Lava Stream of May 27, 1905.

IN the months of April and May of this year Vesuvius began to show an increased activity, and in the crater, which was about 80 metres in depth, a small cone began to form; it increased rapidly, and by the middle of May had risen to a height of about 15 metres above the level of the enclosing crater.

From May 25 to May 27 violent explosions occurred, which were heard in all the villages on the mountain-side,

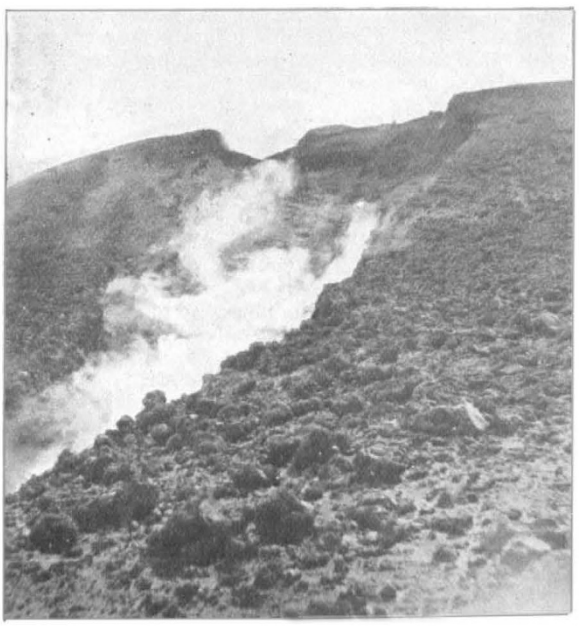

FIG. 1.—Source of lava stream of August 26, 1903. From a photograph by Prof. G. Mercalli, taken April 15, 1904.

and were accompanied by the ejection of much red-hot and liquid matter. These explosions ceased almost suddenly on the evening of May 27, and at about 6.45, a small lateral outlet, "A," burst through the north-west flank of the great cone at a height of about 1245 metres, and at the point where a seam in the mountain-side showed where the traces of the last eruption of August 26, 1903, still lingered.

A few hours after the first, a second outlet was formed, then a third, "B," both lower down, at an altitude of

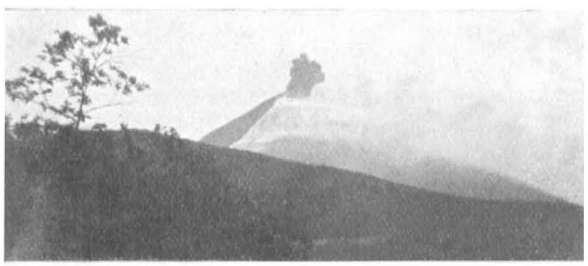

FIG. 2.—Vesuvius as seen rom the Observatory Ridge, May 29, 1905. From a photograph by Prof. G. Mercalli.

about 1180 metres, and both westward of the first, and nearer the station of the funicular railway.

For some weeks lava issued from these outlets and flowed down the mountain-side in two parallel streams, which from Naples had the appearance of two lines of fire running down the slope of the great cone; towards June 25 the current from "A" ceased, but the stream from "B" continued, and flows more actively than before.

On reaching the base of the great cone (800 metres), the lava piled itself up in the space between the cone and the hill formed by the lava-flow of 1895; a stream branched off, first toward Mount Somma, but afterwards in a south-south-west direction, and a small stream more fluid than the main body ran to within a short distance of the electric railway which plies between the observatory and the lower funicular station. Near the fumarole "B" a small heap of scoriæ (a driblet-cone), about 4–5 metres in height, has sprung up; but apart from the explosions attendant on its formation, and which only lasted a few days, there has been no disturbance in the regular flow of the great streams.

The line of white steam seen in Fig. 2 shows the position of the outlets and the course of the lava streams as seen from the observatory ridge; the black smoke issuing from the crater indicates the cloud of non-incandescent dust which was cast up after the partial falling in of the walls of the smaller cone on the summit.

We may perhaps attribute the frequency in these latter years of the lava streams from lateral outlets to the increased height of Vesuvius (now about 1330 metres), for the column of fluid lava, when inside the cone, is forced up to a higher level and exerts greater hydrostatic pressure on the sides of it, which are, moreover, much seamed. Formerly, when the mountain was lower, as, for instance, between the years 1840 and 1850, the lava streams generally flowed from the top.

The Millport Marine Station

SINCE the efficiency of such an institution as a biological station is so largely dependent upon the completeness of its library, I do not think any apology need be offered for appealing to those readers of NATURE who are interested in marine biology for assistance in an endeavour to bring together for the use of those working at the Millport Marine Station as complete a collection as may be possible of works having any bearing on the fauna and flora of the European seas. The station already possesses a considerable proportion of the more important monographs, as well as a number of useful pamphlets; but there are still lacking many reference works of importance, and I am sure that copies of some of these will exist among the duplicates in many a naturalist's library. I would also urge the claims of the Millport Station upon the generosity of authors for separate copies of any papers they may publish; and in this connection it should be noted that the council of the association has recently agreed that all material intended for private research shall be supplied absolutely free of charge.

This occasion may also be utilised to point out some of the advantages which the Millport Marine Station offers to the research student. The fauna of the Clyde area is an extremely rich one, and the water in the vicinity of the station is of most remarkable purity, so that even quite delicate species can be readily kept alive in the tanks. A small steamer, the *Mermaid*, specially built for scientific research, is constantly at work during the summer months, and brings in daily an abundant supply of material. The tank-room, only part of which is open to the public, has recently been greatly extended, and now has facilities which are probably unsurpassed anywhere for the accommodation of invertebrates and the smaller vertebrates; the tanks are mostly of glazed fire-clay, and capitally adapted for observation and experiment. Besides a well-equipped private research room, there are seven screened compartments in the general laboratory affording ample accommodation for nine students, while a large class-room recently added has benches for forty-five students.

The station is lavishly equipped with apparatus of all kinds—for instance, the student will find here every facility for advanced physiological work. In fine, I think it may fairly be claimed that nowhere in the British Isles will the student find facilities for research on marine biology such as exist at Millport; and, indeed, I know of no marine station elsewhere which can, all things considered, offer greater advantages to the biologist. Lastly, it may be mentioned that although the fees are very low, there is never any difficulty in arranging for a free table.

S. PACE (Director).

Millport Marine Station, N.B.