

The amount of mud thrown out by the volcano is beyond all calculation, as all the streams reach from the top to the bottom of the mountain, a distance of four or five miles. There was no lava thrown out. The greatest number of lives lost was on the north-eastern side, on account of that side of the mountain being the location of several hot-springs resorts, and owing to the fact that the first discharge ran down on that side. At Nagasaki, a small hamlet near the volcano, a great number of lives were lost by a flood, which it appears was occasioned by the damming-up of the creek on which the hamlet is situated. The darkness which occurred at the time of the explosion extended for some ten or fifteen miles, and very small particles, like mist, fell much further.

— The sealer 'Jason,' says *Nature*, has arrived in Norway from the Greenland coast, and reports that the expedition under Dr. Fridtjof Nansen, which is to cross Greenland from east to west, left that ship on July 17 in latitude 65° 2' north. An ice-belt about ten English miles in width separated the ship from the shore, but it is believed that the members would have no trouble in crossing this, the floes being large. Dr. Nansen intended to land in the Sermilik Fiord, which is inhabited. Previous attempts at landing had failed on account of rain and fog.

— Paper relief-maps for teachers of geology and physical geography, designed by Prof. William M. Davis of Harvard College, for use in his lectures to students and teachers, are advertised by J. H. Emerton, 11 St. James Place, Boston, Mass. Being made of paper, they are much lighter and stronger than plaster relief-maps, weighing only one or two pounds each, so that they can be held in the teacher's hand, hung on the wall, or used in any position desired. They are large enough to be seen across the largest school-room, — about three feet long, a foot and a half wide, and from two to four inches high. The development of a river in a plain is shown in five maps; the development of rivers in a broken country, in three maps; a river traversing a mountain (Uintah Mountains), in two maps; the development of zigzag ridges (Appalachian Mountains), in two maps; the changes in the rivers of a country, caused by glacial drift (Canadian drainage), in two maps; river-terraces (New-England drainage), in three maps; changes in the position of divides, in three pairs of maps; and a volcano series, in six maps.

— The New York Mineralogical Club took excursions, Sept. 8, to Inwood, N.Y., and Saturday, Sept. 15 (probably the closing trip of the season), to Hoboken, N.J.

— We have received the prospectus of the Massachusetts Society for promoting Good Citizenship, and also a list of works on civil government which its committee on reading recommend. The object of the society is declared to be, "to disseminate a knowledge of the principles of good citizenship, and to promote the observance of the duties imposed thereby," and especially to encourage the study of political history and political philosophy. With this end in view, a committee has been appointed to examine the various text-books and other works on political science, and give the results of their examination to the public. The first of their reports is now before us, and is a description and criticism of works on the national and state governments of this country. The judgments of the committee are thoroughly independent, and, so far as we can judge, judicious. They evidently do not mean to recommend a worthless book; and their comments on the various works examined by them cannot fail to be useful both to teachers and to private students. Persons wishing to join the society may address the secretary, C. F. Crehore, M.D., 87 Milk Street, Boston.

— The October number of *The Chautauquan* contains 'Gossip about Greece,' by J. P. Mahaffy of Dublin University; 'Greece and Modern Civilization,' by Herbert B. Adams and William P. Trent of Johns Hopkins University; 'Solon, the Athenian,' by Thomas D. Seymour of Yale University; 'Greek Mythology,' by James Baldwin; 'The Circle of the Sciences,' by Prof. A. P. Coleman of Victoria University; 'Philanthropy,' by Prof. Richard T. Ely of Johns Hopkins University; 'The Policy of Russia in the East,' by C. K. Adams, LL.D., president of Cornell University; 'Memories of Professor Baird,' by G. Brown Goode of the National Museum; 'Yucatan,' by J. Hendrickson M'Carty, D.D.; 'Engi-

neering Feats in the West,' by Ernest Ingersoll; 'Mound-Making Ants of the Alleghanies,' by Dr. H. C. McCook; 'On a Bronze Buddha at Washington,' by Charles de Kay; and 'The Possibilities of Culture,' by Bishop H. W. Warren, LL.D. — The September *Cosmopolitan* was published this month on the 10th. Besides its principal attractions, is 'The Adventures of a Lion-Tamer,' a graphic story of Barnum's trainer of wild beasts. — Prof. Arthur T. Hadley's article in *Scribner's* for October, on 'The Railroad in its Business Relations,' will throw much light on the questions of rates, pooling, and government control. — The publishers of Worcester's dictionaries, J. B. Lippincott Company of Philadelphia, announce that they have ready an entirely new edition of their 'Academic Dictionary.' While this book is a revision of their well-known 'Academic Dictionary,' so many new features have been introduced that it was found necessary to reset the type entire. The 'New Academic' presents as a new feature the etymology of words. In orthography great attention has been paid to usage, analogy, and etymology in deciding disputable points. In pronunciation the book not only gives the preference of Dr. Worcester, but exhibits at the same time that of the leading lexicographers. The same publishing firm also announce a new edition of the 'United States Dispensary.' The revision has been thorough, and not merely the addition of a supplement. More than one-third of the book, or nearly eight hundred pages, is entirely new matter, while the whole work has been rewritten. The 'National Formulary' has been incorporated.

LETTERS TO THE EDITOR.

The Corean Potter's Wheel.

THE Corean potter's wheel consists of a circular table from two to three feet in diameter and four to six inches thick, made of heavy wood so as to aid in giving impetus to it when revolving. In general appearance it is not very unlike a modeller's table. This arrangement is sunken into a depression in the ground, and revolves easily by means of small wheels working on a track underneath, the table being pivoted in the centre. The wheel is operated directly by the foot, without the aid of a treadle of any kind. The potter sits squatting in front of the wheel, his bench or seat on a level with it, and space being left between his seat and the wheel to facilitate his movements. With his left foot underneath him, he extends his right foot, and strikes the side of the wheel with the bare sole of the foot, causing it to revolve.

P. L. JOUV.

Washington, Sept. 12.

Poison-Apparatus of the Mosquito.

MY former notes on this subject (*Science*, Aug. 26, 1887; *Proceedings of the American Association*, 1887) require amendment in the following respects: (1) the poison-fang is single, being in fact the hypopharynx, as was suspected by Dimmock; (2) the paired branches of the poison-duct run backwards into the prothorax; (3) the secreting-glands are in two paired systems, one system on each side in the prothorax. Each system consists of three trifoliate glands, the mid-gland being poisonous, and the lateral ones salivary; the three ductules uniting into the branch of the poison-duct of its own side. The other details are as before described.

G. MACLOSKIE.

Princeton College, Sept. 15.

Answers.

36. DOUBLE FRUIT. — A note in *Science* of Sept. 7 prompts me to say that in 1851 I resided on a lot in this city on which was a large number of fruit-trees, including peaches and plums of several varieties each, with cherry and apple trees. The crop of fruit was very large, and specimens of double fruit were very common on all the trees, including peaches, plums, cherries, and apples. Many of them were but slightly attached at the stem; others, two perfect specimens, attached through their whole length. In the garden double cucumbers were common. Doublets of the same kind were common in the market that season. I cannot answer as to the blossoms, having noticed nothing peculiar about them except their abundance.

JOHN J. JANNEY.

Columbus, O., Sept. 16.