

THE VOLCANO LETTER

A Weekly news leaflet of the Hawaiian Volcano Research Association

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KILAUEA REPORT No. 784

WEEK ENDING JANUARY 19, 1927

Section of Volcanology, U. S. Geological Survey:

T. A. Jaggar, Volcanologist in Charge

There are three things happening in Halemaumau pit of Kilauea Volcano that show increase during the past week. There is a movement registering earthquakes on the seismographs: there is marked increase of avalanches in the pit; and there are yellow sulphurous patches on the debris slopes which are increasing in area. The combination means disturbance both chemical and physical, and lava eruption may follow, but the effects are not yet unusual enough to justify a forecast.

On January 13 dust from a small slide rose at 1:40 p. m. There were many small slides the next day. On the 15th dust hung over the pit after 11 a. m., and at 11:43 a. m. avalanche roar was audible at the Observatory. Small avalanches continued, dwindling in afternoon. The pit was left with northern walls scarred, and at 4 p. m. northern, western and southern walls were uneasily scaling off. Fresh debris lay on the talus slopes. The seismographs did not respond to avalanching this forenoon, but local quakes were registered the previous day, this afternoon and the day following. About 3 p. m. January 16 came a small earthquake, a big avalanche roar and a cloud of gray dust. Again the pit walls were steadily working, and a mass of red debris had fallen on the north slope. Spicy sulphur was smelled at the south rim, and the yellow solfatara below had increased in area. The slipping of rocks in the pit from the walls continued on the 18th, particularly near the Kau Desert rift tunnel.

During the week the seismographs recorded 29 local earthquakes, all very feeble. On the 13th, 14th and 15th the seismographs showed the greatest activity as on these three days most of the earthquakes for the week occurred. These three days as noted above were also the most active days for slides in the pit. One of the earthquakes, larger than the others but still not large enough to be perceptible, occurred at 5:07 p. m. on the 14th and lasted over two minutes. No avalanche was observed coincident with this quake, although it was somewhat larger than the shock above noted at 3 p. m. on January 16. There was, however, red avalanche debris produced at about this time.

Tilt accumulated during the week has been very slight to the east.

THREE PRESS REPORTS

Confirmation, denial, or explanation of the following, from those who have been there, is invited by the **Volcano Letter**:

(1) At Ballybunnic, on the west coast of Ireland, the Atlantic rollers, making great fissures by breaking down

the cliffs, finally reached masses of iron pyrite and alum. Rapid oxidation took place by contact of water with these, which produced a heat fierce enough to set the whole cliff on fire. For weeks the rocks burned like a volcano, and great clouds of smoke and vapor rose high in the air.

(2) A dispatch from Dutch Harbor of December 31, 1926, states that Mount Makushin, on Unalaska in the Aleutian Islands, erupted the evening of December 30 with "fountains of fire and masses of vapor," making a spectacular display. A slight earthquake accompanied the eruption and there was fear for the safety of Makushin village.

(3) The boiling springs of Iceland are piped underground and used, not only to heat the houses, but to warm and water greenhouses and gardens. The warm water hastens the growth of flowers, vegetables, and fruits. "Near the largest geyser at Reykjavic a large greenhouse has been built." Iceland can compete with the Channel Islands in growing early potatoes, vegetables, and flowers.

We did not know the Icelandic geysers were at Reykjavic, no added facts have been seen about the Makushin eruption, and we would like to know the date and details of the Ireland story. T.A.J.

FIGHTING IN LASSEN AA

A remarkable story of the Modoc Indians is told in a popular book on Lassen National Park (The Kingship of Mount Lassen, by Mrs. F. H. Colburn; Nemo Publishing Company, 628 Mills Building, San Francisco). These Indians lived in a lava country. Captain Jack, a young Modoc chief, secreted in a lava cavern which still has a bad name, made headquarters in an inaccessible ridge of aa, flanked by deep ravines, fissures and masses of boulders. Here with one hundred and fifty followers he conducted depredations against the whites.

Lieutenant Colonel Wheaton fought 52 Indian braves with 400 U. S. troopers January 17, 1873. He reported to the War Department that "the boulders ranged in size from a matchbox to a church. Captain Jack's stronghold was in the center of miles of rocks, fissures, caves, crevices, gorges and ravines—some fully 100 feet deep. In my twenty-three years of service, mostly fighting Indians, I have never before encountered an enemy, civilized or savage, occupying a position of such natural strength as the Modoc stronghold. Nor have I ever seen troops engage a better armed or more skillful foe."

The fight lasted from 8 a. m. to 10:30 p. m. when the troops retreated to their camp 15 miles away. They had fought all day without seeing an Indian! Little puffs of smoke through a hole in the lava was all they had to guide their attack. Added to the difficulties was a fog so dense that the parties could not communicate. It was bitter cold. Because of the incredibly rough lava surfaces the soldiers were obliged to advance crawling on their hands and knees. It was utterly impossible to recover the dead, and they had great difficulty in removing the wounded. The attack was a complete failure.

This Lassen book contains very beautiful photographic illustrations of the volcano's eruptions and boiling springs, a life of Peter Lassen, descriptions of the country and its pioneers, and a map of the Park. Its pretensions are rather literary and poetic than geological. T.A.J.