

THE

Desert

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JANUARY, 1950

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DESERT CALENDAR

New Year's Eve — Annual campfire Liar's contest at Pegleg monument in Borrego valley, California.

Jan. 1—Annual presentation of "The Messiah" in Tabernacle on Temple square, Salt Lake City, 2:00 p. m. Full symphony orchestra with guest conductor and soloist. No charge, but tickets required.

Jan. 1—Annual Pegleg Trek to Borrego valley, California.

Jan. 1—Rodeo at Slash Bar K ranch, Wickenburg, Arizona.

Jan. 1—Arizona Snow Bowl trophy race, Flagstaff, Arizona.

Jan. 1—Annual New Year's day powwow and dancing, Shevrit reservation, Santa Clara, Utah.

Jan. 1—Turtle dance at Taos pueblo, New Mexico.

Jan. 4-7—Annual Stock show, first on 1950 circuit, Phoenix, Arizona.

Jan. 6—King's day at Taos pueblo, New Mexico. Deer dance.

Jan. 6—Annual dances at many New Mexico Indian pueblos: San Felipe, Santo Domingo, Cochiti, Santa Ana, Zia and others. Colorful Eagle dance at San Ildefonso.

Jan. 8 — Rodeo at Remuda ranch, Wickenburg, Arizona.

Jan. 8—Phoenix Don's club Travelcade, to Tucson and San Xavier, Arizona.

Jan. 12-15—National evaporative cooler exhibit, Shrine auditorium, Phoenix, Arizona.

Jan. 14-15—Southern California chapter of Sierra Club will camp at Crystal Creek ranch and hike to summit of an unnamed peak in the San Bernardino mountains. Howard Hill, leader.

Jan. 15—Phoenix Don's club Travelcade, over Apache Trail.

Jan. 23—Annual Feast day and fiesta, San Ildefonso pueblo, New Mexico. Buffalo dance given three times during day.

January—Exhibit of paintings of Indian and pioneer subjects, by Clarence Ellsworth; also Sunday afternoon lectures. Southwest Museum, Highland Park, Los Angeles, California.

During January Lloyd Mason Smith, director of Palm Springs Desert Museum, will lead trips to Pushawalla canyon, Murray canyon and the Elephant trees in Anza Desert State park.



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Mojave desert — photograph by J. H. Jackson

SANCTUARY

By VIRGINIA RHORER
Dallas, Texas

Oh, I think God put His fingers
On the barren rock plateau,
Traced His temples in the canyons,
Laid His altars high in snow,
And he planned this primal Eden
At the weary journey's end,
By the starlit running waters
To restore the soul again.

WITCHING SEASON

By EMMA C. RICHEY
San Jose, California

Gray desert, how can you
Change your dress and look so new?
Summer drab, winter dull,
Spring a gaudy spectacle.
You repel with summer's heat,
Winter palls with cold and sleet;
Spring extends your witching charms,
Welcomes us with flowered arms.

DESERT NIGHT

By VIOLA PERRY WANGER
Upland, California

One lone tree etched against a twilight sky,
A thin curved silver moon above a hill,
Out of the silence, a lone night bird's cry,
Then quiet. All the world is still.
A loneliness so deep, so hushed, it heals
All bitterness and wipes away all pain,
And leaves the heart clean swept, at peace,
Like meadows newly washed with summer
rain.

POINT OF VIEW

By BARBARA N. WRIGHT
Redwood Valley, California

Two men looked from a speeding train,
As they traveled over a vast, dry plain.
The one saw nothing but miles of dust.
The other thrilled with the wanderlust.
The first saw cactus and mesquite and sage,
And turned from them to his printed page.
The second dreamed of wind in his face,
The sun on his back, his mustang's pace
As, with singing heart, he roamed the
range.

The first man would have thought this
strange,
For he saw only the burning sand
Where the other saw his promised land.

DESERT RAINBOW

By MYRTLE M. PEPPER
Los Angeles, California

I've found new hope, new courage,
And my soul has found new rest,
I've seen God's halo shining
From a rainbow in the West.

Truth

By TANYA SOUTH

Truth dwells in marble halls no more
Than in the hovels of the poor.
It seeks the beggar man no less
Than moneyed elements to bless.
Truth dwells in goodness, and in love,
For the eternal treasure trove
Is for the genuinely fine,
Regardless of their life design.

Roads

By DIANA DER HOVANESSIAN
Cedar City, Utah

You can have the super highways
With the clover turns and such
I'll take the little by-ways
Dirt roads, not traveled much.

The wide roads are for speeding
And mapped out to the end
But the little roads need heeding
With surprises at each bend.

They lead you back in time, it seems,
To a slower kinder pace
Full of flowers and creeks and pine trees . . .
The only signposts in the place.

Oh, the sand roads and the dirt roads
And the wagon trails set apart
Are not so good for engines . . .
But they're so good for the heart!

STORM ON THE DESERT

By HELEN RICHMOND
Hermosa Beach, California

There's a hot, dry wind through the palm
leaves,
And the air is filled with sand;
While stark and bare in the distance
Smoke trees like grey ghosts stand.

The low sweet call of the plover
Is hushed, as he droops his head
Where the clinging sweet verbena
On the barren ground is spread.

From the hills of San Jacinto
Comes the wind, with a stinging blast;
And over the waiting desert
Its unleashed fury is cast.

No bleak, cold heights of mountains
No billows of ocean grand,
Can fill the heart with such terror
As a storm of desert sand.

When at last the wind is over
And Nature, exhausted, sighs,
A peace comes over the desert
As it rests 'neath starlit skies.

The great, dark bulk of the mountain
In lonely majesty stands;
And the God of hill and desert
Holds both in His loving hands.

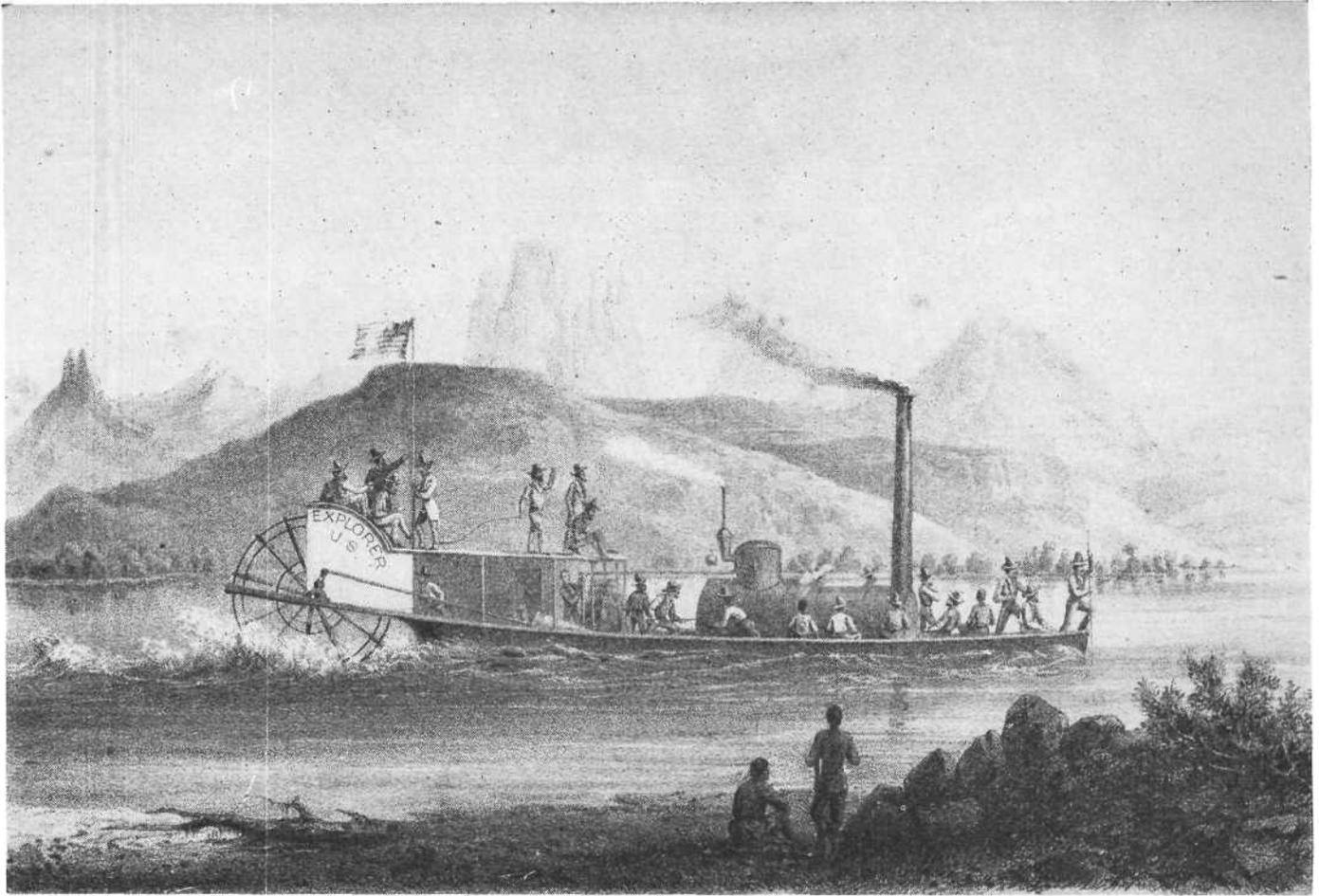
MOUNTAIN BALLAD

By MARIE HENDERSON WOOD
Long Beach, California

I wear a crown of swirling clouds,
I cradle the hemlock and fir,
I anchor swift hoof of the leaping goat
And echo the eagle's whirl.
My caverns reverberate thunder's roll
And lightning lashes its whip
Across the ledges and jutting crags
Of my lonely reaching tip.
My gulleys are beds for melting snows
That merge with torrential rains
To roar and spill their white-maned way
Towards unsuspecting plains.

I pit my strength against man's brain,
I laugh in his sweating face.
I tangle his path with sharp-thorned brush
To lose him without a trace.
I hurl great rocks to machine-made roads,
I capture the blizzard's snow
And hold it captive in endless drifts,
Whose depth no man will know.

Then twilight comes with gentle hands
To quell my angry mood;
And I quietly shadow the desert fox
Suckling her hungry brood.



The Explorer was a clumsy looking boat, and it collided constantly with sandbars in the channel, but it was a sturdy craft and eventually made its way upstream despite all obstacles.

He Explored the Unknown Colorado

By AL HAWORTH

Illustrations are reprints of lithographs made by J. J. Young from sketches by H. B. Mollhausen, member of the expedition.

"... we heard, from the direction of the Gulf, a deep booming sound, like the noise of a distant waterfall. Every moment it became louder and nearer, and in half an hour a great wave, several feet in height, could be distinctly seen flashing and sparkling in the moonlight, extending from one bank to the other, and advancing swiftly upon us."

This frightening phenomenon of the tidal bore, a singular occurrence encountered at only a few places in the world, was Lt. Joseph C. Ives' introduction to the unexplored, unpredictable, unorthodox Colorado River of the West.

It was at the end of November, 1857,

that the young army officer, a lieutenant in the corps of topographic engineers, got his first glimpse of the mouth of the Colorado as he stood on the crowded deck of the *Monterey*, a 120-ton schooner which had brought him and his exploring party, supplies, equipment and a knocked-down steamer of light draught from San Francisco around the Cape of San Lucas and up the Gulf of California.

The lieutenant's instructions were specific. He was to "ascertain the navigability of the Colorado." It was John B. Floyd's idea. Floyd was secretary of war in the cabinet of President James Buchanan. The reason was a

"Determine the navigability of the Colorado!" Those were the terse instructions given in 1857 to a young army engineer. Lieutenant Ives carried out his orders, and despite hardships, danger and set-backs he never lost faith in his ability to conquer the West's most unruly stream. He left an accurate and sometimes humorous record of the river, the wild country through which it flowed, and the primitive savages who lived on its banks. This is the first of two instalments of the Ives' story.

military one. Establishment of new army posts in Utah and New Mexico made it desirable to find out whether or not the Colorado might be "an avenue for the economical transportation of supplies to the newly occupied stations." So when in the summer of 1857 Secretary of War Floyd finally had at his disposal some funds for field examinations, he set apart a portion of

the money for exploration of the Colorado and directed the promising topographical engineer, First Lieutenant Ives, to organize an expedition.

And now, after months of preparation and a 30-day sea voyage, the young lieutenant sailed on the morning of November 29 from the vermilion waters of the Gulf into the "deep red and very turbid" waters of the Rio Colorado, a legendary river that for three centuries—since its discovery in 1540 by a detachment of 25 men who had left Vasquez de Coronado's exploring party and followed the stream to its mouth—was scarcely approached except by an occasional trapper.

There was a fort and an army post at Yuma, 150 miles by the winding river from head of the Gulf, but beyond that lay an unknown and dangerous country, a treacherous shifting river that had to be conquered. The lieutenant knew he faced a difficult task. But had he realized what actually was in store for him and his small party, it is doubtful if he would have slept soundly that first night on the muddy banks of the Colorado.

First major undertaking was to unload and assemble a steamboat built in Philadelphia especially for the expedition. It was an iron steamer, 50 feet long. It had been tested in August on the tame Delaware river "and found satisfactory," according to an early entry in Lieutenant Ives' diary. He wrote those words before he knew his Colorado.

What would ordinarily be a routine job presented grave problems, it was soon apparent. Captain Walsh had taken his *Monterey* up the mouth of the river to Robinson's Landing, stopping place for ocean-going vessels. Careful examination of the steeply shelving bank revealed there was no place where it would be possible to land the steamboat material, supplies and stores except at high tide, and then the rapid fall of the water and the swift current "would render the operation difficult if not impracticable," Ives observed.

Finally they hit upon an idea that was highly distasteful to the good captain. They would run the *Monterey* into a gulley which would float the schooner at high water, but at low water and during the neap tides of the next two weeks she would lie "high and dry, 15 or 20 feet above the river; a position so new for a shipmaster to place his vessel in that it was with great reluctance that Captain Walsh yielded to the necessity of the case."

It took more than two days to unload the ship. Because the river overflowed the surrounding flat country regularly, Lieutenant Ives' men work-

ed in clinging, slimy clay mud. Landing the boiler and heavy portions of the steamboat was particularly difficult. Ives wrote ruefully on December 2: "A more unpromising place to build a steamboat could scarcely be imagined."

To build the ways and derricks, logs of half-decayed driftwood were salvaged from the muddy terrain a mile distant. Two or three men would harness themselves to a log and sinking knee deep at almost every step hauled each stick through more than a mile of gulleys and mud into camp.

Aided by the ship's crew, the heavy labor of first operations was accomplished and by December 5 "camp had been fairly established."

Now to build the ways. It took ingenuity, back-breaking labor and the ability to put up with continual physical discomfort. Lieutenant Ives must have had the gift of inspiring loyalty, else his men would have lost heart long before the actual river trip began. An excavation was made in the tough adobe large enough to contain both the ways and the steamer. From this a ditch led to the river. Hope was to float the completed boat at next high water.

There followed days of unremitting toil, during which Ives did not fail to note the beauty of the December weather—the same desert winter weather which attracts thousands today. Ives' men were captured by its spell. Near-tragedy was the result one fine Sunday. In his official report to the war department, the lieutenant recorded this account of the incident. He wrote:

"Not satisfied to pass a quiet day after the labors of the week, many of the men, seduced by the enticing weather and smooth water, started in a boat after breakfast on a clamming excursion towards the Gulf." A furious northwester came up, the men nearly lost their lives, were unable to return to camp until far into the night. They were a sorry looking set, according to Ives, and he sums up his account of the affair and his opinion of that part of the world in these words:

"They had not got any clams, but were hungry, wet and bedraggled, and quite satisfied that it was useless to search for either pleasure or shellfish at the mouth of the Colorado."

But work was not interrupted on assembling the sturdy steamer that was to explore the river. Each step offered new difficulties that had to be solved by A. J. Carroll, Philadelphia, who had come along as engineer and had accompanied the knocked-down boat on its trip down the east coast, thence over

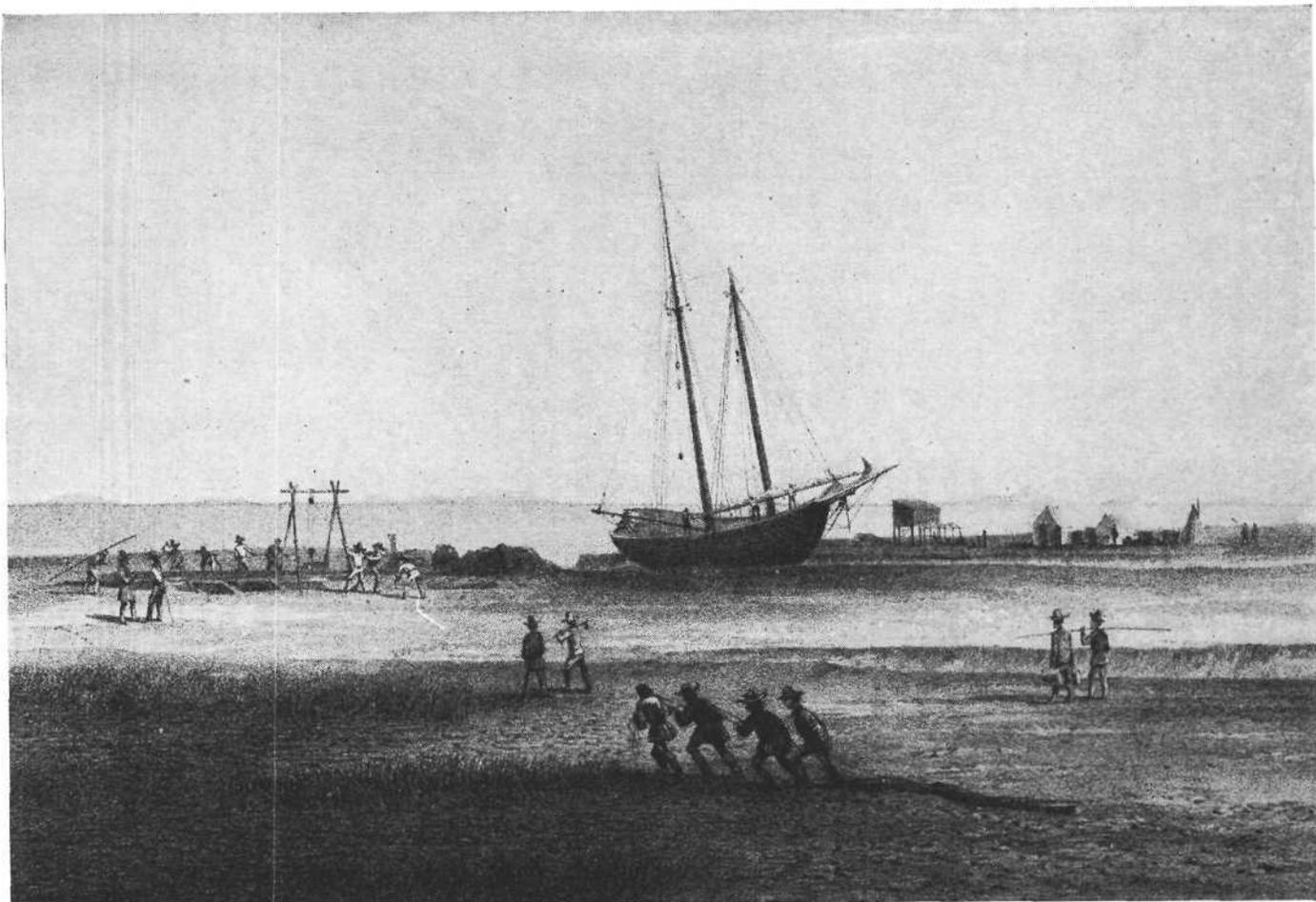
the Isthmus of Panama by railroad, and finally to San Francisco by water. Handling the boiler, for instance, was a laborious task. It weighed three tons, had to be moved up to the side of the pit where the ways were constructed. Although the distance was only 25 yards, it took 10 men all day to inch it along through the deep mud into place.

It was at this river camp that Ives had his first sight of Colorado Indians. They were Cocopahs, lived along the river for 50 miles from its mouth. With his careful choice of words, the lieutenant recorded that they were attracted by the smell of food cooking and gave this description of first encounter with the aborigines:

"Two dirty looking beings hove in sight, and came trotting over the flats, directing their way with unerring sagacity towards that part of camp where the eating arrangements were progressing." The novel appearance of the camp, the machinery, the bustle, left them unimpressed. They established themselves to leeward of the fire, "where they could inhale the odor of the victuals," and stayed until they were fed. They stayed, in fact, for nearly a week, until there was, as Ives reported, "a rupture of amicable relations between them and the cook." The lieutenant didn't think much of the Cocopahs, classed them as inferior to other Colorado river tribes. "All their faculties and thoughts, if they had any, seemed to be concentrated in viewing preparations for eating," he observed.

Cocopahs he saw later were, as a whole, better looking than this first pair. "Several of the men had good figures," he wrote. "The women were rather too much inclined to embonpoint, with the exception of the young girls, some of whom were by no means ill-favored."

Their complete aversion to work of any kind astounded the energetic Ives. To obtain a stock of firewood, the lieutenant finally talked two or three Cocopahs into going after drift-logs. They were strong athletic fellows, and after making their bargain they carried it out, although they became heartily sick of the business long before the day was over. "After bringing in a log," Ives reported, "Each one would lie on his back to rest, making horrible grimaces and rubbing his astonished arms and legs. When night came I paid them half as much again as had been promised—thinking that this and the virtuous consciousness of having for once in their lives done an honest day's work, might induce them to try it again; but I believe that nothing that there is in camp would have prevailed upon them to repeat the experiment."



Mouth of the Colorado river in 1857, an expanse of desolate mud flats overflowed regularly by the river when high tides from the Gulf of California backed up silt-laden river waters. It was here Lieutenant Ives and his men tackled the job of assembling their boat for the trip upstream. This was stopping point for ocean-going ships, was known as Robinson's Landing. From photo by Lieutenant Ives.

Meanwhile Engineer Carroll and his half dozen men had overcome one mechanical bottleneck after another; the over-size boiler had been fixed in place; machinery installed; heavy metal plates of the hull bolted in place and reinforced with four stout pieces of scantling along the bottom; essential parts of the power plant were complete; the word "Explorer" had been painted "in large capitals" upon the wheel-house—and on Christmas Day, 1857, the boiler was filled and steam got up. The engine ran beautifully.

A few days earlier the high tide for which Captain Walsh had impatiently waited finally came and the *Monterey* was restored, with her happy commander, to her proper element. On December 21, after transferring supplies from deck of the *Monterey* to two steamboats down from Fort Yuma, the good captain took his ship back to sea and the little exploring party was left in exclusive possession of the mouth of the Colorado.

On evening of December 29 Mr.

Robinson returned from Yuma to his semi-aquatic homestead—Robinson's Landing—ready to assume his duties as pilot. Lieutenant Ives counted himself lucky to have been able to engage a man of Robinson's experience on the river. He brought word that two detachments of Ives' expedition, one starting from San Diego, the other from San Pedro, had made the overland journey to Fort Yuma bringing with them mules and supplies. And at the mouth of the Colorado river, the *Explorer* was ready for launching.

Shortly after midnight on December 30, in moonlight almost as brilliant as day, the high tide floated the vessel, the engines were put in motion, and the little boat backed slowly out into the stream. It was a great occasion, and Lieutenant Ives commented that "few boats have ever been surveyed by their builders with as much admiration and complacency."

Next day was spent loading instruments, stores and supplies. At midnight steam was gotten up. As the tide rushed up the river the lines were cast

loose and with a shrill scream from the whistle the *Explorer*—literally loaded to the gunwales—started out into the stream and the young lieutenant bid final farewell to Robinson's Landing and mouth of the Colorado.

The distance to Fort Yuma, by the river, was 150 miles. It took the *Explorer* nine days to make the trip—an average of only a little more than 16 miles a day. First night out the overloaded vessel was almost swamped by waves when a sudden storm came up. Each day brought new difficulties. The river was exceedingly crooked; sharp turns, sand bars and shoals caused frequent delays. Navigation was made even more difficult by the fact that the river was lower than it had been in years. Yes, there were troubles aplenty, and the exploration trip had hardly started.

On January 9 the *Explorer* reached Fort Yuma. Lieutenant Ives had gone the last 27 miles on horseback and reached the army post two days ahead of his boat.



