shrew, a fierce, rapacious little four-inch cannibal which eats twice its weight in 24 hours. Then there were eight species of mice, among them the spindly scorpion mouse which dotes on grasshoppers. The rat family was represented by long-tailed jumping kangaroo rats, cotton rats, and pack or trade rats. The last is famous for its addiction to stealing small objects and sometimes leaving others in their place. Woody treasures an Indian-head penny dated 1886 which he found in a trade rat's nest in Kentucky.

Like islands in the sea each isolated mountain range in southern Arizona has separate varieties and even species of some types of animals. For example, squirrels differ considerably. The Woodpasters captured the distinctive Huachuca gray squirrel which lives nowhere else. Then there were the common rock and ground squirrels, two species of jackrabbits—properly hares—cottontails, gophers, and six species of bats.

The beauties of the catch were the skunks. Mounted they looked handsome enough to hang in a trophy room along with a moose head and a king salmon. There were three kinds to choose from: the hog-nosed with a short tail and broad snowy white back; the striped, having a narrower white strip contrasting with its jet black fur, and the small spotted skunk with white patches over its body.

Back in Urbana, Illinois, the scientists use these specimens in their studies. They may find hitherto unknown varieties of species, or animals which formerly were not thought to inhabit this region. They study, classify, list, and will undoubtedly contribute a competent and thorough report, possibly a little on the dry side, titled "Mammals of the Huachuca Mountains, Arizona." And thus another blank unexplored spot on the naturalists' map of North America will be filled in.

After a month Woody's job was done. He and Lois packed their car. Last to be stowed away were jars of pickled reptiles and glass cases of writhing rattlers and venomous beady-eyed, brightly-colored coral snakes.

"Where to next year, Woody?" he asked.

His eyes gleamed. "Maybe Mexico," he said. "They've got some wonderful stuff down there."

Hard Rock Shorty

OF DEATH VALLEY



"Petrified snow!" Hard Rock Shorty answered brusquely when one of the tourists who had stopped at Inferno store asked about the white substance that covered the floor of the valley down Bad-water way.

"Some o' them smart scientists 'll tell you it is alkali, or salt," Shorty went on. "But they don't know nothin' about Death Valley. Me an' Pisgah Bill knows it's jes plain snow what got petrified when that aragonite spring up in Jawbone canyon came a gusher.

"Bill wuz blastin' up there in the winter o' '17. He had a good silver prospect just over the hill, and figgered he might develop a well in the canyon and save packin' his water in on burros.

"There was a little seep of water in the canyon and Bill drilled into the rock an' put a dozen sticks o' dynamite in the hole. When she went off he thought the whole canyon was blowin' up. Regular geyser o' water came out o' that hole and fer the first time anybody could remember there wuz a flowin' crick in Jawbone.

"That wuz one o' the coldest winters we ever had, an' it snowed that night. Whole floor o' Death Valley wuz covered with it. Water rushed down an' mixed with the snow an' ever since then

that bottom has been covered with white petrified snow.

"Water wuz no good to drink—too much calcite. But Bill got another idea. The water wuz cold an' Bill figgered it'd be a good place to put a case o' fresh eggs and keep 'em 'til summer when we usually had to go without eggs 'cause they wouldn't keep in the hot weather.

"Scheme worked fine. Plenty o' water in the spring an' Bill used it as cold storage fer vegetables an' fruit. One week he had the freighter bring in a box o' apples from Barstow, and put them in the spring.

"Then one night Panamint Pete came into camp an' told Bill about a big gold strike down in the Bullion Mountains. Ore runnin' \$700 to the ton. Bill got all excited and packed out the next mornin' fer the Bullion country. But he had no luck down there and came back in six weeks plumb disgusted.

"His grub wuz gone and the first thing he did wuz to head for the spring where he had the makin's of a good meal.

"Everything wuz there, jes as he left it. First, he grabbed a big Jonathan apple—and broke three teeth tryin' to take a bite outta it. Everything wuz petrified, apples, eggs an' all.

LETTERS . . .

Snakes and Boundary Lines . . .

Romoland, California

Desert:

I like Desert for its reliable information, and its ban on liquor and tobacco ads, and while I may be a tenderfoot on the desert, I am not regarded as one in the north woods.

Since you obviously are making every effort to keep Desert Magazine clean and accurate, I wish to call attention to two recent errors:

Some time ago the statement was made in your pages that a rattlesnake held by the tail cannot strike. Now I never tried it but once, but evidently the snake I selected was an exception to your rule. It was a 3½-foot red diamond back—just about the average size in this locality.

It struck viciously at the hand holding its tail, but apparently could not get its head high enough. Then it struck several times in the direction of my body, and while its fangs failed to reach me, it came too close for comfort. A bigger snake, or a little carelessness on my part in not holding it at full arm's length might have resulted in the strike reaching home. As I suggested, perhaps this is the exception that proves the rule. Anyway, I lost interest in carrying the experiment further.

On page 6 of your February issue the author states that Isle Royale is the farthest north one can go and remain in the United States proper. The entire northern boundary of the United States, from Lake of the Woods to Georgia Straight, runs approximately 50 miles farther north than Isle Royale, while the "Northwest Angle" of Minnesota is in fact the farthest north of any part of U. S. outside of Alaska. I am a Minnesota Gopher, which may explain why I noticed this error.

ELMER Wm. PRUETT

. . .

Rubbish on the Roadside . . .

Coachella, California

Desert:

As a reader of Desert Magazine I know your editor is a crusader for preserving the natural beauty of the desert country.

A problem which disturbs me greatly, as it must disturb many other desert and Nature lovers, is the steadily mounting array of cans, bottles, cartons, papers and rubbish which greets everyone who travels along Coachella Valley roads.

Such defacement generally is done by ignorant or transient persons, but a perusal of rubbish piles sometimes reveals names which are indeed surprising. Both Indio and Coachella have official dumping grounds which many people seem to ignore out of thoughtlessness, or perhaps it is sheer laziness.

Wont you please take up the torch in a crusade to stop this curse which is doing so much to mar the natural beauty of Coachella Valley.

MRS. H. W. PROCTOR

. . .

As a Monument to Freedom . . .

Los Angeles, California

Desert:

How the GI's of '42 and '43 cursed the sand and the heat and the discipline of their training under Gen. Patton on California's Chuckawalla desert between the Orocopia and Cottonwood mountains in the early days of the war.

But the drudgery of those days has largely been forgotten, and for many of these men there are pleasant memories—of a tough job well done, of friendly comradeship, of starlit nights and adventure and exploration in strange places.

Couldn't some of this desert training ground be set aside as a permanent monument to Gen. Patton, and to his men—and to other valiant men who have passed this way—the trail blazers, prospectors, engineers, homesteaders and soldiers. Would not such a monument remain as a symbol of effort expended by strong-hearted men in the exploration and acquisition of this desert land—and of the war that was fought to keep it intact for freedom-loving people?

ALABAM' KEYES

DICE WICKER

TEX REITER

. . .

Those Fishing Coyotes . . .

La Jolla, California

Desert:

Reference in your February issue to Mr. C. E. Utt's story of the crab-eating coyotes in Baja California recalls an experience of my own.

I recently was assigned by the Scripps' Institute of Oceanography to accompany Dr. C. L. Hubbs to San Ignacio Lagoon to observe the California Gray Whales at their calving grounds. While at this remote lagoon I observed several coyotes come to the lagoon's edge at low tide and obtain crabs for food—however, not with their tails.

AL ALLANSON



This year—come to . . .

GALLUP

New Mexico
The Indian Capital
In the Land of Enchantment



Home of the Great

**29th Annual Inter-Tribal
INDIAN CEREMONIAL**

August 10-11-12-13

(write for illustrated folder)

GALLUP IS GATEWAY TO . . .

The Navajo, Zuni and Hopi Indian reservations . . . El Morro National Monument . . . Canyon de Chelly National Monument . . . Mesa Verde National Park . . . Petrified Forest . . . Painted Desert . . . The Red Buttes . . . Monument Valley . . . Chaco Canyon . . . Kit Carson's Cave . . . Aztec Ruins . . . Perpetual Ice Caves . . . Little Bryce Canyon . . . Indian Trading Posts.

GALLUP OFFERS YOU . . .

- ✓ Free, personally escorted daily tours (June thru September) with competent, courteous guides—in your own car to major points of interest in the fascinating Indian country!
- ✓ Free "Indian Country Previews" with slides and sound films in natural color each evening at "The Hogan" in downtown Gallup. Select what you wish to see at the Previews, then have your free guide take you right to it the next day. Saves you valuable time, effort, money!
- ✓ Free photographic consultation service to help you make the finest pictures of the most colorful country you've ever visited. Write for your copy of "Focus on the Land of Enchantment," a helpful, free Indian country photo guide!
- ✓ Free beautiful Indian country pictorial map to aid you in planning a different type of vacation you'll never forget!

Write Dept. D

CHAMBER OF COMMERCE
Gallup, New Mexico

MINES AND MINING . . .

Boulder City, Nevada . . .

What is said to be the first commercial deposit of bastnasite ever identified in the United States has been discovered at Clark Mountain, and several laboratories are working on analysis of the material, according to Dr. C. W. Davis, chief of the Boulder City experiment station of the U. S. Bureau of Mines. The deposit appears to be extensive, and indications are that it may become an important locality as a source of rare earth ore, Davis said. Bastnasite is a fluocarbonate of the cerium metals, principally cerium, praseodymium, neodymium, protactinium, yttrium and samarium. Thorium is usually present as an impurity. Usually the pure mineral contains approximately 70 percent total rare earths and preliminary tests indicate that the bastnasite from Clark Mountain will approach that figure.—*Tonopah Times-Bonanza*.

Tonopah, Nevada . . .

Discovered by Joe Clifford and sons several years ago but not previously developed, a gold-silver mine three miles east of Golden Arrow has apparently started to pay off. The Cliffords are shipping silver-gold ore which assays better than \$70 a ton to McGill. Several shafts have been sunk on the vein.—*Times-Bonanza*.

Carson City, Nevada . . .

The state vocational education department has announced that steps are being taken to reactivate uranium prospector training in Nevada. Such classes were held last spring over the state, were attended by 1924 persons.—*Battle Mountain Scout*.

Roswell, New Mexico . . .

Increased interest in New Mexico as a potential source of oil is proven by the fact that at least 75 wildcat wells were drilled by the petroleum industry in New Mexico during 1949. This is the greatest number in any year since the discovery of oil in 1924.—*The Lovington Press*.

Tonopah, Nevada . . .

While prospecting country north of Tonopah, Charles Spencer recently found a vein of alladinate, a rare gem stone. The mineral shows many colors, some of it resembles opals. When cut it makes gorgeous gems.—*The Mining Record*.

Tonopah, Nevada . . .

With the available supply diminishing rapidly, the demand for turquoise is apparently increasing. A turquoise dealer from Arizona recently stopped in Tonopah and bought every ounce Ralph Swafford, cutter and dealer, had on hand. Even low grade material is marketable now, it is reported, in any grade and any quantity. High grade turquoise commands peak prices. Few, if any, new deposits of turquoise are being discovered.—*Humboldt Star*.

Winnemucca, Nevada . . .

Erection of a large mill to treat its own ore and also to do custom milling for many small operators is promised by Gus Rogers, manager of the Winnemucca Mountain Mines company. He said he is satisfied with recovery of values from ore in the extensive properties acquired by consolidation of five groups of mining estates, including the Gold Hill group of 14 quartz claims and the five Rexall claims.—*Humboldt Star*.

Austin, Nevada . . .

Turquoise from mines in the Austin area is as fine as any produced anywhere in the world, in the opinion of James Godber, who not only mines the gem material but has a Los Angeles establishment where turquoise is cut, polished and marketed. Godber has a mine near Austin and other mines, also buys turquoise from all over the world. He says turquoise from his Austin mine is the finest.—*Reese River Reveille*.

Death Valley, California . . .

Death Valley Curly (Roscoe Wright), one of the desert's well known prospectors, has reported that he has made a discovery of an unusual mineral—niobate-tantalate—which was identified by the California division of mines laboratory. The mineral carries copper, some silver and gold. Wright has not revealed the location of his new find, beyond saying it is in Death Valley.—*Tonopah Times-Bonanza*.

Twentynine Palms, California . . .

Development work has been started by W. F. Smith on his Dorathea mine in the Dale district. He has had the Dorathea claims since 1930, previous assays showed up to \$80 per ton in gold. A shaft is being sunk to make tests at various levels.—*The Desert Trail*.

Kernville, California . . .

The Joe Walker mine, situated between Kernville and Caliente, which has been idle for 75 years is being reactivated. It has been filled with 200 feet of water which last month was being pumped out. Timber in the mine is all hand-hewn and is 18"x18"x18 feet long. The mine is operated by Dan Cronin.—*The Randsburg Times-Herald*.

Randsburg, California . . .

A semblance of pre-war mining activity in the Rand District has been noted with the stamps at Big Butte mill dropping noisily as several millings of gold ore have been undergoing amalgamation and cyanide reduction. Two millings of 100 tons each were handled recently. One was from the Big Dyke mine (Drew brothers and Rizzardini), the second from the Johannesburg operation of Ralph Ralston. Fifteen tons of highgrade gold ore also came in from William Wilkinsons's claim in the Stringer district.—*The Times-Herald*.

Winnemucca, Nevada . . .

The Cordero quicksilver mine near McDermitt in Humboldt county was scheduled to close last month because of high operating costs and present prices of quicksilver, according to J. E. Gilbert, manager of the company's San Francisco headquarters. The shutdown will be permanent, he said.—*The Mining Record*.

Salt Lake City, Utah . . .

An interesting strike has been made on property of the Cardiff Mining & Milling company where an ore body has been opened up on the 1300-foot level. Principal part of the mine below the 800-foot level is covered by the Hick's lease. The Davis lease is from the 600-foot level to the surface. Ore containing lead, zinc, silver and some gold is being shipped by truck to the Midvale smelter.—*The Mining Record*.

Goldfield, Nevada . . .

Near-sensational reports continue to come from the Newmont Deep Mines operation at Goldfield. An exceptionally rich and large oreshoot has been developed at a depth of approximately 500 feet on the White Horse claim of the White Rock group. During February one lot of 160 tons of ore went to the mill bin, averaged between \$50 and \$55 a ton. Many residents of Goldfield believe the district is on its way to a general revival. The ore now being mined was missed by former operators, who took nearly \$100,000,000 out of Goldfield.—*Tonopah Times-Bonanza*.

HERE AND THERE . . . on the Desert

ARIZONA

All-Indian Legion Post . . .

PARKER—Forty members were initiated recently into post No. 70, American Legion, when Department Commander Frank Moore was on hand to present its charter to this all-Indian Legion post. The meeting was held on the Indian reservation. Wives of the post members served refreshments.—*Palo Verde Valley Times*.

