

the specimens sent by Sergeant Applegate with those collected by Lieut. Stoney, and found them to be the same, hornblende andesite.

When we compare the lava from Bogosloff with the volcanic sand which fell at Unalashka, we find them identical in mineralogical composition. Both are composed of triclinic felspar, with prominent zonal structure, augite, hornblende, magnetite, and ground-mass, with microlites and a small proportion of amorphous matter.

Dr. T. M. Chatard, of the geological survey, made a partial analysis of the volcanic sand from Unalashka as well as of the lava from Bogosloff. The former contains 52.48%, and the latter 51.65%, of silica. Fearing that an error had been made in the analysis of the lava, Dr. Chatard repeated the determination, and obtained the same result. That the percentage of silica contained by each should be nearly the same, can be readily understood; but that the lava should contain less than the volcanic sand which is composed of the same material, apparently with a larger proportion of basic minerals, was unexpected. Hornblende-andesite lavas rarely occur with such a low percentage of silica, and in this respect the one from Alaska is closely related to those in the Siebengebirge and Hungary. It is evident that the felspar contained must be very basic, probably anorthite. The optical properties of the felspar point in the same direction for the angle of extinction when symmetrical is over 30°. Hypersthene, which is such an important constituent of the lavas in the Cascade Range, has not been discovered in any of the lavas yet examined from Alaska. J. S. DILLER.

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Action of pollen on seed-coats and pericarps.

I am confounded by a statement, given as if of a well-known fact, which I read in the 'Science bulletin' of No. 101. At a meeting of the Academy of natural sciences, Philadelphia, Dec. 16, —

"Mr. Thomas Meehan called attention to an ear of Indian corn received from Mr. Landreth, the grains on one side of which were of a rich brownish-red color, while those on the other side were of the usual pale yellow tint. On the boundary-lines several of the grains were partly red and partly yellow, thus proving that the result was not the effect of cross-fertilization, as had been asserted in other instances of change of color. It would indeed be strange if corn were the only plant in which such change of color was produced by cross-fertilization; yet in the case of no other species had any such change been observed."

The sentence I have italicised is the confounding one. It is hard to believe that such a veteran horticultural editor and copious writer as Mr. Meehan is not acquainted at first hand with some of the horticultural literature upon this curious subject (extending from the year 1729 down to our own days), and which asserts that in various instances just such change has been observed. It is harder to believe that a writer who has shown such a critical familiarity with Mr. Darwin's writings should have entirely overlooked a section in chapter xi. of 'Variation under domestication,' vol. i., beginning on p. 397, in which the principal observations (convincing to Darwin's mind as to the facts) are brought together, and the sources referred to. One wonders how the fact that some of the grains of corn were partly-colored in the case described, *proves* 'that the result was not the effect of cross-fertilization,' party-coloration in the flowers being a well-known effect of cross-fertilization, according to good authorities. A. G.

THE PEABODY MUSEUM AT NEW HAVEN.

THE Peabody museum in New Haven stands on the corner of Elm and High streets, just without the *campus* of Yale college. Like most buildings devoted to science in America, it occupies only a part of the large lot, — a fact not designed to typify the unfinished state of zoölogy, but merely resulting from lack of funds. In the present case there would, perhaps, have been no building at all, and the collections, had any of consequence been accumulated at Yale, would have remained stuffed into garrets and cellars, had not the philanthropic George Peabody given a sum of money, in 1866, to erect a house for them. Thanks to the financial prosperity of Massachusetts, the bonds for a hundred and fifty thousand dollars had greatly increased, and those set aside for the first wing of the building had become worth a hundred and seventy-five thousand dollars when the trustees began to build. With that sum they have erected one of the finest buildings, for its purpose, in the United States, — a lofty and ornamental structure of red brick and cream-colored stone, whose broad and numerous windows express the desire of the investigators within for all the light they can get.

Let us begin our survey at the bottom. Entering the basement-door, a blind man, or at any rate a blind naturalist (if such there be), would know where he was by that smell of old alcohol with which biologists are so familiar. It is safe to wager, ten to one, that every visitor to these lower regions will remember and quote a certain line from 'The tempest,' act ii. scene 2.

This pungent odor rises chiefly from the possessions of the U. S. fish-commission, deposited for sorting and examination under the eye of Prof. A. E. Verrill, who is chief of the zoölogical part of the museum, or by some of his associates. Duplicates of these submarine and littoral specimens, secured in the government's deep-sea dredgings, go to Professor Verrill, and large quantities deposited by him in the museum have been arranged for exhibition.

In another part of the basement, Prof. O. C. Marsh keeps 'greate store' of fossils, cleaning the gigantic bones from Rocky-Mountain quarries preparatory to study and display. Considerable paleontological property of the U. S. geological survey is under inspection here also. A score of expert helpers, with Oscar Harger as chief of staff, assist; one of whom