

for the presence of fresh littoral shells in 100 fathoms, we require the assistance of waves of sufficiently long period to affect the bottom at that depth, and to this extent theory in the case of ordinary ocean waves will not go.

In a paper submitted last year to the Dublin Society (*Proc.*, vol. iv. p. 241) I recorded observations of waves with an average period of  $3\frac{1}{2}$  minutes, and suggested that these waves arose from wind pressure on the surface of the sea; it would be interesting to know at what depth such very long, though irregular, waves would be capable of disturbing light deposits on the sea-bottom. In sheltered localities I have seen these waves attain the height of about three feet; in exposed localities they would doubtless be higher.

ARTHUR R. HUNT

August 15

#### On the Terminology of the Mathematical Theory of Electricity

IN a letter (*NATURE*, vol. xxxii. p. 76) Mr. W. J. Ibbetson invites suggestions for a convenient abbreviation for "total or resultant pressure"; at the same time he suggests the adoption of "traction" for "intensity of tensile stress." As it seems a pity to employ two totally distinct words to express such closely related ideas as intensity of tensile stress and total tensile stress, I would suggest that, on the analogy of pressure, "tensure" should be introduced for "intensity of tensile stress;" and then, on the analogy of "tension" for "total tensure," "pression" for "total pressure." New words are hard to grow in a language, but in this case pressure and tension might interchange their suffixes as grafts and yield two fresh useful words.

As regards physical and mathematical terminology in general, is not the time ripe for the introduction of a prefix which will modify the meaning of a term as the adjective "negative" does? *Mega* and *micro* have proved useful for multiplying and dividing by a million, but how much greater scope would there be for a prefix "ne" or "neg" for reversing the sign of a quantity. Thus negative electricity might be called "nelectricity," a quantity of negative electricity as so many "necoulombs," a negative magnetic pole as a "nepole," a negative potential as of so many "nevolts," a negative angle could be spoken as of so many "negradians" or "nedegrees," a negative temperature as of so many "nedegrees." In many cases there would be no appreciable advantage, but if there was a general understanding as to the operation of the prefix "ne" in any case, it could be used wherever it would render the phraseology less cumbersome.

Melbourne, July 10

WILLIAM SUTHERLAND

#### An Encysting "Myzostoma" in Milford Haven

I HAVE recently had occasion to examine a number of *Comatula* from Milford Haven which were kindly given to me by Mr. W. Percy Sladen, F.L.S., and appear to belong to the type that was figured by Miller under the name of *Comatula fimbriata*; and I was surprised to find many of the pinnules presenting distinct traces of an encysting *Myzostoma*. In each of the dozen individuals the joints of one or more pinnules are abnormally developed, and in some cases they form definite cysts, which are, however, much smaller than those found on the pinnules of many *Comatula* and *Penulacriniidae* from the Pacific and Oceania; but they are obviously of the same character and due to the presence of a parasitic *Myzostoma*. According to Prof. L. von Graff eight species of encysting *Myzostoma* are at present known, but they are limited to depths of 120 to 600 fathoms in the Pacific, the Eastern Archipelago, and the Caribbean Sea, with the exception of one which was dredged by the *Hassler* in 35 fathoms off Cape Frio, Brazil.

Mr. Sladen's dredgings at Milford, therefore, have considerably extended both the bathymetrical and the geographical distribution of these encysting species. The five *Comatula* found in the British area have yielded six of the free-living *Myzostomas*, four of which were discovered by the *Porcupine* and *Triton*; and we may probably take it for granted that the encysting form from Milford is another addition to the British fauna.

I propose to send all my material to my friend, Prof. von Graff, for examination; and as there will, no doubt, be much shore-dredging carried on during the next few weeks, I would call the attention of British naturalists to the facts mentioned above, and ask them to look carefully on the pinnules of any *Comatula* which they may find for cysts or other enlargements of the joints.

P. HERBERT CARPENTER

Eton College, August 22

#### Solid Electrolytes

IN reference to Prof. S. P. Thompson's letter dated August 17 (*NATURE*, vol. xxxii. p. 366), may I be allowed to say that I too have observed the secondary currents which are produced by cells containing sulphides of silver and copper after being disconnected from a battery? I mentioned the fact at the meeting of the Physical Society on June 27, in a communication which will probably be printed in the *Phil. Mag.* next month. Indeed, the observation of these secondary currents preceded and led to the construction of the primary cells with solid electrolytes which I have recently described.

I should be glad to know whether Prof. Thompson can explain the curious effect produced by passing a battery-current for a moment through a cell containing a mixture of sulphide of copper and sulphur between silver electrodes. When the cell is first connected with the galvanometer the usual secondary current appears, but in a few minutes, or even seconds, this current falls to zero and is succeeded by a third, which is in the same direction as the battery-current, and generally continues for some hours.

SHELFORD BIDWELL

August 23

#### THE SQUARE BAMBOO

THE cylindrical form of the stems of grasses is so universal a feature in the family that the report of the existence in China and Japan of a bamboo with manifestly four-angled stems, has generally been considered a myth, or, at any rate, as founded on some diseased or abnormal condition of a species having stems, when properly developed, circular in section.

Of the existence of such a bamboo there cannot, however, now be any kind of doubt. It is figured in a



Japanese book, the "Sô moku kin yô siù" (Trees and shrubs with ornamental foliage), published at Kyoto in 1829, and the figure is reproduced by Count Castillon in the *Revue Horticole* (1876, p. 32).<sup>1</sup> It is further figured in a work for a copy of which we are indebted to my friend Prof. Kinch (formerly of Tokiyo), called the "Ju-moku Shiri-yaku"—i.e. a short description of trees (of Japan). Finally, in 1880, Messrs. Veitch presented to the Kew Museum fine specimens of the stem of the square bamboo,

<sup>1</sup> The woodcut also appeared in the *Gardeners' Chronicle* for January 29, 1876, p. 147. I am indebted to the Editor for its use on the present occasion.