

are brought to the attention of the author will receive due consideration.

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#### SPECIAL ARTICLES.

MONT PELÉ FROM OCTOBER 20, 1903, TO MAY 20, 1904.

THE publication in the daily papers of the statement that Mt. Pelé had celebrated the second anniversary of the destruction of St. Pierre by a heavy eruption, has renewed popular interest in the volcano. A few days before the appearance of this item, the author received, from a correspondent in Dominica, information that Mt. Pelé had been in serious eruption on May 8 and had blown out the new central cone. Inquiry at the office of the American Trading Co. in this city elicited the statement that letters from their representative in Martinique, under date of May 11, made no mention of the volcano, which would hardly have been the case had there been a great eruption.

To-day copies of the *Journal Officiel de la Martinique* for May 10 to 20 have come to hand and the following quotation (translation) of the 'Bulletins concernant le volcan' will be of interest:

*May 4 to 6, 1904.*—Mountain almost constantly covered. Discharge of vapor moderate. A few rather heavy rumblings from time to time. Some shattering was produced at the top of the dome. The height has slightly diminished.

*May 6 to 8, 1904.*—Mountain constantly covered. Discharge of vapors very feeble Saturday morning, becoming rather abundant Saturday evening and Sunday (8th). Several discharges (flows) accompanied by rather heavy rumbling.

*May 8 to 9, 1904.*—Mountain remained constantly covered. Discharge of vapor rather abundant.

*May 9 to 10, 1904.*—The mountain which was covered in the morning, became clear after five o'clock in the afternoon. Moderate discharge of white vapors. Several rumblings. The summit of the dome has risen about five meters since April 26.

*May 11 to 12, 1904.*—Mountain covered during the day and free from clouds at night. Moderate discharge of white vapors. Frequent rumblings.

Yesterday evening from 5:30 to 6 o'clock outbursts of rather thick red clouds to slight elevations succeeded one another almost without interruption from the southeast side. At 7:45 a rather bright luminous point appeared near the middle of the dome.

*May 12 to 13, 1904.*—Mountain clear in the afternoon. Rather abundant discharge of white vapors mixed with red vapors. Several rumblings, one of which was very heavy, yesterday at 10:25 P.M.

*May 13 to 15, 1904.*—Mountain almost constantly covered Saturday and uncovered yesterday. Several low outbursts of red cloud. Many rumblings. Moderate discharge of vapors. Yesterday morning at 9:50 a dust-flow of slight extent descended slowly as far as the base of the talus of debris.

*May 17 to 18, 1904.*—Mountain almost constantly covered. Some flows and rumblings Monday. Nothing noteworthy yesterday.

*May 18 to 19, 1904.*—Mountain constantly covered. Nothing to note.

(Signed) PERNEY.

Since October 19, 1903,\* the history of Mont Pelé has not been characterized by any very startling events. The dome which has formed the summit of the mountain since the famous spine or obelisk was destroyed in August, 1903, has suffered many minor changes in altitude and form which have altered its appearance entirely from what it was at the beginning.

The history of the dome, as gathered from the *Journal Officiel*, is as follows:

*October 21, 1903.*—Loss of 5 m.

*October 22.*—Loss of 3 m.

*October 25.*—Slight modifications.

*October 26.*—Additional modifications.

*October 29.*—The dome has suffered certain changes; its height has been stationary for several days.

*November 3.*—The dome has suffered certain modifications of form without change in altitude.

*November 5.*—A considerable portion of the dome was blown off at 11:34 A.M.

*November 8.*—The dome rose 4 m. between the 6th and 8th.

*November 10.*—The dome seems to be destined to rapid disappearance on account of successive outbursts on the southwestern side.

\* See Hovey, 'Mont Pelé from May to October, 1903,' SCIENCE, N. S., Volume XVIII., p. 633, November 13, 1903.

*November 11.*—A needle, 15 m. in height, which existed on the western part of the summit of the dome, has disappeared.

*November 15.*—The dome has suffered rather extensive changes.

*November 16.*—The summit of the dome has undergone additional modifications.

*November 22.*—At 8:30 A.M. an outburst destroyed a noteworthy portion of the dome.

*November 27.*—Loss of 3 m. in altitude.

*November 29.*—Additional modifications of the dome reported.

*December 2.*—The dome has suffered important changes and has lost through outbursts 10 m. of altitude.

*December 10.*—A large mass was blown off from the eastern side of the dome.

*December 11.*—Loss of 8 m. in altitude.

*December 13.*—Additional changes on the eastern side.

*December 17.*—Certain changes of form.

*December 27.*—Slight modifications noted.

*December 31.*—Loss of 3 m. since the 26th.

*January 3, 1904.*—The dome has undergone many changes. The remains of the ancient spine rise rather rapidly while the other parts of the dome, which seem stationary, are reduced by almost continual avalanches.

*January 7.*—A part of the dome has risen 3 m. since the 2d.

*January 8.*—Rise of 3 m.

*January 12.*—Slight modifications without change of altitude.

*February 3.*—Slight modifications.

*February 25.*—Modifications of form without change of altitude.

*February 28.*—A large mass fell.

*March 6.*—Loss of 3 m. in altitude since January 25. The southern portion of the dome is reported partly destroyed.

*March 13.*—The altitude of the dome is reported stationary.

*March 17.*—Sensible modifications noted.

*March 27.*—Gain of 3 m. since the 18th.

*March 29.*—Some modifications of form without change of altitude.

*April 3.*—Rise of 3 m. since March 27.

*April 15.*—The summit of the dome has risen about 5 m. since April 3.

*April 20.*—Rise of 3 m. noted.

*April 25.*—The summit of the dome has risen about 5 m. since April 20.

*May 6.*—Slight loss of altitude.

*May 10.*—Rise of 5 m. since April 25.

*May 20.*—Gain of about 5 m. since May 10.

Summarizing the foregoing notes, there was a continual loss of altitude of the dome from October 19 to December 31 inclusive, with the exception of three days in November when the dome rose 4 m. The net loss of altitude in this period appears to have been about 28 m. The daily bulletins are unsatisfactory in that 'modifications' are noted from time to time without any statement as to their character.

On January 3, Professor Giraud reports the important fact that the remains of the great obelisk which towered above the volcano in the early part of 1903, were again rising with reference to the remainder of the new cone. The daily reports from that time on say nothing further, however, with regard to the spine. A period of elevation set in with the beginning of January, 1904, with a rise of 6 m. during the first eight days of the year. Then for eleven weeks, the altitude remained stationary, except for a loss of 3 m. during the first week in March. With the 27th of March, the rise seems to have become nearly continuous and amounted to 29 m. in eight weeks (to May 20), giving a net gain of 32 m. since January first.

Whether this applies to the summit of the new spine which was reported rising early in January or not, the losses which took place in the altitude of the mountain during the last months of 1903 were regained during the first five months of the present year.

The activity of the volcano, which was so great during September, 1903, as to seem to threaten a first-class eruption, gradually diminished during the last quarter of the year, and there have been apparently few noteworthy outbursts to chronicle during the past four or five months. Few days, however, pass without clouds of steam rising from the crater, accompanied from time to time by dust-flows down the gorge to the Rivière Blanche to the southwest or across the basin of the Lac des Palmistes to the east.

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