

BOISE, IDAHO



A STOP ON THE ROAD TO CRATERS



LOOKING NO. FROM TOP OF B.C. BUTTE

AMONG THE "CRATERS OF THE MOON"

An Account of the First Expeditions Through the Remarkable Volcanic Lava Beds of Southern Idaho

By R. W. Limbert

With Illustrations from Photographs by the Author

IN THE West the term "Lava Beds of Idaho" has always signified a region to be shunned by even the most venturesome travelers—a land supposedly barren of vegetation, destitute of water, devoid of animal life, and lacking in scenic interest.

In reality the region has slight resemblance to its imagined aspect. Its vegetation is mostly hidden in pockets, but when found consists of pines, cedars, junipers, and sagebrush; its water is hidden deep in tanks or holes at the bottom of large "blow-outs" and is found only by following old Indian or mountain sheep trails or by watching the flight of birds as they drop into these places to quench their thirst. The animal life consists principally of migrant birds, rock rabbits, woodchucks, black and grizzly bears; its scenery is impressive in its grandeur.

A glance at a map of Idaho shows that the southern part of the State, lying between Arco and Carey and north of Minidoka, is a vast region labeled desert or rolling plateau.

Although almost totally unknown at present, this section is destined some day to attract tourists from all America, for its lava flows are as interesting as those of Vesuvius, Mauna Loa, or Kilauea.

The district consists of some 63 volcanic craters, lava, and cinder cones, all at present extinct or dormant. The largest and most conspicuous is 600 feet high, rising in the midst of a belt of craters two or three miles wide and 30 miles long. The craters or cones are close together in the north and west; in the south they are miles apart.

That a region of such size and scenic peculiarity, in the heart of the great Northwest, could have remained practically unknown and unexplored is extraordinary.

For several years I had listened to stories told by fur trappers of the strange things they had seen while ranging in this region. Some of these accounts seemed beyond belief.

I had made two trips into the northern end, covering practically the same region as that traversed by a Geological Survey party in 1901. My first was a hiking and camping trip with Ad Santel (the wrestler), Dr. Dresser, and Albert Jones; the second was with Wes Watson and Era Martin (ranchers living about four miles from the northern edge). The peculiar features seen on those trips led me to take a third across the region in the hope that even more interesting phenomena might be encountered.

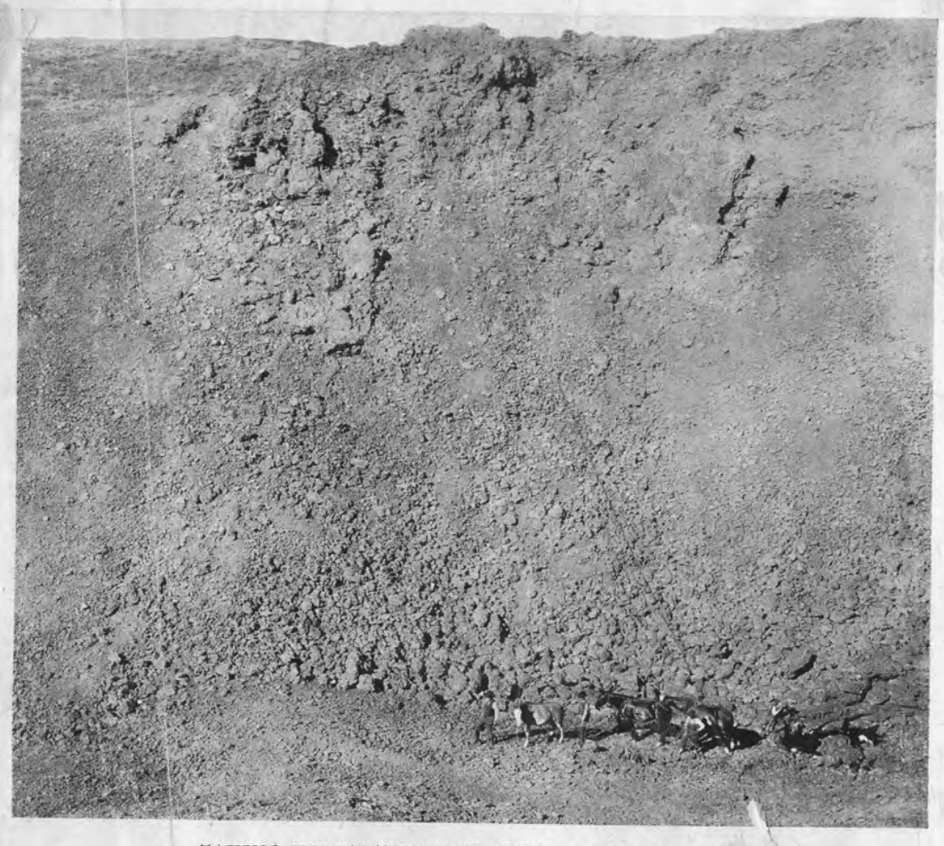
EXPLORING AN UNKNOWN REGION IN THE UNITED STATES

One morning in May W. L. Cole and I, both of Boise, Idaho, left Minidoka, packing on our backs bedding, an aluminum cook outfit, a 5 x 7 camera and tripod, binoculars, and supplies, sufficient for two weeks, making a total pack each of 55 pounds.

We also took with us an Airedale terrier for a camp dog. This was a mistake, for after three days' travel his feet were worn raw and bleeding. In some places it was necessary to carry him or sit and wait while he picked his way across.

North of Minidoka, for about 25 miles, we crossed a rolling lava plateau, after which came comparatively later flows of lava. So far as can be learned by diligent inquiry, we were the first white persons to cross this plateau from south to north (see map, page 306).

For three days our travel was over the



TAKING HORSES TO WATER DOWN A CINDER RIDGE

The cinder cones, or buttes, of southern Idaho are extinct volcanoes of recent date, and of remarkably fresh appearance. They are composed, to a great extent, of dust, volcanic sand, and gravel (called lapilli), thin, cakelike forms of lava, volcanic bombs, and rough, ball-like masses, known as scoria. The prevailing colors are red and brown.

uninteresting, broken-up lava surface known as AA flow (a term derived from the Hawaiian natives, who apply it to a similar surface found in their islands). It was the hardest going imaginable, each rock seeming on a balance and ready to turn the instant it was trod upon.

Our water on this part of the trip was snow and ice which we found in crevices.

WATER FLAVORED WITH WRIGGLERS

The fourth day out we sighted an Indian monument in an open flat, and 20 feet from it we found a hole about two feet in diameter, that opened downward like an immense cistern. This was full of clear water. About 10 feet to the west of this was a lava crack, down which we could see some 15 feet before it angled off.

After drinking our fill, we made the discovery that the water was full of innumerable little bright red wrigglers that looked like small shrimp. Each was about three-sixteenths of an inch long. However, the water was good and one cannot afford to be squeamish in desert country.

We located this water hole by compass bearings on Red Top Butte and Sugar Loaf Butte, noted on the map (see page 306). It is the only water in this vicinity which can be depended upon the year round.

The lower slopes of Sugar Loaf were covered with wild onions, which were crushed as we walked and gave out an odor more pleasant to tell about than to experience.



ALONG THE TRAIL

ON THE ROAD TO BOISE



BOB LIMBERT BY OLD IND. MONU.





CINDER RIDGE NEAR VER. CAN.



LA. GRANDE, OREGON

NEAR VERMILLION CAN.





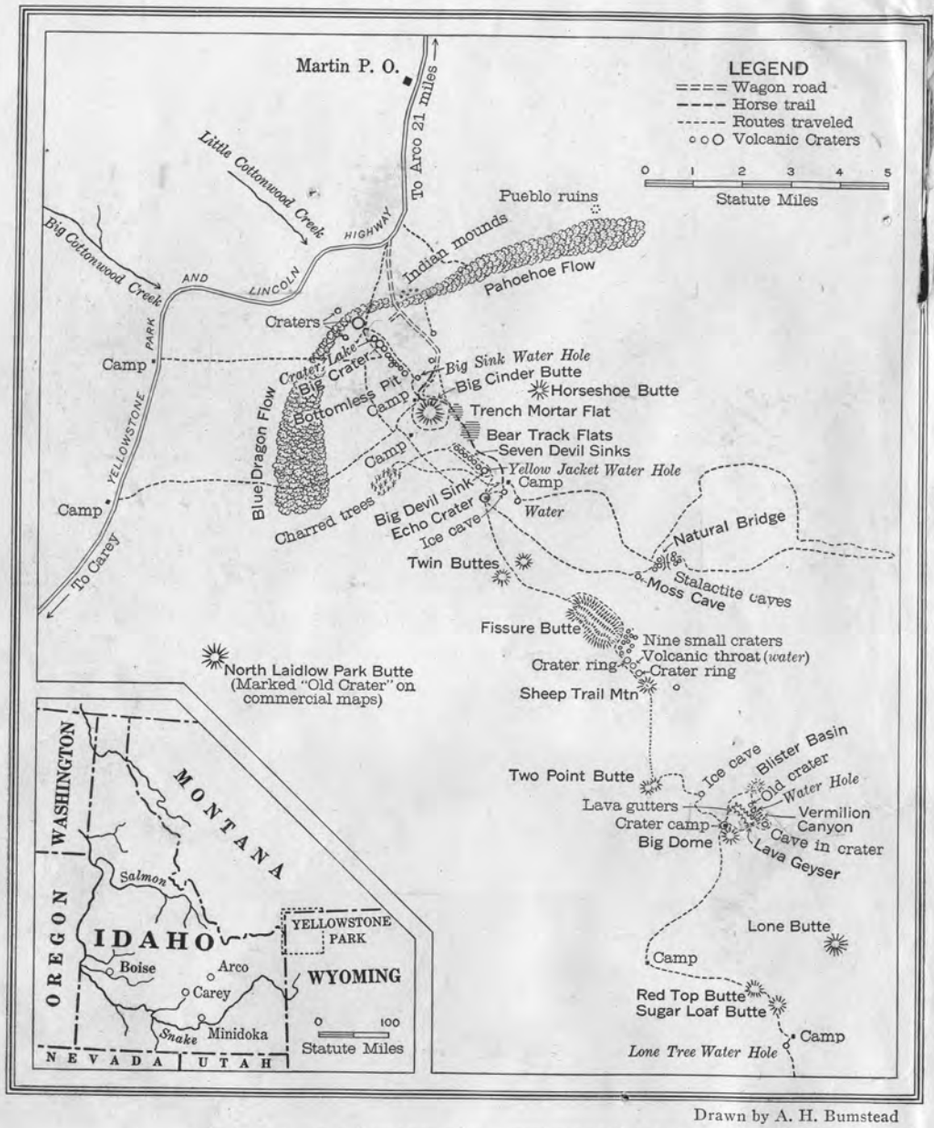
LOOKING SOUTH FROM A RED-RIMMED CRATER

The vegetation of this region includes, besides sagebrush, a few species of pines and junipers, the pear-leaf cactus, and such flowers as larkspurs, wild violets, and daisies. The later lava flows, however, are barren—not even a blade of grass has been able to take root on some of them.



AROUND THE CAMP FIRE

At night, in the weird reflections of a camp fire, the surrounding sides of this crater appeared like a gigantic funnel with flickering colors of red and black. Its floor acted as a sounding board for the notes of birds migrating northward far overhead.



Drawn by A. H. Bumstead

A MAP OF THE "CRATERS OF THE MOON" IN IDAHO

The dotted lines indicate the routes taken by the author on his several expeditions through this unique volcanic region.

Along the slopes there were evidences that bears had been digging for roots and rolling rocks for ants.

From the top of Sugar Loaf we picked up an old Indian trail which resembled a light streak winding through the lava. When the sun was directly overhead it could be seen to advantage, but at other times was difficult to follow. Think of the years of travel necessary to make that mark on rock!

Some miles to the north was the butte called Big Dome, and a few hundred yards north of it a crater several hundred yards in diameter and about 200 feet deep.

We camped in the bottom of this crater



JAIL NEAR CARY IDAHO



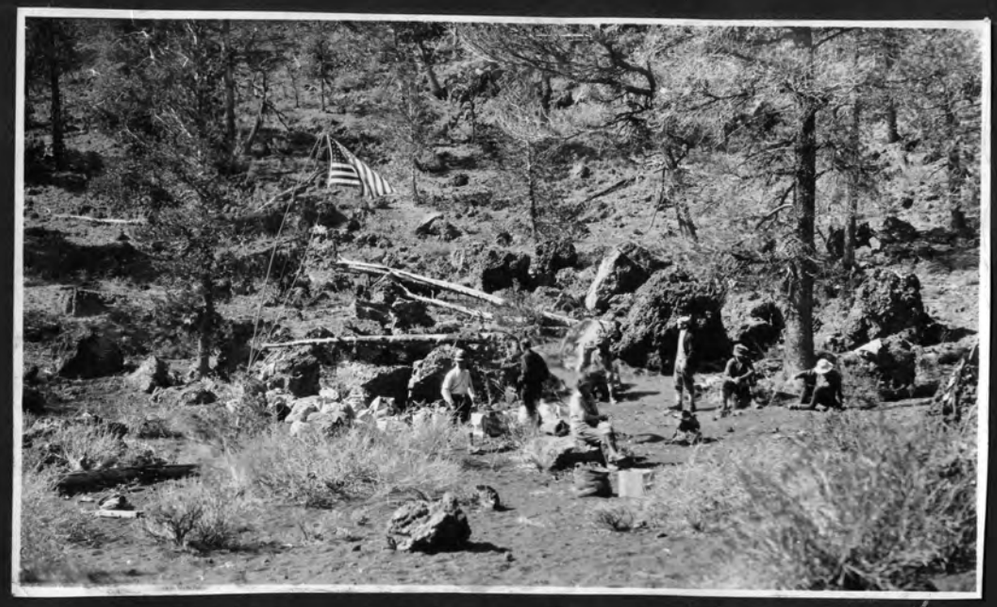
WALLA WALLA MT's IDAHO, U.S.A.



MORMON TEMPLE CARY, I.



BIG CRATER



ECHO CRATER CAMP



NEAR CAMP ONE



BOB WRITING UP THE GIRLS
(SEE PAGE 18, LUNA PRESS)

LOOKING FOR THE BOB CATS





DR. DUTCH OVEN FEAST
(JACKSON)





SPATTER CONE TR. M. FL.
SAME AS ON P. 314 LEDER.



OLTA IN SPATTER CONE TR. M. FLATS



BLUE DRAGON

FIRST YEAR'S GROWTH, PINE







ROUGH GOING FOR THOMSOM

GOING FOR WATER, CAMP THREE





LOOKING NO. FROM SHEEP TR MT.



VERMILLION CANYON

BROKEN LAVA BELOW ECH. CR.





EXAMINING A SMALL CRATER IN VERMILION CANYON

The lava field of the Snake River plains of Idaho is larger than any other in North America, so far as is known, except that of the Columbia River. One writer, summing up his general impression of the Snake River lava desert, says: "It was as if the great plain had been filled with molten rock which had kept its level and wound in and out along the bays and promontories of the mountain slopes as a sheet of water would have done." The Craters of the Moon district occupies about 300 square miles of the total 27,000 square miles of the Snake River field.

that night, and the experience was well worth the climb up and down. Imagine yourself in some gigantic funnel of bright red and black, weird in its reflections of the camp fire, with the stars above. A peculiar feature of the bottoms of the craters was that they seemed to act as sounding boards for the notes of the birds migrating northward far overhead. Their faint calls were gathered and intensified until the birds seemed only a few feet away. Near here we built a signal fire that was seen by people watching for it 30 miles distant (see page 305).

MAGNETIC CRAGS MAKE COMPASS USELESS

Half a mile east of Big Dome we found an immense crater ring that looked as if the top of a mountain had collapsed and fallen back into the volcanic throat. From the center crags of bright-red lava and burnt cinders jutted up. In some places the lava was black, as if smoked in a fire.

The crags had magnetic properties, and the compass needle could not be depended upon when near them. About a quarter mile to the northwest was a large fissure, which we called Vermilion Canyon. The floor, a hundred or more feet in width, was composed mostly of cinders; the walls of lava were a bright, almost a vermilion, red in the sunlight. Near the center were several extinct lava spouts, one of which was 25 feet in diameter and built up so that it resembled the geyser formations of Yellowstone Park. In the center of it was the throat, about 5 feet wide and 18 feet deep. The sides had fallen in and choked it up.

Fifteen feet south of this was a hollow cone, built up 4 or 5 feet. One side had fallen in, exposing the throat, which went down 25 feet and then angled off, we could not tell how far. Fifty feet to the north was another cone, about 4 feet high and 2½ feet in diameter at the base. This had a 6-inch hole in one side, which



INVESTIGATING A LAVA SPOUT IN VERMILION CANYON

The bird and animal life of this fantastic region includes sparrow hawks, mourning doves, rock conies, rabbits, chipmunks, mice, kangaroo rats, and other species. Rattlesnakes, however, are absent, although they abound on the edges of the flows. It is probable that the snakes were killed off at the time of the eruption, and that they have as yet been unable to cross the immense lava barrier.

opened up as it went down—how deep we could not gauge, as it had drifted full of snow.

Near here we saw a pile of rocks with a piece of charred sagebrush in it pointing to another water hole that probably contains water during the summer. Working our way through the fissure for a quarter of a mile, we found it opened upon a flat, and about 600 yards to the north was another crater similar to the one just passed. As we sat on the east side of its rim, we saw below us a hundred or more large lava blisters or bubbles. In many instances the tops had fallen in, disclosing rooms from 8 to 10 feet across and as high as 6 or 7 feet. The shells of these lava bubbles were from 6 to 8 inches thick. Their color was a grayish brown.

DISTANCES WERE DECEPTIVE

At all places of interest I set up the compass and triangulated on the more prominent buttes shown on the accompanying map (see page 306). Sometimes it was necessary to move the location several hundred feet, as the needle was attracted to the rocky points. In one spot the north end of the needle swung



LOOKING ACROSS THE DESERT FROM BIG DOME



FROM TOP OF BIG Co. BUTTE



ALONG THE TRAIL TO CAMP THREE



ECHO CRA. LEFT; BIG CINDER BUTTE CEN.



THOMSON IN LAVA TUNNEL.

OLD INDIAN ↓ FORT, NEAR ECHO CRA.





COMING OUT OF A LAVA SPOUT, VERMILION CANYON

This canyon has a cinder floor over 100 feet in width and lava walls of a vermilion color in the sunlight. Near the center the expedition found extinct lava spouts, one of which resembled the famous geyser formations in Yellowstone Park.

completely around and pointed within 7 degrees of due south.

