

THE

Desert

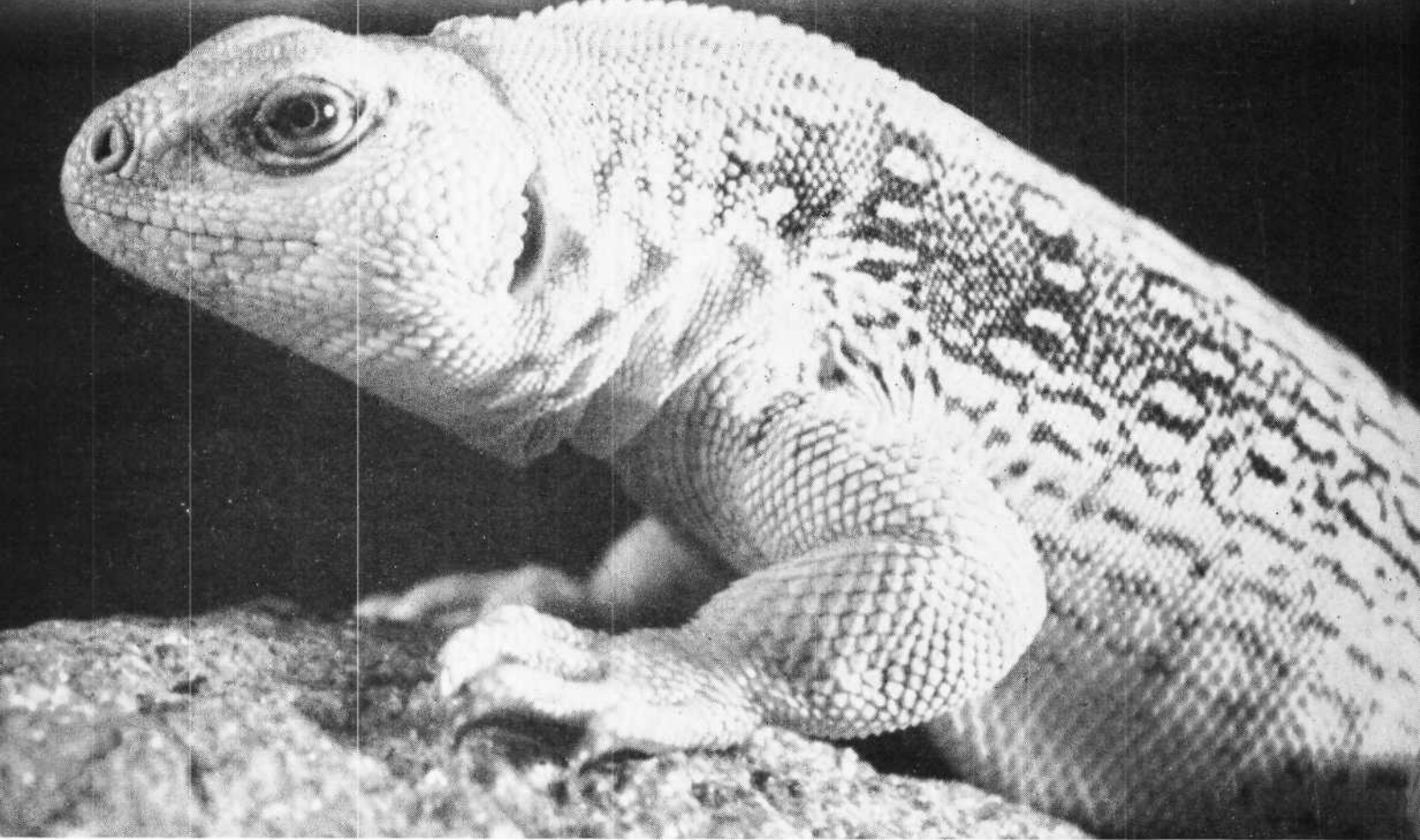
MAGAZINE



NOVEMBER, 1946

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. . . Prize Winning Photos . . .

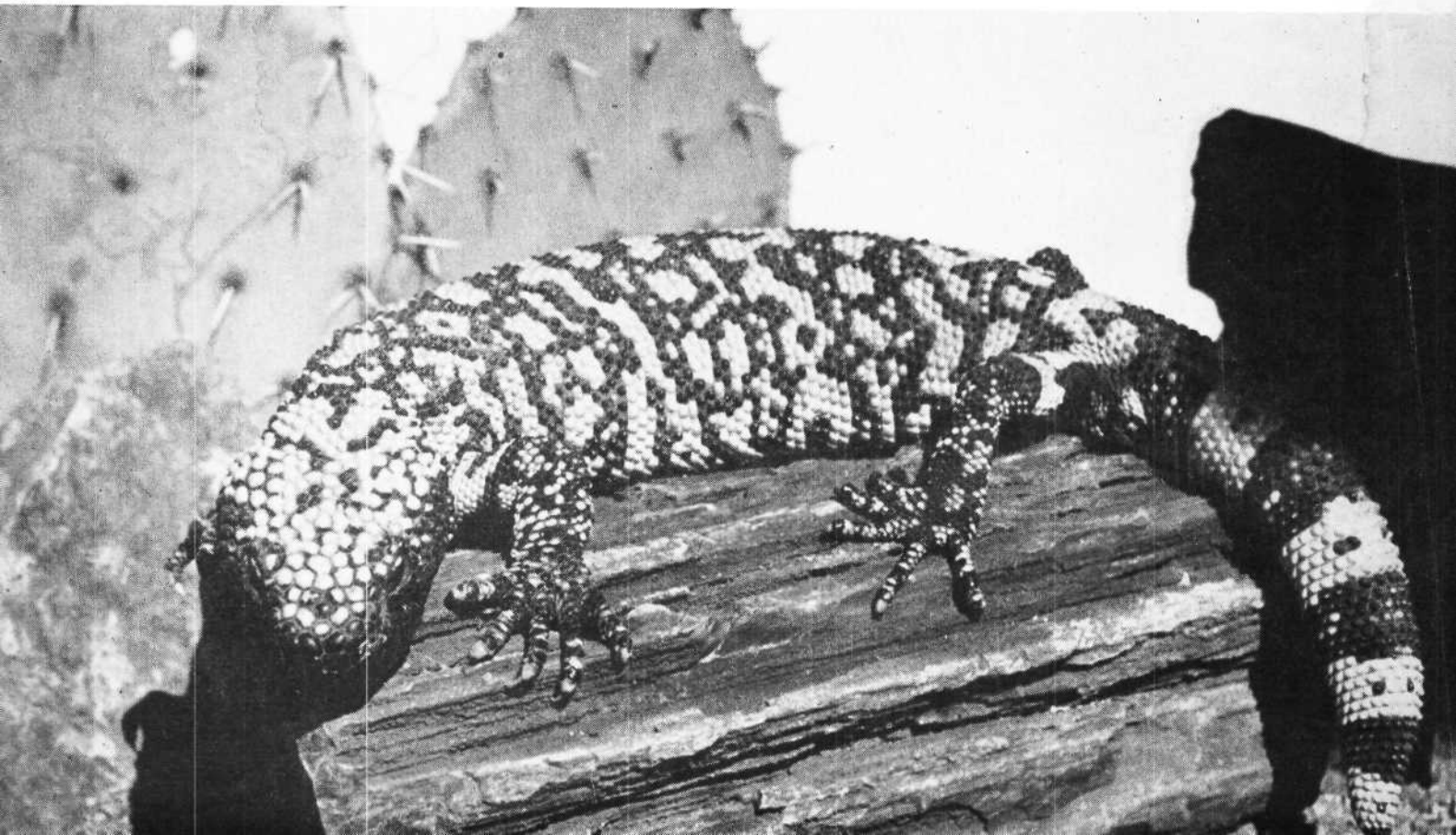
DESERT CRESTED IGUANA

Winner of first prize in Desert Magazine's September "Reptile" contest is this photograph taken by Dr. R. B. Cowles of Los Angeles. This iguana is part of the "zoo" of the biological laboratory at the University of California, Los Angeles. This is a floodlight photo taken with a Contax.

GILA MONSTER

Second prize winner was Claire Meyer Proctor of Phoenix, Arizona.

Photos of merit purchased from contestants for future use in Desert included an Alligator lizard and a Sidewinder by Dr. Cowles, and a Scorpion photographed by Harry W. Dacquet near Daggett, California.



DESERT Close-Ups

• Toney Richardson has spent most of his life in the Navajo country. His father is trader at the Inscription House trading post near Tonalea, and Hubert Richardson of the Cameron trading post is his uncle. Toney not only speaks, but can think in Navajo. During the past 10 years he has written 40-odd western fiction novels, most of them published in England. Following his return from the South Pacific a year ago where he served as a naval officer, he decided he wanted to do some writing for the "slick" magazines, and he selected DESERT as his first choice of markets. So—this month we print the first of a series of feature stories written by a man who really knows the Navajo country. Gladwell Richardson is his real name—but to DESERT readers he will be known, as he is known to his close friends—as Toney.

DESERT CALENDAR

- Nov. 2—State conference of Centennial beautification committees, Hotel Utah, Salt Lake City. To plan campaigns to prepare and beautify state for Centennial observance in July, 1947.
- Nov. 2-6—28th annual livestock show, Ogden, Utah. At Ogden Union stockyards.
- Nov. 6-9—Annual Turkey show, Hemet, California.
- Nov. 9-11—Sierra Club, Southern California, led by Frank A. Schilling, will visit Parker Dam and vicinity.
- Nov. 8-17—Arizona state fair, Phoenix. Special exhibits by Mineralogical Society of Arizona.
- Nov. 15-17 — Branding-time rodeo, Tucson, Arizona. Junior chamber of commerce.
- Nov. 17—Annual all-breed dog show, Palm Springs, American Legion.
- Nov. 17-18—Fall rodeo and show, Palo Verde Rodeo and Livestock association, Blythe, California.
- Nov. 30-Dec. 1—Show of minerals, gems, lapidary and fluorescence by San Fernando Valley Mineral and Gem society, North Hollywood Recreation center, 5301 Tujunga Ave., North Hollywood.

HUNTING SEASONS

- Nov. 1-17 — Deer season throughout Arizona, except Kaibab North national forest. Desert mule deer south of Gila river, Nov 11-17 only.
- Nov. 1-17—Turkey season in specified Arizona national forest areas.
- Nov. 10-21—Regular big game season, New Mexico. Apply State Game Warden, Santa Fe.
- Nov. 20-Dec. 4—Elk hunt, Arizona. Applications during October: H. L. Reid, director Arizona Game and Fish commission, Phoenix.
- Nov. 23-Jan. 6—Ducks, geese, mudhens, California counties of San Bernardino, Riverside and Imperial. Same dates, New Mexico.
- Nov. 26-Dec. 15—Scaled or Gambel quail, New Mexico. Pheasants, special New Mexico areas only, Nov. 23-25.



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RANDALL HENDERSON, Editor. LUCILE HARRIS, Associate Editor.
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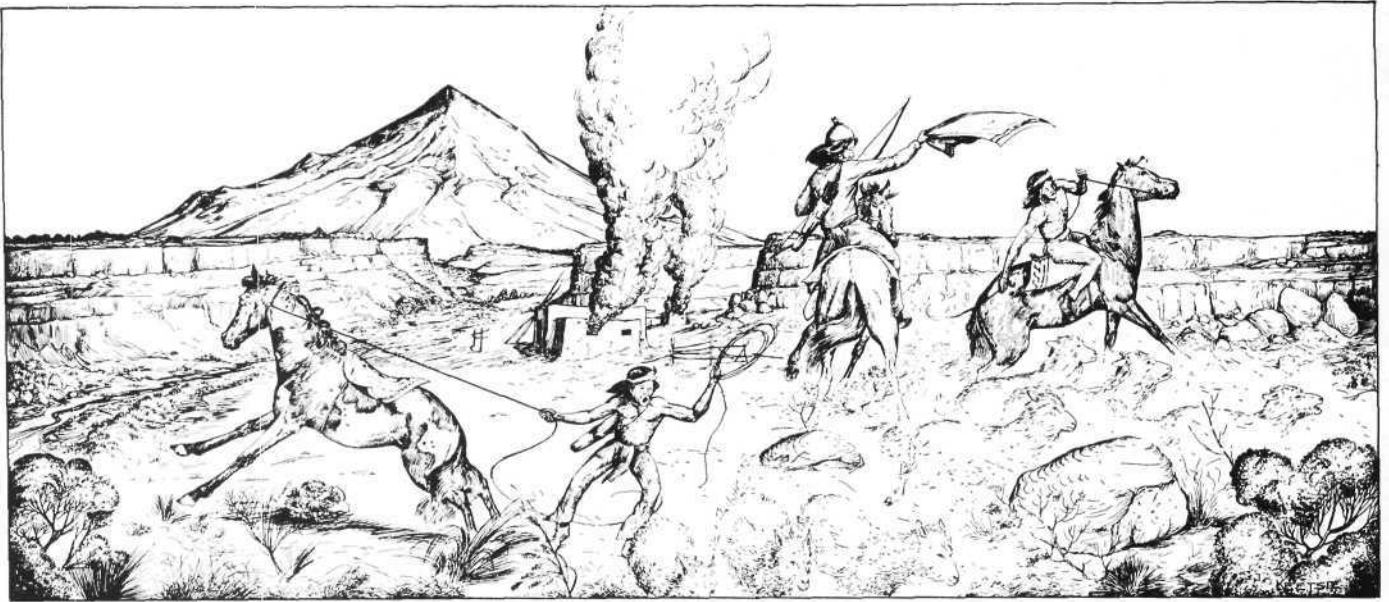
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Navajo raid on the Mexican settlement of Cubero, led by Manuelito, as envisioned by Charles Keetsie Shirley, Navajo artist.

Last Powow of the Navajo

Headmen of the Navajo tribe were assembled on the plain near Chinle, Arizona. They were to decide between war and peace with the white men. Nataleeth, the chief medicine man, presided. He counseled peace. "The soldiers you see at Fort Defiance," he said, "are as only one hair on the back of a thousand fleeces. They are a great and powerful tribe." But the oratory of the war chiefs prevailed and an attack was made on Fort Defiance. Four years later the Navajo had been subjugated and most of them were prisoners at Fort Sumner. Here is the story told by an aged Navajo who was present at the last Powwow.

By RICHARD VAN VALKENBURGH

L YING comfortably against the pile of goatskins I had laid by a juniper tree, Old Nata, the Navajo, watched the twilight turn into deep blue the sun-tanned flats of *Tsin sikaad*, Tree Setting Up, 12 miles northeast of Chinle, Arizona.

Finally turning to peer at me through slits of eyes set deep in a leathery face that was not unlike that of a mummy I once had dug in the Canyon del Muerto he whispered, "Build up the fire. 'Tis a place of ghosts! For it was here over one old-man's-life that *Nataleeth*, Going to be Chief, made a prophecy before the last *Natch'it* or Tribal Assembly."

Right then my ears sharpened! Was this old friend, who had always been so reticent of the past, going to talk of that last politico-religious assembly of the Navajo era before the white man? Had he brought me to *Tsin sikaad* to give me on the spot first hand information on the ceremonial that was practically unknown to ethnologists?

Seeming to sense my excitement there was a trace of a smile on his face as he said,

"Lay by these crumpled hands that pack of cigarettes I see looking at me from your pocket. Old men don't talk well without the comfort of tobacco. Then I am going to tell you of something of which few Navajo and no white men know!"

With our fire blazing comfortably and Old Nata settling down to chain-smoke my cigarettes, the story was told. As it unfolded I realized I was listening to the saga of a great Navajo and of an event long buried in the dust of Navajo memory.

"I was born near *Tséhootso*, Meadow in the Rocks, or what you call Fort Defiance. When I was still bound to the cradle board the soldiers came. They drove my family away from their hogans to hide deep in the forests under Fluted Rock. My first memory came while we were starting to fight the blue-coats.

"When I had passed five winters news came that the soldiers were building a log and sod fort near our sacred springs at *Tséhootso*. As these springs were used by our medicine men for offerings and medicine, the People were angry and started to fight. But many were held back by the

chiefs who said, 'Wait! We will destroy them when the omens are right!'"

Old Nata had been born before 1847 and was in his 90th year when he told the story. It was in 1849 that Colonel John Washington and his troops had a skirmish with the Navajo at *Tséhootso*. And it was the fall of 1851 when Colonel Edwin V. Sumner established Fort Defiance.

"It was in my 12th summer that word came to my grandfather that the chiefs had summoned the tribe to a powwow to be held at *Tsin sikaad*. This meant a tribal emergency. It could mean peace, or it could be war. From all corners of Navajoland the People got ready to move toward this place.

"With the falling of the white blossoms of the carrizo my family began to leave their summer camps near the head of *Nazlini* canyon. Led by my grandfather, who was local headman, we moved through the forest with the sun. Our travel toward the Chinle valley was slow, for we had to scout ahead for the enemy.

"I rode in the middle with the women, old folks and little children. Led by fast walking bell-goats our flocks moved right along. Strung out behind were the mules loaded down with everything we needed for a long camp. Ahead of us, behind us, and on our flanks rode the warriors.

"Swinging out of the forest by 'Where the Rat Ran Out' we crossed the Chinle valley upstream from the mouth of Canyon de Chelly. After striking the broken country off Blackish Mountain we went north toward Round Rock. We did this for we

heard that there were soldiers camped near the site of present Chinle.

"Just below Round Rock we again crossed the Chinle wash traveling east. Long before we reached this place we could see the grey pall of smoke that hung in the sky, for the fires were numerous. And from this knoll upon which we now rest I had my first sight of the assembly.

"The flat was covered with people. In the center was a ceremonial hogan partly under the earth. To the east there was a cleared dance ground. Outlining this was a fence of spruce boughs which I later learned had been brought down from the Lukachukai mountains.

"As my family went into the encampment we moved to the south side of the hogan. This was according to the tribal status of my grandfather who was one of the 12 Peace Chiefs. Those who followed the 12 War Chiefs were camped on the north side of the ceremonial enclosure.

"We soon learned that runners had been sent by the head chief of the tribe to get medicine. He is known to white men by the Mexican name of Sarcillas Largo. South-

NOTES ON NAVAJO WORDS USED IN TEXT

Natch'it, naa-chit—Said by some to refer to semi-subterranean hogan used in ceremony. By others to refer to gestures used in dance. In this feature the word Tribal Assembly or assembly is used.

Tsin sikaad, sin-see-cod—Tree standing. Common descriptive term. This particular location is 14 miles northeast of Chinle, Arizona.

Nataleeth—Going to be Chief. Known in literature as Sarcillas Largo, or Big Head.

Tsehootso, say-hoe-tso—Meadow in the rocks. Fort Defiance, Arizona.

Bilakana, bill-eh-cana—Americans.

Nanit'ani, nah-knee-tah-knee—Old term for natani, headman.

Ashiih, ah-she-ee—Salt.

Asdzaan, Oz-saan—Woman.

Nashtui, nash-too-ee—Wildcat.

Yanbaa, yahn-bah—Woman who met the enemy. Common woman's war name.

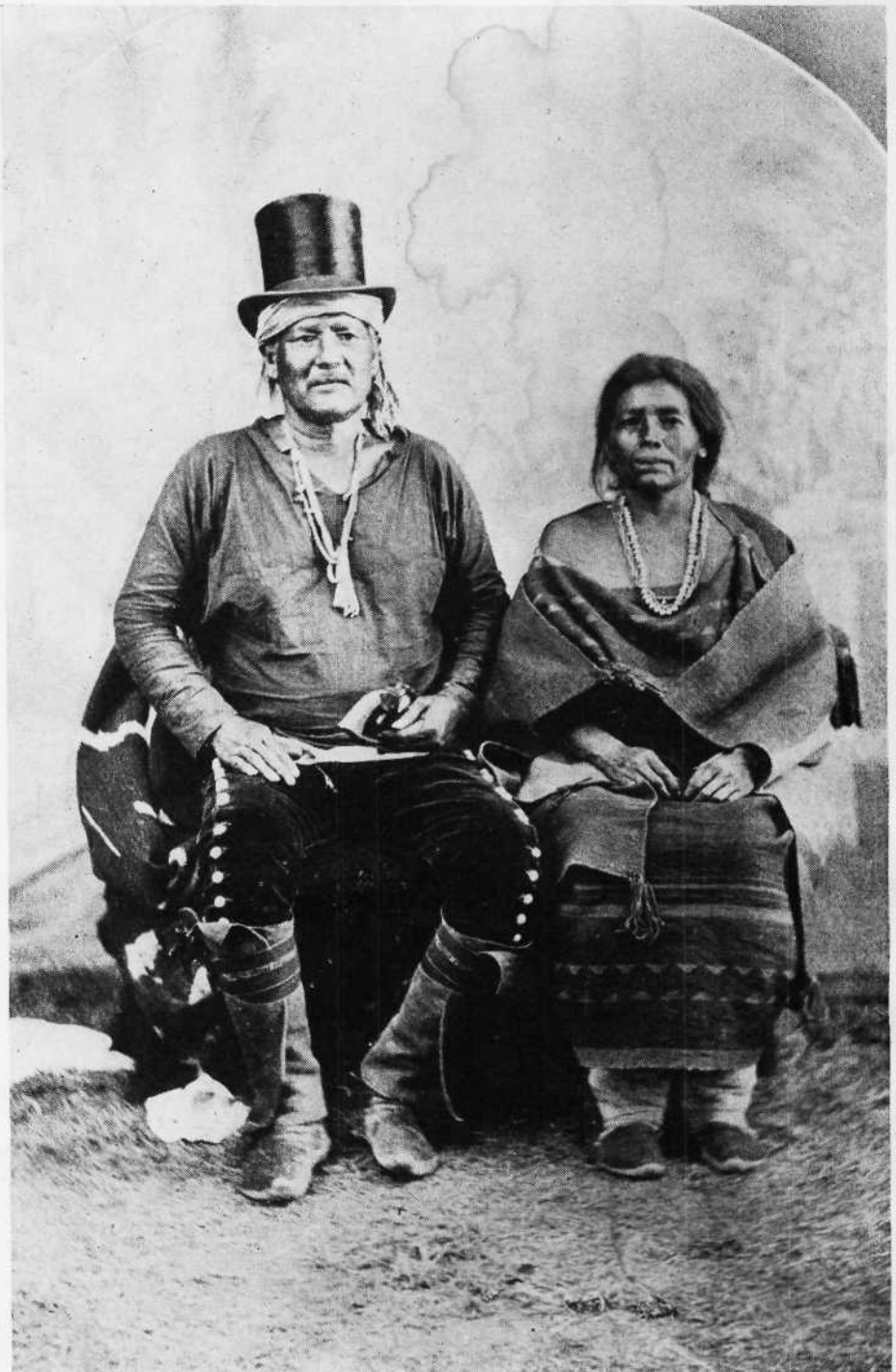
Tsegi' hastsosi—Slim rock canyon. Common descriptive term. One referred to in this text is that a few miles south of Chinle, Arizona. Other is northwest of Kayenta, Arizona.

Nahobáni, nah-hoe-bah-knee—Man of war. Refers to famed war chief who lived during early half of 19th century. Grandfather of Henry Chee Dodge on mother's side.

Nabá jhlta—Warrior grabbed enemy. Probably first time used in print. War name for Manuelito who was commonly known in American era as **Hastin Chilhazhin**. Mr. Blackweed.

Ba'ith lichii—Red Shirt. Navajo name for Captain Henry Lafayette Dodge, agent for the Navajo (1854-1856).

