

In the valleys which have, for example, a west-to-east direction, and which were crossed by the ice moving from north to south, the plastic ice *ascended* the slopes which faced towards the north; and also did it ascend on the fjelds when it moved *up* a valley, a phenomenon which, we know, is not at all uncommon.

A second short paper, by Mr. Helland, gives a table of the dimensions, heights above sea-level, and depths of twenty Norwegian lakes, from which it is seen that these lakes are, as in the case of the Italian lakes, deeply excavated below the sea-level; thus, for example, the bottoms of the Horningsdalvand and of the Mjösen lie respectively 432 and 331 metres below the level of the sea.

Without speaking of other short papers, we will note that the "Year-Book" contains some practical information on guides, on the regulations relative to hunting and fishing, and finally, the Annual Report of the Committee of the Society. It will be seen from this Report that the Association is rapidly developing; during 1875 the number of Fellows increased by 230, and reached, at the end of the year, the number of 1,247, of whom 166 are foreign Fellows, 63 belonging to England.

A. L.

#### OUR BOOK SHELF

*British Manufacturing Industries.* Edited by G. Phillips Bevan, F.G.S. Shipbuilding, by Capt. Bedford Pim, R.N., M.P.; Telegraphy, by Robert Sabine, C.E.; Agricultural Machinery, by Prof. Wrightson; Railways and Tramways, by D. Kinneir Clark, M.Inst.C.E. (London: Stanford, 1876.)

THIS ought to be one of the most popular volumes of this instructive series, the contents are so varied, the subjects so generally interesting, and the amount of information conveyed so large. The various writers, moreover, have managed to treat their subjects in a manner that will be understood and enjoyed by even the most general readers. Capt. Pim is evidently quite at home in his subject, which he writes about in the spirit both of a sailor and a Member of Parliament. Of course only the merest sketch of so large a subject can be given in the space at his disposal, but in that space he contrives to convey a substantial amount of information, commencing with the log which conjecture makes the first form of boat, down to the latest armour-plated ship-of-war. He writes in rather a desponding tone of the present condition of British shipping, both in the merchant service and in the navy, and thinks our country behind others in modes of construction. Our navy is evidently far from perfect, and those who have its control, if they have also the welfare of our country at heart, would do well to weigh Capt. Pim's criticism. One of the surest remedies is undoubtedly the rigid application of scientifically-conducted experiment to shipbuilding. Mr. Sabine gives a very complete sketch of telegraphy as an industry, of the various forms of telegraph, their construction, the instruments in use, and the materials employed. He, too, indulges in some wholesome criticism, which those who provide the means for constructing telegraphs would do well to peruse. Prof. Wrightson (of Cirencester Agricultural College) gives a very instructive account of the multifarious machinery now used in the various operations by which agriculture is carried on, from clearing and ploughing the land to preparing crops and stock for market and consumption. Mr. Clark gives much valuable information on the construction and working of railways, showing the progress made since they were first started, describing some of the latest improvements and most

important enterprises, and entering into details as to cost, revenue, and other points, which all who are interested in railways will find useful. His short notice of Tramways is also interesting; their cost of construction will surprise many, if not the large earnings which they make. Altogether, the volume is one of varied and genuine interest.

#### LETTERS TO THE EDITOR

[The Editor does not hold himself responsible for opinions expressed by his correspondents. Neither can he undertake to return, or to correspond with the writers of, rejected manuscripts. No notice is taken of anonymous communications.]

#### Miniature Physical Geography

UNDER this title there is a brief but very interesting article in NATURE, vol. xiii. p. 310, describing, among other things, some miniature earth-pillars at Bournemouth. These are due to the slight protection afforded by a hard seam in the sandy rock to a more friable layer beneath, when the whole is undergoing denudation by rain. It is a thing which I have seen more than once; but in the district of Luchon (Pyrenees) during the present summer, I have come across instances of earth pillars in miniature, yet more perfect than the above. The most striking case was on a slope in the wood on the right bank of the Cascade d'Enfer (Val de Lis). This slope consisted of a rather tenacious clay, filled with small angular fragments of granitoid rock. A slip, or the action of rain, had formed a little corrie half a yard or so wide, and on both sides of it the slope was studded with earth pillars, more or less perfect, each capped by its little stone. These caps were rather tabular in shape, generally from a quarter of an inch to an inch broad. Several of the pillars were so exactly models of those at Botzen, that, if drawn on the same scale, they could not be distinguished. The sides of the large pillars are furrowed and fluted by little rills of rain; so were these. Boulders smaller than the great capstone are imbedded in the matrix of the pillars, and, themselves exercising a protective influence are supported on brackets or pilasters of earth; so was it here; yet all this on the tiniest scale, for the largest and best-formed pillar had a general height of only about  $1\frac{1}{2}$  inches, rising on one side about as much again above the bed of a miniature ravine. I also saw a large number of similar but more stumpy pillars by the side of the path from the Port de la Picade to the Hospice de France.

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#### Visual Phenomena

THE letter of Mr. Arnulph Mallock (NATURE, vol. xiv. p. 350) has very much interested me, having recently found that my vision is an exception to that of other persons whom I have tested in the matter.

For instance, I see the light of *distant* street lamps clearly defined without any diverging rays proceeding from the points of light.

Possibly this peculiarity of vision may partly account for my having glimpsed the two outer satellites of Uranus with a refractor of only 4.3 inches in aperture, during the last opposition of the planet, and which caused some discussion when my observations were read before the Royal Astronomical Society.

I have also been successful in detecting very faint stars close to brighter ones with comparatively small telescopic aid.

I may remark that I am long-sighted, as I can read the columns of NATURE readily between the distances of twelve to thirty inches, though my more convenient reading distance is about sixteen inches.

It would be interesting to ascertain whether there are many such exceptions to the "visual phenomena" pointed out by Mr. Mallock.

I. W. WARD

Belfast, Sept. 5

ALTHOUGH there can be little doubt that the explanation of the long streaks of light seen on examining a bright point through a half-closed eye, which is given in NATURE, vol. xiv. p. 350, is the right one, and may be proved to be so in other ways than those noted, yet I think the Fig. 5, which is supposed to represent the course of the rays of light, ought not to