These Cocopah Indians lived—and still live today—along the Colorado river from its mouth in the gulf for some 50 miles up-river. They were, Lieutenant Ives reported, “much inferior to the other Colorado tribes.”

The three detachments of the expedition were now united. Those who were to go aboard the ship numbered 24. They included:

Dr. J. S. Newberry, physician to the expedition and in charge of natural history; F. W. Egloffstein, topographer; H. B. Mollhausen, artist and collector in natural history; C. Bielawski, surveyor. Lieutenant Tipton, 3rd artillery, was in command of the escort, but sent a few of his men on the steamer. P. H. Taylor and C. K. Booker, astronomical and meteorological assistants, accompanied the land party which was to follow the river to the head of navigation.

It seemed that circumstances were combining to make trouble for the courageous party as, on January 11, they made ready to leave Fort Yuma behind. Reports from up-river indicated the Indians were disturbed over rumors of a Mormon movement. News that the Ives expedition was preparing to ascend the Colorado made the Indians even more uneasy, for they were jealous of any encroachment into their territory. The lieutenant could find

no Yuma Indian who appeared willing to accompany him as interpreter. The river continued to fall, the Indians said they had never seen it so low, and Ives concluded: “We shall be able to test the experiment of navigation at as unfavorable a stage of the water as will probably ever be experienced.”

But, with only six weeks provisions and such arms, ammunition and luggage as were indispensable, and after minor repairs and adjustments to the *Explorer*, everything was ready for the start of “the ascent of the unknown river above.”

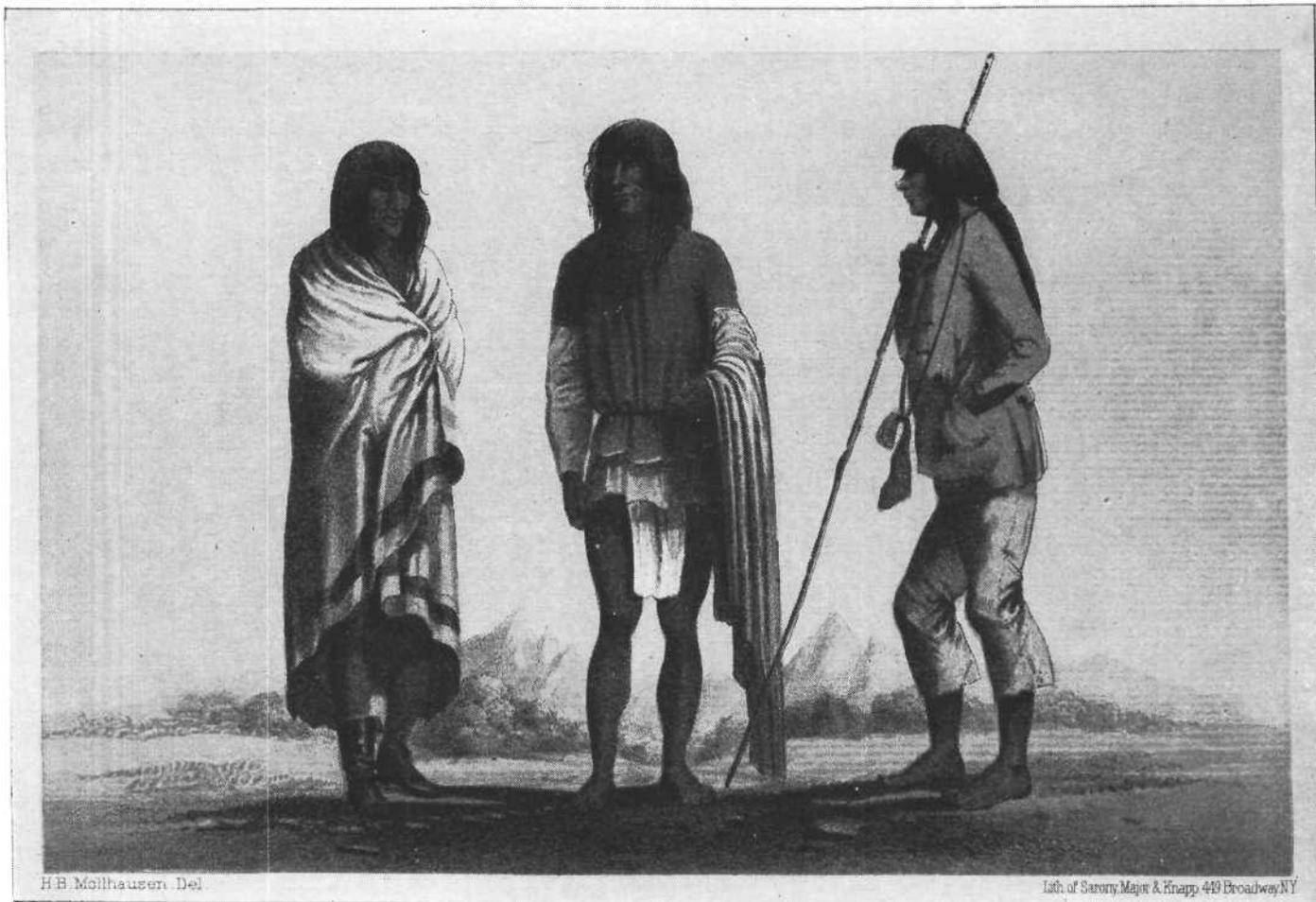
That first day’s voyage was almost ludicrous, would have taken the starch out of less determined men. The *Explorer* made only three miles, the party being forced to camp the first night within sight of the wharf at Fort Yuma. Only two miles after pulling out into the river, the boat ran aground on a sand bar. It took nearly five hours to force the steamer into deeper water beyond, by the time another mile had been negotiated it was nearly dark. “We were in plain sight of the fort,” Ives recorded in his report, “and this sudden check to our progress was af-

fording an evening of great entertainment to those in and out of the garrison.”

This was but a foretaste of what lay ahead. But early the next morning the trip was resumed and soon the Yuma shoals were passed. Ten miles upstream appeared a pass between purple hills, and once in it the party lost sight of the flat valley above Yuma, felt for the first time that they were really in a new part of the river.

Lieutenant Ives named this Explorer’s pass—from that point on up the river applied many names that are used to this day.

Progress was slow. Each night the boat put in to the bank where wood was available for fuel and next morning after breakfast the deck would be piled high with mesquite. Despite these precautions, the fuel supply would sometimes be exhausted before day’s end, then the men would swarm ashore with their axes and lay in a stock of firewood. A day’s travel might take the *Explorer* 30 miles—or five. It was a heart-breaking fight against shoals, bars, snags, with the skill of Pilot Robinson put to severest tests to



Yuma Indians as they appeared near middle of the last century after contact with the whites. They were superior to the Cocopahs living nearer mouth of the river, but those who lived around the army post at Fort Yuma deteriorated rapidly through their association with the white man's civilization, according to Lieutenant Ives.

choose a channel in the disconcerting river.

As they progressed upstream the scenery changed. It was still barren country, almost devoid of vegetation except at water's edge, but the ranges of hills became more frequent with each range providing a deeper, more colorful canyon. In passing through the country Lieutenant Ives did not fail to note the majesty of the huge saguaro cactus, his description could not be improved upon today. He wrote: "The fluted columns stand in conspicuous relief."

An occurrence six days out of Yuma best gives an idea of the difficulties encountered in navigating the Colorado. Leaving camp January 16 in Canebrake canyon, the Ives expedition had this experience:

"An open looking stretch of water ahead gave encouragement of a good day's run. We soon discovered that, as regards the navigation of the Colorado, no dependence can be placed upon appearance, for after proceeding

only 200 yards the boat grounded upon a bar with such force that it took nearly two hours to get her off."

It was in Canebrake canyon that the first of many rapids was encountered, and the crew learned the trick of jumping ashore with a tow line to pull the *Explorer* through the swift current and around jagged rocks.

Since leaving Yuma very few Indians had been seen. The river ran through rough mountainous country, Indian villages were confined to the alluvial bottoms. Ives' report alluded again to the scarcity of vegetation, but made one notation that hunters today wish could still be true. At the edge of what he called the Great Colorado valley, just as they were leaving the Chocolate mountains, they sighted a dozen mountain sheep (big horns) scampering over a gravel hill near Lighthouse Rock.

Just before departure from the fort, a Yuma chief had been able to assign two Indians to accompany the party. They were Mariano and Capitan. The

lieutenant took time out to comment upon their daily conduct and recorded these interesting observations:

"When we make a landing to take in wood they instantly disappear and refresh themselves with the absence of civilization until the whistle signals that it is time to start; and similarly at night, after receiving their rations, they go off to a distance, out of sight of our roaring campfires, and cook their food over a few smouldering embers, in the most quiet and secluded nook that they can find."

Progressing for nearly 100 miles through the Great Colorado valley, Dr. Newberry discovered a fact that has plagued agriculture in the Colorado desert ever since waters of the river have been put to beneficial use. "There is a good deal of bottom land," Ives reported, "and some of it is fertile; but much of it is so charged with alkali as to be unproductive." Even in 1858, however, Ives saw the solution. "A well-conducted system of irrigation would wash out the salt from the soil and increase the amount of productive

land." Exactly that system has been employed in today's rich Imperial Valley and in valleys along the Colorado.

Through most of the valley (the Palo Verde and Parker valleys of today), the exploring party daily encountered Yuma Indians. Reaching the upper end of the valley, they found the Chemehuevis, altogether different in appearance and character from the other Colorado Indians. The Chemehuevis were smaller, with finer features, turned out to be complete rogues. They had only one thing in common with the Yumas, their delight at seeing the steambot in trouble.

Lieutenant Ives' good sense of humor was functioning when he recorded how the jeering Indians disdainfully watched slow progress of the *Explorer* up the difficult stream. Here is his account:

"The Yumas collected in knots upon the banks to watch us pass, and their appearance is invariably the precursor of trouble. Whether their villages are near places where the river is most easily forded, or whether they select for points of view the spots where they know we will meet with detention, we cannot tell; but the coincidence between their presence and a bad bar is so unfailing that Mr. Carroll considers it a sufficient reason to slow down the engine when he sees them collected upon the bank."

The Chemehuevis did not restrain their amusement:

"I am sure they regard our method of ascending the river with unaffected contempt," wrote Ives. "They have been demonstrating to Mariano and Capitan—who are disposed to espouse our side, and yet are a little ashamed of being in such ridiculous company—how vastly inferior our mode of locomotion is to theirs. They can foot it on the shore, or pole along a raft upon the river without interruption; and that we should spend days in doing what they can accomplish in half as many hours, strikes them as unaccountably stupid."

One humiliating encounter was reported as follows:

"As usual they were awaiting approach of the steamer at points opposite the bars. Our troubles occasioned them unqualified delight. They watched the boat with breathless eagerness as we tried in vain to get through one place after another, and every time she ran aground a peal of laughter would ring from the bank."

(The second and concluding part of the story of Lieutenant Ives' exploration will appear in Desert Magazine next month.)

Hard Rock Shorty

of Death Valley



Mid-summer heat waves were shimmering over the floor of Death Valley. A station wagon had just driven up, and the occupants sought shelter under the lean-to porch of the Inferno store while a clerk filled the tank with gas from a little hand pump on the top of a drum of fuel.

"Anything grow around here?" asked one of the visitors.

Since Hard Rock Shorty was the only native within hearing range, the question obviously was addressed to him.

"Sure! Anything'll grow here if yuh give it water," he answered.

The stranger evidently was not

convinced, and continued to ask questions. It riled Shorty to have his veracity questioned.

"This is the growin'est place you ever saw," he finally exclaimed. "If you're goin' over Pioche way jes ask ol' Pegleg Pete who has that cinnabar claim over there. Pete camped one winter with me an' Pisgah Bill over by them Tule springs in Lost Burro canyon. Lot's o' water comin' out o' them springs and Bill was growin' a little garden there.

"First night Pete spread his bedroll on the ground near the spring. He allus unstrapped that wooden pegleg when he turned in, and that night he stuck it in the damp ground so it'd be handy in the mornin'.

"Pete didn't know about that rich soil. Next mornin' that wooden leg had growed into a 17-foot pine tree. We made 'im a new wooden leg outa mesquite, but everytime he went out hoein' in Bill's garden he had to take a prunin knife an' stop every few minutes to cut the new shoots off o' that leg."

Desert Pictures are Wanted ... Prize Contest Announcement

With the return of cool weather, photographers again are roaming the desert country in search of unusual photographs—and after a 3-month recess the Desert Magazine will resume its monthly photo contest in January. Pictures entered in the contest may include any subject essentially of the desert—landscapes, botanical subjects, wildlife, sunsets, shadow effects, human interest—the field is unlimited.

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

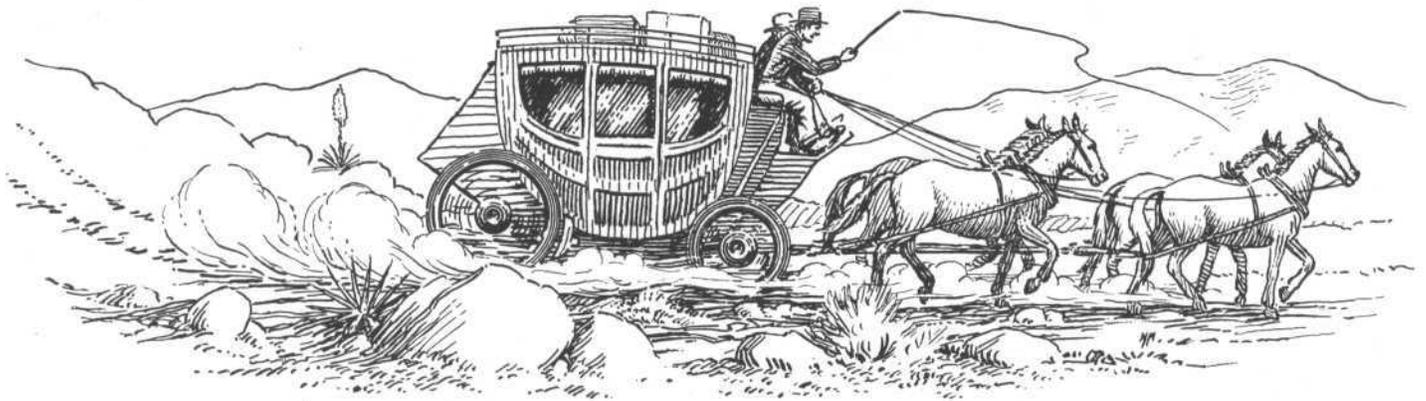
HERE ARE THE RULES

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

Address All Entries to Photo Editor

The Desert Magazine

PALM DESERT, CALIFORNIA



When Stage Coaches Came to Vallecito . . .

By MARION BECKLER
 Photographs by M. Carothers
 Drawings by Norton Allen

DON PEDRO FAGES urged his horse up one more rise and drew rein. The troopers behind him exchanged dark looks. How many more arid canyons must they climb, searching for those San Diego Presidio deserters?

But Don Pedro had straightened in his saddle, face intent. Below him lay a valley. A small green valley, like an emerald, deep in its gold setting.

"Amigos, our search is ended! Where else could our scoundrels hide? In the midst of all this desolation—water! Water and feed enough for a whole army! No?" His black eyes snapped. "Even the great Juan Bautista de Anza, bringing our people across the deserts from Sonora, knew naught of this oasis! It is for me, Pedro Fages, to discover it! Gem more precious than mountains of rubies, I name thee simply 'Little Valley'—*Vallecito!*"

That was in 1782. From the beginning of time the camping ground of roving desert peoples, the little valley of plentiful water was now known to the white man. It was not, however,

Gold-seekers, immigrants, soldiers, stage and freight drivers—they all came to Vallecito for water and food after the long hard trek across the Southern California desert. For more than 50 years this little adobe station surrounded by mountains was one of the best known watering places between Los Angeles and San Antonio. Here is a glimpse of some of the men and women who played leading roles in Vallecito's history.

until 1826 that a trail was blazed through from Sonora by Ramualdo Panchecho, and the first overland mail service into Alta California came through Vallecito.

Within a few years American adventurers were making their own trails across the Colorado Desert. To many who obeyed that early call to California, the snows of the high Sierras seemed less attractive than the long stretches of desert to the south—with the unfailing waters of Vallecito.

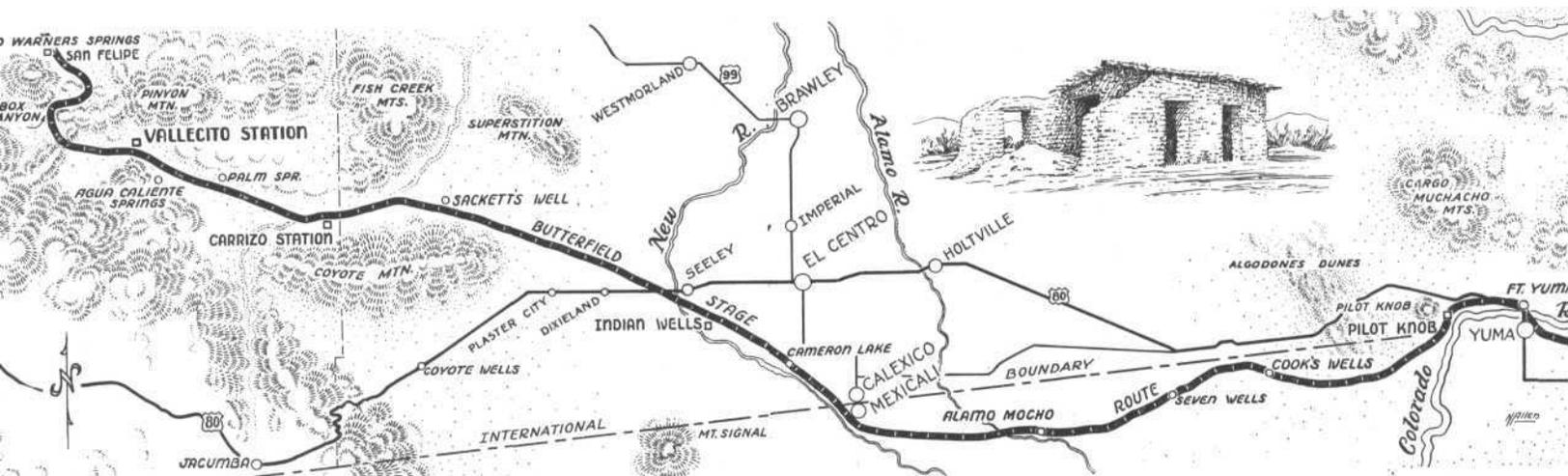
Vallecito lies to the east of San Diego's mountain ranges. The Lagunas

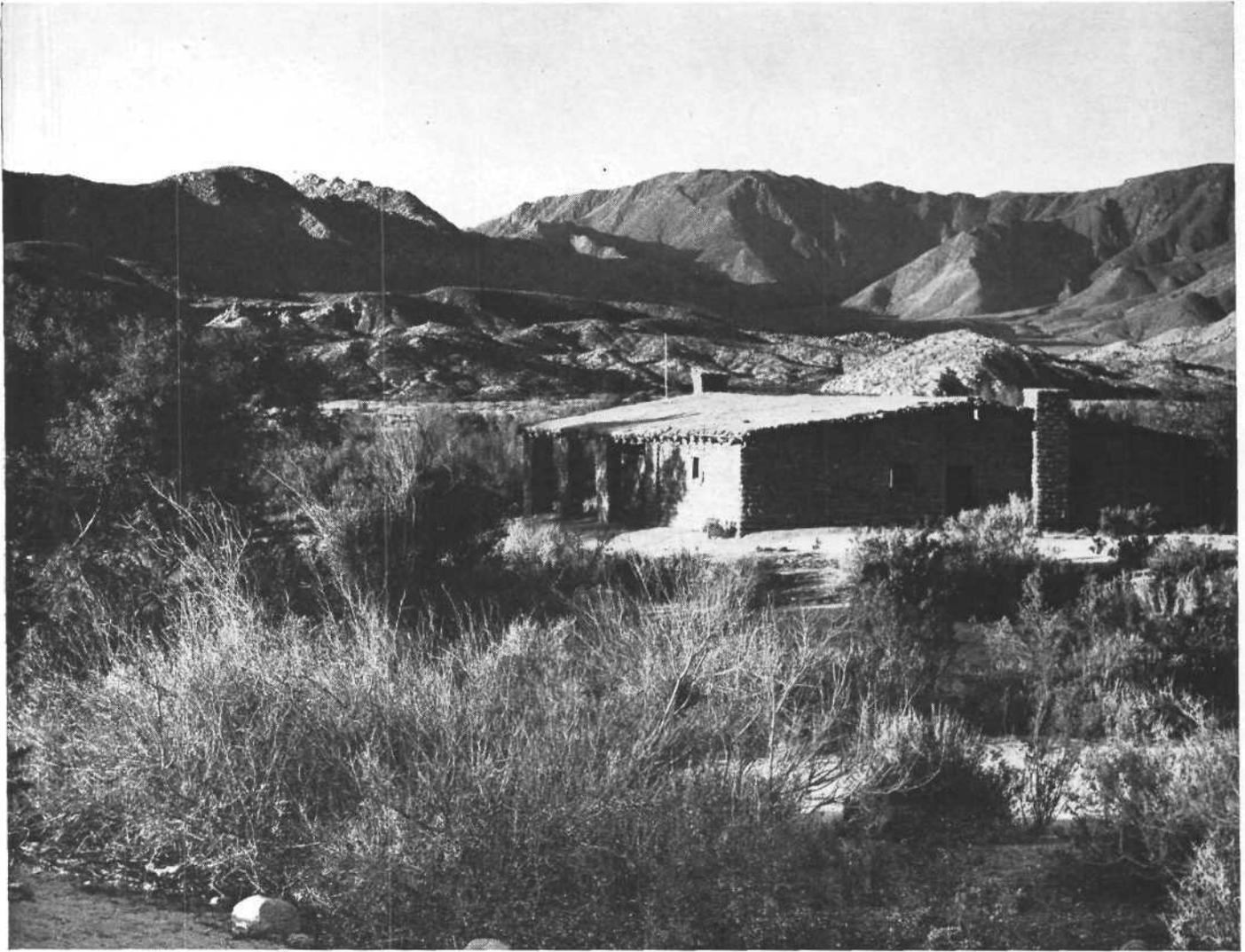
tower above it, their feet in its green river of saltgrass and tules. Here the lacy desert mesquite grows into shade trees, and ocotillo and cactus spread a gorgeous garden to the barren hills closing it in.

Vallecito is a link in the chain of valleys that made a natural travel route for the southern Immigrant Trail. Here General Kearny rested his fatigued army on one of the most difficult and unnecessary forced marches in history. With peace established, the Whipple Boundary Survey party, guided by Col. Cave J. Couets, made camp at Vallecito. And the following year the quiet little valley became lustrous with sound as a vigorous stream of humanity poured through, headed for the goldfields of California.

In three fast moving decades after the loitering Spanish-Californians began receiving mail overland from Sonora, the first American mail service was getting under way—through Vallecito.

James E. Birch, owner and operator of three thousand miles of stage lines in California, had the overland mail contract. Though still in his twenties, he was the man most fitted for the great undertaking. In his San Francisco of-





The old station has been reconstructed and is being preserved by San Diego county, California. It may be seen today in the same wild landscape as was found here when the Spanish captain, Pedro Fages, first visited the waterhole in 1782.

fice, in June, '57, he talked with R. E. Doyle.

"Doyle, I want you ready with pack-mules to leave San Diego for Tucson . . ."

"San Diego for Tucson?" Doyle exploded. "I thought Sacramento was to be the terminus, via Salt Lake!"

"The southern route," Birch snapped, "is preferred by the powers that be. Comanches, Apaches, deserts, or what-have-you, the overland mail leaves San Diego east, San Antonio west, on July 24." Birch brought his fist down with a bang on his desk, "Butterfield wants this contract, and he's a close friend of the president. It'll be nip'n'tuck if we keep it. I've put my most reliable men on the job. And I'm counting on you, Doyle."

Doyle bought saddles, bridles, blankets, rations, and arms, and took the boat to San Diego. He had three days left to find mules, if he was to leave on schedule. It was not until August 9 that his mule-train was ready, and he

set out on the epoch-making journey with the first eastbound overland mail.

Meanwhile, Vallecito had not been altogether a place for passers-through. It had served as an army sub-station and since 1851 it had had one permanent dwelling: a sod house, built by James R. Lassator.