Chindi, cheendee—Ghosts or evil spirits.



Picture made in 1884 of Manuelito and his elder wife. Known as Naba jhlta, Warrior Grabbed Enemy, he was one of the chiefs who counseled war against the whites. Photo courtesy Arizona Pioneers' Historical society.

ward, 12 of the finest young men and women of the tribe ran toward the sacred lake of Ashiih, the salt lake south of Zuñi.

"Avoiding the main trails of the Zuñi and their Mexican friends they came to the white-rimmed lake. While they scooped up the salty mud a medicine man chanted. I can remember only a part of this—

*Over the Trail to The South
We have traveled
Over this Trail of Beauty
We have traveled to Ashiih,
the Salt Place.*

"With their buckskin bags filled they turned northward. In four days they came to this place. I was among those who watched them as they ran across the flat and then descended into the hogan. As they laid down their bags of salt the greatest medicine men in the tribe began to chant:

*Over the Turquoise Trail
Over the Holy Trail
The Pure Youth of Navajo
Have traveled to Ashiih.*



Black Rock, three miles south of Fort Defiance. It was here in 1858 that Manuelito and his warriors attacked a wagon train supplying the fort.

In the depths of the hogan the only light came from two coals that gleamed like the eyes of *Nastui*, the Wildcat. Shaking the turquoise in his buffalo-hide rattle, *Nataleeth*, the medicineman-chief led the chanting from his seat on the westside of the chamber.

"Against the north wall sat the aged and fierce *Yanbaa*, the Woman Who Met the Enemy. Beside this famed warrior were the six maidens who had returned with sacred salt from *Ashiih*. And against the south wall sat the chiefs and the six youths who had accompanied the maidens."

"Between chants *Nataleeth* instructed the girls and boys as to the significance of their part in the ceremony, 'La! You have been chosen from the best families of the People. For eight nights you shall be told the secrets of the *Natch'it*, the Powwow. And on the ninth you shall dance for the gods!'

"Outside in the waning moonlight a rose glow reached into the sky from the fusing of a thousand fires. Awed and intent the People listened to the faint sound of the chanting. And even when the grey announced the coming of dawn the Navajo stood waiting to learn what the new day would bring.

"When the sun reached five fingers above the line made by the *Tonitsa* range, *Nataleeth* opened the Assembly. Seated in the center of the dance ground were the 24 chiefs of the tribe. On the north sat the War Chiefs and on the south were the Peace Chiefs.

"Lying between them was a pile of war gear. There were bows and arrows, lances with sharp metal points, shields with pictures of lightning, rainbows, the sun and other things. We knew then that the Assembly had been called for war. For had it

been for peace there would have been digging-sticks, carrying-baskets and other domestic implements.

"*Nataleeth* lifted his hand as he rose to speak, 'La, Brothers. It is seven seasons since we held the *Natch'it* on the flats below *Tségi'botsosi*, Thin Canyon, on the other side of *Chinle*. At this time the great *Nababani*, Man of War (now dead) called us together to make war on the Mexicans and *Bilakana* (white) soldiers who were building a fort at our sacred springs at *Tséhootso*.

"I was younger then. Agreeing to follow the war trail I made medicine for the

warriors. On the Rio Grande the Mexicans cried when we stole their women and burned their houses. I was among those who attacked the supply trains coming to Fort Defiance. And in the rocks behind my hogans are the scalps of the enemies I have killed.

"Blood revenge for my nephews who were killed near Wide Reeds, which the Mexicans call Pueblo Colorado, has never been taken. Women of my family are now slaves weaving blankets for the Mexicans. And in the last big ripening soldiers burned my hogans and corn fields. With you I have suffered!"

"With this the War Chiefs' faces grew angry. A cloud passed between the sun and the earth. As a misty red light came down on the assembly a young warrior jumped to the side of *Nataleeth*. With his bow in his hand he stood there stripped and painted just as the warriors did before they attacked."

Hazarding an interruption I questioned, "Tell me something of this, Grandfather. What did he look like?"

"All he wore was his breech clout. The upper half of his face was painted white while the lower was black. And across the front of his body were wide stripes of black, yellow and red. And on his feet were moccasins painted black. And on the soles were painted snakes to give him the guile of that reptile.

"People whispered, 'Tis *Naba jibltá*, Warrior Grabbed Enemy.' This one who was later known as Manuelito began to shout, 'We will stop this suffering. I, who was born in four days will lead the Navajo. We will make war and drive these blue-eyed ones from Navajoland!'

"Running around in circles the elo-

Fort Defiance today. It was founded in 1851 on the site of the sacred springs known to the Navajo as Tsebootso, Meadow in the Rocks. It was their attack on this fort which eventually led to the complete subjugation of the Navajo.



quence of the young warrior began to stir up the flames in the blood of the People, 'Have I not just returned from Water-in-Crevise which the Mexicans call Cubero? Did we not steal women and horses from under the very eyes of the soldiers camped there? These few men who have invaded Navajoland cannot defeat us if we fight!'

"For four days the young warriors talked like Naba jhlta—bragging of their deeds and telling of how they always defeated the Bilakana in battle. Finally the Peace Chiefs began to agree with them. In sorrow Nataleeth rose to speak when the tribe agreed to continue the war against the invader:

" 'Brothers! I see things different. Not that my blood has grown thin. No! Not for any reason that I myself fear. You all knew and respected our great friend, *Ba'ith lichii*, Red Shirt whom the Bilakana called Captain Henry Dodge. You know that when he spoke he traveled in the straight path.

" 'It is his teaching that changed me. For in my visits to his stone house in the eastern opening of Washington Pass I have learned many things about these men you intend to fight. They are not like the Mexicans. For they have magic that makes me fear for the People!'

Historically, Henry Lafayette Dodge, or Red Shirt, to whom Nataleeth referred, was one of the most effective of early Navajo agents. Taking over the affairs of the tribe in 1854 he married the niece of Nataleeth and gained great influence therefrom. Upon his murder by the Chiricahua Apaches in 1856 south of Zuni the delicate peace between the Navajo and the Americans soon snapped.

" 'The soldiers you see at Fort Defiance are as only one hair on the back of a thousand fleeces. Look how quickly they swallowed up the Mexicans. Red Shirt told me that their main camps hold over ten thousands of hogans. And that many are piled on top of each other as many as eight times! They are a great and powerful tribe!

" 'For four days the War Chiefs led by the eloquent Naba jhlta have been stirring you up to fight these people. Now you have agreed to follow them instead of the Peace Chiefs. With this my power is gone. No longer can I sing Going-to-War songs. For as with many of you—I am going to die!

" 'Last night I had a dream. The four sacred mountains were smothered in a black fog. Inside the whole of the Navajo country was void. No Navajo moved in the sandy deserts, on the spruce tipped mountains, or in the deep canyons. All that broke the silence was the howl of the wolves and the whining of the Black Wind of Death!

"Finishing, Nataleeth never sat down

again. He called for his horse and as he rode away Naba jhlta laughed at the prophecy and said to his warriors, 'Ti! Come. There's a wagon train moving toward Black Rock. After that we will start getting ready to attack Fort Defiance itself!'

"But many of the People refused to go. For they were frightened. They stopped the meeting right then and started moving toward their camps. I remember as they spread out in all directions like spokes in a great wheel. They moved in fear that the great medicine man's prophecy might come true.

"In the following year a thousand warriors attacked Fort Defiance. They suffered defeat and many were killed. Life was never safe for soldiers moved all over the country. And in the fourth year after the Natch'it, Nataleeth ran into a Zuni war party at Sage Brush spring. When the fight was over our great chief was dead!

"Hearing this my grandfather said, 'It is starting to come true. Pretty soon we will all be dead. It won't be long until there

are no Navajo around here. It will be just as Nataleeth said. There will be only wolves, and all other kinds of things that like to live with our *chindis* or ghosts.'

Taking advantage of the break that the old Navajo made at this point, I asked, "And did the prophecy come true, Grandfather?"

Looking down across the sweeping flat where shafts of moonlight were coming down through a rift in the clouds to cast a soft blue light over the historic site where some 78 years before Nataleeth had made his dire prophecy, Old Nata was silent a long time before he answered with great sadness in his voice:

"From that time on you people wrote the history of the Navajo. Everyone knows that Kit Carson with his Mexicans and Utes came into Navajoland like wolves and brought blood and sorrow to the People. And that in less than six moons most of the Navajo were starting on their 'Long Walk' into captivity at Fort Sumner, New Mexico. Need a Bilakana ask if the prophecy of Nataleeth came true?"

Sez Hard Rock Shorty of Death Valley



"Naw, we don't have no woodpeckers aroun' here," Hard Rock Shorty was explaining to the new Park ranger who had just come to Death Valley monument. "Ain't no wood fer 'em to work on—nothin' except those ironwood trees down on the lower end of the Mojave, an' the only woodpecker ever tried to drill a hole in ironwood busted his beak and starved to death.

"Remin's me o' the time ol' Pisgah Bill got one o' them smart idears o' his'n. Bill wuz workin' on a tin prospect over th' other side o' the Vinegaroon mountains. Took a lot o' blastin', and Bill run out o' drill bits. They was a war goin' on, and nobody had any bits t' sell. So Bill sat aroun' broodin' over his bad luck.

"Then one day he sez t' me. 'Shorty,' sez he, 'I don't need no drill bits. If you'll loan me that ol' truck o' yours fer a few days I'll get some-thin' to drill them holes.'

"So I let 'im have the truck an' a few days later he shows up with a big crate full o' woodpeckers. 'Got 'em over'n Arizony,' he sez, 'where all them woodpeckers live in the big cactus.'

"Next mornin' Bill wuz up early, fussin' around over at that ol' rock house by the spring. A few days later I wandered over there an' Bill explained what he wuz doin'. He had closed up all the windows with rock, all except one little hole that wuz covered with glass from an ol' car windshield. An' the woodpeckers wuz all inside.

" 'Yu see that petrified log standin' in the middle o' the floor,' sez Bill. 'I brought that back from Arizony too. Now them birds has got no place to go, and no place to drill holes 'cept in that petrified tree. I figger if they work on that awhile they'll get their peckin' tool so tough they can drill holes in rock. Then I'll take 'em down in the mine. Ain't much light in the stone house so they'll be sorta used to workin' in the dark.'

"Well, a couple months later Bill wuz lookin' kinda droopy and I ast him how the birds was gettin' along.

" 'Hell!' he said. 'Them peckers got their bills plenty tough alright. I went out to look at 'em this mornin' and they wuzn't a bird in the house. They'd drilled a hole through the side o' that stone house an' gone back t' Arizony!'

From this base camp in Palm wash in the Borrego badlands, Henry Wilson conducted many of his later-year quests for the Pegleg gold.

Off and on for 46 years, Henry Wilson has been trekking over the Colorado desert of Southern California in quest of the lost Pegleg gold—the black nuggets which according to legend are exposed on the top of one of three hills. Despite his many disappointments Henry believes the essential facts of the Pegleg story. And here is the evidence on which his confidence is based.



'Lost Pegleg Gold is not a Myth'

By HENRY E. W. WILSON

I FIRST read the story of the Pegleg mine in the Los Angeles Express of July 13, 1900. Very much the same story, with additional commentary, was written by Charles Michelson and published in the Munsey Magazine for December, 1901.

At that time I had no thought of going to the desert to seek this lost treasure, or for any other purpose. But I met, by chance, Frank Hike, who told me he was going to drive a team and wagon to the desert of the Lost Pegleg in October, 1900, and offered to take me with him. I accepted the invitation, and quit a good job in Los Angeles to search for riches on the Colorado desert.

Hike did not believe the Pegleg story, but had found rich dirt in a canyon of the Santa Rosa mountains, and he was making the trip to relocate the claims.

We drove by way of Lake Elsinore, Temecula, Warner's ranch, Julian and Borrego spring. Before we reached the Santa Rosas, Hike was forced to abandon the trip for family reasons.

However, not far from where we were camped when he turned back, lived John Collins and wife and three children. When Hike left me I moved my camp close to their home in Coyote canyon, and from

that point began my long search for the Lost Pegleg.

I bought a burro, and as Collins owned four of them we had a good outfit. We followed Indian trails around the end of Santa Rosa mountains where we both got our first view of Salton sea, which was then virtually a dry basin with the New Liverpool Salt works in full operation near the northwest end. I remember stopping at the edge of the salt field and using some of the salt to season my food. On the same trip I picked up the bowl of a small pipe hollowed out of pumice stone. It had two holes in which to insert stems, and I wondered, and still do, if it was intended to be used as a peace pipe to be smoked by two persons. There was no evidence it had ever been used.

There is much pumice float between Salton sea and the Santa Rosa mountains, but it is in small pieces. On the northeast side of the sea along the Southern Pacific railroad I have seen large chunks of pumice, while at the southeast end is an entire butte of pumice and obsidian. There is widespread evidence of ancient volcanic action in this area.

We found no mineral deposits worth locating, and after a three-month search I returned to Los Angeles. However, every

winter for the next three years I returned to the desert to continue my explorations with Collins. We looked the desert over very thoroughly—the Borrego badlands to the south of the Santa Rosas, the Fish creek and Carrizo mountains, Vallecito and Mason valley and as far west as Campo.

We traveled over desert mountains and followed Indian trails. We slept on the sand under the stars until the lure of this indescribable region of solitude and pastel colored hills became so deeply rooted that neither of us ever outgrew it. We became rich in camp experience and Indian lore, which Collins obtained from the Indians living at San Ignacio reservation.

The chief of the latter group, Bernado Segundo, since deceased, was a well-educated and very intelligent Indian who spoke good English. I met him on two occasions, and liked him. Collins talked with him often. One of the subjects he discussed with Collins was the fish traps we found near the old shoreline of ancient Lake Cahuilla. These traps have been under water since 1906 when the Colorado flowed in through an emergency intake of the Imperial irrigation system and filled the basin.

These traps were enclosures shaped like a mule shoe with the opening on the land side, and were made of fairly large rocks. As Bernado explained it, the fish were stranded in these enclosures when the level of the sea dropped, as it often did. Many people have confused the Indian fish traps with the circles of rock which the Indians piled up at the base of their circular hogans. But it is easy to tell the difference if one remembers that the traps were oblong with their opening away from the sea, while the hogan bases were round with the opening facing the sea. The latter generally are on higher ground.

From many sources we heard stories of lost mines, buried gold and other legendary treasure, but as to finding anything with which to buy beans, we drew a complete blank.

In the fall of 1903 I gave up the hope of bringing into town a million dollars worth of nuggets from their well-hidden resting place, and it was not until 1920 that the old urge caught up with me again—and it has never left.

Since then I have made many trips—sometimes with companions, often alone. I have seldom failed to interest listeners in my story, and have raised more than one grubstake just by talking, for I always had plenty to talk about. The Pegleg story which led to all my wanderings may be told briefly as follows:

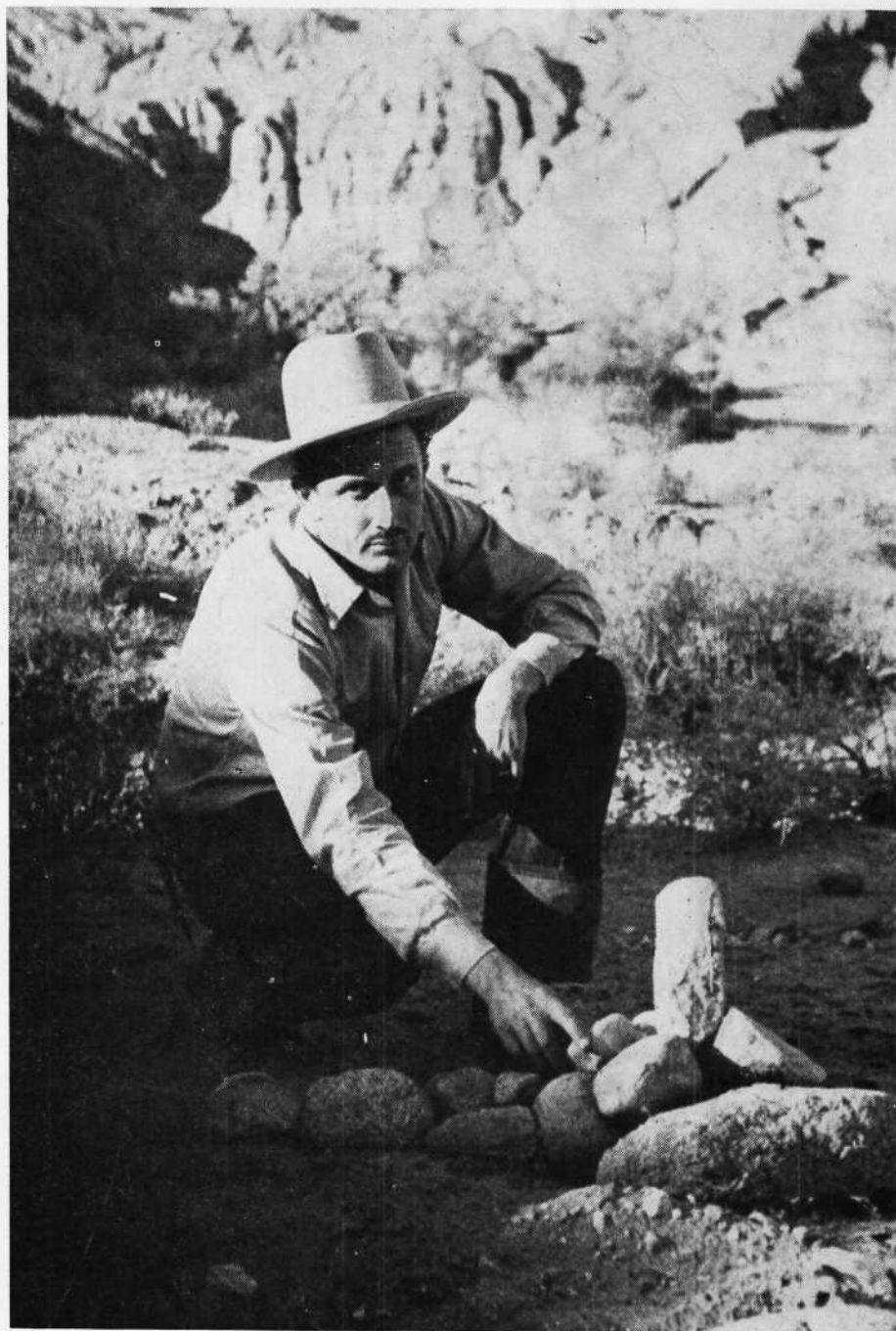
About the year 1852, John O. Smith, known as Pegleg Smith, journeying from Yuma to Los Angeles by way of Warner's ranch, attempted a short-cut across the desert. He was familiar with this part of the Southwest, having been a horse-trader and guide.

Somewhere in this desolate region he climbed one of three hills, on the top of which lay a quantity of black lumps of metal which Smith took to be copper. He picked up a few for his collection of curiosities. Arriving in Los Angeles he showed his "native copper" to a mining friend who pronounced it pure gold. Though coated with black desert varnish, the nuggets were the real thing beneath the surface.

The news quickly spread, and Smith was followed to San Bernardino where he outfitted for a trip that was to make him rich beyond his wildest dreams. Taking three or four friends he left in the night for the new El Dorado. Later, all that was left of Smith and members of his party were found on the edge of Salton basin. Smith was never heard of again.

A few years later a discharged soldier from Fort Yuma made a journey over about the same route, climbed the hill, and discovered the same black nuggets. He knew gold and took as much as he could carry to Los Angeles. Then, like Smith, he returned with two companions to get more. As far as is known, he never relocated the three hills, and a few years later the three bodies were found in the foothills of the San Ysidro mountains 30 miles west of Salton sea.

Nothing more was heard of the "burned black gold of the Pegleg" as it was spoken of in those days, until about 1876 when the Southern Pacific railroad company was building its line. One day an Indian woman staggered into the railroad construction camp at Salton, nearly dead of thirst. After being revived she related how she and her buck started from the reservation at the head of the Rio San Luis Rey to go to the Cocopah reservation near Yuma. Their canteen leaked, and her man had died of thirst. She wandered two days in search of



Howard M. (Barney) Barnes points to one of the old trail markers in the Borrego badlands where much of the search for the Pegleg nuggets has centered.
Photo by S. P. Stilwell.

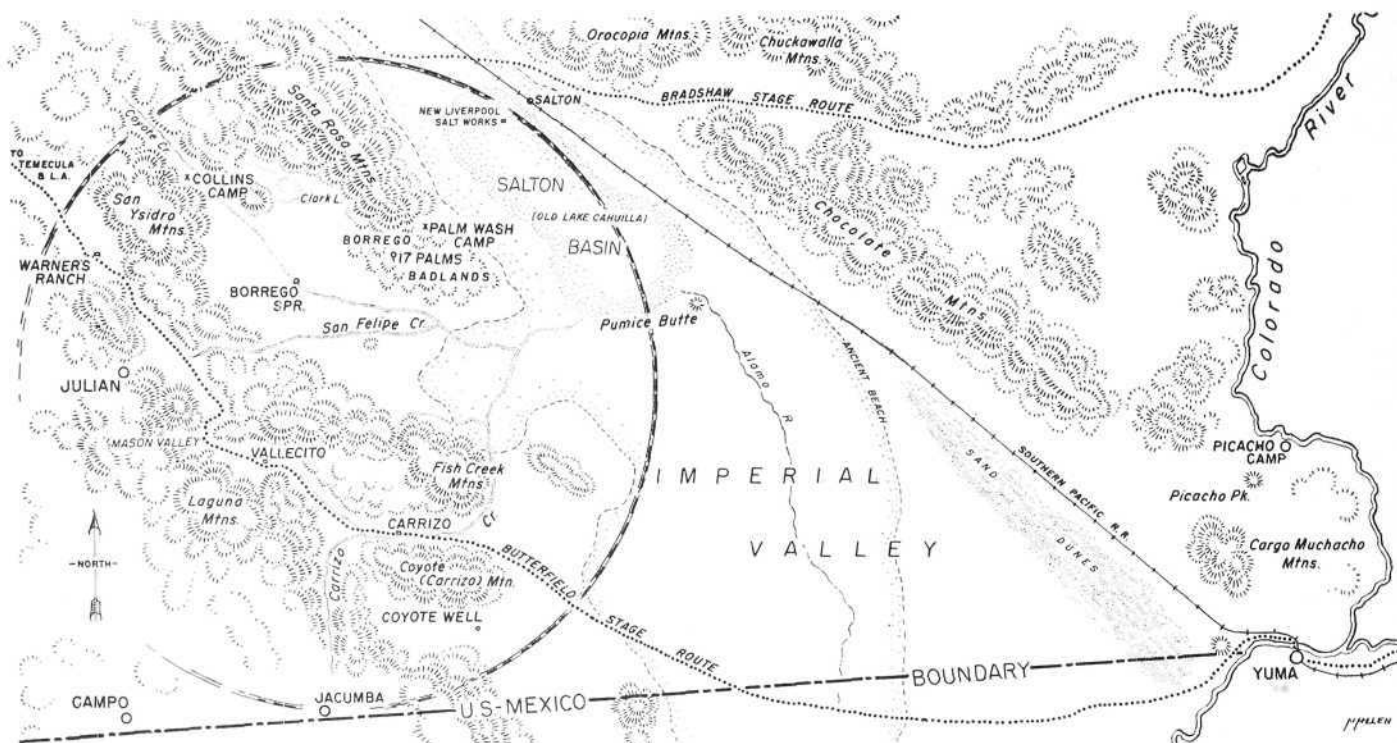
water. Once she climbed one of "tres picachos" and from there saw the smoke of the construction train. She showed a bandana full of black nuggets, giving one to the engineer in charge of the camp. Then she resumed her journey and was, never seen again.