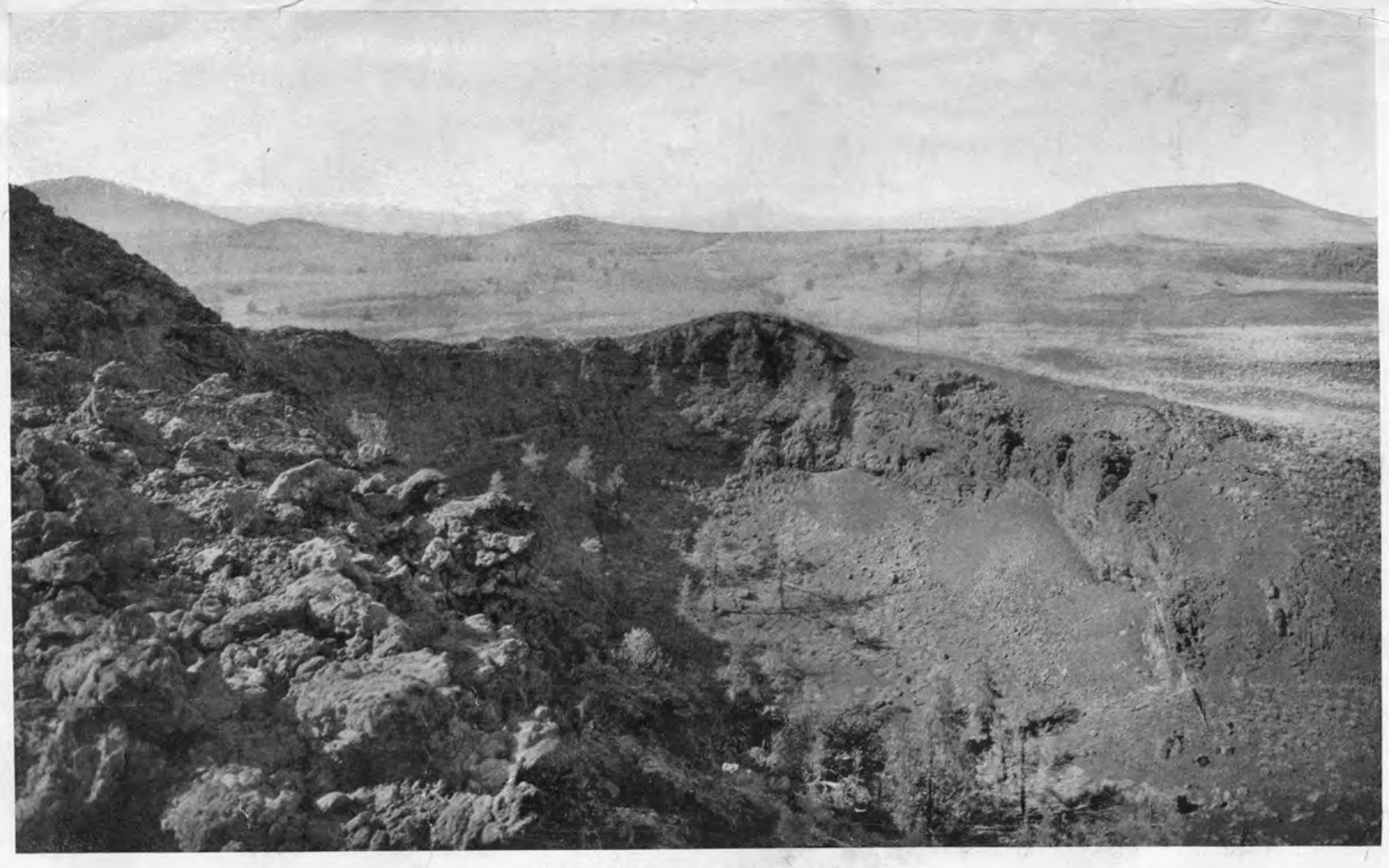
Estimating distance was also very difficult, owing to the lack of any object of known size to use as a scale. We usually found that distances between specific points were about half again as far in an air line as we estimated.

West of the crater beside Bubble Basin we saw channels winding through the lava flat just as meandering brooks might cross a level meadow. Examination showed these to be lava gutters. Here the plastic lava had flowed down grade, assuming all the shapes of a mountain stream. It was in waves, rolls, twists, and levels.

As we stood on the edge and looked down, we tried to imagine the wonderful sight when the whole lava bed was glowing red.

A CAVE COVERED WITH CRYSTAL ICE

Traveling northwest for a mile, we came to another Indian marker—a pile of rocks. It had a smaller pile at the base and, in a line with it, about 20 feet distant, at the base of a cliff, was the entrance to a cave that opened up into a room 18 feet wide by 12 feet high. From the ceiling hung clusters of immense ice stalactites, sometimes touching a few stalagmites of the same material below. The floor was covered with ice so clear



LOOKING ACROSS ECHO CRATER

This vividly colored crater is 700 feet deep and about one-fourth of a mile wide. The eastern side has breached away until it is only 100 feet high. Viewed from the center, the crater shows the effects of two explosions, the first of which formed the crater, the second blowing a hole in the bottom. A ridge on the southern end is pitted with 14 smaller craters, 9 of which are of the blow-out, or explosive, type. Echo Crater is one of the few in the district having trees on the inside (see text, page 312).



PACKING UP, ECHO CRATER



ECHO CRATER'S BABY OWLS



ECHO CRATER CAMP



ALONG THE TRAIL TO VER. CAN.



LOOKING SOUTH FROM BOTTOMLESS PIT
SEE PAGE 320, N.G.M.



SUNSET ON THE DESERT

CLIMBING TO OWL'S NEST, ECHO CRA.



VERMILLION CANYON



HIDDEN VALLEY







WATER HOLE; BOB CAT GULCH





BIG C. ↑ BUTTE ↑ TWIN BUTTES ↑ FISSURE BUTTE

SOME MORE BROKEN LAVA



WATER HOLE LOOKING NO.



DESERT FLOWERS



ICE CAVE; AMPHITHEATRE Co.





DESERT FLOWERS



BRIDGE OF TEARS

CACTUS





"THE BRIDGE OF TEARS"

This natural bridge of solid lava doubtless covered an underground cavern at one time. It has a 50-foot span, and the height from floor to roof of arch is more than 15 feet. West of this bridge is a cave, where the author discovered fresh bear tracks, but no live animals were seen.



EXAMINING VOLCANIC BOMBS

Most of the lava bombs on Big Cinder Butte resemble footballs, with projections, or "ears," at each end. Some are compact throughout; others have an outer crust, sometimes an inch thick, of black basalt. The shape assumed by the liquid lava before cooling depended upon the length of time it was in the air and on the manner in which it rotated.



A SPATTER CONE ON TRENCH MORTAR FLAT

Many of these blowholes, or fumaroles, have perpendicular throats from four to twenty inches wide, and are twisted or rifled like gun barrels. Most of the hundred or more cones on this flat have been plugged with small stones, probably by Indians.

lava blocks. These and the walls were incrusted with about two inches of ice as clear as glass, through which the structure of the rock could easily be seen.

We struck matches and were surprised to see hanging from the ceiling many ice stalactites, some 4 to 8 inches in diameter at the base and from 3 to 8 feet long. In places, especially where there was a ridge in the ceiling, they were in closely packed clusters. In spots I noticed ice stalagmites building up to meet the stalactites from above.

Forty-five feet from the entrance the tunnel narrowed and inclined downward at an angle of 15 degrees. Breaking off the tips of some of the icicles, I threw them down and could hear them skidding and sliding on the ice for some distance. It was not advisable to venture out on this ice incline, for a slip might have projected us we knew not where.

During the month of August, on a subsequent trip into this region, I visited the cave and found it full of ice on the bottom, but without the icicles or incus-



SPATTER CONE, TR. MT'R FL.; BIC. C. BUTTE



CROSSING TR. MTR. FL. ON RETURN

SPATTER CONE, TR MT'R FLATS





OLD IND. ↑ FORT THOMSON RESTS



GOOD OLD "SATIDAY" NITE

BELOW LONE BUTTE



that when I first reached it I dipped down for a drink.

Lighting our single candle, we worked our way for about 50 yards, until the passage narrowed down to about 2 feet in width and 1½ feet in height. After about 10 feet of this, it opened again into a drop-off that blocked our farther progress.

When leaving we restored the old Indian marker, which had partly fallen down.

CRATERS BANDED WITH GREEN AND YELLOW

North of this point we found a high cinder cone whose sides were terraced with old mountain sheep trails. They stood out so prominently from a distance that we called it Sheep Trail Mount. In climbing to its top to triangulate our position, we found it had a double crater, or rather a crater within a crater, evidently caused by two heavy explosions at different times.

The sides of the crater were banded with rings of green and yellow. This was the only sulphur deposit found on the trip.

On the very top of the cone we noticed fresh bear signs, where a grizzly had sat for some time looking at the land below.

About 200 yards to the north was another large crater, 300 yards wide and 150 or 200 feet deep. For three-fourths of its circumference the sides were perpendicular, the balance being a cinder and ash slope.

About 100 yards northwest of the north rim of this crater we found a blow-out cone, with a throat about 10 feet wide and 15 feet long, that went down 30 feet and branched off.

While Mr. Cole was adjusting the straps of his pack, I noticed a narrow crack in the side of the throat and climbed down. The snow had drifted into the passage 15 or 20 feet. The north wall had a sort of lava oven about 10 feet high and hollow, which resembled an inverted wasp nest, the sides being about 8 inches thick.

Fifteen feet north of the oven was the rim of another crater blow-out, 100 feet across and 150 feet deep. Fifty yards from the edge of this were nine small blow-out craters.

Were I gifted with the art of word painting, I might in some small way suggest the wonderful coloring of these craters. Picture yourself standing in some vast amphitheater whose towering walls are a riot of yellow, green, orange, brown, and black, with brick red and vermilion predominating. Imagine, too, an awesome, enveloping silence. I noticed that at places like these we had almost nothing to say. It was little wonder the Indians feared and shunned the region.

After leaving this scene, our trail lay along a series of cinder cones for about seven miles, each with a depression in its top. Examination from a distance with the binoculars showed no unusual features worth the climb, and when one is carrying a pack weighing 55 pounds over this kind of country one does not climb for the mere pleasure of it. As our food supply decreased, we increased our load with oddly formed pieces of lava rock, and the last day found our pack nearly as heavy as when we started.

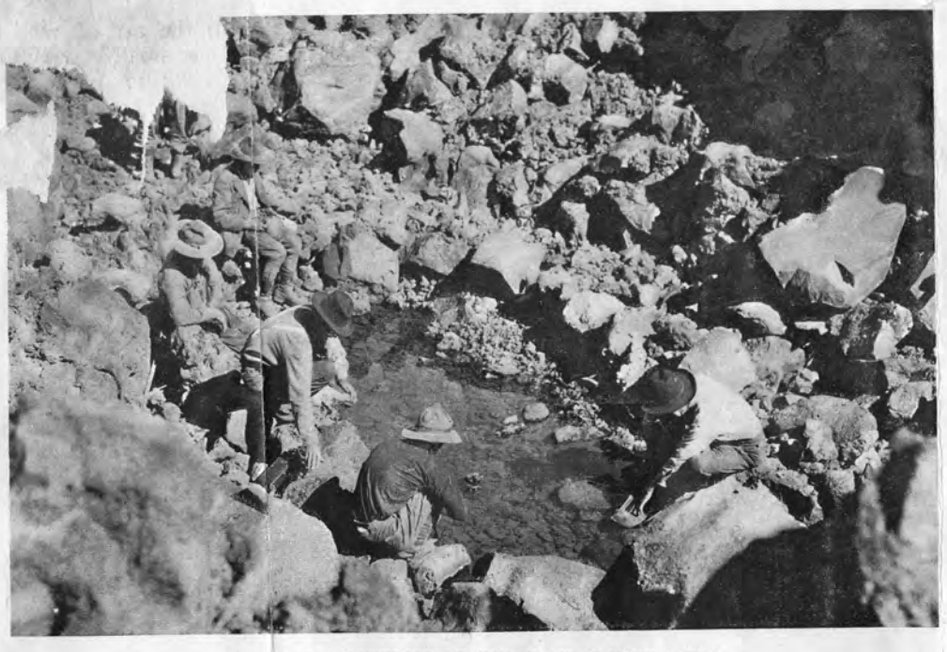
A PRISONER IN A CRATER

The night we reached the point marked Echo Crater on the map, Cole's feet had become so badly blistered that the pain of walking was almost unendurable. The dog was in terrible shape also; it was pitiful to watch him, as he hobbled after us.

We planned to camp for several days, while I worked out alone. When morning came the tendons in one of Cole's feet had swollen and were so stiff he could not bend it. It was then decided that he should stay in camp and bathe his foot while I tried to reach Era Martin and Wes Watson, who were waiting to come back with us from the north end. That day I made the round trip of 28 miles, getting back at dark. I carried only a gun, camera, and canteen.

It was on this trip that I had rather an odd experience. In passing through a pahoehoe flow (a word also borrowed from the Hawaiians and used to distinguish a smooth, ropy flow from the rough, broken-up, ice-jam formation of the AA flow), I noticed a hole, 15 feet wide and 10 feet deep, evidently caused by the cave-in of the roof of some underground passage.

Happening to look down, I saw a mountain sheep's skeleton with the horns



FILLING CANTEENS AT BIG SINK WATER HOLE

The water supply of this region is hidden in tanks or holes at the bottom of blow-outs, and can be found only by following old Indian trails and mountain sheep paths, or by watching birds as they make sudden drops into these hiding places. The water is usually cold and free from algæ.

in a good state of preservation. Carelessly I laid aside my gun, camera, and canteen and jumped down, alighting on some wind-blown cinders which happened to be at one end. After looking the horns over, I started to climb out, and found that the farthest I could reach lacked about four feet of the top. To be frank, I had some very queer thoughts, chief of which was, Will anybody ever find me or shall I, like the sheep, lie here for years?

Sitting on one of the rocks that littered the floor, I rested and thought. After a time, by rolling and lifting some of these rocks into a pile at one end, I had a mound from which I could easily reach the rim and draw myself up.

Echo Crater, as we called it, is one of the most beautiful in this region. It is 700 feet deep and is one of the few craters having a growth of timber on its sides and bottom. The dark green of the pines and cedars emphasized the vivid coloring common to all these craters. It was an ideal camping place, our camp being in the shade of the west wall after 2.30 p. m.

The acoustic properties of the site were most unusual. One morning, just at daylight, I was awakened by the loud calls of a bird. I lay trying to place it, and finally got up to locate the source, and found a robin singing in one of the pines at the foot of the west wall. We afterward took turns in singing and yodeling from that side to hear the echoes break the voices up and fade away. The east side produced no echo.

AN ICE CAVE OF UNUSUAL BEAUTY

About a quarter of a mile east of Echo Crater is the ice cave discovered on the trip of the year before. Happening to look down in one of the numerous sinks with which this region abounds, I saw a black opening which had the appearance of a cave. Climbing down one side of the pit, which was 100 feet long and 30 feet deep, we were surprised at the rush of cold air from the entrance.

The cause was immediately apparent. It was an ice cave and one of the finest examples, I believe, in existence. The floor was a conglomerate mass of huge



LONE TREE, GROWING OUT OF SOLID? ROCK



SAGEBRUSH GROWING IN LAVA

BIG CINDER ↓ B.





"MEX" MORRIS



PEOPLE LOOK SMALL I BOTTOM OF BIG CR.



ELSIE, BOB, CAMP ONE
COMING OUT OF WATER HOLE

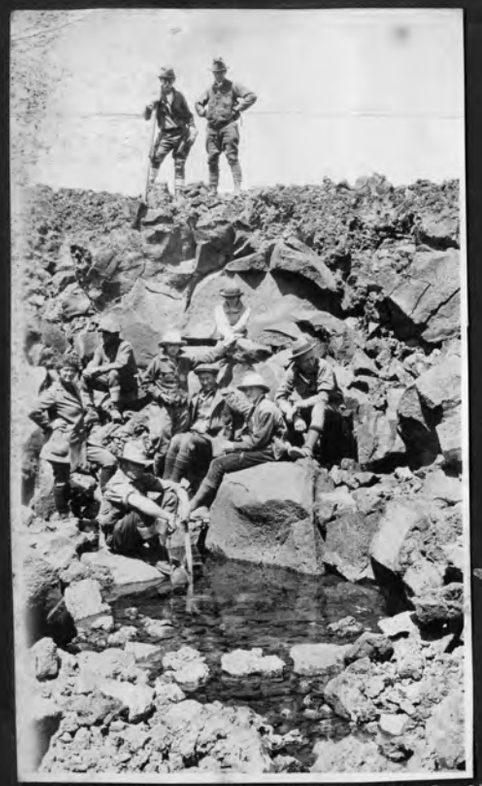


THE "SILENT WATCHER" OF THE DESERT
TOP OF BIG CINDER BUTTE









SEE PAGE 312, N.G.M.



ON THE WEST RIM OF ECHO CRA.



SOME OF VERMILLION CANYON'S STUFF



ENTRANCE TO ↑ CAVE, HIDDEN VALLEY



WHY TREES CANNOT LIVE





ON THE EDGE OF A DEEP ONE



SOUTH OF BEARTRACK FLATS

BIG C. BUTTE





ROUGH GOING NEAR LONE BUTTE

tations on the wall. At the south end of the pit we noted another cave, which had about three feet of water over the stratum of ice. This went off into still another cave of unguessed dimensions.

At this point my curiosity was aroused by the number of mourning doves flying about. Knowing their habits, I wondered at their appearance in a region lacking water. I followed their course with the binoculars, just as a bee hunter would line bees to a bee tree, and was surprised to see them drop down into a blow-out. Following them, we came upon a pool of water five feet in diameter.

It was an extremely hot afternoon, in the middle of August, and the heat on the sides of the blow-out was terrific. The rocky slopes burned the hand. We were wet with perspiration as we reached the bottom. Dipping up a cupful of water, we were astonished to find it icy cold—so cold, in fact, that it hurt our teeth, and we put the cup down on the hot rocks to warm. This phenomenon can only be accounted for by the supposition that it was seepage water from an ice cave.

By lining flights of doves, four other water holes were located, all as cold as the first. One was covered with an inch coat of drowned hornets that had been chilled and had fallen in. The water underneath was pure and sweet. We named this Yellow Jacket Water Hole.

On the north rim of the big sink or cave-in containing Yellow Jacket and about 50 feet from the edge are the remains of a perfect lava geyser built up 5 feet, with a spiral hole in the top which forks at a depth of 15 feet.

The sink itself is about 400 yards wide and 150 feet deep. We named it the Big Devil. Just to the north of it is a series of six smaller sinks or blow-outs. We called the row the Seven Devils. One of these also has a water hole.