The Lassators owned a ranch in Green valley, near Cuyamaca mountain. But during the months when there was travel from across the desert they found it quite profitable down in Vallecito, selling provisions and hay to immigrants. In August they enjoyed the coolness of Green valley. They knew nothing of Doyle coming through Vallecito with the overland mail. Little did they guess that their little sod house was about to become one of the most important stations for a transcontinental stagecoach line!

At 2:00 o'clock on the afternoon of September 7 there appeared in Vallecito two bedraggled riders and an exhausted pack-mule. Sweat-caked,

burned to a livid red, the men dismounted at the little store. But the only sign of life was in the Indian rancheria over against the hills. J. C. Woods, whom Birch had appointed superintendent of the great mail service project, had counted heavily on getting fresh horses here. He said to his companion, "Go find an Indian to guide us to Lassator's ranch."

But no Indian could be persuaded to leave the shade of the rancheria. Hoping for enough daylight to follow the trail up through the mountains, the men urged their spent mules on up Vallecito.

A dapper New York City man, Woods had left San Antonio with a fine outfit of three coaches, 17 well armed men on mule-back, and with military escort through Apache country. He had planned to see the first westbound mail through in person, and to meet James Birch in San Diego at the earliest possible date. Now, down at Carrizo, were the coaches and outfit, rest-

ing while the determined Woods pushed on, with one helper.

At two in the morning the Lassators were awakened by a loud pounding on their door. There stood the superintendent of the overland mail, demanding fresh horses at once.

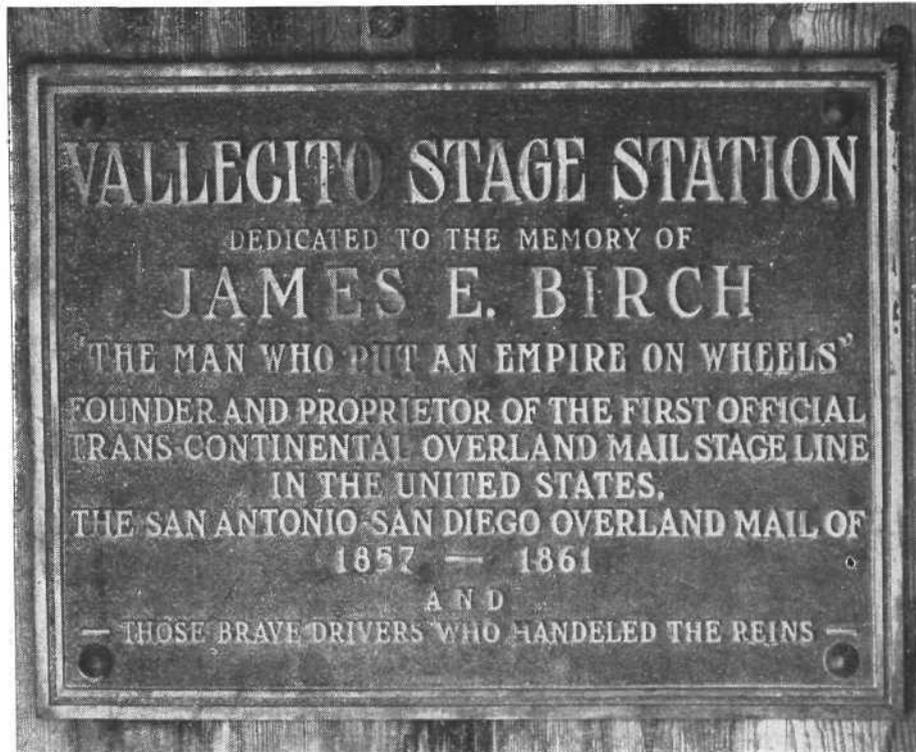
Yawning, Lassator said the horses were in pasture, he'd get 'em in the morning. The superintendent and his man could sleep on a haystack!

But Lassator did not get back to sleep. Woods had much to tell him. The overland mail was at last a reality! His Vallecito store would be one of the stations! He'd serve meals to stage-coach passengers and supply feed for the horses! Why, he'd be supplying hay to all the stations strung out across the desert. He'd build a hay road down from the ranch. . . .

Woods reached San Diego the next night at 10 o'clock, and was greeted with great jubilation, bells ringing and flags waving. It was September 8, and the first overland mail was through. In his government report, he wrote, "I myself had come from San Antonio to San Diego in 38 days."

But here was another disappointment for him. In fact, embarrassment. He had expected to meet Birch with money for his return trip. And he had contracted debts along the way. But no Birch! It was some time later that he learned Birch had sailed on August 20 for Boston, that the *Central America* on which he sailed, sank off Cape Hatteras and Birch was drowned.

However, Woods got the road build-



Bronze plaque mounted on the outside of the restored Vallecito stage station.

ing under way at once, supplies sent ahead to desert stations, and soon the coach wheels were rolling. On October 17, there appeared in California papers this advertisement:

"This line, which has been in successful operation since July, is ticketing passengers. Passengers and express by coach and six mules except

across the Colorado Desert, crossed by mule-back . . ." This stretch by mule-back gave this historic overland mail service the name of the "Jackass Mail."

So James Lassator's dream came true. His little Vallecito store became a stage station. After John Butterfield got the franchise, in '58, the runs increased until there were stages

Vallecito cemetery in which John Hart was buried in 1867 (monument on the right). It is said his family was wealthy, and sent this engraved tombstone by boat around the Horn to be placed here. The monument of stone on the left is in memory of James E. Mason.





A section of the original Butterfield stage road is still plainly visible in the rugged desert terrain in a pass above Mason valley, a few miles west of the old Vallecito station.

through six days a week, connecting Independence, Missouri, and Los Angeles. From serving sporadic immigrant travel, Lassator found himself engaged in one of the West's most thriving occupations.

In one of the immigrant trains pulling into Vallecito prior to 1854 there had been the wagon of the unfortunate Mulkins family. Out on the desert there had been an attack on the train and Mulkins had been shot. John Mulkins, a serious-faced boy in his early teens, was carrying on in his father's place while his mother looked after the three smaller children. They made camp by the saltgrass cienega. And after they had driven on up the valley for San Diego, James Lassator found he could not forget the patient face of the dark eyed little widow. He began at once adding living quarters to his little store and, when summer began to slacken travel, he rode into San Diego and married her.

Life at the Vallecito stage station was fascinating, exciting. There was constant contact with personages from the East and from the coast. And there were the growing reports of struggle between North and South. Newspapers were seized and read anxiously. Then

suddenly travel stopped. Troops had been removed from Arizona and the Apaches poured out of their strongholds. . . . The sudden silence in the remote Vallecito outpost was oppressive. James Lassator went with a friend over in Arizona, prospecting.

Word came back that they had located a mine, and that presently Lassator would return to Vallecito a rich man. Then news came that the two had been found, murdered and robbed by bandits. John Mulkins left at once for Arizona, to avenge the death of his step-father. But no trace of the murderers could be found. Mrs. Lassator closed the station and moved the equipment to Camp Wright (Oak Grove). In '63, when travel was resumed, she sold out to John Hart.

In 1939 the Vallecito stage station, as a San Diego county landmark of the route of the first transcontinental stage coach mail line, was accepted by the state as one of nine historic spots in southern California to be set aside for official registration as a state monument. Time had brought ruin to the house of "saltgrass sods", but Dr. and Mrs. Louis Strahlman, with the help of interested parties, obtained the aid of the SRA and CCC and rebuilt it.

In the intervening years, stages had run through Vallecito until the coming of the railroads. Various squatters had come and gone before James E. Mason came. He had been a driver on the "Jackass Mail" and he had served in the Union Army. He was living in the station and running stock when the government survey was made. He filed on the land and became the first legal owner of Vallecito. There is a monument, containing his ashes, in the little Vallecito cemetery. It stands beside the old, bullet marked monument of John Hart, who operated the depot until his death in 1867.

The restored depot is dedicated, quite appropriately, to James E. Birch, "the man who put the empire on wheels."

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LARABEE AND ALESON TO MAKE RIVER EXCURSIONS

San Juan-Colorado river boat trips, widely publicised in recent years by the late Norman Nevills, will be scheduled during the coming summer season by Charles Larabee and Harry Aleson who made a number of successful river excursions down the San Juan and through Glen canyon on the Colorado to Lee's ferry last season.

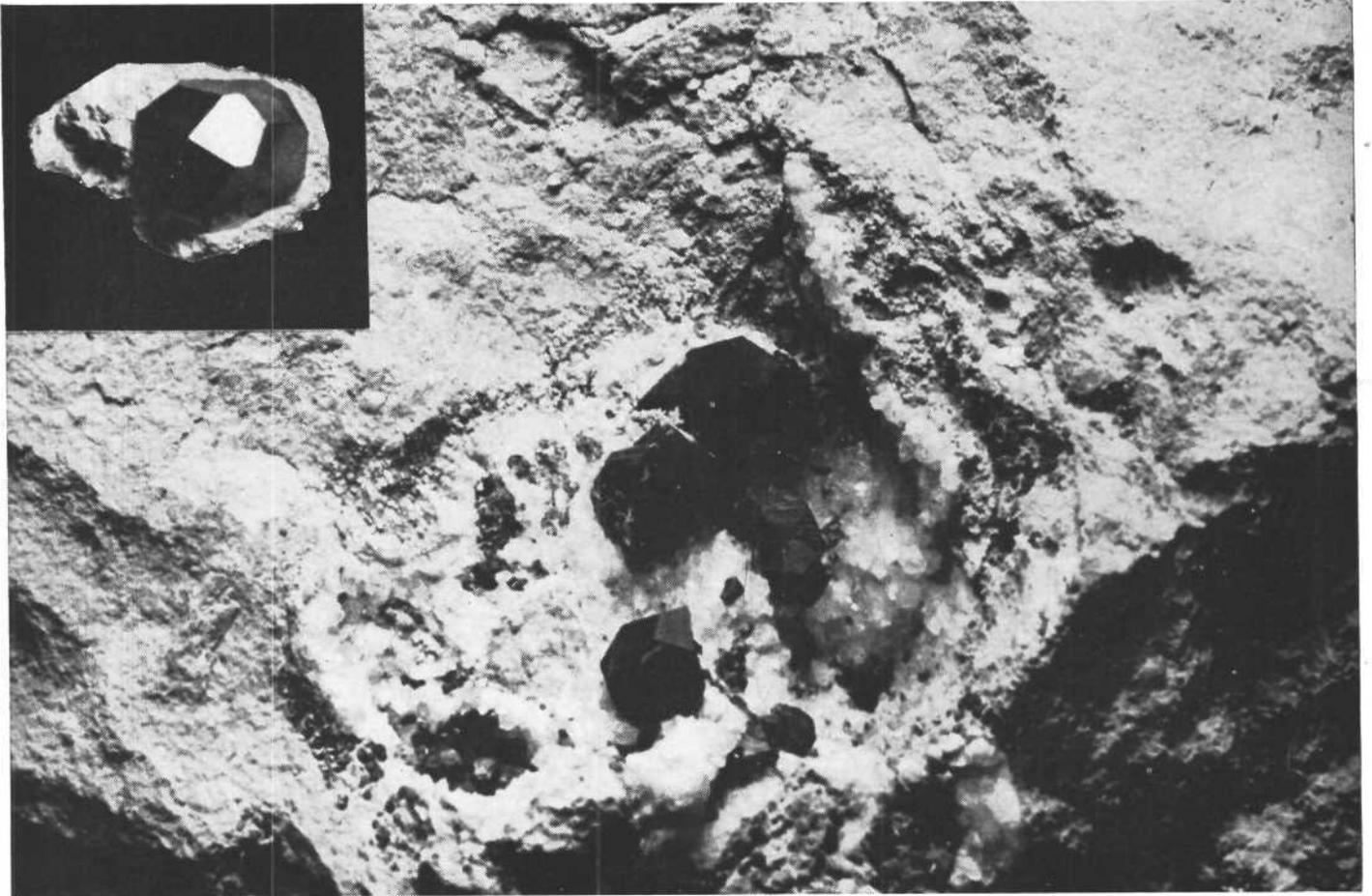
Larabee and Aleson use the Army Air corps' 10-man rubber boats for their trips. After six river trips in this type of craft they regard them as superior in many respects to wooden boats. By carrying only a boatman and four passengers to each craft they provide comfortable passage and extreme buoyancy.

The Larabee-Aleson team plans to schedule its trips in May and June when the river is high and no sandbars likely to be encountered. They plan to start at either Bluff or Mexican Hat, Utah, according to the stage of the river.

The actual boat run requires six or eight days, allowing time for trips into the interesting side canyons and up to Rainbow bridge, but the trips this season are to be extended to 10 or 11 days, and will include two days in Monument valley at Harry Goulding's Navajo trading post.

Rendezvous for passengers is to be Art Greene's Cliff Dwelling lodge in Houserock valley. From that point the passengers will be ferried to the take-off on the San Juan river. Lee's ferry where the boat trip ends is only a few miles from Cliff Dwelling lodge.

Larabee stated that he and Aleson would also schedule one trip from Lee's ferry through Grand Canyon to Boulder city next summer.



Nevada state bureau of mines has identified the garnets of the Ely area as being a gem variety of spessartite. Picture shows their occurrence in a quartz crystal vug. Inset is a gem quality garnet clinging to its rhyolite matrix.

In the Garnet Fields of Ely

Garnets are a common occurrence in the desert country, but 99 percent of them are of such soft and inferior quality as to have no value for gem purposes. It is only in rare instances that real gem garnets are found. Harold and Lucile Weight, taking their clue from an old U. S. quadrangle map, located such a field in Nevada—and here is the story of their experience in a gem field high up among the pine and juniper covered mountains near Ely, Nevada.

By HAROLD O. WEIGHT
Photographs by the Author

LUCILE and I were looking at an old quadrangle map of Ely, Nevada. In the upper center in bold letters was the legend, "Garnet Field."

"Maybe we wouldn't find a single stone," I replied when she suggested that we should visit the field. "After all, this map was printed in 1916, and I have heard that professional gem hunters stripped the field years ago."

"But they couldn't have found every garnet," Lucile insisted. "There must be a few left for us."

She was voicing a conclusion I reached years ago, that usually the tale of the cleaned out rock field is only

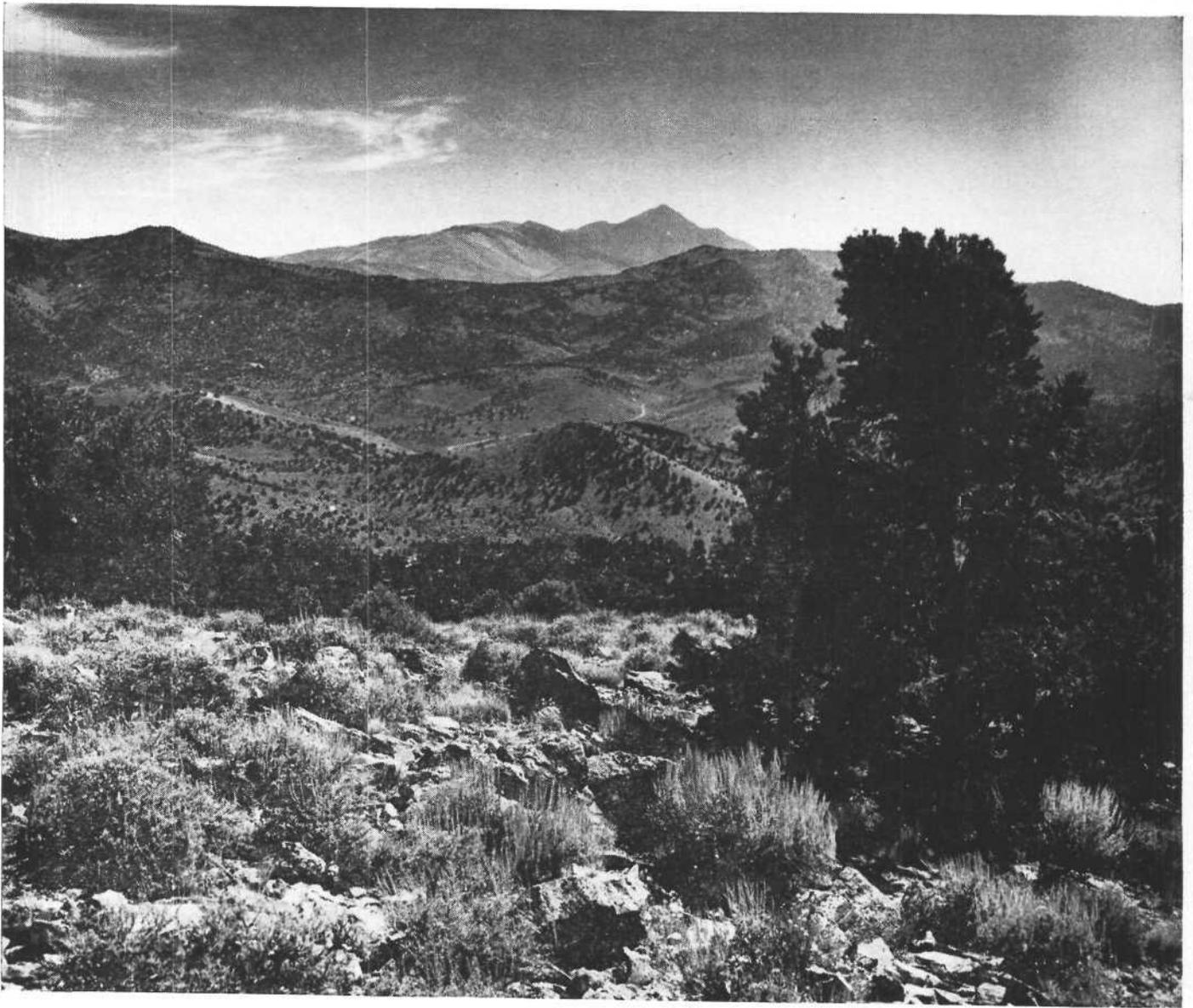
a lazy man's lament. I have many a prize specimen from supposedly cleaned out fields where only a little more careful search or a little more strenuous digging was needed.

I had wanted to hunt for those garnets since the day I first saw Arthur G. Spencer's *Geology and Ore Deposits of Ely, Nevada*, the publication for which this old topographical map had been prepared. Geologist Spencer had written: "North of Lane valley certain of the layers (of rhyolite) are characterized by more or less globular vesicles that contain beautifully crystallized deep-red garnets. Some of the vesicles have linings of crystalline quartz and in

a few specimens a single brilliant garnet is set in a matrix of quartz, forming a natural gem of rare beauty."

Government geologists are not interested in inferior gem material. When they write in such glowing terms of a gem field, the collector who follows their clues will very likely be well rewarded. And in any event, if we should fail to find the garnets, I knew that a visit to the enormous Ruth open-pit copper mining operation near Ely would make the trip an interesting one.

Ely has an elevation of 6,433 feet and parts of the garnet field are well above 7,000 feet, so we planned our visit for midsummer. We wanted no part of the winter cold of those mountains nor of the storms which sometimes sweep the great north-south valleys in that portion of Nevada. We missed our objective by more than a month, but our luck was good and when we headed westward from Ely on the morning of September 30, we were still a jump ahead of winter. The



General view of the garnet fields near Ely, located in the Egan range of mountains. Red garnets, some of gem quality, weather from the pinkish rhyolite (foreground) and are found down the slopes and in the washes.

weather was crisp but not chilling, and the sun shone brightly.

We regretted not having more time to spend in Ely. The town, sixth largest in Nevada, has had a colorful past. But nothing in its history is more interesting than the manner in which it became the seat of White Pine county. The county was created in 1869. Two years after the discovery of the silver bonanza at Treasure Hill and Hamilton, the boom camp became the county seat. But when Hamilton's courthouse burned early in 1887, the Treasure Hill boom was almost over and a three-way battle developed between Hamilton and the more lively camps of Cherry Creek and Taylor, each seeking the new \$10,000 structure which had been authorized. When no agreement could be reached, it was determined to construct the new courthouse at the geographical center of White

Pine county. The exact center proved to be without water, so tiny Ely, four miles away on Murray creek, became the county seat.

Our 34-year-old map proved hopelessly inaccurate so far as roads were concerned but since it showed the garnet fields, we wouldn't have traded it for a dozen up-to-date ones. And we knew we couldn't go far wrong. Ely is located at the mouth of Robinson canyon and about the only reasonable route westward from it is up the canyon.

Highway 50 now climbs almost directly from Ely, holding to the south side of the canyon. In spots the rugged walls rose almost vertically above us and beyond them were steep strikingly banded mountains. The country was peppered with prospect holes and workings, most of them predating the copper era by decades.

The first mines in this region were silver and gold. Once we passed the picturesque brick and stone ruin of an old ore furnace, perched on a shelf against the northern wall.

We reached the little community of Lane City at 2.5 miles from Ely. Today it scarcely deserves the name of a city, but small as it is, Lane can look upon Ely as an upstart and johnny-come-lately. Lane is the site of the first town in this part of Nevada, established and named Mineral City about 1869 shortly after an Indian led prospectors down the Egan range to good mineral showings in the canyon. The population of Mineral City fluctuated from a high of about 600 in 1872 to a low of two families in 1881 as gold and silver developments fluctuated.

We continued past Lane City on Highway 50, searching for an old trail

which our map showed flanking the garnet field. The road we sought followed the copper company's powerline which runs from McGill to Ruth and Kimberly.

When we reached the point where the powerline crossed the highway, where the paved road to Ruth and Kimberly branches off, we found that a bladed road headed northward in the direction we wanted to go. Zeroing our mileage we took to the sideroad and found it fairly narrow and steep, but in good condition.

At .7 of a mile from the highway, we saw the faint ruts of a very old road heading up a narrow canyon to the northeast. That the old track had been abandoned was shown by the fact that a shallow drainage channel to carry rain runoff had been cut directly through it where it joined the road. With a little bumping and frame twisting I managed to get all four wheels into the ruts.

I cannot recommend this ancient pair of ruts to anyone driving a modern passenger car. But it was only .2 of a mile to a steep pitch where the trail ends. Visitors should park at the first available spot after leaving the powerline.

We were out of sight of the powerline road, in a bright and silent world. Steep slopes covered with juniper and occasional small pines rose on all sides.

The sun burned down from a sky so blue it seemed to have a blackish tinge. At our altitude the sunlight was hot, the shade cold. A nicely patterned lizard executed a series of push-ups on a nearby rock, then eyed us unblinkingly. A little breeze stirred the pine needles. Otherwise there was no movement and for the moment no sound. We were submerged in a peaceful bowl of green.

There was a high ridge on the southeast, and the garnet-bearing rhyolite should outcrop on the slope of that ridge. On the map it had looked only a step from the valley we were in. But mountains have a way of rearing up and expanding when you get into them, until they bear no resemblance to the smoothly contoured lines on paper.

Shouldering our collecting sacks we started climbing toward a low pass to the south. The slope was not as steep as many a butte we had climbed on the southern deserts, but at 7,000 feet there was a noticeable lack of oxygen in the air. On the way up, the rock had been chiefly limestone. When we panted through the saddle, we came upon brownish weathered rhyolite, but there seemed to be no trace of garnet.