The fourth and last time the black gold was actually known to have been found on the three hills was a few years later. A half-breed working on Warner's ranch appeared one day, after a trip to the desert with a quantity of black nuggets. When the coins he got in exchange for them ran low he disappeared and eventually returned with more gold. He covered his

tracks well, and the secret source of his wealth remained undiscovered. On one or more of these trips he took his wife Carmelita with him. When he finally was knifed in a brawl, more than \$4000 in coarse gold was found in his bunk.

When Carmelita was questioned, and offered a share if she would lead others to the gold, she said: "We left early in the morning, camped at the 'Spring of the White Ledge,' and when the sun was so high (pointing to the sky), we would be where the gold was." Her questioners never found the gold, nor does history reveal they even found the spring.

Collins and I believed we located the



The Colorado desert of Southern California as of 1900. The circle encloses approximately the area in which the author of this story has carried on his search for the lost Pegleg gold.

spring in an almost inaccessible part of the Santa Rosa mountains in 1920. It was good water which seeped from a wide ledge of feldspar—the white ledge.

On one of the halfbreed's trips to the desert he was met by Tom Cover, former sheriff of Riverside county, who was hunting horse thieves. Cover and a friend named Russell drove out to the desert some time after the halfbreed's death. At the place where they had seen the Indian they separated, Russell driving the team to an appointed meeting place while Cover proceeded on foot.

Cover was never seen again. Russell returned to Riverside and although Mrs. Cover offered a reward of \$5000 for the recovery of her husband's body, no trace of it was ever reported.

In 1902 I went to Riverside and interviewed both Mrs. Cover and Russell. The latter told me that when he and Cover separated, the sheriff had a nugget of gold from the Pegleg mine, and a map of its location.

It will never be known how many lost their lives in the search of this legendary treasure, but according to the reports which have come to me during the 46 years I have been interested in this lost treasure, the number is very great. Water is scarce in that region, and the terrain is so rugged as to make travel impossible except to a man with a sure-footed animal.

However, that such a deposit exists hardly can be doubted in view of the recurring evidence which has come to light during the 94 years since Pegleg Smith made the original discovery. Gold from it

has been coined into U. S. money, according to good authority. In my opinion the story is in no sense a myth as in the case of many of the lost bonanza tales.

Until this gold is rediscovered, if it ever is, the Pegleg deposit of black nuggets will remain one of the unsolved mysteries of the Southwest.

SUNSETS Picture Contest

Colorful sunsets are one of the many enchantments of the desert country. Often the cloud formations are so bizarre as to make excellent black and white pictures—and those are the ones Desert Magazine is seeking for its November prize contest.

First prize is \$10, and second \$5, and for each non-winning picture accepted for publication \$2.00 will be paid. Pictures must reach the Desert Magazine office by November 20, and the winning prints will be published in the January issue.

HERE ARE THE RULES

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

ADDRESS ALL ENTRIES TO PHOTO EDITOR, DESERT MAGAZINE.

THE *Desert* MAGAZINE
EL CENTRO, CALIFORNIA

Glyph Hunters in the Indian Country

On thousands of rocks in the desert Southwest are to be found the picture writings of prehistoric Indians. No one knows what they mean, or whether they were put there to convey information, to express art, or to doodle away idle hours. But students and scientists haven't admitted yet that they cannot find the answer. They are working on it. Here is a story of the latest expedition sent out to photograph and measure these petroglyphs—in the hope that a little more light may be cast on the unsolved mystery.

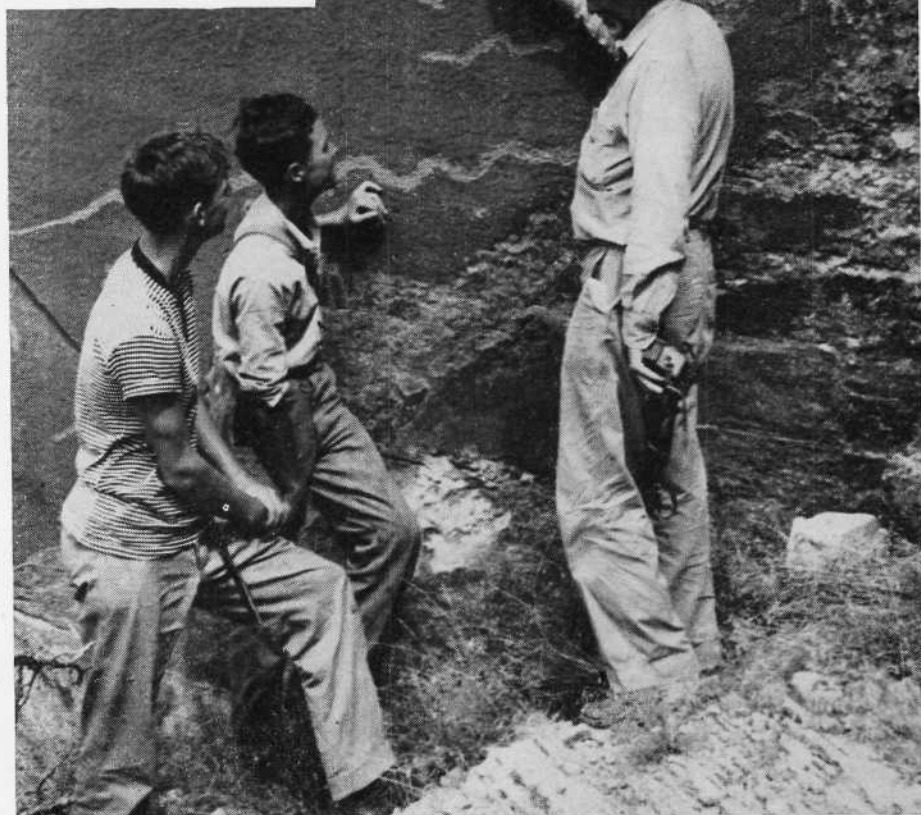
By RANDALL HENDERSON

CLAD only in a breech-clout, his long black hair tied with a cord of Yucca fiber, a bronzed Indian stood before a sandstone wall pounding with a sharp-pointed piece of obsidian on the smooth surface of the rock. Gradually, a figure was taking form as the impact of the flint-hard tool chipped away tiny particles of the softer stone—the crudely formed outline of a mountain sheep of the bighorn species.

The sandstone cliff rose in terraces above, with the deep green juniper on the ledges outlined against the yellow and white coloring of the canyon wall. Although he was intent on making his image as life-like as possible, the artist was conscious always of the sounds that came from the virgin wilderness around him—the rustle of the wind in the leaves of willow trees, the music of a little stream tumbling over the rocks, the descending scale of the canyon wren's call, the snapping of a twig as a deer moved through the underbrush.

No white man witnessed this tribesman at his work, for the scene I have described was enacted perhaps 700 or a thousand years ago—long before the European invaded American shores. What I have written about this aboriginal artist is the picture which took form in my mind recently when I stood before a great wall of rock literally covered with glyphs incised there by prehistoric tribesmen.

The place was Indian creek in southeastern Utah—a tributary of the Colorado river. There are many Indian "art galleries" along the base of the cliffs which confine Indian creek. One of them is outstanding. It far surpasses in both number and clarity the glyphs on the famous Newspaper Rock in the Petrified Forest national monument.

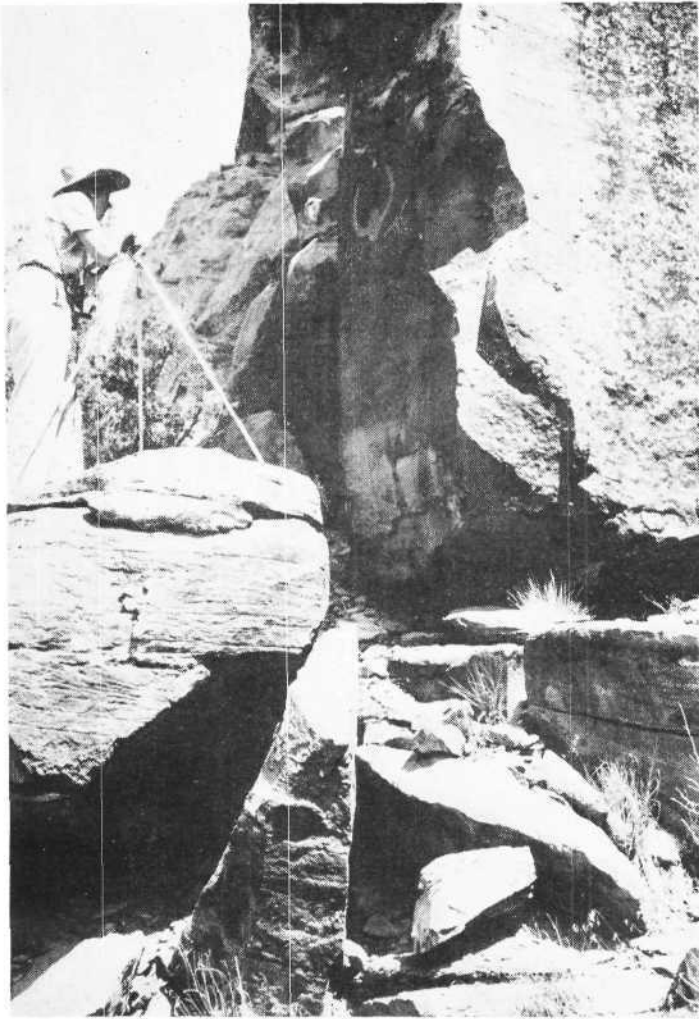


These glyphs, Arthur Woodward is telling his youthful helpers, probably are dancing figures, incised there possibly 700 or 800 years ago.

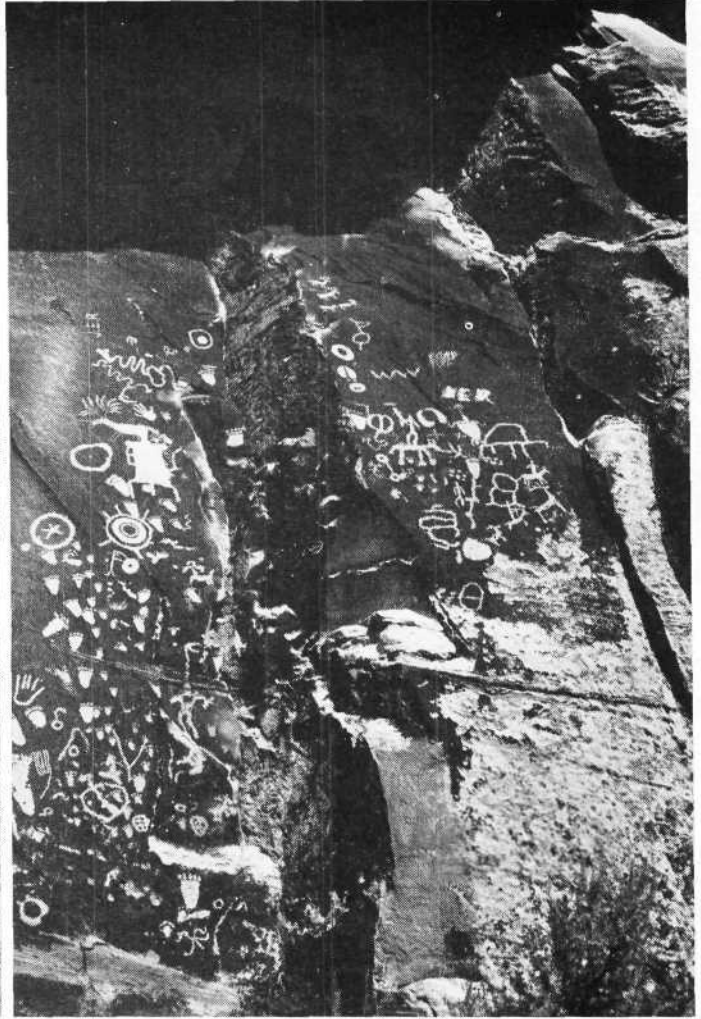
In my notebook I identified this unusual collection of Indian writing as Canopy Rock. The name is suggested by the wide smooth shelf of sandstone which projects from the wall just above the etchings. Perhaps the protection against sun and rain provided by this natural canopy had something to do with the selection of this place by the Indians for some of their finest and most extensive art work. Certainly the overhang is responsible in a large measure for the excellent preservation of the petroglyphs found there.

My visit to Indian canyon was made possible through the courtesy of Ansel Hall, former naturalist at Mesa Verde national park in southwestern Colorado. Hall has been identified with exploration and archeological work in the Southwest for many years.

More recently he conceived the idea of establishing a summer camp for boys in the mountains near Mesa Verde. The Explorer's camp consists of a 10-week training course in mountaineering, archeology, camping and other phases of outdoor life.



Barbara Loomis photographing a horned symbol on the wall of Indian canyon.



A section of the great "art gallery" at Canopy Rock in Indian canyon.

The boys range from 14 to 17. Camp headquarters is at the old Gold King mine in La Plata canyon, nine miles from Hesperus, Colorado.

Early last summer 32 boys from more than a score of states arrived at the Gold King where they were quartered in old mine buildings. They were divided in three groups. One group with leader, cook, packer and physician was assigned to a high mountain camp to spend the time studying the arts of camp life, exploring, climbing and nature study. A second group went to an old Indian site in Utah and spent the time excavating prehistoric ruins in quest of artifacts which might throw light on the culture of the ancients.

A third group went out to explore the canyons in the Four Corners region in search for petroglyphs and pictographs which would be photographed and measured for future study. The assignments of the groups were alternated so that eventually all the boys had the opportunity to participate in every phase of the general program.

Ansel Hall wrote several months ago suggesting that a couple of weeks with the glyph hunters would make an interesting

vacation for Desert Magazine's editor, and I was glad to accept his invitation. An added inducement was the fact that this group would be headed by Arthur Woodward, curator of history at Los Angeles museum, an experienced archeologist and an occasional writer for Desert.

On the morning of August 7 our little caravan departed from Gold King on an expedition that covered parts of Colorado, Utah, Arizona and New Mexico. One truck provided transportation for the 14 boys in the party. Another truck was "chuck wagon." We had a jeep for scouting purposes. In addition to Woodward, the adult members of the party were Barbara Loomis, curatorial assistant at the Los Angeles museum, Dr. J. E. Hughes of Shawnee, Oklahoma, in the role of camp physician, Ray Jahn of the Chadwick Seaside school near Los Angeles as camp manager and cook. Also, with us part of the time were Forbes Parkhill, writer for nationally known magazines, and Fran Hall, photographer.

Through arrangement between Ansel Hall and the Los Angeles museum, Arthur Woodward, while serving as group leader for the boys, was also engaged in a field

project of scientific importance to the museum. His program was the mapping and recording of as many of the Indian writings, both petroglyphs incised in the rocks and pictographs painted on the rocks, as could be covered in a 10-week period. Since glyphs may exist in any canyon in the vast Indian country that extends over four of the Southwestern states, and there are literally thousands of glyph sites which have never officially been mapped and recorded, the use of a troop of boys to search canyon walls and explore tributaries gave Woodward a wider range than is possible for a normal field party. And the boys regarded it as great sport. Their job was to locate the Indian art work, and if it was of sufficient importance, Woodward and Miss Loomis would follow up and take pictures, make sketches, secure measurements and other data to be assembled and studied later. With all the material before him, Woodward hopes in the months ahead to be able to discover patterns or arrive at conclusions which will penetrate the mystery now surrounding most of this ancient Indian art work.

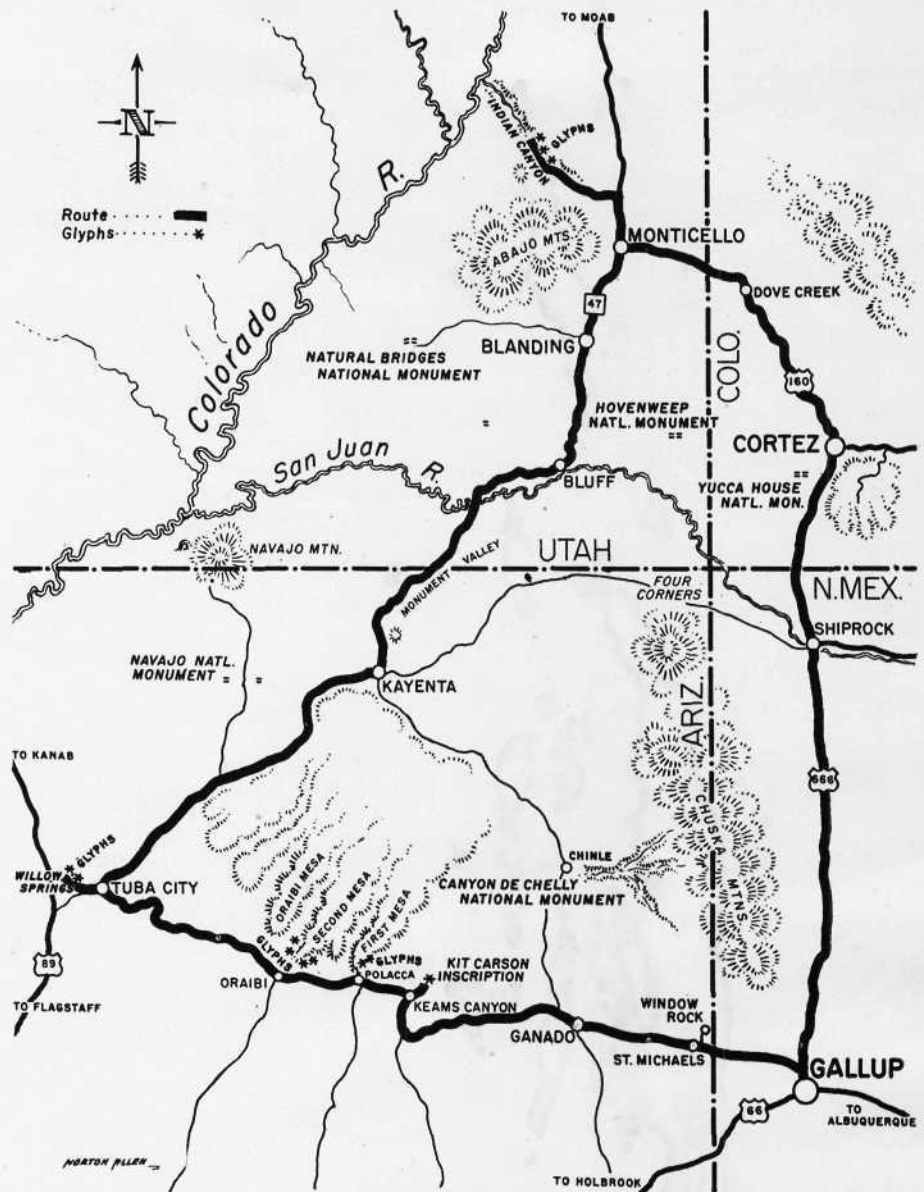
It soon becomes apparent to one engaged in this study that while there is con-

siderable variation in the artistic skill of the Indians who made these pictures, and often enough difference in design to distinguish one tribe or one period from another, at the same time there is an amazing degree of similarity in subjects selected by tribesmen as widely separated in geography and culture as are the Pueblans of Colorado and New Mexico from the desert Cahuilla of Southern California.

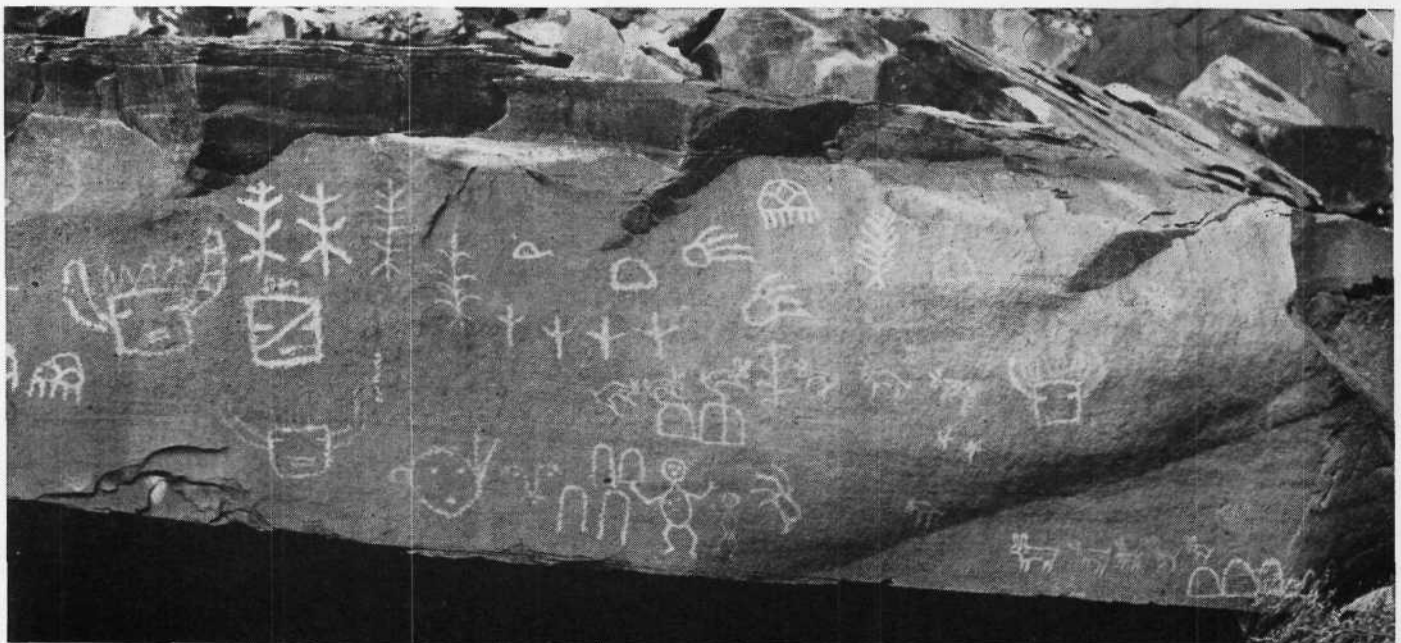
At Canopy Rock, Woodward soon reached the conclusion that the figures had been made by Utes, some as recent as 150 years ago. However, in some instances the more recent forms had been incised over old glyphs which appeared to be of Puebloan design.

The dating of glyphs is very difficult, except in the rare instances when they occur near ancient ruins where timbers are available for tree-ring dating. And even in such cases there is an element of uncertainty as to whether or not the incisions were made by local Indians during the period of residence at the local site.

There is a wide divergence of opinion—perhaps speculation would be a more accurate word—as to the motive that prompted these Indian inscriptions. There are many theories: (1) That the figures are designed to convey information to other Indians—the location of springs, the abundance of game, or perhaps illustrate an adventure or experience in the life of the artist. (2) That they are mere doodling—an occupation to pass away idle hours, and represent only a passing whim of the artist. (3) That they represent the first primitive impulse toward self-expression, and were prompted by the same creative urge which causes humans to paint landscapes and write poetry and do sculpturing today. And that they are the work of the most ad-



Bold line on the map shows the route covered by the glyph-hunting expedition described in this story.



Clan symbols of the Hopi at Willow Springs.

vanced and skilled artisans of their period.

