AT the University of Indiana A. L. Foley, Ph. D. (Cornell), has been elected professor of physics; R. J. Aley, Ph. D. (Pennsylvania), professor of mathematics; E. B. Copeland, of the University of Wisconsin, assistant professor of botany, and E. B. Bryan, assistant professor of pedagogy.

HENRY C. MINTON, of San Francisco, was elected President of Centre College this week.

DR. G. J. PIERCE has been elected assistant professor of botany in Stanford University.

IN the newly organized high schools of New York City, as the result of a competitive examination, there have been appointed as first assistants, at a salary of $3000, Mr. Frank Rollins, chemistry; Mr. R. H. Cornish, physics, and Mr. E. W. Sampson, physical geography.

THE University of Strasburg has celebrated, by fêtes lasting several days, the 25th anniversary of its foundation.

PROFESSOR W. TH. ENGELMANN, of the University of Utrecht, has been offered the chair of physiology at Berlin, vacant by the death of Du Bois-Reymond, but it is stated that he will not accept. The position had previously been twice declined.

DR. JAEGER and Dr. Brodhun have been appointed professors at The Reichsanstalt at Charlottenburg; Dr. Ignaz Zakezewski has been made full professor of experimental physics at the University at Lemburg, and Dr. H. Finger, of Giessen, has been appointed assistant professor of organic chemistry at the Polytechnic Institute in Darmstadt.

DISCUSSION AND CORRESPONDENCE.

A BRILLIANT METEOR.

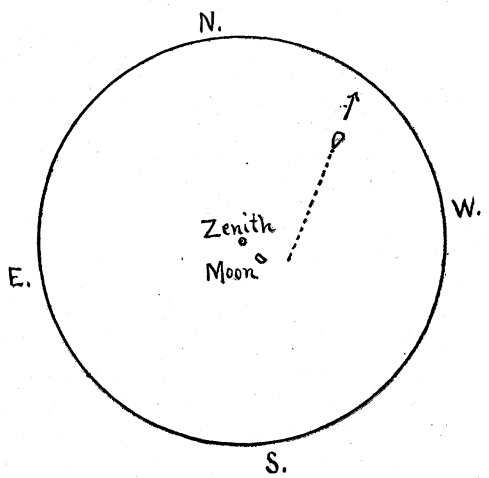
TO THE EDITOR OF SCIENCE: On June 22d a brilliant meteor was observed in broad daylight passing over Cape Breton Island, Nova Scotia. In order that some permanent record of the fact may exist, I beg to forward for publication a letter received from Mr. George Kennan, who was an eye-witness of the occurrence.

ALEXANDER GRAHAM BELL.

BEINN BHREAGH, NEAR BADDECK, C. B.,
NOVA SCOTIA, July 1, 1897.

Letter from Mr. George Kennan.

MY DEAR MR. BELL: I will gladly give you all the information I can in regard to the meteor. Between half-past eight and nine o'clock, Tuesday morning, June 22d, as I was going into my garden to work, a very large and extraordinarily bright meteor suddenly made its appearance nearly southwest of the zenith, at a height of about 70 degrees from the horizon and almost directly under the old waning moon. I happened at that time to be looking upward and westward, and I think I saw it at its place of origin—that is, at the point where it first became visible. It was not a mere point of light, like a brilliant star, but seemed to have a large, well-defined disc, resembling in shape a somewhat elongated and almost inverted balloon with its top or larger end foremost—that is, turned in the direction of its fall. It came into



the field of vision so near the waning moon that I was able to compare the one with the other in point of size, and the impression made upon my mind was that the disc of the meteor was nearly as large as the filled-out circle of the moon would have been. Of course, the eye unconsciously exaggerates the size of a brilliant object, and it probably did so in this case, but such was the impression made upon me, and I give it for what it may be worth. I don't think the meteor had any decided color. At any rate, all that I noticed was its extraordinary brilliancy. If it had been decidedly green, red,