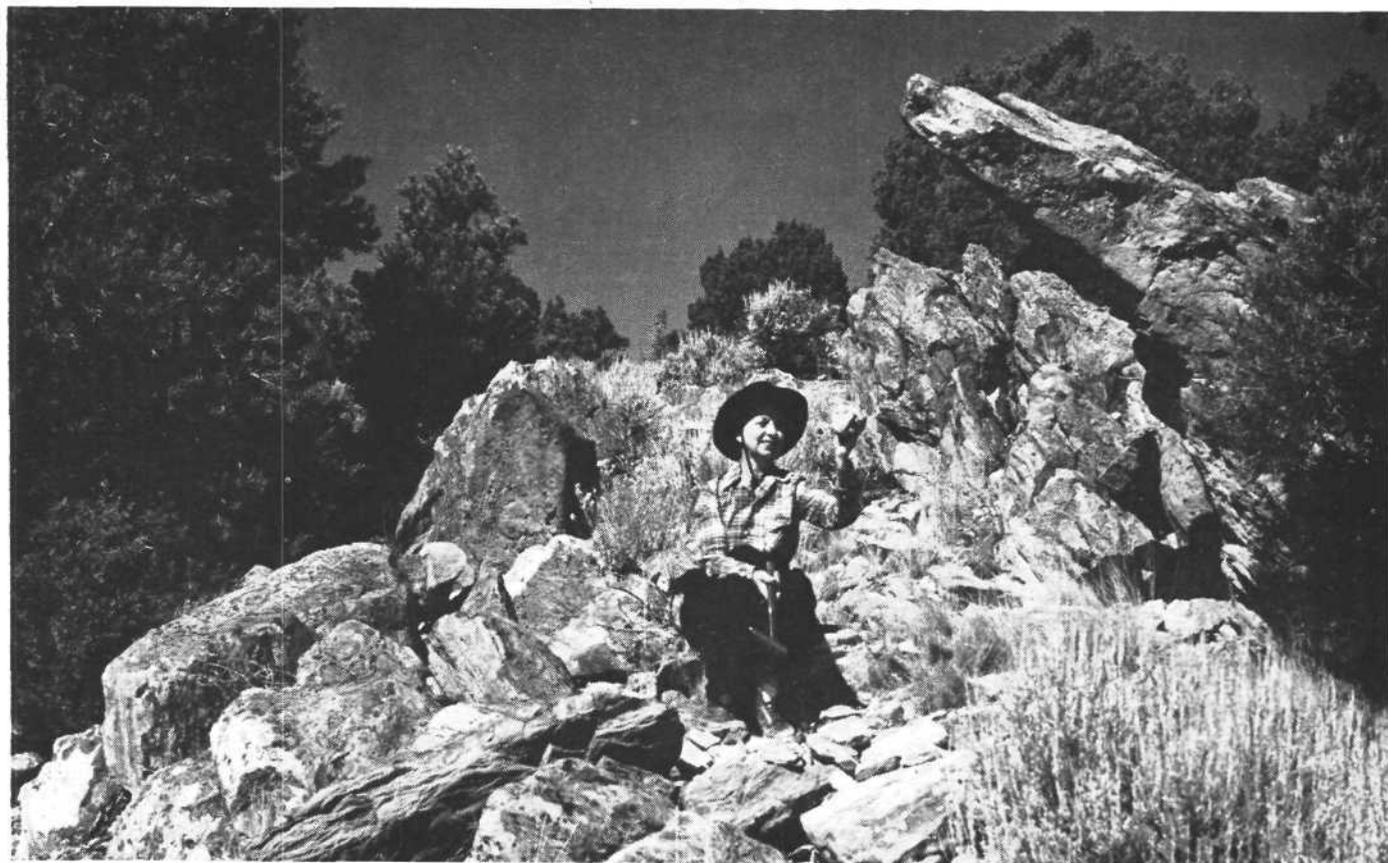
The view from the top was magnificent, mountain after mountain, their ridges looking dark because of the covering of pine upon them. There was

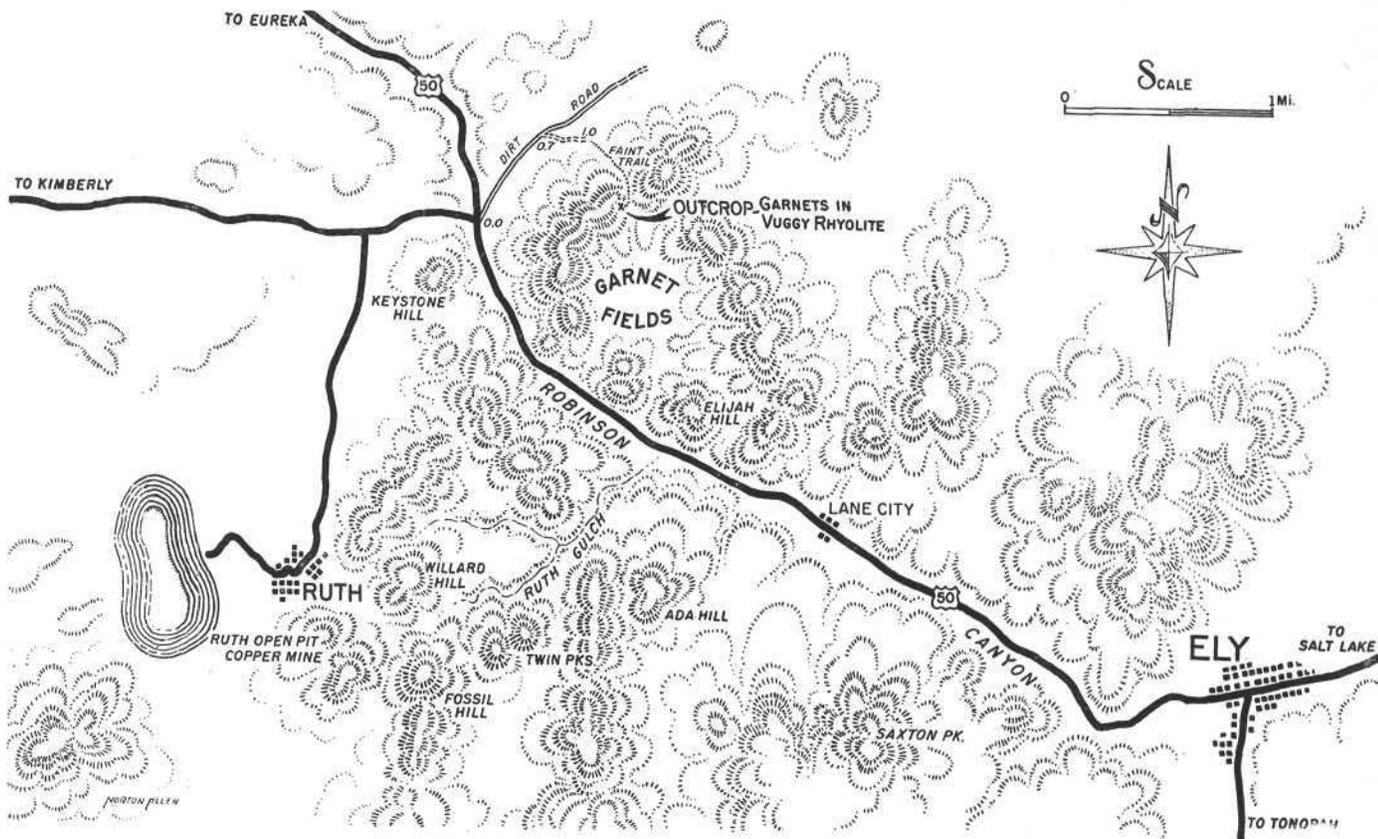
only one thing wrong with it from my point of view. The slope on the far side fell away faster—and farther—than the one we had climbed. Looking at those washes far below—the ones marked "Garnet Fields" on the map—I was just about willing to concede they probably were cleaned out.

But Lucile already was heading down the mountain, and I followed. We ranged back and forth across the mountain side, in many places covered by what was almost a talus of rhyolite, without seeing a single garnet. Lucile was all for continuing to the washes in the valley, but I complained that we were faced with an unpleasant reversal of the natural law that whatever goes up must come down. In this case, however far we went down, we would have to bring ourselves back up. And after I promised that we would go back to the Lane area and work up the washes, she reluctantly turned back toward the top of the ridge.

When we finally did head up hill, we found that Nature had been up to one of those cute little tricks she sometimes plays on rockhounds. No sooner had I started climbing than I saw a bright sparkle in the rhyolite float. Picking it up, I found it to be a perfect little red-brown garnet clinging to a bit of matrix. Then I saw a second and a third and a little yelp told me Lucile had made a similar find.

Lucile finds a prize garnet in a piece of rhyolite broken from this great outcropping in the mountains north of Lane valley.





It was really quite simple when we understood it, but something collectors might remember. Going down hill we were facing into the morning sun and the dark sides of the garnets were toward us. When we turned, the sun came over our shoulders and reflected from the brilliant faces of the stones into our eyes. After we started finding the garnets, it seemed we could locate them even in the shade of the small pines, the junipers, rabbitbrush and greasewood. Most of them were individual crystals, or half-crystals since each garnet was or had been attached to rhyolite and therefore was not perfect in all its faces.

In the enthusiasm of hunting—and finding—we had forgotten altitude and tiredness. But after half an hour Lucile sank down in a spot of shade and sighed as she tossed some fractured stones back to the ground. "I never thought the day would come when I would throw away garnets," she said.

It had indeed proven to be the old story. The field had been cleaned out only for those who expected to be able to fill their pockets without walking more than 100 feet from their cars. Such collectors will not enjoy the Ely field, but those who like garnets well enough to work for them can find all that they should want.

A surprising number of rockhounds regard garnets as among the most beautiful of natural gems. Our fondness for them has been shared by the human race since earliest history. Peo-

ple of the Bronze age in Europe drilled waterworn garnet pebbles to make necklaces. Ancient inhabitants of the East mounted the shining crystals in golden rings. Garnets were the "carbuncles" of Biblical times and one of them was set among the 12 stones in the breastplate of the High Priest of Israel, made at the command of Moses. For many centuries, a fine garnet was equal in value to a ruby.

The garnet is the birthstone for January, and naturally many legends have grown up about it. Some garnets were supposed to glow at night from the fire within, and the fabled Prester John of Abyssinia was alleged to have a room lighted by a single great carbuncle. The stone was supposed to protect travelers from any sort of injury, to maintain and restore health, to ward off plague and even warn its owner by turning dark when danger approached.

The name, from the Latin *granatus*, seed or grain, was given because early observers thought small garnet crystals looked like the seeds of the pomegranate. There are six principal subspecies of the stone. The garnets of Ely have been identified by the Nevada state bureau of mines as being spessartites, a manganese aluminum garnet which sometimes occurs in rhyolite. Spessartite garnets often are of a yellowish-brown color not popular for cutting, but those at Ely are a deep rich red and should facet into good stones when found in large enough unfractured pieces.

However, we were looking for the crystals and especially for the crystals in quartz-lined vugs, which Spencer had mentioned. I had found one or two of the latter in very weathered condition and the only way to get good specimens, it seemed, would be to find a rhyolite outcropping and start breaking rock. I found a likely spot down the slope, where layers of rhyolite broke through the earth and talus.

The first blow of the hammer opened a sparkling inch-wide cavern of tiny quartz crystals with two small red garnets set upon them, a perfect gem. The rhyolite itself added to the specimen, proving to be a colorful pink where freshly broken. Then for the next 15 minutes I broke rock without finding another prize. There were many quartz-lined vugs, but no good garnets in them.

In the meantime Lucile had followed a trail of individual stones to the highest point on the ridge. There she discovered an outcropping crowded with the little crystalline openings. I followed her and swung the hammer until my arm was tired. This is a place where the man who is handy with a hammer will get the prize specimens. And, although good gem pockets were not common, we gradually accumulated a little pile of high grade.

By that time, blisters on my right palm and my outraged muscles insisted that enough was enough. Hunting for a more direct descent, we followed a faint trail northward to the first saddle

and going down the drainage wash to the west, came out at the end of the old road on which we had left the car. Although it is a little steeper, I would recommend this route for visitors to the Ely field. It is quite simple to hike to the end of the old road, where it heads eastward up the mountain, follow the wash up to the saddle, then turn right to the highest point of the ridge where garnet-bearing rhyolite is plentiful.

Although it still was fairly early in the morning, the altitude and exercise had excited our appetites. After a hasty lunch we drove back to Highway 50 and across it for a visit to the Ruth copper pit. The paved road skirted the edge of the tremendous mesa of waste rock which has been hauled from the pit. Then it curved into Ruth, where we crossed the railroad, doubled back to the right, then swung left on a gravel road that climbed to the operation.

There is no space here even to outline the tremendous story of copper development in this corner of Nevada. Copper was known to exist from the days of the first prospectors and some rich ore was shipped in 1873. But the area only came into its own as a copper producer after Daniel C. Jackling, at Bingham, Utah, had proven that two percent copper could be mined profitably if done on a tremendous scale. Between 1907 and the present, more than 100 million tons of ore have been removed from Ruth. Today 18,000 tons of ore are sent each day from Ruth and Kimberly to the concentrator and smelter at nearby McGill, where the ore is reduced to approximately 200 tons of blister copper.

The Ruth pit is much easier to reach than the pioneer operation at Bingham, and it is almost as awe-inspiring. Kennecott Copper corporation has turned a mountain into a hole in the ground and when you stand on the edge of that hole, the ceaselessly chomping power shovels and the whistling ore trains nearly a mile away across the pit look like children's toys. Splotches of red, green, lavender and yellow—ore stained with copper and iron—make the walls of the pit beautiful in some lights and the haze from the many engines puffing about accentuates its size. The Ruth pit is a sight no visitor to the region should miss.

After we left Ruth, we headed down Highway 6 toward Tonopah. We camped that night far from the garnet field at Ely, in a desert whose barrenness made it seem more familiar to us. After supper, by the light of a campfire, we sorted out the prizes of the day's collecting and cleaned the dust of the sacks from the gleaming crystals. I picked up a piece of pink rhyolite. In

one of its cavities was a beautifully shaped garnet whose faces shone in the firelight. In another flattened vug, the garnet was rough and broken and misshapen.

"It's strange," I said. "Here is a good garnet and a worthless one almost side by side."

"Well, of course," Lucile answered. "Look at the cavities. One didn't have room to grow."

That was true, but how strange that it was true. One crystal grew subject only to the limitations which lay within its own nature and it became a beau-

Desert Quiz

The old desert rat who writes the Quiz questions for Desert Magazine says this month's list is a little harder than usual. They cover a wide range of subjects—geography, history, Indians, mineralogy, botany, books and travel. 10 to 12 is a fair score, 13 to 15 good, 16 to 18 is superior. The answers are on page 38.

- 1—The shore line of Lake Mead lies in two states: California and Nevada..... Arizona and Nevada..... California and Arizona..... Utah and Nevada.....
- 2—The berries of a juniper tree are:
Black..... Grey-blue..... Red..... Green.....
- 3—Houserock valley in northern Arizona is famed as: The scene of a historic placer gold strike..... A famous Indian battlefield..... The place where Geronimo surrendered..... An open range where buffalo may still be seen.....
- 4—Going east on U. S. Highway 80, Pacific time changes to Mountain time at: El Centro..... Tucson..... Yuma..... Gila Bend.....
- 5—Billy the Kid was killed by:
Wyatt Earp..... Pat Garrett..... Apache Indians..... Accident.....
- 6—Davis dam is being constructed in the: Little Colorado River..... Rio Grande river..... Gila River..... Colorado river.....
- 7—Hogan is a Navajo word translated as:
Dwelling House..... Village..... Medicine man..... Food.....
- 8—Bill Bradshaw is known in desert history as the man who: Discovered gold at La Paz..... Blazed the way for the Butterfield trail..... Conquered the Yuma Indians..... Built a wagon road from San Bernardino to the Colorado river.....
- 9—Pajarito plateau is in: New Mexico..... Western Utah..... Mojave desert..... Southern Arizona.....
- 10—According to legend the Lost Breyfogle mine is located in: San Diego county, California..... Superstition mountains..... Southern Utah..... Death Valley region.....
- 11—A mescal pit was used by desert Indians for: Storing grain..... Punishing wayward tribesmen..... Ceremonial purposes..... Roasting food.....
- 12—Western gecko is the name of a desert:
Lizard..... Bird..... Snake..... Moth.....
- 13—Brigham Young brought his Mormon settlers to Utah primarily to:
Find more fertile farm lands..... Seek gold..... Gain freedom to worship as they pleased..... Acquire a federal land grant.....
- 14—Coolidge dam impounds the waters of: Salt river..... Gila river..... Bill Williams river..... Amargosa river.....
- 15—The Montezuma Castle ruins in Arizona are protected by: U. S. Park rangers..... Forestry service men..... Arizona state police..... Private guards.....
- 16—In the following list, the one mineral harder than quartz is:
Calcite..... Feldspar..... Topaz..... Fluorite.....
- 17—"Slip" is the name of a material used by the Indians in: Making pottery..... Weaving baskets..... Preparing food..... Making dance costumes.....
- 18—Most important crop raised by the Hopi Indians is:
Wheat..... Tobacco..... Cotton..... Corn.....
- 19—Lieutenant Ives is known in history as the officer who: Brought the first camel caravan across the Southwest desert..... Signed a treaty of peace with the Navajo Indians..... First explored the lower Colorado river by boat..... Established the first fort at Yuma, Arizona.....
- 20—Coronado highway crosses over the: Wasatch mountains..... Chuckawalla mountains..... White mountains..... Superstition mountains.....

tiful gem. The other, cramped in space, blocked by outside forces, could not realize its own potentialities and became contorted and broken and worthless. We talk of molding the individual to the mass pattern—we try to break individuality down to a common denominator—when such circumstances destroy the growth and beauty even of the stones which we are pleased to call inanimate.

Of course, most primitives did not—and do not—consider stones or anything else as lifeless. They worshipped inanimate objects, believing that they had a hidden life. Today we are probing the dreadful animation that lies hidden in the heart of pitchblende and carnotite and the other uranium ores. And we are saying that crystals do grow, slowly, each tiny particle coming through the solution to its proper place, and that they are held together by elec-

ELY GARNET LOG

- 0.0 Junction of Highway 50 with Ruth-Kimberly road. Turn north on bladed dirt road following powerline.
- 0.7 Turn right, northeasterly, from powerline road onto trace of old road. Advisable to park car.
- 1.0 End of old road. Hike east, following edge of drainage wash between two hills. At saddle between the hills follow faint trail right, southerly, to highest point of ridge and rhyolite outcrops.

trical forces between the particles. We know that since the beginning of time, eons before animate life appeared on earth, minerals have been producing crystals "after their kind" so perfectly that the minerals can be identified by them.

Is it possible that in time we will learn enough to come into partial

agreement with the savages who gave life to every object? That we will find that there is a sentience we cannot comprehend but differing from ours only in degree, moving in that vast kingdom we have called mineral—in fact in everything on the face of the earth, under it and above it? That is no more fantastic than the miracle that we should live and breathe.

From the sleeping bags I heard Lucile's muffled voice. "You'll freeze out there."

I woke to a sense of cold. The fire had burned to a bed of embers and I had been staring deep into their reddish glow.

"I was just wondering," I said. "Do you suppose it hurts a rock when you break it?"

Lucile sat up and stared at me. "You'd better turn in," she said gently. "And don't drop any of those garnets."

Collectors who visit the garnet field will be only a few miles from Ruth and will find interest in the great open-pit copper mine which local residents say is the largest operation of its kind in the world.



Adventures in a Desert Garden

From the far corners of the desert world Boyce Thompson brought together a strange collection of flowers and shrubs—transplanted them to his 1600-acre garden near Superior, Arizona. And now Fred Gibson carries on the work of the founder of this exotic garden. Joyce Muench writes about some of the interesting characters of the plant world she met in this place—and of the man who directs it.

By JOYCE MUENCH
Photographs by Joseph Muench

We hadn't ever met Pentalophus, but the gleam of triumph in his eye was enough to move us and the cameras in the direction he had indicated.

Around the next corner we came upon them. Backed by a great Palo Verde in a golden shower of blossom and partly obscured by a Dutchman Pipe vine that clambered over the prostrate cactus branches, was a great bed of blossoms. Big violet and white blossoms, velvety and fresh as the dawn, were popping out of their long buds, like a bright rug sweeping into view as it was unrolled on the ground.

By the time my husband had dived under his black cloth and I was ready to give up trying to count the number of the flowers, our gardener reappeared, followed, not by the Duchess, but the director of the Arboretum, Fred Gibson. In the course of this flowery introduction we met *Echinocereus pentalophus*, native to southern Texas and eastern Mexico, as well as the man whose amazing flower garden includes plants from half the earth's surface.

Most of the great botanical gardens and arboreta of the world grow shrubs common to the great deciduous forest belt covering western Europe, eastern Asia and the eastern part of North America. This area totals about 7,600,000 square miles, or one-sixth of the earth's surface.

But nearly one half the land surface of the world is desert and savanna. The shrubs which grow in this area of approximately 26,000,000 square miles do best in arid and semi-arid regions, and the goal which Boyce Thompson set for himself was to bring together the plants of this arid world. Since they would do best in a land of low rainfall he came to the desert Southwest for a site, and selected the foothills of the Pinal mountains for his experimental gardens. Before his death Mr. Thompson established a foundation for the care and perpetuation of his rare garden.



The Boojum tree is a strange desert plant from Lower California. It grows to 70 feet in height and has little flowers on its scraggly branches. Fred Gibson, director of Boyce Thompson Arboretum, points out its flowers to the writer of the accompanying story.

STANDING under the Boojum tree I knew just how Alice in Wonderland must have felt when she said,

"I can't believe it."

"Can't you?" said the Queen in a pitying tone. "Try again. Draw a long breath and shut your eyes."

I did just that, but when I opened them again, it was still there—a strange tall thing, fat at the bottom and thinning as it rose far over my head to pointed branches with small yellow flowers.

It didn't take me long, however, to get used to seeing things I couldn't believe in the Boyce Thompson Southwestern Arboretum near Superior, Arizona. I must admit to some dizziness

at being transported from Baja California where the Boojum tree (*Idria columnaris*) grows incredibly slowly to 70 feet in height, to Palestine, the home of the real crucifixion plant (*Paliurus aculeata*) and then whizzing over to Australia and the lanes of Eucalyptus trees before I came back to the Arizona desert to a big Ferocactus barrel wearing its wreath of flowers.

My husband and I were adjusting our dark glasses after one of these flights of fancy when a gardener came hurrying along the path.

"There are some nice Pentalophus opening back that way," he said, waving a hand and rushing off like the White Rabbit down a green tunnel of eastern olive trees.



Prickly pear pattern. A brilliant red flower with deep green pads, this gay plant is Opuntia aculeata. It belongs to the best known genus in the cactus family.



One of the Chollas, of which there are many in the big cactus family. Its blossoms are fragile, and quite dainty in contrast to the ferocious aspect of its spines.

Mr. Gibson acted as our guide for the next few days through wild areas of Chile and Patagonia, the deserts of Africa, into Persia and Arabia on the magic carpet of his own extensive knowledge. We went with postmen in Australia on their delivery routes, where they pick seeds and bring them back to be mailed to Superior! In the end we knew that more species could grow here under natural conditions than in all the gardens of eastern United States and Western Europe. The director can call every plant by its name. He has worked in the garden for 20 years and even before its formal opening in 1929, saw most of them settled into their new homes. He himself was transplanted to Arizona after growing up in California and attending the University at Berkeley and later the University of Arizona. As director he watches over more than three thousand plants in the 1600-acre Arboretum.

Mr. Gibson told us that gardeners in Russia, South Africa, Holland, Japan and China write regularly to request the exchange of seeds. From a room in the administration building, thousands of them carefully sorted into small coin envelopes stacked in cart-

ridge boxes, wait to go out, tiny goodwill ambassadors to try out the climatic conditions in faraway spots. In return the seeds of grasses and sturdy desert plants come winging back to see if they like Arizona.

The director told us some of the more significant phases of the Arboretum's mission. Every year the rivers in the United States are carrying five hundred million tons of our good top soil to the sea. It is important that shrubs and grasses be developed which will help anchor the soil in the denuded and over-grazed forest and range lands. The Arboretum is experimenting constantly and seeking to help find the answers to these questions.

Also, as mineral resources become exhausted it is important that vegetable products be developed to supply essential elements. The West has a vast area of land, only a small part of which can be irrigated. The Arboretum constantly is seeking shrubs adaptable to arid lands which will yield commercially valuable products. "We really do not know much about the strange folk of the desert plant world yet," Gibson said, "but we are learning all the time and it is conceivable that lands now regarded as use-

less may become highly productive in the years ahead."

Sitting in the cool comfort of the porch at the director's house, we took the Jajoba tree as a striking example. This is a *Simmondsia*, or the Goanutt. It is a rigid much-branched plant that grows over thousands of acres on southwestern lands. It contains a liquid wax identical with sperm whale oil. Fifty percent of the seed is made up of this oil. A slight juggling of its 22 carbon atoms and the adding of a few hydrogen atoms makes a crystalline wax that is only slightly less hard than carnauba wax—the most expensive in the world. A list of some of its uses reads like fiction. The oil can be heated to 400 or 500 degrees without turning rancid. A woman chemist holds a patent for putting it into ready mixes of cookie and cake flour.

The Union Oil company has another patent for mixing it with lubricants. It goes too, into bubble gum, cloth, linoleum, baked enamel, and printers' ink!

The early Mexican Indians used it for a beverage and for treating skin cancer. No wonder an early Spanish explorer in the 15th century called it the "most precious fruit of California."



Picket Post Inn. Overlooking the Boyce Thompson Arboretum near Superior, Arizona, this interesting home was built by Mr. Thompson as his winter home. It is now operated as a guest ranch.

For years attempts have been made to raise it commercially since the seeds are hard to gather from the wild bushes. While it grows vigorously on land too dry for cotton and other crops, ten years are required to get a plantation ready to produce. In the meantime it makes a nice hedge.