Arthur Woodward rejects the idea that they are the work of doodlers. But beyond that conclusion, he admits he is as much at sea as other students of Indian glyphs. In the months ahead when he has assembled in his workshop the hundreds of photographs and measurements taken during the summer expedition, and has the time to study and compare them with relation to the geography of their occurrence, perhaps much new light will be thrown on the mystery of these glyphs.

We camped three days along Indian creek. We struck pay dirt there. The canyon walls for a distance of five miles along the stream carry hundreds of well preserved petroglyphs, and in two places we found badly eroded pictographs in white and red paint.

While the outstanding group is at Can-

opy Rock where not less than 350 figures remain clear and sharp on the well-protected wall, there were a number of less conspicuous "art galleries" which I recorded in my notebook as Nine Goats, Arrowhead, Big Snake, Ladder and Maze glyphs. I merely used the most conspicuous figure in each group to identify the location.

The water in the creek was clear the day we arrived there. But that night there were rains in the Blue mountains at the headwaters, and the next morning the stream was flowing a thick muddy mixture that wasn't even fit for washing dishes. It never cleared while we were there, so we hauled our drinking water from the headquarters of the S. & S. cattle ranch down the canyon.

The boys scrambled over rocks, climbed walls, explored tributaries and had a great time. Getting them up at 5:30 in the morning was never easy. But Arthur had a flip-

gun loaded with some mysterious concoction which had the reputation of being a very potent getter-upper. Arthur never used the gun, so no one ever knew just what was in it—but he did such an effective propaganda job that he merely had to bring the weapon out where the sleepy-eyed youngsters could see it, and there was an immediate scramble to get clear of the sleeping bags.

From Indian creek we returned to Monticello and followed State Highway 47 south through Blanding, Mexican Hat, Monument valley, Kayenta and Tonalear to Tuba City, Arizona. It rained the night we camped in Monument valley. Those who did not have waterproof bedrolls found shelter in or under the trucks. And when we reached Kayenta at midday water was coming down in sheets.

That night we camped near the top of Marsh pass, and the next day along the road to Tonalear (Red Lake) we found the dips running full of water. At one point a bridge approach had gone out, and we had to do some emergency road engineering to build a passable detour. At another wash the flood had brought down a great drift of tumbleweeds and piled them squarely across the road. The drift was seven feet high and soggy with mud. The jeep tried to crash through what appeared to be a mere pile of weeds—and bounced back as if it had hit a rubber wall. We tried burning the drift, but it was too wet. Then we tried tearing it apart with shovels—and in the end we built a detour around it. I would not have believed this story if I had not been through the experience.

At Tuba City we took a little-used road that led off into a jumble of rimrock and boulders, and after some search located Willow Springs, a historic old waterhole on the ancient Hopi salt trail. In the days before traders brought salt in sacks and cakes to the Indian country, the Hopi made long treks to a rock-salt ledge deep in the canyon of the Little Colorado.

The trail has not been used for many years, but near Willow Springs are more than a score of glyph-covered slabs and boulders—relics of the days when every Hopi salt pilgrim stopped here to incise his own clan symbol as a permanent record of his trip.

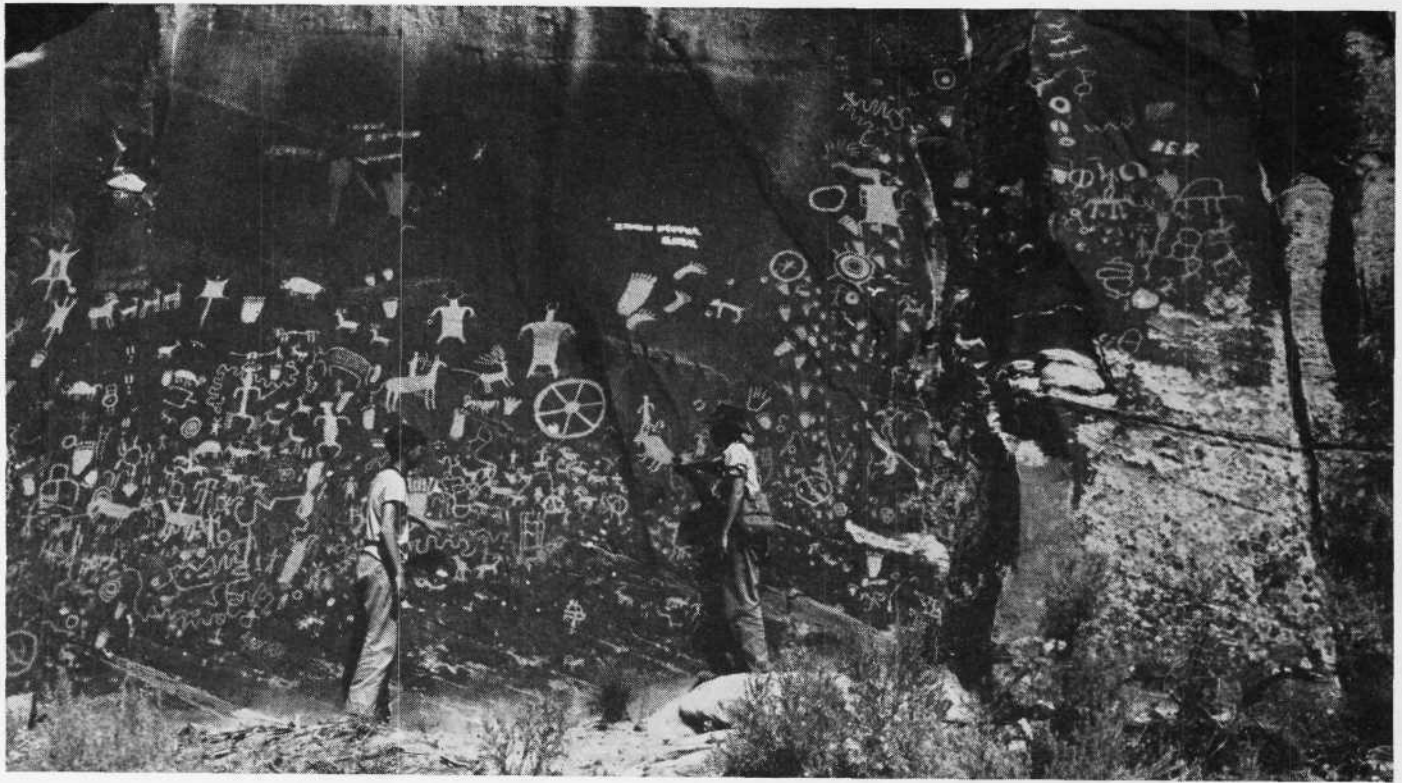
These glyphs probably cover a span of many hundreds of years—some of the later ones being incised over the more ancient ones. One huge block-like boulder 22 feet long and nine feet high is literally covered with them, all four sides and the top.

According to tradition the traveler added a new symbol for each trip. Thus there will be a row of cornstalks put there by the same corn clansman, each representing one trip to the salt deposit. There are symbols of the sun clan, spider clan, katchina clan, coyote clan, eagle clan, lizard clan and scores of others, some of them now extinct.

Dr. Harold S. Colton published a de-

Below—"Growing marks" on the cliff below Shipaulovi. When a Hopi youth gets his mark inside the square it is a proud day—he has then become a man.





Canopy Rock in Indian canyon. These glyphs probably were made by the Utes.

tailed report on these Hopi petroglyphs in the July, 1946, issue of *The Plateau*, quarterly publication of the Museum of Northern Arizona, of which he is director.

From Willow Springs we took the road through Moenkopi and across the Navajo

and Hopi reservations to Hotevilla. The rains had been ahead of us there too, and we pulled a truck out of Dinnebito wash just before we reached the Hopi Third Mesa.

At Shipaulovi on the Second Mesa we

spent a pleasant hour with Chief Joe Sekakuku and then one of the younger Indians took us to the base of the mesa where are located the tribal "growing marks." For many hundreds of years it was Hopi custom for the Indian boys, as soon as they



The glyph hunters: Standing, left to right: Emile Behre of Baton Rouge, La.; Roger Hall, Mancos, Colo.; Paul B. Wiggin, Montclair, N. J.; Harold Lundberg Jr., Wilmette, Ill.; Alan D. Stuart, Royal Oak, Mich.; Arthur Woodward, leader; Barbara Loomis, Los Angeles museum; Donn Schindler, Scarsdale, N. Y.; George Brunstetter, New York City; Ralph Condit, Greenwich, Conn.; Mike Maule, El Monte, Calif. Seated: Ray Jabn, Chadwick Seaside School, Los Angeles, camp manager and cook; Dr. J. E. Hughes, Shawnee, Okla.; Jack Pickering, Goshen, Ind.; John Anderson, Randolph, Minn.; Clay Doss, Bloomfield Hills, Mich.; John Randal, New York City; Duncan McEyre, Colorado Springs, Colo.

Badger		Parrot	
Bear		Rabbit	
Bow		Red ant	
Butterfly		Reed	
Cloud		Sand	
Corn		Snake	
Coyote		Snow	
Crow		Spider	
Eagle		Oak clan (extinct)	
Bluebird		Strap or rope	
Horn		Rabbit bush	
Katchina		Sun forehead	
Lizard		Puma	
Moon (extinct)		Unidentified symbols	

Clan symbols on the rocks at Willow Springs, identified by Edmund Nequatewa, a Hopi Indian. These drawings reprinted from the quarterly magazine, The Plateau, through the courtesy of Dr. Harold S. Colton, director of the Museum of Northern Arizona at Flagstaff.

were old enough to climb down the trail, to stand beside a vertical slab of rock while a member of the family incised a mark showing the height of the youngster. At periodic intervals through life new marks were made showing growth to full-sized manhood. There are a number of these marker rocks, and the wear of hundreds of incisions indicates that the tradition continued among the Hopi for many generations.

At many places around the Hopi mesas are found the glyphs inscribed there by ancient members of the tribe. Along the trail to Walpi is Tally Rock, where the Tewa Indians, brought to Hopiland to protect its residents against Apache marauders, kept a record of the enemies slain by incising a vertical mark on the rock face for each victim. Dama Langley once told me she had counted 180 marks on the scoreboard.

Today's generation of Hopi youngsters have been learning the ways of their white neighbors. The fast disappearing glyphs of the ancients are being replaced by crudely scrawled initials and names, sometimes incised, more often painted on the rocks. Perhaps the picture writings of the ancients and the ugly initial writing of the moderns are prompted by the same exhibitionist urge in human nature. I do not know. But I much prefer the art of the savages, primitive though it may be.

During his summer trip Woodward and his boys covered many glyph sites in addition to those I have mentioned. Several

days were spent in Canyon de Chelly where the Navajo even today are inscribing crude

JALOPY JOE

By Frank Adams



"It's takin' an awful lot o' air to get this thing blowed up tonight."

animal and other forms on the sandstone walls.

Today's generation of Indians is able to throw little light on the origin or meaning of the older glyphs except those at Willow Springs. There are a few oldsters on the Hopi mesas who traveled the old salt trail and know the story of the clan symbols left along the way. But for the most part the glyphs of the ancients remain an unsolved mystery, and Arthur Woodward will tell you frankly that while his studies may throw some new light on the subject, he does not expect to discover any magic key which will unlock the secret.

Wanted—Brains, not Rubber Stamps

Part of the red tape which previously has encumbered the Indian service has been tossed out the window by Secretary of Interior Krug. The secretary not only has given Indian Commissioner William A. Brophy greater authority than previous commissioners have enjoyed, but he has made plain that wider discretionary powers are to be passed down the line to subordinates. Here are some of the functions which previously required secretarial approval, but which now have been delegated to field officials: Execution of contracts for medical, nursing or hospital organizations, for social service, relief and child welfare; execution of leases for oil, gas and other mineral rights covering restricted allotted Indian lands; exchange of lands between Indians and non-Indians.

Marshal South has discovered that the desert has its grapevine, no less than the primitive sections of Africa. The grapevine recently brought him another chapter in the lives of Rhett and Scarlet, the burros which for a time made Ghost Mountain their home. But the information serves only to reveal that still another chapter remains to be unfolded. Marshal believes that some other desert dweller holds the key to their origin.

Desert Refuge

By MARSHAL SOUTH

THE AMERICAN desert is a big place and its dim mystery-haunted leagues sometimes seem limitless. Yet it is astonishing how closely knit and interwoven its affairs are. In this respect it is like Africa which, especially in its more primitive sections is so crossed and criss-crossed with native grapevine lines of gossip and communication that the hasty, ill advised words which you thought you said in confidence and secrecy at one end of the country are likely to rise up and shout at you—with many colorful additions—at the continent's other extremity. You can't get away with anything—not for long anyway.

And you can't, indefinitely, get away with anything in the desert. Even burros can't. And burros can be awfully foxy sometimes.

These reflections are the result of a letter which came to me the other day from Mrs. C. L. Wood of Long Beach, California. As I slit it open out fell two photographs which caused me to sit up suddenly. For there, looking up at me from the table top, were the unmistakable, long-eared countenances of our old-time pets and faithful burden bearers Rhett and Scarlet.

There wasn't any mistake. You could pick out the disarming-ly innocent appearing faces of those two desert nomads from among a million others at first glance. But what startled me was that they were in unfamiliar surroundings. They appeared to be in the possession of other owners. There was a suggestion of strangeness and mystery about the whole matter. Eagerly I turned to the letter.

And there was the whole story. The good old desert "intelligence system" finally opened a dark chapter of mystery in the lives of Rhett and Scarlet.

For you may remember that there always has been a mystery around Rhett and Scarlet. They had no beginning. They just happened. Out of the thirsty shimmer of the desert mirages they came trudging one day to the shade and water of Paul Wilhelm's Thousand Palms oasis. They were weary and the rustle of the palm fronds and the trickle of the little stream sang sweet music to their ears. They stayed on and they adopted Paul—or he adopted them. They settled down and became part of Paul's idyllic establishment. Every once in a while they would go off on rambles. Sometimes they stayed away for three weeks or a month. But they always came back—sometimes under their own power and sometimes having to be rescued by Paul from foolish predicaments into which they had maneuvered themselves. Paul's oasis to them was home.

Then the war came. Paul expected to be called into the army. He was worried for the future of his long-eared pets. He learned that we, on Ghost Mountain, were trying to find a couple of burros in the hope that they would solve our burden-packing problems. Through the Desert Magazine Paul got in touch with me.



The runaway burros in 1937, before they were called Rhett and Scarlet, packing ore down the trail from Lost Angel mine. Left—C. L. Wood and "Stubbie." Right—George Perry and "Jake."

He said we could have Rhett and Scarlet in return for giving them a good home. Randall Henderson, Desert's editor, made the long trip out to Ghost Mountain to drive me over to Thousand Palms. Here I took over the burros from Paul and trekked them back over the 120 miles of road which separates Thousand Palms from Ghost Mountain.

It took Rhett and Scarlet quite a while to accustom themselves to Ghost Mountain. It was a different country and there were no palms and no running water. For a long time they were homesick. They did like Rider, Rudyard and Victoria though, and the children fussed over them so much that finally they gave up pining over vanished days and settled down as part of our little family.

But they were no good for packing burdens. The savage rocks of Ghost Mountain were a little too much even for burro patience. Some parts of the grade were altogether too steep. We soon discovered that we could pack stuff on our own shoulders with less grief than we could wrestle with the job of loading and unloading—and coaxing—our patient, panting little friends. We retired Rhett and Scarlet from the active list. Thenceforth their function became purely decorative. They didn't protest at this and they and the children got along very happily.

Then came the event of our long trip through Utah, Nevada, Arizona and New Mexico in search of another "Ghost Mountain"—one with permanent water. We couldn't take Rhett and Scarlet along. So we took them down to Everett and Lena Campbell's property on the desert and turned them loose on the cattle range near some flowing springs.

Rhett and Scarlet had a good time there. But they were a little lonesome. Going back and forth to the springs for water with just their own company didn't appeal to them. So they invented the practice of waiting around the waterhole until a small bunch of cattle had collected. Then they would calmly round up the obliging cows and steers and herd them along to the feeding grounds. Thus they satisfied their craving for companionship. When they wanted another drink they would take the cattle back to the waterhole with them.

It was a good game and one which they carried on for some time, as Everett Campbell told me, with amusement, after we came back. But after a while they tired of that also. The desert was wide. They were freeborn spirits. Why should they stop in one place. They decided to drift. They said goodbye to the Campbell ranch and vanished.

Then, after long wanderings, we ourselves came back from our unsuccessful search. Water or no water, there was only one

NEW MEXICO

Chee Dodge Draws Golden Ticket

GALLUP—Chee Dodge, veteran chairman of the Navajo Tribal council, got a golden ticket in the drawing for colors at the Window Rock agency in September. Sam Akeah, vice-chairman drew silver, and the third candidate for the tribal election drew green. Colored ballots are used in the Indian elections because of the high illiteracy rate among the Navajo. The general election was scheduled for October 16-17.

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Old Dance is Revived . . .

ZUNI—For the first time since 1932, the colorful Zuni Corn Dance was held here in September. Many of the Zuni children had never seen the dance, which is a religious ceremony of thanksgiving for bountiful crops. Most of the dancers are women, and they are required to wear old-style deerskin moccasin-leggings.

Harmony at This Meeting . . .

SANTA FE—While lower basin states are squabbling over the division of their share of the water in the Colorado river, the upper basin group of five states has decided to make a complete survey of the water available to them with a view of securing maximum utilization. The upper basin commission met recently at Cheyenne and requested John R. Ritter of the U. S. Bureau of Reclamation to make the survey. The commission is composed of Clifford Stone of Colorado, L. C. Bishop of Wyoming, Ed. H. Watson of Utah, Charles Carson of Arizona and Thomas McClure of New Mexico.

Stamp to Honor Gen. Kearny . . .

SANTA FE—Postmaster Robert E. Hannegan was invited to take part in ceremonies here October 16 in connection with the issuance of a Gen. Stephen Watts Kearny commemorative stamp. Design of the stamp shows Gen. Kearny reading his proclamation of occupancy as the Stars and Stripes were raised over the Palace of the Governors 100 years ago. The new postage is a purple 3-cent stamp the size of a special delivery stamp.

Park Service Awaits Transfer . . .

ALAMOGORDO—While the national park service is going ahead with plans for the opening of the spot where the world's first atomic bomb was exploded as a national monument, the war department has not yet made the property available for that purpose. In the meantime recommendations have been made as to the boundaries. Assurance has been given that the "Great Ariste," the B-29 which dropped the second atomic bomb on Nagasaki, eventually will be placed on display in the new monument.

TRUE OR FALSE

Relax your body in a good comfortable chair. Have a pencil to check the answers, and prepare for some brain exercise that

will be fun for an active mind. Some of these questions will tax your memory, others your imagination—and probably you'll just guess at a few of them. But they cannot put you in jail for that. This test covers a broad field of general knowledge of the desert Southwest, and if you get half of them right you are a smart tenderfoot. Fifteen indicates much better than an average knowledge of the desert, and 18 is a score that few even among the desert rats achieve. The answers are on page 34.

- 1—Prairie dogs, ground owls and rattlesnakes often live together in the same hole. True..... False.....
- 2—Turkeys were first brought to North America by the Spaniards. True..... False.....
- 3—Billy the Kid was an Apache Indian chief. True..... False.....
- 4—The *balsa* was used by the Colorado river Indians for water transportation. True..... False.....
- 5—The native Washingtonia palm of the desert was named in honor of George Washington. True..... False.....
- 6—Water in the Salton sea has a higher salt content than water in the Great Salt Lake. True..... False.....
- 7—Obsidian often goes by the name of volcanic glass. True..... False.....
- 8—El Tovar Hotel and the Phantom ranch are located in the Carlsbad national park. True..... False.....
- 9—Old tires with smooth treads are better for travel in heavy sand than new treads. True..... False.....
- 10—Prospectors have been known to locate hidden springs by following the course of wild bees in their flight. True..... False.....
- 11—The famous Mormon battalion which was part of Kearny's Army of the West was organized in Salt Lake City. True..... False.....
- 12—New Mexico's famous Shiprock is not visible from Albuquerque. True..... False.....
- 13—Gen. Lew Wallace, author of *Ben Hur*, was once governor of New Mexico. True..... False.....
- 14—The cliff houses built by the ancient Indians in the Southwest generally were constructed of adobe bricks. True..... False.....
- 15—The Dipodomys is a desert rodent. True..... False.....
- 16—Aspen trees shed their leaves in winter. True..... False.....
- 17—Manhattan, Nevada, is famous for its gold dredging operations. True..... False.....
- 18—Of the five completed dams in the lower Colorado river Laguna dam is the southernmost. True..... False.....
- 19—Walpi is the name of a village on the Navajo reservation. True..... False.....
- 20—"Jumping Cholla" is the common name of a species of desert lizard. True..... False.....



The petrified tree stumps described by Toney Richardson are rapidly disintegrating due to exposure to rain and freezing temperatures.

Where Tree Stumps Turned to Stone

On the Navajo Indian reservation near the northern rim of the Painted Desert stands the remains of a forest that grew millions of years ago. Only the stumps of the trees remain, and they long ago turned to stone. Here is the first of a series of stories written for Desert Magazine by a novelist who has spent most of his life in the Navajo country.

By TONEY RICHARDSON

HUBERT Richardson of Cameron trading post in north central Arizona first told me about the Petrified Tree stumps. He had visited them in the early summer of 1914 after Hosteen Goldtooth, a Navajo, had told him about them and given directions for reaching them.

Down through the years the area has been visited by a number of white explorers, and considerable disintegration has taken place. Recently I decided to return to the place and see how these ancient tree stumps of stone had fared through the war years.

On a golden sunny morning—the sun always seems to be shining over this portion of the Painted Desert—I crossed the bridge over the Little Colorado river on U. S. Highway 89 at Cameron, and set out the short distance northward.

At a distance of two and a half miles from the bridge occur the first of a mass of eroded humps of Chinle shales. Those on the east side of the highway at this point,

bluish-grey, are known as The Sleeping Elephants. A mile farther on in a small cove on the same side of the road, between larger, painted humps, are two natural monuments named The Hat and Mushroom Rock. On the west side of the road a larger cove cuts into a once solid dome of grey, blue and mauve. It is called Nudist Cove.

The highway here climbs a saddle. Beyond, the bridge over Seven Mile wash comes into sight. Slowing down, I drove on to within half a mile of the bridge, then turned off to the right on a little used Navajo wagon road. Continuing two miles to the east, winding between great hunks of remnants of Chinle shales, then veering to the south, I came out on a slight promontory.

The panorama extending to the east and south seemed almost wholly bare of vegetation. The old view looked familiar. Over the area were small knolls, each rising to a peak. The summits of these knolls contain the petrified tree stumps.

The first one proved disappointing. The condition of that stump prepared me for the worst. As the accompanying photos show, the stone stumps now are breaking into fragments.

While this disintegration was noticeable before 1941, the past few years seem to have hurried the process along until today the knolls are littered with pieces of wood from the stumps.

In 1914 when Hubert Richardson first saw them, the stumps had emerged, through erosion of the blue-grey earth, only a few years earlier. The petrified wood was still intact. Disintegration started slowly at first. But by 1935 it was under way to such extent the sides of the stumps, some as high as five feet above the base, were breaking down. The process seems to have been accelerated during the past four years. Fragments, splinters and small blocks of wood now litter the base of the stumps, and are found over a wide area.

No doubt some of this breaking up has been helped along by man, yet the greater

Ghost Mountain in the whole desert. We were glad to come home.

