Die Ursprüngliche Verbreitung der angebauten Nutzpflanzen. F. Höck. Leipzig, Teubner. 1900. Pp. 78. M. 1.60.

Lehrbuch der vergleichenden mikroskopischen Anatomie der Wirbeltiere. Albert Oppel. Jena, Gustav Fischer. 1900. Part III. Pp. x + 1180 and 10 plates.

A School Chemistry. John Waddell. New York and London, The Macmillan Company. 1900. Pp. xiii + 278.

SCIENTIFIC JOURNALS AND ARTICLES.

Popular Astronomy for October contains an excellent sketch by Professor C. D. Perrine of the late James Edward Keeler, of Lick Observatory, accompanied by his photograph. The opening address by Dr. A. A. Common, F.R.S., F.R.A.S., at the Bradford meeting of the British Astronomical Association for the Advancement of Science is begun in this number and will be concluded in the November number. Also the first part of Kurt Laves' paper on 'The Adjustment of the Equatorial Telescope' is given. Tables for the observation of the planet Eros and an illustrated article upon that planet by the editor, W. W. Payne, together with a résumé of recent work at the Lowell Observatory are important features of this issue, as well as the usual spectroscopic, planet, comet and general notes.

SOCIETIES AND ACADEMIES.

THE PHILOSOPHICAL SOCIETY OF WASHINGTON.

At the meeting of the Society on October 13th, Mr. O. H. Tittmann told in an informal way of some of the incidents of the marking of the provisional boundary between Alaska and the British possessions, at the head of the Lynn Canal, during the past summer.

Dr. Artemus Martin read a paper on 'A Method of Computing the Logarithm of a Number without making use of any Logarithm but that of 10 or some power of 10.' The method in this paper consists in modifying some of the ordinary forms of logarithmic series so that the logarithm used in the computation is the logarithm of 10 or some power of 10.

Dr. T. J. J. See read a paper on the 'System of Uranus.' It combines a statement of some of the recent results of observations, a comparison of these with former results and a critical statement of the uncertainties involved in the present knowledge of the system.

THE ACADEMY OF SCIENCE OF ST. LOUIS.

At the first meeting of the autumn, held on the evening of October 15th, there were sixteen persons present. Mr. William H. Roever, of Washington University, presented an elaborate paper, discussing in detail the subject of the establishment of the method of least squares. Professor F. E. Nipher presented two papers, entitled respectively 'Positive Photography,' with special reference to eclipse work and the frictional effects of railway trains upon the air; and Mr. C. F. Baker exhibited an interesting collection representing nearly all of the species of fleas thus far known, which he had prepared for the United States National Museum.

Four persons were elected to active membership.

William Trelease,
Recording Secretary.

DISCUSSION AND CORRESPONDENCE.

ARITHMETICAL NOTE.

In the second edition of the *Exercices d'arithmétique* of MM. Fitzpatrick and Chevrel (Paris, Hermann, 1900), there is given the following interesting application of the binary system of notation (p. 490). Russian peasants, when they have to perform a multiplication, in general proceed thus: They divide the multiplicand by 2, and at the same time double the multiplier; if the multiplicand is odd, they discard the unit remainder and mark the multiplier with a sign. This being done as often as possible, the multipliers affected with the sign are added together to obtain the result. Thus, for example, the multiplication of 35 by 42 proceeds as follows:

35	42 +
17	84 +
8	168
4	336
2	672
1	1344 +

$42 + 84 + 1344 = 1470.$

It is easy enough to construct a similar process, *e. g.*, for the ternary system of nota-

tion; the example might then be worked out in this manner:

35..... 42—
12..... 126
4..... 378+
1.....1134+
378+1134—42=1470;

but the possibility of constructing similar processes throws no light on the origin of such a method among the Russian peasants.

C. A. SCOTT.

CAMPHOR SECRETED BY AN ANIMAL.

TO THE EDITOR OF SCIENCE: Mr. O. F. Cook's article in a recent number of SCIENCE recalls some observations by the late E. D. Cope. Cope wrote (*Trans. Amer. Entom. Soc.*, Vol. 3, May, 1870, pp. 66–67), as follows: "The species of *Spirobolus* and *Julus* discharge a yellowish juice having much the smell of aqua regia and a very acrid taste. The *Spirostrephon lactarius* exudes from a series of lateral pores a fluid which has in its odor a close resemblance to creasote. The *Polydesmus virginiensis* is defended by a fluid which has almost exactly the smell of hydrocyanic acid and is fatal to small animals. *Petaserpes rosalbus* secretes a considerable quantity of a milky substance, which has the perfume of gum camphor."

Quite possibly there are other references to the subject, but I have not examined the literature of the Myriapoda very carefully.

NATHAN BANKS.

EAST END, VA.

A CORRECTION.

TO THE EDITOR OF SCIENCE: In the issue of SCIENCE for October 19th I notice your statement under 'University and Educational News' of my appointment as acting president of Wells College. Permit me to say that a misspelling of my name completely changes it into that of another person. Instead of *Feeley*, it should be *Freley*.

J. W. FRELEY.

BOTANICAL NOTES.

PROLIXITY IN BOTANICAL PAPERS.

WHAT botanist has not groaned in spirit in these recent years over the increasing prolixity of American botanical writers? There was a time when it was the exception for a botanist to write a paper of great length, and some of us were a little ashamed of what appeared to be the inability of botanical writers to prepare papers whose length, at least, would suggest profundity. Doubtless at that time there were fewer men who could write anything better than short notes, and perhaps there was some need of a change. But now, alas, we have learned the lesson only too well. One takes up journal after journal and finds that many of the papers are drawn out through pages and pages until in very weariness he turns to the 'conclusions,' hoping to obtain a summary of the author's results, often to find that here, too, there is such prolixity as to suggest the need of a 'summary' of the 'conclusions.'

Is it not time that botanical teachers gave some instruction in conciseness of statement, while they are making investigators out of the raw material which they find in their classes? Paper and ink do not cost much, and the long-suffering editors of botanical journals have not made, as yet, any audible protest, but we speak for the readers of these long-drawn out papers whose time is too valuable to be given to the absorption and assimilation of the vast mass of excellent but uncondensed matter which now-a-days finds publication. Many a good paper would be much more readable if condensed to half its length, while at the same time it would lose nothing in clearness of statement of all essential facts.

THE STUDY OF PLANT DISEASES.

AN instructive paper by Mr. Galloway, in the 'Yearbook of the Department of Agriculture' for 1899, gives a brief history of the development of the study of plant pathology in the United States. Little has been done by American botanists previous to 1875, and practically nothing at all by the Government. With the establishment of the agricultural experiment stations, an impetus was given to the beginnings made by Professors Farlow, Burrill and Arthur, and about the same time in the Department of Agriculture a beginning was made of what eventually developed into the Division of Vegetable Physiology and Pathology. This was done by the appointment of Professor