The rows of various kinds of grasses in the Arboretum are not spectacular, but they are very important. Some work has been done by the agricultural department sowing seeds from airplanes. Large scale operations could replant the worn out grazing lands of the Navajos, at once stopping the erosion that is tearing out the land and rehabilitating it for sheep raising. It is vital to our future that we learn more about the habits of these grasses from such earnest students as the workers in the Boyce Thompson Southwestern Arboretum.

We wanted to learn something about the character of the man who dreamed up this wonderland in the desert. Mr. Gibson took us to Picket Post House, perched on rocky cliffs above the Arboretum. For years this was the winter home of Boyce Thompson. He was born in Virginia City, Montana, in 1870 and spent his youth in the West. His mining interests took him over much of the rough, unsettled country in Arizona. To visit the mining properties of the Magma Copper company he often rode horseback through Queen Creek canyon. It is beautiful country and because it is now a game preserve, one may glimpse some of the desert mule deer, coyotes, bob cats, and perhaps even a mountain sheep as he no doubt saw them. Overlooking the canyon he built this house which is now a popular guest ranch. Fine old paintings still hang on the

walls of the big lodge and several tower rooms have a full sweep of the gardens.

In 1929 Thompson planted a seedling saguaro (the giant of the cactus family). It was a mere six inches high then. Now it stands 30 inches, having grown just 26 inches in 20 years. Our guide told us that when it is six or eight feet tall it will grow faster each year until it is about 10 feet. Then for many years, perhaps 100 more or less, the growth will be constant, if the weather is favorable. It survived the freeze in 1937 when the temperature dropped to 17 degrees and there was six inches of snow. Many of the plants in the garden were killed back to the ground that year. Usually the low is about 25 degrees and there is little snow. In the summer the temperature may go to 112



Reddish yellow blossoms with many delicate petals and a vivid green pistil sit jauntily on the top of the small hedgehog cactus known as Echinocereus dasyacanthus. This species is a native of southwestern United States.

and even the cactus try to find the shade of a taller plant.

There is not a succulent or cactus without some kind of bloom and many of them are among the most beautiful blossoms in the world. Every imaginable shape and color are seen along the paths, with the flowering trees for backdrops. Persimmon and pomegranate, Hottentot Fig called Deadman's Finger, great barrels, and all the prickly pears make walks down the paths exciting adventures.

My special joy was the plants and labels in the glass houses that join the administration building. The size of the desert has always been my despair—because of the space between flowers—miles of gullies and sun-beaten acres across which a newly glimpsed

flower beckoned. But here I could step across states and even oceans to enjoy them all at once. The beautiful Rainbow cactus, so popular that it is almost gone, stood next to the yellow glory of the South American *Astrophytum* or star cactus! Heavily scented night-blooming cereus hung from the walls and ceiling to remind me of the old Mexican Fiestas held to celebrate the opening of the "Queen of the Night!"

Animals seem perfectly aware that this is a game refuge and they are free to plunder without fear of reprisals. The porcupine comes out at night to stand on his hind legs and girdle branches. Rabbits scurry through the bushes from under one's feet. Before the planting sheds were finished

the newly arrived plants were visited by squirrels and chipmunks, wood rats and even trampled by a mountain lion! Skunk, fox, and badgers leave their footprints on the paths.

On our daily jaunts we met visitors who were studying birds. During the week they had counted over 100 species. We couldn't recognize them all but we did know the mourning dove with its haunting cry and no one could miss the bright red of the cardinal, giving a concert in a Cedar of Lebanon.

Less spectacular was the Doodle Bug! Mr. Gibson led us down past the orchards to a sandy spot in a trail. We knelt to the rite—while he blew softly on a spot that showed a conical hole. Between breaths he said, very softly:

"Mr. Doodle Bug, Mr. Doodle Bug!" After several tries, we could see the sand moving slightly and with a pen knife, Gibson scooped some of the sand onto his hand. The Doodle Bug, looking like a grain of sand himself began to scuttle backwards, trying to find a new place to hide. He lives at the bottom of his excavated cone and waits for the sand to be disturbed by a victim falling into the trap, whereupon he emerges and devours the tiny bug or ant. His oriental habit of moving backwards probably stems from the desire to see where he has been, just as the Chinese do, preferring it to our fruitless habit of trying to look into the future.

Looking back on my adventures I found that it wasn't too hard after all to believe in the Boojum tree and I have no doubt that the next time I stray into the gardens of the Boyce Thompson Arboretum, Mr. Gibson will have new wonders to produce and new friends as interesting as the Doodle Bug!

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PUEBLO INDIANS TO HOLD CEREMONIALS IN JANUARY

January is an important month among Pueblo Indians of New Mexico, marked by rituals and ceremonies in most of the many pueblos.

Following New Year's day dances in all pueblos, January 6 is the next big day. This is the day when new governors are installed with impressive ceremonies. And those Indians who have adopted certain phases of Christianity commemorate the coming of the Magi to Jesus at Bethlehem with the Feast of the Three Kings. This is their day of giving presents, rather than Christmas day, an influence which dates back to earliest Spanish missionaries.

Feast days and celebrations during January have a deep significance to Indians. The ceremonies are actually thanks for good fortune and prayers for continued good fortune.



Two pictures of blossom of Echinocereus pentalophus blankii, a native of eastern Mexico and southern Texas. Growing above its mother plant, each blossom is a miracle of perfection, reddish violet in color and sometimes as much as four inches across.

LETTERS . . .

Save the Desert Palm Trees . . .

Coachella, California

Desert:

When the Redwood forests of California were threatened by the logging interests, an aroused public formed the Save-the-Redwoods league and the result has been that several of the Redwood stands have been given the status of protected park areas.

Those of us who have found many pleasant weekend outings in the Palm canyons of Southern California feel that the residents of Riverside county, and especially in Coachella valley, should take similar measures to protect these native palm oases from the destruction which is now going on.

Palm trees with their long skirts of dead fronds are highly inflammable, and disastrous fires already have swept Palm canyon, Curtis Palms, Forty-nine Palms and other groups. Heedless visitors carve their initials in the trunks and otherwise disfigure the trees. Perhaps the schools in the county would take the initiative in raising funds for the preservation of these trees. The Washingtonia is a native of this area, the most majestic of all our native trees of the desert country. Most of the palm groups are in Riverside county—and surely this is the place where a Save-the-Palm movement should be initiated.

ROBERT O. SCHNABEL

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Rugs From the Navajo . . .

Louisville, Kentucky

Desert:

On a recent trip West we saw many beautiful rugs which I believe were woven by Navajo Indians. Since returning home we have decided we should have some of these in our rumpus room. Will you please give me the names of some of the Navajos who weave these rugs, as we would prefer to buy them direct from the Indians.

ESTELLE BOVIORGAN

Very rarely is it practicable for the consumer to buy Navajo rugs direct from the Indians who weave them. A majority of the weavers neither speak nor write English. They much prefer to deal with the local Indian trader—who generally understands their language, and whom they know and trust, and who extends them credit when they need it. Your best source of rugs is the Indian trader, who serves well in the role of business agent for the rug weavers.—R. H.

Odorous Flowers of the Desert . . .

San Gabriel, California

Desert:

In March, 1907, my partner and I were prospecting on the Mojave desert at a time when the desert flower display was unusually colorful.

We camped one night at an old Borax works where there was plenty of feed for our burros. Surrounding the camp were millions of little white flowers which did not open until the sun went down in the evening. The blossom had three petals and a black center and the stems were only three or four inches long.

As the petals began to open up we noticed a peculiar odor. It smelled like a big hog ranch. We were both stricken with severe headaches, and were unable to sleep that night.

Next morning as soon as the sun came out the flowers began to close again—and our headaches disappeared as if by magic. I do not know the name of these flowers, but as far as I am concerned they will always be "headache flowers". During 42 years on the desert I found them only in two other places, once south of Gladstone and again in 1928 east of Cuddeback dry lake.

A. FRED EADS

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In Defense of Burros . . .

Bangor, California

Desert:

I have just read with interest T. R. Goodwin's discussion of the policy in Death Valley monument in the matter of the mountain sheep vs. burro.

Mr. Goodwin stated that a sheep will not drink at a spring or waterhole where a burro has preceded him. Out of my experience on the range I am convinced that the dislike is mutual. There isn't an animal on earth that likes to drink after a mountain sheep.

I was born in Prescott, Arizona, in January, 1880, and in my younger days was cowboy in Arizona, New Mexico and for a time in Old Mexico. Then I went to prospecting and had a pack train of eight burros. I put shoes on my burros, and fed them rolled barley. The story that a burro will eat tin cans, I think, is a myth.

It was stated that burros are being killed to provide meat for fox farms. If the people of California and Arizona knew how delicious is burro jerky, they would protect the animals from needless slaughter. If they are to be eaten they should be regarded as a game animal for table consumption. I used to pay \$5.00 a sack for burro jerky, and I made some of it myself by cutting the meat in long strips, then salting it and hanging it on a wire to dry.

I will tell you how to cook jerky.

Take a hammer and pound the dried meat on a flat iron or rock. I used my rock mortar and pestle. The object is to pulverize it. Then take about a tea-cup full of the pulverized meat, put two tablespoons of shortening in a frying pan, pour the crushed jerky in and stir a few seconds and then sprinkle in three tablespoons of flour, stir well until brown, pour in a cup of cold water, and then add milk until the gravy is the right consistency. It makes a fine dish served on mashed potatoes.

But I am not in favor of killing the burros. They are the finest little animals in the world. They are not hurting anyone, and I hope others will join me in protesting against their slaughter under any conditions.

SILAS P. WRIGHT

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Report on the Devil's Highway . . .

Yuma, Arizona

Desert:

As a result of bulldozing operations in connection with the new border fence being built between Arizona and Sonora the *Camino del Diablo* is no longer passable between Tule and Bates wells.

However, it is still possible to go in from the west to the Black Butte mineral collecting grounds mentioned in Harold Weight's splendid article, *Gems on the Devil's Highway*, in the September Desert. The graves marked with a circle which Mr. Weight mentioned are not easily seen from the roads and those making this field trip should follow the published road log carefully.

CHARLES F. GRITZNER

Pinon Incense . . .

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

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

Burner and 15 cones . . . \$1.50

Burner and 54 cones . . . 2.70

Extra cones, 36 for . . . 1.25

Postpaid to You

DESERT CRAFTS SHOP

Palm Desert, California



Clyde Terrell, veteran publisher of the Tonopah, Nevada, Times-Bonanza.

Printer of Old Tuscarora . . .

The old joss house with its silver and gilt ornaments, its carved teakwood and fat-bellied gods, is gone. Gone are the fan-tan parlors, and their gleaming stacks of gold coin; and gone, too, are the pigtailed Orientals who prayed and played, who brewed their tea and smoked their opium, and worked long gruelling shifts in the mines of Tuscarora. Only a ghost town remains—but the picture of the camp's heyday scene is still vivid in the memory of one of its old-timers.

By NELL MURBARGER
Photographs by the author

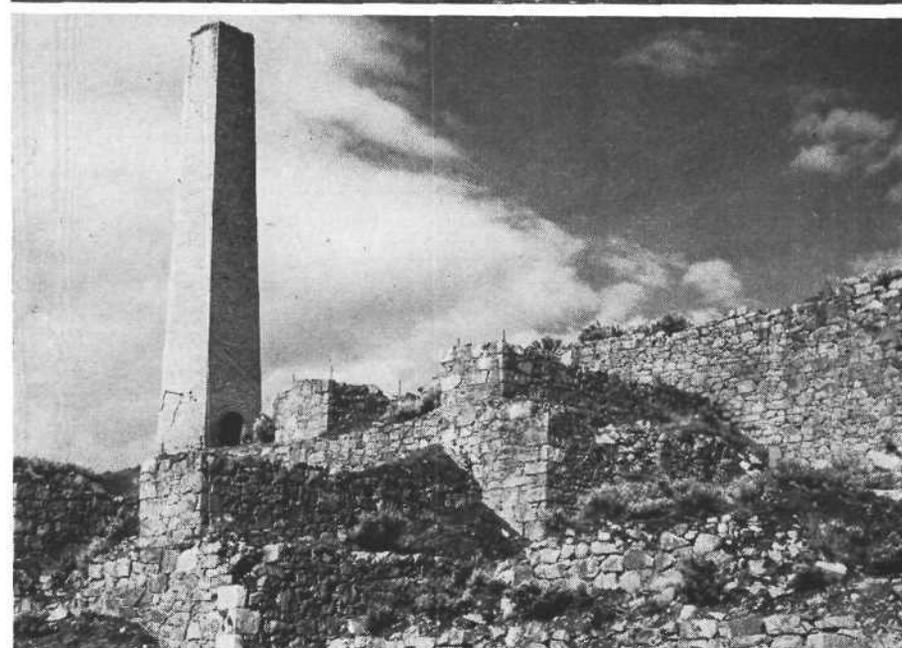
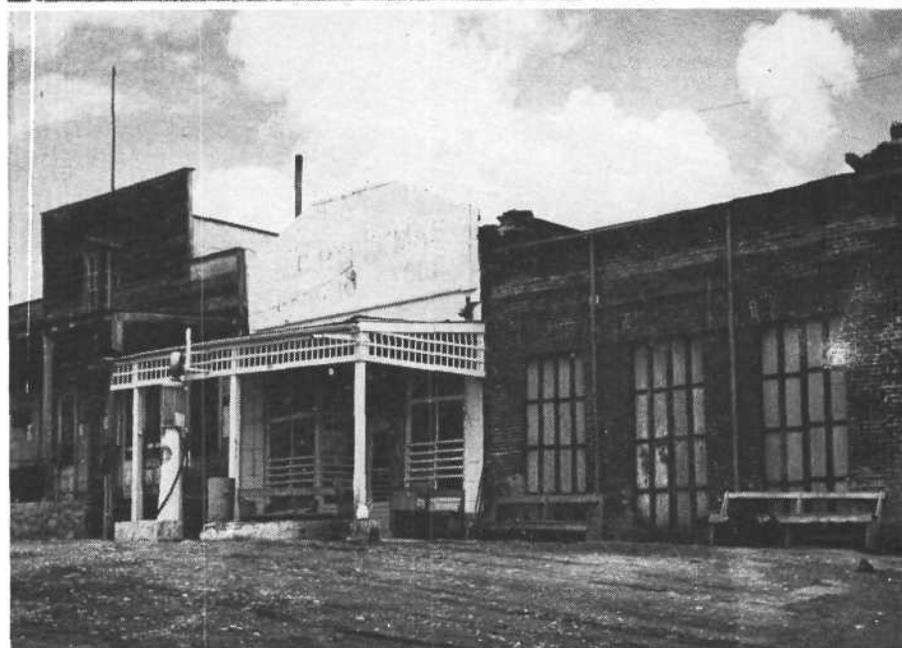
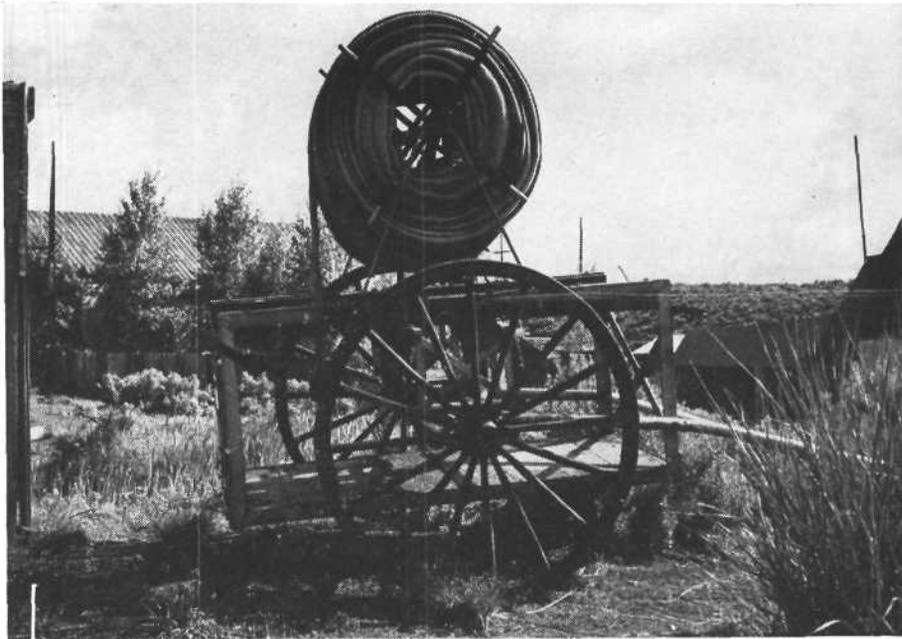
A THIN-FACED, saucer-eyed orphan kid, Clyde Terrell, rode into Tuscarora on a horse-drawn stage more than 50 years ago. Once there he proceeded to pick up considerable mining lore, and at the same time learned his lifelong trade in

the little print shop operated by "Peg-leg" Plunkett, then editor of the Tuscarora Times-Review.

Today Terrell is Nye county's representative in the Nevada state assembly, and publisher of the Tonopah *Times-Bonanza*. Few men have had the op-

portunity to watch Tuscarora's complete transition from boom town to ghost town as has this veteran Nevada printer and editor.

Clyde knew the Beard brothers, John and Steve, who came into the region from Austin in the 1860's and operat-



ed gold placers until 1871 when the first silver lode in the vicinity of Mt. Blitzen was discovered by W. O. Weed. Thereupon began Tuscarora's 14 years of highest prosperity. During that period there came into production the fabulous Dexter gold mine, the Navajo, Nevada Queen, Grand Prize, North Belle Isle, and other rich producers of silver.

Of Tuscarora's once-opulent Chinatown, Clyde has vivid memories. Just as any red-blooded youngster is attracted by the mysterious and unknown, so this place of strange smells and stranger sounds held for him a great fascination.

At the time of his arrival in the Northern Nevada mining camp, its Chinese section was already well established. Completion of the Pacific railroad in 1869 had the immediate effect of releasing upon the western desert an army of several thousand Chinese, who had been employed previously in grading and laying track for this first transcontinental line.

Fearing that the entry of cheap Oriental labor would result in widespread wage cutting in the mines, a majority of Nevada's labor unions took a militant stand against the hiring of these unemployed Chinese. In several communities where they attempted to re-establish themselves, their flimsy homes and few beggarly possessions were burned and the terrified Celestials sent fleeing before the fury of armed mobs.

For some unknown reason, Tuscarora exhibited greater tolerance toward the ex-railroaders, and before long 2000 Chinese were operating mines in that vicinity. Chiefly their efforts were directed toward working old tailing dumps and low-grade ore in properties which the whites had abandoned when production became too lean to warrant their further development.

Although Tuscarora's Chinese section was at that time the largest concentration of Orientals in Nevada, it in no way resembled the picturesque Chinatown depicted in Charlie Chan movies.

Along a narrow street, curved to fit the contour of the mountain, huddled two rows of ugly shacks and boarding

Top—Hand-drawn hose cart, purchased when the fire station burned, is still in use at the old camp.

Center—Main street, Tuscarora as it appears today. Center building is still occupied as a general store.

Below—All that remains of one of the mills which once overlooked the town.

houses. A majority of these were equipped with cellars beneath their first floors; while some of the larger structures extended through several levels to open at the top of the street. All were dimly lighted and poorly ventilated.

Amid these impoverished surroundings sat the beautifully appointed joss house, at that time the most elaborately-designed of any in the state. Here, too, flourished opium dens and a plethora of gambling parlors—for gambling was serious business with Tuscarora's Chinese!

"I've often seen as much as \$5000 on the gambling tables in a single Chinese joint at Tuscarora," said Clyde Terrell when I called on him in the back shop of his Tonopah newspaper office.

"You may be sure that more than one white man looked with envy on those great stacks of gold, and plenty of them schemed to get their hands on it, too! But the Chinese were watchful and so far as I know, there was only one successful attempt to rob the dens.

"This man—we'll call him Jim—got away with around \$5000 in gold," continued Clyde, as he went on throwing in dead type from the latest edition of the paper. "He picked a black, cold night, when smoke was pouring freely from the stovepipe of the colony's biggest joint. He got up on the flat roof, raised a pole alongside the pipe, and by means of a stout cord and a small pulley he hoisted a long, narrow cylinder made of newspaper. In the cylinder he had wrapped five pounds of black and red pepper, mixed with sulphur. As soon as he had the cylinder in the pipe, he let go of it very quickly.

"The cylinder shot down the pipe and hit the damper just above the blazing stove. Meanwhile, Jim had dropped a bucket over the top of the stovepipe and had gotten off the roof. He took a position just outside the back door, which was locked.

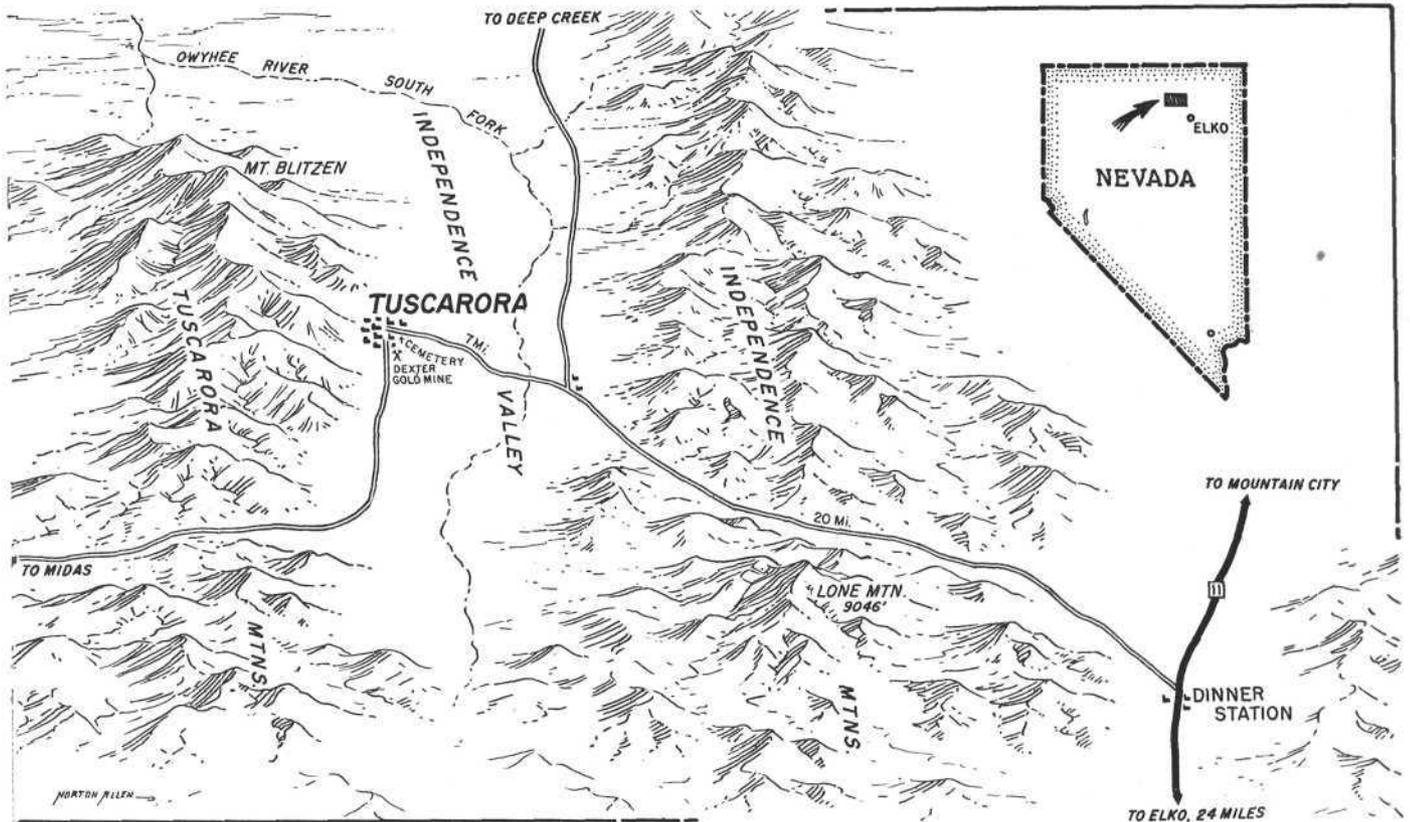
"Inside the gambling joint pandemonium broke, as the room quickly filled with the choking fumes of pepper and sulphur. There was a wild rush for the front door. Jim, his bulky shoulder

Top—Abandoned road leading to one of the Tuscarora mills. Sage, once stripped from the hills by the miners for fuel purposes, has returned taller and denser than ever.