At Banner, on our way home with the first load of household effects, the first person we met was Bill Mushet of Banner Queen ranch. We hardly had exchanged two dozen words when Bill said, confidentially, "Say, do you know I've got something of yours—" He was going to say more, but at that moment I happened to glance up and I saw the "Something." On the other side of the fence were Rhett and Scarlet eating watermelon. They wore smirking grins of contentment on their deceptive countenances.

"We found them wandering in the desert," Bill explained. "They needed water. So I just brought them home and the boys—" The boys, Mike and Buzz, emerged from the house just at that moment. Anxiety was written all over their faces. (I learned afterwards that they had been frantically going through their joint savings with the idea of making me an offer for the burros on the spot—anything to avoid losing their new pets.) But they didn't have to say anything. I could see it in their eyes. Especially in Buzz's eyes. So I just looked at Buzz and I looked at the two graceless watermelon munchers—and I thought of the hard, hot rocks on Ghost Mountain and the scanty pickings of squaw tea and cholla. Then I looked at Bill. "You keep 'em," I said. "From now on this is their home. They belong to Mike and Buzz. But for the love-of-pete don't feed them all the time on watermelon. They'll ruin you."

"Oh no, we won't," agreed Buzz happily. "Mostly we give them apples and peaches and oranges and green corn—just stuff like that."

And so that is how Rhett and Scarlet came to have a new home at the Banner Queen. Except when wanderlust grips them and they go off on a ramble. But they come back. They know a soft snap when they find it.

And now for the secret page which the letter and photographs have revealed.

Rhett and Scarlet are not Rhett and Scarlet at all. They are Jake and Stubbie. They are runaways. They are escapees from the Lost Angel mine, away out in the desert north of Indio. Once, in 1937, they were peaceful burden bearers, packing ore down the desert trail from the mine. But they tired of a steady job and security. So, after a year of ordered ways, they abandoned their post and lit out for the open desert. There was no reason for their going, save the call of the wild. They had had a good job with an abundance of hay, oats and wild feed, and they had been the pampered pets of the miners. But freedom and love of the open range is in their blood. They just had to go. As Mrs. Wood says in her letter, "We could never catch up with them, and we decided that they loved the freedom of the desert as much as we did."

So now we know a little more of Rhett and Scarlet (they have worn the names Paul gave them so long now that Jake and Stubbie might as well be laid aside). They are characters in their own right, and perhaps have earned a niche peculiarly their own among the famous of burroland. And, inasmuch as it was through seeing their portraits in *Desert Magazine* that their former owners, the Wood's, recognized them, perhaps there may be other readers of *Desert* who, seeing these pictures, can trace back the Rhett and Scarlet history a little further. They are old—too old to have to shoulder the burden of work any longer—and undoubtedly there are long unrecorded years of their existence, prior to their sojourn at the Lost Angel mine which might be of interest.

A while ago I made an excursion down into the big canyon where, years ago, we found the huge ancient olla in the cave. I was curious to see if I could locate the cave again, for it is not easy to do so and I had failed on a previous attempt. Individuals who are not familiar with the desert always find it hard to

understand why so many prospects and mines are "lost." They argue that if you could locate a place once there is nothing in the world to prevent your going right back to it. But it doesn't always work out that way. Old timers who know their desert understand this and will never argue over the reason mines are lost. But it is hard to convince other people that the desert can play tricks.

The canyon of the olla is a sizable place. It is a giant slash between harsh thirsty hills. At the bottom of it there is a thin, scribbled line of white which is the bleached sand that wind and water have spread along the channel scoured by rare storms. It is very quiet, down there in the bottom, and there is always a thin wind that comes stealing up out of the lowlands to sway the green branches of the stunted catsclaws across the glass-smooth surface of the age-polished rocks. Sometimes you see a silent bird, flitting like a shadow through the bushes. And sometimes, on the clean carpet of sand, you will see the imprint of a coyote's foot. But these traces of the presence of life are few. High above, tremendous, fantastic boulders teeter terrifyingly along the precipitous rim. Black clefts and pools of shadow pattern their immensity. Mostly the canyon of the olla is the haunt of silence and the sun.

I spent the best part of three hours in the canyon. But I did not find the cave. Three hours is not a long time, but it is a considerable period when you devote it to locating one little spot of whose position you are absolutely certain. I would have guaranteed that I could find that cave. I could have drawn you a map of it and I would have been willing to make a bet on my ability to go right there. But when I tried I failed. Yet the cave is no myth. It is no dream wrought up of hardship and thirst. A very sizable olla came out of that cave. We hefted it out ourselves. And the olla was no dream either. It is still in existence. But the cave has vanished.

Of course there are explanations. There are people who will try to tell you that giant, side wall boulders slip; that they cover up openings that previously existed. This may be true to a limited extent. Perhaps once in a thousand times this explanation will be the correct one. But I am convinced that such a thing rarely happens. It is more probable that we shall find the correct answer in the confusing sameness of the desert and the hypnotic effect which this quality has upon the senses of the searcher. Distances are vast and deceptive. Objects which appear near in reality are far off, while landmarks that are seemingly at a distance sometimes are relatively close. There is a sameness, even to the very diversity of rocks, clefts, ridges and buttes. And in this maze the eyes of the searcher and his sense of direction alike are led astray. It is not "inefficiency," for seasoned desert dwellers are repeatedly subject to the same failure. It simply is a peculiar quality of the desert. Most of the "lost" mines really are lost. They are not myths. And every once in a while some newcomer to the district—sometimes a tenderfoot—stumbles upon one of them and proves the old tale to have been the truth.

The pet population of Yaquitepec has increased. For the two "back-handspringing" mice suddenly decided to set up house-keeping and greatly to the joy of Rider, Rudyard and Victoria, presented the world with quadruplets. For a while there was a great fluttering of excitement caused by fears that the proud father might harm his diminutive offspring, so another cage was hastily provided for him. Poor little father greymouse however pined so much and was so obviously unhappy at being separated from his mate and family that the children feared he might die of a broken heart. He was accordingly restored to the old home—to his own joy and the joy of Mrs. Mouse and her babies. The little family is getting along famously. But there is a shadow in the offing. A shadow cast by arithmetic.

Because, having done a little figuring, I am disturbed as to just where this mouse multiplication business is going to end.

rump conglomerate litter the ground between the knolls, which are scattered wide apart. In between may be found the fragments of logs, still in place. These petrified trees are much smaller in diameter than any of the standing stumps.

The medium of petrification seems to have been largely lime, but some parts of the tree stumps are of harder material. The varying degrees of red, black and yellow, have the hardness of the wood in the Petrified Forest at Adamana.

Six miles to the north of the stone tree stumps, and half a mile off the Tuba City road is a forest of black, hard logs occupying a horizontal position. However, these are not similar to the colored portion of the standing stumps and geologists say there is considerable difference in age between the two fields.

The whitish-grey petrified logs littering the area, and right alongside Highway 89, are of softer material than the grey of the standing stumps. The outside of the stumps when they were still in place was stained red, black and yellow. This covering was harder than the centers. The greyish white fragments, as seen in the illustrations, show the grain of the wood clearly. Another curious feature is that the pieces tend to break with the grain, as one would use an ax to split kindling wood.

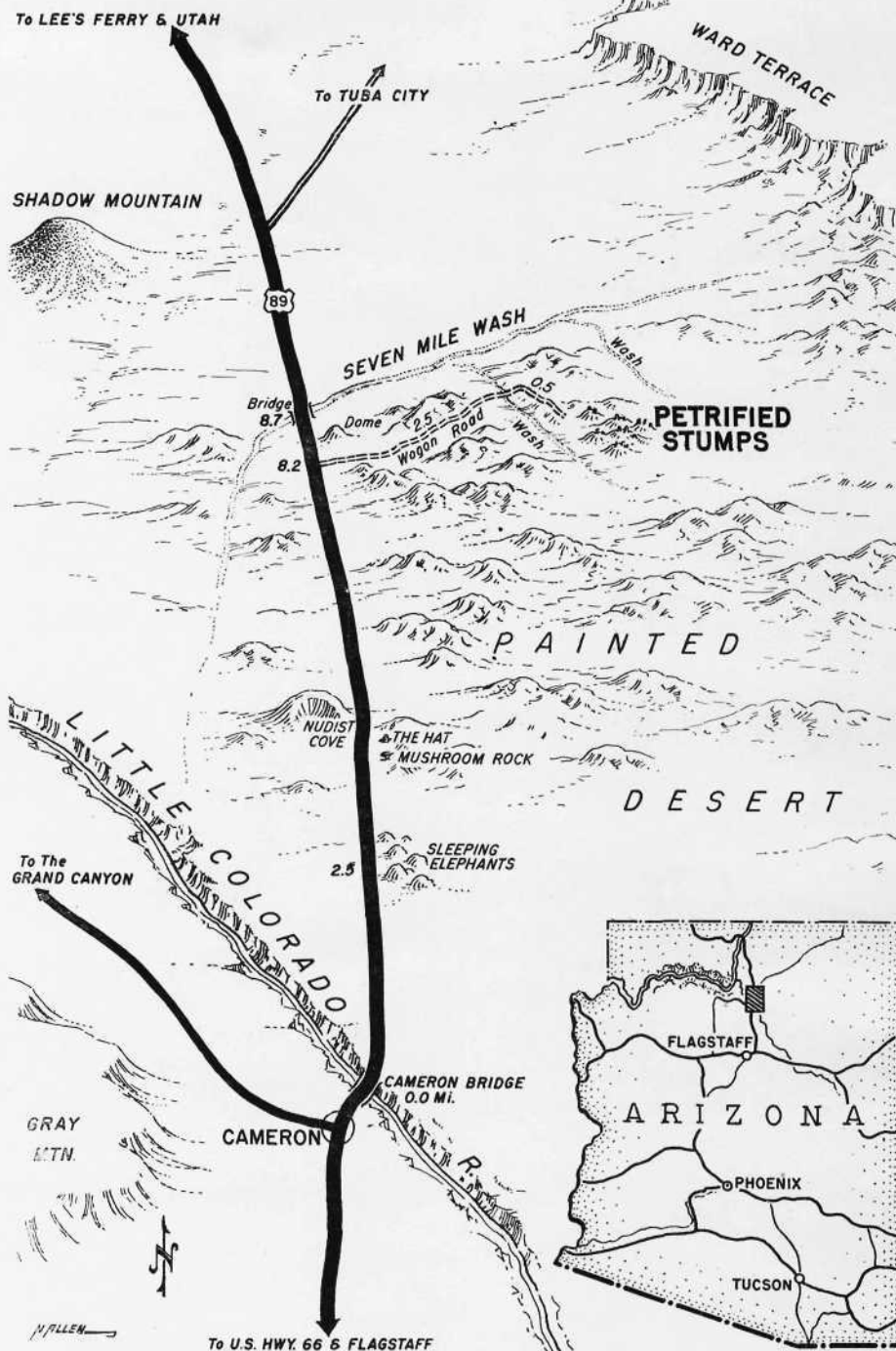
The diameter of the stumps varies from about four feet to 15. Where the soil has eroded away, roots as large as a man's arms may be found going down into the ground. These are of harder material than the portions above, and will no doubt remain unbroken as long as they are protected from frost and ice. Directly underneath it is probable there are other roots which are from a few inches to one or two feet thick. None of them ever have been dug out.

Dr. Barnum Brown, curator of fossil reptiles, American Museum of Natural History, New York City, explored the area in 1929. He found and recovered for study many fossil bones. Some of these were lying exposed on the surface. Many were dug from the eroded shale domes and hills. It was during this period that the stone stumps received the only printed publicity ever given them.

During the late 1920's and the early 1930's, a stage line of sedans carried tourists from Cameron north across the Navajo reservation to Navajo mountain on the Utah border, a distance of 135 miles. These were sent out with a competent guide, who, passing near the tree stumps would halt and show them. Few people would believe petrified tree stumps, actually standing in place, existed.

One scoffer of those early days remarked, "This can't be possible. These stone stumps are just something people who cater to the tourist trade put up!"

Geologists, who understand better than anyone else, marvel that despite the great upheavals of the earth's crust, the stumps



remained in place these many millions of years. It must have been a great accident of geological times.

This extinct species of trees grew along a lake shore. Then in time they were covered by strata thousands of feet deep as the land gradually sank. All this tremendous weight crushed some of the logs, flattened and broke others apart. Finally, after another few million years the land began to rise once more. The covering strata of soil, sandstone and shale began to wear away, eventually exposing the tree stumps as they appear today.

That, in a few words, is what happened. The reptile tracks and the fossilized bones found in the sandstone layers of Dinosaur canyon, 15 miles to the southeast, and in the bed of the Little Colorado river, are of a much later time.

The stumps on the crest have protected the knolls from rapid disintegration. While some of them are small, a few reach 10 to 20 feet in height. These dot the terrain over a wide expanse. From the larger knolls, dry waterways course down into the flat land. In the wind blown sand can be found particles of wood from the outer crust of the stumps. They are colored, and shine brightly in the sun.

The petrified stumps are still there, and agatized wood is to be found, though unfortunately the area is not protected from vandalism. It is not even marked on the highway. The wood is not as colorful as that found in the Petrified Forest national monument farther east. But as far as is known, this is the only place on the continent where petrified stumps are found in place.



Hubert Richardson, trader at Cameron, Arizona, who was first guided to the stone tree stumps in 1914 by Hosteen Goldtooth, a Navajo Indian.

part of it has been due to the elements. Almost all precipitation in the area falls during the winter months. Water or melting snow settles in the cracks, and after night-fall freezes. A fragment is broken off, or else the beginning crack widens and goes deeper. Undoubtedly in a few more years there will be hardly more than the stone tree roots in place.

The petrified tree stumps are in a portion of the Painted Desert known locally as the Melgosa. Captain Melgosa for whom it was named, was one of Coronado's men. He passed through the area in 1540 with Don Lopez de Cardenas, to find the Grand Canyon.

To the east and north a few miles, rising against the azure blue sky, is a rim of Wingate and Navajo sandstones of the Jurassic series. This is Ward terrace. On the west side of the highway an old volcanic

cone towering to more than 1000 feet is famed Shadow mountain.

No matter at what hour of the day it is viewed, or the position of the sun, there always appears to be shadows on this mountain. This phenomenon is due to the composition and coloring matter of the slopes. Shadow mountain has been the locale for at least two western novels, one by the late Dane Coolidge and one by myself.

Deeper in the southwest rises flat topped Gray mountain, over behind the village of Cameron and toward the Grand Canyon on the south side of the Little Colorado river. Gray mountain has figured in a number of important episodes of local history. It was a guide for Cardenas from the Hopi villages toward the Grand Canyon. But he missed the Hopi Salt trail somewhere and did not view the grandeur of the lower gorge of the big Colorado

river. Its ranges have been the scene of more than one gun battle between opposing cattlemen. Coconino county officers drove 15 Navajo families from it in 1898, returning them across the river into the Melgosa desert.

The Tuba City road once passed closer to the stone tree stumps than it does today. On this route near the stumps in 1931, a youth hiking in the Melgosa lay down one night to sleep. Having heard the old superstition that a rattlesnake would not cross a rope, he placed one about himself. In the morning hours before dawn an Indian driving a truck ran over and killed him.

During the spring of 1897 Jim Parker, northern Arizona cowboy turned train robber, killed Lee Norris, a deputy district attorney in a jail break at Prescott. Escaping into the Grand Canyon and Gray mountain regions, Parker dodged 100 pursuing officers for a month, and escaped into the Melgosa desert only to be captured to the north a week later.

Right where the petrified tree stumps stand the Navajo procure bright colors for their famed sandpaintings. Also they obtain a greyish stone which when powdered and mixed with water gives them a brilliant white body paint.

The tree stumps are near the extreme northern rim of the Painted Desert, as it ends a few miles to the north against the reddish walls of Echo cliffs. The east and south portion continues on through the Little Colorado river basin beyond the Petrified Forest 150 miles away.

In 1932 a rather exciting gold rush occurred around the petrified tree stumps. A prospector came out with samples of gold which he claimed to have found in the bluish grey mounds of the eroded Chinle shales. Indeed he took along two bonafide witnesses to observe his discovery. Half the business places in Flagstaff were closed as clerks and owners made a run for the Melgosa to stake claims. Within a week the newly cut marker stakes could be seen for miles up and down the vari-colored basin.

On one claim a gold washing machine was brought in and set up against the side of an enormous colored butte. Then some one belatedly remembered they had to have water to operate this machine to get out the fine particles of gold, if any. Water was one thing the Melgosa desert did not have.

Meanwhile samples had been removed from other claims. The first reports indicated mercury, but no gold. The rush of eager seekers for sudden wealth began to die down. Would-be miners drifted away in disgust. Today there are a few die-hards who believe there is gold in the buttes around the stone tree stumps. But there are others who declare the old prospector salted his original claim with a shotgun.

Bright colored pebbles from the Shina-

HERE AND THERE... on the Desert

ARIZONA

Shoot 'em on Sight . . .

PHOENIX—Candidates for election in November have received letters from the Arizona Game Protective association asking how they stand on the question of bears. Under existing laws, sponsored by stockmen, bears are classified as predatory animals and may be shot on sight. The Game Protective association believes the legislation should be repealed, and bears returned to the status of game animals.

Moving Rock at Davis Dam . . .

KINGMAN—Excavation of the diversion channel at Davis dam is half completed according to the report of H. F. Bahmeier, director of the project for the U. S. Reclamation Bureau. Employment has reached a peak of 1500 men with a weekly payroll of \$90,000. The 4500-foot diversion cut involves 3,500,000 yards of rock and earth removal, of which more than 1,700,000 have been taken out. A new highway from Kingman to Davis dam is scheduled to be completed December 1.

Report 77-mile Tunnel Feasible . . .

KINGMAN—Three of the nation's leading geologists have submitted a report to the U. S. Reclamation Bureau stating that it is feasible from an engineering standpoint to bring water from the Bridge canyon site in the Colorado river through a 77-mile tunnel to water lands in central Arizona. The board, consisting of Charles P. Berkey of Columbia university, John W. Vandeerwitt of New York and Joseph L. Burkholder of San Diego gave no estimate of the cost of the project.

Would Restore Ancient Village . . .

HOPI MESAS—Believed to be the oldest continuously inhabited town in the United States, Old Oraibi on the Hopi Third Mesa, is to be restored and preserved if a resolution passed by the Federation of Western Outdoor clubs at its annual convention in September is approved by the Bureau of Indian Affairs. Old Oraibi was partly abandoned many years ago when Indian converts to Christianity left the ancient city to establish New Oraibi at the foot of the mesa. While many of the old Hopis remain in the original town, some of its historic buildings have fallen into decay and a few have collapsed. The plan for its restoration is sponsored by Harry C. James of the Trailfinders school for boys at Altadena, California, and other friends of the Indian tribesmen.

Regents of the Arizona university and state colleges have accorded to the state teachers' college at Flagstaff the right to grant degrees in arts and sciences, subject to certain limitations to be determined by a special committee. Liberal arts degrees will be given starting in 1948. This action ends a controversy of long standing.

CALIFORNIA

Big-Inch Line on Desert . . .

BLYTHE—A contract for the installation of a 30-inch pipeline 214 miles long to carry gas from the California border to Santa Fe Springs has been given the H. C. Price company. This contract covers the California sector of the line that is to bring West Texas natural gas to the Pacific coast. Amount of the contract was \$3,750,000.

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Mines and Mining . .

Tonopah, Nevada . . .

Closed down since 1943, the Nivloc Mines, formerly operated by Desert Silver, Inc., are to be reopened according to Harry H. Hughes, president and general manager of the Nivloc company. Between 1938 and 1943 this property was said to be Arizona's largest silver producer. Leonard F. Traynor is vice president and superintendent and James J. Clark is secretary-treasurer of the company.

Ajo, Arizona . . .

A 64-ounce nugget of quartz-gold of which more than half was gold, is reported to have been taken out recently by Ora Mackey in the Covered Wells district.

Bishop, California . . .

Sierra Mines expects to install a 500-600 ton reduction plant at Bodie to replace the Rosclip mill destroyed by fire five months ago, according to S. B. McCluskey, manager. A subsidiary of the American Goldfields Development company, Sierra Mines controls a number of properties in the historic Bodie field.

Tucson, Arizona . . .

Values ranging from \$54 to \$160 a ton in gold and silver are reported from the new gold strike in the Baboquivari range southwest of this city. The mine, located two miles from the Allison mine of the Tom Reed Gold Mining company, was located by Alfred and Fred Ybarra and William Ferguson. The ore lies in a fissure vein in a broad band of red conglomerate.

Roswell, New Mexico . . .

Twenty-four wells in the Caprock field 40 miles east of here have been sold to the Consumers Cooperative association of Amarillo, Texas, for over \$1,000,000 according to officials of the Malco company which included 12 of its wells in the deal.

Battle Mountain, Nevada . . .

Drillings are in progress to determine whether or not there are still ore bodies in the old Tuscarora camp sufficient to justify big mining operations. Utah Construction company has obtained a lease and option on the property and is doing the exploration work.

Independence, California . . .

Ore from the old Modoc mine in Argus range soon will be moving to Utah smelters according to Leo Baccoccina, who recently has leased the lead, silver and zinc property. Believed to have been opened originally by Mexican miners, the Modoc has not been worked since 1890. At that time Chinese labor was used and charcoal kilns were constructed in Wildrose canyon. The charcoal was freighted by mule team across Panamint valley to a crude smelter.

Tombstone, Arizona . . .

Southwestern Mines, Inc., is reported to have secured a lease and option on 23 patented claims of the Great Western mines in the Dragoon mountains at Courtland, 25 miles from Tombstone. Announcement of the deal was made recently by Vincent Riccardi of Phoenix. President and general manager of Southwestern is A. J. Daugherty, vice-president and general manager of Hoosier Vencer company at Indianapolis. Daugherty plans to move to Douglas.

Panamint City, California . . .

American Silver corporation of Los Angeles has been restoring the old road to this once famous ghost city preparatory to the reopening of two silver mines. Considerable clearing and re-tiling in the shafts and tunnels will be necessary before mining operations can start.

Beatty, Nevada . . .

Due to the inaccessibility of their recent gold strike, Leo Montoya and Frank Oleniczek are packing high grade ore from their Bare mountain mine out on their backs. A recent 900-pound shipment ran \$350 to the ton, and they have 1600 more pounds on the dump at the foot of the trail ready to be shipped. They report that they recently have opened up another vein which runs high in silver.

Salt Lake City, Utah . . .

Utilization of the waters of Great Salt Lake and of waste materials now discarded at the smelters and Geneva steel plant will bring the cost of magnesium to five cents a pound under newly patented processes, according to the prediction of Alfred M. Thomson, research chemist. Thomson predicted that Utah will become the greatest magnesium producer in the world.

Mesa, Arizona . . .

Thirty residents of Mesa have formed the Silver Crescent Mining company to work 150 claims of the 300-claim silver property three miles north of Tiger mine near Mammoth. While the assay value of the ore is not fully known it is believed to be one of the largest silver properties in Arizona, with estimates running as high as 300,000,000 tons of producing ore. Milton Roe is managing agent of the company.

The Union Pacific railroad has agreed to purchase 1000 open-top all-steel gondolas to haul raw materials to the Geneva, Utah, plant recently purchased by the U. S. Steel corporation.

Fourteen thousand tons of salt are to be taken from Kane lake this year according to the estimate of J. Mallory, superintendent of the plant on the Mojave desert near Randsburg.

Chemicals in Mono lake, California, have a gross value of over two billion dollars, according to estimates of the U. S. Geological Survey. Highest content is sodium carbonate 92,000,000 tons which in a marketable form is worth \$15.50 a ton. Other chemicals are sodium chloride 86,000,000 tons, sodium phosphate 47,000,000 tons, potassium chloride 10,500,000 tons.

