(1) The Big Stone Gap shale is a northward extension of the Chattanooga shale of the type area.

(2) The Big Stone Gap shale shows the same tripartite division as the Chattanooga shale of the type area, except that all three units are considerably thicker.

(3) In passing from Lafollette to Big Stone Gap the middle gray shale member thickens up, replacing the uppermost part of the underlying black shale member.

(4) The contact between the lower black shale and the gray shale is not a stratigraphic but an environmental break since the uppermost part of the lower black shale in the south interfingers with the gray shale which replaces it to the north. Thus both the gray shale and the replaced black shale are of the same age, differing only in the conditions of their deposition.

(5) The lower black shale thickens by underlap in passing to the north, so that the lower black shale at Chattanooga is only the uppermost part of the lower black shale member. As stated above, this uppermost part is of the same age as the middle gray shale member in southwestern Virginia.

(6) In Tennessee an unconformity separates the upper black shale from the underlying gray shale member. This unconformity has not been demonstrated in southwestern Virginia.

The completed study will appear in a later paper.

J. H. SWARTZ

UNIVERSITY OF NORTH CAROLINA

NOTES ON HELODERMA SUSPECTUM AND IGUANA TUBERCULATA

ON April 2, 1923, the writer received a poisonous lizard, *Heloderma suspectum,* from Wheelock, Robertson County, Texas. This village lies in the southeast part of the county on no highway and about twelve miles from the nearest railroad. This animal had been killed by a farmhand as it was crawling about on his land, and was brought by a student to the department of biology of the Agricultural and Mechanical College of Texas. The finding of this reptile in Robertson County so far from its native home is indeed interesting. Ditmars,[1] Gadow,[2] Hegner,[3] Hornaday[4] and Pratt,[5] limit the distribution of these animals to Arizona, New Mexico and northern Mexico. Only one other occurrence of the Gila Monster in Texas is recorded in the literature available to the writer. Cope[6] lists a specimen taken at Fort McDowell, Texas. This single find was referred to by Strecker[7] who comments somewhat skeptically on the report and states that he made careful search in favorable localities for these reptiles, but failed to find them in Texas. Any attempt to explain how this lizard found its way to Wheelock, some four or five hundred miles from its native haunts, would be mere guesswork.

The writer has lately received from Mr. L. T. Hunter, county agent, Childress County, Texas, another most interesting find—the common Iguana, *Iguana tuberculata.* This reptile was killed on a roadside near Childress and was sent to the Agricultural and Mechanical College of Texas on December 20, 1926. Childress County lies close to the eastern border of the Panhandle of Texas, touching the southwest corner of Oklahoma. This find is even more remarkable than the former, since the iguana was much farther from its native home—tropical America. The specimen measures three feet, nine and one half inches in length and apparently is only partly grown. Gadow states that *Iguana tuberculata* attains a length of five or six feet. Ditmars, Gadow, Hegner and Hornaday give the distribution as Central and South America and the West Indies, where it lives in trees. How such a reptile could find its way from its tropical and arboreal habitat in the jungles to the almost treeless plains of Childress, Texas, is an interesting speculation.

PENNOYER F. ENGLISH

AGRICULTURAL AND MECHANICAL
COLLEGE OF TEXAS,
COLLEGE STATION, TEXAS

[1] Ditmars, R. L., "Reptiles of the World," 1922.

[2] Gadow, H., "Amphibia and Reptilia," Cambridge Natural History, Volume 8.

[3] Hegner, R. W., "College Zoology," revised edition, 1926.

[4] Hornaday, W. T., "The American Natural History," 1904.

[5] Pratt, H. S., "Manual of the Vertebrates of the United States," 1923.

[6] Cope, E. D., "The Crocodilians, Lizards and Snakes of North America," Report U. S. National Museum, 1898.

[7] Strecker, J. K., "Reptiles and Amphibians of Texas," 1915.

A PROTEST AGAINST CRYPTIC TITLES AND INDIRECT LABELING OF FIGURES

IT is the usual thing to lodge complaints when established conventions are violated; but the writer wishes to point out that there are at least two conventions relating to form in scientific articles that could be violated with profit. This note sets forth a complaint against convention.