Center—Lake formed in the old Dexter gold mine pit—now well stocked with rainbow trout.

Below—Tailings from the mines cover hundreds of acres of the hillsides around Tuscarora.





against the flimsy back door, lunged forward and the door went down. He ran along a narrow passageway to another door which opened into the gambling room. Holding his breath, he tried this door and found it was not locked. Leaping in—and still holding his breath—he scooped most of the gold into an ore sack and in a matter of seconds was dashing out the same way he had entered. The Chinese gamblers, suspecting a trick, rushed back into the room . . . but they were too late. Jim had vanished, slamming the inner door behind him.

“The Chinamen never recovered their gold,” concluded Clyde. “And as for Jim—his ill-gotten wealth did him little good, for he lost most of it back over the very gambling tables he had robbed!”

Even after law-enforcement agencies were established, said Clyde, the place had a fondness for settling problems in its own frontier fashion and old-timers liked to tell the story of the Rockafellow-Dennis feud. Rockafellow, it seemed, had been using such threatening language in public against Major John Dennis that the sheriff arrested him and tossed him in the calaboose.

Dennis appeared immediately at the jail and put up bail bond for his adversary so that he might have the “pleasure of whaling the tar out of him.”

The payoff came when Rockafellow proved to be the better scrapper of the two and Major Dennis not only was

thrashed but lost his bail money as well!

Clyde recalled other yarns of this isolated camp, 50 miles south of the Idaho border; some of them concerning incidents witnessed by himself, others gleaned from the old-timers who preceded him.

“Sewells—now Nevada’s largest grocery chain—got its start in the old camp of Tuscarora,” he recalled, adding that another Tuscarora merchant who distinguished himself by success was a tailor named Price.

“His business grew into the internationally-known Price Tailors of Chicago.”

Captivated by the glamour of the past, I listened while this newspaperman-legislator told of his boyhood in the old mining camp.

“To my mind,” he declared, “no spot in the world will ever unseat the Tuscarora of my day as a paradise for youngsters. In those days the hills were so full of sagehens that a couple of hours hunting within a mile or two from town would supply all the ‘chickens’ a family could eat for days. There were a dozen trout streams within a few miles of town, and prairie chickens in all the valley meadows.

“There were a half-dozen old mill buildings to prowl through, and there was quicksilver to be washed from the old mill tailings and sold to wandering junkmen.

“On winter nights, with all the world

white and buried beneath several feet of snow, and the temperature down to zero or below, we would gather at the McNamara home where lessons were studied under the warm rays of a coal-oil lamp, and the kitchen cookstove glowed red with sagebrush fuel. Mrs. McNamara would sit and repair stockings and school clothes while we youngsters studied our books, her face serene and peaceful, her eyes filled with love of her three growing and brilliant youngsters. Outside the snow creaked sharply as passersby went their way along the trails shoveled through the deep drifts.

“Then there would be candy to make, or corn to pop; and we would finally stumble off toward home, sleepy-eyed but our hearts light and happy.”

Saturated with the essence of the old days, as imparted by Clyde Terrell, Dora Tucker and I continued on upstate to Tuscarora. We wanted to see just how time had dealt with this famous old Elko county mining camp, which is credited with producing some \$40,000,000 in gold and silver.

Driving north out of Elko on Nevada State Highway 11, we found an interesting country where time seemed to have slipped back 70 or 80 years. Here there was not a house, not a planted field or a tree—only wide rolling hills and high, grassy plateaus on which grazed hundreds of white-faced cattle.

At Dinner station, a historic old stage depot 24 miles north of Elko,

we turned to our left on a narrow graded road which headed up a ravine and into the Independence mountains. Although it was June, the higher peaks still glistened white from a light snowfall of the night before. There were patches of bright lupine and Indian paintbrush along the way.

Descending the west side of the Independence range through scenic Taylor canyon, we soon found ourselves crossing the Independence valley, as green as a New England meadow, and watered by numerous crystal clear trout streams—all tributaries of the Owyhee River.

It was while we were still in the valley that our attention was drawn to a mountain in the snow-capped Tuscarora range ahead of us.

We knew that it could be none other than Mt. Blitzen, for its ravines and lower slopes were pock-marked with mine tunnels and spotted with millions of yards of tailings, like daubs of yellow and brown and gray paint on an artist's palette. As we drew nearer we began passing tumbled rock walls, vacant foundations and leaning chimneys. Then a sharp left turn and a last steep pitch brought us into the heart of Tuscarora.

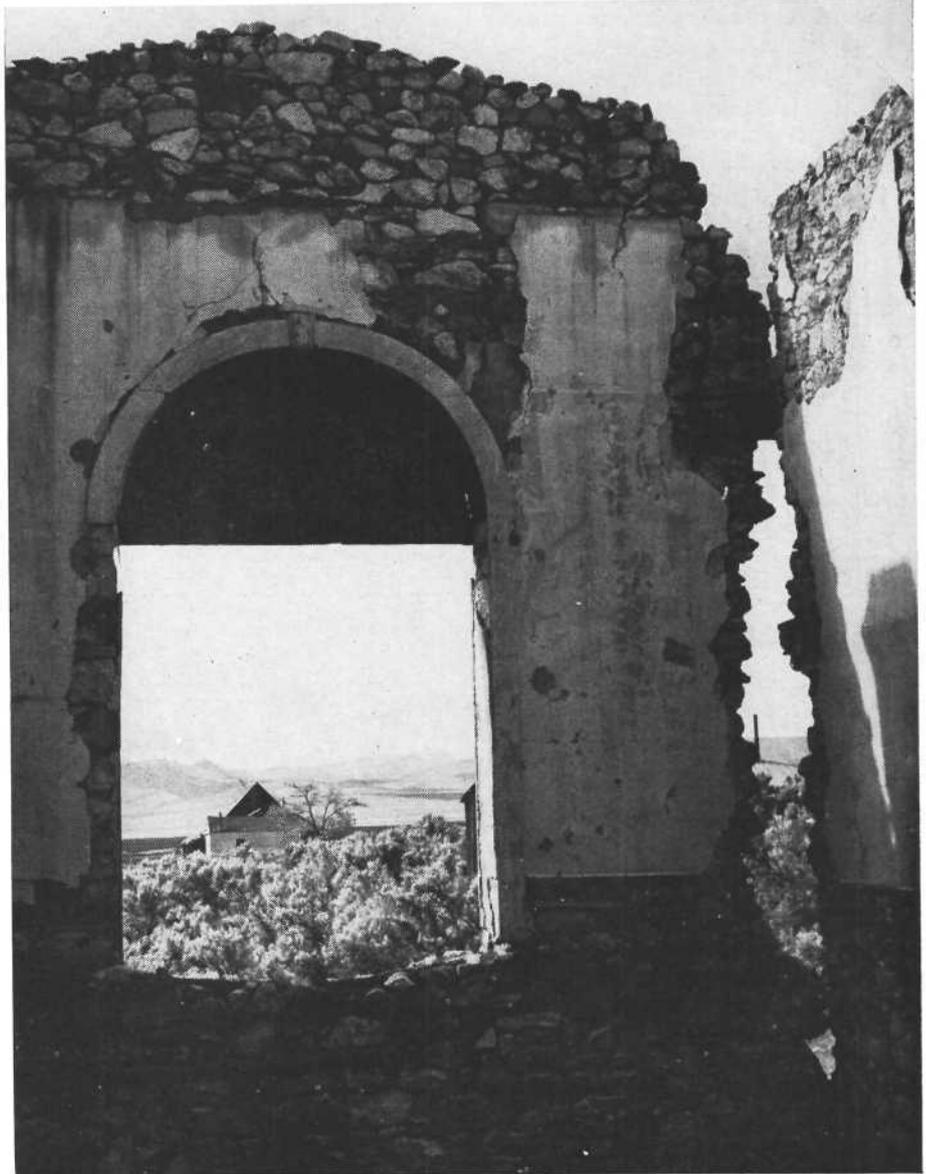
For a city which formerly had controlled the politics of Elko county, there wasn't much remaining. Three frame buildings with false fronts, wooden awnings and hitchrails; a couple of rock masonry structures with tall, narrow iron doors; a few assorted dwellings, and mining camp rubble without end.

Where 2000 Celestials once trod the street, we found not one son of China; and of Tuscarora's once-teeming hordes of Occidentals, we were told that only 23 remain.

One of these survivors operates a fourth class postoffice in the front room of her home. Another man and his wife own the village's only other business house—a toy-sized general store which stocks everything from Fletcher's Castoria to fly-swatters.

Across the street from the store stands one of the two habitable stone buildings. While its exterior has the general appearance of a powder house or jail, this is the old Masonic Temple—one of the oldest in the state. After the population of the town had dwindled until there no longer were enough members to fill the official chairs, the brothers remaining transferred to Elko Lodge, F. & A. M., and the heavy iron doors creaked shut on the last meeting at Tuscarora.

While we were unable to locate anyone with authority to admit us to the building, we were told that its interior still exhibits the flower-emblazoned



All that is left of the old Miner's Union hall at Tuscarora.

carpets and costly wallpaper of boom days.

Nearby lies a heap of charred timbers and heat-twisted residue where four of the town's buildings went up in smoke in the summer of 1948. These included two old landmarks—the original express office, and No. 2 fire station. The 19th century hand-power hose cart, which proved inadequate to stem the 20th century blaze, still stands on a vacant lot across from the scene of the fire.

Ironically, the first water for the camp was piped at great cost from the Independence mountains, nine miles distant . . . and then, when mine excavation was started, a gushing flood of water was struck almost at ground level!

Firewood also constituted a major problem, since no sizable timber grew in the immediate vicinity. For miles around, the hillsides were denuded of

sagebrush to provide fuel for operating the several large mills and many mines; and at times, we were told, the gathering of sagebrush required as many men as were employed in the mines. This cost, together with the everlasting pumping, constituted a staggering overhead expenditure that could only be met by exceptionally rich ore.

In later years there arose over Tuscarora's claims endless litigation. The final blow—a blow from which Tuscarora never recovered—occurred when the incessantly-working pumps were halted by a devastating fire and water flooded the underground workings.

Over the past half century the old town has experienced a renewal of activity on an average of once every ten years, but such revivals are marked by ever-lessening duration and diminished fervor.

When I asked the storekeeper if

there was currently much mining activity in the vicinity, he replied, "None whatever!"

"But these families who live here—", I persisted. "If they don't mine, how do they make a living?"

He shrugged. "It doesn't cost much to live here . . ." and while that didn't answer my question, I decided to let it pass.

I wandered down to the old cemetery where sleep so many of the pioneers who knew Tuscarora in her flaming youth. Many of the graves are enclosed with iron grille fencing, heavy with the corrosion of 70 years. Others were originally enclosed by elaborately-hewn paling fences, now sagging and broken. Most of the older headboards are completely barren of inscription; the names and dates they once bore having been erased by time. Despite its neglect, the graveyard seemed enveloped in a wonderful aura of peace. Peace and wild heliotrope. On top of the graves and between them, and along every foot of margin, lay a tangled blanket of the little white flowers.

From the old cemetery I wandered on past crumbling rock walls and caving foundations—the skeletons of one-time assay offices and hotels and barber shops. Perhaps even Sewells' first store, Price's tailor shop, and "Pegleg" Bill Plunkett's newspaper office where my friend Clyde had been initiated into the wonders of type lice and printer's deviltry.

As I groped through the head-high sagebrush—all the slopes are reforested with it, bigger and brawnier than

ever—I came out suddenly upon a beautiful little lake. It was crystal clear and blue as any lapis lazuli. Along its shores grew a dense fringe of cattails, rushes and pussy willows, and in the soft mud of the bank appeared the cloven hoofprints of a doe and fawn. Quail were calling from the canyon; and frogs, redwing blackbirds and kill-deers seemed to be waging a contest to out-sing one another.

As I stood looking at the great mounds of white clouds mirrored in the quiet depths of the lake, a grandpa-sized trout leaped clear of the water to snap at a passing insect. The morning sun flashed from his silvery sides and as he slipped back beneath the surface a ring of ripples spread away from him, momentarily disturbing my cloud reflections.

Turning back toward town, I met a tousle-haired youngster with a crooked willow fishpole over one shoulder and a tattered little brown dog at his heels. "Going fishing?" I inquired needlessly.

"Yup! Got m'lunch here, too!" Importantly he indicated a bulky paper sack stuffed between the bib of his overalls and the bare brown skin of his chest. Expectantly, the little dog waved his stump of tail.

"What's the name of that pretty little lake?" I inquired.

"Aw, 'tain't no real honest-Injun lake," he replied. "It's th' old Dexter gold mine. You've heard of th' Dexter, I guess? Reckon it was th' richest gold mine in th' world! An' now it has th' world's biggest rainbows in it. You

oughta see 'em! Like this—". A pair of brown arms stretched to their fullest span and a seven-year-old face broke into a wide grin from which two front teeth were prominently missing.

Suddenly I was remembering what Clyde Terrell had said about no place in the world equalling the Tuscarora of 50 years ago as a paradise for growing children.

One look at the freckle-faced youngster, his crooked fishpole and ragged pup, and I knew that in one respect, at least, Tuscarora was unchanged.

• • • ARCHEOLOGICAL SOCIETY FORMED IN PRESCOTT . . .

With the purpose of developing interest in southwestern archeology, a new organization has been formed in Prescott, Arizona. Its name is the Yavapai County Archeological society, Harold Butcher has been chosen president.

Specific goals of the organization are to stimulate research in archeology, encourage and support museums, protect existing records of ancient times, discourage exploitation, undertake mapping of the archeological resources of Yavapai county and catalog artifacts. Yavapai county is believed to be a rich archeological area.

One of the society's directors, George Hunt Williamson, is a young archeologist who has already earned national attention. He was awarded the gold key by the State of Illinois for outstanding archeological research during 1946 when he discovered prehistoric village sites in southern Illinois.

Rendezvous for Gold Hunters . . .

Another year has passed, and the location of Pegleg Smith's lost gold remains as much a mystery as ever.

But the search goes on, and the annual Pegleg Trek is to be held again in Borrego valley, California, on January 1 in accordance with a tradition established three years ago.

Harry Oliver, chairman of the committee in charge of the arrangements, announced plans for the January 1 rendezvous late in November. "All gold-hunters are invited," said Harry. "And if they don't find Pegleg's black nuggets, they will still have a lot of fun."

The program will begin on New Year's eve when the annual Liar's contest is to be held at a big campfire in Borrego valley near the Pegleg monument. This also is a free-for-all. Harry Oliver will be master of ceremonies, and contestants may enter their names any time previous to the start of the contest at 7:30 p. m. December 31.

For the information of campers, there is plenty of parking and camping space on the gravel bajada where the contest is held. However, there is no water, and the wood

supply is limited, so campers are cautioned to bring ample supplies.

Early on the morning of January 1 the gold-hunters will head out across the desert, in whatever direction they wish, and the hunt will be on, for this is the heart of the region in which Pegleg's legendary three hills, with the black nuggets on their tops, are believed to be located. There are many versions of the Pegleg story, but most of them agree on the point that the famous one-legged prospector was heading west from Yuma across the Calhuilla basin when he made his fabulous gold discovery.

Actually, those who attend the annual Pegleg Trek include photographers, botanists, rockhounds and many other breeds of desert hikers who are more interested in their particular hobbies than in hunting for Pegleg's mythical gold. But there are no restrictions. Each visitor follows his own desires. According to custom, each visitor is expected to deposit ten rocks on the Pegleg monument before starting the hunt. This is said to bring good luck.

In addition to Oliver, the committee this year will include John Hilton, Ray Hetherington, Ed Duval and Randall Henderson, with Henry E. H. Wilson as honorary chairman. Judges in the Liar's contest will be Desert Steve Ragsdale, Al Burnand and Guy O. Glazier.

HERE AND THERE ... on the Desert

ARIZONA

Camino del Diablo Impassable ...

YUMA — Historic Camino del Diablo (Devil's road) to Sonoyta in Sonora, Mexico, is now virtually impassable and adventurous desert travelers should check carefully before attempting to make a trip over the hazardous route.

According to Mr. and Mrs. C. F. Gritzner of Yuma, who recently traversed the road along the Mexican border from Tule Well, south of Wellton, to Sonoyta, the road is cut to pieces. The federal government is building a fence along the international boundary, has used bulldozers to cut a straight uninterrupted fence line, and what remains of the original historic road is now virtually impassable. The Gritzners made the trip with difficulty in a specially equipped four-wheel drive jeep.

A field trip made by Harold O. Weight over this route was described in a story titled *Gems on the Devil's Highway*, which appeared in September issue of *Desert Magazine*.—*Yuma Daily Sun*.

• • •

Williamsburg of the West ...

TOMBSTONE — Aimed at making Tombstone, famed pioneer mining boom town, the "Williamsburg of the West," a restoration program has been launched which is designed to give Tombstone an 1880 look from one end to the other. Fronts of buildings are to be replaced with originals, old overhangs will be put back, historical spots such as the O. K. corral are to be restored and wooden sidewalks laid. A non-profit corporation has been formed to finance and direct the program to make Tombstone a western show-place.—*Tombstone Epitaph*.

• • •

Few Natives in Arizona ...

PHOENIX — Although most newcomers to Arizona go native by donning sombreros and levis and within a few years, in many cases, like to claim the state as their own, in reality half of Arizona's residents have been in the state less than 10 years, a recent survey reveals. And a much smaller percentage are native Arizonans—in fact, a non-Indian native adult is somewhat of a curiosity. This constant infusion of new blood is economically advantageous, observers believe.—*Mohave County Miner*.

Indian 4-H Club Formed ...

SAFFORD — Traditionally sheep raisers, Indian boys at Bylas are becoming interested in beef cattle, and a 4-H club of Indian boys has been organized at Bylas. Fifteen boys signed up to raise 15 registered Hereford bulls, it is hoped these will be used to help build up high-grade herds.—*Graham County Guardian*.

• • •

Exhibit of Katchina Dolls ...

FLAGSTAFF—A special exhibit of Hopi Katchina dolls, arranged in connection with publication of Dr. Harold S. Colton's new book, *Hopi Katchina Dolls*, is on display at the Museum of Northern Arizona at Flagstaff. The museum has some 200 dolls in its collection, not all are in the display.—*The Coconino Sun*.

Before next summer work is expected to be completed on a huge new bridge over the Gila river on Highway 666 which will link 18 miles of new road in Graham and Greenlee counties, shortening the distance between the two areas by about 28 miles. Only one of its type in Arizona, the bridge will rise 110 feet above the river bottom, will be 726 feet in length.—*Graham County Guardian*.

• • •

Because of heavy early snows, Arizona's famed Snow Bowl winter sports area near Flagstaff was opened ahead of schedule, and enthusiasts were welcomed on Thanksgiving day. Original opening date had been set December 15.—*Coconino Sun*.

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MISCELLANEOUS

GEOLOGIC & SCENIC COLOR SLIDES, 2 samples, catalog, \$1.00. Heald-Robinson, 112d Lemon, Monrovia, California.

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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, California.

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

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

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

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THREE DIMENSION. Cactus framed desert landscape pictures, size 6 x 8 x 2, \$3.00; 8 x 13 x 2, \$5.00. The Special 10 x 20 x 2½, \$10.00. Diorama Studios, 1225 N. Anita, Tucson, Ariz.

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KODACHROMES of Cathedral Valley, newly discovered scenic area in Utah; or colorful Capitol Reef National Monument. Sets of 10, \$5.00. Charles Kelly, Torrey, Utah.

DESERT LOVERS—Send One Dollar for 10 Exclusive photos of strange Lower California Desert Plants. Free listing on request. Art Center, 525 "E" St., Room 217, San Diego 1, California.

National Monument Development...

AJO—A million dollar development program for Organ Pipe National Monument is being considered by the department of the interior to provide improved facilities so visitors can better enjoy the mountain scenery and the abundant and varied desert vegetation and wildlife. The development, however, is in the future.—Ajo Copper News.

Old Apache Scout Buried...

VERDE — One of the last remaining Apache scouts of the Indian wars, James Mocasque, more than 100 years of age, died November 19, 1949, on the Middle Verde reservation where he had lived in recent years. Known as Long Haired Jim, Mocasque served under General Crook and General Miles. He was known as an honorable Indian, was respected by both Indians and whites. He was born in 1844.—Verde Independent.

CAMERON—Mr. and Mrs. Art Greene and their family, well known to desert travelers as hosts at the Marble Canyon lodge at Navajo bridge on the highway connecting the two rims of Grand Canyon, gave up their lease on November 1 and moved to Cliff Dwelling lodge eight miles west on the road to Houserock Valley. The Greens have purchased the Cliff Dwellings, and plan to add guest accommodations as soon as they can be built. Lorenzo Hubbell of Winslow, Arizona, owner of Marble Canyon lodge, stated that name of the Greene's successors there would be announced in the near future.

Newly appointed curator of art at the Museum of Northern Arizona, Flagstaff, is Alexander O. Brodie, son of the Alexander Brodie who was territorial governor of Arizona in 1903-05. Announcement of the appointment was made by Dr. Harold S. Colton, museum director.

REAL ESTATE

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CALIFORNIA

Huge Dredger Sinks in River . . .

NEEDLES—Divers have been brought here from San Diego in an effort to salvage the huge million dollar dredger which sank on November 5 while engaged in deepening the Colorado river channel above Lake Havasu. The reasons for its sinking have not been disclosed by Reclamation bureau engineers who were operating the equipment.—*Needles Star*.

In Wagons to Death Valley . . .

BISHOP—"The First Annual Pioneer Horseback and Wagon Trek from Lone Pine to Death Valley" departed from Lone Pine in time to reach Desolation canyon for the '49er pageant. Sponsored by Bruce Morgan, the caravan included many vehicles of ancient manufacture, Morgan hopes to repeat the 8-day trek year after year.—*Inyo Register*.

Long Tunnel Dispute Ended . . .

HEMET — Hemet valley farmers, whose underground water supply has been decreasing steadily since the Metropolitan Water district completed its tunnel through San Jacinto mountains ten years ago, have been assured that their losses will be made up by water supplied from the Colorado river.

This agreement settles a controversy which developed while the tunnel was still under construction. In building the tunnel, which brings Colorado river water to the Los Angeles metropolitan area, engineers found it impossible to seal the tube against seepage from rock crevices in the massif through which they were drilling.

So much water was drained into the tunnel that farmers in the Hemet-San Jacinto area soon found their ground water table being lowered and serious crop damage threatened. They formed the San Jacinto River Protective district as a safeguard.

After long negotiation with Metropolitan district representatives a basis of settlement has been reached without the necessity of resorting to the courts. The Metropolitan district has agreed to supply the Hemet-San Jacinto users with water equal to the amount they are losing through tunnel seepage.

Mine Company Sues District . . .

EL CENTRO—Destruction by fire of the Holmestake Mining company's gold stamp mill on Highway 80 in eastern Imperial county was basis for a \$300,000 damage suit against the Imperial Irrigation district. The mining company charged that a district employe cut the power line which served

the mill, thus making inoperative the mill's fire-fighting equipment. The district contended that at the time the power line was cut the mill was already enveloped in flames and virtually destroyed.—*Yuma Daily Sun*.

Bombing Range Blocks Highway . . .

EL CENTRO—How to provide a direct automobile route from California's Imperial Valley across the desert to Blythe without interfering with the El Centro Naval air station bombing range is the problem being studied by Imperial county supervisors, navy officials and businessmen. Present road from Niland, in north end of Imperial valley, to Blythe crosses the bombing range and hence is closed to traffic.

The highway, which valley interests have long wanted improved, is important to economy of the two irrigated areas—but the naval air station is important to national defense and also to El Centro's economy. It poses a problem.—*Imperial Valley Weekly*.

Commercial Fishing Opposed . . .

CALIPATRIA — Elimination of commercial fishing in the Salton sea, below-sea-level inland salt water body, is asked by the chambers of commerce of Calipatria and Niland because of the sharp decrease in the number of mullet at the mouth of the Alamo river in this year's run of the famed fish. Chamber officials and Imperial Valley sportsmen have taken their case to the state division of fish and game. In 1921 mullet in Salton sea were almost wiped out by commercial fishing.—*Calipatria Herald*.

Proposed Desert State Park . . .

PALM SPRINGS—Proposed boundaries of a new desert state park that would include the famous canyons extending from Tahquitz to Palm Canyon are to be mapped and submitted to the California Park commission following a visit to the Palm Springs and Coachella valley area by members of the state commission.

