PROFESSOR GILBERT GUSLER, of the Ohio State University, has been appointed to a position as associate in the department of animal husbandry of the University of Illinois.

DISCUSSION AND CORRESPONDENCE

COMPLEXITY OF THE ALEXANDRIAN SERIES

UNDER the tacit encouragement of our federal and state geological bureaus the unfortunate practise of continually displacing already well-defined and useful terranal titles by new ones, often of very doubtful utility, with the idea in mind that such continual change in nomenclature is the only essential element in the advancement of knowledge, seems to be notably increasing rather than showing any appreciable signs of wane. Lest the shadow permanently be mistaken for the substance every contemplated case of renaming demands beforehand the closest scrutiny.

It was a similar tendency, a generation ago, that led the various geological surveys to dispense with the services of the paleontologist and to adopt the lithologic unit in stratigraphic classification and in cartographic representation. In new form the remaining mania still refuses to be downed.

A recent concrete case is the proposal of the name Alexandrian for an Early Siluric series in the Mississippi Valley. This instance is no worse than a multitude of others. It is selected at random, chiefly because it illustrates in small compass more points than any other that comes to mind. Moreover, it emphasizes three facts of universal application.

There is first the doubtful expedient of erecting groups so large as that of series by merely throwing together all strata lying between two well-known horizons. Second, there is the pernicious habit of making inconsequential additions to or subtractions from already defined formations and proposing therefor entirely new names, when the old terms easily answer without violation of a single canon of nomenclature. In the third place there is little or no consideration of paleogeographical conditions. Until the last-named factor is recognized in something of its true perspective there can be little real progress in the solution of the broader problems of local statigraphy.

Now the Siluric section of northeastern Missouri is quite remarkable because of the fact that it is so meagerly represented, because it is divided medially by a marked plane of unconformity, and because there is an overlapping of a southern earlier Siluric deposition by a northern later one.

In the proposal of the term Edgewood formation to include the Bowling Green limestone, the Noix oölite, a local phase of what was later called the normal Noix limestone as noted by Ulrich, and the lower normal limestone to which recently the name Gyrene limestone was given, the significance of the notable plane of unconformity at the base of the Bowling Green member was completely overlooked. It now transpires that the stratigraphic affinities of this formation are with the northern, or Iowa, section instead of with the southern or southern Missouri sequence; that its time relations are with the Mid Siluric rather than with the Early Siluric sub-period. In consequence of these facts Edgemont as a terranal designation becomes at once invalidated.

By slight change in the original signification of the term Noix, as applied to a limestone member, this name assumes a useful and valid rôle. The appellation Cyrene for a limestone becomes wholly unnecessary. If in the north Missouri region the term Alexandrian series is to be retained as a permanent stratigraphic title with a taxonomic rank of series it will have to be restricted in its application to the Siluric strata below the plane of unconformity marking the base of the Bowling Green limestone.

According to the rule of nomenclature laid down by its author the term Alexandrian would have to be abandoned and a new title proposed. There is urgent need of a serial term for the Early Siluric section of the Ozark region. It appears a happier treatment of the problem to retain a name already in use, modifying its delimiting application slightly to meet the exigencies of newly discovered relationships. Only in this way can the interests of stable geologic nomenclature be best sub-

served and a term like Alexandrian series be established as a valid stratigraphic title.

Charles Keyes

ALABAMA ARGILLACEA IN MINNESOTA

The cotton-worm moth, *Alabama argillacea* Hubn., appeared in Minnesota during the past season at several different places. The first recorded appearance was at Garden City, Blue Earth County, September 21, where it was proving injurious to a variety of everbearing strawberries. The moths punctured the fruit and apparently did considerable injury.

Between the tenth and the fifteenth of October, several other inquiries from other places were received, complaining of this moth injuring strawberries. One complaint came from Rochester, Minn., one from St. Paul, and one from Excelsior, which is on Lake Minnetonka, west of Minneapolis. The moths apparently stayed but a very short time in each of these places. Between the fifteenth and nineteenth of October the nurseryman at Garden City, Minn., had further trouble from these moths. He stated in a letter that they were most abundant about the twentieth of September, after which they disappeared, becoming rather scarce, but appearing again in numbers about the fifteenth of October.

These few notes may be of interest to entomologists, as they show the northern flight of the moths; also that they will feed on fruit, if fruit is available at that time.

William Moore

Division of Entomology,
University of Minnesota

CHEMIHYDROMETRY

The writer has been searching for a name for the new method of measuring the flow of rivers, the discharge of turbines and the capacities of reservoirs by means of chemicals mixed with liquids. *Chemihydrometry* seems to convey the idea exactly, but it can be criticized in at least two respects. It is a compound whose component parts are derived from two different languages, which is not good form, and the second part is almost exclusively used when it refers to the determination of density or specific gravity.

An appropriate name for this new branch of engineering will soon be in demand and it is, therefore, suggested that other names be submitted by your readers for consideration.

B. F. Groat

EYE SHADES FOR MICROSCOPICAL WORK

To the Editor of Science: The eye shade described in Science for May 28 is identical in plan though not quite as perfect in construction as one sold for many years by dealers in microscopic supplies. It was designed by Dr. R. H. Ward and is illustrated in earlier editions of Gage, "The Microscope" (*e. g.*, VI. ed., p. 59), and in various catalogues of micro accessories as Ward's Eye Shade. In the later editions of Professor Gage's book it is replaced by another form which in the author's judgment probably meets the needs of the case more satisfactorily.

The discussion which Professor Gage gives in connection with the figure of the eye shade regarding the care of the eyes is worthy the more careful consideration of the laboratory teacher. Such problems receive little, if any, attention in the training of graduate students, and college classes suffer when every new generation of teachers comes to practise on them.

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SCIENTIFIC BOOKS

The Climatic Factor as illustrated in Arid North America. By Ellsworth Huntington, with contributions by Charles Schuchert, Andrew E. Douglass and Charles J. Fullmer. Carnegie Institution of Washington, Publ. 192, 1914. 4to. Pp. 341, richly illustrated.

The senior author of "The Climatic Factor" has for a number of years endeavored to throw light upon the relations between changes in climate and human activity, and the wealth of fact which he personally has hitherto brought to light and correlated with the investigations of others, especially archeologists, in that region called the cradle of western civilization, together with interpretation in terms of climatic oscillation, have won for him much recognition both from a wide circle of the