Many authors are prone to introduce their works to the scientific world in more or less uncertain terms. They handicap them with titles that are often cryptic in the extreme. For example, what does "A New Insect from Utopia" mean? Any one who has had

experience in assembling a bibliography of a particular field will appreciate this sort of thing. A title, especially of a supposedly scientific paper, should be concise. However, precision or conciseness in writing a title for a paper should not fall before undue brevity. The writer certainly would not advocate a return to medievalism in such matters; but titles can be clear and at the same time brief. With the title cited above as a horrible example compare *"Musca domestica,* a New Dipteran Insect from Utopia." A good title, then, should be as brief as possible and should convey a definite idea of the contents of the subjoined matter, and should always be used with general papers as well as with papers of a taxonomic nature.

Not very long ago a very excellent paper of considerable length and illustrated by well-drawn figures in a half-dozen or more plates came to me. This paper was a zoological thesis from one of the major universities of the country. As it happened to be along a line of especial interest to the writer, it was read with care. But the ease of reading and the degree of pleasure and profit enjoyed were seriously marred by the fact that the figures on the various plates were labeled with abbreviations and that one had to turn to a distant page to find the key to these abbreviations. It would have been bad enough had the key been on the page facing the plate, or at the bottom of the plate itself. Often, to make such a bad matter worse, the terms are not alphabetically arranged—they may even be omitted by error in some cases. Needless to say, a study of such plates involves a great deal of time, patience, labor and even temper. In many instances, unless such papers are of immediate interest, they go unread in so far as a careful examination of the plates is concerned.

In the plates above mentioned, it was noticed that there would have been plenty of room to spell the labels out in full directly on the face of the plates, thus doing away with the necessity for a key, and at the same time effecting a saving of labor and space in production and a saving of time and labor in the ultimate consumption. The artistic qualities of the drawings would not suffer in the least by such a procedure; on the other hand, accuracy and availability would be greatly enhanced.

The present system of indirect labeling of plates is archaic and absolutely unscientific. It should be changed to a system of direct labeling on the figures, together with any necessary explanatory matter (not a key) on the page *facing* the plate. Direct labeling can easily be carried out in all cases except possibly in those rare instances where the details are exceptionally small and numerous. In such cases the key should face the plate and it should be arranged in an alphabetical fashion.

It is to be hoped that those editors responsible for matter of form such as the above in scientific serials will effect changes looking toward improvement.

C. T. HURST

DEPARTMENT OF ZOOLOGY,
MILLS COLLEGE, CALIFORNIA

QUOTATIONS

IN SCIENCE I note that attention is again called to the need of indicating in public addresses the beginning and the closing of a quotation. The terms "quote" and "unquote" are suggested by Mr. Arnold.

Some years ago I knew a very intelligent young woman who used to inform us that her "bright sayings"—some of them—were not original, by raising both hands above her head with the first and second fingers pointing upward. Her fingers were her "quotation marks" and were very easily understood. I have many times since thought that some such signs or signals would be useful for public speakers who wish to indicate when their quotation ends but do not care to say, "the quotation ends here." Probably both hands are not needed for the signal, but both for speaker and for audience some conventional sign would, it seems to me, be worth adopting.

S. FRANCIS HOWARD

NORWICH UNIVERSITY

THE METRIC SYSTEM

I READ with interest the letter of H. J. Page, of the Rothamsted Experiment Station, England, in SCIENCE for June 3, frankly confessing the great advantages of the Metric System over our stupid and inaccurate Anglo-American system of weights and measures, but explaining his use of the Anglo-American term of "quarter," &c., because his paper was intended for the agriculturists and not for scientists.

I beg leave to commend to him the method adopted by the *Journal* of the American Medical Association by which one does not need the searching of dictionaries, etc.

In the text of this admirable *Journal* all weights, measures, etc., are given in the Metric System followed immediately in a parenthesis, by the Anglo-American equivalent. This is gradually educating the public to the Metric System.

I hope and believe that the day of its adoption is drawing near.

W. W. KEEN

PHILADELPHIA, PA.

QUOTATIONS

A BRITISH COLONIAL RESEARCH

THE report of the Committee on Scientific and Research Services, which is published this morning,