Preparation of the maps has already been started by Desert Associates, Palm Springs organization, which has worked closely with the Sportsmen's League of Coachella valley in promoting a state park on northeastern shore of Salton sea.—*The Desert Sun*.

Pheasants Planted for Hunters . . .

INYO—Prior to opening of the hunting season in the Owens valley area, more than 3000 pheasants were planted to give hunters more birds to shoot at, according to Arthur L. Hensley, district game conservationist. It is believed that predators—coyotes and bobcats—kill a great many of the planted birds.—*Inyo Independent*.

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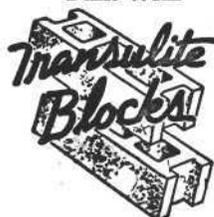
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NEVADA

Pioneering Days Not Past . . .

FISH LAKE VALLEY—To make irrigation water available for homesteaders who have taken up land in Fish Lake valley, a mutual water company is being formed and papers have been filed at Carson City, it is reported. Nearly 125 filings have already been made, rounding out the proposed colony of pioneers. Most of the homesteaders are adequately financed, many

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own equipment and come from farms in New Mexico, Oklahoma, California, Texas and other states—some from as far east as Ohio.

The West is still a young country.—*Tonopah Times-Bonanza.*

Tonopah's 50th Anniversary . . .

TONOPAH—Fiftieth anniversary of the discovery of Tonopah is to be observed this year with publication by the *Times-Bonanza* of a special anniversary edition. The newspaper has collected many old photographs, but is asking for more. Pictures are wanted of both early personalities and early scenes in Tonopah or any place in Nye county—also views of historic Goldfield, Belmont, Berlin and Ione.—*Tonopah Times-Bonanza.*

Landmark Removal Protested . . .

AUSTIN—The old Methodist church built here in the early 1860's when Austin was a leader among Nevada's mining camps is a historic landmark and should be retained in its present

location, claim local residents who oppose a plan to demolish the church and move the bricks to Fallon to be used in construction of a church there. The church building is in disrepair, has been unused for approximately 20 years. Local residents have offered to repair the roof and building if the Methodist conference would pay for materials.—*Reese River Reveille.*

Wild Dogs Roam Desert . . .

TONOPAH—Led by a large police dog, a pack of wild dogs of unknown origin is roaming the desert areas about seven or ten miles from Tonopah and trouble is anticipated when sheepmen move in their flocks for winter and spring grazing.

The pack consists of about eight animals, four or five of the young dogs appear to be half coyote. How they survive is a mystery. So far as is known there is no water available unless they range much farther than believed.—*Tonopah Times-Bonanza.*

Better Use of Limited Supply . . .

CARSON CITY—Nevada water users have been warned that they should make better use of limited water supplies, and in particular should develop the many small streams in the mountains to supplement underground resources. H. V. Peterson of the U. S. Geological Survey urges that a study be made of every mountain range to learn where stream flows may be developed as a source of water for livestock, irrigation and domestic use.—*Humboldt Star.*

No Gambling Depression . . .

PIOCHE—Despite hints of a recession in some lines of business, Nevada's billion-dollar-a-year gambling business is continuing to climb. The state's more than 1300 legalized gambling establishments grossed an estimated \$40,540,000 during 1949 as compared with \$38,578,600 in 1948. This means that more than a billion dollars was wagered. The state gets its cut in taxes.—*Pioche Record.*

NEW MEXICO

Three New Water Projects . . .

GALLUP—Three New Mexico water projects which will bring added irrigation and power facilities to needy areas, are included in the reclamation bureau's construction plans for this fiscal year. The three projects total more than \$2,000,000. They are the Tucumcari project, the Fort Sumner project and the Rio Grande project.—*Gallup Independent.*

WHERE PALMS GROW WILD . . .



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

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PALM DESERT, CALIFORNIA

Is This Hunting Fair? . . .

ALBUQUERQUE—A special hunting season for big game in the 600,000-acre Vermejo park in northern New Mexico, where hunting permits were sold by a private land owner at \$250 each, is under fire by the Albuquerque Game Protective Association. The attack was led by State Senator Leonard Ginn. Fault was found with the fact that the ranch owned by William Gourley, San Antonio, had a special open season that preceded the regular open season by a month, and that Gourley was allowed to sell hunting permits. The ranch had been stocked with elk.—*Gallup Independent*.

Navajos Seek Education . . .

GALLUP—"Today it can be said without qualification that the Navajos want the white man's education, and they want it with an impressive determination." This is the way Allan G. Harper, superintendent of the sprawling Navajo reservation, sums up the Navajo attitude toward formal schooling. He points out it is a big change from earlier days when parents would not permit their children to enter government schools.

This past year every school on the reservation had to turn away eager pupils. In the 1948-49 school year 10,000 Navajo children received schooling, while 14,000 school age children had no facilities at all.—*Gallup Independent*.

Large Black Bear Shot . . .

LOVINGTON—One of the largest black bears ever taken in New Mexico fell recently before the guns of Land Commissioner Guy Sheppard and State Senator Burton Roach. The bear's weight was estimated at 600 pounds. The animal was shot in the Black range of southwestern New Mexico.—*Lovington Press*.

Taos Artist Wins Laurels . . .

TAOS—A Christmas theme oil painting entitled "Indian Kids Sliding" won for Howard Cook, Ranchos de Taos artist, the honor of being one of the 50 American painters to be featured in the \$28,000 international Hallmark Art Award exhibit in New York during December. Cook's painting was one of 50 chosen from 4158 entries.—*Las Cruces Citizen*.

To Change City Government . . .

HOBBS—This New Mexico city is changing from a mayor-council form of government to a city commission-manager system. The change was approved by a 2 to 1 vote at a recent election. A second election will choose

a five-man commission, this commission will hire a city manager.—*Gallup Independent*.

UTAH

Ute Indians Not Socialistic . . .

ROOSEVELT—The Indian is essentially individualistic in nature, can never be regimented into a socialistic existence, and desires to become a self-supporting, respected and independent citizen of the United States.

This is the opinion of spokesmen for the Ute Indians of the Uintah-Ouray reservation who are asking for repeal of the Wheeler-Howard Indian act of 1934. They favor the original system of tribal government, claim the Wheeler-Howard act disregards both individual and band rights upon the reservation. "The Indians on the reservation do not like and do not want the pooling of their resources," declared Julius Murray, member of the Uintah band. He urges restoration of property rights to each of the three bands of Utes on the reservation.—*Salt Lake Tribune*.

More Coal for Kaiser . . .

SALT LAKE CITY—The Kaiser Steel corporation's growing coal holdings in central Utah were increased by a new 600-acre cooking coal reserve when Kaiser obtained a lease from the department of interior in competitive bidding. The addition brought total of new coal deposits under lease by Kaiser Steel to 3640 acres, or a supply estimated by the company at 36,000,000 tons. Kaiser Steel is making preparations to expand its operations at the Fontana, California, plant, needs added reserves.—*Salt Lake Tribune*.

Monument for Bert Loper . . .

GREEN RIVER—A monument in memory of Bert Loper, famed river man who had run every rapid in the West, may be erected by spring in this Emery county town where Loper lived. He died last July 8 while on a trip through the Grand Canyon (*Desert Magazine*, September, 1949). He

would have been 80 years of age July 31. Plans to collect funds for the proposed monument have already been made.—*Salt Lake Tribune*.

U. S. Highway 6 across central Utah is expected to be completed within two years, forming with Highway 50 a new transcontinental route which will shorten driving time between Denver and San Francisco by three hours. Unfinished portion of Highway 6 is a 51-mile section west of Delta, Utah. It is improved and graveled now.—*Fallon Standard*.



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ANSWERS TO DESERT QUIZ

Questions are on Page 19.

- 1—Arizona and Nevada.
- 2—Grey-blue.
- 3—An open range where buffalo may be seen.
4. Yuma, Arizona.
- 5—Pat Garrett.
- 6—Colorado river.
- 7—Dwelling house.
- 8—Built a wagon road from San Bernardino to the Colorado river.
- 9—New Mexico.
- 10—Death Valley region.
- 11—Roasting food.
- 12—Lizard.
- 13—Gain freedom to worship as they please.
- 14—Gila river.
- 15—U. S. Park rangers.
- 16—Topaz.
- 17—Making pottery.
- 18—Corn.
- 19—First explored the lower Colorado river by boat.
- 20—White mountains.

DESERT CLOSE-UPS

From the window of her home on Palomar mountain in San Diego county, California, Marion Beckler looks down on a vast panorama that extends from the sea to the desert. Across this landscape a hundred years ago came Kearny's army and a little later the stage coaches of the old Butterfield line—the Jackass Mail it was sometimes called.

With a school teacher's interest in history, Mrs. Beckler has done much reading on the subject of that old trail from the desert—and her research led to the writing of the story of the Vallecito stage station for this issue of *Desert Magazine*.

Mrs. Beckler's school is near the famous Palomar telescope. She and her husband have their home on the mountain, and their GI son is in school at Stockton.

Mary and Marion Carothers, who supplied the pictures for the Vallecito story, make their home in La Jolla, California. Their work as free lance photographers has appeared in many western publications.

Another "first contribution" in this issue of *Desert Magazine* is the vivid description of the Ives Colorado expedition in 1857, written by Al Haworth, associate editor of *Desert*. Although a member of the magazine staff only since last April, Mr. Haworth as former publisher of the *Calxico Chronicle* and later the *Imperial Valley Weekly* at El Centro, has been a desert journalist 15 years.

John Hilton, who has written for *Desert* at intervals since the magazine was started, returned recently from Mexico where he spent the summer gathering material for a non-fiction book narrating his experiences on an exploring trip into little-known interior regions of western Mexico. The manuscript is scheduled to go to the publishers soon.

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Fresno, Kern, Riverside—\$2.50 - \$5.

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Siskiyou—\$2 and \$4.

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MINES AND MINING . . .

Death Valley, California . . .

Discovery of a rich deposit of pitchblende, source of radium and uranium, between the Panamint mountains and Death Valley, is claimed by two Los Angeles prospectors. They are Richard E. Darnell, laboratory employe of a potash company at Trona in San Bernardino county, and his prospecting partner, George Taylor.

Taylor found the pitchblende several weeks ago. Darnell said the ore assayed \$16,000 to \$17,000 a ton in Denver. He presumes the Atomic Energy Commission will take over as guardian of sources of uranium. If the find develops, it will be the first pitchblende mining in California, according to a spokesman for the AEC in Los Angeles.

Darnell said the deposit is in a giant slab about nine miles off the nearest road in rugged territory in the Panamints.—*Barstow Printer-Review*.

. . .

Goldfield, Nevada . . .

While wages in the gold mining industry have more than doubled since 1934 and the cost of materials necessary to the industry has increased 70 percent, the price of gold has remained at \$35 a fine ounce since it was pegged at that figure by President Roosevelt. Now President Truman's declaration that he will never agree to a raise in the price of gold has raised a storm of protest in western mining camps.—*Goldfield News*.

. . .

Eureka, Nevada . . .

At least 385,000 acres of land in eastern Nevada has been recently leased for oil exploration, a survey reveals. Most of the land is in White Pine county, some in Elko county to the north. Standard of California is among the lease holders. Phillips Petroleum plans to drill one well immediately in White Pine county, where it holds a 5000-acre lease.—*Eureka Sentinel*.

. . .

Reno, Nevada . . .

The house of representatives has passed Congressman Walter S. Baring's bill which provides for establishment and operation of a rare and precious metals experiment station at Reno, Baring has reported. The station will help revival of gold and silver mining in the state, it is believed. The bill must go to the senate now for approval.—*Ely Record*.

Marysvale, Utah . . .

A new uranium find good enough to justify building a processing plant at the site has reportedly been located near this southern Utah town. According to D. W. Viles, general manager of the Vanadium Corporation of America, the discovery is "one of the best prospects in the country."

Deposits of "autunite" ore in the Marysvale region have been described as richer than the carnotite ores found on the Colorado plateau and in southwestern Utah. The autunite lies in veins in contrast to the erratic locations of carnotite. Part of the exploratory work is being done in the vicinity of the Yellowjacket mine, famed in other years.—*Salt Lake Tribune*.

. . .

Clark County, Nevada . . .

An unlimited deposit of manganese ore, comprising an entire mountain, is to be developed by Manganese, Inc., which has acquired the Manganese Ores property in Clark county. A newly perfected process will recover at least 65 percent of the manganese. The deposit is near a mill erected at outset of World War II. It will require an expenditure of \$750,000 to change over the plant, but the firm expects to be in production by next fall. The property is being purchased from the Nevada Colorado River commission.—*Eureka Sentinel*.

. . .

Ely, Nevada . . .

High costs of production and operation, as compared to prices received for products; tax laws which discourage venture capital; importation of foreign metals. These are three of the factors that have reduced the western small mining industry to a point where it is now "in its death throes," a house subcommittee was told at a recent Nevada hearing. Ore bodies are being depleted, new development is lagging, the congressmen were told.—*Pioche Record*.

. . .

Pioche, Nevada . . .

Opening of extensive copper and silver mining operations in the "Lucky Group" mines near Lathrop Wells has been announced by the Boulder Industrial Minerals corporation. The corporation has a five-year lease on the mine site. Ore containing an estimated 15 percent copper and a small amount of silver is to be shipped out of Las Vegas to Salt Lake City.—*Pioche Record*.

Tonopah, Nevada . . .

Installation of equipment soon and major scale operations next summer are planned at the Gold Queen group of 14 placer claims in the Sylvania district if an ample water supply can be developed in nearby Palmetto wash. The group of claims was leased recently for 10 years by Dodge Construction company, Charles H. Segerstrom and John M. Heizer. The placer deposits are said to range from 4 to 20 feet in depth over a broad area. Drill holes indicate that gravel at upper part of the property averages close to \$1.50 a cubic yard, one hole disclosed gravel which assayed \$28 a cubic yard.—*Los Angeles Times*.

. . .

White Pine County, Nevada . . .

A new silver strike has been reported at Grand Deposit mine in Silver Mountain mining district near Muncy creek. According to Paul C. Lyon, Salt Lake City, president of the company, the strike was made in a winze projected from a main cross-cut on the 600-foot level. The mine is operated under lease by Edgar Johnson. Settlement on a 47-ton dry shipment of ore showed a net of \$2980 or \$63.74 per ton.—*Humboldt Star*.

. . .

Winnemucca, Nevada . . .

Capacity operations have been resumed at the noted Jumbo gold mine in the Awakening district following settlement of litigation with the Austin family, owners of the property. The Red Ledge Mining company held the lease and operating privileges in the mine, but that partnership has been dissolved. Incorporation has been completed and the property will be known as the Austin-Jumbo Mines, Inc. This will identify it with the gold strike made in 1936 by George Austin. Mining capacity of the open-pit operation is expected to be increased to 1000 tons daily, rejecting approximately 50 percent by screening, with 500 tons going through the mill. Assay value of ore now going to the mill averages \$3.50 per ton. It is free milling ore, yields approximately 85 percent recovery.—*Humboldt Star*.

. . .

Moab, Utah . . .

The Independent Uranium Producers association has been formed by men interested in development of atomic ore mining in the Four Corners area. In addition to working for technical developments, the association will seek higher prices from the government for atomic ores.

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AMATEUR GEM CUTTER

By LELANDE QUICK, Editor of The Lapidary Journal

A correspondent asks how to polish lapis lazuli, stating that conventional methods of tin or cerium oxide on felt or leather buffs doesn't do much for it. That is true. Lapis lazuli is a dense opaque material and rarely seen in amateur gem collections, because it does not take a high polish like agate materials. Most amateur gem cutters expect to get a mirror finish on everything, but there are many materials on which this cannot be accomplished. It cannot be accomplished on rhodonite, lapis lazuli or turquoise but we did see an approximate mirror finish on some variscite cabochons at the Las Vegas show in November.

Few people work with lapis for this reason but it can be brought to a very nice sheen by turning up a sander to 3500 r. p. m. and using a piece of well worn 220 cloth, with practically no grit. After you get the high sheen by quickly touching the stone to the sander (be careful of that heat at such high speed!) take it to the buffs and see for yourself that wet polishing improves it not at all.

The Federal authorities have been raising hob with several dealers recently who have been failing to collect the tax on gem materials sold in the rough. This has frightened all dealers to the point where they lean backwards in an effort to obey the law. What law? The law that established excise taxes in 1941 as a war measure for "punitive purposes against certain types of consumption and production." In plainer words citizens were to be punished for spending \$3000 for a diamond ring or a mink coat they didn't need instead of putting their money into bonds as a loan to their government.

No one dissented at such a law. But through the years the interpretation of the law by the Washington clerks has become farcical. Intended as a tax on luxury items such broad interpretations have been made as collecting a tax on a man's wallet because there is a tax on luggage. (Many would agree that a woman's handbag is luggage.) The cosmetic tax on lipstick has not been collected yet on shaving cream—but it probably will.

This brings us to the 20 percent tax on gems and gem materials, for their purchase is the foundation of the gem cutting hobby. So many letters about this nuisance tax ask our advice that we offer a hypothetical case as an illustration. A person goes on a field trip and brings home a big load of geodes from the Chuckawallas. They look pretty good when he saws into them. He shows some to a dealer who wants to swap and the amateur uses this chance to make his trip pay for itself by swapping fifty of them for a couple of grinding wheels and a book. Two hours later a tourist stops by the shop and buys a half dozen of the rocks for \$5.00. If he says he wants them for his mineral cabinet he gets a written receipt from the dealer that they were sold as "specimen material" and he pays no tax. But if he has any idea in his mind that he is going to improve some of them by polishing the good ones on the sawed side to enhance their beauty he has to pay the dealer 20 percent tax. For then he is making an ornamental stone and the government holds that to be "semi-precious". Silly, isn't it? Silly but unjust for such a law makes the gem cutting hobby the only hobby subject to taxation.

The result of this law is that it makes dishonest people of many who are otherwise rigidly honest. It scares some dealers into collecting tax on everything they sell. Why can't the tax be interpreted to agree with the customs duties on the same items? Duty is not required on minerals in the rough but if the mineral is ready for mounting in jewelry it requires duty.

We have seen many letters from the taxing collectors on this matter and here is what we gather from them: A dealer must collect the 20 percent excise tax on finished stones, ornamental objects (ash trays, bookends, etc., when made of minerals), synthetic stones (although they are not natural minerals), carbochon blanks, preforms, slabs and rough material intended for gem cutting purposes. That means tax must be collected on agate, petrified wood and obsidian. A recent letter to a manufacturer of synthetics advised that the tax must be collected on "everything with a hardness of six or over, the pearl excepted." Just let some dealer fail to collect tax on his next sale of chrysocolla, which never has a hardness exceeding 4, and see what happens. If one buys some gold in sheets and makes a ring there is no tax but if the same person buys a ring in a store there is 20 percent tax. If he pays no tax on gold in the raw state why should he pay tax on a hunk of rock?

Beardsley Ruml, New York business consultant, told Congress members on November 23 that the all-wartime "punitive" excise taxes should be repealed outright. He predicted that the net loss to the Treasury by such a move will be "much less than what appears to be the gross loss." Ruml is vice-chairman of the research and policy subcommittee of the Committee for Economic Development, a private organization of businessmen formed to study economic conditions. He was author of the pay-as-you-go income tax plan. He made his recommendation to a joint Congressional economic subcommittee now looking into the nation's fiscal and monetary policies.

Ruml emphasized that the excise taxes he would repeal are only those applied in wartime for "punitive purposes against certain types of consumption and production." Included are such items as jewelry, furs and electric light bulbs. He eliminated from consideration excises on gasoline, alcohol, tobacco, and those in effect prior to 1941.

Here is a matter for the American Federation of Mineralogical societies to consider. Why should the gem cutting hobby be the only one in America subject to the arbitrary decisions of taxing authorities in a manner never intended by the law? Someone wrote, "Why don't the jewelers' associations do something about it?" They did. They got the tax repealed on watches under \$65. A watch under \$65 is regarded as a necessity and a more expensive watch is a luxury. But the same clerk didn't rule on alarm clocks. Any alarm clock over \$5.00 is subject to 20 percent tax but the authorities generously reduced the tax on the cheaper clocks to only 10 percent. All alarm clocks are regarded as luxuries while \$65 watches are a necessity. The watch boys just talked louder than the clock boys, that's all. Why can't the five million amateur gem cutters set up a howl? We'd like to hear from readers about their tax experiences.

Gems and Minerals

FIRST CLARK COUNTY GEM SHOW SUCCESSFUL

With a total attendance of between 4200 and 4500, the Las Vegas, Nevada, show of the Clark County Gem Collectors was considered a big success, particularly in view of the fact it was the organization's first rock show. It was held over Armistice weekend, and was formally opened by Governor Vail Pittman and Mayor Cragin of Las Vegas. Collections displayed by the Cedar City, Utah, club and the Sequoia Mineral society, California, came in for comment. Grand award for best display in the show went to Paul and Ann Drury of the Clark County Gem Collectors.

Dr. Richard Jahns, department of geological sciences, California Institute of Technology, told members of the Pacific Mineral society, Lomita, California, many interesting things about granite when he spoke before the club at its November meeting. His talk was illustrated with slides. Dr. Jahns said Vermont has more granite of commercial value than any other state. 65 percent of granite used comes from Vermont and Massachusetts.

A noted expert on jade and an enthusiastic collector, L. J. Bergsten, Oakland, California, was speaker at November meeting of the Sequoia Mineral society which met at Parlier, near Fresno. The speaker told of finding a new jade field while spending a summer in Wyoming, where he had gone for his health. On November 6 members of the society met Bakersfield rockhounds at Porterville, enjoying an all-day swap party.

Interesting experiences on vacations or recent rock hunting trips were related by members of the San Jose, California, Lapidary Society, Inc., at November meeting of the group. Five members were scheduled to bring exhibits, and exhibitors for December were announced as R. F. Henley, C. R. Hitchcock, Bruce Holmes and Glen Holmes.

An exchange of gifts featured the December meeting of the Santa Monica Gemological society, while at the November meeting members profited by a quiz program. A panel of six answered questions by Quizmaster Vern Cadieux, who brought out many interesting facts about cutting and polishing procedures and equipment.

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SAN FERNANDO VALLEY CLUB NAMES OFFICERS

New officers of the San Fernando Valley Mineral and Gem society in California took office January 1 and are looking forward to an active year. New officers are: Glen Craig, president; Mrs. Elinor Waller, vice president; Miss Grace Johnson, secretary; E. G. Lilleberg, building trustee. The club's magazine, *Rocks and Gems*, will be edited by Mrs. W. C. L. Cooper. The society had no field trip in December, but enjoyed a Christmas party with an exchange of rock gifts.

With field trips over until next summer, the Minnesota Mineral club at Minneapolis has resumed regular indoor meetings which are held at the Curtis hotel. First fall meeting was Saturday night, November 12.

"Geology of the Prescott Area" was subject of a talk given by Mrs. Medora Krieger, U. S. Geological Survey, at November meeting of the Yavapai Gem and Mineral society, Yavapai county, Arizona. President is Ernest E. Michael. Mrs. Krieger is engaged in mapping the Prescott quadrangle for the Geological Survey, described how the work is done. She reported that granite rocks around Prescott are among the oldest known—they are pre-Cambrian, going back some 500 million years.

Annual show sponsored by the Yavapai Gem and Mineral society was held in the Webb Motors showroom, Prescott, Arizona, on December 10 and 11. The newly organized Yavapai County Archeological society was invited to prepare an exhibit.

Members of the Texas Mineral society, Dallas, enjoyed an illustrated talk on "The Meaning of Western Scenery" at their November meeting in the Baker hotel. Speaker was Dr. J. D. Boone, Jr., head of the geology department at Arlington State college. Thomas D. Copeland is club president. Other new officers are: J. D. Churchill, vice president; F. N. Bentley, secretary-treasurer.

ORANGE COAST GROUP HEARS JOHN HILTON

Known as desert artist, author and pioneer gem collector, John Hilton of Thermal, California, was guest speaker at November meeting of the Orange Coast Mineral and Lapidary society when members gathered at Corona del Mar November 21. Hilton is reputed to know virtually every gem field in southern California and adjoining states, has recently been exploring in Mexico.

A 50-minute color motion picture showing development of Paricutin, the world's newest volcano, was exhibited by Dr. Frederick Pough, curator of mineralogy, American Museum of Natural Science, at December meeting of the Mineralogical Society of Southern California. The meeting was in the Pasadena City college auditorium. The society's November field trip was to the Crestmore quarry.

