ERUPTION OF NYAMLAGIRA.

SIR,—I have received a letter from Dr. J. Verhoogen, of the Laboratory of Applied Geology in the University of Brussels, in which he gives a vivid description of the eruption now proceeding at Nyamlagira, one of the largest volcanoes of the Virunga (or Bufumbiro) group in the Kivu region of the Belgian Congo. It may be of interest to transcribe some of Dr. Verhoogen's observations. Dr. Verhoogen says :—". . . as one of these volcanoes, Nyamlagira, has been kind enough to erupt, all my time is spent in watching this eruption of a rather peculiar type. The eruption has lasted now (April 17) about eighty days, and the daily output of lava amounts to no less than one million cubic meters. . . . The mechanics of the eruption seem to be quite complicated, as the lava does not merely flow out from a fissure. Besides the actual source of the lava stream, there is a lava pool in which the lava enters on one side and goes out on the opposite side, and a few small cones belching gigantic yellow flames and occasionally also incandescent material. I have not yet been able to figure out whether the lava actually flows out from the pool into the lava stream, or whether the circulation in the pool is caused mainly by convection. I have not figured out either what is the use of the cones, as they are born and die out without any apparent change in the lava pool, or in the temperature or output of the lava stream. The sight at night is magnificent, and the whole thing is stimulating material for geological thought, as nothing seems to work according to theory. . . . As this volcano has been permanently active for nine years (Hawaiian activity) it is hoped that when this eruption ends the lava will return to the main crater."

In another place Dr. Verhoogen says that the new crater, the lava pool, the cones, and the source of the lava, etc., are located 3,000 feet below the actual caldera, and wants to know whether there are any known examples of volcanoes of Hawaiian type in which the whole activity which is usually displayed in the crater may be displaced to the foot of the volcano, either permanently or temporarily. Possibly Nyamlagira has been built up to the maximum height and size permitted by the available volcanic energy, and the heavy basaltic lava is now breaking out in fissure eruptions on the flanks and at the foot of the structure. According to the observations of H. T. Stearns and W. O. Clark (Geology and Water Resources of the Kau District, Hawaii, *Water-Supply Paper* 616, *U. S. Geol. Surv.*, 1930) the typical Hawaiian shield volcanoes appear to be approaching this stage.

G. W. TYRRELL.

THE UNIVERSITY, GLASGOW.
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