

THE VOLCANO LETTER

A Weekly news leaflet of the Hawaiian Volcano Research Association

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No. 162

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February 2, 1928

KILAUEA REPORT No. 836

WEEK ENDING FEBRUARY 1, 1928

Section of Volcanology, U. S. Geological Survey

T. A. Jaggar, Volcanologist in Charge

There has been nothing new observed at Halemaumau pit. The week has been stormy with northeasterly wind and rain. A little sliding from the walls was observed January 28, and sulphur is reappearing at the bottom of the talus E and SE. Today there is increased avalanching on the north walls of the pit. Thirty very feeble local earthquakes have been registered at Kilauea for the week. Microseisms have been normal.

LASSEN REPORT No. 15

Mineral, California, January 16, 1928

R. H. Finch, Associate Volcanologist

On December 21, 1927, the temperatures of Morgan's main hot springs varied but slightly from previous measurements of October. Some of the smaller springs near Mill Creek channel show increase of temperature and decrease of outflow. In one of these in October, some larvae of presumably a large fly were living in water at a temperature of 168 degrees F. In December there were still more larvae, and the temperature was 195 degrees F. On each occasion the larvae appeared very much alive.

At 8 a. m. December 30, R. H. Finch and O. H. Emerson left Mineral to try for an ascent of Lassen Peak. The cabin at Supan's solfatara was reached at 2 p. m. While the snow was not as deep as last year at a corresponding date, snowshoes were needed all the way. At Supan's (the 'Sulphur Works'), the snow was about four feet deep as compared with about six feet last year. All small streams showed less volume than a year ago. Owing to high wind and dense steam clouds, a satisfactory temperature reading of the largest steam vent at Supan's was not obtained, but indications were that it was as hot as when measured in October, 1927 (240° F.). Owing to heavy snow storm, no attempt was made to complete the ascent, and Mineral was reached on the return December 31 at 2 p. m.

AGE OF LASSEN CINDER CONE LAVAS

By AUSTIN E. JONES

The following preliminary notes on rough field application of the Chevallier method (Volcano Letter No. 45; Nature, October 3, 1925, p. 515) to Lassen lavas are of

interest. The method assumes the magnetic declination of the outcrop to preserve the declination of the year of solidification. Mr. Finch writes that Mr. Austin E. Jones, assistant at the Lassen station, and he had found evidence of a source fissure in this flow marked by a NW-SE line of cones. Mr. Jones writes:

"August 30, 1927, I made rough experiments with a Forest Service surveying compass by Keuffel and Esser. (Lat. 40° 32' N., Long. 121° 15' W. Magnetic declination 19° E.). Loose lava blocks showed magnetic declinations varying up to 20° from the earth's field here. A traverse was run, checked by backsighting, to a large reddish outcrop on the east side of the lava beds between Butte Lake and Snag Lake. The magnetic field of this outcrop was found to have a declination of 14° 9' east of north. This was close to a small red cinder cone on this edge of the lava beds.

"Traversing across the beds, a black rock was found giving declination 16° 7' east of north. This had smooth surfaces and was part of a fissure eruption frozen in place. The ridge had precipitous sides 20 to 40 feet high, was 50 feet thick, and indicated a former fissure for more than 100 yards.

"Assuming equivalence to Redding, California, the nearest magnetic station, and extrapolating for the declinations at ten-year intervals 1810 to 1920 (Smithsonian Physical Tables), the older rock cooled between 1794 and 1797. Interpolating for the newer rock, it cooled in 1832. The probable error is within 10 years.

"If the lava underlying the Cinder Cone ash were examined, it should prove much older than either of the other two flows, and should help date Cinder Cone itself."

ALASKAN NOTES

Associated Press notices of December 7, 1927 (Seismological Dispatches of Georgetown University) say that many square miles of land are rising in upper Cook Inlet. Small boats here have gone aground in waters formerly deeper, and places formerly covered by several feet of water at low tide are now only reached by the highest tide, which has a range of 34 feet at Anchorage. (The same thing has been observed in eastern Japan.)

A notice of December 8 states that two volcanoes on Unimak had been smoking for ten days, after a season of unusual activity in the Aleutians. The smoke and vapor is stated to be "in comparatively small quantities."

Lake Kenai, 20 miles northwest of Seward, is reported to have been severely shaken by three earthquakes December 9. Cabins swayed, but no damage was done. Juneau experienced a rattling earthquake for 30 seconds at 10:02 a. m. December 31.

T.A.J.

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