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ARIZONA STATE FAIR SHOW OUTSTANDING EVENT

With a rock that photographed itself, a strange little shrine built by the atoms and a "Flag On Two Jima" etched by nature on a gem stone the fourth show of minerals at the Arizona State fair was off to a good start. Ten days were packed full of interest to more than 55,000 visitors who poured into the mineral building from November 4 to 13.

Nineteen grade schools and many high school students exhibited among others. Arthur L. Flagg, superintendent of the mineral department and president of the Mineralogical Society of Arizona, has worked during the past four years to encourage interest in the earth sciences among school children. First award went to Lower Miami school again, which won the Phelps Dodge trophy for the second year.

Seven cases of unusual Arizona minerals were displayed by the Arizona department of mineral resources, and one case of uranium ores, mostly from Arizona.

Another case housed a collection of spectacular uranium minerals belonging to Arthur L. Flagg, Phoenix, with specimens from every country in the world producing uranium. One piece of Uraninite-Gummite was displayed beside an "autoradiograph" (photo) which it took of itself. There were three specimens of newly discovered minerals from old workings in the Hillside mine, Yavapai county, Arizona. These have not been classified yet. Two more from the same mine and one from Burro creek have not been named. Of the 200 known uranium ores, some of which are extremely rare, 53 were represented in the exhibit. Many contained colorful and rare crystals.

Representing early Arizona was a replica of an old arrastre, an ore grinding device, built by H. D. and Charles B. Richards, Phoenix. The arrastre was operated by a water wheel. All during the fair the Richards brothers panned gold for crowds of interested spectators.

Among the many exhibits were those of the Mineralogical Society of Arizona and the Maricopa Lapidary Society, both of Phoenix.

The Maricopa Lapidary Society displayed their crafts in 12 cases of their own and several belonging to the mineral department. The exhibit included a wide variety of polished slabs, cabochons, hand-made jewelry, faceted gems and carved figures. Orville P. Sanderson, of the Associated Press in Phoenix, is president of the society. It has been organized two years and this was their second show, outstanding in workmanship and artistic displays.

December 11 event for the Northern California Mineral society was a field trip to Folsom, with members on the lookout especially for polishing materials.

The Wisconsin Geological society, Milwaukee, has made several trips into nearby localities to obtain marcasite for the national convention which will be held in Milwaukee in June, 1950. Members of the society also took a trip to southwestern part of the state to visit the lead mining country. Plans and preparations for the national convention of mineral and geological societies are already being made by the Milwaukee group.

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AMONG THE ROCK HUNTERS

EL PASO GEM SHOW PLANNED FOR 1950

With appointment of committees, work has already started on the 1950 El Paso, Texas, Gem show which is to be held in June. General chairman is L. G. Howle.

Enthusiasm for the event has increased with the active help of J. C. Hutchison, president of the Rocky Mountain Federation of Mineral and Gem societies. President Hutchison says he hopes to make the El Paso show one of the outstanding Federation events.

The Victor Valley, California, Gem and Mineral club had an active fall with field trips to Nevada, to Yermo, California, and to Mule canyon. The club has adopted the practice of scouting all field trip sites to make sure that club members will find materials.

Good specimens of Death Valley onyx and hematite with seams of malachite were found in abundance by members of the Mojave Desert Gem and Minerals society, Barstow, California, on their October field trip into the Virgin area. All of this material takes a high polish. Although it was a 120-mile trip, members and their friends were well rewarded. Bill Lewis, well known miner and rockhound, led the expedition.

Mummy mountain, near Phoenix, Arizona, was explored by members of the Mineralogical Society of Arizona on their November field trip. The mountainside is seamed with pegmatite dikes, and in addition to the normal constituents—quartz, feldspar and mica—searchers found black tourmaline and garnets. The area had never been carefully explored for rocks, there were many surprises.

Crestmore quarry near Riverside, California, is becoming a popular hunting ground for rockhounds, and October field trip of the Long Beach Mineral and Gem society was to the quarry. Blue calcite, crystals and many other materials were collected.

Election of officers was main item of business scheduled at November meeting of the Searles Lake Gem and Mineral Society. The meeting was in ballroom of the Trona, California, club. Members of the organization are beginning to plan for their annual '49er party to be held early this year.

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HIGH TIDES DEPOSIT GEMSTONES ON BEACH

Southern California rockhounds within driving distance of the ocean had a field day recently when high tides at Redondo beach washed up or uncovered a vast number of gemstones. Moonstones, jade, jasper, many types of agate and other semi-precious stones were collected by hobbyists. Moonstones as large as eggs were not uncommon.

Lapidarists have learned to study ocean tides and storm warnings, converge on the beach by the hundreds to find stones in the wake of high tides. The Redondo area has come to be called "Moonstone Beach," apparently is the depository from a mysterious horde on the ocean bottom offshore.

"Some Sidelights on Mineralogy" was topic of a talk given by W. O. Eddy, mineralogist, at November meeting of the Santa Cruz, California, Mineral and Gem society. Mr. and Mrs. Carl Becker brought some of their specimens for display. A field trip to Pescadero was planned for Sunday, November 13. The Santa Cruz club boasts 49 members, meets the second Wednesday of each month in the Congregational Community hall in Soquel.

An illustrated talk on his trip to Mexico, in which he described primitive methods of cutting stones, was given by Adolph Jensen at November meeting of the Nebraska Mineralogy and Gem club in Omaha. Members brought specimens, both polished and uncut.

November field trip of the East Bay Mineral Society, Oakland, California, was to the Brisbane rock quarry where members found amethystine quartz crystals, paligorskite (a kind of tremolite) and pink fluorescing calcite. The group also visited a selenite location and went to San Mateo beach for some polishing material before returning home. At the November 17 meeting Dr. Frederick Pough, curator of mineralogy and geology, American Museum of Natural History, New York, was speaker.

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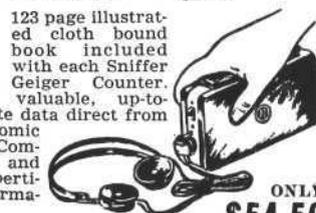
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INTERESTING FIELD TRIP TO MOTHER LODE COUNTRY

Searching for rhyolite, quartz, calcite, jasper, copper ores and other minerals, members of the Northern California Mineral society took a two-day field trip November 12 and 13 to the historic Mother Lode country. A bus was chartered for the occasion, hotel accommodations were arranged in advance.

At the November 16 meeting, the club nominated officers who will be elected at a later meeting to serve in 1950.

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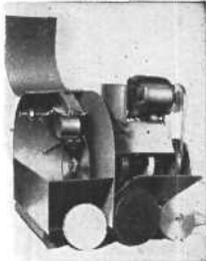
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The Oklahoma Mineral and Gem society, Oklahoma City, has a slate of new officers to head the group of the coming year. Officers are: Mrs. H. T. Daniels, president; Alvin Markwell, vice president; Mrs. Domer L. Howard, secretary; O. C. Bundy, treasurer; L. T. Riggs, director. A motion picture, "The Behavior of Light," was shown at November meeting, held in the home of Mr. and Mrs. Domer L. Howard.

"Man Makes a Mineral—Portland Cement," was topic of an illustrated talk given by Harmon S. Meissner at November meeting of the Colorado Mineral society, Denver. At October meeting the group named committees for the year, and on October 2 enjoyed a field trip to study geologic formations of the foothill area around Denver.

Members of the newly-organized Rockhound club of Safford, Arizona, are getting right down to work. A November field trip took them to the hills "to see what might be found." Several members brought home good cutting stones. Final organization of the club was completed at a meeting later in November.

Members of the Gem Cutters Guild in the Los Angeles, California, area feel they are really learning how to make jewelry. They were helped along in their hobby by an instructive talk and demonstration at a recent meeting when H. L. Chapman, a club member, showed them how the work is actually done. The Guild meets the fourth Monday of every month at the Manchester playground.

Nearly 3000 persons attended the fourth annual mineral show of the Sacramento, California, Mineral society, held in October, making it the largest and most successful yet staged. During the month a field trip was made to Garnet hill in Calaveras county where nice specimens of andradite and epidote crystals, in idocrase, were obtained. President of the Sacramento group is George L. Hinsey.

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A practical demonstration on cabochon cutting and polishing was given by Bert Monlux at November meeting of the Los Angeles Lapidary society. The meeting was in Griffith park auditorium. Those attending agreed that "seeing is worth many times more than all the books in the world" as a means of learning actual cutting and polishing procedures. President of the Los Angeles group is Vic Gunderson; Norman Cupp is program chairman.

June 24 and 25 have been set as dates for the 1950 convention of the California Federation of Mineralogical societies, to be held this year at Valley Wells—Trona. Three societies will be co-hosts to the convention. They are the Searles Lake Gem and Mineral society, the Mojave Mineral society and the NOTS Rockhounds.

A Christmas potluck dinner party was the seasonal observance for the Mineral and Gem Society of Castro Valley, California, held at the community center. Seven new members were admitted at the meeting. At their November meeting members heard E. R. Lamberson of the East Bay Mineral society speak on stone polishing.

The club's annual auction, to raise funds for the year, was feature of the November meeting of the Chicago Rocks and Minerals society. There was no speaker. Members donated specimens which were auctioned off at the meeting. At a recent meeting the Chicago group joined with the Marquette Geologists association to hear Leland Quick speak.

Third annual gem and mineral show of the Orange Belt Mineralogical society, California, was held Saturday and Sunday, November 19 and 20, in the Industrial building at the National Orange Show grounds in San Bernardino. Chairman of the event was Louis B. Mousley, San Bernardino.

Many fine specimens of quartz crystals were found by the Junior Rockhounds of Prescott, Arizona, when they explored the desert area near Congress on a perfect day in November. Including parents and friends, the group totaled 20. President of the Junior Rockhounds is Thomas E. Ryan.

December field trip of the Mineralogical Society of Arizona, Phoenix, was to Saddle mountain, where members found carnelian, desert roses and opalite. They also got to see the old ghost town of Wintersburg. On December 2 the group enjoyed a birthday party and auction, while at the December 16 meeting Ben Humphreys talked on pegmatite dikes and pegmatite minerals.

The Tacoma Agate club, Tacoma, Washington, has an unusual project in which they share with others their joy in beautiful stones. Club members take their rocks for bedside displays in Madigan Military hospital, patients look forward to the visits with eagerness. Patients have shown so much appreciation that twice-a-month visits have become a regular club project. Regular meetings of the club are held the first and third Thursdays of each month at St. Johns Episcopal parish house, South Tacoma.

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POMONA VALLEY FOLKS ENJOY ANNUAL BANQUET

Fourth annual banquet of the Pomona Valley Mineral club was enjoyed by members at the Claremont, California, Inn November 8 when Jerry Lauder milk of Pomona college spoke on unusual geological formations of Pomona valley. Lauder milk is recognized as an authority on desert varnish, a coating on rock usually formed through the action of manganese and iron hydroxide. It varies in color from tan to black.

The famous Harvard Museum slides, pictures in color of more than 100 select mineral specimens, were shown at December meeting of the East Bay Mineral society, Oakland, California. The slides were obtained by President Jerry Smith. December field trip was to the Alma pyrite mine.

A. Maudens, Burlingame, California, holds membership in five different societies, but his particular interest is opals. So that was subject of his talk at November meeting of the Sacramento Mineral society. He discussed formation of opals, the varieties and occurrences. Some members of the club made a field trip the weekend of November 18 to the Monterey coast, obtaining nephrite jade.

Annual Christmas party of the San Jose (California) Lapidary society was held as the December meeting at the De Anza hotel December 6. Exhibits at the meeting were provided by C. R. Hitchcock, Bruce Holmes and Glen Holmes. Scheduled to have displays at the January meeting are Lloyd Mabie, Macia Mabie, Arthur Maudens and Leona Maudens.

The N.O.T.S. Rockhounds, China Lake, California, staged a real field trip November 11-13 when they were hosts to members of the Paso Robles, San Luis Obispo, Santa Barbara, Ventura and South Bay clubs and the Earth Science club of Los Angeles City college for a trek into the Lead Pipe-Blue Chalcedony springs area of the Mojave desert. They found rich deposits of nodules, geodes, agate, chalcedony and precious opal. Hunting was good. Ed Snearly, president of the N.O.T.S. club, supervised the trip. The campsite and deposits are on the range of the U. S. Naval Ordnance test station, but permission was granted for the organized trip.

The Hollywood Lapidary society held its second annual exhibit at Plummer park, Hollywood, California, in October. With an attendance of 2500, the show was a big success. President of the society is Russell Kephart, show chairman was Walt Shirey. October field trip was to Trona where nice material was collected and the group went through the American Potash and Chemical corporation plant. In December the society went to the Death Valley Centennial celebration in lieu of a rock-hunting field trip.

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Election of officers took up most of the meeting time December 8 when the Feather River Gem and Mineral society, Oroville, California, met with refreshments being served by Mr. and Mrs. George Foster, John Gemsky, Rose Churchman and George Asay. At the December 22 meeting refreshments were served by Mr. and Mrs. Hansen, Mr. and Mrs. Kunkelman and Gladys Blevins.

The Colorado Mineral society, Denver, is sponsoring the collection and display of mineral specimens for institutions which care to have them. First collection will go to the Industrial School for Boys at Golden, Colorado. Specimens for this purpose were brought to the December meeting by members.

New officers were to be elected at the November meeting of the Searles Lake (California) Gem and Mineral society, held at the Trona Recreation center. Two directors were also to be chosen, and two constitutional amendments voted upon.

Don Johannes, new president of the Ajo, Arizona, Rockhounds club, conducted his first meeting in November. Club members were told that their exhibit won second prize at the Arizona State fair. Elected along with Don to lead the club during the coming year were these officers: Jimmy Kimes, vice president; Nancy Powell, secretary; Bernard Schlenker, treasurer. The club meets the first and third Wednesdays of each month.

Prospecting for pegmatites in the Southwest was subject of a talk given by Richard H. Jahns, professor of geology at the California Institute of Technology, at December meeting of the Mineralogical Society of Southern California. Displayed at the meeting were minerals collected on a recent field trip to the Crestmore quarry. Six new members were welcomed at the meeting.

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FEDERATION CONVENTION DATES ARE ADVANCED

Dates of the 1950 convention of the California Federation of Mineralogical Societies, to be held in Trona, have been advanced one week to June 17 and 18, according to Ralph Merrill, chairman of the steering committee. This will allow more time between the state meeting and the American Federation convention to be held in Milwaukee June 28-30, 1950.

Relating some of his experiences while in India during the war, Ralph Nowak of the Gem Cutter's Guild, Los Angeles, California, was speaker at most recent meeting. He illustrated his talk with motion pictures. He displayed various stones from the Burma Road. Next big event on the organization's calendar will be an auction January 7 at the home of Mr. and Mrs. Nowak in West Los Angeles.

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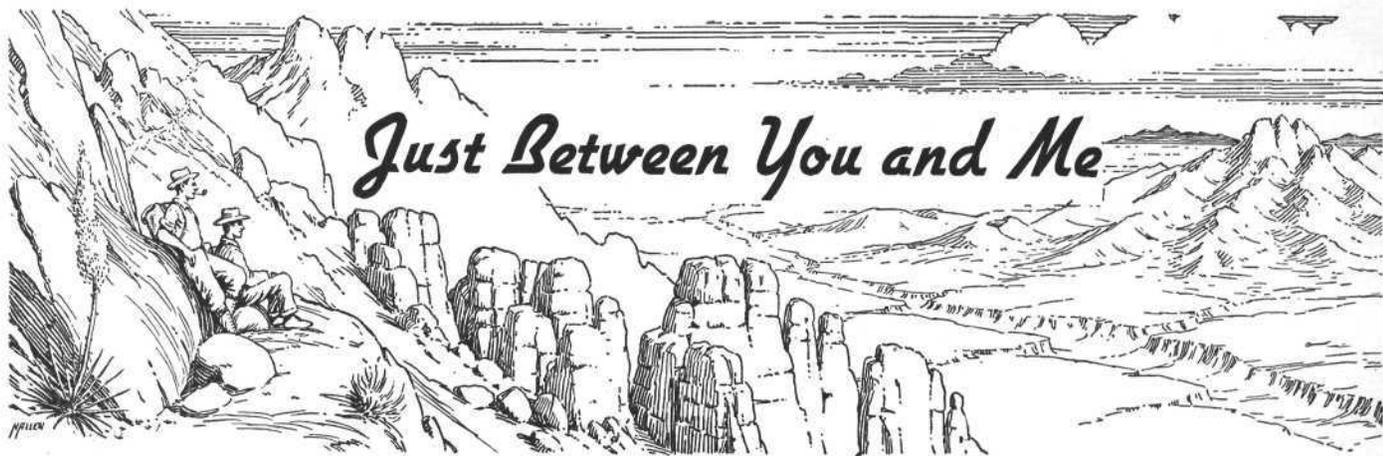


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by RANDALL HENDERSON

EARLY in December Cyria and I were among the 35,000 people who thronged the roads into Death Valley to witness the first presentation of the Death Valley '49ers pageant. My figure—35,000—is only a guess. No official figures have been given out as this is written. Some rumored estimates ran as high as 100,000.

But in any case, it was a huge crowd—many times larger than the management had anticipated. We spent hours in a bumper-to-bumper line, inching along the one highway that leads to Desolation canyon. Thousands became disgusted with the traffic jam and the dust—and pulled out of line and spent the rest of the day enjoying themselves among the sand dunes or in the 100 scenic canyons found in the Death Valley Monument.

Probably less than half of those who drove to Death Valley actually witnessed the pageant. But for the most part the crowd accepted the situation in good spirit. They had come to Death Valley for a glorious holiday—and they were not going to permit bad traffic management to spoil the day for them—not in a colorful playground where Nature had created as much space and as perfect a climate as is to be found in Death Valley in November.

When we finally reached the pageant amphitheater, we parked our cars on the slope of a great bajada at the mouth of Desolation canyon. The program ended just before dusk, and Cyria and I did as hundreds of others were doing—we built a little fire and roasted our canned wieners and toasted our buns on the spot, while we waited for the outgoing traffic congestion to clear.

That night we witnessed one of the most impressive sights in my memory. We looked down on the floor of a desert valley dotted with the campfires of literally thousands of visitors who came prepared to spend the night there. The moon was full, and the evening temperatures just crisp enough to call for a jacket. It was a picture many times more impressive than any pageantry that could be created on a man-made stage. I am sure that few of the thousands who went to Death Valley failed to get a spiritual lift from the experience—even if they were not fortunate enough to witness the covered-wagon parade in Desolation canyon.

This year's '49er pageant was planned jointly by the California Centennials commission and the Death Valley '49ers, incorporated—a non-profit organization sponsored by the supervisors of Inyo, Kern, San Bernardino and Los Angeles counties.

The Centennials commission, of course, has no interest beyond this year's pageant. I hope the '49ers corporation will make plans for an annual presentation of this historical drama in the outdoor setting of Desolation canyon.

The trek of the Jayhawker caravan across Death Valley 100 years ago is symbolic of the finest American traditions of courage and loyalty. It is good for Americans to be reminded of the effort and the hardship involved in the pioneering of this land. The history of the West offers no more dramatic theme than the Death Valley trek.

But I am sure the Death Valley story of 100 years ago can be presented much more effectively than was done this year, at a mere fraction of the cost.

I am certain of this because over a period of years I have watched the little community of Calexico on the California border do a similar job. They have done it much better than was done in Death Valley—without imported talent, or financial aid from the state legislature.

The Death Valley pageant was a strange medley of historical drama, a three-ring circus, and college football hooray. I can think of nothing more incongruous than bare-legged majorettes and pom-pom drill teams prancing over the rocks of a Death Valley hillside ahead of a 20-mule-team borax freighting outfit. Or anything more inharmonious than three high school bands all playing different tunes at the same time against the sounding board of a Death Valley mountain range.

Yes, I was disappointed in the pageant as presented this year. But I also am aware of the tremendous difficulties under which this program was presented—the limited time for preparation, the lack of opportunity of rehearsals, the absence of precedent for such an undertaking, and the political nature of the sponsorship. This is not a criticism of the Centennial commission and the boards of supervisors involved. They are worthy men and deserve credit for even attempting such a tremendous job. But political management of such an event is of necessity cumbersome.

The flaws in a premiere should not be judged too harshly. A start has been made, and surely the traffic count into Death Valley on this occasion is abundant evidence of a popular interest which will justify an annual repetition of this historical spectacle.

Those who selected the site and converted colorful Desolation canyon into a great outdoor amphitheater did a magnificent job. The natural setting is perfect for such a drama. Parking space for cars is unlimited. The foundation has been laid for something fine and enduring, and it remains only for the people of the Mojave desert to take the initiative in developing a pageant worthy of the historical role which it symbolizes.

The story of the Jayhawker trek, and the heroic parts played by Manly and Rogers, should be presented as a simple narrative—less somber than the script for this year's presentation, and certainly without the three-ring circus finale we witnessed in Death Valley.

BOOKS OF THE SOUTHWEST . . .

PERSONAL TALES OF THE GOLD RUSH DAYS

William Lewis Manly, hero of the ill-fated Jayhawker trek across Death Valley in 1849-50 never worked as a professional reporter, and yet the book and newspaper manuscripts he wrote during the 50 years following his arrival in California as a '49er are among the most accurate and vivid records of that hectic period in California history.

Manly's book *Death Valley in '49* is well known, and is now in its fourth printing. Scores of Manly's short articles written for the newspaper of that period have remained buried in the archives until recently when Arthur Woodward, curator of history in Los



Dust jacket for "The Jayhawkers' Oath" is illustrated with this sketch by Cal Peters.

Angeles Museum, brought them together in a single volume titled *The Jayhawkers' Oath and Other Sketches*.

This book has just come off the press of Warren F. Lewis, Los Angeles publisher, in an unusually attractive format. There are five parts in the volume, first being devoted to the Jayhawker episode and other pioneering experiences of the gold rush days. The second part tells of the experience of Manly and others in searching for lost mines in the Death Valley region, mainly the Alvord, Gunsight and Breyfogle deposits. The third and fourth parts are devoted to incidents of the gold rush days, and other glimpses of life in the early West. The fifth part is the story of the Wade family's experience in Death Valley as members of the Bennett-Arcane wagon caravan.

The book is generously illustrated with old lithographs and wood cuts of the gold rush period. A large colored map of the West as it was visualized by the cartographers of 1846 is folded into the back of the book.

Arthur Woodward and Warren Lewis have made an important contribution to western Americana in the publication of this volume—and the printers and binders also deserve hon-

orable mention for excellent craftsmanship.

Warren F. Lewis, Los Angeles. Manly Bibliography. Illustrations. Map. 168pp. \$6.00.

This book may be ordered from Desert Crafts Shop, Palm Desert, California

NEW EDITION OF MANLY STORY NOW IN PRINT

After being out of print for many years, a new and fourth edition of William Lewis Manly's thrilling story of the Jayhawkers' historic trek across Death Valley in 1849 has been published in Los Angeles.

The new volume of *Death Valley in '49* is announced as a Centennial edition. It carries an introduction by Carl I. Wheat, Californian historian whose research has thrown much light on the Death Valley tragedy of 100 years ago.

William Lewis Manly, who wrote the original story, was a native of Vermont who at the age of 29 joined the rush for the California gold fields. At Salt Lake City he became a member of the wagon train starting for California over a southern route which would avoid the heavy winter snows in the high Sierras.

Soon after leaving the Utah capital the caravan began to break up and eventually Manly reached Death Valley with a little group which included Asabel Bennett and family, whom Manly had known in Wisconsin. Largely through the courage and loyalty of Manly and Rogers this little party survived terrifying hardship.

Manly's story of the experience was not written in book form until many years later. It was first published at San Jose in 1894. A second edition was

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printed as one of the Lakeside classics. A third edition was published by Wallace Heberd of Santa Barbara.

Writing of Manly's work, Carl Wheat says: "Though he wrote his *Death Valley in '49* a generation after the events which it records, his descriptions possess an almost photographic accuracy, and few of the many books fathered by the Gold Rush can compare with Manly's account, either in interest or in quality. His simple words ring true. His book is a literary milestone along the great westward trail."

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Sandy Hassell writes: "A Navajo woman obtains her divorce by placing her husband's saddle and other belongings outside the hogan; a man gets his by taking his personal belongings and riding off." Hassell for many years was a trader on the reservation, and a 42-page handbook he has written about the life and customs of the colorful Navajo has just been published. It is packed with personal information about the religion, the taboos and the domestic life of the tribesmen—an excellent little book for those who would know the Indians better. Published by the author. 50c.

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