

At the following meeting of the Seismological Society, Prof. Ewing described an instrument of a similar nature, and only differing from the one described by Mr. Gray in the details of an arrangement for compensating the variable leverage, an arrangement practically adopted by Mr. Gray in the above-mentioned torsion pendulum. This seismograph is now distinctly claimed by Prof. Ewing as his own (NATURE, December 23, 1886, p. 172).

In June 1881, Mr. Gray suggested several methods by which a pendulum might be rendered astatic (Trans. Seis. Soc. vol. iii. p. 145). This was followed by Prof. Ewing's device to obtain the same result by an arrangement which was closely foreshadowed by Dr. Wagener, who *endeavoured* to compensate the movement of a pendulum by a heavy-headed recording index (Trans. Seis. Soc. vol. i. pp. 66 and 67).

In addition to the seismographs here referred to, there are many others that might be mentioned. Amongst them we find the parallel-motion instrument of Mr. West, which was immediately followed by parallel-motion instruments the invention of Prof. Ewing and Prof. Alexander (Trans. Seis. Soc. vol. iv. pp. 22 and 30).

The development of the parallel-motion instruments may be taken as illustrative of what has happened with regard to nearly all the other seismographs, which in great measure have been gradually developed from something which preceded them.

By improving the bracket seismograph, Prof. Ewing made a considerable advance in seismometry, for which the workers in this country undoubtedly accord him their hearty thanks; but while describing a beautifully constructed, but at the same time inconvenient and obsolete arrangement of seismographs (NATURE, vol. xxx. pp. 149 and 175, and vol. xxxiv. p. 343), it is hardly fair that his fellow-workers, especially Mr. Gray, the most prolific of earthquake inventors, should be passed by unnoticed, and have their work practically appropriated.

Tokio, February 10

JOHN MILNE

#### Supposed Suicide of the Cobra

THE following observations may be of interest as bearing on the reputed suicide of snakes.

Yesterday, while riding over a bare sandy plain I caught sight of a large black cobra moving leisurely along. Having no other weapon with me but a .450 express rifle, I halted my camel and fired, at about 50 yards, just as it was disappearing down a rat-hole. The bullet passed through the middle of its body without severing the spine; the head was immediately withdrawn from the hole, and the snake began to writhe in agony, rearing its head, spreading its hood, and striking wildly in all directions. I was about to put it out of its agony by a second shot when it struck close to its own tail, and my orderly cried out that now it had bitten itself and would soon die.

Though I had clearly seen that it did not bite itself, I thought this a good opportunity of seeing whether there was any truth in the popular superstition, and if not whether I could obtain any light on the mode of its origin. The following is the result.

The snake repeatedly reared its head, and after holding it reared, struck wildly at some piece of grass or stick; twice again it struck at its own tail, and on each occasion the natives with me declared it had bitten itself. This, however, I can assert, it did not: on one occasion it stopped just short of the skin; on the other, being apparently unable to check itself, it swerved slightly and struck the ground close alongside. It appeared to me that the snake in its agony struck wildly at the first thing that caught its eye and irritated it; in three cases this was its own tail, but as soon as it realised what it was doing—so far from there being a deliberate attempt at suicide—it did all in its power to prevent a fatal result.

It is conceivable that, under similar circumstances, owing to loss of control over its own actions a snake might actually bite itself, and there would be what might pass for a well-authenticated case of suicide; but such a case, did it ever occur, would probably be due to an accident and not to deliberate intention. I have no doubt, however, that the popular superstition finds its support in cases like that described; for the natives with me, if questioned, would reply that the snake had certainly bitten itself three times, the other apparently aimless strikes at sticks or grass having escaped their notice.

A similar explanation of the reputed suicide of scorpions was given in NATURE some time ago, but not having the file with me I cannot give the reference.

R. D. OLDHAM

Camp near Pokran, in the Indian Desert, March 4

#### THE RETIREMENT OF DR. TYNDALL

WE have had on more than one occasion during the last six months to refer with regret to Dr. Tyndall's impaired health brought about by overstrain. Our readers will have gathered from the daily papers during the present week that although much recruited by rest, Dr. Tyndall has yet sent in to the managers of the Royal Institution his resignation of the Chair of Natural Philosophy, which he has held since 1853, and that the resignation has been accepted.

The managers and members, cordially appreciating Prof. Tyndall's services, and being anxious to mark their sense of the benefits he has conferred on the Institution during his long connexion with it, have done what was still open to them in the way of honourable recognition and regard. He has been nominated for election as Honorary Professor, a title previously borne by Sir Humphry Davy and Prof. Brande; and one of the annual courses of lectures will be called "the Tyndall Lectures." He has also been requested to sit for his bust, to be placed in the Institution, in memory of his relations with it.

At the monthly meeting held last week the following letter was read:—

*Hind Head, April 3, 1887*

DEAR SIR FREDERICK BRAMWELL,—I have halted in my reply to your letter of March 23, through sheer inability to express the feeling which the action of the managers, at their meeting on the 21st, has called into life.

And my reply must now be brief, for I hardly dare trust myself to dwell upon the "resolutions" which you have conveyed to me. Taken in connexion with the severance of my life from the Royal Institution, and with the flood of memories liberated by the occasion, this plenteous kindness, this bounty of friendship, this reward so much in excess of my merits, well-nigh unman me.

And, let me add, the noble fullness of style and expression, which I owe to yourself, and in which the good will of the managers takes corporate form, is in perfect harmony with the spirit which it enshrines.

Of the managers existent when I joined the Institution, one only remains upon the present Board. The beneficent work of many of them is for ever ended; but I do not forget the sympathy and support which they extended to me during their lives. And now the long line of kindnesses culminates in words and deeds so considerate and appreciative—so representative of their origin in true gentlemanhood and warmth of heart—that they have almost succeeded in converting into happiness the sadness of my farewell.

With heartfelt prayers for the long-continued honour and prosperity of the Institution which I have served so long, and loved so well, believe me, dear Sir Frederick, most faithfully yours,  
JOHN TYNDALL

However much it may be regretted that Prof. Tyndall has felt himself compelled to withdraw from the onerous duties of a particular office, we may hope that, so far from this being a withdrawal from science itself, further leisure and rest may soon be followed by the old vigour, and that a fresh series of services may reward the labours of future years; for the work in which Profs. Huxley and Tyndall have been the best known among the pioneers is not yet half accomplished.

On this subject the *Times* writes as follows:—

"Dr. Tyndall's name, in conjunction with that of Mr. Huxley, stands for a symbol of the nationalisation of natural science as an educational instrument. Sir Humphry Davy and Michael Faraday, in the same position, flashed the light of science into minds already prepared by leisure and cultivation to receive it. Dr. Tyndall's professorship in Albemarle Street has synchronised, and by no casual coincidence, with the recognition of the claims of the masses to be scientifically instructed. Contracted as Sir John Lubbock complains the domain of natural