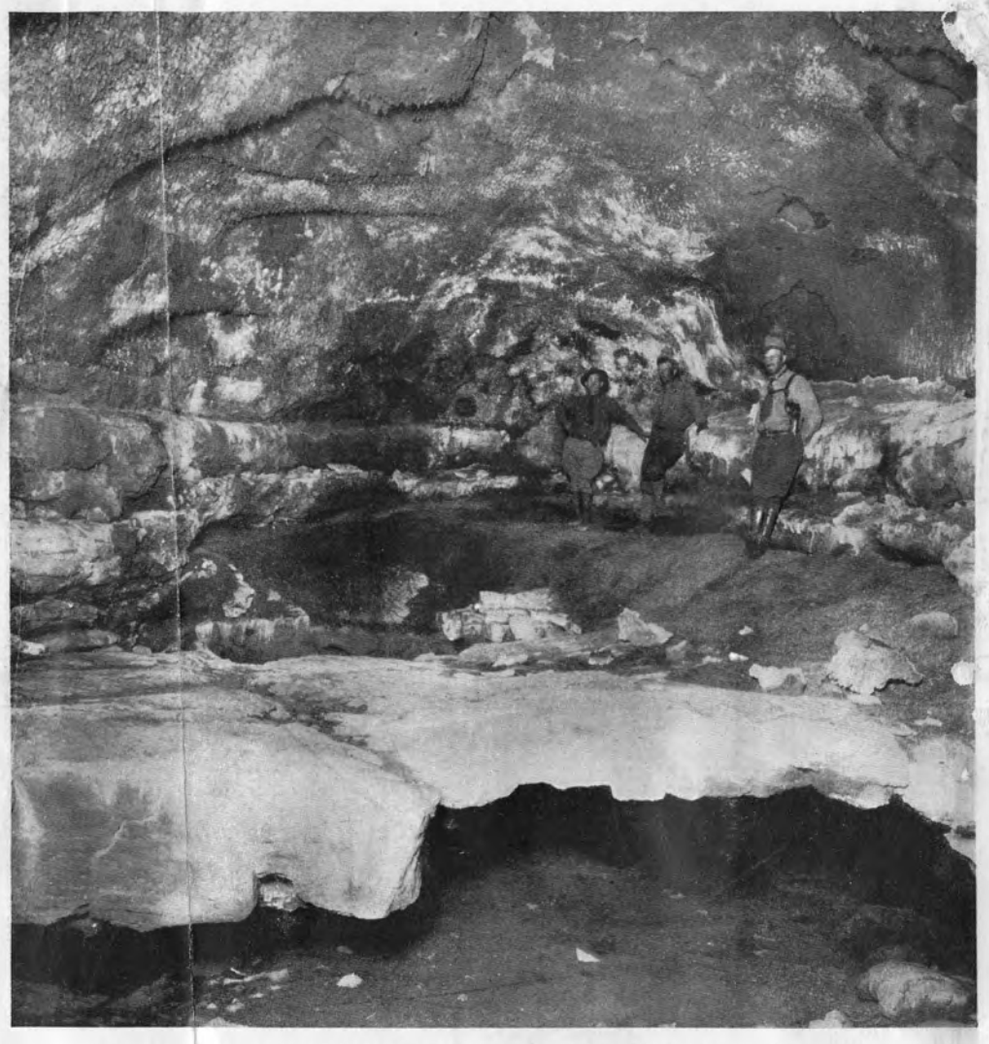


A VOLCANIC CRATER SHOWING ITS COATING OF LAVA PAINT

The deep-blue film on the surface of some of the lava flows is a "desert varnish," which is due to the evaporation of water drawn from within the lava. This process has brought about a chemical precipitation of some of the material leached out of the lava.

LOST IN A FOG

The morning after we had explored this section there was a fog so thick that a person could see but 150 feet in any



THE INTERIOR OF AMPHITHEATER CAVE

This is one of a series of eight caves found near the Bridge of Tears. It is an almost perfect model of a miniature theater, with a circular, sloping auditorium, a miniature bridge of lava for the stage, an orchestra pit, back drop, and domed ceiling. It is lighted by a 6-inch hole in the roof. The coloring of this group of caves is red, brown, and black, with splotches of white.

direction. We started out hoping that it would lift, but after an hour of aimless travel we decided to go back to camp.

Watson happened to be in the lead and we naturally followed him. I finally asked him where he was going, and when he said "camp," Cole and I undertook to show him where he was wrong. The fog by this time was so dense that 75 feet was about as far as we could see. The sun was invisible.

Watson in turn laughed at us. We referred to our compass, and the needle pointed in the direction we thought south. I suspected this to be another case of magnetic attraction, so tried a different direction finder.

No matter how dull the day, if you lay your knife-blade on edge on the back of your watch or on a piece of paper, there will be a faint shadow; turn slowly around until you lose the shadow, and in

13



LOOKING N.W. ACROSS DESERT



THE "ROAD" FROM VER. CAN. TO THE BLUE DRAGON FLOW "MEX" LOOKS FOR LAVA

SAME AS TOP PICTURE





BLUE AS THE SKY



AND SO IS THIS AND THIS





FOLDED FORMATIONS OF THE PAHOEHOE FLOW

This lava formation is about 20 miles wide, and consists of ridges, folds, crevices, and cracks. Some of the shapes resemble crumpled blankets, knots, and ship's hawsers neatly piled. *Pahoehoe*, a Hawaiian term for a smooth, ropy, lava flow (see page 311), means "having a satinlike finish."* Indians had marked the trail across this flow by laying rocks on pieces of sagebrush pointing to caves or water holes. Occasionally old trails, marked by gray streaks across the bare rock, worn by ages of travel, can still be followed for short distances.

that direction is the sun; point the hour hand of your watch there, and half way between that point and the mark 12, for the noon hour, is due south, or near enough for practical purposes. This checked our compass; we had to admit we were wrong. It was the first time in my life that I had been lost.

Watson now got his bearings from some rocks he had passed.

About a half mile northwest of the northern end of the Seven Devils we came upon a large cinder flat a mile long and a half mile wide. Here we encountered another strange feature of this land. In general, these flats were barren and packed so hard that an automobile might have been driven across at any place, but at this point we noticed a series of light-brown dots extending in lines crisscrossing the flats.

When we came to them we were surprised to find old bear tracks, into which the wind had carried a species of plant seed that had taken root and exactly filled

* See "The Hawaiian Islands," by Gilbert Grosvenor, in the NATIONAL GEOGRAPHIC MAGAZINE for February, 1924.



BIG CINDER BUTTE AND THE PAHOEHOE FLOW

This volcanic cone of reddish and black lapilli, the highest in this region, rises 600 feet from the plain, but was twice as large before its top and southwest side were blown off. Its slopes are covered with large pancakes of lava and with curious globular formations which resulted from the whirling motion of the lava as it was thrown high into the air. They range in size from a finger's length to 12 feet and are termed "volcanic bombs" (see illustration, page 313). The north and east sides of this butte are timbered with pines and quaking aspens.

the tracks. It was a small grayish-colored plant about one and a half inches high—hardly enough in some cases to show above the level of the tracks. Specimens I brought back have been identified as *Eriogonum acaule,* a pigmy variety of the buckwheat family.

Think of tracking a grizzly bear that had crossed here possibly hundreds of years before! In a few places wild rye grass had taken root and was crowding the smaller plant out.

We called this place Bear Track Flat.

Adjoining Bear Track Flat on the north was a similar one having features all its own, which consisted of more than 100 blowholes or fumaroles. These had at some time spewed out lava through from 4- to 20-inch throats. In many instances they looked like old tree stumps, 3 to 7 feet high. All had holes in the top and these openings were spiraled or twisted like the riflings in a gun barrel. We saw one with two openings about 5 inches apart and 4 inches in diameter. Another was found that had forked about half way from its base. These branches had broken off and lay on the cinders, in appearance like pieces of twisted spiral pipe.

All the openings except three were plugged with bits of rock dropped in probably by Indians, as the old trail passed along the cinder flat 100 yards distant. Several were examined in which the opening angled off at a 45-degree slope and to unknown depths. They reminded us of a number of trench mortars, so we gave this the name of Trench Mortar Flat.

STRANGE FORMS OF THE LAVA FLOW

From our camp in Echo Crater we made an excursion for 9 miles out into a lava flow some 20 miles wide extending to the east. Most of the flow has a pahoehoe surface (see text, page 311). In places there are ridge after ridge and fold upon fold, with crevasses and cracks;



NEAR TR. MTR. FLATS. BIG C. ↑ BUTTE



LAVA ROPES OF BLUE

HOW DID IT GET THIS WAY? ALSO BLUE





MOVIES OF THE CLIMBERS
VER. ↓CAN. LONE BUTTE



STARTING SOUTH FOR THE UNKNOWN



VER. CANYON
CLYMER (WITH HAT ON)



CAMP THREE
PART OF HIDDEN VALLEY









A "BLOW-OUT"



LUNA PRESS PUB CO., CAMP ONE



INDIAN MONUMENT



UN-PACKING, ECHO CRATER
SE PAGE 308 GEOGRAPHIC





LAVA "ALL TWISTED"





BLUE DRAGON FLOW



PAHOEHOE FLOW (BLACK)

BLUE DRAGON "ROPES"





EXAMINING PROBABLE SIGNS OF THE LATEST ERUPTION

The sagebrush is charred and the lava pancakes are half an inch thick, with a high gloss on the upper surface. It is possible that the most recent lava flow in this region took place only 150 years ago. Six large streams flowed from the Cinder Buttes district at a late date, and three of them are as fresh as if they had congealed and come to rest but yesterday. The lava looks black, as one walks over it, but at a short distance and in certain lights it has a light-gray appearance, as if covered with dust. This surface "bloom" indicates youth and is absent from flows known to be older.

again, there are huge folds and waves, as if some one had crumpled a heavy blanket.

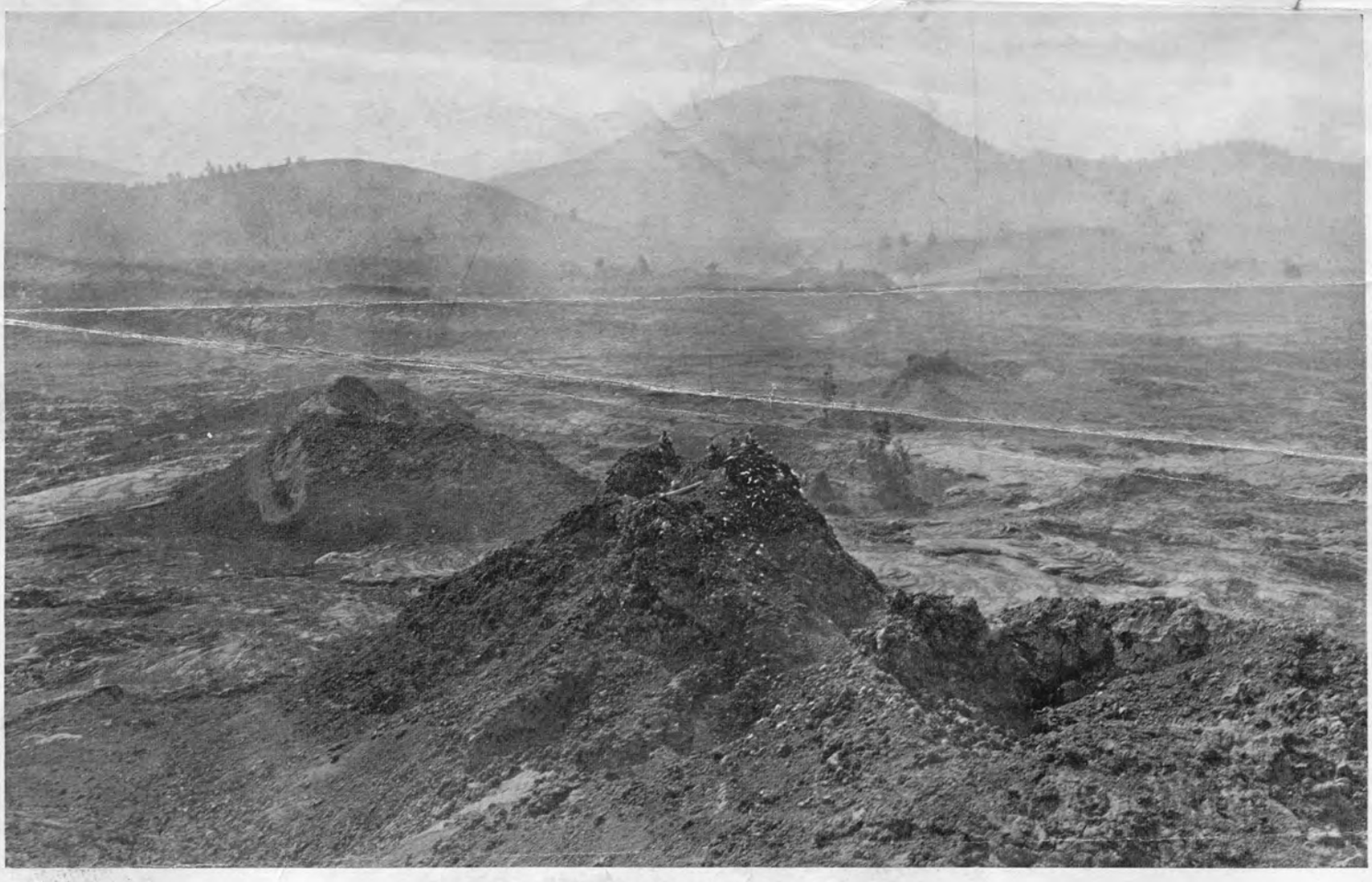
One place suggested a number of great ships' hawsers neatly piled; another had a long, sinewy twist of lava tied in as neat a knot as any sailor could make. How the ends could have twisted around and come through the loop is a mystery. I found a small specimen of this kind and carried it out with me. One flow had spread until it looked like an automobile speedway, except that it was broken by narrow cracks caused by cooling.

One day we crossed a stretch that tinkled with a hollow sound. Happening to notice that the surface was cracked and loosened in large sheets, we turned several pieces over and found the bottoms covered with jagged masses of nail-like projections all pointing in the direction of the flow. Many of the points were needle-sharp.

In one place the plastic lava had taken a circular, flowing motion while hardening, just as if it had been a large whirlpool several hundred yards across. Watson built a row of monuments from this lava formation back to the caves, described further on.

About four miles from Echo Crater we came to a large black hole. Climbing down, we entered a lava stalactite cave, each stalactite from 2 to 7 inches long and covered with green moss. We went in about 75 feet.

A short distance from this we reached a second moss cave, extending to the east. Farther on we found another cave, where, in the dust around the entrance, we discovered fresh bear tracks. As we started in, I asked Cole if there were any word he wanted sent to his folks. What he answered is not printable. About 20 feet in, the cave forked, one branch going west and the other northwest. We entered each of these about 100 feet, until they narrowed down, making it necessary to crawl.



BOTTOMLESS PIT WHEN VIEWED THROUGH A MIST

Northwest of Big Cinder Butte the expedition found a row of seven lava sputter cones, one of which went down 40 feet and then opened up like an hourglass. Large rocks when rolled into it were never heard to strike bottom (see text, page 327).



TRENCH MORTAR FLAT BOB ↓ LIMBERT



THE TRAIL TO CAMP ONE



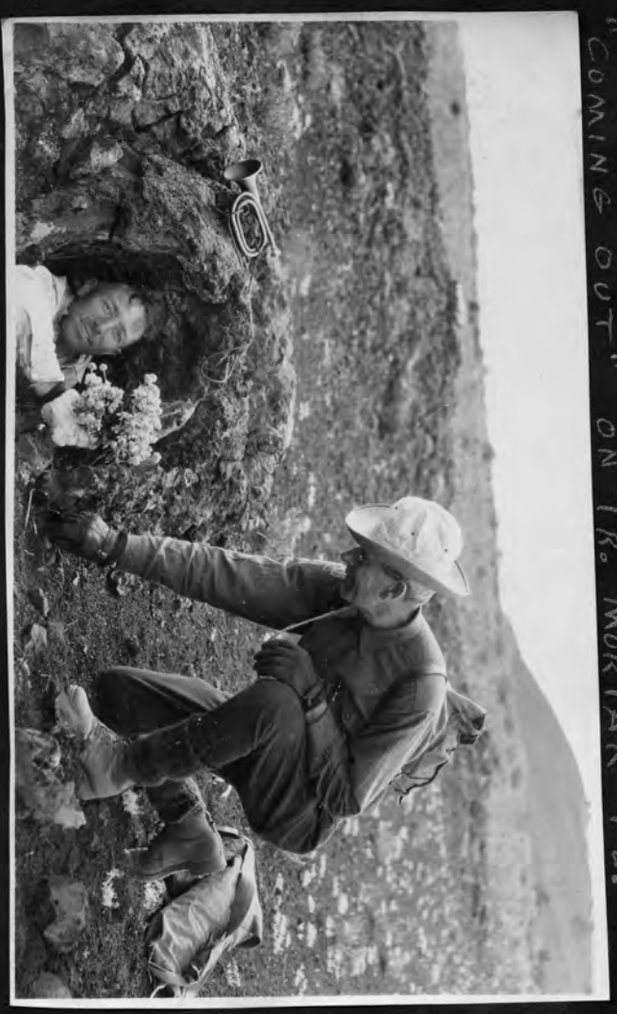
SCENE NEAR CAMP ONE



BOB LIMBERT AND "RED"



BLUE DRAGON "TWISTS"

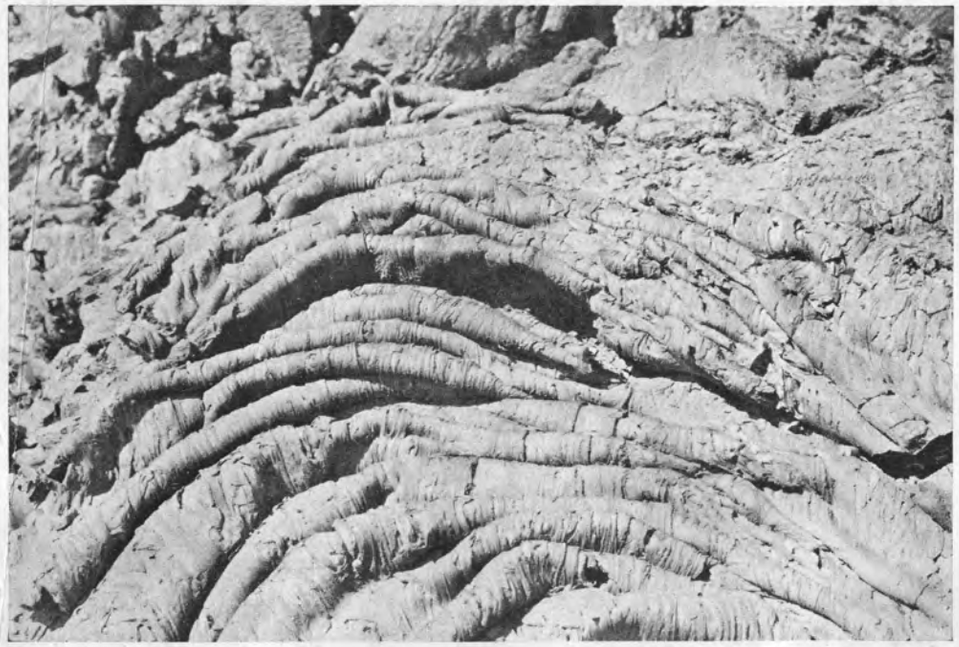


"COMING OUT" ON TR. MORTAR FL.



THE STARTING POINT OF THE BLUE DRAGON LAVA FLOW

Perhaps the strangest features of this flow are its color and texture. Its tint is a deep cobalt blue, with a glossy finish, resembling varnish or enamel. The coating averages one-fourth of an inch in thickness. The play of light and shadow at sunset turns this formation into a twisted, wavy sea of grays, purples, blues, and blacks (see also illustration, page 322).



THE BLUE DRAGON LAVA FLOW

This remarkable flow is well named. Its surface is netted and veined with small cracks like scales of a prehistoric monster, while ropy twists of blue and gray lava, bursting through an older flow, have spread out in branches resembling the claws and legs of a dragon. This fantastic region of folds 30 feet wide, of whirlpools, gigantic snakes, and frozen waves, extends 11 miles to the southwest of Tycho Crater (see map, page 306, and text, page 327).

About 100 yards from the entrance to this cave, at the base of a cliff facing south, Watson discovered the entrance to a cave leading northwest. It also contained bear tracks.

East of the bear caves we came upon a natural bridge of lava arching a point where two cliffs of lava narrowed down. It had a 50-foot span, and from the floor to the roof of the arch was 15 or 18 feet. Its width was 75 feet. There was a pine tree growing under the east entrance. One of the party bumped his head on the roof near the edge, so we laughingly called this the Bridge of Tears (see illustration, page 313).

A CAVE FORMED LIKE A MODERN THEATER

East of the Bridge of Tears we came to the entrance of what we afterwards decided to call Amphitheater Cave. Climbing down, we found ourselves on the east side of a room some 40 feet wide and 60 feet long, with a domed ceiling 20 feet high.