FOOD FOR THE HUNGRY

The . . .

FARM FRONT WAS IMPORTANT DURING THE WAR.

IT CONTINUES TO BE VITAL DURING THIS POST-WAR PERIOD.

. . .

That is why Imperial Irrigation District is straining every resource at its command—to keep essential crops growing.

. . .

With 3000 miles of canals and drains to maintain, 30,000 canal structures to keep in repair, over 1,500,000 acre feet of water diverted into the system and more than 200,000 water deliveries made each year—it's a big job—but the District is doing it.

AIDING ITS FARMERS TO GROW FOOD!



No Jazz at Borrego Springs . . .

BORREGO—Plans for the development of a new desert resort community to be known as Borrego Springs, have been announced by Southern California builders, including A. A. Burnand, owner of the Anza ranch in Borrego valley. According to the statement of Robert Ransom of Palm Springs, "the jazz note will be missing at Borrego Springs. We plan to develop a city which will preserve the beauty and peace of the desert. Automobiles are to be barred from the business thoroughfares. Homesites will be over an acre in size."

Party for an Old-Timer . . .

LUCERNE VALLEY—Celebrating the 85th birthday anniversary of James E. (Dad) Goulding, 1800 cowhands, ranchers and dudes from the guest ranches gathered here for a grand barbecue and rodeo. Dad Goulding came to Lucerne valley 50 years ago and homesteaded 160 acres of land which is still part of the ranch. He brought in the first artesian well, and started the first school 45 years ago.

Oliver Jaynes has become the publisher of the Desert Sun, weekly newspaper of Palm Springs. The Sun was owned for many years by Carl Barkow, publisher of the Record at Banning. Under its new publisher, it will continue to be printed in the office of the Record.

The town of Coachella, claiming more than 1500 population, will vote on incorporation as a city of the sixth class on November 26.

The weekly Limelight-News of Palm Springs, published by Harry Schultz and Charles Leeds, was scheduled to become a daily newspaper October 15.

NEVADA

Kill Horses to Save Range . . .

FALLON—Hundreds of wild horses in central and western Nevada have been killed during the past year, and many more hundreds remain, according to the report of Gordon F. Barkley, range rider for the U. S. Grazing service. In the mountains and valleys of eastern Churchill county, Barkley estimates 400 horses have been slaughtered. Many of them were small inbred stock. Hunters, called mustangers, are paid one dollar a head and shoot them to save the range for the grazing of marketable livestock.

The Fish Win This Dispute . . .

LAS VEGAS—Arizona Fish and Game commission has severed "diplomatic" relations with Nevada to the extent of canceling the two-state fishing agreement covering sports fishing at Boulder dam. Under the reciprocal agreement formerly in effect a license issued by either state was good on both sides of the river below the dam, and the lake above. The Arizona commissioners in making known their decision, asserted that Nevada had failed to do its part in restocking trout below the dam. The Arizonans say they have put 10,000 creel-size trout in the stream, and that Nevada has contributed none. The break in relations becomes effective January 1.

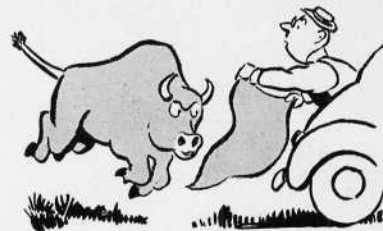
Silk on the Nevada Desert . . .

STILLWATER—Silkworm culture is to be introduced here through the interest of Mr. and Mrs. James McNelly who have made known their plans for planting the necessary mulberry trees next spring. They will follow the Thornwood plan for the culture and handling of caterpillars. It is believed that silkworms can be cultivated in many parts of the United States. A sericulturist can raise two crops of worms a year and spend the other ten months leisurely reeling the silk, hatching eggs and caring for the trees. It takes 50 pounds of foliage to produce one pound of silk, so with 40,000 pounds of foliage one acre of 1400 trees produces 800 pounds of silk.

Would Abandon Ghost Railroads . . .

TONOPAH—When the army asked for the return of the diesel locomotive leased to the Tonopah and Goldfield railroad for its 97-mile line, the company's attorney announced that freight service on the line would be discontinued and the road abandoned. Protests from shippers affected brought promises from Senators McCarran and Bunker that they would try to secure relief through federal channels. This is the second time in three years the Tonopah and Goldfield company has asked the Interstate Commerce commission for permission to abandon its trackage. On August 20 the Nevada Copper Belt asked permission to abandon its line between Hudson and Wabuska. If both these requests are granted only two of the mining-days short lines will remain in operation, the Nevada Northern between Ely and Coble, and the Virginia and Truckee running between Reno and Carson.

WANT TO START SOMETHING?



There are a number of ways to start something.

For instance, you can get things going by building a fire under a mule.

They sometimes tie a can to the lead husky's tail in a dog team to produce forward motion.

And one sure fire way of securing quick action is to wave a red flag at a bull.



All of these methods will get you someplace — especially in the case where you flirt with a cow's husband.

But most of us are interested principally in going places in an automobile.

The first step in that direction is, naturally, on the starter button.

Success in this particular commencement exercise is dependent upon a well-charged battery.



A battery is where spare electricity is stored for use when you need it.

Don't wait until your battery expires like a lease. Have it tested regularly at your Shell Service Station.

If the battery is low, the Shell man will be glad to take your order for a recharge.

In this way you will always have sure reserve energy — safe deposit volts, as they say.

So if you want to start something, and that something is your automobile, be sure to have that little black box inspected regularly at *The Sign of the Shell*.

— BUD LANDIS

INSIST ON THIS . . .

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NAVAJO AND PUEBLO SILVER

Only genuine Indian handmade silver jewelry of good craftsmanship,
sound construction and ornamented with typical Navajo or
Pueblo designs bears this mark.

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GALLUP, NEW MEXICO

THE DESERT TRADING POST

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

MISCELLANEOUS

BINOCULARS—Cleaned, repaired and collimated, all makes by Factory Trained man. Fast Service. Write, tell me your trouble for estimate. **THE GUNSHOP**—12 W. Roosevelt St., Phoenix, Ariz.

WANTED—Old desert pictures and paintings or prints, old brass and copper and Nevada fire opal specimens. A. Singer, Santa Paula, Calif.

ANNOUNCING—Handmade silver jewelry (not Indian). Distinctive designs or made to your design. Unusual stones or use your stones cut to any style of cabochon and mounted. Correspondence invited. Wm. T. Doran, 1823 Ralston, Independence, Mo.

DESERT COLOR SLIDES—In gorgeous Anseco and Kodachrome transparencies. See ad on page 27.

HAND WROUGHT COPPER, in all types of metal arts for the home. Many desert gems cut and polished or rough. Inlays for the fireplace and barbecue. Send for a list of our special items. Valley Crafts Shop, 14135 Oxford St., Van Nuys, Calif.

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

COMMERCIAL LAPPING and Polishing on flat surfaces. Finishing of bookends and polished rocks for fireplaces a specialty. Send for estimate. Joseph R. Mathieu, 12301½ Boyle Ave., Rt. 1, Box 841, Fontana, Calif.

FOSSILS—Geological supplies, Geiger counters, thin sections, picks, hammers, etc. Omaha Scientific Supply Co., Box 1750, Omaha 4, Nebraska.

BOOKS — MAGAZINES

NEW MEXICO, Model Craftsman, Trains, other magazines, bought, sold, traded. John Wesley Davis, 1611½ Donaldson St., Los Angeles 26, California.

PIONEER MATERIAL—I buy and sell old and scarce books on the early West and Southwest. Address Galen P. Perry, Box 704, Carpinteria, Calif.

ENJOY THE GREAT OUTDOORS: Learn wildcraft, woodcraft, Indiancraft. By experts. Articles on outdoor living. Hunting, fishing, camping, trapping. \$1.00 per year, 35c copy. Subscribe today: Wildcrafters World, Rt. 2, Lawrenceburg, Ky.

DEALER & COLLECTOR: World-wide Firearms publication. \$1.00 yearly; Foreign \$2.00. Dealer & Collector, 71HR, Flushing, New York.

BOOKFINDERS! (Scarce, out-of-print, unusual books). Supplied promptly. Send wants. Clifton, Box 1377d, Beverly Hills, Calif.

BOOKS OF THE SOUTHWEST. For outstanding titles on the desert country—Travel, History, Desert Plants and Animals, Gems and Minerals, Indians, Juvenile — write Desert Crafts Shop, 636 State St., El Centro, Calif. Free catalog.

CAMP AND TRAIL INCIDENTS OF PIONEER LIFE, by W. Iven Lively. A desert book by a desert author, who has lived for fifty years in the Southwest. It has the real tang of the Desert. If you like poetry, you will like it; if you do not like poetry you will read it and forget that it is poetry as you become absorbed in its narrative and descriptive thrills. \$1.50 postpaid. Address W. I. Lively, Route 6, Box 1111, Phoenix, Ariz.

INDIAN GOODS

WE ARE AGAIN RECEIVING real hand-hammered Indian jewelry from the reservation all made by top silversmiths. For our rock customers we have bought another collection of rock, making this one of the largest collections of rocks and minerals in this part of the country. Our collection of rugs, baskets and jewelry is still large despite the shortage. Come in and see us. Daniels Indian Trading Post, 401 W. Foothill Blvd., Fontana, Calif.

INDIAN ARTIFACTS. Arrows, Spears. No Catalog. Write Herbert Lewis, Builder of fine Indian collections, Box 4, Strafford, Mo.

WANTED TO BUY: Two or three fine specimens of Pomo baskets entirely covered on outside with feathers. Also one Yaqui feathered sun basket. J. D. Pyatt, Trenton, Missouri.

NAVAJO RUGS—Just returned from my old home at GANADO and ORAIBI, Arizona, with beautiful assortment rugs from 13½x 16½ feet, 12x7, 11x8 feet. **COCHITI HANDMADE INDIAN DRUMS, KAT-CHINA DOLLS**, fine NAVAJO Indian Handmade **INDIAN TURQUOISE SET JEWELRY, OPEN SUNDAYS. HUBBELLS INDIAN TRADING POST** (Tom S. Hubbell), 2331 Pico, Santa Monica, Calif.

FOR SALE: 62 genuine Indian baskets in good condition. They are old and authentic, part of collection purchased last fall in California. Will sell as collection only. J. D. Pyatt, Trenton, Missouri.

INDIAN RELICS: 4 very fine ancient Indian arrowheads \$1.00. 4 very fine bird arrowheads \$1.00. 10 nice perfect arrowheads \$1.00. Stone tomahawk \$1.00. 2 flint skinning knives \$1.00. 10 arrowheads from 10 different states \$1.00. 10 arrowheads of 10 different materials \$1.00. 2 nice spearheads \$1.00. 4 small spearheads \$1.00. 5 stone net sinkers \$1.00. 5 stone line sinkers \$1.00. 2 fine flint chisels \$1.00. 4 finely made duck bill scrapers \$1.00. 10 stemmed scrapers \$1.00. 5 rare round hide scrapers \$1.00. 5 small finely made knife blades \$1.00. 2 stemmed hoes \$1.00. 4 fine drills \$1.00. 5 fine awls \$1.00. Rare ceremonial flint \$1.00. 4 sawged arrowheads \$1.00. 4 odd shaped arrowheads \$1.00. 4 fine drill pointed arrowheads \$1.00. All of the above 23 offers for \$20.00. Fine Stone Celts or unground Axes, 50c, 75c, \$1.00, \$1.50, \$2.00 each according to size. 100 assorted Sea Shells \$10.00. Location given. 20 slightly damaged arrowheads of good grade \$1.00. 100 damaged arrowheads \$3.00. List free. Lear's, Box 569, Galveston, Texas.

LIVESTOCK

DESERT PETS of all kinds, wild and tame. Grail Fuller Ranch, Daggett, Calif., Phone 3489.

Service for Desert Travelers . . .

PANAMINT SPRINGS—Marking the completion of the new cafe, curio shop and service station built to replace the structures destroyed by fire in the spring of 1945, Agnes Cody Reid invited desert friends from Inyo county and Death Valley to a gala open house in September. Mrs. Reid, cousin of Buffalo Bill Cody, began construction of the new buildings in February and the completion of the project is a monument to her courage and tenacity.

Mrs. Patton Approves Monument Idea . . .

INDIO—Plans for a General Patton Memorial to be erected at the desert site where he trained his armored units were given new impetus at a meeting of sponsoring groups here in late September. Bartlett H. Hays, friend of the Pattons, stated he had discussed the memorial plan with Mrs. Patton and she approved Camp Young site and expressed the wish that the monument be a simple type of structure. It was suggested that nationwide interest in the project be invited by having each state which supplied men for Patton's army represented in the bronze plaque. A huge shaft with a General Sherman tank at its base has been proposed.

Mystery in Death Valley . . .

DEATH VALLEY—Encrusted with salt, the clothes of a man believed to have met death on the desert more than 60 years ago recently were found by a Florida visitor to Death Valley near the Devil's Golf course. The clothes included a pair of corduroy pants, woolen underwear and a cartridge belt with shells of the center fire type. There were no bones, and Dr. Pelty who made the discovery believes they had disintegrated or been carried away by animals.

KARAKULS. Producers of Persian Lamb fur are easy to raise and adapted to the desert which is their native home. For further information write Addis Kelley, 4637 E. 52 place, Maywood, California.

REAL ESTATE

SERVICE STATION and store at historic Coyote Wells on Highway 80 between El Centro and San Diego for sale by owner. Clean attractive property in one of Southern California's most fascinating desert areas. Painted canyon, coral reefs, fossil beds, old Indian sites and wide variety of mineral deposits within 25 mile radius. Ideal spot for roadside mineral dealer. Write owner, O. D. Stephens, P. O. Box 812, Seeley, California.

FOR SALE: 50 acres Old Woman Mountains mineral land, \$150. Near Needles. Address Box E, Desert Magazine.

FOR SALE—Want to retire and am offering my ranch and business on Highway 66, adjoining town of Daggett, Calif. Equipment for 10,000 chix, fully equipped dressing plant, malt shop and cafe, antique shop and desert zoo with all equipment, antiques and collector's items. Ranch has 1990 feet frontage on both sides of Highway 66. Is doing a gross business of more than \$1500 month which can be greatly enlarged. Elevation 2100 feet, cool nights. Fine for asthma. Wonderful view of historic Calico mountains 7 miles distant. One half cash. Balance your own time. Grail Fuller Ranch, Daggett, Calif.

For Imperial Valley Farms—

W. E. HANCOCK

"The Farm Land Man"

Since 1914

EL CENTRO — — — CALIFORNIA

The Lordsburg Liberal, Hidalgo county newspaper, has been taken over by Paul Tooley and Ralph Mason. The Liberal formerly was owned by Gen. C. G. Sage and was leased to Mr. McInnis, who is retiring.

UTAH

Sleuthing for Pre-Dawn Evidence . . .

VERNAL—Geologists, paleontologists and other scientific men have been having a field day in Uintah basin during the past summer. Dr. John Clark of Carnegie museum, Pittsburgh, studied the sediments to determine their origin and character. Dr. Bronson Stringham of the University of Utah held a 10-week field course for students in geology. Robert and George Witter of Princeton spent a month collecting fossils from the Tertiary beds. Dr. Charles L. Camp and Dr. Samuel Wells of the University of California spent two weeks studying the vast Triassic exposures, their prime interest being fossil reptiles and amphibians. Richard Taylor of Creighton university, Nebraska, spent several weeks studying fossil localities, and geologists of the Monsanto Chemical company made a survey of phosphate deposits.

Mormons to Make Historic Trek . . .

SALT LAKE CITY—Following the trail taken by Mormon pioneers in oxcarts 100 years ago, a caravan of motor cars is to leave Nauvoo, Illinois, next July for a centennial trek over the old route to Utah. Sponsored by the Sons of Utah Pioneers, the 1947 journey will require eight days, compared with four months in 1847.

Honoring the memory of Randall Jones for his life-long effort to preserve and publicize the beauties of southwestern Utah, a monument is to be erected at Cedar City. Sponsoring the movement is Union Pacific Old Timers club of Salt Lake City.

Utah Doesn't Want Rocket Range . . .

SALT LAKE CITY—Proposal of the federal government to withdraw 3,440,000 acres of Utah land as a rocket-bomb testing area is meeting with widespread opposition, both from cattlemen and from the state attorney general's office. The proposed range is in the western part of the state in Juab, Millard and Tooele counties, and is a strip of land approximately 55 by 100 miles in extent. At a hearing early in September conducted by the department of interior, James A. Hooper, executive secretary of the Utah Wool Growers' association asserted the withdrawal would cost the state's economic structure \$5,000,000. Army officers testified that between \$100,000,000 and \$200,000,000 would be spent on the project, from which Utah would receive many benefits.

New Ferry at Historic Crossing . . .

BLANDING—Governor Herbert B. Maw of Utah was among the 350 visitors who assembled on the Colorado near Hite September 17 for ceremonies marking the opening of a river ferry on a new highway route between Hanks-ville and Blanding. Arthur Chaffin will operate the ferry at a point on the river known as Dandy Crossing. The Hanksville-Blanding road taps one of the least known wilderness areas in the United States. As a by-product of the new road connection, Harry Aleson has announced that he will schedule boat trips down the Colorado from Hite to Lee's ferry.

• • •

General Electric engineers have been called in to make recommendations for the air conditioning of the Salt Lake tabernacle of the Mormon church. According to J. W. Stribling, head of the engineering group, it will be one of the largest air conditioning units in the world, if installed.

EL BAHA CACTI GARDENS

2220 Main Avenue — Laredo, Texas

IMPORTED RARE MEXICAN CACTI
Specializing in Specimen and Show Plants

Astrophytum Myro. V. Columnaris	\$1.00
Astrophytum Myro. V. Potosina	1.00
Astrophytum Cap. V. Major	1.00
Astrophytum Assorted Varieties 5 different plants	5.00
Cephalo Cereus Senilis 8 in. plants	2.50
Cephalo Cereus Senilis 5 in. plants	1.00
Cephalo Cereus Palmerii . . . no small plants. 18 in. to 3 ft.	Per ft. 1.50
Cereus Marginatus, 2 to 5 ft. plants only	Per ft. 1.50
Mammillaria Compressa De Candolle (Clusters)	Head .50
Mamm. Gemnispina, large plants, beautiful clusters	Head .50
Mammillaria Hahniana (Beautiful)75
Mammillaria 10 varieties assorted 10 plants	5.00
Mammillaria Candida White and pink spines	1.00
Agave Victoria Reginae (We have all sizes)50 to 1.00
Specimen Agave V. Reginae	\$10.00 and 25.00

WE SPECIALIZE IN OUR ASSORTMENTS FOR WE COLLECT OUR OWN PLANTS AND WE NEVER PASS UP AN INTERESTING SPECIMEN. WE CAN NOT LIST THEM FOR WE FIND SO MANY DIFFERENT KINDS AND ONLY A FEW OF EACH. THE ONLY WAY WE CAN GIVE OUR CUSTOMERS THE ADVANTAGE OF GETTING SOME OF THESE PLANTS IS TO SELL ASSORTMENTS.

ASSORTMENT 1—

10 Assorted Rare Cacti, 10 different varieties, postpaid

\$ 6.00

ASSORTMENT 2—For the Advanced Collectors—

15 Different Varieties

15.00

ASSORTMENT 3—For the Professional Collector—

20 Different Varieties. (These plants are quite large.)

30.00

We select these plants to the best of our ability so that you will receive a fine assortment and one that you can arrange in a garden or in a patio. This assortment should win a prize in any flower show. Please bear in mind that our plants are fully matured, blooming size. Write us your wants for indoor decorating with Cacti. We have a fine collection of large plants at very reasonable prices.

No orders less than \$5.00 please.

"LOST MINES OF THE OLD WEST"

60c Postpaid from Distributor

R A Y ' S

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Comfort and Relaxation in the
Heart of Death Valley.

EUROPEAN PLAN — DINING ROOM
BAR

MODERN ACCOMMODATIONS
HOTEL AND COTTAGES

"The Oasis of Death Valley"

OWEN MONTGOMERY, Manager

DESERT COLOR SLIDES . . .

Gorgeous 35mm color desert slides of Palm Springs, Indio, El Centro, Borrego and Painted Desert area in selected planned picked shots by Hollywood color expert. Series include balanced clear-sharp properly exposed transparencies of Borrego Desert with wild flowers in bloom; Palm Springs, famous Seven Palms, Indio Palms, and spectacular restful views of California Painted Desert between Indio and El Centro. Series of six slides \$2.50—Six slides with Hollywood Professional (third-dimensional-effect) Viewer \$5.00. Immediate delivery by first class mail. Full desert list sent on request.

DESERT COLOR SLIDES

Box 345

Beverly Hills, Calif.

COUNTY MAPS . . .

MINES, Paved, State Improved, Inferior ROADS, TRAILS, R.R.s., GAME REFUGES, CREEKS, SCHOOLS, RANGER STATIONS, CAMPS, LOOKOUTS, ELEVATIONS, NAT'L FORESTS, LAND GRANTS, COUNTY LINES, POWER LINES, CANALS, DITCHES, TOWNSHIPS. All Counties \$1 except as listed: Tuolumne, Santa Barbara, Plumas, Placer, Modoc, Madera, \$1.50; Tulare, Tehama, Siskiyou, Imperial, \$2; San Diego, Riverside, Mendocino, Kern, Humboldt, Fresno, \$2.50; Trinity, Shasta, Mono, San Luis Obispo, Monterey, Lassen, Los Angeles, \$3.

Also Oregon, Idaho and Washington
County Maps.

WORLD'S MINERALS

2417 San Pablo Ave.

Oakland 12, Calif.

NON-RATIONED . . .

Basketball,
Bowling,
Baseball
SHOES

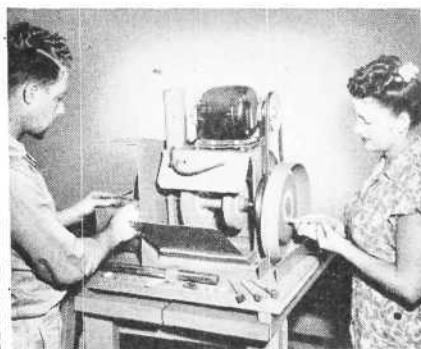
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A COMPLETE LAPIDARY SHOP
IN ONE SMALL MACHINE



Entirely made in the RX factory by
skilled mechanics.

True running, and will last a life time.

12 inch saw.

The gem machine you have been
waiting for.

Only seconds required to change from
one operation to another.

Start with the best and you make
no mistake.

See your lapidary dealer or write direct
for Bulletin A.

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Lapidary Supplies

for the
Gem Cutting Shop




Diamond Saws
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WRITE FOR COMPLETE LISTING
OF ABOVE ITEMS AND OTHER
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PORTLAND 1, OREGON

AMATEUR GEM CUTTER

By LELANDE QUICK

People write and ask me how to build their own lapidary machinery because "the commercial machinery costs too much." They little realize that if such inquiries were properly answered it would take many hours even if I knew how to reply. It happens that I am one of the world's worst mechanics. I'm not quite as bad as the fellow who never did solve the intricacies of putting the top back on the toothpaste tube but the lathe is as deep a mystery to me as atomic energy. The only thing I know about my own automobile is that I once succeeded in changing a tire all by myself. On the whole I believe that the great majority of gem cutters are in the same category and that they should not attempt to build their own machinery. They may succeed in creating something at less cost but they create something that pleases them only and has little resale value when they are through with it.