Northern Arizona Art Exhibit . . .

FLAGSTAFF—A two-week exhibit at the Museum of Northern Arizona will be first major project of the recently-organized Northern Arizona Artists. Mrs. Sue Britt is president. Dates of the exhibit will be July 31 to August 12. Both paintings and creative art in many forms will be shown.—*Coconino Sun*.

Cotton Returns Reported . . .

CHANDLER—A total of 45,673 bales of cotton were processed at three gins in Chandler and one in Queen Creek with a value in excess of six million dollars, it has been reported as ginning from the 1949 crop came to a close. This is 18,000 bales more than the largest previous total for the Chandler area. The value of cottonseed, a by-product of ginning, was not included in the reported figure.—*Chandler Arizonan*.

Wildlife Development Project . . .

FLAGSTAFF—On 43,000 acres of the Tonto National Forest where range conditions are described as excellent, a joint state-federal wildlife development project is now being operated on a 20-year basis. The area is west and north of Roosevelt and Apache lakes to the eastern foothills of Four Peaks. Wild turkeys and Chukkar partridges may be planted, to supplement the gambel quail, mule and whitetail deer already there. The project will include strategically located rain catchments and earth tanks to provide well distributed water for all wildlife, construction of some 18 miles of fence and intensive predatory control. Hunting may eventually be permitted in the area.—*Coconino Sun*.

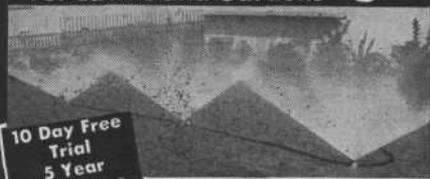
YUMA—Farmers on the Yuma project, a reclaimed desert area, harvested crops with a cash value of \$15,200,000 in 1949. Gross value for the nearby Gila project was \$3,500,000, making a total of \$18,700,000 for the two projects.—*Yuma Daily Sun*.

HOLBROOK—Frederick N. Newnam has assumed his duties as supervisor of the Sitgreaves National Forest, succeeding Kenneth A. Keeney. Keeney was transferred to the Coconino National Forest offices at Flagstaff.—*Holbrook Tribune-News*.

Lumber from Desert Brush . . .

TOMBSTONE—Sage and other desert bushes which are threatening to take over rangelands may provide the basis for a new Southwest industry, according to Dr. M. M. McCool, soils expert. Ground and mixed with a binding agent, then pressed into sheets, the bushes make a lumber-substitute material resistant to heat, water, bacteria and insects, he says. A new process has reduced costs he claims.—*Tombstone Epitaph*.

Complete HOLLYWOOD \$9.95
SPRINKLER SYSTEM
For Lawns and Gardens Post Paid



Nothing Else To Buy
Will Sprinkle 1000 Sq. Ft. of Lawn

Complete unit easily attached to your hose in a jiffy. Adjusts to fit any shape lawn or garden. Easy to move or store. Weighs only 5 lbs. Patented control for mist spray or garden soaker. Consists of 18 feet special heavy-duty hose, three adjustable spray units. Will not tip, turn or damage lawn or flowers. Complete only \$9.95—nothing else to buy—no installation cost. **10 DAY FREE TRIAL.** You must be satisfied or full refund of your purchase price. 5 year replacement guarantee. Order by mail. **SEND NO MONEY.** To save postage and C.O.D. charge, send check for \$9.95 and we send postpaid. **ORDER TODAY** (Calif.—add 3% tax) Dealer Inquiries Invited

TROUP ENGINEERING CO.
3201 E. PACIFIC COAST HWY., Dept. D-3
LONG BEACH 4, CALIFORNIA



SQUAW BOOTS*

TRADITIONAL NAVAHO MOCCASINS
handmade by Indian Craftsmen

These Indians employ their age-old skill in the making of these unique and practical moccasins. They're the shoes the Indians have made for centuries—not a commercial product manufactured for curio stores.

A rawhide sole, cut and shaped to your own foot pattern, is hand-sewn with tough sinew to a high, soft upper of beautiful rust-colored buckskin. A buckskin thong or native hand-worked silver conchos hold the flap in place. A rugged outdoor boot that will give years of wear.

\$13.50 per pair, includes the silver conchos. \$12.50 with buckskin tie only. Order direct or ask for interesting folder. Send outline of foot plus your usual shoe size when ordering. Write to

Kaibab Buckskin, Old Pueblo Station, Box 5156 • Tucson, Arizona

Kaibab Buckskin
Indian leather art

In Tucson at 41 West Alameda Street

* A term used by pioneer settlers for these Indian shoes, worn by men and women alike.

PALM SPRINGS

Life

AT ITS BEST



Everything under the sun for a glorious desert vacation. 35-acre garden estate with every facility for rest or play. Traditional desert hospitality, luxurious accommodations, superb food. Advance reservations suggested.

THE DESERT INN

41st SEASON under original ownership and management of Nellie N. Coffman, Earl Coffman, George Roberson.

THE DESERT TRADING POST

Classified Advertising in This Section Costs 8c a Word, \$1.00 Minimum Per Issue

INDIAN GOODS

DEAR CUSTOMERS: Sorry we have no catalog. Because we handle Indian Artifacts and each piece is distinctive, cost would be prohibitive. We have lots of old and new rugs, baskets, jewelry and ceremonial things. Plenty of rocks and minerals, gold specimens and nuggets. We also have Chimayo blankets, coats and purses. We will be glad to ship. Tell us what you want and send the money. Daniel's Trading Post, 401 W. Foothill Blvd., Fontana, California.

FOUR VERY FINE ancient Indian Arrowheads, \$1.00; 4 tiny perfect bird arrowheads, \$1.00; 1 ancient stone tomahawk, \$1.00; 2 flint skinning knives, \$1.00; 1 large flint hoe, \$1.00; 2 spearheads, \$1.00; 10 arrowheads from 10 states, \$1.00; 20 damaged arrowheads, \$1.00; 10 fish scalers, \$1.00; 10 hide scrapers, \$1.00; 4 perfect saw edged arrowheads, \$1.00. The above 11 offers \$10.00, postpaid. List Free. Lears, Kirby, Arkansas.

HAND MADE MOCCASIN: Soft "Buck Tanned" leather trimmed with nickle silver conchas set with turquoise color stone, wool shearing insoles—for indoor or outdoor wear. Women's sizes 4 to 9, \$5.95, Men's 6 to 12, \$6.95, pre-paid, cash with order. Satisfaction guaranteed. Make ideal gifts with name embossed in gold on sole if desired at no extra charge. Photos on request. Mohave Gem Shop, Kingman, Arizona.

BOOKS — MAGAZINES

BOOK OF CACTI for the amateur collector. Describes and classifies over 500 varieties, over 200 photographs. Subjects on care, their culture, how to plant in rock gardens and pots. Sent postpaid \$1.00. Discount to dealers. Published by M. Nowotny, 1401 Broadway, San Antonio, Texas.

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

"GOLD PANNING FOR PROFIT," Healthy outdoor hobby. Beginners big illustrated instruction book—\$1.00. Miners' gold pans, \$2.00. Prospectors' powerful magnifying glass, \$1.00. Package black sand and real gold, \$1.00. Desert Jim, 627 Lillian, Stockton, California.

URANIUM PROSPECTOR'S Handbook, \$1.00; non-technical, complete, Dept. T., Craft-Connor Publishing Co., 601 S. Vermont, Los Angeles 5, California.

PANNING GOLD — Another hobby for Rock Hounds and Desert Roamers. A new booklet, "What the Beginner Needs to Know," 36 pages of instructions; also catalogue of mining books and prospectors supplies, maps of where to go and blueprints of hand machines you can build. Mailed postpaid 25c, coin or stamps. Old Prospector, Box 21 B 335, Dutch Flat, California.

OUTDOOR RAMBLER—You'll enjoy every issue of this Western Publication. 8 issues \$1.00; copy 15c. No stamps. **OUTDOOR RAMBLER,** Rt. 1, Box 974D, Grants Pass, Oregon.

MAGAZINE SUBSCRIPTIONS for all publications at publisher's prices. Courteous, prompt service. F. G. Voltmer, 10211 Seabury Lane, Los Angeles 24, Calif.

COMPLETE FILE of Desert Magazines, \$45.00. Excellent condition. Archie—4454 Gainsborough ave., No. 12833, Los Angeles 27, Calif.

BACK ISSUES: of Desert Magazines by the year or single issues. Edna Malott, 5023 Meridian St. Los Angeles 42, Calif.

REAL ESTATE

LOOK: Good fishing, hunting. 5 acres highway frontage U. S. 95, California. Phone J-E 2828 or write Clarissa J. Marshall, 1114 Firestone Blvd. Los Angeles 1, Calif.

FOR SALE OR TRADE: 100 acres placer claims in Northern California, coarse gold, year round creek, cabin and other buildings, timber. \$3500 cash, or will consider trade for large late model trailer house. Port Orford Sea Foods Co., Box 773, Port Orford, Oregon.

50 DESERT SUN LODGES now being built at Palm Desert. A HOME and INCOME for \$8375. Recreation center with plunge included. Carl Henderson, Realtor, Box 201. Palm Desert, California, Phone 76251.

BEAUTIFUL 80-A RANCH—Flowing well—modern 3-bedroom home—swimming pool—other bldgs. 8 ml No. of Palm Springs. R. H. McDonald, Broker, Cor. Palm and Dillon. Box 21, Desert Hot Springs, Calif. phone 143.

320 ACRES, 80 miles north of L. A. at Rosamond. Nice Spring, running water. Frontage on Sierra Hiway No. 6 if desired. Ripe for development—Auto and Trailer Court sites, lots etc. Gravel and Rock Deposits. Contact Owner—No. 12833, 4454 Gainsborough ave., Los Angeles 27, Calif.

HOME SITE near Borrego Springs for sale by owner. R. Lee Stowe, 1648 Cota Ave., Long Beach, California.

MISCELLANEOUS

FLUORESCENT TURITELLA and other type Paperweights, \$2.50 each. Exclusive pattern. Letter Openers \$2.50 to \$3.50. Clay Ledbetter, 2126 McKenzie, Waco, Texas.

LADY GODIVA "The World's Finest Beautifier." For women who wish to become beautiful, for women who wish to remain beautiful. An outstanding desert cream. For information, write or call Lola Barnes, 963 No. Oakland, Pasadena 6, Calif. or phone SYcamore 4-2378.

COLOR SLIDES—Travel, Nature, Geology, etc. Free list (with sample 30c, three for dollar). Kelly D. Choda, Box 5, Los Alamos, New Mexico.

SHIRT SLEEVE PROTECTORS: Pull them over your sleeves when tinkering with your rocks. Saves laundry and getting out of the dog house. Black cloth. Elastic at both ends. Pulls up past the elbow. \$1.00 pr. Postpaid. K-Guard Products, Dept. D, 607 Market St., San Francisco 5, Calif.

GHOST TOWN ITEMS: Sun-colored glass, amethyst to royal purple, gold scales, gold pans, limited odd items from camps of the 60's. Write your interest, Box 64-D, Smith, Nevada.

SILVERY DESERT HOLLY PLANTS. One dollar each postpaid. Greasewood Greenhouses, RFD, Barstow, California.

KODACHROME SLIDES ON APPROVAL. Grand Canyon National Park—trail scenes, sunsets, Indians, views from North and South Rims. Zion—spectacular shots from the highway tunnel, from the trails, and from the valley floor. Yellowstone—animals, geysers, hot springs, and the canyon. Fill the vacant places in your collection from our approval selections. Slides of all other Western National Parks available, also many National Monuments. Douglas Whiteside, Yosemite, California. Please Mention Desert Magazine.

20 OLD WESTERN outlaw photos, \$1.00. 20 different Old West, Pioneer, etc., photos, \$1.00. 10 different battle of Wounded Knee 50c. 5 different Lincoln 25c. Lists 5c. Vernon Lemley Store, 302 Dallas Ave., Mena, Arkansas.

PROSPECTORS AND ROCKHOUNDS WANTED. To join the newly incorporated United Prospectors Organization. If you are experienced or beginners the articles in our magazine are bound to help you enjoy your hobby and the outdoors. Send your name for our new brochure and literature. United Prospectors, Box 13, Dutch Flat, California.

GOING TO ALASKA? By The Highway, air or boat. Sportsmen, tourists, settlers, job-seekers are cautioned to ask your questions from one who lived in Alaska many years. Send one dollar and ask advice of Bess Rowe, Box 478, Palm Springs, California.

FRED AND JESSIE PORTER welcome you to SHOOT!!! your pictures of "Ghost Town of Calico" and mountains in miniature, at the "POW-WOW" Trading Post, Hiway 91, Yermo, Calif. The hub of Rock-hounds Paradise. Crystals, cutting material in rough or slabbed. Uranium, highly fluorescent, and specimens. Miniature cactus, gifts and souvenirs.

UNIQUE CHOLLA NOVELTIES: Suitable for pendants, charms, key rings etc., on chain. Fashioned from Cholla cactus hard finished in the natural wood. 50c postpaid. State type of chain desired. Chollacraft, Box 124, Palm Desert, Calif.

Defying the Rain Gods . . .

PHOENIX—Farmers of the thirsty Salt River Valley plan to take matters into their own hands as regards rainfall and will see if they can defy the rain gods. An expenditure of \$20,000 has been authorized by the Salt River Valley Water Users association board of governors for maintenance during the summer of two rain-making airplanes. The planes will be used in addition to three ground-based rain-making installations. The step was taken as result of predictions that this winter's run-off on the Salt River watershed will be the second smallest since 1941.—*Yuma Daily Sun.*

Mountain Camp for Scouts . . .

YUMA—Boy Scouts of the Imperial Valley, California, and the Yuma, Arizona, desert area will this summer attend camp in the mountains of northern Arizona instead of going to the Laguna Mountains near San Diego as they have done for the past 10 years. Two camps for the Scouts will be located at about 7000-foot altitude and will be known as Camp Tahquitz in the San Jacinto Mountains and the White Horse River camp.—*Yuma Daily Sun.*

Petrified Baby Rattlesnake . . .

YUMA—Rock hounds collect many things. Lucille Stine, Yuma rock and gem enthusiast, found an excellent replica of a tiny petrified snake while she and her husband were looking for quartz crystals in the Blue Bird Mountains north of Benson. The "snake" measures only about 2½ inches in length. She has mounted it on a small mirror, prizes it highly.—*Yuma Daily Sun.*

Newspaper Half Century Old . . .