As we sat on the north side, we beheld to the south a perfect stage. The floor was double, the lower section being about 8 feet lower than the top of the floor above, which was 15 feet wide. It was almost an exact model of a modern theater. To the right of the stage a large rock jutted up; imagination might call it one of the wings.

At the top of the dome the roof had caved in, leaving a circular skylight 6 inches in diameter. Back of the stage and starting on a level with the lower floor, the tunnel led away to the southeast.

We walked and crawled between a quarter and a half mile; but judging distance when part of the way must be made on all-fours and by candle light is difficult. Finally, the passage closed down until the roof was only 1½ to 3 feet high. Leaving Watson and Cole here, Martin and I crawled on about 200 yards, until we came to a place we christened Fat Man's Misery. Martin weighs about 125



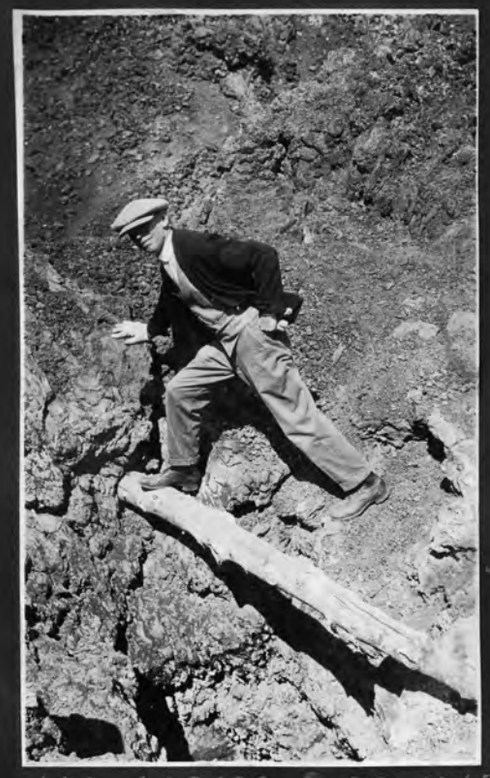
"MEX" STANDING AND "RED" CAMP THREE



"BLUE DRAGON" GLISTENING UNDER THE MORNING SUN

MORE "BLUE DRAGON"





LOG ACROSS BOTTOMLESS PIT, (MC. CANN)



PANOEHOE FLOW (BLACK)



BOB AND DR. FELCH LOOKING OUT. AMPH. CAVE



PACK TRAIN ENTERING ECHO C. SOUTHERN END OF "TRAIL"









IT'S A HARD LIFE



CAMP NUMBER ONE



LAVA RIVER

ELSIE, VER. CAN.







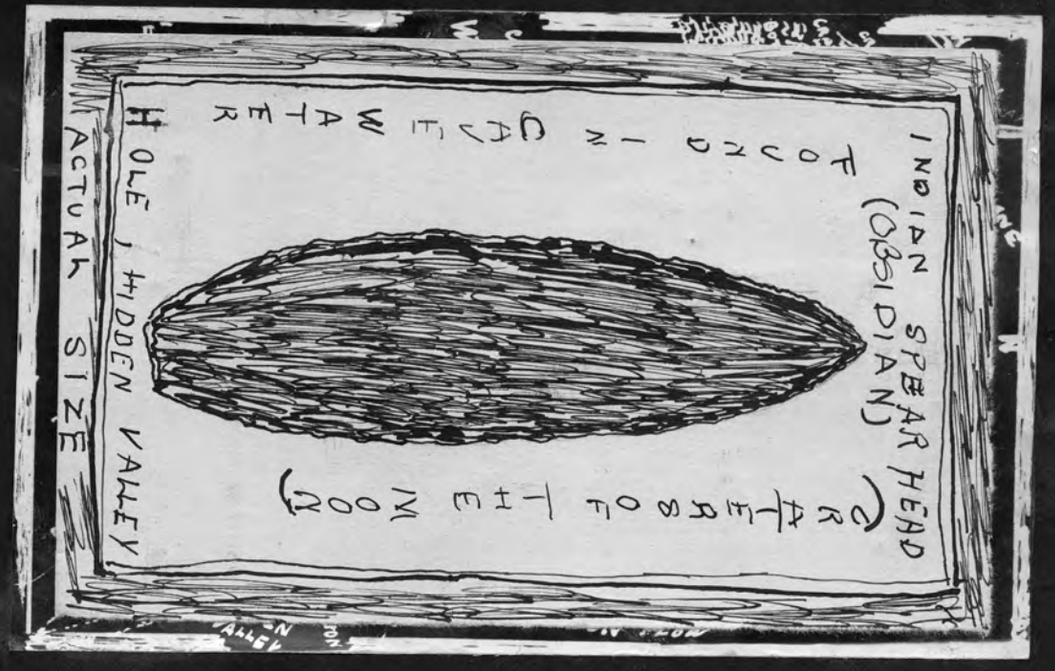
NOTHING ROUGHER

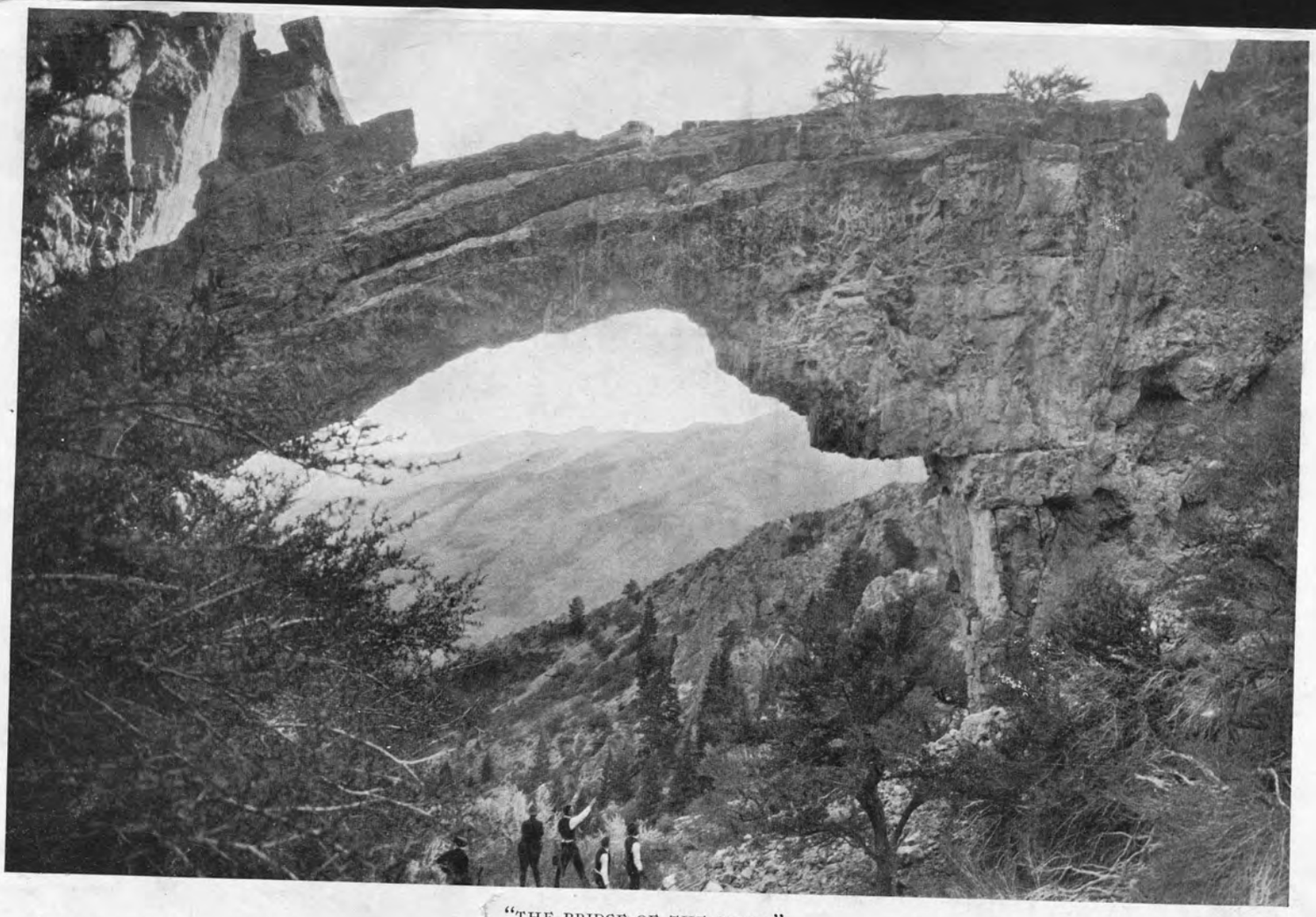
NEARING VER. CANYON GOING S





LOOKING NORTH TOWARDS TR. MT. FL.





"THE BRIDGE OF THE MOON"

This gigantic stone arch has a span of 125 feet and a height of from 80 to 110 feet. Its golden-brown color contrasts sharply with the dark green of the pines below. As one looks through ... arch from point ... green, yellow, and brown rolling hills ... canyon walls and rocks to a series of ... volcanic cones of Moon Valley.



ARCO TOWNSMEN WELCOMING THE EXPEDITION'S RETURN

The peculiar scenic beauties of the "Craters of the Moon" are unique in the United States. In due time this wonder-region will doubtless be opened up to tourists by a road which could be built from the northern end along its eastern side, following the open places that run back through the lava flows in narrow strips.

when suddenly lake, trees, and all floated away and disappeared in the distance. We had been the victims of a mirage.

AN AWESOME PANORAMA

A short distance northwest of Trench Mortar Flat lies the highest of the cinder cones in this region. As it stands today, it is about half its size before the explosion blew off its top and southwest side. The ascent to this point, known as Big Cinder Butte, was through a conglomerate of lava bombs and pancakes, where still plastic lava had fallen and flattened out. Near the top the cinders are broken by a number of jagged crags of red lava; the north and east sides of the butte are timbered with pines and quaking aspens.

From the summit we looked south over the country we had traversed, tracing our course through the maze of lava and cinder cones. On all sides were crater rings, showing we had examined but few of the many. We took turns in focusing the binoculars on the different features spread below. Very little was said except when one of us wished to call attention to something he did not want the others to overlook. We yielded to the influence of silence. Below us we counted six distinct lava flows, each comparatively fresh.

LOOKING DOWN INTO "BOTTOMLESS PIT"

To the north were many sputter cones and the shadowy outlines of craters deeper and larger than any we had passed. A route to some of these was planned, so as to avoid a large part of the rough, broken-up flow lying between.

Two miles northwest of Big Cinder Butte we came to a row of seven lava sputter cones caused by molten lava which had been thrown out of a vent, piling up to a height of 60 feet. The southern one was the first climbed. Imagine finding a hole 15 feet in diameter and bottomless, so far as we could judge. It went down for 40 feet; then narrowed slightly, after which it opened up, giving the crater the shape of an hourglass. Large rocks rolled in were never heard to strike bottom. We called it the Bottomless Pit.

Near by a volcanic throat about 30 feet in diameter and 60 feet deep was found, full of snow and ice. From the sides hung large clots of lava. The outside slopes were covered with numerous volcanic bombs resembling double-ended pears. In many the ends had curved upward as they had fallen, giving the appearance of buffalo horns. A short way from this was the entrance to the narrow tunnel of another cave.

In this vicinity there were seven lava cones in a row, three of them in a state of perfect preservation. In climbing a high ridge to the north, in order to get a photograph, I descried three of the largest craters in the belt, one of which was a quarter of a mile across and several hundred feet deep. Its northern and eastern sides were perpendicular cliffs of a bright red lava, the balance being a steep cinder slope. The rim was almost a perfect circle.

On my first trip to this place, Albert Jones volunteered to climb to the bottom, to serve as a scale. To my surprise, he was invisible on the ground glass of the camera and could be found in the finished print only with the aid of a magnifying glass. In pictures of a place like this, the camera does not lie, but it does not tell all of the truth, for in its results the colors and gigantic scale of things are missing.

The north rim of this crater is a knife-edge, the other slope being the side of another crater, almost as wide and deep, formed by two explosions, which caused a double depression in the bottom. One contains a small lake. In the spring of 1919 it was about 100 feet in diameter; the following year it had shrunk to 40 feet. We called it Crater Lake and the crater, Tycho, after the large crater on the moon.

As we climbed around the crater walls we amused ourselves by rolling rocks down, watching them bounce and bound, sometimes 100 feet in the air. As they reached the talus slopes below, they reminded us of rabbits on the run, and I could not resist shooting at them. Once we united our strength and pushed a huge rock over the cliff, watching it fall until it reached the slope below, where it rolled, gradually getting smaller and leaving a cloud of dust in its wake.

A LAVA FLOW OF COBALT BLUE

Stretching to the southwest for a distance of about 11 miles, we saw perhaps one of the most remarkable lava flows in the world. Its color is a deep cobalt blue, with generally a high gloss, as if the flow had been given a coat of blue varnish. The surface is netted and veined with small cracks, having the appearance of the scales of some prehistoric reptile. Mr. Israel C. Russell, at one time of the United States Geological Survey, called it the Blue Dragon Flow. It merits the name, as in many places it has burst through the crevasse of an older flow, and the ropy twists of blue lava, spreading out in branches, together with its scaled surface, need but a little stretch of imagination to suggest the claws and legs of a dragon.

It is the play of light at sunset across this lava that charms the spectator. It becomes a twisted, wavy sea. In the moonlight its glazed surface has a silvery sheen. With changing conditions of light and air, it varies also, even while one stands and watches. It is a place of color and silence, the latter broken only by the wail of the coyote and chirp of the rock cony.

About a mile to the north of Crater Lake is an immense cinder cone, the west side of which has breached away, leaving the floor of the crater exactly as it must have appeared when the eruption of lava ceased. Here are bubbles, rolls, folds, and twists, as if a giant's frying pan of thick gravy furiously boiling had been frozen instantaneously.

We sat on the southern edge of the rim for perhaps half an hour before we climbed down. This flow had broken out and traveled northwest for several hundred yards, and then, having been dammed up, had broken through a low

nder ridge and gone east. channel was about 300 yards e and the flowing lava had assumed s and twists, as if a rapid in stream had suddenly con-

e eruption occurred the mol- dermined the volcanic sides, and floated off on top of the cks and sawdust on the sur- ning water.

At the bases of the larger floating pieces of volcanic tufa there are depressions in the lava where the masses had pressed down, as occurs when a greased stick is floated in water. Some of these moats are from 4 to 10 feet deep and 10 to 30 feet across.

CRATERS, CHIMNEYS, AND SILOS MOLDED BY LAVA

A mile and a half out on the flow we saw hundreds of these crater-wall fragments, some as high as 80 feet. Viewed from a distance, they resemble the pueblo of southwestern United States. about 60 feet high and not more than 20 feet in diameter at its base. From a distance it resembled a silo. How it remained upright as it drifted along is a mystery. Many more were observed that resembled chimneys 10 to 20 feet high, and one was an almost perfect teapot in shape.

About two miles southwest of Big Cinder Butte is a flow with similar formations. Along the north side of the Ruined Pueblo flow are 14 mounds composed of rock and sagebrush, which the Indians have built. They are from 4 to 10 feet long and about 4 feet wide. We had no means of digging into them.

Three well-worn Indian trails come into this belt from the north. The plainest is one that goes in about six miles west of M near the sinks of a lost stream known as Little Cottonwood. It is distinct for about 11 miles, and then fades; yet we found traces of it all the way across. It is sparingly marked with small rock piles and pieces of sagebrush, with rocks to weight them. A few flint or obsidian arrow-points can be picked up along it. Where these trails go and why, no one knows.

Northward, a mile from the Ruined Pueblo flow, are a few more low cinder cones similar to those we had passed. Puzzling features along the west side of this volcanic belt are the many dead charred trees growing in a cinder flat absolutely barren of vegetation of any kind which could carry fire from one to the other. I found charred sagebrush around a lava blowhole near the Seven Devils. A piece of brush was picked up near this spot that had a clot of lava "frozen" around it.

In appearance the flows seem as if they had happened only yesterday, but in reality the latest probably occurred about 150 or possibly 200 years ago. Perhaps the eruptions of spattered lava around some of the small sputter cones occurred about the time of the eruption of Buffalo Hump, in Idaho County, Idaho, in 1866.

The total area of the six young lava flows of this region is about 300 square miles, while that extending above and below this point, along the Snake River plains, reaches the astounding total of approximately 27,000 square miles.

A report has been prepared by Mr. H. T. Stearns, of the U. S. Geological Survey, suggesting to the National Park Service that an area of 39 square miles be set aside as the "Craters of the Moon National Monument." In this area there occurred a fissure eruption displaying surface phenomena which are paralleled only by those in Iceland.

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notice of change of address of your GEOGRAPHIC MAGAZINE *should be received in the the National Geographic Society by the first of the month to affect the following month's issue. For instance, if you desire the address changed for the May number, the Society should be notified of your new address not later than April first.*



OWL'S NEST





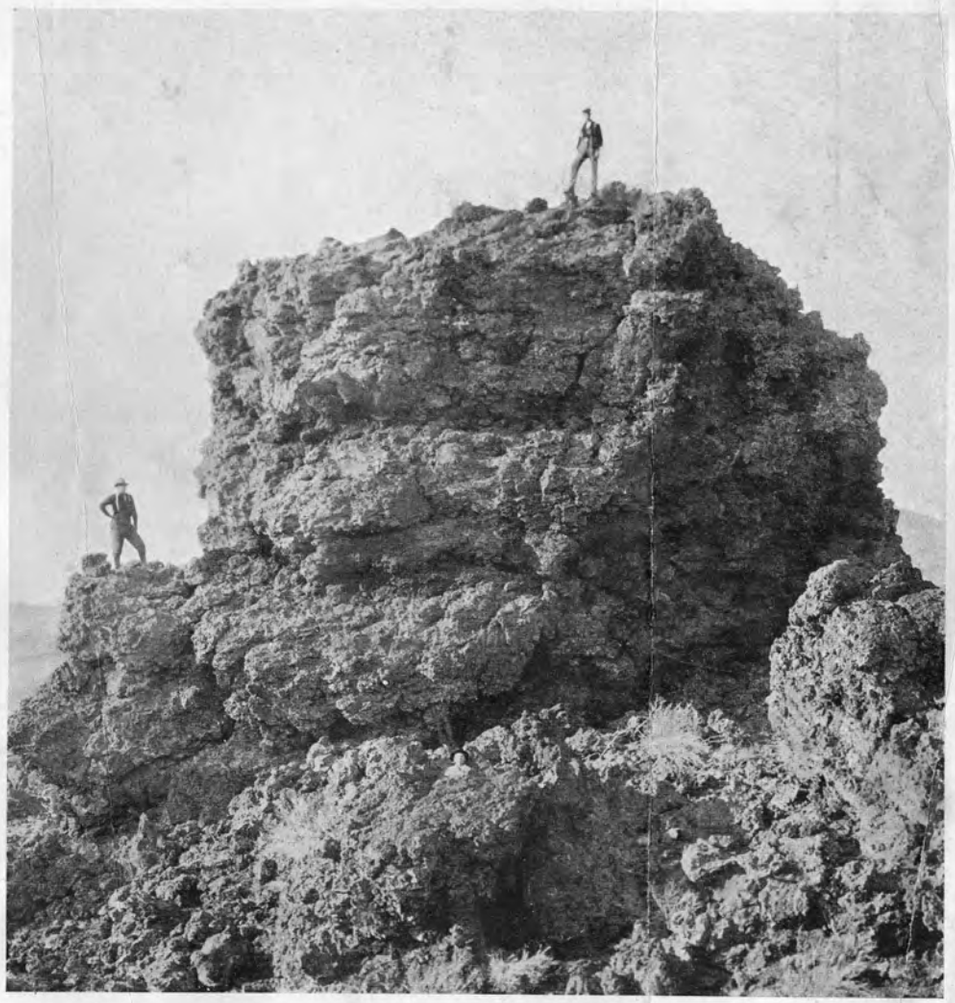
NORTHERN END OF "CRATERS
STARCHER



TREES AT SUMMIT OF BC BUTTE

BLUE DRAGON "TAFFY"





"PUEBLO RUINS" OF VOLCANIC TUFA

These peculiar masses were formed when molten lava undermined the sides of a crater, large pieces of which broke off and fell on top of the flow. The fragments are usually black or various shades of red, and when viewed from a distance resemble pueblo ruins of the Southwest. They are from 10 to 80 feet in height and of many curious shapes.

pounds and made it easily; I made it, too, but in all pictures taken after that I faced the camera!

