While I regret having incorrectly inferred Mr. Hannay's claims, readers of the paper to which he refers will, I think, perceive that the error was not without some justification. J. JOLY. Trinity College, Dublin.

#### The New Comet.

THE comet discovered here on March 26 was re-observed on the 27th, 28th, 29th, 30th, 31st, and April 1st, 2nd, and 3rd, and its places on four nights were determined as follows:—

1804		G.M.T.		R.A.		Decl.	
			h. m.		h. m. s.		. ,
March	26		9 30		9 54 37		+32 13
	27		10 30		9 58 32		+31 38
	30		9 50		10 9 12		+30 I
	31		11 15		10 12 48		+29 27

The motion is becoming slower, whence it may be inferred that

the perihelion passage occurred some time ago.

The comet is small and faint, with a stellar nucleus of about 12th magnitude and a short fan-shaped tail. It was discovered with a 10 inch reflector and comet eyepiece magnifying thirty To my eye the comet is now decidedly more obvious than it was when first seen, but this may either be due to more favourable atmosphere, or to the fact that greater familiarity with an object is apt to render it plainer.

Bristol, April 4.

W. F. DENNING.

# Sun spot Phenomena and Thunderstorms.

A SMALL portion of that most interesting field of research again dealt with in NATURE (vol. xlix. p. 503), perhaps requires to be trodden with caution. Of course all a priori reasoning as to probabilities of a connection between solar physics and the occurrence of thunderstorms may be laid aside, and it does not seem that writers on the subject have fallen into that kind of anti-scientific error. At the same time, we readily admit that a connection between solar activity and thunderstorm phenomena exists. But having devoted a little time to the consideration of the question, I may be permitted to make a In the first place, so far as our observations at present extend, it is quite impossible to find a distinct relation of time between prevalence of thunderstorms over our planet and solar periodicities. In the second place, thunderstorms have been classified, and much require further classification (to which, by the way, I am just about to contribute a few results of study). Artificial or conventional classification would by no means be an object of pursuit to Dr. Veeder. Natural classification does not seem to bring us now at all near to the connection which we might anticipate. In fact, it seems to me that in reference to the thurderstorms mentioned in NATURE for March 29, 1894, natural classification leads us away from the connection.

April 2.

W. CLEMENT LEY.

## A Lecture Experiment.

THE following experiment, to illustrate the anomalous contraction and expansion of water due to decrease of temperature,

I have found to be very striking :-

A large test tube is fitted with a cork, through which a glass tube passes just far enough to allow a rubber tube to be attached. The rubber tube should be long enough to reach to the bottom of the test tube. Close the lower end of the rubber tube, and fill it and the glass tube with mercury up to a little above the top of the cork. Fill the test tube with water, insert the rubber tube, and cork and press the latter firmly in place, taking care that no air-bubbles are imprisoned between it and the water. The pressure of the cork against the surface of the water will cause the mercury to rise in the glass tube. Place the apparatus thus prepared into a freezing mixture of ice and salt. The mercury will fall slowly in the tube until the water has attained its maximum density, remain stationary for a moment, then rise on the further cooling of the water, and at the instant of freezing will make a rapid movement upward.

Armour Institute, Chicago, U.S.A.

J. C. FOYE.

J. C. FOYE.

#### Centipedes and their Young.

THE members of the Trinidad Field Naturalists' Club will be glad if any of your correspondents can throw additional

NO. 1275, VOL. 49

light upon the following facts in the history of centipedes, which have recently come under their notice :-

On September 17, 1892, Mr. Charles Libert, of this town, sent to Mr. R. Mole a centipede (Scolopendra prasina) which enclosed in a circle formed of the fore part of its body a circular mass of young centipedes about the size of a halfpenny, and about quarter of an inch thick. The young ones were quite white. The old centipede was very vicious. The centipede and the young ones were exhibited at a conversazione of the Victoria Institute the same evening. The old centipede did not alter her position at all, and on the 21st was packed up for transmission to the Gardens of the Zoological Society, London. Dr. Sclater wrote, on October 27, to Mr. Mole stating that the centipede was dead on arrival, and only one young one could be found in the box. Mr. Libert informs me that he has once or twice found young centipedes clinging to various parts of the body of an adult. Mr. T. D. A. Cockerell (late of Jamaica), of whom inquiries were made, said this habit was new to him.

At a meeting of the Trinidad Field Naturalists' Club on July 7, 1893, the President (Mr. Caracciolo) exhibited a sketch of a centipede carrying its young between the legs of the anterior twelve segments of its body. He stated that he anterior twelve segments of its body. The stated that he received the centipede, from which the sketch was made, from Mr. Guiseppi on June 20. The creature protected her young in this manner until June 25, when she altered her position, and lay flat over them. On June 30 she left them, "but kept an eye on them." When undisturbed the young centipeded for the state of formed a heap, in which they remained for four days. then gradually began wandering away from the heap, one by one,

in search of food. There were about 140 young ones altogether.

At the meeting of the Club on February 2, 1894, Mr. Potter said he had been told by Mr. S. W. Knaggs that he had recently found a centipede coiled up spirally on itself. On attempting to uncoil it a number of pellets of small size fell from its under-surface. These bore the appearance of eggs. He subsequently found others clasped by the numerous legs against the creature's under-surface. The pellets, or eggs, were situated all along the under-surface of the body, and dropped from it on its being uncoiled.

Several text-books and works on natural history have been consulted with the view of finding out more about this interesting habit, but without success; and in most books it is stated that centipedes lay their eggs under dead leaves, or in a dark

corner, and manifest no further concern about them. F. W. URICH.

Port of Spain, Trinidad, B. W. I., March 6.

### PROF. IRA REMSEN ON CHEMICAL LABORATORIES.1

ON January 1 the Kent Chemical Laboratory was dedicated with appropriate exercises. The beautiful building was thrown open to inspection, and many passed through its rooms expressing admiration. Its plans were explained and a general account was given of the uses to which it is to be put. Honour, "as is most justly due," was paid to the generous donor, whose name from this day forth will be intimately associated with progress in chemistry in this country. The exercises of yesterday have led by an easy step to those of today, and a chemist is called upon to give the Convocation address. What theme more natural to him, or more appropriate, than "The Chemical Laboratory?" It is to this theme that I ask your attention. My purpose is to treat the chemical laboratory, not from the material point of view, but in its broader aspects, as far as I may find this possible. I shall attempt to answer briefly three questions, and these are :-

(1) When and how did chemical laboratories come to

be established in universities?

(2) What part have chemical laboratories played in the advancement of knowledge?

<sup>1</sup> Address delivered by Prof. Ira Remsen on January 2, 1894, in connection with the opening of the Kent Chemical Laboratory of the University of Chicago, U.S.A.