BENSON—Fifty years ago the *San Pedro Valley News* published its first issue in a two-room, dirt-floor shack in Cochise County. Founder was M. K. Sipe, name of the paper was *Benson Breeze*. All type was hand-set. No copies of this first paper exist, as far as is known. Since then the newspaper has changed names five times, has had 20 publishers, has recorded 50 years of rapid-moving Arizona history. Present publisher-editor is Henry R. Huntoon.—*San Pedro Valley News.*

DESERT WOODCRAFT—Fine gift items made from Ironwood, Mesquite, Cactus. Bowls 8 x 1½, \$6.00. Beautiful color and grain. Other bowls of various sizes and design. Cactus book-ends \$6.00. Table lamps \$8.00 to \$12.00 including special matching shades, postpaid. Also coffee tables, end tables and floor lamps. First time offered anywhere—I have a special treatment which brings out the natural yellow color in the cactus. Finely finished in Lacquer. Anything made to order. See display in Palm Desert Book Shop or write to D. R. Jones, Craftsman, Palm Desert, California.

EARTHWORM BREEDING. Valuable bulletins on successful methods mailed free. Earthmaster Publications, Dept. 11, Sun Valley, Calif.

Forest Grazing Fees Lower . . .

SAFFORD—Stockmen who run cattle on National Forests will pay less this year for the privilege than they paid last year, according to D. M. Traugh, in charge of range management in the Southwest. Grazing fees are fixed in accordance with a sliding scale based on the average price of livestock during the previous year. Cattle prices were off about 14 percent last year in comparison with 1948. This will reduce the fee from 49 cents per animal month to 42 cents. For sheep the fee is reduced 4 percent, from 11 cents to 10¾ cents. These are average figures, actual fees vary in accordance with value of the range for grazing.—*Graham County Guardian*.

. . . .

Papagos Have Own Program . . .

AJO—In contrast to previous plans for the conservation of resources of Indian tribes and rehabilitation of impoverished tribes, which have been almost entirely devised by the white men and passed down to the Indian councils for acceptance before going to congress, the Papago Indians of Arizona have a long-range program of their own worked out after a year of intensive study of their own problems. Papago Indians have lived for at least 5,000 years on the same ground, according to Thomas Segundo, chief of the Papago council, and formerly had extensive fertile holdings. Before the white man came, these people were diverting the water of several rivers for irrigation and had a complex farming development. They lived comfortably. Introduction of cattle, over-grazing, poor soil management and other problems which came with the white man have reduced the Papagos to poverty. Now they have a long-range program for reclaiming the land. The plan includes migration of about one-third of the Indians to off-reservation jobs or farms, so that the land can adequately support the remaining Indians.—*Ajo Copper News*.

. . . .

CALIFORNIA

Fair Features Desert Farming . . .

IMPERIAL—The miracle of water in the desert was theme of the annual California Mid-Winter fair which ran for nine days from February 25 to March 5 featuring the agricultural products and livestock of famed Imperial Valley. A record 60,000 attended the fair. This one-time desert waste is proud of its \$120,000,000 farm production on land irrigated with waters of the Colorado River.—*Imperial Valley Weekly*.

Desert Cut-Off Re-Opened . . .

CALEXICO—The "Calexico Cut-Off" to San Diego, which last summer claimed the life of a Los Angeles girl when the car in which she was riding with a male companion became stuck in soft sand, has been repaired by Imperial County and is again open to traffic. This stretch of road goes through the Yuha desert near the scenic badlands, was described by Harold O. Weight (*Desert*, July '49) as a dangerous place for tenderfeet in the summer. The route cuts nearly eight miles off the distance from Calexico to San Diego, rejoins Highway 80 at Coyote Wells.—*Calexico Chronicle*.

. . . .

Cash for Lake Project . . .

COACHELLA—Appropriation of a preliminary \$32,500 by the Wildlife Conservation Board has brought one step nearer realization Coachella Valley's dream of five fishing lakes which will range in size from five to 40 acres and which will be stocked with bass, catfish, bluegill and crappie. The project has been backed by the Coachella Valley Game club.—*Desert Barnacle*.

Desert Yields New Gold . . .

BARSTOW—Gold of a different kind is now being taken from the desert valleys and mountains. From northern San Bernardino county alone, according to District Agricultural Inspector Lee Dolch, agriculture and livestock returned \$8,200,000 to producers last year.—*Barstow Printer-Review*.

. . . .

Boat Races on Colorado . . .

BLYTHE—Outboard motor racers from all over southern California will converge on Blythe April 2 for the Blythe Boat club's big 12-event race program. The course is located 14 miles north of Blythe and utilizes water of the now tame Colorado River.—*Palo Verde Valley Times*.

Calif. Ore. Wash. Ida.
COUNTY MAPS
for Travelers, Homeseekers, Prospectors
List and prices on request FREE
WORLD'S MINERALS
2417 San Pablo Ave. Oakland 12, Calif.

SLEEP IN YOUR CAR IN LEVEL COMFORT



CALIFORNIA CAR BED

Transferable front seat unit provides luxurious AIRFOAM innerspring comfort: FOR DRIVING—as a sturdy seat. FOR SLEEPING—as a double bed.

No Cutting . . . Easily Installed

NEW! CUSTOM CRUISING SEAT

Marvelous new twin front seats converting at a finger-touch to single OR double bed, reclining seats, or chaise longue. Transferable—a permanent investment in comfort. Described in Newsweek, Popular Mechanics, Science Illustrated, etc. Easily Installed.

Factory Installation **CALIFORNIA CAR BED CO.** Mail Order Shipments
2725 W. 54th St., Los Angeles 43 — Write for Brochure "F" AXminster 3-4700

HERE'S MORE HOUSE . . . FOR YOUR MONEY



HOMES of DISTINCTION

Built With

Call for Estimates — Plans Available



Investigate now. Year 'round comfort, low heating costs. Cool in summer. Low cost maintenance. Build with "Precision Built" concrete, pumice and red cinder blocks. Desert cinder blocks for desert homes.

TRANSIT MIXED CONCRETE CO.

3464 E. Foothill Blvd., Pasadena 8, California

SYcamore 3-8133

RYan 1-6329

ATLantic 2-5104

**HARRIS BRENNAN RIVER
EXPEDITIONS ANNOUNCE**

Grand Canyon Expedition

Lee's Ferry to Lake Mead.

Approximate dates July 5 to July 20. Exact date to be announced in June issue.

All-expense trip \$750.

Lee's Ferry to Phantom Ranch \$300.

Phantom Ranch to Lake Mead \$400.

One-third with reservation, balance on sailing.

Starting May 15 through June 25, twice weekly trips will be run from Lily Park on the Yampa River to Jensen, Utah, on the Green River. Three-day trip, Monday to Wednesday and Friday to Sunday. \$75.

May 28 to June 3 a trip will be made from Lily Park on the Yampa to Greenriver, Utah, through Desolation Canyon, 7 days. \$200 all-expense tour.

For further details and reservations write

**HARRIS BRENNAN
RIVER EXPEDITIONS**
1250 Elgin Ave.,
Salt Lake City 6, Utah

Want Desert Road Opened . . .

BLYTHE—Civic leaders of both the Palo Verde Valley and Imperial Valley are still working to get the navy to agree to re-opening of the Niland-Blythe link in the International Four-States Highway which runs from the Canadian border to the Mexican border at Calexico. This stretch of road, which is a direct route between the two fertile irrigated valleys, runs through a navy aerial gunnery range. It would shorten the distance between Blythe and most Imperial Valley points by an average of 75 miles. At present it is open to traffic Fridays, Saturdays and Sundays, is closed during the mornings of four days a week.—*Palo Verde Valley Times*.

TWENTYNINE PALMS—Travel to Joshua Tree National Monument in February was almost double the January figure, according to the National Park Service. In February 1772 cars and 6237 visitors entered the desert monument.—*The Desert Trail*.

NORTH PALM SPRINGS—Garnet Gardens, near Desert Hot Springs, now has a postoffice which has been officially named North Palm Springs. It opened with Mrs. Marie Maher as postmaster.—*Desert Hot Springs Sentinel*.

Record Date Festival Crowds . . .

INDIO—Warm days and balmy desert nights attracted a record 154,510 persons to the annual Riverside County Fair and National Date Festival at Indio March 17 to 22. The nightly Arabian Nights pageant was credited with being the biggest single attraction. Residents of the area were in Arabian costume to add color during fair week.—*Indio Date Palm*.

Desert Communities Organize . . .

VICTORVILLE—The Desert Affiliated Chambers of Commerce, representing all communities on the desert side of the mountains in southern California, have completed 1950 organization with George R. Seals, Victorville, as president. Last Sunday of each month is scheduled as regular meeting day for the organization.—*Victor Valley News-Herald*.

Vacancy Signs Are Taboo . . .

PALM SPRINGS—This desert resort's Hotel and Apartment association has ruled against "Vacancy" signs in Palm Springs. It is bad psychology, members decided, to advertise the fact that hotels and apartments are not filled to capacity. Juggling of rates is also frowned on by the association.—*The Desert Sun*.

NEVADA

May Film Early Newspaper . . .

AUSTIN—Pages of the *Reese River Reveille* published between May 16, 1863, when the paper was established, through 1870, will be micro-filmed as permanent records if a plan proposed by the Library of Congress is approved and carried out. Duncan Emrich, chief of the folklore section of the Library of Congress, has said early issues of the newspaper are invaluable as historical data. It is expected that several other libraries will want negatives of the films.—*Reese River Reveille*.

May Preserve Austin Church . . .

AUSTIN—Built nearly 100 years ago, the old Methodist church in Austin may be preserved as a historical monument. Recent plans to tear down the building and use the bricks for construction of a new chapel at the church in Fallon met with instant opposition from interested Austin residents. So the plan was abandoned, now church officials are considering preservation of the old edifice. The church was built in 1863, was one of the finest at that time. One of its features was a famous pipe organ, constructed entirely of wood and taken to Austin at great expense.—*Fallon Standard*.



Capture the Rainbow

IN 1950

. . . take the thrilling trip on mule back down Rainbow Trail 'mid colorful scenes so vivid no artist could portray . . . to the most spectacular of all national monuments, RAINBOW BRIDGE. Rest at picturesque RAINBOW LODGE, backed by the breath-taking span of Navajo Mountain . . . where comfortable lodging, excellent food and hospitality are, as before, directed by Bill and Mrs. Wilson.

Open April 1 to November 15

Write Bill Wilson, Tonalea, Arizona, for Rates and a Brochure Describing "The Rainbow"

Muskrat Planting Successful . . .

FALLON—Transplanting of muskrats from Tule Lake, California, to the Stillwater wildlife area has been a decided success, and more of the fur-bearers were to be trapped and moved to Stillwater last month. The 440 rats planted last year have multiplied to more than 1500, it is estimated. As many as 10,000 muskrats can be supported by the marsh, Biologist Leroy Giles believes. The rats benefit the marsh, open up dense vegetation and make the area more attractive to waterfowl.—*Fallon Standard*.

Leading Nevadan Passes . . .

SAN FRANCISCO—Death came on February 17 to Tasker L. Oddie, 80, former Nevada governor and senator and credited with being a joint discoverer of the Tonopah gold and silver field before the turn of the century. He served as governor from 1911 to 1915, was senator from 1921 to 1933.—*Los Angeles Times*.

Aged Editor Retires . . .

AUSTIN—William M. Thatcher, who purchased the Reese River Reveille—Nevada's oldest active newspaper—when he was 70 years of age and who had actively managed and edited it since, has finally decided to turn the pioneer newspaper over to other hands and will live with relatives in Oakland, California.—*Fallon Standard*.

4M RANCH

Serving spectacular and colorful San Juan and Grand Counties of Southeastern Utah.

Guest accommodations on an operating cattle ranch.

Unusual pack trips into Colorado River area, the Needles, Salt Creek Canyon, Indian Creek Canyon and Junction of Green and Colorado Rivers, LaSal Mts., Castle Valley, Fisher Towers and Arches Nat. Monument section.

Auto camping trips to Monument Valley, Navajo Land, Goose Necks of the San Juan, Dead Horse Point, Indian Creek Canyon etc.

Horseback service and Pack trips thru Arches National Monument and Court House Towers.

Chuck wagon trips, riding the range, ranch life.

Especially qualified to serve individuals, family groups and boys and girls.

A paradise for Rock Hounds, geologists, archaeologists, writers, photographers, artists, students of wild life and those seeking an unusual vacation experience.

ROSS S. MUSSELMAN
Moab, Utah

22.07 miles per
gallon average

with
Mobilgas!*



The Mobilgas Grand Canyon Run—

the most grueling test run in America—impressively proves the performance and economy of Mobilgas* (regular or special grade as selected by the drivers): 31 different makes and models of cars, representing every price class, driven at *maximum legal speeds*, averaged 22.074 miles per gallon over a rugged 751-mile course from Los Angeles to Grand Canyon, where altitudes ranged from below sea level to over 7000 feet, temperatures varied from below freezing to summer heat.

Certified by 

For performance with economy, get the gasoline used on the Grand Canyon Economy Run—Mobilgas or Mobilgas Special—whichever your car needs.

...see your helpful Mobilgas Dealer

Copyright 1950
GENERAL PETROLEUM CORPORATION
—using nature's gift to better mankind.



NO DOWN PAYMENT

OVERLOOKING beautiful valley in desert foothills, WATER-WORKS, electricity, roads NOW in. DRY all year climate, el. 3200, only mile to P.O. stores.
"Off the beaten path" 120 miles from Los Angeles. No fog, no smog, no smudge. Profitable investment in growing community. Money in eggs, fryers, squabs and GREATER wealth in your HEALTH. Only 12 home-sites on these terms—full acre—monthly payments only. WRITE TODAY for latest maps, snaps, price lists.

D. M. BATTELLE

Lucerne Valley
San Bernardino Co., California

Keep Your Back Copies of Desert for Quick Reference

Attractive loose-leaf binders in Spanish grain leather, gold-embossed, are available for those Desert readers who want to keep their back copies for the maps and travel information they contain. Each binder holds 12 issues. Easy to insert, and they open flat.

Mailed postpaid for
\$1.50

THE *Desert* MAGAZINE
PALM DESERT, CALIFORNIA

Poison Weed Said Spreading . . .

ELY—Stockmen and ranchers of White Pine county are alarmed over the spread of a poison weed, halogeton, which if not eradicated may soon get beyond control. Halogeton is related to the Russian thistle. It is of Siberian origin, was first found in this country near Wells, Nevada, in 1935. The weed will be eaten by both sheep and cattle, frequently kills the animals. Halogeton has spread until Utah is also concerned over this range menace. It is hard to kill.—*Ely Record*.

Snow Promises Water . . .

RENO—Snow conditions in the Sierra Nevada Mountains have been described as the best in four years, for this time of year. Water content of the snowpack along eastern slopes of the Sierra Nevadas was about 20 percent above normal last month, surveys showed. Prospects are for excellent normal run-offs in the Truckee, Walker and Carson rivers.—*Humboldt Star*.