About 50 feet farther on, the passage opened up again, and then closed down, owing to a cave-in of the roof. We could see through, but could go no farther.

The roof throughout was covered with stalactites and the floor with jagged drippings from above. Crawling was a painful operation.

The coloring in these caves was red, brown, and black, with splashes of white.

While proceeding east, Martin and I happened to leave the others to climb to a low mound in the flow. From this vantage point we sighted a lake a half mile long and, to the south of it, what appeared to be a grove of willows and cottonwoods. Turning the binoculars on the scene heightened the effect, and we decided to walk to another elevation, a mile and a half farther along, where we could look down into the basin. When we got there we sat for a few moments examining it, still apparently three miles off,



DEAD AND BURNED TREES WEST OF THE BUTTES (SEE TEXT, PAGE 328)

There is no positive evidence as yet to prove that the dead trees found on the borders of the lava flows in certain instances were killed by heat.



VERMILLION CANYON



BIG C. BUTTE
& TWIN BUTTES

TOP OF FISSURE BUTTE



ARRIVING AT CAMP ONE



NEAR TOP OF BIG CINDER BUTTE



INDIAN WATER SIGN



DESERT





HOW IT LOOKS WHEN YOU'RE PULLED OUT OF WATER

OLTA AND A TWISTED HIDDEN VALLEY TREE



24



INDIAN TUNNEL



SEE PAGE 313, GEOGRAPHIC



ECHO CRATER CAMP



SAGE BRUSH AND LAVA

LAVA RIVER





STARCHER RESTS





PAGE HORSES GOING TO WATER
CAMP THRE



GOOD OLD CAMP THREE



NORTH PART OF HIDDEN VAL

THOMSON - BOB
HIDDEN VALLEY





INTERIOR CAVE; HIDDEN VALLEY





TIGHTENING ELSIE'S TIE



LEAVING BOISE
ON WAY TO CRATER S



RATTLESNAKE ST



WALLA WALLA MTS.

START FOR STUM





MEX AND WHITMORE, CAMP ONE



R.P.S. WHITMORE



WATER HOLE, INDIAN CAVE
HIDDEN VALLEY



DOCK DUTCH OVEN FELCH
SHOWS 'EM HOW TO PACK

← SAME AS PICTURE LEFT





PART OF THE GANG



THE SPOKESMAN-REVIEW.

44TH YEAR. NO. 51. SUNDAY MORNING. JULY 4, 1926.

Spokane Girl Explores Unknown Craters of Moon

Is Member of Party Which Goes In 30 Miles Over Southern Idaho Lava Flow Where White Man Had Never Been Before—Geologically, District Is Treasure Trove.

It is not necessary to visit the north pole or the pole of relative inaccessibility to find extensive territory on which a white man's foot has never rested. It can be done in southern Idaho, within 500 miles or less of Spokane. Miss Elsa Hanft, member of the Spokane Mountaineers, who has numerous Pacific northwestern peaks hanging to her belt, figuratively speaking, found this out recently on a trip of exploration with a party of adventurers, headed by R. W. Limbert, generally credited with the discovery and christening of the Craters of the Moon in southern Idaho.

Largely through his efforts and a preliminary exploration made two years ago by the National Geographic society, the Craters of the Moon is now a national park. In many respects it is the geologic wonder of a region world famous for its unusual geological formations. Representatives of the society penetrated into the desert of lava about 10 miles from Arco.

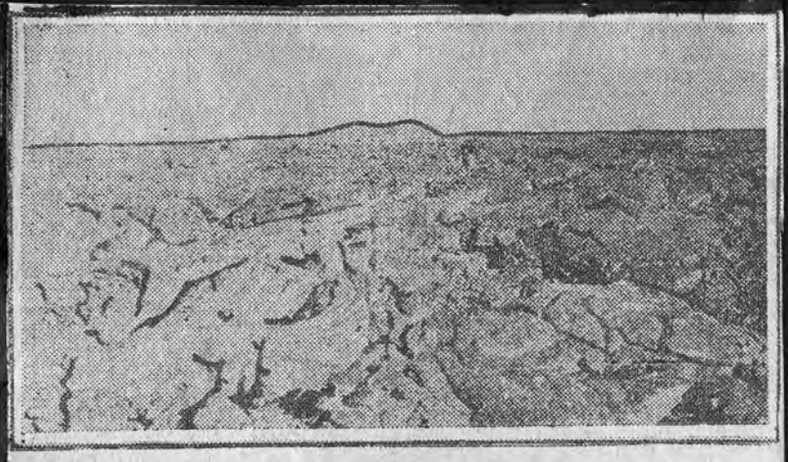
The party, of which Miss Hanft was a member, followed that trail and then a few penetrated 30 miles into the solid rock wilderness. They spent 10 days for the most part in territory where white men never before had set foot. While they found unmistakable signs of Indian visitations, the legends of the region have it that no Indians have been there for at least 100 years.

TRAMP TERRA INCOGNITA.

The party, therefore, had all the thrills of plunging into terra incognita, if that phrase can be applied to a region where lava covers everything. Entrance can be made by automobile from Gooding on the southwest or from Arco on the northeast. There is a dimly visible trail for 10 miles to the spot where the society geologist knocked off and turned back.

Most of the party had no desire to go farther than that for it meant going on foot and carrying packs. Headed by Mr. Limbert, nine members of the original party said farewell to the others, strapped their packs on their backs and plunged into the unknown. Miss Hanft was one of them. Two other girls kept her company—Oita Welshons and Athene Clymer. Others in the little group included Joseph Yolo, Rolland Whitmore, Herman Krug, Clarence Starcher and J. N. O. Thomsen.

What they found well repaid the strenuous efforts necessary to reach them. The territory is unmapped and uncharted and they named many of the outstanding features of the topography—Vermilion canyon, Trench Mortar flats, the Blue Dragon flow, Echo canyon and what not. They bring back reports of the most vivid colorings—reds, blues and yellows predominating in lurid combinations, now subdued somewhat by centuries of wind and sunshine.



Looking across 10 miles of Pahochoe lava flow, toward Lone Butte in background.

6000 FEET ABOVE SEA.

Broadly speaking, the Craters of the Moon cover an almost level plateau, 6000 feet above sea level. The region runs through portions of Blaine, Bingham, Winnidoka and Cassia counties, miles from railroads and highways. An airplane would have no more chance of landing in the region, they say, that it would on the rough polar ice. Some day roads may traverse it. It runs nearly 120 miles and is 70 to 80 miles wide in the broadest stretches.

It is a veritable "land that God forgot." The hikers in 10 days wore out brand new boots, heavily studded with hobnails and metal cleats. The gritty lava ground them down like a grindstone. Yet they could make 15 miles a day.

They saw no soil from the time they started until they returned, although beautiful wilderness flowers were growing everywhere in the crumbled lava and gnarled and twisted cedars grew in spite of the elements of nature against them where it seemed there was nothing but solid rock.

The party found mammoth caves, natural bridges, streams and falls of what was once molten lava, but now solid rock in strange rope-like formations, sputter rocks, bottomless water holes, extinct volcano craters, cliffs of obsidian, a shiny black substance as glossy as glass; ice cold water, icicles in the cave ceilings, owls, bob-cats, grizzly bears, eagles and greater and lesser birds and animals of all descriptions. The birds and animals have held undisputed sway for centuries and were quite indifferent to the approach of human beings.

"The area is like a huge kettle of slowly-boiling porridge," said Miss Hanft in describing it, "with the difference, of course, that everything is now cold and nothing is in a fluid condition, but the water in the water holes. Whatever cooled the region must have done so quickly as these sputter rocks are the rocky remnants of what were bubbles. They have cooled as they sputtered, leaving holes into which one can crawl easily.

"The strangest sight, I think, of all is the Blue Dragon lava flow, which is 10 miles wide. When we saw it first through our binoculars, we thought we were coming on a lake. When we reached it, we found more of this strange rope-like lava, this time of a brilliant blue color, about the hue of the sky.

"One of the party crawled through a small hole at one of our resting places and discovered a huge cave, which undoubtedly had been used as a hiding place by Indian outlaws. Wood was neatly piled in one corner and along one wall were the remains of a wood fire, perhaps a century old. We wondered where the Indians got their water as none seemed to be in sight. Exploring with a flashlight, the boys found a hole in the floor which connected with an underground lake under the floor of the cave.

WATER HOLES BOTTOMLESS.

"We found our water supply in deep water holes. Sometimes it was necessary to lower a man 75 feet on a rope to get water for drinking. Some of the holes seemed to be bottomless. No sound could be heard when a rock was dropped from the top.

"There were caves everywhere of vast size. In some, the dripping water had formed icicles on the roof and



CLUB WILL SEND EXPEDITION INTO CRATERS OF MOON

Party of Writers, Geologists and Mountain Climbers From Washington State to Leave Boise May 18.

An expedition to explore the southern end of the Craters of the Moon will leave Boise about May 18, according to an announcement Thursday by R. W. (Bob) Limbert, who made pioneer explorations which resulted in the area being made a national monument. The expedition will be made up of writers, geologists and mountain climbers who will arrive here by automobiles from Washington state. The cars will carry banners with the words "Seattle Mountaineers and Mt. Stuart Alpine club enroute to the Craters of the Moon."

Mr. Limbert said that he hoped the expedition would bring favorable publicity to southern Idaho. The object of the trip will be to try to find new wonders in the region in hope that the national monument will be enlarged by the government.

Members of Party.

Those of the expedition who have signed to make the trip are as follows: Clarence Starcher, Rolland Whitmore, Miss Athene Clymer, Miss Olta Welshone and Joseph Yolo, all of Yakima; Miss Elsie Hanft of Spokane; Professor Frank W. McCann of Coulee City; Doctor Fetch, P. Bolding, J. N. O. Thomson and Miss Hermia Thomson, all of Ellensburg, and H. W. Krug of Seattle. Others have corresponded with Mr. Limbert and may join the expedition later.

Miss Hanft is known as a mountain climber, having scaled some of the difficult peaks in the Alps.

Mr. Limbert said Thursday that very little is known about the extreme southern end of the section.

Will Seek Road Route.

"We hope," he said, "to be able to find a route so that a road may be built into the region from the south. Those of the expedition are all members of either the Seattle Mountaineers club or the Mt. Stuart Alpine club. These organizations have achieved reputations for exploration work in Washington state.

"The expedition will be equipped with the latest scientific instruments, and a complete battery of still and motion picture cameras will be taken along. A portable radio set, and a crate of carrier pigeons will also be included. Thus the expedition will be able to keep in touch with the outside world at all times.

"Several large caves were discovered on the last expedition under my direction. We will make a thorough exploration of these caves.

"Professor McCann, of Coulee City, is a geologist formerly with the University of Washington. He plans to spend some time studying the phenomenon of ice caves. These caves are practically free of ice in winter and full of water; while with the coming of warm weather this turns to solid ice. The reason of this has never been solved."

STUDY JAUNT IS ANNOUNCED

Yakima Cascadians Will Join Mountaineers and Scientists in Exploring Craters of Moon District.

Five Yakima Cascadians, Clarence Starcher, Joseph Yolo, Rolland Whitmore, Miss Athene Clymer and Miss Alta Welshons will leave Yakima Saturday to join a party of scientists and mountaineers at Boise, Idaho. They will spend two weeks in exploring and mapping the Craters of the Moon district in southern Idaho.

The party will remain in Boise several days, visiting the Arrowrock dam, Kuna cave and other points of interest before they strike into the uncharted sections of America's newest national monument.

Members Named

Other members of the party from Washington are Dr. Fetch P. Bolding, J. Thompson and Miss Hermia Thompson of Ellensburg; H. W. Krug of Seattle; Professor and Mrs. Frank W. McCann of Coulee City; and Miss Elsie Hanft of Spokane. Professor McCann, a geologist of the University of Washington, will accompany the party to make a special study of the ice caves which are a remarkable feature of the district.

The party will be in charge of Joseph Yolo until Boise is reached when R. W. Limbert, special writer for the National Geographic magazine, will take charge. Mr. Limbert has made several previous trips to the district. An old Indian trail found by Mr. Limbert and W. E. Cole a few years ago will be followed into the lava beds.

Ladders to Be Carried

At Shoshone, Idaho, the party will take a pack train with supplies and equipment for the trip. Rope ladders will be taken to allow scaling parties to enter caves which have never been explored, though discovered several years ago. Flares will be used for illuminating the caves and penetrating crevasses which have proved bottomless in all previous attempts at measurement.

This region has only recently been set aside as a national park and its boundaries are not yet fully determined. The principal object of the trip is to gather data which will result in defining the limits of the old crater district and list its marvelous features.

HIDDEN VALLEY IS DISCOVERED

Yakima Explorers Tell of Many Wonders of Crater of Moon District in Southern Part of Idaho.

Discovery of a hidden valley in the Crater of the Moon district, exploration of several new caves and the finding of valuable Indian relics are some of the adventures of Yakima Cascadians who returned recently from a trip into the new national park in the southern part of Idaho, according to Joseph Yolo, leader of the local contingent of the party.

Mr. Yolo, himself, has an Indian spear head of obsidian for which he refused $20.

Writer on Trip

Members of the party assembled at Boise, Idaho, where R. W. Limbert, writer and explorer, acted as guide. They were 10 days on the trip, traveled 1600 miles by automobile and 200 miles by pack train. The country visited was the uncharted region of a recently created national monument, a rough, broken country so remote from civilization that trails for pack animals could not be found, and the last 20 miles was made on foot.

"Crater of the Moon" fittingly describes the region, Mr. Yolo said. Successive lava flows, each having a distinct color, have given the country a weird appearance. Dikes, craters, and bubbles of lava show clearly that the region was one of nature's melting pots.

Habitation Evidenced

In one of these craters evidence of human habitation was indisputably found. Indian legend has it that there was a hidden valley where whites taken from immigrant trains were taken by the Indians and held for ransom or for torture. Evidence of the fact that Indians used the crater for a habitation was found in the discovery of embers of former camp fires, and the water hole which supplied the camp.

It was in the water hole that Mr. Yolo found his Indian spear head and another member of the party found a torch. Other relics were picked up by members of the party.

Radio Entertains

Camped at night in Echo crater, members of the party were entertained by a radio concert broadcast from Boise. Letters for members of the party were also sent to them from the same broadcasting station, arrangements having been made at Boise for that service.

Mr. Yolo called attention to the fact that the National Geographic magazine of March, 1894, contained an article describing the wonders of this new national park, but not the uncharted region which this party explored. Mr. Limbert will write an extended description of the trip and the discoveries made for the Boise Statesman of next Sunday's issue.

HIDDEN VALLEY IS FOUND BY LIMBERT AND MOUNTAINEERS

Traditional Home of Indians, Thought by many to Be Merely Legendary, Explored by Discoverer of Craters.

Everyone hopes for the day when he will find the valley of his youthful dreams, where everything will be different, some way, from the ordinary humdrum life near home, but few have the opportunity of making their dreams come true as did R. W. Limbert and his party of Washington mountaineers on their recent trip into the Craters of the Moon.

This famous spot, known as Hidden Valley, has been a tradition among both Indians and white men for generations, but has never before been explored. In pioneer days, one man was captured by the Indians and taken far into the lava fields after having been blindfolded. On his return to his companions, he told of a wonderful valley which he had seen, but which he was unable to locate because he had both entered and left under guard, his eyes securely bandaged.

SEEN THROUGH GLASSES

Mr. Limbert and J. C. Caldwell of Mountain Home first glimpsed this valley through their field glasses three years ago. They had no time to visit it at the time, but agreed to return later when it was convenient for both men to go together. However, as Mr. Caldwell was unable to go to the Craters this spring, he magnanimously released "Bob" from his promise, and allowed his friend to guide the Washington tourists into the hitherto uncharted lands.

Never was a trip more worth while, according to Mr. Limbert on his return from the Craters. "There is no doubt that we found the old Indian valley," he declared, "for we discovered the rings where tepees had set and in a cave we found a cache of firewood, gathered nobody knows how many years ago, but still in good condition. We know, for we used it for our campfires that night."



MANY FINDS

A stream of running water runs through the valley, and there were seven new water holes located. Many Indian relics, such as knives, arrow heads and scrapers were picked up by the explorers, but the most interesting finds were the formations of lava, and other natural phenomena.

A new flow of Blue Dragon lava, with a surface like a reflection of the sky, was found. This was estimated to be 11 miles long by seven miles wide, lying right beside the valley. Another mass of lava was red in color, having evidently been thrown high in the air before it finally came to rest on the bed of cinders. One mass of lava was found surrounding charred stumps, with the marks of juniper bark embedded in the stone.

ERUPTIONS, ICE CAVES

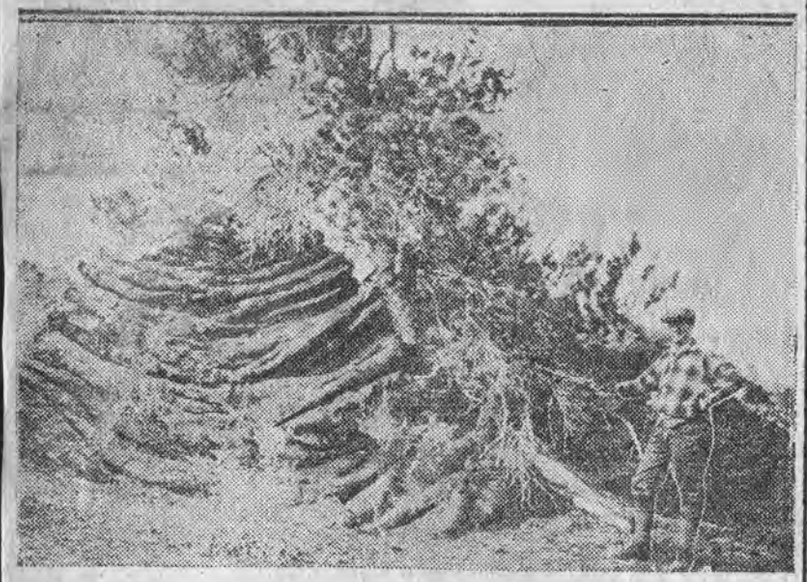
Two new fissure eruptions were found, one a mile and a half long and the other two and one-half miles in length. Two new ice caves were discovered, as well as one natural bridge and about 250 volcanic spatter cones.

