

raises the question as to whether condensed water vapour may not be the trap which catches the dust.

I contemplate carrying out a series of experiments to answer the following questions:—

(1) Under given conditions what difference of temperature exists between a plaster area backed up by lath, and an adjacent area not so protected?

(2) What part does the presence of water vapour in the air play in the phenomenon?

(3) Can a "reversal" of the phenomenon be produced?

THOMAS D. COPE.

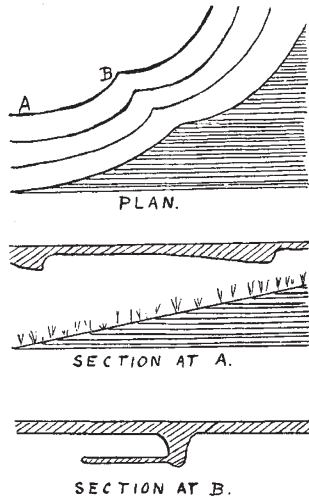
University of Pennsylvania, Philadelphia,
December 18, 1914.

Curious Forms of Ice.

ON December 30, 1914, when a heavy rainfall had been followed by a night frost, a layer of prismatic ice was seen immediately below the surface of the heaps of loose clay, in shallow workings in clay-with-flints at the south-west end of Walton Heath, Surrey. The workings are near the crest of the North Downs, at an elevation of about 600 ft. The ice varied from $\frac{1}{2}$ to $1\frac{1}{2}$ in. in thickness, and resembled the form of calcite known as "beef," but even in the most compact portions the prisms were not in close contact with one another. When observed, about midday, the ice was melting, and the sides of some of the heaps were strewn with isolated prismatic and acicular crystals of ice.

This prismatic layer of ice is similar to the ice pillars described in NATURE (vol. lxxiii., 1906, pp. 464, 485, and 534), and analogous to the masses of fibrous ice connected with lumps of chalk, recorded in NATURE (vol. lxxxviii., 1912, pp. 484 and 517).

On the same occasion, shallow pools of rain-water on Walton Heath and Headley Heath were seen to be covered with thin ice, which showed a series of concentric markings parallel to the margin. These markings were formed by ridges on the lower surface of the ice, presenting an abrupt face toward the margin and a gentle slope toward deep water. The ice in the ridges contained air bubbles. The ridges were about 4 in. apart, and in some places as many as seven in number. At points where the direction of a ridge changed, as at B in the figure, a tongue of ice projected downward and sometimes supported horizontal rods of ice half an inch below the surface.



These projections may be analogous to the "bulb formation" referred to by writers in NATURE (vol. lxxxviii., 1912, pp. 414 and 492, and vol. lxxxix., 1912, p. 34). The ridges differ in cross section and direction from those described in NATURE (vol. xc., 1912, p. 411). The pools did not show signs of loss of water by percolation. At first sight I regarded the ridges as earlier shore lines, marking successive extensions of the pools as water flowed into them, but the parallelism and equal spacing of the ridges are perhaps against this view. They may possibly be due to ripples.

G. M. DAVIES.

Birkbeck College, London, January 12.

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The Fireball of December 31, 1914.

I AM writing to tell you that I also observed the fine meteor described in NATURE of January 7 (p. 517) as having been seen at Bexley Heath on December 31 at about 11.15 p.m. I saw it from my window, facing the west, and I cannot better your description of it as "a fireball, much brighter than Venus."

Its course was from north to south, rather low down, and the sky at the time was clear above, but misty below. The meteor disappeared without leaving a luminous track behind, and seemed to dip into the mist.

I did not notice what stars it passed near, as the moon was shining; possibly there were not many just then distinctly visible.

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THE PHILADELPHIA MEETING OF THE AMERICAN ASSOCIATION.

THE sixty-sixth meeting of the American Association for the Advancement of Science was held at Philadelphia, Pa., on December 28, 1914—January 2, or, as it is termed, during the Convocation Week, 1914-15, under the presidency of Dr. Charles W. Eliot, President Emeritus of Harvard University. The Section on Education of the A.A.A.S. is a comparatively new one, and this was the first meeting at which a member of this section has been president of the Association.

The meetings were, almost without exception, held in the commodious buildings of the University of Pennsylvania; the only exceptions being the meetings of Section E of the Geological Society of America and the Palæontological Society of America, which were held at the Academy of Natural Sciences in the central part of the city.

At the opening session, December 28, 1914, the meeting was opened by the retiring president, Prof. E. B. Wilson, of Columbia University, who introduced president-elect Eliot. Addresses of welcome were given by Dr. E. F. Smith, Provost of the University of Pennsylvania, by Dr. W. W. Keen, President of the American Philosophical Society, by Dr. S. G. Dixon, President of the Academy of Natural Sciences, and by Mr. J. M. Dodge, representing the Franklin Institute.

Dr. Eliot replied to these addresses, and the retiring president, Dr. Wilson, then delivered his address on the subject "Some Aspects of Progress in Modern Zoology," which is printed elsewhere in this issue of NATURE.

After the adjournment of the meeting, the provost of the University and Mrs. Smith received the association and its affiliated societies in the University Museum.

The meeting was a very large one, possibly the largest in the history of the association. Registration figures indicate that there must have been more than two thousand scientific men and women in attendance. The number of affiliated societies meeting at the same time and place was also unusually large. It included the following societies:—

Society of American Bacteriologists, Entomological Society of America, American Association of Economic