Tonopah Discovery Anniversary

TONOPAH—Fiftieth anniversary of the discovery of Tonopah is to be celebrated May 18, 19 and 20 with a three-day program of historical interest and entertainment. Tonopah came into being following discovery of the great Mizpah mine. Jim Butler, Monitor Valley stockman, discovered it on

May 19, 1900. Butler's discovery resulted in a total production of nearly \$200,000,000 in silver and gold from the Tonopah district alone, almost \$100,000,000 at Goldfield and several hundred million more from other mining districts located within a few years after 1900.—*Times-Bonanza*.

NEW MEXICO

More Rain-Making Planned . . .

SANTA FE—The possibility of producing rainfall by seeding clouds with silveriodide is to be studied by a new advisory water resources board of the New Mexico economic development commission. Robert McKinney is commission chairman. Plan is to establish a centralized New Mexico development program for surface and underground water, in addition to opening up the skies artificially.—*Gallup Independent*.

First Sight of Trains . . .

GALLUP—More than 60 young Navajo Indian students from Coyote Canyon Indian school got their first sight of a train when they made the 60-mile trip to Gallup recently. The trip provided many other "firsts" for the reservation Indians. They visited the airport, the newspaper plant, city fire department, postoffice, leading hotels and a modern super market.—*Gallup Independent*.

Indians Ignore Loan Offer . . .

WASHINGTON—There is at least one government loan program that is going begging. The Indian Bureau last spring made available \$100,000 to be loaned to members of the Navajo tribe of Indians for the purchase of purebred milk goats. But the Navajos have wanted none of it. For several months the tribe's advisory council tried to persuade Indians to borrow goat money. There wasn't one application. Reason: the Navajos were appalled by the \$75 to \$100 price tags on purebred goats, fearing that they could not properly care for the animals, and they were also afraid the goat milk would be unsanitary under conditions in which they would have to maintain the animals.

Trout Season Is Reduced . . .

SANTA FE—New Mexico's 1950 trout fishing season has been cut 40 days. The state game commission has set dates to coincide with the Colorado season, from May 25 to October 31. The commission also shortened the season on the Rio Grande north of Velarde, which up to now has been open the year around. Season there will be closed from November 1 to February 28. Daily limit on trout is 15.—*Gallup Independent*.

WHERE PALMS GROW WILD . . .



In Palm Canyon, 5 miles south of Palm Springs, is the largest native palm oasis in Southern California—where visitors are always welcome to wander among the majestic trees and enjoy the beauty of one of the desert's most lovely canyons. You are invited also to inspect the lovely display of genuine Indian silver work, weaving, pottery, basketry and other crafts in Dean Kirk's

PALM CANYON TRADING POST

situated on "The Bench" where you park your car at the head of the trail leading down into the park of stately Washingtonia palms. Visitors are always welcome.

ANNOUNCING AN EXPLORING EXPEDITION

During this seventh season of scientific explorations conducted for teen-age boys, Explorers' Camp will put two small parties into the field in the northern Navajo country and the southern Rockies.

Each boy will participate in four widely different expeditions and will travel more than 1,000 miles in the scenic "Four Corners" Region, which contains the nation's greatest atomic resources. Activities include searching for prehistoric ruins and petroglyphs; prospecting for gold and atomic minerals; archaeological excavations in a stone-age city; running 300 miles of the rugged San Juan River canyons in boats; and explorations in remote canyons tributary to the Colorado River in southeastern Utah.*

Membership is limited to a small number of carefully selected lads whose desires for adventure, travel, and scientific fieldwork are not fulfilled by conventional summer camping. Cost for entire 9-week season, including travel by horses, boats and motor caravan—\$475.

* See Desert Magazine, November and December 1946.

For information Write: DIRECTOR, EXPLORERS' CAMP, Mancos, Colorado

Damaging Drouth Feared . . .

ALBUQUERQUE—The driest winter in many years has caused State Engineer John Bliss, New Mexico's water expert, to admit he has little hope of green pastures this summer. Snowfall in the state was below normal and water is lower than usual in the Rio Grande, Pecos and Canadian rivers. It has been a mild, open winter, but unless spring rains come the situation this summer will be near-critical.—*Associated Press.*

CARLSBAD—Price of admission to Carlsbad Caverns has been reduced from \$1.50 to \$1.20, including federal tax. This includes guide fee and the elevator trip. Children under 12 are admitted without charge when accompanied by their parents or responsible adults.—*Eddy County News.*

Turquoise Getting Scarcer . . .

SANTA FE—High-grade turquoise gem stone is in sharp demand at fancy prices, according to reports from New Mexico, center of the jewelry manufacturing business using turquoise. The demand is for real gem rock—not the cheap or treated material frequently foisted on an unsuspecting public. First-quality gem stone is becoming scarcer, demand is expected to continue indefinitely at steadily increasing prices. It is claimed that few new deposits are being found and existing mines are not producing enough gem quality rock to meet demands.—*Tonopah Times-Bonanza.*

Albuquerque 244 Years Old . . .

ALBUQUERQUE—Grown now to a bustling city of 100,000 people, Albuquerque is this year 244 years old—the third oldest settlement in New Mexico. The city's birthday dates from February 7, 1706, when Francisco Cuervo y Valdez, governor of New Mexico while it was still a province of Spain, brought 25 Spanish families from Villa de Santa Fe to start the settlement.—*Gallup Independent.*

Tumbleweeds Distress Cowboys . .

PORTAL—Tumbling tumbleweeds, famed in western song, are making New Mexico cowboys repair fences instead of riding herd on their cattle. The weeds grew in great abundance last year. During the past winter they dried up, their roots released their grip on the soil, and the tumbleweeds started tumbling. They roll along ahead of the wind until they come to a fence. There they lodge. This continues until they form an effective windbreak and exert such pressure on the fences that posts are blown over and the fences collapse.—*Lordsburg Liberal.*

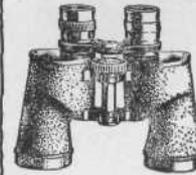
UTAH

Cattle Gain on Wheatgrass . . .

PANGUITCH—An eight-year study made on the Dixie National Forest offers figures that appear to prove that western sagebrush range lands can be reseeded to crested wheatgrass and produce about 10 times as much beef per acre as open mountain range land. Reporting on the grazing study, Floyd C. Noel, local forest ranger, gave these results: over-all average gain was 1.97 pounds per head per day for cattle on crested wheatgrass pasture, as compared to 1.1 pounds per day for cattle on open range. This would make a difference of 104 pounds per head during a grazing season of 120 days. Proper carrying capacity of the reseeded pasture is rated at 1½ acres per cow-month, the open range is 10 acres per cow-month. Figuring the market price at 20 cents per pound, gross profit per seeded acre would be \$7.86 as compared to 66 cents per acre on open range.—*Garfield County News.*

More Range Reseeding Asked . . .

WASHINGTON—The house appropriations committee has been asked by Rep. Walter K. Granger, Utah Democrat, to approve a \$500,000 increase for the government's range reseeded program. Reseeding range lands, he said, "will solve many range problems which have troubled stockmen and the Forest Service." In Utah alone several hundred thousand acres of range land have been reseeded, "adding greatly to the forage supply of our state and helping to stabilize the watersheds," he declared.—*Humboldt Star.*



TAKE A BINOCULAR

on your trips and enjoy the sight! Headquarters for repairs of all makes. Colimator alignment. All work guaranteed.

BINOCULAR INSTRUMENT CO.

536 S. Hill St., Los Angeles 13
TU 1524
Bausch & Lomb and Zeiss Dealers

"EVERYTHING FOR THE HIKER"

SLEEPING BAGS
AIR MATTRESSES
SMALL TENTS

and many other items

VAN DEGRIFT'S HIKE HUT

717 West Seventh Street
LOS ANGELES 14, CALIFORNIA

DESERT HOMESITES

Fine water, excellent drainage, surfaced streets, electricity, natural gas, telephones, new school under construction—an ideal location where you can enjoy all today's conveniences in the clean atmosphere of a well-planned desert community.

Lots range from \$950. Write for information.

PALM DESERT CORPORATION

Palm Desert, California

RIVER VACATION 1950

BOAT TRIPS ON SAN JUAN AND COLORADO RIVERS COME VISIT THE GORGEOUS CANYON WONDERLANDS

- Boat from Bluff, Utah, to Lee's Ferry, Arizona. Eight or nine days on the rivers. May and June only.
- Two days and overnight in Monument Valley with Harry and Mike Goulding.
- Overnight at Rainbow Bridge at Bill and Katherine Wilson's Echo camp.
- ALL-EXPENSE TRIP — 10 to 11 Days. Start at Art Green's Cliff Dwellers. Return to Cliff Dwellers in Arizona.

Full Fare - - \$175 per person

Reservations taken for 170-mile Glen Canyon of Colorado river trips in August and September. No rapids.

In July, 1950, you may join A GRAND CANYON EXPEDITION, from LEE'S FERRY, ARIZONA, to BOULDER CITY, NEVADA

18 to 22 Days. Fare: \$750

For Details Write:

LARABEE AND ALESON WESTERN RIVER TOURS

Richfield, Utah

BRAND NEW! 7 JEWELS!

3 Year SERVICE GUARANTEE

- Sweep Second Hand
- Radiant Dial
- Chrome Case
- Leather Band
- Shock, Water Resist

\$5.95

P. Paid Add 80c Tax Money Back if not satisfied. Sorry, no C.O.D.'s.

Special Order today!



ELCO PRODUCTS CO., 3805 Broadway, K.C. 2 Mo.

**FIREHOLE! FLAMING GORGE!
RED CANYON! LODORE!**

Since Ashley in 1825, white men have been testing the temper of running rapids on the Green River. These thrills and adventures can be yours, exploring these famous canyons in cataraact boats.

**Reynolds & Hallacy
GREEN RIVER EXPEDITIONS**

Phone 422-W P. O. Box 774
Green River, Wyoming

At The Head of the Canyons

Pinon Incense...

Bring the delightful fragrance of the Pinon Forest into your home or office. The burner is a miniature model of the outdoor baking ovens used by prehistoric Indians, and still in use in New Mexico pueblos. When the little cones of genuine pinon pine are burned in this tiny oven the aroma is a breath of the outdoor Southwest.

Kills kitchen and bathroom odors and removes the smell of stale tobacco. Pueblo Indians burn pinon for nasal and bronchial ailments.

Burner and 15 cones.....\$1.50
Burner and 54 cones..... 2.70
Extra cones, 36 for..... 1.25

Postpaid to You

DESERT CRAFTS SHOP
Palm Desert, California

BY BOAT through the heart of the Southwest's most scenic canyon country.

Reservations are now being made for our 1950 expeditions down the San Juan river and through Glen Canyon on the Colorado to Lee's Ferry—191 miles in seven days. Stout river boats. Skilled boatmen. Good food.

Trip starts from Mexican Hat, Utah. Side-trips include Crossing of the Fathers, Music Temple, Mystery, Twilight and Hidden Passage Canyons, Outlaw Cave and the Famous Rainbow Bridge. For schedules and rates write to:

J. FRANK WRIGHT • BLANDING, UTAH

'Dern Lake' Not Good Name . . .

WASHINGTON—To call a pleasant spot "Dern Lake" might be misleading. So the U. S. Board on Geographic Names has decided to give the full name of Gov. Dern Lake to the attractive body of water in Utah.

Range Reseeding Being Urged . . .

MONTICELLO—Utah has an estimated 5,000,000 acres of privately-owned sagebrush land, and the number of livestock this land could support can be increased from 3 to 10 times if the brush is cleared and desert grasses are planted. This is the story that is being told and retold to Utah ranchers by the U. S. Soil Conservation Service and the Forest Service in a series of county meetings.—*San Juan Record*.

Utah Park Improvements . . .

SALT LAKE CITY—More than \$250,000 in improvements will be put into facilities in Utah's Bryce and Zion National Parks before opening of the 1950 tourist season this spring, officials of the Utah Parks company have announced. The company last year

IT'S NEW! ALL NEW!

SCENIC GUIDE TO CALIFORNIA

Written by Weldon F. Heald

WORDS — PICTURES — MAPS

All skillfully combined to give you the ultimate in travel pleasure.

A NEW FEATURE on the maps discloses the locations of over 100 "Happy Hunting Grounds" for California Rockhounds.

We also have SCENIC GUIDES to
ARIZONA — UTAH
NEW MEXICO
Price \$1.50 each

SCENIC GUIDES

BOX 288 SUSANVILLE, CALIF.

won a 20-year contract with the Department of Interior to maintain all concessions in the two Utah parks and the North Rim of Grand Canyon in Arizona.—*Salt Lake Tribune*.

To Utilize Marshlands . . .

OREM—A two-fold program for complete utilization of Utah's marshlands by hunters and for rehabilitation of areas where good land and waste water are now found is being studied by officials of the state fish and game department. In Boxelder County alone it is estimated there are 250,000 acres of land that need development.—*Or-em-Geneva Times*.

School Experiment Working . . .

WASHINGTON—The new Intermountain Indian school at Brigham City, Utah, opened in January with far more applications than it could accommodate. It is a converted war-time hospital, will eventually provide facilities for more than 2000 pupils from the Navajo reservation in Arizona and New Mexico. The school provides vocational training in addition to formal schooling. A two-million-dollar building program, including apartment structures and auxiliary facilities at the school, is scheduled to begin this spring. Dr. George A. Boyce is superintendent.

Building will be rushed to permit completion for fall use, when enrollment is expected to hit the 2000 mark.

Jeeps Causing Erosion . . .

OGDEN—Invasion of primitive wilderness areas by jeeps has been declared an erosion factor and has been ordered halted by the forest service. Every jeep track on a bare, steep slope is a potential gully, forest officials claim, and cross-country travel by motor vehicles in wilderness areas is now prohibited. Only so-called primitive wilderness areas have been closed to jeeps, there is no general problem on national forests.—*Salt Lake Tribune*.

Bert Loper Fund Growing . . .

GREENRIVER — Contributions have been coming in steadily to finance erection of a monument at Greenriver, Emery County, to the memory of Bert Loper, famed river runner of the desert Southwest. Loper died July 8 on a trip through Grand Canyon. He had run virtually every rapid on every western river.—*Salt Lake Tribune*.

ST GEORGE—A chapter of the Sons of Utah Pioneers has been organized at St. George, under direction of leaders of the Cedar City chapter. Eligible for membership are those whose ancestors came to Utah before 1869.—*Washington County News*.

Gems and Minerals

FIELD TRIPS PLANNED FOR 1950 CONVENTION

Popularity of the material with both gem cutters and mineral collectors attracted some 50 members of the N. O. T. S. Rockhounds and the Searles Lake Gem and Mineral society on a joint January field trip to the amazonite and beryl deposit in the Inyo Mountains, just east of Lone Pine, California. A new seam of amazonite was opened up and a number of terminated crystals, some more than an inch and a half in diameter, were taken. Beryl was harder to find, but Ralph Dietz of the N. O. T. S. group came home with some good small crystals in matrix. This same trip is one of many field trips planned for those who attend the 1950 California Federation convention which will be held at Trona June 17 and 18.