Hidden Valley lies from 15 to 18 miles below the southern boundary of the present national monument, but mebers of the party were unanimous in declaring that the scenery was equal, if not superior, to that within the present Craters. To reach the valley, the party traveled with horses for 22 miles and then back-packed 15 miles further. "And the ladies carried their loads fully as well as any of the men," said Mr. Limbert, "without a whimper."

Next year, according to Mr. Limbert, the same people will return to Idaho for a trip through the Sawtooths.



Tree growing out of solid lava where apparently there is no soil to give it sustenance.



these, dripping to the floor, had formed little points of ice on the floor, just like the stalagmites and stalactites of rock formations. Naturally, the interior of these caves was intensely cold.

"We spent two days in Echo canyon. We named it that because seven echoes could be distinctly heard chasing each other around its cylindrical walls.

"We found beautiful flowers everywhere, although there seemed to be no soil and no water, except from rain. One broken tree was twisted into actual corkscrew spirals. In another spot, a tree had taken root high up on a lava fall. Another stunted cedar seemed to grow out of solid rock.

MANY ANIMALS AND BIRDS.

"We saw many birds and wild animals. A bob-cat, at one time, jumped out just a few feet away from me. We climbed a high cliff to see two baby owls. Grizzlies frequent the territory as well as eagles, hawks and other birds."

The geological history of the Craters of the Moon, of course, has not been completely told for the simple reason that no geologist has ever traversed the entier region. To the lay observer, however, the story seems to be an open book.

Back 1,000,000 years or so when the basalt broke through the granite and became superimposed on the Latah formation throughout the Spokane country, now visible in the outcroppings of rimrock basalt around the city, other basalt was breaking through or being poured out by volcanoes in what is now southern Idaho and the Craters of the Moon.

It encountered no mountains to dam and divert it there and consequently spread out through a vast flat territory like a sluggish river overflowing its banks during the spring floods. Then, probably, the ice age with its glaciers descended on the Pacific northwest and lowered the temperature to such an extent that the sputtering, bubbling, slow-moving lava rivers virtually stopped in their tracks, billows, ripples, bubbles, eddies, falls, currents and all and cooled into solid rock as they have remained through the centuries and as they appear today.

As far as the eye can see, these vast lava beds extend. One formation is called the Pahoehoe lava flow and it has Lone Butte in the background. The conspicuous rope lava formation, characteristic of the region, is called the Blue Dragon flow, because of the coloring.

To the untrained eyes of the exploring party, the district appeared to possess mineral possibilities. It is useless, of course, from an agricultural viewpoint. As a permanent meeting place of geological phenomena, it is one of the treasure-troves of the universe. It is not far from the main highways of automobile traffic. It is a natural wonder par excellence. Uncle Sam has recognized its scenic and scientific importance by creating it a national park. It may be the youngest part of the North American continent.

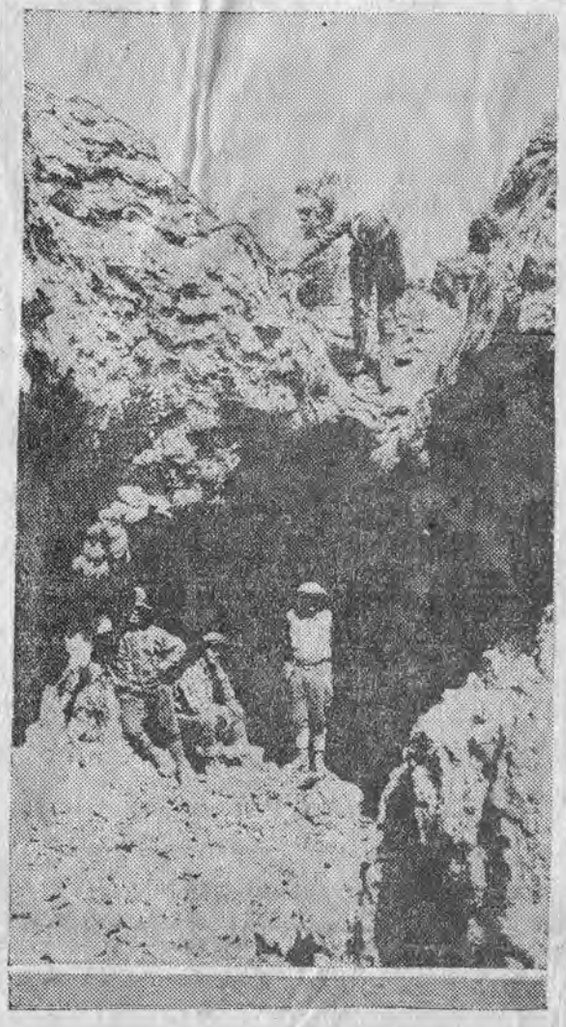
W. W. H.

Olta Welshons rests inside a sputter cone on Trench Mortar flats.



Hiking through Vermilion canyon in "the land that God forgot."





Crater inside Vermilion canyon; a bottomless cavern.

Center, right—Natural bridge; note sunlight and small tree at far side.





At start of three-day back-packing trip into unknown territory; left to right: Olta Welshons, Athene Clymer, Joseph Yolo, Elsa Hanft of Spokane; Rolland Whitmore, Herman Krug, Clarence Starcher, J. N. O. Thomsen, R. W. Limbert, leader.



ROAD TO BOISE



BLUE DRAGON



DESERT FLOWERS

LUNA PRESS

Vol. 1 May 17, 1926 No. 1

EXTRA EXTRA EXTRA

CRATERS OF THE MOON EXPEDITION ARRIVES

Craters, May 17--A party .. scientists, sheepherders and gar.ge-men arrived at the Craters today for the purpose of exploring the Craters of the Moon, and to decide whether or not all the dope in the March, 1924, number of the National Geographic was the truth or was the result of "moon" other than Craters. This distinguished party brought with them one Mr. R. W. Limbert, author of the article just mentioned, so that he would be given a chance to defend himself from the attacks of such authorities on the moon subject, as Elsie Hanft, Rolland Whitmore and others. The personnel of the party is as follows: Athene Clymer, Joseph Yolo, Dr. Felch, R. Whitmore, Elsie Hanft, W. F. McCann, Mrs. McCann, Olta Welshons, Hermia Thomson, Herman Krug, R. W. Limbert, Red Strohmenger and J. Alphabet Thomson.

DR. FELCH CREATES NEW NAME FOR BREAD--

"Dough Babies"--which calls forth the well worn favorite "How are the sun and a biscuit alike?" - the answer being that they both rise in the yeast and set behind the vest.

PROFESSOR McCANN BROADCASTS

Professor McCann speaking concerning his new position at the University of Washington says it was a wholly unlooked for promotion. He said his specialty was a line of propaganda and his purpose was to educate the youth of the nation in lines of instruction concerning interest in and the study of nature. This worthy individual stresses the visiting of the Grand Coulee and the Craters of the Moon for first-hand information. He says he might consider a raise in salary and that it would be highly appreciated, considering the high cost of living.

HIGHLIGHTS IN THE LIFE OF BOB LIMBERT

He is a man of few words, with no particular principles; is glad that he is once more in the Moon. Undoubtedly we shall hear more in the near future from this worthy and well-known individual. His assistance in explaining Crater details is invaluable and his stories of past experiences among the wild animals of the Northwest are hard to beat, or believe, but best not doubted.

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RED STROHMENGER, the Packer has packed in many States of the Union; but will not commit himself further. Insists that he was not the man who packed water to Crater Lake; but this is to be doubted. We feel that he is probably the original cowboy, and will keep the string of horses from jumping over logs, craters, blowholes, etc.

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On account of Elsie's interested discussion of glacial formations in various parts of the world it was hard to obtain an interview; but she was finally persuaded to tell the following bed-time story: "You think something up for me.. I'm too sleepy and tired."

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SUBSCRIBE NOW FOR THE L U N A PRESS!

THE LUNA PRESS
J. SPUTTER-CONE YOLO
Editor

Entered at the Post-office at Craters of the Moon as FIRST-class matter.

SUBSCRIPTION RATES
By Carrier - Pigeon
One day.....Patience
One week...7 hearty laughs
TELEPHONE - NONE

THE BABY PULLS A FAST ONE

Baby Red: "Say, maw, what does Dock Folch do to paw after he operates on him?"
Maw: "Don't know son, what is it?"
Baby Red: "Sews your old man."

ADVERTISING SECTION

This department hereby advertises for business. Our dog is hungry, our wife needs a new hat and all six babies need new hob-nails in their shoes.

MAY 18, 1926.

EXPLORERS SPEND BUSY DAY DOING THEIR STUFF

The scientific party which is now exploring the Craters of the Moon in search for new and interesting features spend a busy day. Led by Clarence (Jack Rabbit) Starcher they left for the high places, shortly after having wormed themselves from their comfortable sleeping bags, and after having partaken of a bit of nourishment which was concocted by the Editor and Cook.

The first place visited was a pile of cinders to the west of camp and a wonderful view of the surrounding country was obtained. After a few minutes rest the leader dashed madly off to the South, having sighted a still higher spot, which he said was very close - perhaps a half hour's walk away. After following in his dust for quite some time it was discovered that the little peak he had picked was in Nevada, and being unable to make it before lunch, a crater was explored instead. This proved very interesting and Professor McCann of the University of Washington explained every little cinder and piece of lava seen there. He also explained why they were there, and after listening to his lecture we are heartily in favor of having his salary raised. He explained that he lost half his last month's wages in a crap game; but was saving the other two dollars for a rainy day.

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Elsie Henft from Spokane, who is a leading scientist, after examining the cinders, stated that they were similar to the ones near the Spokane gas plant. Some of the party, however, disputed this statement, but Elsie changed the subject and the matter was dropped.

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Herman Krug who is from Seattle, and who had not been able to take pictures for more than three months on account of the Seattle fog, delayed the party for some time by shooting right and left, and snapped everything on the route, excepting only the Jack Rabbits. He stated that he enjoyed the jaunt very much, and announced that he would take a little exercise before dinner by taking a hike over into Wyoming or Arco.

Our good friend Rolland Whitmore who is the author of the little saying: "Well, Spring has come and I have fallen in love again, and heavens how I hate it!" stated that this Craters of the Moon stuff was getting into his blood. It was noticed that he paid particular attention to a certain little lady in the party, and the birds whispered that he dated her for a moonlight hike. More will be printed in the Luna columns later on this subject.

J. Alphabet Thomson, the leading jeweler from the city that is windy, (Ellensburg) covered all the territory covered by the balance of the party, even exploring the Indian tunnel where he discovered an icicle never before seen by anyone. It seemed to be growing up from solid rock, and after much preparation Krug took a flashlight picture of it; although Krug doesn't believe it will show, as Athene Clymer was standing in front of it while the picture was being taken. Mr. Thomson stated that outside of being all in, and being badly crippled with a poor foot and also nearly being famished; he felt very well indeed and would be able to go out with the gang the following day.

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Bob Limbert; the galloping explorer, after having taken a twenty-mile ride, caught up with the party just after they arrived at the Bottomless Pit. He demonstrated how a rock after being dropped into it would never come out again, which astonished all present. He then led the party on the trip, which was enjoyed by all, including us and we wished our whole family could have been with us.

WHY RED ISN'T MARRIED

Women, to Red who lived in the hills thirteen months out of the year, were a curiosity. The first one he ever saw he fell in love with. He married her and took her back to the hills with him. In the course of a week he returned to town looking very sad. When asked what was the trouble and where was the bride, he said: "Well, the second day out she fell down and broke her leg and I had to shoot her."

SCANDALOUS ACTIONS OF OUR LEADER

Bob admitted that he took some moving pictures of bear tracks. We disapprove of this altogether. In the first place, he says that the tracks were made 200 years ago, which, in itself, is hard to believe, and we think it inconsistent that <u>moving</u> pictures be made of them. And in the second place, to take a picture right out in the open of <u>bare</u> tracks is immodest and we shall censure any future attempts of this kind.

AN ENTERPRISING MAN OF BUSINESS

Mr. Thomson, the well-known jeweler of Ellensburg, makes a good living but has a hard time doing it. In an eastern city, where he once lived, he was hard pressed by two lively competitors who were situated one on each side of his store. On reaching his place of business one morning, he was surprised and dismayed to see glaring signs on the fronts of the other two shops proclaiming great reduction sales. Our enterprising hero puts over his door the sign "Main Entrance."

HOW ABOUT THIS?

We have a young fellow named Herman,
Who talks to our Elsie in German.
It may be all right,
But we think it's a fright,
For his sweet words we cannot determine.

ADVERTISING

EAT CLYMER DEHYDRATED ONIONS. Especially recommended for fresh air parties in the great open spaces.

MAY 19, 1926.

CRATERS PARTY MOVES CAMP

After much fussing around by the experienced packer, Baby Red Strohmenger, the scientific party started for the southern end of the Craters of the Moon. Red, somehow, was not used to packing horses with ladies around camp and got the packs somewhat unbalanced. The result was much repacking, to the displeasure of all of the party and to himself in particular. He said words which will not bear printing in the Luna columns.

However, after the delay, the party, under the leadership of Bob Limbert made a successful crossing of the lava bed; and after safely arriving on the other side, made the top of a cinder butte, and from that particular place, got a wonderful view of all the surrounding country. Also watched Red and the pack train winding down the old wagon road toward Echo Crater, the new camping place of the expedition party.

After leaving the cinder butte the party visited trench mortar flat, and also saw the bear tracks on the opposite slope. They could be plainly seen from Trench Mortar Flat, and from the looks of things, the bear must have been looking for his sweet Mamma.

All the sputter cones on Trench Mortar Flat were visited and one of them sputtered once more, as Olta, the Luna's Star reporter climbed into one backwards and tried to come out the same way. After some difficulty, she got out without losing very much of her clothing, although she did lose a kid glove.

Mrs. Frank McCann and the worthy Professor McCann of the University of Washington left the party near cinder butte, after eating lunch. They thought that as long as the food was with Red and the horses it would be a good idea to go with them. The Professor doesn't believe in taking any more chances since losing half his month's wages in the crap game.

SPECIAL BY CARRIER PIGEON--MRS. McCANN almost discovers the water hole! Mrs. McCann, wife of F. W. McCann of the U. of W. decided that as long as she had gone on ahead of the party it would be a very fine thing if she could find the water hole so Red could water the horses. She and the Professor walked along the edge of the fissure searching for it until they came to a big pile of rocks, which was the marker left by the Indians in ages gone by. Just then the Professor discovered some rocks which resembled those in the Grand Coulee and he and his wife got so interested in them that they forgot all about the water hole.

Bob Limbert, who knows every square foot of the Craters country wandered about for about an hour before finding the water hole which all had been looking for. He finally decided that it had been moved during his three years' absence. Nevertheless, he found it, and after filling all canteens, cups, coffeepots and kettles belonging to the party, they made camp at the bottom of Echo Crater, where they are now comfortably settled forthe next two days.

PROFESSOR KRUG'S ACCOUNT

The noon meal of Wednesday was eaten in the shade of a large pine tree. There was much sprightly conversation after the mints, with Professor Krug toastmaster. Somebody absent-mindedly dropped a nickel in him and he held forth on

the merits of the molecule, broken and otherwise. From the length of this harangue, the coin must have been a half-dollar.

The professor stated that raw peanuts contain whole molecules and in the roasted fruit these vermin are broken up. But we cannot use this as a positive evidence because he failed to state the number of these small insects. We don't believe he knows.

He also mentioned corpuscles. He says they abound in these hills and gather in herds about the water-holes. THe origin of the "white corpuscles" is now definitely known. The professor says they are those that were hatched in a cave and were raised in total darkness, which caused them to have a peculiar, cadaverous complexion.

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Dr. Felch has requested that the Civic Improvement Club be directed and authorized to provide smoke screens to protect our fellow citizens from the soot produced by the heating plant, but our Editor and Community Manager has indefinitely postponed consideration of the subject since his other official duties are demanding all of his time at present.

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Jack Rabbit Starcher and Cotton Tail Clymer report an interesting trip to the top of a cinder butte early this morning, from which they obtained a panoramic view of the sunrise over the surrounding country which was quite hare-raising in its magnificent grandeur.

MORE ABOUT RED

Red, for the past few days, has been engaged in making a mess-kit. His tools are an ancient toad stabber, a hammer, and a large piece of lava, and we cannot but believe that instead of a mess-kit it will be a messy-kit. His genius and creative ability, however, are not to be doubted. His only trouble is in finding a piece of tin to make it of that is large enough. He nearly succeeded in getting away with the dishpan, but was caught sneaking off with it inside of his vest. His cup is all right and will hold soup even if the dish-washer did cut her finger on its edge. Its main advantage is that Red can drink and shave his upper lip at the same time.

SPECIAL BY RADIO TO THE LUNA PRESS--
PROFESSOR KRUG'S DISCOVERY!

Professor Krug of the Seattle Mountaineers, after much experimenting, has discovered that one dried prune contains more food value than ten yards of barbed wire. It is very likely that he will be cited for this in some of the leading scientific magazines of the country.

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The Craters expedition party now has a FIRE DEPARTMENT. This evening while the chefs were preparing dinner, and were a bit careless, the handle of the coffee pot caught fire. Mr. J.N.O. Thomson, the leading jeweler of Ellensburg, and the Camp orderly, who is always watchful, noticed it not over ten minutes after it had started to blaze. With a loud shout of FIRE! FIRE! he made a dash for it and put the blaze out just as it was about burnt to a cinder. In remembrance of the noble deed he was immediately made fire chief, and in the future will be called "J. Coffee-Pot Thomson".

It has been noticed that Dr. Felch always has a pair of goggles handy while making dogods. The reason for this is that the Doctor, in flipping them, once got one in his eye and doesn't believe in taking more chances.

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FOR SALE--I have for sale one pair heavy elk-hide shoes, complete with hob-nails and a stick of dynamite. The inconvenient placing of certain necessary welts makes sale necessary. Recommended as something good to throw at alley cats at midnight. J. Coffee-Pot Thomson.

MAY 20, 1926.

SCIENTIFIC PARTY EXPLORES THE CAVES

Leaving Echo Crater Camp at 8.30a.m., after having spent a wet and windy night at the bottom of the crater; the party, under the leadership of Bob Yodeling Limbert, started for the famous caves east of Camp. The caves were discovered by Yodeling Bob one day while wandering among the lava flows in search of dehydrated white corpuscles.

The party arrived at Moss Cave shortly before lunch time, and after having explored it, a very sumptuous meal, consisting of crackers, cheese, raisins and hotcake sandwiches was eaten in a little sink hole near by. The meal over, the party entered Amphitheatre Cave, a very marvelous one, indeed, and the only one in existence which Professor F. W. "Fillup" McCann of the University of Washington ever entered in his life. He stated that he never lost anything in a cave in his life; but after Yodeling Bob explained to him that this particular cave resembled a theatre the professor consented to go in, after explaining that once upon a time he had seen something very interesting while sitting in the front seat in his home town theatre. He had to do a lot of explaining to Mrs. McCann, as she had never heard of this before.

On the way down to the cave district, Elsie from Spokane, bestowed much affection upon a Bull Snake. When questioned as to her actions she explained that the chief cook and editor's whiskers had become too long and scratchy and that she had to be affectionate to something. However, the chief cook and editor shaved immediately after arriving at Camp, and now we don't believe the snake has a chance.

Professor Krug, the scientific gentleman from Seattle, gave out a few more scientific facts--confidentially, however--to one of the reporters. He told all about raising babies, stating he knew all about them as he was one himself while young. He also gave an excellent lecture on teeth, false and otherwise. He stated that beautiful teeth were more of an asset than big feet, and told of a lady he once knew who had very beautiful ones, both of them, and one of them was brass. Discussing his recent discovery, he admitted that it was a fact, and also admitted that he was the foremost scientist in the party.

