single purpose of the study of man, it seems impossible that it should long remain without a much larger support from friends of American archeology and ethnology. We hope that the trustees will be encouraged in their efforts by a large increase to the subscriptions for American explorations, in addition to those mentioned in our notes.

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EUROPEAN naturalists regard the attention paid in this country to economic entomology, and the aid that has been given it by various states and by the general government, as one sign of 'a practical people.' With all the specialization in instruction in the foreign universities, we are not aware that there is more than one which supports a professorship of entomology. This is Oxford, where the venerable Professor Westwood honors the Hope foundation. In this country, Harvard and Cornell each have their full professorship of this science; and to the latter a summer school, having special reference to agricultural entomology, has now been attached. This seems more appropriate than many of the summer schools now so much in vogue, inasmuch as the objects of study are at this season in the height of their investigations into the power of crops to sustain insect-life. To further the interests of the school, the trustees of Cornell university have relieved Professor Comstock of his duties during the winter *semester;* and an unusually good opportunity is thus afforded to teachers, as well as others, to familiarize themselves with the principles of this branch of economic science.

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## *LETTERS TO THE EDITOR.*

*** *Correspondents are requested to be as brief as possible. The writer's name is in all cases required as proof of good faith.*

### Some United States geologists, and the propylite question.

YOUR reviewer of the recent publications of the U. S. geological survey incorrectly states that Dr. Becker does not give Rosenbusch credit for his prior advocacy of the view that propylite is a modification of andesite (*Science*, iv. p. 67), for Becker does so on p. 90 of his 'Geology of the Comstock lode;' but your reviewer ought to have stated that Wadsworth was the first American to advocate this relation of propylite and andesite, which he did in a paper published before that of Rosenbusch. In Wadsworth's paper it was remarked, that his microscopic studies of the Washoe and other western propylites, collected by Richthofen and the Fortieth parallel exploration, had led him to conclude of these typical propylitic rocks, that "the propylites are all altered andesites, with which species their chemical composition agrees; and that the diagnostic distinctions that Professor Zirkel has placed between the andesites and propylites did not hold good, even in the specimens that he described, as would have been readily seen, had he given complete descriptions instead of the very imperfect and often inaccurate ones that have been published. The distinction between these rocks is simply in the degree of alteration; and they pass directly into each other."[1]

Now, although Messrs. George F. Becker and Arnold Hague are fully known to have knowledge of this publication, they not only ignore completely the priority of Wadsworth, but also use language which would cause any reader not conversant with the subject to believe that Becker was the first American to oppose the species propylite.

In connection with a professed history of the discussion of the Washoe rocks, Becker states, "Baron von Richthofen based the independence of the new rock propylite largely upon the occurrences in the *Washoe district.* Later investigators in the same field, without exception, have adopted his views. Professor Zirkel's characterizations of the microscopical peculiarities of propylite were also founded chiefly on the *Washoe* occurrence. Though at the beginning of the present investigation [April, 1880] I was fully persuaded of the independence of propylite, I subsequently found reason to doubt it; but to prove a negative is notoriously difficult, and the great authority of my predecessors made the task still more onerous."[2]

Mr. Hague writes, "Recently Mr. George F. Becker, in his work on the Washoe district, made a thorough investigation of the so-called propylite, and as a result denied the independence of the rock-species. . . . We quite agree with him, so far as the non-existence of propylite as a distinct rock-species in the Great Basin is concerned."[3]

Any one who is conversant with the storm Wadsworth's before-mentioned paper of 1879 excited will have no difficulty in understanding why it is that these and some other geologists, who are now standing on almost if not quite identical ground with him, should proceed in such a manner.[4]

M. E. WADSWORTH.

Museum of comparative zoölogy,
Cambridge, Mass., July 21.

### Swarming insects.

The editor was slightly unfortunate in his suggestion appended as a note to the letter of Mr. Abbott (*Science*, No. 77). I have just returned from Lakeside, Ottawa county, O., where the phenomenon spoken of by Mr. Abbott was witnessed almost every day for more than two weeks. The pulsating swarms were, beyond question, the 'Canada soldiers,' a species of Ephemera.

During the first ten days of the present month

[1] *Bull. mus. comp. zoöl.*, 1879, v. 285.
[2] Geology of the Comstock lode, 1882, p. 33.
[3] *Amer. journ. sc.*, 1884 (3), xxvii. 454.
[4] See, further, Proceedings of the Boston society of natural history, 1883, xxii. 412-432; and 1881, xxi. 243-274.