CHICAGO SOCIETY MARKS FOURTH ANNIVERSARY

A lecture by Dr. J. R. Hudson on faceting with a display of faceted gems, plus refreshments and a social hour featured the birthday party of the Chicago Rocks and Minerals society. There was also a demonstration by Joseph W. Kozisek on identification of minerals. One of the most important tests, he said, is determination of specific gravity. February was the society's anniversary month. The society was organized in 1946 with 29 members. Now there are 53 family memberships, including 70 adults and four junior members.

EL PASO HOST CITY FOR ROCKY MOUNTAIN MEET

The Rocky Mountain Federation of Mineral Societies will hold its annual meeting and gem show June 7, 8 and 9 in El Paso, Texas, and preparations for the event are being made as rapidly as possible, according to Mrs. Kathleen C. Miller, Federation secretary-treasurer. Mrs. Miller is attempting to get in touch with all local clubs and societies that are members of the Rocky Mountain Federation, but is hampered by incomplete records. She will appreciate it if member clubs will get in touch with her. The address: 300 West Franklin Street, El Paso, Texas. The June affair is not a convention, she stresses, but is a rock and gem show open to the public.

NEW OFFICERS HEAD FALLON ROCK, GEM CLUB

Following a recent banquet, the Fallon, Nevada, Rock and Gem club installed officers for 1950. Those who will lead the group through the year are: Harry Ringstrom, president; Oscar Engebretson; vice president; Mrs. A. L. Robinson, secretary-treasurer. The banquet was first one of its kind the club has enjoyed. As a result of recent publicity, the club is receiving requests for wonder stone and petrified wood samples collected by members, and for samples of the red sand found at Church-hill's Sand Mountain, also called Singing Mountain.

SAN DIEGO SOCIETY HAS NEW OFFICERS

The San Diego, California, Mineral and Gem society has installed its new officers for 1950. They are: Lyell C. Hunt, president; Charles J. Parsons, vice president; Pierre Van De Wiel, treasurer; A. Wayne Oliphant, corresponding secretary; Helen Wart, recording secretary; Nellie M. Bryant, bulletin secretary. Regular meetings of the society are held the second Friday of each month at the lecture hall, Natural Museum, Balboa Park, San Diego.

Interesting February and March meetings, a field trip February 26, and special showings of colored slides in April or May are among the events reported by the Yavapai Gem and Mineral society, Prescott, Arizona. The society has started publication of a bulletin, "The Yavapai Rockhounder," with Ray Shire as editor and Miss Stolte reporter. Shire is vice president of the society, which now boasts 52 paid-up members. "Life Before Man" was title of the talk by Gordon Boudreau at the February meeting, while the March meeting was a potluck supper.

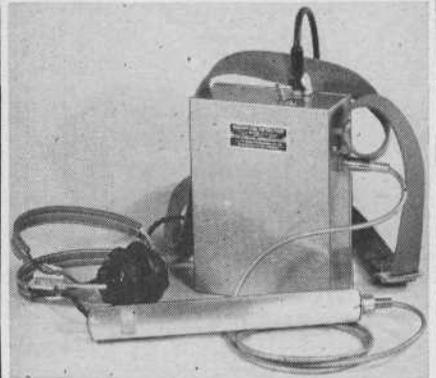
HAROLD D. MARYOTT & CO.
Manufacturing Jewelers
Wholesale Exclusively
Miami, Arizona

ROCK COLLECTORS ATTENTION

Back again at the old stand on highway 111, with the TRAILER ROCK STORE. One mile S. E. of Cathedral City. Have gathered lots of fine cutables and XLS last summer. Also many imports from foreign lands have arrived and more are coming. Come and get yours from
THE ROCKOLOGIST (Chuckawalla Slim)
P. O. Box 181, Cathedral City, Calif.

RADIATION DETECTOR

Designed Especially for Prospectors



Engineered By
Pioneer Manufacturers of
Radiation Instruments

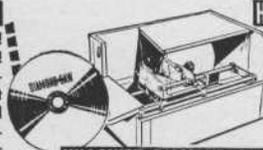
- LIGHT
- SENSITIVE
- PORTABLE
- RELIABLE

Write for Full Details on Model F-4
TECHNICAL ASSOCIATES
3730 San Fernando Rd. - Glendale 4, Calif.

HILLQUIST GEM-MASTER



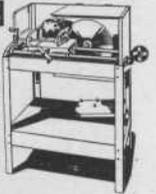
SAWS! GRINDS! SANDS! BUFFS!
Everything included except motor. Uses all Hillquist accessories. Ideal for beginners. Only \$42.50 complete.



HILLQUIST DIAMOND SAWS
Cut Faster—Last Longer—Cost Less. Available in all sizes. You'll swear by 'em, not at 'em!

HILLQUIST SLABBING SAWS

12" bench model, \$65.
16" floor model, \$97.50
20" floor model, \$140.
Real rockhounds saws favored for their big capacity and lifetime construction. "Magic-Brain" automatic feed for above \$46.35.



HILLQUIST DRUM SANDERS

The most popular drum sander made. Patented "quick-lock" screw makes it easy to change sanding cloth. Two sizes (2"x7"—\$6) (3"x7"—\$7). State size arbor.



BEFORE YOU BUY ANY LAPIDARY EQUIPMENT—Send for our BIG-FREE CATALOG

PACKED FULL OF HELPFUL LAPIDARY INFORMATION - SEND NOW TO:
LAPIDARY EQUIP. CO. Inc.
1545 W. 49TH ST. SEATTLE 7, WASH.

HILLQUIST TRIM SAW



The "Cadillac" of trim saws. Exclusive "up-and-down" arbor. "No-splash" plastic guards. Precision rock clamp and guide. Complete with 8" blade, \$57.50

HILLQUIST FACETING ATTACHMENT



A fine precision instrument. Only \$29.00. For Hillquist Compact Lap Unit or for any other lap by using Adapter Socket at \$2. No better faceter made.

HILLQUIST COMPLETE FACETER

Only \$62.50 complete with 3 index plates. You can cut any faceted form quickly and easily. The equal of faceters costing twice the price.



HILLQUIST GEM-DRILL-HOLE SAW

Drills finest holes at high speed and saws discs up to 1 1/2". Exclusive ramrod action prevents core plugging. Fully automatic. \$68.80



HILLQUIST COMPACT LAP UNIT

Bigger than the Gem-Master. Handles up to a 10" saw. Saws, grinds, sands, polishes, laps, facets, cuts spheres — does every thing and does it better. Thousands in use. Everything included except motor at \$110



HILLQUIST LAPIDARY ARBOR

Big! Rugged! Fast! Quiet! Takes 2"x12" wheels. Valuable for professionals or anyone wanting fast, smooth grinding. arbor only \$53.50



GEM MART

ADVERTISING RATE
8c a Word . . . Minimum \$1.00

AMONG THE ROCK HUNTERS

MINERAL SPECIMENS, slabs or material by the pound for cutting and polishing, RX Units, Felker Di-Met and Carborundum Saw Blades, Carborundum wheels Cerium Oxide. Mountings. Approval selection sent upon request. You are welcome. A. L. Jarvis, Route 2, Box 125, Watsonville, California, on Salinas Highway.

GOLD NUGGETS! Beautiful, solid gold specimens, \$1.00 each or 3 for \$2.00. Special collection 12 nuggets for California, Oregon, Nevada and Alaska, \$5.00. Desert Jim, 627 Lillian, Stockton, California.

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

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

RUTILE, brilliant cut, at a new low price. Complete stock of all gem stones. Complete professional lapidary service. Ace Lapidary, Box 67, Jamaica, New York.

BRAZILIAN AGATE, Specimen pieces, also good for coloring, \$1.00 a pound. Pieces run from one to ten pounds each. Black Onyx Blanks, 16x12 and 14x12 size—\$2.50 dozen. Mail orders filled promptly. JUCHEM BROTHERS, 315 W. Fifth St., Los Angeles 13, California.

MINERAL SPECIMENS and cutting material of all kinds. Gold and Silver Jewelry made to order. Your stones or ours. 5 lbs. good cutting material \$4.00. J. L. James, Box 117, Carson City, Nevada.

IF YOU ARE A ROCKHOUND you need the Lapidary Journal. Tells how to cut and polish rocks, gives news of all mineral-gem groups. Tells how to make jewelry, carries ads of dealers in supplies, equipment, gems, minerals from all over the world. Well illustrated, beautifully printed. Subscription \$2.00 a year—back numbers 50c. Sample Copy 25c if you have never subscribed or been sampled. LELANDE QUICK, Editor, P. O. Box 1228, Hollywood 28, California.

JUST RETURNED from one of the most colorful Agate fields in the world. Have a fine selection of clean cutting material. True Carnelian, mosses, banded, patterns in many colors, tubes, plume, Texas red and black plume. Rickolite and Honey Onyx, fine for book ends, spheres, etc. Also some beautiful white Aragonite, fibrous masses and crystals, all shapes and sizes. Make your next rock hunting trip in our yard and save money. Good material as low as 25c lb. Geo. C. Curtis, The Agate Man, 645 First St., Hermosa Beach, California.

Fire Opal - Mexico

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

ALL 5 LOTS POSTPAID—\$6.00

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

Money Cheerfully Refunded if Not Entirely Satisfactory

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

DR. RALPH E. MUELLER

3701 Valentine Road Kansas City 2, Mo.

BRAZIL: Amethyst and Citrain, green Tourmaline, golden, green and white Beryl, Aquamarine, Chrysoberyl. Australian gems: Fine Opal, blue Sapphire, Zircon. Burma: Pigeon Blood Ruby, Balas Ruby, Zircon. Africa: Fine Tourmaline, spec. Emerald, Tigers Eye, black Star Sapphire. Ceylon: Fancy Sapphire, 7 carat average, Spinel. Moonstone. Local: Peridot, Montana Sapphire, Yogo Sapphire, Mexican Topaz. P. O. Box 1123, Encinitas, Calif. Visitors contact postoffice.

ARIZONA AGATES richest colors in moss, ferns, plumes, flowers, inlays, curly, picture, calico, scenic, banded, iris, variegated moss and hundreds of designs; Sawed slices 50c to \$5.00 each; orders filled in 30 to 60 days; Approval orders now filled. Arizona Agate Mines, Cave Creek, Arizona.

ROCKHOUNDS SOUTHWESTERN HEAD-QUARTERS: Lapidary, prospecting equipment and supplies. Custom sawing, cutting and polishing, practical instruction, specimens, cutting material, silver work, Geiger Counters, Mineralights, the "original" Desert Scenic Stone, \$2 pound—30c inch. Buy - Sell - Trade, Laguna and Rio Puerco agates, New Mexico Minerals, 2822 N. Second Street, P. O. Box 6156 - Station B, Albuquerque, New Mexico.

FOR SALE: Beautiful purple Petrified Wood with Uranium, Pyrolusite, Manganite. Nice sample \$1.00. Postage. Maggie Baker, Cameron, Ariz.

PLUME, BANDED and Moss Agate for sale at Ranch. Write or come. J. A. Anderson, Box 182, Alpine, Texas.

MONTANA MOSS AGATES in the rough for gem cutting \$1.50 per lb. plus postage. Also Slabbed Agate 25c per sq. in. (Minimum order \$1.00). Elliott's Gem Shop, 26 Jergins Arcade, Long Beach 2, California.

INDIAN AND INDIAN TYPE Sterling Silver Mountings at prices you can afford. Wholesale, retail. Custom work. Our own craftsmen. Send for sample shipment on approval to rated dealers. C.O.D. to others. Privilege of returning, 10 days. New Mexico Minerals, Box 6156 Sta. B., Albuquerque, New Mexico.

MY PERSONAL collection of Mineral specimens, also Fossils and Indian Artifacts. 3 Groups total about \$500.00. Will separate if desired. Archie, 4454 Gainsborough ave., No. 12833, Los Angeles 27, Calif.

THE PRINCIPAL SALTS AND OTHER MINERALS FOR TECHNICAL PURPOSES. 30 specimens 1" plus in compartment box 9x12". Price \$4.00 prepaid. BOOKLET, Introduction to Geology for the Layman 50c. We specialize in mineral sets for gift shops and mineral supply stores. Dealer's Inquiries invited. Write for free catalogue.

ECKERT MINERAL RESEARCH—Dept. D. 110 E. Main St., FLORENCE, Colorado.

JUST IN FROM ASPEN: Fluorescent Calcite. This Colorado material reacts a brilliant red under all lights. Specimens run in 3 sizes, 2x2, \$1.50; 3x3, \$2.00; 4x4, \$3.50. A special just in—quartz crystal groups with light pink tinge, \$3.00 for nice sized group. Jack the Rock Hound, P.O. Box 86, Carbondale, Colo.

MONTANA AGATE SLABS, from Yellowstone Valley. Red and black in different shades and patterns. Scenic, mossy, banded, etc., in clear agate. Write for prices. PAUL FRY, Rt. 1, Box 115-A, Miles City, Montana.

FIRE OPAL: We are now specializing in all grades of Australian gem cutting fire Opal. We also carry a large stock of the best and rarest specimens from all parts of the world, as well as slabs and cutting material. If you do not know just where our store is located drop us a card and we will send exact instructions on how to get here. We are open every day in the week and evenings. West Coast Mineral Co., 1400 Hacienda Blvd., La Habra Heights, Calif.

\$5.00 BRINGS YOU an assortment of 7 beautiful crystallized Colorado Specimens. Ask for new list on many other fine specimens, cutting materials and fluorescent specimens. Jack The Rock Hound, P.O. Box 86, Carbondale, Colo.

MIXED ROCKS, slabbed and in rough. Write for descriptive prices. S. Cornwell, Parker, Ariz.

URANIUM SAMPLE, guaranteed radio-active, carnotite, atomic ore, postpaid, mail 25c in coin. Grand Canyon Metals Co., 621 W. Cherry, Flagstaff, Arizona.

A 25-pound blue-green smithsonite, a carbonate of zinc, has been presented to the Smithsonian Institution in Washington as a memorial to J. Roland Sherman. He died two years ago while he and Mrs. Sherman were attending a gem and mineral show at Denver, Colorado, where they were displaying some of their rocks and precious stones. The gift to the Institution was made by Mrs. Sherman. The stone is said to be the finest of its size now in the Institution's smithsonite collection. The specimen was found in an exhausted silver mine near Magdalena, New Mexico.

Annual meeting and banquet of the Minnesota Mineral club, Minneapolis, was held March 11 at the Curtis hotel. It was announced that plans are advancing for the national convention of the American Federation of Mineralogical Societies, which is to be held in Milwaukee, Wisconsin, in June. At February meeting of the Minneapolis society Dr. Herbert Wright talked on the geology of Minnesota glaciers. Dr. Wright is from the department of geology, University of Minnesota.