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A new member was added to the Scientific party today when Mex. Carrier Pigeon Morris arrived at Echo Crater Camp for the purpose of shoeing his horses, although we all believe he dropped in to get something to eat. Mex is the only dogod eating carrier pigeon in existence, and in fact can eat two while Baby Red, the Champion Human dogod eater is getting one to his plate. Nevertheless, we are all glad that Mex Carrier Pigeon Morris arrived, and tomorrow when he goes back to civilization he will have messages tied to both legs.

SPECIAL TO THE LUNA PRESS BY RADIO

Clarence Jack Rabbit Starcher, the rambling Cascadian from Yakima and vicinity discovered a new lava flow while hiking back to camp from somewhere in Nevada. Mex Carrier Pigeon Morris will take the news of this discovery out tomorrow and the papers of the nation will have an account of it on the front pages.

RED'S EXPERIENCE

While J. Coffee Pot Thomson was chopping wood tonight, a large chip landed in Red's plate. He didn't know the difference, however, buttered it, and ate it for a dogod. He had quite a time getting it down and broke his gold tooth shifting gears on it. He says he feels pretty good now but gets another sliver in his diaphragm every once in a while.

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After eating lunch this noon in a dry amphitheater, we were all surprised to see Yodeling Bob draw five or six 22-bullets from his pocket and look at them with hungry eyes. It is amazing what some people like to eat. We can't figure whether it is the lead, copper, or the gun powder that attracts him, but perhaps it is the tallow. Prof. Krug was consulted concerning the food value of said weapons of warfare and he stated that if the molecules were completely shattered, they are not fatal.

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Our friend from Boise led us into one cave after the other today and each one was shallower than the others. In one of these, some icicles, much different than the 10,000 others we have seen, were sighted in the narrow cavity ahead. Dr. Dutch Oven Felch became obsessed with the immediate desire to see them and forged ahead. As he crowded out Bob, squeezed past Prof. McCann of the University of Washington and upset Cottontail Clymer, he lost his hat. As his voice faded away in the distance, he was heard broadcasting the following song - "Bring back, bring back, O Bring back my bonnet to me!"

STRANGE DISEASE VISITS CAMP

It is thought that the terrible mental strain occasioned by the severe storm which descended upon Echo Crater Camp last night may be accountable for the lack of responsibility exhibited by some members of the party on today's journey to the caves. Strange to say, the stricken members were all similarly affected. When our leading medical advisor, Dr. Felch, was consulted as to the nature of the unusual malady, after considerable thought and research he was of the opinion that it was a specie of the malady "Lose-itis". The first symptom noticed was when our worthy second professor, Dr. Krug, discovered that someone had misplaced one of the pieces of his specially imported molecule-proof mess equipment. The next case coming to the attention of the party caused much surprise as it was hardly expected that one of the superior intelligence of the Editor would be affected to the extent of leaving his colored glasses in the ice cave. It may be that he labored under the mental hallucination that the coyote inhabitants of the cave would be pleased with such a philanthropic gift for their educational advancement. Dr. Dutch Oven Felch and the other members of the party who were still sane were caused more worry when our leading jeweler of Ellensburg, Camp Orderly and Fire Chief, J. Coffee-Pot Thomson, also became a victim of the affliction by losing his canteen, the whereabouts of which is still a mystery. The rest of the party were able to lead the unfortunate ones back to camp.

LOST--One small boy answering to the name of "Baby Red." Wandered from campwhere his fond parents had left him to the enjoyment of his morning nap while they went on a big game hunt in the luxurious lava beds of Cinder Valley. The mother and father in the lure of the chase followed a chipmunk into an underground tunnel and forgetting to mark their trail became confused and were unable to find their way out for three days, during which time it is presumed the baby awoke, became hungry, and left the domestic domicile in search of nourishment and has not been heard from since. It is possible that a suspicious looking owl which lurks in the vicinity may have kidnapped him. The grief-stricken parents are offering a generous reward, in the form of rare cinder and spatter cone specimens, for any information leading to his discovery. The child will be easily recognized by his winning smile, blonde complexion and torn rompers, which the mother neglected to mend before leaving home on the day of the great calamity.

May 21, 1926.

THE SCIENTIFIC PARTY GOES STILL FARTHER SOUTH

The party of explorers under the leadership of Yodeling Bob broke camp at Echo Crater at 4.00 A. M. this morning, although they did not start on the long traverse southward until 10.30. The reason for the delay was Red. It just seems as though Baby Red has not been around ladies for some time and as there are several good looking ones in camp it seems as though he has lost his head completely. This morning we overheard him calling his favorite horse by the name of "Elsie" and his pal, Mex Carrier Pigeon Morris has been singing "Oh! Olta horses are all right, I'll see you again tonight." So you can all see why the camp broke up so slowly. Then too, A. Cottontail Clymer did a bit of fancy climbing for Bob Yodeling Limbert so he could take movies of her. This is confidential, but Bob Yodeling Limbert put a cork in the lens of the movie camera while turning the crank. It makes no difference, however, as A. Cottontail Clymer will never know it, and we believe that she will be attending all shows thinking that she will get a chance to look at herself.

So it came to pass that after all this monkey business was over and Dr. Dutch Oven Folch had also delayed the game by trying to be real cowboyish with a lasso rope for the benefit of the corked movie camera (he blamed the rope for his failure, but we think it was stage fright) they got started, and made the first fifteen miles in record time.

After waiting and much signalling Red arrived with his pack train and a camp site was located in time for Dr. Dutch Oven Folch to build a super-special Dutch oven. It worked well, and after he had dropped two or three biscuits into each member of the party, they made more noise than that many nickel grind organs.

EXTRA TO THE LUNA PRESS BY CARRIER PIGEON:

It was noticed that the Craters Expedition Fire Chief has been negligent in his line of duty. This worthy gentleman, J. Coffee-Pot Thomson, leading jeweler of Ellensburg neglected Professor F. Fillup McCann of the University of Washington to such an extent that he got his face sunburnt. Such negligence is below the dignity of a man with such a high position as fire chief and we hope to see him punished.

PROFESSOR KRUG AGAIN SOUNDS OFF

Prof. Corpuscle Krug of Seattle and vicinity gave the party an inspiring talk on the molecule this morning while Red Baby Strohmenger was shoeing horses.

He stated that about ten thousand molecules could gather on a pin point, although he couldn't figure out, he said, why they would want to gather there. He stated that so far no one could break one, and Mex Carrier Pigeon Morris, who overheard the talk stated that he thought a good way to fool them would be to hide all the pins and then use a sledge hammer. About this time Baby Red came too and exclaimed that he didn't care whether they were broken up or not, if they had plenty of gravy on them he would eat them anyway.

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The evening of the 20th a strange noise was heard and Prof. Krug asked what it was and when answered that it was an owl, Professor, whose English descent is well-known, said "What in the world is he 'owling about?" However, J. R. Starcher attempted to scale the precipice that leans the wrong way to see the inside of the nest of the owls, and of course was successful. Several other members then wished to go up, but they needed ropes. On the way down Olta left some of her wearing apparel, skin, and other useless articles on the rocks and the owls will probably have plenty of provisions for some weeks to come.

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We don't know what was the trouble, but something unusual went haywire with Joe Sputter Cone today. First, when we had finished lunch, he began a frantic search for his spex. After enlisting the services of everybody in the vicinity and cursing himself in a low but earnest undertone, he finally discovered them on his nose. This episode may be merely an accident, but it also may be an indication of a failing memory.

Again, while seated on top of a cinder cone and looking with anxious and hopeful eyes for Baby Red's and Mex's pack train with all our earthly possessions, Sputter excitedly leaped into the air, grabbed most anyone of our fair members about the neck, and shouted, "There they are! There they are!" He followed their course down the trail for some time, but when Prof. Krug with his phenomenal intuition said he was sure it was not what he was looking for, Joe was forced to own up to it and admitted that what he saw was a mirage.

Again, this might have happened to any one of the party, but that it should happen to Sputter Cone seems ----- well, we won't say it.

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FOUND!! One pair dark green spex on a cinder pile immediately west of camp. If the loser wanted to get them warm, I can suggest that this cone has been cooled off some time. Owner may have spex by applying to me soon. I might add that the molecules are pretty well broken up in them but the ultra violet rays are still able to penetrate. (Signed) Second Professor Herman A. Krug.

May 22, 1926.

SCIENTIFIC PARTY SETTLED IN VERMILLION CANYON CAMP

The Craters of the Moon expedition party, which is looking for new and interesting things in the Craters of the Moon, are finally settled in their new camp. The kitchen is completely equipped, and meals are being turned out regularly by the cooks. Dr. Dutch Oven Folch has turned out two batches of the famous "Splatter Cone" biscuits since building the Super-Special oven last

evening; therefore, all members of the party are extremely happy.

SPECIAL TO THE LUNA PRESS BY RADIO!

Dr. Dutch Oven Folch, J. Coffee-Pot Thomson, leading Jeweler of Ellensburg, and J. Sputter Cone Yolo, Editor and Cook, took a bath this morning in one of the Seven Devil Sink Holes near Camp. This is an unusual event and we are glad to know that there are a few members of the Scientific Party who have ambition enough to climb a thousand foot cinder cone, carrying with them wood with which to heat water. The Devil, No. 3, furnished the water and another one by the name of Bob Yodeling Limbert the tub.

LEFT ALONE

Saturday afternoon the greater part of the Craters expedition left the Vermillion Canyon Camp for a new and unexplored part of the country. The editorship was handed to the reporter by the former editor in the hopes that the Luna Press will be produced regularly. With so much of our talent gone, it doesn't seem as if the paper will amount to much. We hope that Prof. Krug's sending apparatus is in good working order so that we may get a few special articles. With the Doctor left in camp, we are sure that we will not starve, and Mrs. McCann herself would be pretty hard to beat.

We worked the radio this night but we could not get anything. We thought probably there was too much static in the air. Since we have heard about the wild cats and how Elsie carried on, we are sure there was too much. It's too bad we could not get Boise for we would like to have heard more about J. Coffee-Pot Thomson's ring and Dr. Folch's bear.

May 23, 1926.

AN EXCITING NIGHT - GREAT BEAR HUNT

The boys were out for bear last night. In the wee sma' hours a strange noise was heard in the tin-ware. Dr. Dutch Oven Folch gave out the next morning that it sounded like a large bear--probably a grizzly, for the low methodical thuds it made must have been made by a big animal. Our Baby Red became aroused and at once hastened to find some means of protection. He tried to hide behind poor little Mex Carrier Pigeon Morris's back, but in doing so, jabbed him several times in the ribs and, strange to say, Mex woke up. Then Red saw that he would have to bluff it out and dived into an alforcas for some weapon, not, however, before he had put on his rompers. Baby evidently thought the bear might be shocked, or that the commotion might bring forth the ladies of the camp. Well, the first thing he found he dragged out and it happened to be a pair of horse's hand-cuffs. Realizing that these might be futile if the beast were headed the wrong direction, he made another attempt and found his gun. By this time, the Carrier Piegon had clambered out of his nest and when Red raised his hands to shoot his pistol, this bird was standing in a direct line between Baby and the bear. Then Dr. Dutch Oven appeared on the scene. And he was in his negligee. He picked up a handful of rocks and shouted in a hoarse voice for his little friends. His strange appearance so surprised and alarmed the animal that he gave up the ghost and ran, but not before the Doctor had one long look into two gleaming eyes. Red was the only one who had taken time to put on his hobnailed boots, but he wouldn't, and the others couldn't, give chase. And the beast got away, but as it rushed past, the petrified Pigeon saw that it was a rat; the common pack-rat variety.

There is one shady side to this account and something for which we have no explanation. Where was Prof. Frank McCann of the University of Washington? Was he too soundly asleep, was he blissfully ignorant of this dangerous adventure, did it take too long to get his clothes on, or did his wife lay a restraining hand on him as her only means of support? This shall probably long remain in darkness and it is likely that no one shall ever know the answer unless the Professor volunteers an explanation.

A GREAT NEED UNFULFILLED

While the large rat made his visit to our camp and so completely made himself at home it is not only possible, but quite probable, that he ate up a good many molecules and broke up some others. We would like to know the exact amount, but we are not skilled enough in this deep science to determine this. The only authority we know of is Professor Krug and he, at the time, was many miles away. Come back, professor, we need you.

NEW COUNTRY EXPLORED

While Yodeling Bob was herding his band of mountain goats over the lava, the remaining fraction stayed in camp, and the afternoon of the 23d, took a long sojourn over the rocks. Frank McCann of the University of Washington evidently forgot his compass for he headed out in a bee line for Nevada. The other three travelers followed in his wake for several miles, but finally the two members of the fairer sex dropped behind, unable to stand the terrific gait. Dr. Dutch Oven Felch browsed along the way and grazed over considerable territory, gathering many interesting specimens of flowers which he dropped into an alforcas that he had brought for that purpose. Upon leaving camp, Prof. Frank found some lava, which is a very unusual thing to find in this country, and hammered off a piece as big as he could carry. Since he did not have a pack horse along, he had to leave this upon a rock to pick up later, but, confidentially, we do not think he will be able to find it again.

VERMILLION CANYON ROUNDUP

Sunday afternoon when everyone had come home from church and Sunday dinner was over, the Carrier Pigeon got out his ropes and entertained the crowd for some time. He explained in a very scientific manner the correct way to rope and hog-tie one of the super-extra biscuits that Dutch Oven Felch turns out. He also showed the correct way to rope a snake (which may come in handy for Elsie some time) and he got the ground about camp pretty well cleared of sage brush. After doing all the roping he knew and some that he didn't, he tried to teach the reporter and temporary editor some of his stuff with the assistance of the Baby. A good time was had by all.

AN EXPLANATION

Why Baby Red Grew So Big. Some thirty years ago our Baby Red was but a mere youth. As we all know, he lived in New York where they have lots of corn meal mush. His family were all south paws and as they gathered about the mush pot, everyone dipping in from the corner toward Jones', the mush got to circulating to the left. When right-handed Red thrust in his dipper, the gruel piled up on the left side of his spoon and he got about twice his share. This is from a personal interview and if you don't believe it, ask the Baby.

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Mex let loose a startling statement not long ago. He said that for years he had been trying to learn to eat breakfast. One will get the full force of

this joke when he learns that this boy ate 25 hot cakes for breakfast before anyone lost count. This was outside of his regular breakfast which consisted of bacon, coffee, prunes, etc. Dr. Dutch Oven said that the only reason he thought it was not a real breakfast was that he ate so long he thought it was lunch.

May 24, 1926.

SPECIAL DETACHMENT, SCIENTIFIC PARTY, RETURNS TO VERMILLION CANYON CAMP

The detachment of the Craters of the Moon party, which left camp Saturday afternoon, under the leadership of Bob Yodeling Limbert, arrived at 3.30 this afternoon. They stated that they had explored the entire un-explorable part of the southern end of the Craters of the Moon; but many believe that they dropped in for a good feed of Dr. Dutch Oven Felch's super-special biscuits. However, they are here and have many thrilling tales to tell, and many important discoveries to report.

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After leaving camp Saturday afternoon, each carrying his fifty pound pack, many canteens of water, and also filled with food and drink and determination; they hiked as far as Vermillion Canyon proper without rest. When there, they inspected all the sputter cones, lava bombs etc. They were of a different nature than anything seen before and were very interesting.

The thing foremose in the minds of all was whether or not water would be found, and every hole in the fissure, beside which the trail led, was carefully examined. Many water holes were found, although some were entered with difficulty, and in some places the rope was used. Clarence Jack Rabbit Starcher was always first into the water holes and the last one out.

The party arrived at its destination, Lone Butte, just before dark, and after having selected each a spot upon which to place his bed, a cold lunch was eaten, and in the gathering gloom, each one beheld visions of Dr. Dutch Oven Felch bending over the super-special.

Although all canteens were filled at the last water hole, about a mile north of Lone Butte, each drank but a very little, as no one was certain that others would be found, and the route planned for the following day would take the party still farther south. J. Coffee Pot Thomson, whose thirst for water is world famous, nearly died of thirst, although he didn't admit it until on the following day a water hole was discovered within a hundred feet of his bed. He was also worried for fear a fire might break out in the cinders and lava, for what is a fire chief without water? The answer is - nothing.

The following morning, after C. Jack Rabbit Starcher had taken his usual 15-mile before breakfast hike, he awakened the rest of the party, although Prof. Corpuscle Krug, and Bob Yodeling Limbert were missing. Yea, and even were all all their belongings. High and low did their friends hunt them, but in vain. Not until the smell of mush penetrated the dark interior of a nearby cave did they come forth, growling and grunting like hungry bears. A dark looking cloud had frightened them, they said, and they sought shelter in the friendly looking cave, although their fears were in vain, for it didn't rain a bit.

Breakfast over the party headed south, into that part of the Craters of the Moon country which had never yet been explored, and each one was on the lookout for the "Hidden Valley" which was the objective of the scientific party. Little did anyone dream that the night before had been spent just a few hundred feet from it.

The party divided just after leaving camp, Bob Yodeling Limbert leading half of it and C. Jack Rabbit Starcher the other. Bob took the hill to the west, and C. Jack Rabbit, who believes in covering all and everything took the lower levels. He, J. Sputter Cone Yolo, and R. Pot Scraper Whitmore entered a depression just south of camp and the first thing noticed by the worthy leader was a spot which had been cleared of large stones, so that one could have a smooth, level space upon which to place a bed. More were discovered, and then it dawned upon the party that perhaps this particular place might be the hidden valley of Indian legend. A cave, the entrance of which was almost concealed, was next discovered by Jack Rabbit, and after calling the bunch together this was explored, and more traces of Indians found. A hole in the center of the oval cave floor contained the remains of a dead camp fire, extinguished perhaps a century ago. Some obsidian was found near-by by the observing Professor H. Corpuscle Krug.

After exploring the cave thoroughly, J. Sputter Cone Yolo decided that water must be near, and after looking about a bit discovered a small opening between some large rocks leading down and in under the floor of the cave. He squeezed through, and after crawling downward for about ten feet, saw in the dim light which found its way through a crack, a small lake, about three inches in depth, the floor of which was covered with ice. Canteens were filled again and the party hurried on to tell their fellow explorers of their wonderful discovery. They had at last found Hidden Valley Indian Camp.

After catching up with the rest of the party, and telling them of the discovery, all members went southward, following the fissure. Many other water holes were discovered and a couple of large bob cats were scared up, and it is a wonder they were not scared to death, the way Elsie screamed. The place from which they dashed when disturbed by perhaps the first human beings they had ever seen, was named Bob Cat Gulch and a very nice water hole nearby was also named in their honor.

After lunch, eaten near this water hole, the party went on for several hours, divided again, and one-half came back several miles east of the fissure, while the other half took the west route. Many new and interesting things were discovered, and after a full day of good hard hiking, all met at Hidden Valley Indian Camp, to which place all supplies and equipment had been moved, as it was decided that the party spend a night where once Indians held war councils, and danced war dances, and perhaps ate lunches not consisting of molecules, vitamines and dried prunes.

Clarence Jack Rabbit Starcher, who always takes the long way home and gets in first, was hiding in Indian Cave and nearly scared all the sputter out of J. Sputter Cone when he entered with the canteens to fill them from the water hole. After the scare, J. Sputter Cone went down deep into the earth once more, lighting the way with a candle. A minute later with a loud shout, "I found an arrow head" he came backing out faster than he would have had he come face to face with a grizzly. Arriving on top he showed his find to his friends who immediately turned dark green with envy. It proved to be a perfect specimen of obsidian Indian Skinning Knife, and was worth ten million francs, or about eighty nine cents in United States money.