I believe that most of the lapidary machinery on the market today is good machinery and that it is relatively inexpensive. Some of it is not sturdy and in purchasing it is wise to see and examine it before buying if that is possible. I also believe that most of the lapidary machinery being built is the result in almost every case of ideas that have been contributed by the combination home mechanic and amateur gem cutter working out ideas and short cuts in his shop. Professional lapidaries are grinding gems almost exactly as they did a century ago except that they have applied electricity. In some gem cutting centers in Germany they don't even use that but men still lie on their bellies to grind gems at water wheels just as their grandfathers did more than a century ago. It is the amateur gem cutter who is responsible for the fine array of good lapidary machinery now available and unless you are a mechanic with plenty of tools I suggest that you buy machinery rather than make it. I have a shop full of homemade machinery and compared with the newer things for sale it is definitely "button shoes" and isn't worth the powder to blow it to Iceland.

What usually happens is that some enterprising machinist, who is also a gem cutter, visits many shops containing homemade equipment, incorporates a consensus of ideas and then builds a model diamond saw or faceting head. He goes into business and produces a few machines. Shortly after marketing them to amateurs (professionals are never interested) they come and show him where efficiency ideas can be incorporated to greatly improve the equipment and a new machine is evolved. This evolution has developed so rapidly that machinery offered today is as far ahead of that offered seven years ago as the automobile is ahead of the carreta. This is history repeating itself for it was the improvements in the automobile worked out by race drivers that contributed most to that great industry and it was the amateurs building home radio sets in the early twenties who contributed most to that industry.

It is because the West coast is the center of amateur gem grinding activity that nearly all this development has taken place here and most of the machinery is built here because it is the center of a growing market. More and more amateurs have improved their skill by the use of this adequate machinery to the point where they now have the desire to turn professional and turn an

avocation into a vocation. Since they won't move to the Atlantic coast where the professional gem cutting centers are we predict that the growing gem cutting trade in America (now the world's largest) eventually will move to the Pacific side of the country. This movement already has begun with the projected building of the first diamond cutting plant west of New York. It will be built at Pasadena in the near future by Lazare Kaplan & Sons, cutters of the famed Jonkers diamond. The new plant will be equipped to cut \$50,000,000 worth of diamonds a year and will employ 200 cutters. Only about 15 skilled workers will be brought from New York to supervise instruction of amateur gem cutters, most of whom will be drawn from the ranks of the disabled veteran who must sit at his work.

If you live in the vicinity of Banning, California, and are interested in joining a new lapidary society forming there drop a postal to George Buckner at Banning and tell him so. He will notify you when an organization meeting will take place.

Just as I had decided to take a real vacation in the Four Corners region where Colorado, Utah, New Mexico and Arizona all meet, the preliminary reports appear of Randall Henderson's month's sojourn in that section. This area is said to be the greatest untapped section for gem hunters in the country. I expect to see as much of it as one can see from an automobile but I realize that is not the way to see it. I was impressed with a statement made to me recently by a train companion who said "there's only one way to see the world and that's on horseback." I agree but that method for me will have to be long deferred. And so, as this appears, I will be undergoing my first experience at attempting to trade some fine spider web Persian turquoise to the Navajo for their fine pyrope garnets which they gather in the Grand Canyon country. These are some of the finest garnets in existence and I've been told the Navajo do not care for them at all but they will not sell them. They measure their wealth in turquoise and it's only turquoise they want. Since good turquoise is scarcer than good will at a peace conference I expect to get some garnets for the Persian turquoise I was fortunate to acquire recently.

The term "vacation" means all things to all people. To a woman it usually means going some place where someone else does the cooking. To too many people it means going some place else to do the same things more intensively than they do at home under the delusion that the "change of scene" benefits them. I believe that the best type of vacation is one that loosens the habit chains that bind all year and forgetting every care that wears down the soul in the everyday process of "making a living." I expect to make a NEW living for a time wandering through the Petrified Forest, contemplating in long deep silence the unspoiled grandeur of the Grand Canyon, getting away from the highways for dinosaur bone and wood and seeing the original Americans. I'm taking with me a particularly bad but heavy piece of jasper. I'll present it, very roughly, to the first person I meet who says "atom."

GEMS AND MINERALS

ARTHUR L. EATON, Editor

COLORADO GEM VILLAGE HOLDS SECOND ANNUAL SHOW

By T. RALPH BENNETT

Fort Lewis College, Hesperus, Colorado
Second annual rock show September 7-8 at Frank Morse's rockhound colony, Gem Village, near Durango, Colorado, drew 111 visitors from ten states—Colorado, New Mexico, Arizona, Oklahoma, Kansas, Missouri, Texas, Illinois, California and Virginia. Eighteen Colorado towns sent unofficial delegates. Noted out-of-state collectors and exhibitors were present.

Exhibitors included Bob and Dan Ellsbury of Marvin's Rock Shop, Mrs. Geneva Brown, and Mr. and Mrs. Hood and son David of the Mountain Gem & Supply company—all of Durango; Frank Morse, S. N. Green, and Wilfred C. Eyles of Gem City; and Mr. and Mrs. Bill Little of La Plata Gem Shop near Hesperus, Colorado.

Others with displays were Mr. and Mrs. Claude C. Neely and Mr. and Mrs. Jim Wiley of Cahone, Colorado; O. D. Elarton of Salida, Colorado; Philip Griebel of Fruita, Colorado; Earl and Wesley Floyd of Trinidad, Colorado; and N. S. Bellman and Jesse L. Myers, both of Pueblo, Colorado.

Highlights of this second annual rock congress in the nation's first and only exclusively rockhound colony were a tiger-eye quartz pseudomorph after asbestos bracelet and ring set in the Marvin's Rock Shop exhibit of exquisitely worked silver; silver-copper specimens from Lake Superior and zeolite in soft greens and pinks from the S. C. Green collection; a jasper nodule displayed by Jim Wiley (it weighs 293½ pounds and measures 4 feet 8 inches around!); carnelian roses, pseudomorph after barite, in the Neely display; what is thought to be Colorado's first discovery of chrysoprase, in the Little exhibit; and W. C. Eyles' museum piece showing of quartz with inclusions.

Other superb specimens included quartz from Brazil; magnesium crystals from Henry Kaiser's plant at Gilroy, California; Benitoite, found only in San Benito county, California; neptunite crystals from the same locality; and precious opals from Virgin Valley district in northwestern Nevada.

PHOENIX MINERAL SOCIETY PLANS STATE FAIR EXHIBITS

A. L. Flagg, president Mineralogical Society of Arizona, is superintendent of the mineral exhibit in the Mines building of Arizona state fair, to be held at Phoenix November 8-17 inclusive. He is assisted by Ben Humphreys. South end of the ground floor is reserved for the four mineralogical societies in Arizona and others related to the hobby groups.

The Phoenix mineral group is planning a comprehensive and diversified exhibit. Some of the special features will be: Atomic energy minerals, with charts illustrating the processes involved in release of atomic energy; Birthstones; Crystallography; Working of semi-precious gemstones; Micromounts, and the MSA unit of Rocky Mountain Federation of Mineral Societies circulation collections.

Volunteer members of the society will act as guides to the various mineral exhibits.

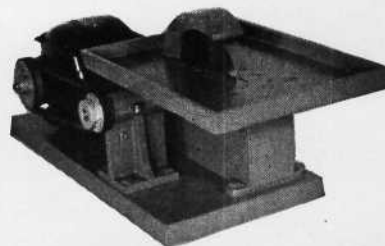
SAN FERNANDO VALLEY GEM SHOW SET FOR NOV. 30-DEC. 1

Plans for fall show of San Fernando Valley Mineral and Gem society are maturing under direction of Dan Hamer, display chairman. Deadline for those who plan to display is November 1. Judges have been selected from membership of other societies. Invitation cards will be available for those members who wish to invite friends.

A large display of fluorescent material and demonstrations of the lapidary art have been planned. To publicize the show, arrangements have been made to place displays in all Valley libraries and in store windows.

Show will be held Saturday and Sunday, November 30-December 1, at North Hollywood Recreation Center, 5301 Tujunga avenue, North Hollywood. Hours: 10 a. m.-11 p. m. Saturday, 10 a. m.-9 p. m. Sunday.

Members of Sacramento Mineral society took a field trip in August to a cinnabar mine near Knoxville, Lake county, California. While very few specimens of this ore were found, agate and onyx were abundant over a considerable area, both on the mine dumps and as outcrops in the field. Some good salmon-tinged specimens were found, also white and grey with a little yellow, which afterward proved to take a good polish.



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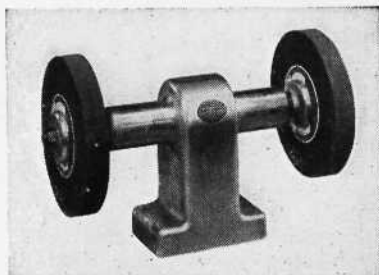
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ATTENTION is called to the new location of Swisher's Rock and Novelty Shop, at 4719 So. Hoover St., Los Angeles 37, Calif. The place for rare novelties, Petrified Woods, mine minerals, Agates, Geodes, etc. Beautiful costume jewelry made from lovely Petrified Wood. When visiting Los Angeles call on us. Swisher's, 4719 So. Hoover St., Los Angeles, Calif.

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AGATE RING cabochons—\$8.00 and \$10.00 per dozen. Agate Jewelry—Wholesale only —Approvals. Men's cast SS Rings set with Montana agates. Custom Cutting and mounting. North West Gem Shop, Box 305, Tacoma 1, Wash.

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\$2.50 brings you prepaid six rare and beautiful crystallized Arizona minerals. Vanadinite, Diopside, Wulfenite, Willemite, Chrysocolla, Azurite. Specimens 1 1/2x2 or larger. Wiener Mineral Co., Box 509, Tucson, Arizona.

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75 in a glass vial with two or three Montana
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shipment now in—all first grade gem mate-
rial. Amethyst, Andalusite, Golden Beryl,
Chrysoberyl, Brazilian Almandite, Garnet,
Blue and white Topaz. Now in, Ceylon ship-
ment, Gray and gray Star Sapphires, Ceylon
Moonstone, will wholesale some. On hand,
facet material—Australian Sapphire, Mon-
tana Garnet and Sapphire, small Mesa Grande
bi-color green and rose Tourmaline. On hand,
Finest cabochon Aventurine for stars, star
garnets, Star sapphires, Ceylon Moonstone,
poor grade Mexican opal, green and golden
Beryl, topaz blue Amethyst, Citrine, Tigers
Eye, Rutiled Quartz, 3 colors Rutile, tiny
blue Tourmalines in Quartz, Sagenite, Sweet-
water Agates. Lots of specimens, tell me what
you want, no list. Mail address, Geo. W.
Chambers, P. O. Box 1123, Encinitas, Calif.
Home address, 640 Fourth St., between F & G
Sts. Come on down and bring your surf fish-
ing rod.

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Watsonville, California, 3 miles S. on State
highway No. 1.

AMONG THE ROCK HUNTERS

John Hilton has sold his gem and mineral
business near Indio, California, to J. W. Greb
of Seattle. But John isn't out of a job. He still
has his art studio and his cactus gardens to oc-
cupy his time. This disposal of his gem business
will give him more time for his painting and
writing—and for aviation which he has taken up
as a hobby. Publication of his *Sonora Sketch
Book* by the Macmillan company is scheduled
for the spring season in 1947.

Officers of Mineralogical Society of Arizona,
Phoenix, for 1946-47 season are: A. L. Flag,
president; Dr. G. G. McKhann, vice-president;
H. B. Holloway, treasurer; George D. Hough,
secretary; Joe E. Shelton, historian.

New officers of Monterey Bay Mineral so-
ciety, Salinas, California, were installed at a
banquet meeting August 11, at which Robert
Deidrick, past president of East Bay Mineral
society, spoke on mineral identification. The
new officers, installed by Paul Lawrence, presi-
dent of Y.M.C.A. board, are: T. G. Emmons,
Salinas, president; A. W. Flippin, Salinas, vice-
president; Ruth Hacking, Santa Cruz, secre-
tary; Alice R. Everett, Santa Cruz, treasurer;
Past President Wm. O. Eddy, Salinas, adviser.
Directors are D. E. Perry, H. Samuelson, R. L.
Dey, all of Salinas. Retired president, Wm. O.
Eddy, was presented with a beautiful gavel.

Long Beach Mineralogical society has set Oc-
tober 20 as date of its third annual mineral
show. It will be held at 4104 Allin street, Long
Beach, California, one block east of Belmont
pier. The public is invited.

Marquette Geologists association, Chicago, at
its latest meeting, elected the following officers
for the 1946-47 season: Langdon H. Longwell,
chairman; Winton E. Platte, vice-chairman;
Marjorie Scanlon, secretary-treasurer; Selma
Jenner, curator-librarian. Directors are: Arch
Nisbet, Wm. E. Menzel, G. G. Putman, T. J.
Scanlon.

At August meeting of Los Angeles Miner-
alogical society, during the period when guests
were introduced, Mrs. Dearborn, secretary of
the New England Federation, extended a wel-
come to anyone coming to Boston.

About 25 members of Los Angeles Lapidary
society who are interested in faceted gems have
formed an "inner group" which meets monthly
to discuss problems concerning gem faceting. A
similar group for the jewelry workers may be
formed in the near future. Society planned a
field trip to Chuckawalla mountains for latter
part of October.

Richard R. F. Lehman has written an article,
Good Field Trip Behavior, in September issue
of Pacific Mineralogist, bulletin of Los Angeles
Mineralogical society, which would be a good
code for every rockhound. He stresses special
problems which confront collectors in Southern
California.

Rock collection of Charley Williams of Bar-
stow, one of the state's outstanding ones, is be-
ing exhibited by Walter Reinhardt at Mountain
View, California, schools.

Trona was brought to the attention of visitors
at the Northwest Federation of Mineralogi-
cal Clubs exhibition at Boise, Idaho, in Sep-
tember, when a crystal specimen display of Mo-
desto Leonardi's won first prize in that classi-
fication.

Selma, California, lapidary class has started its
eighth year of operation under Adult Evening
Education program. Some of the original mem-
bers are still in attendance and the class has its
same instructor, Gates Burrell.

August meeting of Long Beach Mineralogical
society was highlighted by Jack Streeter's talk on
mineral collecting in Brazil. He described many
good localities in the country, and gave account
of various incidents during his trip and a wealth
of information about Rockhounds in Brazil.

At first fall meeting September 17 of Minera-
logical Society of Southern Nevada, Boulder
City, Paul Mercer was elected to take the place
of Mrs. Dora Tucker who resigned due to ill
health. Mrs. Florence McMillan, in turn, was
chosen to take Mr. Mercer's office as secretary-
treasurer. New president outlined an interesting
program for the season including trips to Davis
dam area, Searchlight, Nelson and other favor-
ite haunts of rockhounds. First field trip was to
be to Fortification mountain October 13. The
area of banded agate and flowered jasper locat-
ed there will be reached by crossing Lake Mead
by boat.

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Heber H. Clewett, physics instructor Pomona high, was speaker at September meeting of Pomona Valley mineral club. In his talk on quartz oscillator plates he stated that only a small proportion of quartz crystals is satisfactory for making oscillators, and that until the past three or four years only Brazilian crystals were considered usable. Much of that material was discarded due to imperfections such as fracture or twinning. During the war it was discovered that oscillators could be made much smaller than had previously been thought possible and that intrusions, phantoms or cloudiness did not impair oscillation properties. Also quartz from Virginia, Arizona, North Carolina and California was found satisfactory.

San Fernando Valley Mineral and Gem society has sent copy of its bylaws, directory and its bulletin Rocks and Gems to a group in West Australia who wish to form a gem society.

Orange Belt mineralogical society plans to resume regular indoor meetings October 1 (first Tuesdays) at 7:30 in San Bernardino, California, junior college.

Taylor Martin, Box 295, Pecos, Texas, has a limited quantity of dendritic calcite crystals which he would like to trade for other specimens of interest.

Searles Lake gem and mineral society plans its fifth annual hobby show October 26-27 at Trona unified school. Hobbies of any kind may be exhibited, but rocks will predominate. Several conducted field trips to near-by points of interest have been arranged. Admission 50 cents.

At September meeting of Desert Gem and Mineral society, Blythe, California, Collis Mayflower and Jerome Keim were appointed to serve with club officers on the mineral show committee. Date of the next gem and mineral show was to be announced at the October meeting. At the same meeting it was decided to have a mineral auction at each meeting, proceeds to go to the treasury. Each member will bring a specimen for the auction. Glenn Vargas spoke on his recent collecting trip to Wyoming.

San Jose Lapidary society recently received word their articles of incorporation have been granted by the State of California. Orlin Bell, San Francisco, who did the legal work, was to be present at the October 1 meeting to present them officially.

ROCKHOUND MOUNTAIN

Apologies to author Big Rock Candy Mountain

By RITA MATSON

Santa Barbara, California

On a summer day in the month of May,
An old rockhound came striding
Up a rocky slope, through the brush—the dope
Hoped to find where gold was hiding.
As he roamed along he sang a song
Of the land of rockhound heaven,
Where all glitter's gold, and there's nothing sold
But a sample's freely given.

Oh! the buzzin' of the bees in the petrified trees,
Near the opalescent fountain,
At the quartz crystal springs where the di'mond
saw sings
In the far-off Rockhound mountain.

"Come along with me," says this rockhound free
"And let your cares go sliding.
Take a sample here, try for color there,
And ne'er your luck be chiding.
We will trade our rocks, smart like a fox
And we'll never be outsmarted.
They will call us queer, but let them jeer—
From our rocks we'll ne'er be parted."

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Highlights of Sequoia Mineral society's September meeting were musical numbers and reports by members of their summer trips. Several members displayed specimens. Others had slabs and specimens for sale at the meeting.

Past presidents of Los Angeles Mineralogical society were honored at the annual birthday party meeting September 19, at which time they gave anecdotes of the past and suggested aims for the future. Past presidents in attendance were: Dr. Thomas Clements, Mrs. Gertrude McMullen, Dr. John A. Herman, O. C. Smith, Ernest Peterson, Jas. C. Arnold, Gordon Funk and Dick Lehman. About 60 members and guests were present.

Guest speaker at September meeting of Yavapai Gem and Mineral society, Prescott, Arizona, was Homer R. Wood, former state senator and old-time Arizona resident. His stories of early prospectors and trail blazers in Prescott area, dating back to early 1860s when gold was first discovered, were both humorous and interesting.

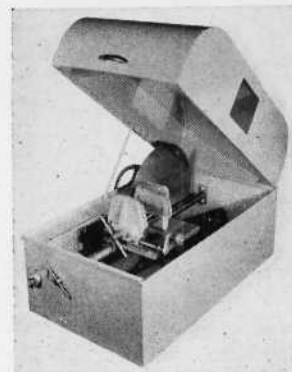
Chicago Rocks and Minerals society, at September 14 meeting, heard Frank L. Fleener, Joliet geologist and collector, discuss fossils and the discoveries of buried records of human activities of prehistoric times. Ben Hur Wilson, also from Joliet, presented the speaker. George C. Anderson, president, presided.

R. M. Addison, San Jose, and Mrs. D. D. Smythe of Santa Cruz, spoke at September 9 meeting of Monterey Bay Mineral society. Mr. Addison exhibited his beautiful and unique cameos and told how he made them. Mrs. Smythe gave an interesting talk on jade and showed some of her priceless pieces which she brought from China.

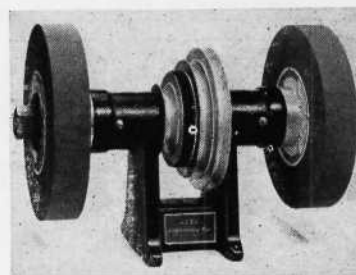
Members of Santa Monica Gemological society at September meeting enjoyed an air tour of Alaska via "Wings to Alaska," a colored motion picture. Also an educational talk by Prof. W. R. B. Osterholt of Santa Monica city college, on glaciers. Minerals of California were exhibited by members in Mineral of the Month contest.

Minnesota Mineral club, Minneapolis, in looking about for ideas to swell the treasury, is considering sale of paper-weights and bookends made from scrap material left from the cutting wheel and assembled into form with some sort of plaster, to sell at \$2.50 to \$3.50. They would use only native Minnesota material and advertise in national magazines.

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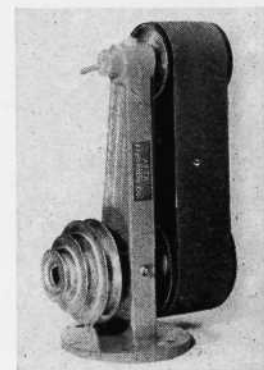


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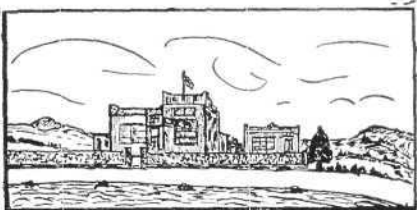
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Ricolite, striped serpentine, lb.	50c
Black Obsidian, lb.	50c
Snowflake Obsidian, lb.	50c
Garnets, pyrope, cutting quality, oz.	50c
Colorado Plume Agate, per slab \$1 to \$30	

Other materials too numerous to mention, also, cabinet specimens, cut stones, silver jewelry, fluorescent materials, mineral books, lapidary work, gold and silver work to order.

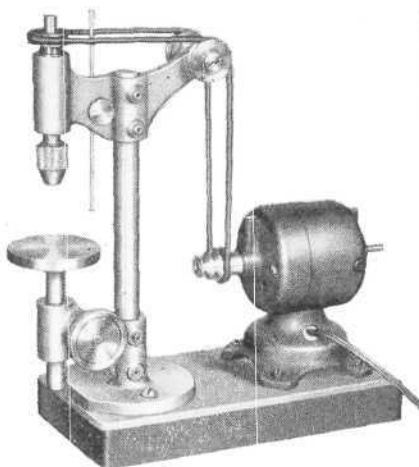
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It is reported that Glen Waters is forming a club in Rochester, Minnesota. Another report has it that clubs are forming in Duluth and other areas.

Program subject for September 12 meeting of San Fernando Valley Mineral and Gem society was minerals of Cornwall. Kilion and Margaret Bensusan presented a joint lecture on the minerals and mining industry of the English county.

Ninety members and guests of Orange Belt Mineralogical society met at the home of Mr. and Mrs. I. V. Graham, San Bernardino, August 11 for a covered dish dinner. Members recounted vacation experiences. Mrs. H. Clark, president, gave several polished specimens for prizes, and a desert painting donated by a member was raffled. All enjoyed the grab boxes. September meeting was scheduled for Pinetum, Sylvan park, Redlands, final outdoor gathering of the season. Each member was requested to bring polished specimens for display. A "rock rush" was planned to complete the evening's fun.

North Hollywood high school, night school, has announced a class in mineralogy, which started September 16.

As Mineralogical Society of Arizona, Phoenix, opened its twelfth year of continuous activity, with more than ten times the membership with which the first year ended, it was announced that the aim of adding at least one new member at each meeting during last year was again achieved.

East Bay Mineral society, Oakland, has full schedule for October activity, including illustrated talk on Goose Lake meteor by Earle G. Linsley, of Chabot observatory (October 3), field trip October 6 for volcanic bubbles and petrified wood, and on October 17 an unusual program presented by Don Clark, who will show his pictures of Arabia set to music—a picture which was shown at a command performance for the royal family of Arabia during United Nations conference in San Francisco.