Out-of-state vacationers and other visitors are cordially invited to attend regular meetings of the Mineralogical Society of Arizona, held the first and Third Fridays of each month, 8:00 p.m., in the assembly hall, 1738 West Van Buren, Phoenix, Arizona. The society has had interesting talks at recent meetings, and on January 22 members and guests gathered at a potluck lunch at Desert Botanical garden. At the February 3 meeting Arthur L. Flagg, society president, gave a talk on birthstones and where they are found. He also reported that since 1877, when first records were kept, Arizona has produced more than five million dollars worth of minerals—including 11,884,360 tons of copper and 11,887,029 ounces of gold.

Regular February meeting of the Kern County Mineral society was held February 13 in the Elliott Community hall, Bakersfield, California. It followed a January meeting featured by excellent exhibits prepared by members.

February field trip for the Mineralogical Society of Southern California, Pasadena, was to Tick Canyon, and a trip to the Kaiser steel mill at Fontana is being considered.

GEIGER COUNTER. Nuclear "SNIFFER," perfect, complete with phones and batteries, \$30.00. Another portable with built-in loudspeaker, 4" microammeter, new batteries, probe, \$45.00. Private party. Osborne, 10723 Valleyheart Drive, North Hollywood. ST-71744.

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

ROCK HOUNDS: Visit Panamint Springs Resort on your way to Death Valley, via Lone Pine. We have for sale at reasonable prices fine specimens of Zinc ore, petrified wood, Talc, red Jasper, Lead ore, Sulphur, Iceland Spar, Nodules, Geodes, volcanic Obsidian. Also a beautiful box of rock specimens (pretty rocks for fireplaces) \$1.80 per box. Postage extra. Panamint Springs Resort, via Lone Pine, Calif.

OREGONITE SPECIMENS for sale by owner of only known deposit. \$1.50 each. Orders not accompanied by remittance mailed C.O.D. BARNES JEWELRY, 515 H. Street, Grants Pass, Oregon.

NEW CLUB ISSUES ITS FIRST BULLETIN

The newly-formed Earth Club of Northern Illinois, in Western Springs, a Chicago suburb, has elected officers, adopted a constitution and has already issued its first bulletin. Its officers are: William H. Allaway, chairman; Roy Beghtol, vice chairman; Herb Beck, recording secretary; Jay Farr, corresponding secretary; Stevens T. Norvell, treasurer; B. J. Babbitt, editor; Ethyl Whitney, curator-historian. A statement in first issue of the bulletin says: "We are primarily interested in rocks, minerals, and fossils, however all of the earth sciences tie in so closely that we have hopes of interesting a broad representation of people."

Fifth annual gem exhibition of the San Jose, California, Lapidary society is to be in the San Jose Woman's club building, 75 South 11th street, on Saturday and Sunday, April 22 and 23. Transformation of rough stones into gorgeous jewels and mounted gems is to be emphasized. There will be stones from many lands. The San Jose society is an amateur organization, each piece exhibited will be the work of a member. The exhibition is to be open to the public, no admission charge.

Members of the Southwest Mineralogists, Inc., Los Angeles, California, are busy preparing for their 13th annual show which is to be held April 15 and 16 at the Masonic temple, 41st Place and Figueroa street. A wider range of awards will be given to induce newer members to display. A demonstration of faceting technique was feature of the group's February meeting.

A former president of the Newport Beach Agate society in Oregon was guest speaker at February meeting of the Santa Cruz, California, Mineral and Gem society. He was Frank J. Reynolds, maker of lapidary equipment and other precision tools. His talk was primarily for the purpose of advising amateurs, and he stressed the importance of using good equipment. At the meeting Mrs. R. E. Campbell showed her collection of minerals from the famous Crestmore quarry in Riverside county.

W. R. Halliday, lieutenant (j. g.) U. S. N. reserve and chairman of the Southern California Grotto of the National Speleological society, was speaker at February meeting of the Long Beach, California, Mineral and Gem society. He told of rare and beautiful minerals found in caves, showed photos and maps. Displays of minerals and lapidary work of members is a feature of each monthly meeting. At the March meeting Mrs. C. H. Chittenden talked on "The History of Jewelry Making."

Two hundred members and guests gathered February 25 for the 14th annual birthday banquet of the Sacramento, California, Mineral society. Two electrically lighted display cases, recently completed, were used for the first time and, with the minerals they contained, attracted considerable attention. New president of the society is Elmer B. Lester, retiring president is George L. Hinsey.

ADD A SPECIMEN

Of our Carnotite ore to your collection, also fluorescent Autunite. \$1.10 postpaid. **H. R. Lefebvre, 8669 Fenwick St. Sunland, California.**

Pencil Size POCKET MICROSCOPE

20 power pocket microscope, aluminum body with pocket clip, 4 precision lenses which give a clear crisp image to the edge. A handy instrument for examining minerals, gems, micro mounts, polished surfaces, gears, engravings, insects, record cutting, phonograph needles and for all other inspection and examination. Instant easy contact focus. No special lighting required. You will be proud to own one. Order today \$2.00 each.

**H. ROSS, 70 W. Broadway, Dept. D,
N. Y. 7, N. Y.**

CUT A STAR SAPPHIRE

So you have always wanted to cut a star sapphire, but are not sure about the orientation. Let us send you an Australian rough star sapphire, mounted on a dop stick . . . ready for you to cut a perfectly centered star. These stones will cut out about a 2 carat size or a little smaller.

Price \$1.50 per stone

Larger sizes on request

Ready to cut

Please add 20% tax

Polishing instructions included.

Local phone Florida 31717

S-T Gem Shop

7010 Foothill Boulevard

TUJUNGA

CALIFORNIA

Rock Cutting - Rings Mounted to Order ROCK and GEM HOBBY SHOP

FELIX V. BRADDI, Owner
Stones Ground and Polished
Uranium Ore Tested - Western Jewelry
2014 Harbor Boulevard
COSTA MESA, CALIFORNIA

Covington DIAMOND BLADES

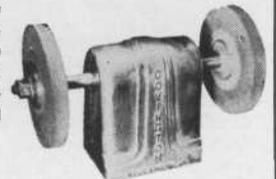
"Treat yourself to the best"

	Heavy-Duty Super-Chgd.	Super- Charged	Standard Charged
6"	\$ 8.70	\$ 7.70	\$ 6.75
8"	12.75	9.90	8.95
10"	15.75	12.95	11.95
12"	21.80	18.95	15.75
14"	32.30	24.95	21.85
16"	36.40	27.85	24.75
20"	66.30	44.20	33.95
24"	79.30	55.90	43.75
30"	127.25	106.95	State Arbor
36"	192.20	159.95	Size

sales tax in California.
Allow for Postage and Insurance

Covington Ball Bearing Grinder

and shields are furnished in 4 sizes and price ranges to suit your requirements. Water and grit proof.



COVINGTON 8" TRIM SAW



and motor are compact and do not splash. Save blades and clothing with this saw.

BUILD YOUR OWN LAP

and SAVE with a COVINGTON 12" or 16" Lap Kit. We furnish everything you need. Send for free catalog.



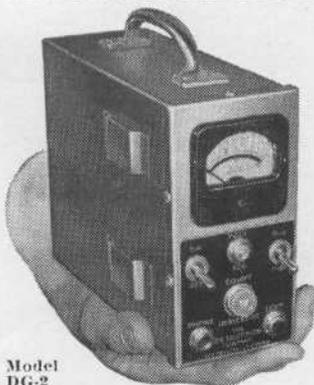
COVINGTON Multi-Feature 16" Lap Unit Does everything for you.

COVINGTON 12" 14" or 16" Power Feed Diamond Saws

SAVE BLADES

Send for New Catalog, IT'S FREE

Covington SEND FOR LITERATURE TO
LAPIDARY ENGINEERS
REDLANDS, CALIFORNIA



Model DG-2

GEIGER COUNTERS

For detecting URANIUM and all other radioactive minerals. The Model DG-2 (shown at left) is used by colleges, universities and by the Atomic Energy Commission. The sensational new Model DG-5 CLAIMSTAKER is the lowest cost Geiger counter made. Write for FREE INFORMATION on both.

The DETECTRON CO.

5637 Cahuenga Blvd., Dept. 5D
North Hollywood, California

URANIUM

Detecting instruments—Various makes and models including

... GEIGER COUNTERS ...

... MINE LOCATORS ...

... MINERALIGHTS ...

SPINTHARISCOPES — inexpensive device for detecting radioactivity; sturdy carrying case; calibrating box with three specimens. Price \$6 00.

MINERAL PROSPECTING EQUIPMENT CO.

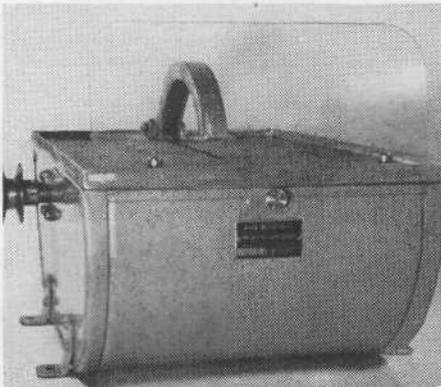
2200 N. Reese Pl., Burbank, Calif.

NEW CATALOGS AVAILABLE

If you want Choice Cutting Material, Fine & Rare Minerals, Geiger Counters, Mineralights, Books, Trim Saws, Fluorescents, Ores, Gems, Ring Mounts, or advice, write to . . .

MINERALS UNLIMITED

1724 University Ave., Berkeley 3, California



ALTA TRIM SAW UNIT

FEATURES:

Hinged Plate	Takes 6" and 8" blades.
3 Splash Guards	Measures 9½" wide, 14½" long, and 7" high.
½" arbor	
Sealed ball bearings.	

Price (less blade)\$23.75

Prices F.O.B. Pasadena (Calif. Purchasers add Sales Tax)

Send Postal for Free Literature

Other Lapidary Equipment: Alta Ball Bearing Belt Sander, Regular Alta Belt Sander (plain bearings), Improved Alta 16-18 Power Feed Saw, Alta Drill Presses, Alta Grinding Arbor.

ALTA INDUSTRIES

915 E. Washington St.
Pasadena 6, Calif.

ALPHA COUNTER

\$500

(Pat. Applied For)



Radioactive Ore Detector

This newly developed nuclear instrument is a practical tool for the prospector, assayer and physicist. It is an optical instrument which gives a clear, distinct visual statistical count of alpha particles (rays) from any source. Complete with carrying case, quencher, radio-active samples and instructions on its use. Mail your order today—only \$5.00 complete.

In Calif. add 3% sales tax

CLARKSTAN
CORP

Nuclear Division D-2

11927 WEST PICO BOULEVARD
LOS ANGELES 64, CALIFORNIA

The Monterey jade deposits were visited by members of the East Bay Mineral society, Oakland, California, for their February field trip. They left Oakland early in the morning to be on hand at low tide between noon and 1:00 p.m., when the jade can be collected on the beach. At the February 16 meeting there was an interesting talk by Colonel Branson, president of the Castro Valley society, on lost mines and their legends. Dave Houston and Jerry Smith displayed selected specimens at the meeting.

• • •

Members of the Castro Valley, California, Mineral and Gem society went on February 12 to Pescadero Beach for a field trip, then on March 18 and 19 held a mineral show in auditorium of the Castro Valley grammar school. Buster E. Sledge was chairman. It was announced that classes in silversmithing and jewelry-making have started at Hayward Union high school.

• • •

SOCIETY DECIDES NOT TO HAVE GEM SHOW

Rather than to stage a gem and mineral show this year, the San Fernando Valley Mineral and Gem society (California) is concentrating on collecting new material for an out-of-the-ordinary show next year. Members will visit many shows put on by other clubs in the meantime. At February meeting of the society Bill Clark gave a talk on faceting and Mr. and Mrs. L. W. McClure displayed their collection of fossils from South Dakota. On February 25 and 26 the San Fernando group enjoyed a joint field trip with the Coachella Mineral society to Turtle Mountains.

• • •

The San Diego Mineral and Gem society sponsored a field trip for all divisions of the society to famed Alverson Canyon in the Coyote Mountains, Imperial Valley, on February 19. Three canyons in the area were scouted for fossil shells and marble, selenite, satin spar, calcite crystals, barite, agate, petrified wood and garnet. It was a round trip of about 180 miles, going via Ocotillo.

• • •

A field trip to the Alvord Mountains was planned for members of the San Geronio Mineral and Gem society, Banning, California, at their February meeting. Strange pseudomorphs in chalcedony after calcite are to be found there, plus dragonite and other minerals. The society, which serves the San Geronio pass region, is having an active year.

• • •

More details will be announced next month on camping facilities for those attending the 1950 California Federation convention, scheduled for June 17 and 18 at Trona. This will be, it is believed, the first truly outdoor convention ever held. Numerous field trips are planned into what is considered the heart of one of the best collecting areas in the state. The Searles Lake Gem and Mineral society, the Mojave Mineralogical society and the N. O. T. S. Rockhounds are joint hosts.

WE'RE WAITING FOR YOU AT . . .

Town & Country Market also Farmer's Market. Brazilian Phantom Quartz \$1.50—sand pictures—Indian Jewelry, etc. Will make most anything to your specifications. We have 1 Automatic lapping machine at a bargain. Address everything:

CHUCK JORDAN

350 So. Fairfax Ave. Los Angeles 36, Calif.
YOrk 0-923

BRAND NEW



MINERALIGHT

Model SL Ultra-Violet Lamps

- Vivid fluorescence • Much lower prices • Weight 16 ounces • Streamlined • Short Wave • Long Wave • 110-Volt • Battery

After two years of research, the finest Mineralights ever produced, are now here—at unbelievably low prices.

- MODEL SL 2537 - Short Wave - \$39.50
- MODEL SL 3660 - Long Wave - \$29.50

Modernized, light weight, low-priced field accessories. Write for catalog SL 2. See your Mineralight Dealer.

ULTRA-VIOLET PRODUCTS, INC.
SOUTH PASADENA, CALIF.

Some Dealerships still available



ALLEN JUNIOR GEM CUTTER

A Complete Lapidary Shop Only \$37.50

- Ideal for apartment house dwellers.
- Polish rocks into beautiful gems.
- Anyone can learn.
- Instructions included.

« Write for Free Catalog »

ALLEN LAPIDARY EQUIPMENT COMPANY

3632 W. Slauson Ave., Los Angeles 43, Cal.
Phone Axminister 2-6206

**JOHN HILTON SPEAKS
TO COACHELLA SOCIETY**

John Hilton, desert artist, author and expert rockhound, was speaker at the February meeting of the Coachella Mineral society, Coachella Valley, California, and showed slides of his last summer's trip 1550 miles into the interior of Mexico. The society maintained excellent mineral booths at the Riverside County Fair and National Date Festival, and in addition sponsored a mineral show March 10, 11 and 12. There were three field trips in the period of a month, one of them a joint trip with the San Fernando Valley group.