or yellow, I think I should have become conscious of the fact. It seemed to be followed by a faint line of light about half as long as its own body. From a point about 20 degrees southwest of the zenith it fell rather swiftly in a direction that would have brought it to the horizon at a point very nearly northwest (magnetic) of my position. I was unable, however, to follow it all the way to the horizon on account of the trees between my house and your cottage behind which it disappeared without having lost either its shape or its brightness. The time occupied by its fall was not more, I think, than three seconds. If you will hold the accompanying diagram above your head like a celestial chart and look up at it, facing the west, you will get an approximate idea of of the meteor's course as it appeared to me. The sun was shining brightly, but it did not overcome the brilliancy of the aerolite.

Sincerely yours,

GEORGE KENNAN.

BRETON COTTAGE, BADDECK, C. B.,
NOVA SCOTIA, June 26, 1897.

SCIENTIFIC LITERATURE.

WHAT ARE STIPULES?

'THE Nature and Origin of Stipules,' by A. A. Tyler, A. M. Presented to the Faculty of Pure Science of Columbia University in partial requirement for the degree of Doctor of Philosophy. Annals of the New York Academy of Sciences, Vol. X., New York, 1897, pp. 1–49, pl. i.–iii. Also separate: Contributions from the Department of Botany of Columbia University, No. 119.

This is, without doubt, the most considerable contribution that has been made to the vexed question of the nature of stipules; at least it is safe to say that it comes much nearer to a solution of that question than anything that has hitherto been brought forward. Although assuredly not the last word that will be said on the subject, nevertheless the light that had already been shed upon it by a long train of previous investigations placed the author in a position to treat it from an advanced standpoint.

Nearly half the paper, and that the first half, is devoted to summing up, in chronological order, the views that have been expressed and the conclusions that have been reached; but the paper is by no means a mere literary effort. It is itself the result of a series of special researches on the part of the author. Indeed, it may be looked upon as a new departure, since his investigations have proceeded from an almost entirely different standpoint from those of previous authors. He has made use of their labors and failures rather as a means of warning than as guides to his work.

Probably the most suggestive results that had been reached were those which, within the past decade, have been furnished by paleontology, and while he has singularly omitted to mention the researches of Saporta and Marion,* he has not left out of account those that have been made in America.† It is not too much to say that these paleontological discoveries have added more to our acquaintance with the true nature of stipules than the combined morphological studies of previous authors. If I do not mistake, it was from attention to paleontological considerations as thus brought out, that Mr. Tyler was led to adopt the method of his thesis, a method which had been wholly neglected hitherto, and yet the only one that seems to promise ultimate success in the solution of the problem.

The earliest of the above mentioned papers called attention to certain remarkable basilar expansions that occur in leaves of *Platanus basilobata*, a fossil species from the Fort Union

*Evolution du Règne Végétal, Pt. II., Phanérogames. Paris, 1885. See especially Vol. I., pp. 201–223; Vol. II., pp. 9-44.

†The Paleontologic History of the Genus Platanus by Lester F. Ward; Proc. U. S. Nat. Mus., Vol. XI., 1888, pp. 39–42, pl. xvii.–xxii. Origin of the Plane-Trees, by Lester F. Ward; Am. Nat., Vol. XXIV., September, 1890, pp. 797–810, pl. xxviii. Flora of the Dakota Group, by Leo Lesquereux; Monogr. U. S. Geol. Surv., Vol. XVII., pp. 65, 231, 232, 254. Wing-like Appendages on the Petioles of *Liriophyllum populoides* Lesq. and *Liriodendron alatum* Newb., with Descriptions of the Latter, by Arthur Hollick; Bull. Torr. Bot. Club, Vol. XXI., No. 11, November 24, 1894, pp. 467–471, pl. ccxx., ccxxi. Appendages to the Petioles of Liriodendra, by Arthur Hollick; Bull. Torr. Bot. Club, Vol. XXIII., No. 6, June, 1896, pp. 249–250, pl. cclxix., cclxx.