After spending the night, the party arose early and hiked back to camp at Vermillion Canyon, after a short rest started out again to see the Blue Dragon lava flow east of camp, and returned in time for a wonderful dinner, made better with a few of Dr. Dutch Oven Felch's famous super-special biscuits.

SPECIAL TO THE LUNG PRESS BY RADIO!

R. Pot Scraper Whitmore, the expedition mess-kit scraper surprised all near him when he quoted the bible this morning, when he burnt his finger on an overheated mess-kit. He said, "As a man thinketh, so is he," and this little saying nearly floored all who heard it. He then went into the bible extensively, telling of the time when Moses was asked to come forth, but as Mrs. Moses had made waffles for breakfast that morning, he came fifth instead. The knockout came when he shot this one, "For many are called, but few get up." Who would think this of our good friend Whitmore.

PROFESSOR CORPUSCLE KRUG PUBLISHES BOOK

Professor Corpuscle Krug, the man who recently made the wonderful discovery of the prune-barbwire proposition has written a book entitled "How to Eat and Why." Everyone should purchase a copy as it is very interesting. He states that raw vegetables only should be eaten, although he does admit that there is no substitute for a T-bone steak.

TESTIMONIAL. Dear Prof. Krug: Before reading your book on how to eat and why, I had no ambition whatsoever and my friends told me that I wasn't fit to associate with a pig. However, after reading your wonderful little book and following its teachings closely, I am proud to say that I am fit to associate with any pig in the country. Yours for pure and unadulterated molecules.--
J. Garbage Can.

PROFESSOR CORPUSCLE KRUG SHOCKS OATS

In a conversation with the professor the other evening, he stated that the reason he wore his shirt on the outside of his trousers was that it would shock oats. He admits that he sowed a large crop of them while young, and that this method of shocking them is about the easiest one he knows of. The result of all this, however, was failure as far as the oats were concerned, but Olta Blue Dragon Welshons said that the only reason he didn't shock them was because they weren't there.

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J. Sputter Cone Yolo invents a new dish called Cheese Balls. They are very easily prepared by just breaking off a hunk of cheese from the brick, moulding it the same as one would a snow ball and tossing them at the person who asks for them. A little tinfoil mixed in helps a lot, as in taking it out, the person receiving same forgets the dirt on the hands of the mixer. Try them at your tea parties.

LOST--A large unreliable temper somewhere between Blue Dragon Lava Flow and Vermillion Camp. Finder please return to Bob "Yodeling" Limbert and receive everlasting thanks, as the owner and his friends find life quite miserable without it.

FOR SALE--One specially constructed, molecule-proof, biscuit and smoke-producing Dutch Oven. Present operator must leave location tomorrow and is willing to dispose of his equity in this great mechanical triumph at an enormous sacrifice. See Dr. Dutch Oven Falch, C/o Kitchen Department, Vermillion Camp.

May 25, 1926

SCIENTIFIC PARTY RETURNS TO CAMP NO. 1

The Scientific Party which has been exploring the Craters of the Moon, having completed its duties in finally discovering Hidden Valley, and covering nearly all the southern end of the Craters of the Moon country, packed up this morning and got an early start for Camp Number One. All members were up before breakfast and, strange to say, Red Baby had the horses ready in time. Mex was of great assistance in getting them packed and he really deserves a lot of credit for the early start.

But one stop was made on the way North, and that was at Echo Crater where the food left the week before was taken on to replenish the almost exhausted supply, as all members, besides having a lot of ambition have large appetites. Professor F. Fillup McCann almost got to Camp first, and would have, had he not been quite so slow. However, they are all settled in camp, for the last night's stay in the CRATERS OF THE MOON.

PROFESSOR McCANN RECOVERING

Prof. F. Fillup McCann of the University of Washington and member of the Craters expedition is recovering from his recent illness. He has had the foot and face disease ever since entering the Craters, although part of it was caused by the Fire Chief, J. Coffee-Pot Thomson's carelessness in letting him get his face sunburnt. The professor said right out loud this morning, "Let's stay another week." If by any chance an extra week were spent in the Craters of the Moon, the expedition party would have to appoint a dog-catcher, unless the professor should shave in the meantime. He says he cannot do it under present circumstances without first taking an anesthetic.

An ill wind is worth two in the bush, however, for while the professor was in camp watching his beauty flee through a looking glass, he composed a beautiful little ballad entitled "When You Had a Blue Lip and I Had a Big Red Nose." Copies will soon be available at Echo Crater music store. Buy one and help the professor regain the money he lost in the crap game.

SPECIAL BY RADIO!

Mex Carrier Pigeon Morris discovers lava: Mex C. P. Morris, who has lived near the Craters of the Moon all his life so far, while trailing O. Blue Dragon Welshons yesterday afternoon discovered lava. This is remarkable, for he is one of the very few natives of this part of the country who is so observing. He says that he thinks there is other lava here than that he saw, and says he hopes to see it before he spends the rest of his life. The inspiration for all his efforts was a tall girl wearing high-top hob-nailed boots, and overalls rolled to the knees.

HERMIA CINDER CONE THOMSON EDITS PAPER

H. Cinder Cone Thomson, the clever daughter of J. Coffee-Pot Thomson, leading jeweler of Ellensburg, and Expedition Fire Chief and Camp Orderly, took over the duties of Editor J. Sputter Cone Yolo while he was looking for new and interesting things at the southern end of the Craters of the Moon. Miss Cinder Cone Thomson proved so efficient at this work that it was with difficulty that the editor proper regained his position. Even though the young lady is very clever we would advise her never to take up the duties of editor, as editors are

usually dependent upon outside help to keep the bob cat from the back door.

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A. Cottontail Clymer, while touring the West side of the lava flow in her two cylinder hob-nailed boots, accidentally found an obsidian arrow head. That is, she says she found it. This, however, is not the truth, for she told the editor before starting for the Craters that she would take along a few of her best specimens, and use them in self-defense. It was the finding of the obsidian knife in Hidden Valley Indian Cave by J. Sputter Cone Yolo that caused her to spring it on the gang last evening.

EXTRA TO THE LUNA PRESS BY CARRIER PIGEON

Crazy man visits Vermillion Canyon Camp. Last evening, while the scientific party was gathered 'round the evening camp fire, seeing who could spring the biggest one, a wild looking individual appeared in the distance and, after hesitation, walked up near the camp fire. Professor Corpuscle Krug, of Seattle and vicinity, who was one of the first to get sight of him said: "Rope him and hog-tie him." He thought it was the editor, J. Sputter Cone Yolo, trying to throw a scare into the party. However, as the stranger came into the fire light, Prof. Corpuscle Krug found that he was badly mistaken, for the man was about eight feet tall, had tangled grey hair, a short beard, and wore a mustache also. Bob Yodeling Limbert, who then spied him, and who is a keen observer of human nature, seeing murder in the crazy man's eye, walked right up to him and greeted him thuswise: "Hello, Pard, where you going?" The crazy man mumbled something, after which the Yodeler formally introduced himself, although there was a waver in his voice while he did so. Mrs. McCann, who could tell by the poor old man's look that he had had no food for perhaps a month, thought it would be a nice thing to do to feed him a bit before sending him on his journey to the Lost Valley, where the old gentleman said he was going. J. Coffee-Pot Thomson, Camp Fire Chief and Orderly, and Leading Jeweler of Ellensburg, volunteered to feed him, although he was trembling so he could hardly hold the ham while cutting off a generous slice. This the old gentleman took and as he ate it he growled like a hungry wolf. It could be plainly seen that he had no teeth, and J. Coffee-Pot Thomson, noticing this, gave the man one of Dr. Dutch Oven Felch's super-special biscuits. He ate this in one bite, and called loudly for more.

Just about this time, Bob Yodeling Limbert, who had finally settled the question that the man was wild and crazy, ran over to the editor, who was writing up the evening copy of the Luna Press, and stated in a low excited tone that a crazy old blankety blank had entered camp and was about to commit murder. He then made a wild dash for his gun, which he had carelessly left on his bed nearby. Meanwhile part of the bunch gathered 'round the camp fire were shivering with fear and the rest of them, Cottontail Clymer, E. Bobcat Hanft and O. Blue Dragon Welshons were giggling in a silly manner. Mrs. M. Carry McCann, fearing that this would make the old gentleman very angry, feared with a great fear, but couldn't say a word on account of it. Professor McCann from the University of Washington gave out nothing but silence and very little of that.

The party did not realize that they had been the victims of a joke until the Editor, fearing for the safety of our super-special biscuit shooter, felt it necessary to calm our excited leader, Bob Yodeling Limbert, with the news that the mysterious stranger was none other than the good Dr. Dutch Oven Felch. The Editor had assisted in disguising him with whiskers made from radio packing. Bob, however, was the only good sport in the bunch, as he admitted he was completely fooled. The rest, with a few exceptions, stated that they knew all the time who it was.

EXTRA TO THE LUNA PRESS BY RADIO!

MEX CARRIER PIGEON MORRIS, who is with the Craters Expedition for the purpose of taking care of the horses, and doing other odd jobs, is getting acquainted with the bunch little by little, and is giving out a lot of information about the Indians who used to inhabit the wilds of the Craters of the Moon country. One thing of particular interest he told of was the Indian dogs. He stated that the Indians who used to roam the lavas used to have two different kinds of dogs, the difference between the two varieties being that they both barked. Except for that they were just exactly alike.

Elsie Bobcat Hanft, the scientist from Spokane, who discovered that the cinders in the Craters of the Moon country were similar to those at the Spokane gas plant had an exciting day. After taking a goodly portion of the Editor J. Sputter Cone Yolo's extra soft and sweet mush, she and A. Cottontail Clymer started out to follow C. Jack Rabbit Starcher. She claimed upon returning to camp that she had covered more territory than ever before in all her life. She was just able to get into camp without assistance; but after partaking of some more of the good editor's mush she is doing nicely and will be able to take a moonlight hike later in the evening.

RED BABY DOESN'T WANT TO GO HOME

Red Baby the packer, who has been with the Scientific Party ever since leaving Boise, states that he is getting used to being around the Gang and wants to stay. He admits that when he first met the Craters party members he thought they were a bunch of nuts, and now, after having associated with them for about ten days he knows that they are; but he is getting so he likes them. It isn't strange, however; we didn't like olives the first time we ate them.

SPECIAL BY CARRIER PIGEON

Prof. H. Corpuscle Krug, scientist from Seattle, gave an interesting talk on automobile construction. He states that the latest in automotive engineering is the India rubber crankshaft. This he says will absolutely eliminate knocks and recommends that Red Baby have one installed in his Buick, as he says it sounds like a dozen woodpeckers. Professor Krug is also an inventor, having once invented an automatic windshield cleaner for a bicycle.

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MRS. M. CARRY McCANN, Wife of Prof. F. Fillup McCann of the University of Washington, and member of the Craters Scientific Party, who is the lady who almost discovered the water hole several days ago, states that she is going to discover a water hole before returning home if she has to go to Boise to do it. She also states that the reason that J. Coffee-Pot Thomson, Fire Chief and Camp Orderly and Leading Jeweler of Ellensburg, has had such poor success with his fire department was because he has had no water. "Water pure and plentiful" is her motto! We are with her 100 per cent.

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Dr. Dutch Oven Folch, biscuit maker and actor, seems to be all in this evening. He says that O. Blue Dragon Welshons was a bit too speedy when returning to Camp No. 1 this afternoon, but we believe that he made such a successful imitation of Jackson of Lost Valley last night that he really thought he had made the trip. He may recover, however, and be able to construct one more super-special before leaving the Craters of the Moon.

R. Pan Scraper Whitmore quoted more bible this afternoon stating that a bird the hand gathers no moss, and that people who live in glass houses should dress the basement. R. Pan Scraper has been eating many lemons of late and this ght be largely responsible for his many bright remarks. It may be, however, that is because he is about through with his duties as official pot and pan scraper, he stated that something was rotten in Copenhagen when this job was assigned him.

SPECIAL BY CARRIER PIGEON

We are astonished at the appearance of R. Pan Scraper Whitmore when he turned from the trip to the unexplored land. A young man in love in the Spring ould be more attentive to his clothes. If he needed extra pockets he should put em in places where they are more handy. As it is, he is greatly in need of pair. From all we have heard, Elsie, the Scientist from Spokane, should be le to fix him up, If he is afraid he might come out of the repair shop with s various layers of clothing joined, we might suggest that he insert a tin ate under the first layer before the seamstress begins her art. Some more of s Bible quoting heard lately is "Let not man put asunder what God hath joined gether." Also "A stitch in time saved mine."

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LAST APPEARANCE. On the way in from Vermillion Canyon Camp, H. Corpuscle rug delivered one last long address to various members of the party. He gave me interesting side lights on the Indian language with various illustrations. he gist of this lecture was that the less the Indian speaks, the more he says. is is contrary to the rule concerning some people's use of English. The lecture s closed with the remark that all good men die young, and he didn't feel any o well himself.

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OVERLOOKED

In going through our files we find that we have neglected to publish a pecial dissertation on "Women" composed some days ago by our versatile leader, b Yodeling Limbert. With apologies for the delay, we now print our friend's teresting observations:

It is the opinion of Bob Limbert that the little lady who just looked over shoulder is the bunk and fully deserves to be tossed into a crater. Person- ly, I think that the blue bandana that she wears around her head is a wow. The dy sitting beside her, who trys to impersonate an Irishman on St. Patrick's Day "Wearing of the Green" is some hiker as I noticed she sort of took the lead in ossing the lava.

Well, it's a great life if you don't weaken but believe me, following dines around lava flows will put any man off his feed and it ain't love either. k Red. When a fellow gets to calling a girl "Ma" when he has never seen her fore it is enough to try the patience of Job. On second thought when I use my agination I can seem to see Shakespeare peeking around from behind these lava cks and saying "what fools these mortals be!" Referring, I suppose, to the dies present, as the sterner sex are supposed to be fool proof. What can you pect of girls who sleep out in the open in the Craters of the Moon and then t the moonshine come down on them. The Moon, "Luna", meaning crazy, and, say, t us suppose "tic" meaning woman. Get me? Consequently, crazy woman. You n't live with them and you imagine you can't live without them. What's a poor

fellow going to do? I've met a lot of women, but I never saw any real he-women until I made this trip into the Craters and endeavored to ride herd on them. The next guy that says the ladies are the weaker sex I am going to punch in the nose, even if it is Elsie's little cherub Red. You simply have got to take off your hat to the ladies--at least you ought to--but when they get to bobbing their hair, wearing men's trousers and throwing orange peelings at a fellow it is time to quit.

Oh, yes, about this said Elsie. I thought she was a go-getter the first time I saw her, but today she had to spoil it all by getting out some knitting. Well, that all goes to prove that when a man judges a woman he is liable to be wrong.

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So ends the last issue of the Luna Press, named by the good Professor F. Fillup McCann of the University of Washington, and also ends our glorious stay in the Craters of the Moon. A bright full silvery moon shines down on us from the clear blue star-lit heavens. Fleecy clouds float over the dimly outlined mountains in the distance. The lavas glimmer in the moonlight, and a soft breeze blowing through the pines adds to the charm of it all. Everything bids us linger a while; but the call of duty is the stronger call, and we must leave. We owe our good friend, Bob Yodeling Limbert, oceans of thanks for it all; it was wonderful, and some day we hope to, in a measure, repay him for all his kindness. Our friends, Mex Carrier Pigeon and Red Baby we regret to leave behind; they have added a lot to our pleasure while we were here and we want to meet them both again, and each and everyone hopes that he will. Until then, they, and our Good Friend Bob have the best wishes of each and every member of the Scientific Party of Explorers, 1926 Expedition, Craters of the Moon.

LUNA PRESS NOW SIGNING OFF



J. Spatter Cone
Editor

Below is menu for dinner eaten by Scientific Party May 18th. Each and every member was an ambitious eater and declared that there was no substitute for a square meal, and some members requested square dogods. During the last few days of our stay the dogod stock dropped below par, as Dr. Dutch Oven Felch got the super-special oven into full production, and the biscuits he made were so good that no one cared about the shape. "GOOD FOOD AND LOTS OF IT" was our motto.

MENU

Tuesday — DINNER — May 18th

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HAM
A La Limbert

Corn, off the cob

DOGODS AND BUTTER
Herman Krug Specials

POTATOES ANY STYLE
Just so they're cooked

DRIED APRICOTS
Athene Clymer special

TEA
By Doctor Felch

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SCHEDULE OF ASSIGNMENTS FOR CAMP DUTY
CRATERS OF THE MOON EXPEDITION

COOKS
Dr. Dutch Oven Felch
J. Sputter Cone Yolo
Prof. Corpuscle Krug

WOOD AND WATER
R. Pan Scraper Whitmore
C. Jack Rabbit Starcher
F. Fillup McCann, Prof.U.of W.

CAMP ORDERLY AND FIRE CHIEF
J. Coffee-Pot Thomson, Leading Jeweler of Ellensburg

COMMISSARY
Elsie Bobcat Hanft
Mrs. M. Carry McCann
Olta Blue Dragon Welshons

DISHWASHERS
Athene Cottontail Clymer
Hermia Cinder Cone Thomson, daughter of J. Coffee-Pot Thomson, Camp Orderly and Fire Chief and Leading Jeweler of Ellensburg

Grocery Department

FALK MERCANTILE CO., LTI

UNITED STATES FOOD ADMINISTRATION
LICENSE NUMBER G-13677

PHONE 97

Boise, Idaho, 5-1-17 192-

Name Ernest Hale

Address Craters of Moon Exp.

Check	Quan.	ARTICLES	Weight	Price	AM
	2	5# Kraft Amer Cheese			4
	8#	Sid Choc			
	15#	Rice Grains			
	2	# Rice	6	45	
	5#	Self Rising Flour			
	2	9# Pancake Flour			
	4	Cart Pea Oat	18	20	
	2	9# Y Corn Meal			
	1	pkg Rich Macaroni			
	10#	Plain Oats			
	10	Carnation Milk			
	1	pk Spuds			
		~~Evaporated Spuds~~			
	1	can Corn			
	1	can Tomatoes			
	1	# Prunes			
	10#	Dried Peaches			
	2	[illegible] Apricots			

33

CRATERS SONG

(As sung by the Scientific Expedition Party)

Tune: Battle Hymn of the Republic

We are taking in the wonders of the Craters of the Moon,
We would like to stay forever, but we must be going soon,
So we're following Bob Limbert, as he yodels us a tune,
While we go marching on.

Chorus-
Glory, glory, hallelujah, etc.

We have slept upon the bedding that we brought in little rolls,
We have drunk the icy water from the many water holes,
We have crossed the fields of lava; lots of hob nails in our soles,
And we are marching on.

Chorus-

We have eaten of the dogods, cooked upon the open fire,
They were filled with coals and cinders, they would make a fellow mire,
But nobody was complaining, though a new cook they would hire,
And they went marching on.

Chorus-

We have built us a dutch oven, with some cinders and some rocks,
And our radio is with us in a black and heavy box,
And the movies that we've taken will give many people shox,
and start them marching on.

Chorus-

We have crawled through caves and tunnels filled with bats and rats and moles,
We have climbed up to the summit of all cinder buttes and knolls,
Now we'll have to be a goin', for our clothes are full of holes,
So we'll be marching on.

Chorus-