**TEXAS STATE SHOW
SCHEDULED APRIL 21-23**

The large City Coliseum at Austin, Texas, has been obtained as site for the annual meeting and Mineralogical show of the State Mineral Society of Texas, which will be a full three-day affair April 21, 22 and 23, it is announced by J. J. Brown, president. Size of the Coliseum assures ample space for all who want to display either material or equipment, and there is parking space for all visitors. Visiting rockhounds from many societies in the Southwest, Northwest and the East are expected to attend the show, and dealers are being urged to arrange for exhibits. The general public is invited.

A picture of life in the Cochiti pueblo of New Mexico, between Albuquerque and Santa Fe, was presented by Mrs. Adelaide Law, Prescott archeologist and formerly associated with the Southwest Museum, Los Angeles, and the Laboratory of Anthropology at Santa Fe, at January meeting of the Yavapai County Archeological society, Prescott, Arizona. Membership in the society is increasing and it was announced that charter memberships will be held open until the April meeting. Harold Butcher is president of the comparatively new organization, A. S. Potter is secretary. Some members are also members of the Yavapai Gem and Mineral society.

Fifteenth anniversary of the Northern California Mineral society, San Francisco, was observed with an annual dinner at which Ivan Branson, new president for 1950, presided. Present at the dinner was Francis Sperisen, first president of the society who recalled start of the organization with just a handful of interested rockhounds. February meeting of the society was a general business session and on March 15 there was a library meeting.

New officers of the Wasatch Gem society, Salt Lake City, Utah, have taken office for 1950. They are: Edward Dowse, president; Geraldine Hamilton, vice president; Helmut Wachs, secretary; Mose Whitaker, treasurer; Ora Alt, corresponding secretary. Thirty-five were present at the installation meeting, enjoyed specimen displays furnished by members and a motion picture, "Adventures in Stone."

**DIRECT TO YOU FROM OUR
OWN CUTTING PLANT**

RUTILE (Titania)

Pacific Gem Cutters is first to offer you this most amazing gem cut in our own plant, at these **LOW PRICES**

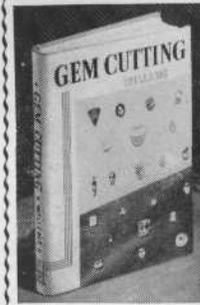
Small stones can be had in pairs for earrings
1/2 to 1 carat sizes at.....\$10.00 carat
1 carat sizes and up at.....\$ 7.50 carat
Each stone guaranteed to be first quality. Brilliant cut stones from Linde Air Products boules, facet for facet to duplicate the brilliant diamond cut. These synthetic balls of fire have a double refractive index and exceed the diamond in brilliance.

All stones precision cut and beautifully polished.

PACIFIC GEM CUTTERS

LAPIDARY AND STONE SUPPLY

Phone MA 8835—Judson Rives Building
424 South Broadway, Los Angeles 13, Calif.



**GEM
CUTTING**

J. D. Willems

Understandable to all. Accurate, step-by-step drawings of facet planning and cutting, including the "potato" method. Answers such questions as how to recognize good quality stones in the rough and making of your equipment \$3.50

METALCRAFT and JEWELRY

Complete instructions for making jewelry as well as basic metal forms. Beginners can use. **Kronquist \$3.25**

ART METALCRAFT

Beautiful pieces by a master artisan. **Payne \$3.50**

Fundamentals of SOFT SOLDERING

Basic instructions in all processes. **Yerkow \$2.25**

MODERN METALCRAFT

36 appealing projects. Complete treatment. **Feirer \$3.50**

AT YOUR DEALER OR DIRECT

CHAS. A. BENNETT CO., Inc.
FORMERLY The Manuel Arts Press
3979 Duroc Bldg. • Peoria 3, Ill.

**50TH
YEAR**



*Here Are The Gifts
You've Been Looking For!*

Petrified Wood, Moss Agate, Chrysocolla
Turquoise, Jade and Jasper Jewelry

HAND MADE IN STERLING SILVER

Bracelets, Rings, Necklaces, Earrings
and Brooches

SPECIALY SELECTED STONES WITH
CHOICE COLORS AND PICTURES

Write for Folder With Prices

ELLIOTT'S GEM SHOP

26 Jergens Arcade

LONG BEACH 2, CALIF.

Entrance Subway at Ocean and Pine
Open 10 A. M. to 10 P. M. Daily

Ring Mountings and Findings

RING MOUNTINGS: Sterling Silver, finished, ready to set. Men's from \$8.65 to \$15.00 per doz. Ladies from \$5.65 to \$13.80 per doz. Ladies 10K Solid Gold \$3 and \$4 each.
NECK CHAINS: Sterling Silver \$3.50 doz. 1/20 12K Gold Filled \$4.50 doz.
BEZEL OR GALLERY: Sterling Silver \$2.00 oz. 1/20 10K Gold Filled \$2.90 oz.
CLEVICES: For Pendants, Gold Filled \$1.25 doz. For Ear Rings, GF or SS \$1.20 doz.
PENDANT FRAMES W/CHAIN: Sterling or GF \$12.00 doz.
EXTRA EASY FLOW SILVER SOLDER: 1/4 oz. 50c; \$1.90 per oz.
LOW KARAT GOLD SOLDER: 50c per DWT.
JOINTS, CATCHES AND PINSTEMS: \$1.00 per dozen sets.
CUFF LINKS: For large oval stone \$8.25 per dozen pairs.
TIE CHAINS: For 12x16MM Stone \$6.00 doz.
JUMP RINGS: From 90c to \$1.25 per gross.

Ask for Price List No. 2 for
Additional Information

O. R. JUNKINS & SON

Box 1295

Newport, Oregon

What are meteorites? Where do they come from? How can they be recognized? You'll find the answers to these questions in

OUR STONE-PELTED PLANET

By H. H. Nininger

This fascinating book tells all about meteors and meteorites, and is lavishly illustrated with photographs of interesting specimens of the several types—iron, stony, and combinations of the two. Dr. Nininger is a leading authority on the subject.

\$3.00 postpaid to you
California buyers add 3% sales tax

Desert Crafts Shop

PALM DESERT, CALIFORNIA

January and February field trips for the Clark County, Nevada, Gem Collectors included visits to an onyx vein near the shores of Lake Mead, exploration of the workings of an old antimony mine and search of the area surrounding an extinct geyser where fossils and other interesting concretions were found. The Glendale, California, Lapidary society and the Cedar City, Utah, Rock club joined the Las Vegas group for a March field trip to look for jasper and agate at a new location near Goffs, California.

UNIQUE FEATURE PLANNED FOR NATIONAL CONCLAVE

Those attending the national convention of the American Federation of Mineralogical Societies at Milwaukee, Wisconsin, this June will have an opportunity of seeing features of Wisconsin geology from the air. Two 21-passenger DC-3 planes are to be chartered and used for regular flights. Dates of the convention are June 28-30. Those taking the flight will see the famed Devil's Lake Region, which has been termed a geologist's paradise.

Pre-convention bulletins are to be sent to all societies, federated and non-federated. Societies not registered are requested to register right away with Prof. Junius J. Hayes, American Federation secretary. His address is University of Utah, Salt Lake City.

Members of the Pasadena Lapidary society went to popular Tick Canyon on February 18 and 19 for their February field trip. At the February meeting the faceting group met before the general meeting and prepared a display and sales table.

Annual gem and mineral show of the Imperial Valley, California, Gem and Mineral society will be held in auditorium of the Junior College, El Centro, on April 16 and 17.

Myron Everts, a jeweler, gave a talk on precious and semi-precious stones and showed the steps in grinding rough stones into finished diamonds when he spoke at February meeting of the Texas Mineral society, Dallas. Members of a Girl Scout troop visited the meeting.

February field trip of the Searles Lake Gem and Mineral society was to Blue Chalcedony Springs—a two-day jaunt. Passes were obtained from the U. S. navy to visit the area. The rockhounds looked for geodes and nodules containing blue and white chalcedony, opal and even fire opal.

Colored slides of various members were shown at March meeting of the San Jose, California, Lapidary society. Members who displayed material and cut stones were Ross Page, Hal Pearsall, Norman Pendleton and Gertrude Pendleton. Scheduled to exhibit at the April meeting are Claude Pitts, C. R. Rice and Herbert Stockton. The March meeting marked the fifth birthday of the San Jose society.

Third annual mineral and gem show of the Monterey Bay, California, Mineral society was held February 25 and 26 in the Y. M. C. A. building at Salinas.

SPECIAL!!

Wyoming Jade, fine quality vivid green .60 sq inch. Minimum order

CUSTOM CUTTING . . .

\$4.00. Will send on approval. Your stones expertly cut and polished to order. Moderate charges and prompt service.

CABOCHONS . . .

For collectors or jewelry making. Fine quality cabochons cut from a large variety of gem materials. Approval selections sent. State your preferences.

LAPIDARY SUPPLIES & EQUIPMENT . . .

Poly Arbors, with 3/4" shaft. Am featuring these with all accessories for grinding, sanding and polishing. Makes a highly efficient lapidary outfit.

Covington Super-charged diamond blades. Am using these in my own shop with excellent results. Price list on request.

KANE LAPIDARY & SUPPLY
Phone 84484 • 1681 E. McDowell Rd.
Phoenix, Arizona

O'BRIEN'S

. . . In Hollywood

have acquired the services of Tom Temple and are now ready to handle all types of custom jewelry work, facet and cabochon cutting and rock slabbing. Bring or mail your jobs in for a free estimate.

— WE TEACH FACET CUTTING —
Enroll now for our next class.

O'BRIEN LAPIDARY EQUIPMENT CO.

1116 N. Wilcox Ave., Hollywood 38, Calif.
Phone Gladstone 5424

TRUE OR FALSE ANSWERS

Questions are on page 8.

- 1—True.
- 2—False. Ironwood is popular fuel for campers.
- 3—True.
- 4—False. *The Winning of Barbara Worth* was written by Harold Bell Wright.
- 5—False. El Tovar is on the South Rim.
- 6—True.
- 7—False. Joshua Tree National Monument is in southern California.
- 8—True.
- 9—False. Cactus wrens prefer taller species of cactus.
- 10—False. Butterfield stages crossed the Colorado at Yuma.
- 11—False. Desert holly is an evergreen.
- 12—False. You would go to Utah.
- 13—True. 14—True. 15—True.
- 16—False. Juniper's habitat is the Upper Sonoran zone, generally above 2500 feet.
- 17—True. 18—True. 19—True.
- 20—False. Headquarters for the Navajo agency is Window Rock, Arizona.

KNOW YOUR DESERT ROCKS . . .

Rocks are everywhere, and each has its own interesting story. You don't have to go to college to learn about rocks and minerals. With a book to guide you, they speak for themselves. Here are some of the books we recommend, both for the beginner and for the advanced student of the rock world:

FIELD BOOK OF COMMON ROCKS AND MINERALS, by Frederick Brewster Loomis. With color plates, this is a fine book for the identification of minerals. Many photos and drawings. Geological time chart. 352 pages \$3.95

QUARTZ FAMILY MINERALS, by Dake, Fleener and Wilson. Description and occurrences of one of the most interesting mineral groups. Includes quartz crystals, amethyst, sagenite, agate and chalcedony, jasper, bloodstone, carnelian and sard, geodes, thundereggs, petrified wood. Many illustrations. 304 pages \$3.00

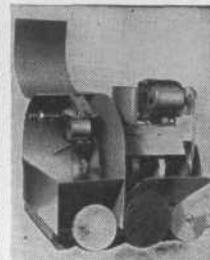
GETTING ACQUAINTED WITH MINERALS, by English. Simple, interesting, accurate description of rocks and minerals. How to collect and identify them. Many drawings and photos. 324 pages \$3.25

GEM CUTTING, by Willems. Instruction method is designed to be so accurate and clear that any beginner can follow step-by-step method of cutting and faceting. How to recognize good stones, how to make simple equipment. Photos and drawings. 224 pages \$3.50

All books mailed postpaid
California buyers add 3% sales tax

Desert Crafts Shop

PALM DESERT, CALIFORNIA



RX-47

A Complete Lapidary Shop in One Compact Machine

The most practical ever devised for gem cutting and polishing.

Send for Circular A

Price. Less Motor and Saw Blade
\$137.50 F.O.B.

RX LABORATORY

Box 26, Station C
Pasadena 6, Calif.

AMATEUR GEM CUTTER

By LELANDE QUICK, Editor of The Lapidary Journal

Last fall a too-busy doctor friend of ours, who is an avid mineral and gem collector, decided that he would close up his office and disappear for a month. He had no particular thought in mind except that he was going to take a long drive around most of the 11 western states. To give objective to his journey he thought it would be a good idea if he made a list of all the rock dealers who had ads for the previous couple of years in the various magazines featuring this type of advertising.

When he came home he was full of information about at least 100 dealers, and ready to tell it to the world, except that he preferred anonymity. Some of the things he had to say were not very good and it is only in the interest of a better understanding between the extremes that we report some of his findings. The extremes on both sides are the dealer who is openly antagonistic to the traveling rockhound who likes to collect some of his own stuff, and the unthinking collector who talks with the dealer for a couple of hours trying to get field information, asks him for help in changing a tire, loads up with fresh water—and then departs without ever looking at what the dealer has to offer.

Our informant says that he wasn't on the road very long before he found out that there are a great many rock dealers along the highways who apparently never advertise anywhere for he never heard of them. After stopping at several of these places he decided that it was a waste of time in most cases for it seemed to be axiomatic that if the dealer did not have the vision to let the traveling world know, by advertising, that he was there, he too often did not have the vision to do other things that also were good business. The doctor told about the filth and dirt of some of the places he visited. After visiting a few of these places he made it a rule not to stop if the place did not look presentable on the outside.

We know what he means. We too have stopped at some places where the proprietor seemed to possess a genius for disorder. Gems were displayed in cases with glass so dirty it was impossible to see whether the contents were quartz crystals or pine cones. Other places had outrageous prices on materials wrongly labelled (if they were labelled at all) and there was no point in swapping real money for indifferent rocks.

This will appear just as the spring sun grows warm and friendly all over America. People will be getting that old wanderlust and hauling out the maps to see where they are going this summer. The rockhounds particularly will be noting the names of dealers they want to see along the way. Many of them will be dealers they have been doing business with by mail. Will they do business with them any longer after seeing their shops?

We have never been in the mineral business, and we never expect to go into it, but we have observed one thing through the years; the successful dealer is a good businessman. Most of the dealers have been amateur gem cutters and collectors. Many of them go into the rock business with no previous independent business experience.