TRUE OR FALSE ANSWERS

Questions are on page 26

- 1—False. Rattlesnakes and ground owls sometimes usurp the prairie dog's holes, but they never live at peace.
- 2—False. Turkeys are native of North America.
- 3—False. Billy the Kid (William H. Bonney) was born in New York City in 1859.
- 4—True. 5—True.
- 6—False. Salinity of Salton Sea .355 per cent, Great Salt Lake 19.558 per cent. The percentages vary from year to year, these figures being taken from D. T. McDougal's *The Salton Sea*.
- 7—True.
- 8—False. El Tovar and Phantom ranch are in Grand Canyon national park.
- 9—False. Good treads are best for sand.
- 10—True.
- 11—False. The Mormon battalion was recruited while the Mormons were camped in Iowa enroute to their promised land in Utah valley.
- 12—True. 13—True.
- 14—False. Cliff houses generally of stone, with mud as mortar.
- 15—True. 16—True.
- 17—True. 18—True.
- 19—False. Walpi is a Hopi village.
- 20—False. Jumping cholla is a species of cactus.

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will detect valuable metals in your mineral samples. Rare metals are easily detected even in extremely small amounts.

Complete qualitative analysis only \$4.00 per sample. Prices for quantitative analysis and research sent on request.

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D12 Junior for 8" wheels	22.50
C2 Universal single end 5/8"	9.00
C2 Universal single end 3/4"	10.00
SARTWELL Automatic Drill	\$29.50
RX Complete Lapidary Unit	\$125.00

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CAMEOS or OPALS—Genuine—12 for \$3.75
100 JEWELRY STONES removed from rings, etc., \$2.40; 50 large ones\$2.40
12 ARTICLES ANTIQUE JEWELRY, rings, pins, etc.\$3.00
500 COSTUME JEWELRY STONES\$2.00
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HILTON & GREB GEM SHOP

J. W. Greb, past president of Gem Collector's Club of Seattle and one of the founders and directors of the Northwest Federation of Mineralogical Societies, has taken over the rock, mineral and gem business of John W. Hilton east of Indio, California.

Greb's rocks and minerals from the Northwest, combined with Hilton's large and representative collection from the Southwest and Mexico make this one of the largest and most comprehensive displays in the West. Future announcements will list special offerings from month to month. In the meantime we invite correspondence and visitors.

Shop on Highway 99, 11 miles southeast of Indio, at Valerie Jean's corner. Address Thermal, California.

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Cogitations . . .

Of a Rockhound

By LOUISE EATON

Rockhounds can't comprehend how ennywun, even the most fervent unrockhoun, can take a trip and not bring home rox—at least wun speciment uv what may be found in the locations visited. True rockhounds can't pass evun a cut in the road without xaminin it. Sum cuts pays dividends, too, in the guize uv mineral speciments or fossils. Hiway cuts also tells geologic stories about the surroundin country.

Rockhounds most genrally isn't vegetarians and in view uv the present meat sitchewation they sumtimz almost wishes that they could relish eatin the things Indians wunst did—rattlesnakes, chuckawallas and sutch. Only, evun in rockhounin territory, rattlesnakes is skarser than T-bones in a chain store.

Cuttin and polishin rox is certainly a lucrative hobby—wun that can be turned to good account if desired. Specially if yu can do facet cuttin. Therz increasin demand for distinktive gems, and lots mor folkes are becomin rok conscious. When rockhounds mounts their own stones they adapts the settin to the rok thus producin exquisite and unique joolry.

Mr. and Mrs. Walter A. Anderson of Snyder, New York, vacationed briefly in Phoenix during September. Mr. Anderson, member of Buffalo Museum of Science, is responsible for loan of Mineralogical Society of Arizona traveling collection to the Buffalo museum, where it has been on display for three months. He also is a leader in the amateur lapidary class sponsored by the museum, one of the largest programs of its kind in the country.

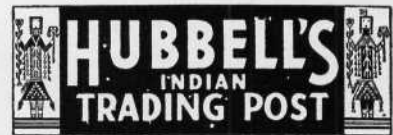
At October 5 meeting of Marquette Geologists association, Chicago, Frank L. Fleener of the Joliet Mineralogists spoke on fossils, their nature and implication. Among honored guests were Mr. and Mrs. J. O. Montague and Ben Bagrowski of the Wisconsin Geological society.

Meeting of Midwest Federation of Geological Societies was scheduled for October 19-20 at Minneapolis. Tentative program included business meeting, mineral exhibit, lectures, sightseeing tours, field trips and a banquet.

Marion Speers, of Western Trails museum, Huntington Beach, and recently elected president of West Coast Mineral society, was speaker at September meeting of Long Beach Mineralogical society.

World's Largest Diamond Mine Reported Found in Tanganyika

Diamond mine with a surface area eight times greater than the world's largest previously known diamond mine has been discovered at Mwadui, near Shiryanga lake in Tanganyika, department of land and mines announced from Dar es Salaam, Africa, September 26. Owner of mine was said to be Dr. J. T. Williamson, native of Canada and graduate of McGill university. Production for this year was estimated at more than \$8,000,000 and the mine surface reportedly has been only scratched.



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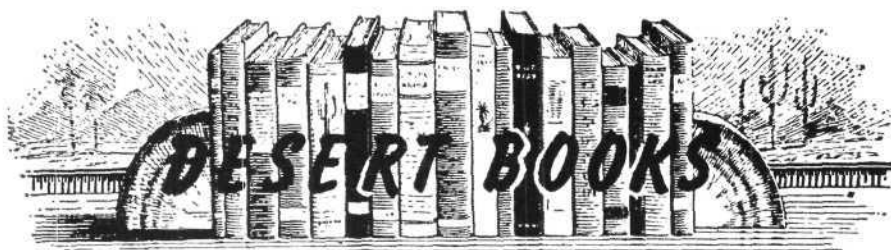
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In the style that makes history interesting to all ages, *SANTA FE, The Railroad That Built an Empire*, is the complete story of the building of the famous Atchison, Topeka and Santa Fe line. The author, James Marshall, begins his story back in early Pueblo days when the West knew only short foot trails, before the introduction of the horse. Against this background, the history of the great Santa Fe is quickly

unfolded, with emphasis on the personalities that built it—Colonel Cyrus K. Holliday especially. All of the detailed trials, tribulations and triumphs of the railroad are dramatically, and often humorously, reported.

Random House, New York., 465 pp., appen., index, 32 pages photographs. \$3.50.

—Aliton DuBois

NEW BROCHURE ON SOUTHWEST HOME CONSTRUCTION

A hundred pages of designs and details for Southwestern homes make up a new brochure, *MODERN SPANISH-PUEBLO HOMES*, designed and written by William Lumpkins, a native Southwest architect. Forty-one plans with perspective drawings and details, from small economical houses to four bedroom units. It contains a foreword on the historical development of the adobe house in the Southwest, illustrations and discussions of such details as fireplaces and doors. A page description of each house plan faces the illustration.

Construction plans and specifications on all the designs are available from Western Plan Service, Santa Fe, New Mexico. \$2.00.

GRAND CANYON SITS FOR ITS PORTRAIT

Edwin Corle, in his newest book *LISTEN, BRIGHT ANGEL*, has put geology and history into the best-seller class. He has written about the cyclopean birth and growth of the Grand Canyon and about the four centuries during which men have known the canyon, in such a way that a reader will ask for more geology and history—of that kind.

It is true historians and possibly geologists will find some faults. But there is no doubt this book will awaken a deeper and more active interest in Canyon Country and the entire Southwest than has heretofore elicited ohs and ahs of tourists as they have gone down Bright Angel and other trails via muleback.

There are moments, especially when Corle is writing of persons and events which have become idealized in general literature, when his tone sounds superficial. But when analyzed one realizes he is using the idiom of the day. Perhaps for that very reason his places, events and people seem so real. He looks at them from the viewpoint of a 20th century man who tries to see through the silk screen of glamor which has veiled historic figures from

Coronado to the present.

In the section, *More or Less Heroes*, which includes Coronado, Escalante and Ives, one of the best realized chapters is the wistfully beautiful story of Padre Garces, whom he calls the Little Man with the Big Cross. *Row Your Boat* is an eight chapter section giving highlights of man's struggle with the Colorado river, from the little known Virginian, William Henry Ashley, through the expeditions of Powell, the Kolb brothers, Clyde Eddy and more recent explorers and adventurers. He does not pretend a complete story of river men, but rather has chosen some of the most dramatic or the most significant, giving them rather detailed attention, thereby more effectively arousing curiosity about the entire story.

Grand Canyon "characters" and trail guides, tourists and dude wranglers are pictured with deft and humorous words which will be especially appreciated by those who have visited the Canyon. His sojourn in the Land of the Sky Blue Water, where "nothing ever happens" covers several amusing chapters about the Havasupai Indians.

The author chose a tremendous subject—filled with eons and centuries, with history and adventure—and he has produced a book that to the general reader will be convincing and realistic.

Duell, Sloan and Pearce, New York, 1946. Maps, index, 312 pp. \$3.75.

BOOK BRIEFS . . .

University of California Press announces that *Ordeal by Hunger*, the story of the Donner party by Dr. George R. Stewart, professor of English on the Berkeley campus, will be reissued shortly in a centennial edition.

One of the valuable documents of the Donner Party, who were snowbound in the Sierras in 1846-47, has been published by Dr. George R. Stewart, professor of English, University of California, under imprint of Book Club of California. Entitled *Diary of Patrick Breen*, the book presents text and facsimile of the original, with additional notes by Dr. Stewart.

Two books of the late W. A. Chalfant, *Tales of the Pioneers* and *Outposts of Civilization*, are being combined in a single volume entitled *Sagebrush and Mining Tales*, according to Stanford University Press. Foreword for the new book was written by Horace M. Albright, former director of national park service.

Another in the long line of stories on Superstition Mountain and its lost treasures is a booklet, *True Story of Jacob Walzer and his Famous Hidden Gold Mine*, written by Charles Frederick Higham of Phoenix, and published by McMath, El Paso, at \$1.00.

A VIVID *Exciting* NOVEL ABOUT CALIFORNIA'S EARLY DAYS

by a well-known
California newspaperman
Ed Ainsworth

Eagles Fly West

PAUL JORDAN-SMITH SAYS:
"Ainsworth missed nothing of California's amazing early history. That of itself would carry the delighted reader through these exciting pages: delayed romance quickens his pace . . . It is easy to see that *EAGLES FLY WEST* will be one of the most eagerly read novels the Pacific Coast has produced in many a long day."

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A new edition of Merle Armitage's famous book of food with articles by Louis Untermeyer, Crosby Gaige, Bob Davis, Abbe Dimnet; and recipes from Alfred Lunt, Angna Enters, James M. Cain, John Charles Thomas, Feodor Chaliapin and a host of others. Drawings by Elise. Photographs by Edward Weston.

. . . \$5.00

AND THREE SOUTHWESTERN ITEMS
BY EDWIN CORLE . . .

2. DESERT COUNTRY . . .

Fourth large printing.

. . . \$3.00

3. LISTEN, BRIGHT ANGEL . . .

A panorama of the Southwest from 1540 to 1946 containing material never before published.

EDWIN CORLE'S LATEST BOOK.

. . . \$3.75

4. BURRO ALLEY . . .

Merle Armitage has designed a new edition limited to 1500 numbered and signed copies of Mr. Corle's exceptional novel of Santa Fe.

. . . \$5.00

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By RANDALL HENDERSON

DESPITE all the advances being made by scientific man including the harnessing of atomic energy, the physical structure and mental equipment of the species *homo sapiens* has not changed much in the past 500,000 years, nor will it change radically in the next half million years, according to the view of anthropologists. Bearing on this subject the San Diego Museum of Man in a recent issue of its monthly bulletin, offers the following estimate:

"His head will not get much bigger, although it may become rounder. The brain will not become much bigger, although it has possibilities of becoming more specialized. Stature of some human groups appears to have increased but they may be due to better diet and medical care rather than any real evolutionary changes.

"One of man's weak spots, the lumbar region of the back could stand some improvement and may in time develop the needed reinforcement. Any expanded muscular development of the 'superman' type is unreasonable because the present framework would not stand the strain. Man's feet are weak and need improvement to support man's present weight. Wisdom teeth and little toes are going out for lack of use.

"There is a general tendency to the loss of body hair. In fact the Caucasoids, particularly whites in Europe and the Americas, seem to be following the lead of the Negroids and Mongoloids and going them one better by losing the hair on their heads as well. Man has not changed a great deal in the last 500,000 years except in the development of the brain, and it is doubtful if he will change much in the next 500,000 years. All this depending on whether we become too efficient at annihilating one another, and man is not around in 501946 A. D. to take a good look at himself."

* * *

The Creator has given us a beautiful and bountiful earth. In the soil and the rocks are all the resources man needs for a full rich life. And in the hearts and minds of humans is the potential genius necessary to use these natural resources to the end that there may be security, freedom and happiness for all.

Who then, is responsible for the misuse of these resources—the misdirection of these human talents? You say it is the presidents, the premiers, the dictators, the capitalists, the labor racketeers. But there is neither vision nor understanding in such an answer.

In a democracy, stupid or dishonest leadership merely is a measure of the intelligence and courage of those who select that leadership.

Who, then, is at fault for the confusion we see in America today? My friends, the paleontologists, can show you a very probable answer to that question out on the mesas and in the canyons of the land that is called desert. Nature has a law that is inviolate. It is the law of adaptation. The arid region of the Southwest is sprinkled with the fossils of plant and animal life that became extinct because it could not change—it could not adapt itself to a world that never stands still.

The lesson we can learn from this is that those forms which

could readjust themselves to new conditions—in other words, the radicals—came through the test and survived. Not always, however. Sometimes they became too radical, and perished. But the conservatives were doomed, without exception. Change is an immutable law.

The ancient dinosaur was a conservative. He could not adapt himself to changing conditions—and that was the end of the dinosaur.

The scientist, in the true sense of the word, is a radical. He accepts no precedents as his final authority. His mind is eager and curious—he seeks ever a new and better way to achieve the end he has envisioned.

I wish our schools were doing a better job of instilling in our children the eager open-minded approach to our social, political and economic problems which the scientist uses so effectively in dealing with material problems. I would teach the students that nothing man-made is too sacred to be changed—not even the constitution of the United States. That constitution was written by men who were radicals in their day.

My generation has made a rather bad mess of things. There are too many human dinosaurs among us. The solution for our confused world is in the adaptability of youth—youngsters who have been taught that it is within their power to take the resources and scientific knowledge of this earth, and with a somewhat different mould than their mothers and fathers have used, to re-create a social order in which they will regain their heritage of security, freedom and happiness.

* * *

With this issue, Desert Magazine starts its 10th year. It is just a youngster yet, but it has been through a few years of depression and a war—and a lot of headaches caused by the shortage of paper. We had to take another cut in our paper quota this month, but I think we will be back to our 48-pages-or-more next month. Let's hope it will be for keeps.

The things of the desert thrive on adversity. Also, they like plenty of space. They don't like to be crowded. And that is Desert Magazine's problem too. We must find bigger quarters for our growing staff of editors and printers and circulation girls. When we erected the present building in 1939 we thought it would serve our needs permanently. But we were wrong. We underestimated the numbers and enthusiasms of that strange tribe of humans who can see beauty in pastel-colored rocks and who find peace and strength—and poetry—in a land once feared and shunned by their ancestors.

And so, plans are in the making for a new and much larger publishing plant, to be started as soon as building materials are available. There we will have ample space, not only for the staff and printing equipment, but also for friends to call in and say "hello" and enjoy the botanical gardens and the desert exhibits which are to be a very important part of the new project.

Inscribed on the door of Desert's publishing plant in El Centro, California, is an invitation: "Friend or Stranger, you are welcome here!" We are going to take that sign with us when we move.

LETTERS...

Andreas Canyon is Correct . . .
Pasadena, California

Gentlemen:

It annoys me a little to see the Desert Magazine referring to "San Andreas Canyon" as you do on Page 2 of your October issue. Andreas Canyon was named for old Chief Andreas of the Palm Springs Indians, and I think San Andreas should be content—perhaps doubtfully—with having the biggest fault in California named for him.

WILLARD S. WOOD

Regarding the Sacred Bird . . .
Topango, California

Gentlemen:

I wish to add my two cents worth in the "Sacred Bird of the Hopi" controversy.

We consider that Mr. J. B. Dixon is the best authority on the life and habits of the Golden Eagle that this country has ever developed. He is the author of many books and papers along Nature lines and we are only too happy to indorse anything that he says.

I might add that my own personal experiences during these past 50 years has told me that the Golden Eagle is one of our most timid of birds and I never have heard of a single instance where any attempt was made to defend their nests. I have spent many a happy day exploring the Indian Country and learned to take with a grain of salt the vivid tales that flowed from their conversations.

W. LEE CHAMBERS

NOTE—Mr. Chambers is business manager of the Cooper Ornithological club, organized in 1893.

The Spots Tell the Story . . .
University of California
Los Angeles, California

Dear Randall Henderson:

I would like to bring to your attention the fact that one of the lizards pictured in Mr. Blackford's article on page nine in your September issue is mislabeled. It is marked Leopard lizard, while in reality it is the Desert Crested iguana.

The Crested iguana has a crest of dorsal scales along the reptile's back. The Leopard lizard does not. The spotting of the iguana is light with a dark encircling band, while the spots of the Leopard lizard are dark with a light area around the spots. The enclosed photograph will make clear this distinction.

The paragraph regarding the carnivorous habits of the lizard shown in your picture is therefore incorrect, the food of the iguana being flowers and other vegetation.

GERHARD BAKKER

Who Wrote These Lines? . . .
Mendenhall Peak, Angeles Forest

Sir:

This inquiry is in regard to a poem, the name of which has been forgotten. Some 40 years ago I had this poem in a scrap book, but during the first World War I mailed it to a friend. The opening lines are as follows:

Side by side on the white sands resting,
Sleeping on and on.
Not a sign or soul attesting,
Whence they've come or gone.
Not a beast about them crying,
Not a bird about them flying . . .

A. W. OLSON

Days on the Reservation . . .
San Diego, California

Dear Mr. Henderson:

I was much interested in an article by Richard Van Valkenburgh in your July issue, since I went to Keam's Canyon as a teacher in October, 1903, and later became disciplinarian. I knew Lorenzo Hubbell intimately, since we were both young and single and often played tennis and baseball. It seems strange to think that the old trading post is gone. I used to slip away from the boarding school and run down to the trading post and back before breakfast.

Keam had been gone a few months before my arrival, but I heard quite a little about him. Mr. Van Valkenburgh mentioned the differences of opinion which developed between Charles E. Burton, superintendent and disbursing agent for the reservation. Mr. Burton was a lovable gentleman, quite strict in his religious beliefs, hence had little sympathy for Indian customs or tribal ceremonies that conflicted with his interpretation of orthodox Christian teachings.

I regard Lorenzo Hubbell as a wonderful personality. He was just a kid at that time, fun-loving and always full of mischief, yet stern and business-like when he got behind the counter. I shall never forget his wrestling match with "Bullneck," a powerful Navajo, nor can I forget my ride when I borrowed Lorenzo's cayuse and rode to Holbrook to get a message through to Albuquerque. I rode the 85 miles in two days, starting at 10 o'clock in the morning, stopping at the Halfway house that night and on to Holbrook next day. I made the return journey, if I remember correctly, without stopping there, arriving home late at night. One of the Hathorn boys was in charge of the Halfway store. He had married a Navajo, as had his brother—Herman, I think his name was.

LUCIEN M. LEWIS

Return of a Historic Marker . . .
Jacumba, California

Dear Editor:

I am glad to advise you that the original grave stone which marked the burial plot of Frank Fox near the old Carrizo stage station on the Butterfield route has been located and returned to the grave by Bud Sackett of Anaheim, California.

The stone carved by Mr. Sackett (see Desert, October '42) to replace the original after it had disappeared, is to be placed in my museum four miles west of Jacumba.

HAPPY SHARP

Pegleg Was an Honest Man . . .
Calipatria, California

Editor, Desert Magazine:

Your October issue contained reference to two men who played important roles in the early history of the desert country, and I think you have done an injustice to one of them which should be corrected.

One of the men is Jedediah Strong Smith whose figure is included in the "This is the Place" monument being erected by the Mormons in Utah. Jedediah Smith left a record which has never been questioned.

However, on another page of Desert you mentioned Jedediah's nephew, Pegleg Smith, whose lost gold mine has become a legend on the desert. Pegleg's real name was Lazarus Smith, and he was my great uncle. I have heard older members of my family tell much of his life's story.

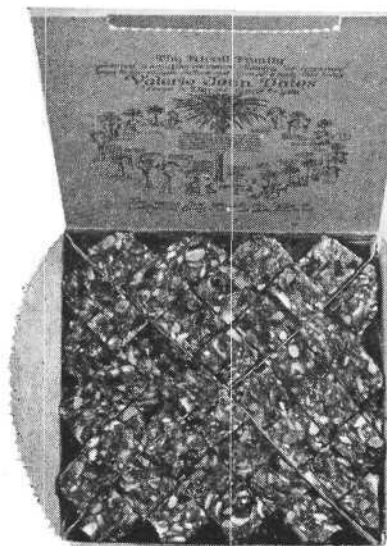
Some of the legends about Lazarus Smith have been rather uncomplimentary. For instance, your writer Charles Kelly implied that he had once been a horsethief in association with the Paiute Indian chief Joe Walker. Lazarus, or Pegleg if you prefer his nickname, was never a thief.

He was my grandmother's brother. He lost his leg in a sawmill accident when he was about 17. Two years later he came West, and remained many years in the desert country, and it was on one of his trips that he found the famous "hill covered with black nuggets." Eventually he returned to his home at Penn, Michigan, where he died of pneumonia, and where his body is buried today.

Lazarus was a quiet unassuming young man, and like his uncle, Jedediah Smith, was honorable in all his dealings. Unfortunately, another man—an outlaw—posing as Pegleg Smith because he too was minus one limb, was responsible for the slander which became attached to the name in later years.

The story of the Pegleg gold has been much garbled in the re-telling. Lazarus did find gold, but it was not black nuggets, nor were they located on one of three hills in the desert west of Yuma. The proper location is not far from the old Spanish trail on the Mojave desert. I hope some day to make a search in that area.

O. H. EDDY



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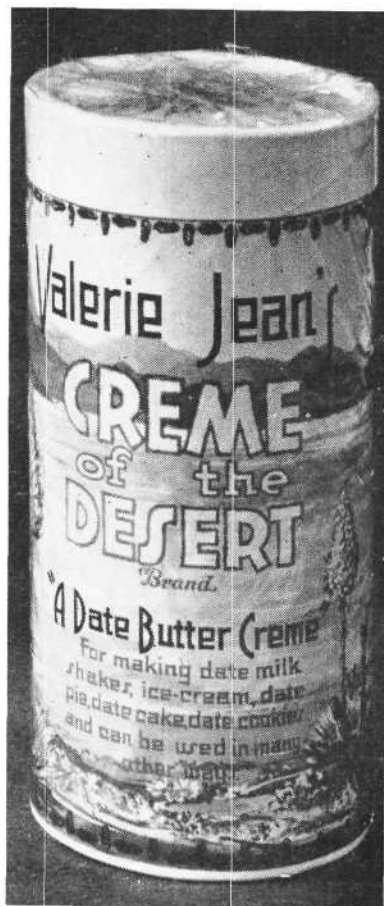
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