

Frost Plants.

PROFESSOR McDUGAL's article in *Science* for Dec. 29, 1893, and especially Professor Atkinson's notes in the *Botanical Gazette* for January, 1894 (p. 40), prompt me to record another fact tending likewise to show how hard it is to make an absolutely new observation in science, and how slightly what are afterwards found to be interesting facts of science are apt to impress us when first discovered. I was driving one day last summer through the section where Mr. Mason and I had seen the frost flowers of *Cunila* in company with Mr. William Hunter, now of the National Zoölogical Park, but who was reared in that country, and has recently become thoroughly acquainted with its flora, furnishing me from there a large number of additions to my flora of Washington and vicinity. As we passed the spot I pointed it out to him and told him there was where we saw the frost-freaks. With perfect naïveté he replied that he had been familiar with them all his life, having played with them when a school-boy at the village of Accotink, hard by!

LESTER F. WARD.

Coral Reef Formation.

I HAVE just seen Dr. Le Conte's note concerning "Coral Reef Formation" in *Science* for Dec. 8, p. 318.

I am sure that all who are interested in the study of coral formations will be grateful to Dr. Le Conte for calling attention to his paper, which is of much importance. In my search for whatever had been written on the subject I intended to be thorough, but I wholly overlooked the paper referred to. I greatly regret that this is so, for not only does the oversight leave my account incomplete, but does, although quite unintentionally, injustice to one whom all scientists delight to honor, and I am very glad that Dr. Le Conte did not allow the matter to pass unnoticed. I hope that any who may read my paper in *Science* for October 20 will also add the note in *Science* for December 8.

GEORGE H. PERKINS.

University of Vermont, Dec. 27, 1893.

Earthquakes in the San Juan Mountains.

ABOUT midnight the morning of Jan 1 an earthquake shock was felt at Silverton, Red Mountain, Ouray, and other points in the San Juan Mountains. Another came at half-past one, another at three, another at four, and again at half-past seven. No clocks were stopped, and the times are only known approximately. Windows and dishes rattled, walls and roofs creaked, a sound as of a team rushing over the snow was heard, in one miner's cabin on the mountain a stove was overturned, and in small houses the floors distinctly trembled and reeled. Most of the shocks were accompanied by a single loud sound, as of a heavy blast—a familiar sound in these mountains. These noises were very distinct in the mines at Red Mountain up to 600 feet in depth. Similar shocks came at intervals for two days and three nights after the first. The wide extent of country over which the phenomena were substantially the same makes it probable that these shocks proceeded from some point at a distance. No one seems to have been able to perceive the direction of propagation. Did they proceed from some distant volcanic eruption?

GEO. H. STONE.

Ouray, Colo., Jan. 6, 1894.

An Explanation of the Rope of Maggots.

THE "Rope of Maggots" which Mr. Jones described in *Science* of December 29 was due to the larvæ of a fly belonging to the genus *Sciara*, of the family *Mycetophilidae*,

a genus which includes many species. The phenomenon, while it has been but seldom observed in America, has been long known in Europe, especially in connection with the larvæ of *Sciara militaris*, which derives its specific name from this peculiar habit. The maggots are known as the "Heerwuerme" or, in English, the "army worms." We have several species in America which are closely allied to *S. militaris*, and it is perhaps the larvæ of some one of these species which formed the "rope" in the case mentioned. I have never seen any reason given why the larvæ congregate and travel in this way. They do not feed on carrion.

S. W. WILLISTON.

Petrified Eyes.

Is it known that the crystalline lens of the eye has ever been petrified in homogeneous quartz? I have never seen or heard of such a thing except in a popular school geology, and do not believe the following statement, which is taken from the book:

"A monster, some thirty feet long, with jaws nearly a fathom long, and huge saucer eyes, which have since been found so perfect that the petrified lenses have been split off and used as magnifiers."

Have such lenses ever been found, or is this merely the material of which elementary science books are formed?

GEO. G. GROFF.

Lewisburg, Pa.

"Do Earth Worms Rain Down?"

IN *Science* of Jan. 5, under the above caption, Charles B. Palmer refers to the old-time notion that worms, frogs, fish, etc., rain down as one seldom mentioned by intelligent people except in the way of ridicule. That this notion is yet entertained by many will appear from what follows. A few days ago I presented this subject to a class pursuing the study of zoölogy, and several stated they had found fish and frogs after a rain on land where before no water could be found. A young man, of undisputed intelligence, declared that about two years ago, in this city, children on their way to school picked up fish as they fell on the sidewalk in a rain storm and brought them to the school where he was in attendance.

On Jan. 20 a wind unusually heavy for this section prevailed in Nashville. Rain fell abundantly in the latter part of the day. In the evening seven young men were standing under the awning of a certain store when they heard a sudden splash, mud and water being thrown on one of the boys and upon the corner post of the awning. Their attention was directed to a living creature about five feet from the pavement, which they succeeded in capturing. The specimen was brought to me for identification and proved to be a full grown sword-shaped salamander (*Amblystoma xiphias*), measuring ten and three-fourths inches in length. Upon questioning the young men I obtained the following testimony: They did not see it falling; they did not see it in the air; they heard the splash; in falling it buried itself in the mud and water; they were fully persuaded that it had rained down.

The following day I observed earthworms on the brick pavement. This fact and the occurrence of the above species in mid-winter away from winter quarters, together with the facts that butterflies, moths and grasshoppers were seen on the wing on Christmas Day, that a butterfly (*Agraulis vanillae*) emerged on Jan. 15 in a breeding cage which had been kept in a cool room, that the phœbe has been spending the winter with us, and that such flowers as the ground ivy and dandelion have been in bloom, will suggest the mildness of the winter we have experienced up to the middle of January.

WM. OSBURN

Nashville, Tenn., Feb. 1, 1894