Then they are amateur businessmen—and they remain amateurs in many cases.

But if we were in the mineral business here is what we would do in the first spring sunshine. We'd paint and clean. Our cases would gleam and so would the specimens in them. If we were in the country we would have flowers about and seats in the shade so that the weary traveler who has just traveled 200 miles could stretch his legs and be comfortable for a bit. We would have some cool water available and clean comfort facilities. We would do everything possible to make that man remember us when he saw our ad in his magazine and do business with us through the years.

We would study the ads of all other dealers in all the magazines and see that our wares were priced right. We'd shade the prices a little, for after all, the customer would be coming right to us and saving us correspondence and mailing costs. We would have rocks of our own area available for him to buy and we wouldn't get on a high horse if he asked where he could "collect a little stuff himself." We'd keep a nice visitor's register and let him look back to see who had been in the previous week. When he got home there would be a card waiting for him, thanking him if he purchased anything. If we lived in fruit country we'd have the best examples of it available for his purchase. We would try to make him feel so good that he'd be ashamed to leave without buying something. When he gets home and a friend tells him he is coming our way we'd want him to say "Don't miss stopping in to see Joe Rock on Highway 13. He'll treat you right, etc. etc."

Good business is just good sense but some folks don't apply good sense or imagination to the most important reason for their activity—earning a living. Clean up your places dealers—and you'll clean up in other ways. And let people know by advertising that you are in business.

And now just a word to the unthinking rockhound traveler. You may be in the hobby for fun—but the dealer isn't. He's making a career of the rock business. He goes after the rock; often discovers the location himself. He toils hard and sweats plenty, spends time and money to get the rock for you. Most of the time it will save you money if you buy five pounds of rock from him rather than spend days looking for the location and attempt to haul home 500 pounds to Ideal City so that you can become a dealer in a small way yourself.

Lots of people delude themselves. They come home and say they've been on a 4000-mile trip for three weeks. It was 2000 miles each way but they saw nothing; nothing but a hole three feet from their nose in which they spent days toiling for indifferent rock. They play a big joke on themselves.

The spring days are here and the wanderlust grows strong but the stronger it grows let your good sense and sound thinking grow stronger too and have a happy trip when you take it.

UNUSUAL! DIFFERENT!

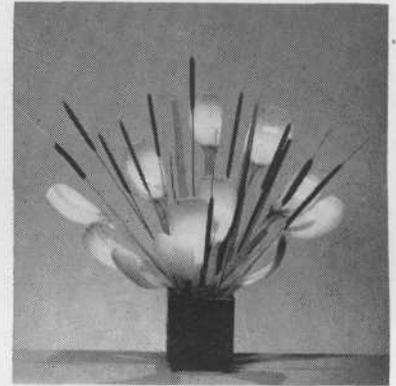
Exciting colorful cutting pebbles from a beach near historic Plymouth Rock. Brecciated, mottled and variegated patterns in a mixture of reds, yellows, greens, browns and maroons. They make striking cabochons. Money-back guarantee.

1.00 per lb. postpaid

GERALD F. KRUMM

Box 222 Astor Sta.

Boston 23, Mass.



EXOTIC DESERT SPOONS

Unique FLORAL gift from the Arizona Desert. Perfect for Easter (last indefinitely).

12 SPOONS with 12 miniature Cattails, ppd. . . **\$3.00**

Send cash, check or M. O. to

OLD PUEBLO TRADERS

Box 4035

Tucson, Arizona

Dept. D

P. R. I. SUPER SENSITIVE GEIGER COUNTERS



The most sensitive and complete line of portable Geiger Counters made. Seven different models to choose from.

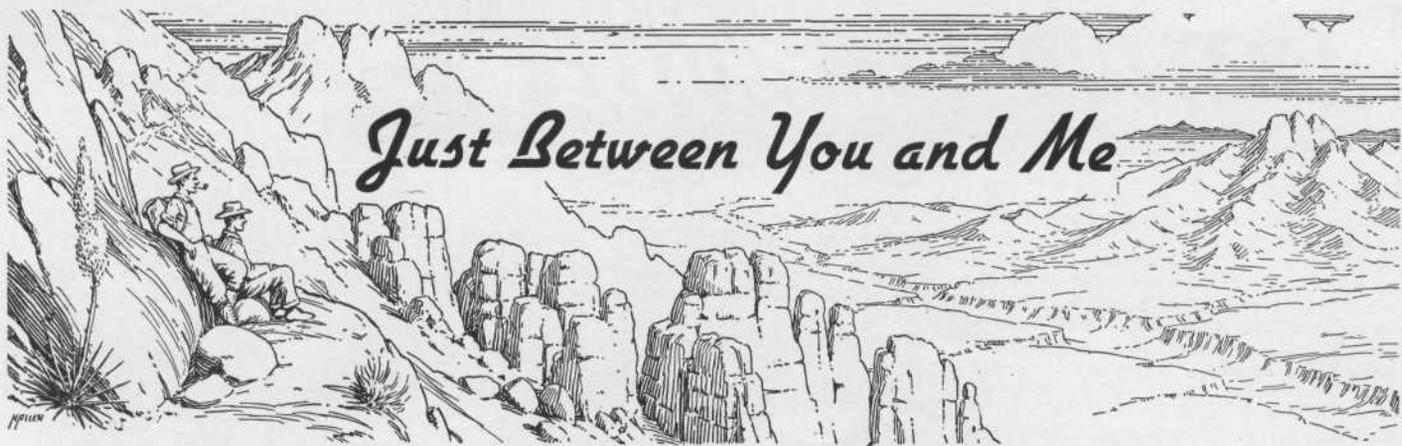
Priced from only \$49.50 complete.

Dealer inquiries invited.

Write or wire for complete details.

**PRECISION RADIATION
INSTRUMENTS, INC.**

912-D S. Spaulding Ave.
Los Angeles 36, Calif.



Just Between You and Me

By RANDALL HENDERSON

IN THEORY, we Americans still defend the good old-fashioned idea of free enterprise.

In practice, we are heading for socialism so fast it makes me dizzy to think about it.

Perhaps it is possible to observe these trends more clearly out here in the unclouded atmosphere of the desert than in the artificial environment of the densely populated centers. The desert has a way of exposing the bare reality of things.

These thoughts were in my mind recently on a visit to Davis dam where I had an opportunity to observe the comparative operation of a planned economy and the free enterprise system as applied to community building.

Just below Davis dam on the Arizona side of the river is a pretty little town with painted houses and orderly streets and well-kept lawns and flower gardens. The houses were built and the lawns are mowed with funds from the federal treasury.

This community was built to house the several hundred U. S. Reclamation Service employes engaged in construction of the dam. Uncle Sam has plenty of money, and he planned well and built well at Davis dam.

Down the river three miles below the Reclamation Service community—just outside the reservation—is another town named Bullhead. This town was promoted with private capital. It has few sidewalks and fewer lawns. Apparently there are no building restrictions. It is just a typical frontier town with lots of weeds and not much order.

It would not be correct to say that Davis dam is a socialistic community. And yet it was constructed with public funds under the same bureaucratic regimentation that prevails under socialism. Uncle Sam built the town, he owns it, and if you live there you obey his regulations. It is a nationalistic enterprise.

Bullhead is a free enterprise town. It was built for private profit. Beauty and order and cleanliness are secondary to return on the investment.

These are stark extremes. I am not advocating one or the other. Rather, I am presenting these pictures for the consideration of thoughtful people. Actually I believe there is an attainable middle ground between the ugly greed which free enterprise sanctions, and the stifling regimentation of the totalitarian state.

I can visualize a human society in which the little people—you and me—through cooperative enterprise, on a voluntary basis, may make the rules which will regulate the big—big capital and big labor. I am thinking of con-

sumer cooperatives. What a force the consumers of this nation would be if in voluntary association they would use the pressure of their buying power to thwart greed on the part of either capital or labor. It is not an idle dream.

• • •

"Where I go I leave no sign." Everett Ruess, the young explorer-artist who disappeared in the desert wilderness of southern Utah more than 15 years ago, once wrote that message to a friend.

Everett spent his summers with his pack animal traveling alone in the mountains and desert of the Southwest. He carried his brushes and paints and when he found a place of unusual beauty he would remain a few days to put the scene on canvas. Often he sat by his campfire at night and wrote poetry.

Everett's motto is the creed of every true outdoorsman: "I leave no sign." Names painted on rocks and initials carved in trees invariably are the marks of an immature mind.

It is such a simple matter to burn or bury the debris of a picnic or overnight camp, and those who come along the trail later will derive added enjoyment because their campsite is clean—just as you and I appreciate the cleanliness of those who camped ahead of us.

Tenderfoot campers on their first trip generally are the worst offenders. They haven't learned yet that good house-keeping is no less a virtue on the trail than in the home. Some of the mineral collectors were careless in their camp habits in the early days of field tripping. But I have noted a very marked improvement more recently. The veterans are teaching the newcomers that there is a rigid code to be observed on field treks.

The ace campers of California probably are the members of the Sierra club. One of the first things a Sierran learns is that a dirty camp is one of the unpardonable sins. Recently I visited one of their campsites where 160 members in 46 cars had spent a weekend. There was not a tin can nor a scrap of paper on the landscape. I saw one of the members smashing her empty cans with a rock and putting them in her car. "I am afraid the coyotes might dig them up if I buried them," she explained, "so I am taking them home for the garbage man."

Everett Ruess probably learned his creed from the Indians, with whom he spent many weeks on his treks through the Indian country. It is a good creed: "Where I go I leave no sign."

BOOKS OF THE SOUTHWEST . . .

TWO REVEALING BOOKS ON THE NAVAJO TRIBESMEN

Understanding of the Navajo Indians has made a far advance through the studies of two high ranking scientists who have devoted many years to intimate studies of the Indians and their background, and whose work has been published in two volumes during the last four years.

Dorothea C. Leighton, M. D., a psychiatrist, and Clyde Kluckhohn, Ph. D., professor of anthropology at Harvard University, combined their fine knowledge of the largest tribal group of Indians on the North American continent in the preparation of *The Navajo*, published in 1946.

The authors review Navajo history from archeological times and then proceed to discuss both the philosophy and economy of the tribe, and its relation to other Indians and to its white neighbors.

Physically, the Navajo do not have a distinct racial type. The People, as they call themselves, down through the years have absorbed Indians of other tribes and there is a trace of Mexican and European blood in some of the clans. But there has been little change in their hogan life through the centuries and the authors have presented an accurate impersonal picture of their beliefs and practices, their language, their economy and their philosophy of life. The book is a revealing source of authentic information.

Published by Harvard Press, 247 pp. with bibliography and index. Halftone illustrations. \$5.00.

Children of the People . . .

The second book written by the same authors, *Children of the People*, is an intimate study of the individual Navajo, dealing largely with family life and especially with the children in the Navajo hogan.

They are bright, industrious youngsters—no different in their basic human traits than the children of any other racial group.

The authors have presented much of their material in case histories, with the rare understanding that only trained psychologists can give to such a subject. Somehow, they have been able to penetrate the mask of timidity which is characteristic of the Navajo in the presence of members of the white race.

The book will appeal not only to those who are interested in the Indians, but to teachers, psychologists, psychiatrists and educators in general. Although the Navajos are the immed-

iate neighbors of large numbers of Americans in the Southwest, they have maintained their own tribal customs and religion to an extent that makes them very difficult for the average American to understand. A reading of the two books by these authors will go far toward breaking down the misunderstandings which have been a source of friction on both sides.

Published by Harvard Press, 264 pp. with bibliography and index. Halftone illustrations. \$4.50.

Story of San Juan Capistrano . . .

E. L. Howell has been in close touch with the restoration and preservation of the old Franciscan mission at San Juan Capistrano, California, for many years—and now he has written a short history of the church, dating back to October 30, 1775, when the first attempt was made to found a Catholic outpost at this place. The author has done his research thoroughly and his story includes every important detail in the construction and operation of the mission, including the earthquake of 1812 when 39 worshippers were taken from its ruins. Several old pictures of the buildings at various periods were obtained to illustrate the book. Titled *Little Chapters About San Juan Capistrano Mission*, the 28-page paper-bound book was printed on the presses of the Desert Magazine. 75c.

Designed to promote a better understanding of the Indians of the Southwest, the chamber of commerce at Gallup, New Mexico, has published a mimeographed booklet entitled *Indians of New Mexico*. The booklet is intended as an aid to thousands of teachers and school children all over the nation who write to Gallup annually for information about the Indians. The booklet is for free distribution.

ROLE OF THE FREMONTS IN WESTERN HISTORY

There have been many books written on the exploration, military exploits and mapping expeditions of John Charles Fremont, but probably none more sympathetic to the man himself than Alice Eyre's *The Famous Fremonts and Their America*. To present a true picture of Fremont, soldier-explorer, Alice Eyre gives his family background, tells of his childhood and his careful rearing by his widowed mother, the former Anne Whiting, who instilled in the growing boy her own principles and the deep love of America which had been one of the strongest characteristics of her beloved husband, John Charles Fremont Sr.

The author goes to great lengths to make it clear that a man of Fremont's character and personality could never have knowingly done the things of which he was later accused—when personal animosities and intrigue in high places plus governmental inefficiency threatened to end Fremont's brilliant career while he was still a young man.

The book makes easy fascinating reading. At times the author's geography is obscure, at least to a person not already familiar with this nation's early history, but the book does present in a pleasant manner a vast amount of history and graphically pictures the period of western expansion. Alice Eyre also paints intimate character portraits of many other people who played important roles in the winning of the West, and cleverly keeps events in Washington and events in the wilderness running along concurrently. The importance of Fremont's young wife, Jessie, to his work and his success is emphasized. It is almost as much a biography of Jessie Benton Fremont as it is of her gallant husband.

Published by The Fine Arts Press, Orange, California. 400 pp, 6 maps, index, biblio. and chronology of U. S. western explorations up to 1941.

John Steinbeck spent six weeks on the Gulf of California

SEA OF CORTEZ

By John Steinbeck and E. F. Ricketts

Here is the record of an expedition into the lonely Gulf of California. It is a book of science for the scientist, a book of philosophy for the philosopher, and to the average man an adventure in living and thinking.

Sea of Cortez is a book to be read and remembered. It is a journey through a remote and beautiful corner of the world, a diary filled with the daily excitements and triumphs of skilled energetic men. It is also an invitation to see the world anew from a fresh vantage point and perhaps with a broader and more understanding spirit.

\$6.50 postpaid

(California Buyers add 3% sales tax)

DESERT CRAFTS SHOP

Palm Desert, California



For the motorist who demands the best!

Royal Triton is the famous purple oil designed to meet the lubrication needs of the finest precision-built motor cars. 7600—the gasoline of the future—more than meets the power requirements of today's highest compression engines. This distinguished combination is available at the sign of the seventy-six.

U N I O N O I L C O M P A N Y