In 1925 serious injury to beans occurred in the southern portion of the state. In 1926 the writer carried on further studies in cooperation with the organizations and men mentioned above. It appears that there is a striking correlation between a map showing the economic damage done by the Mexican bean beetle and a map showing the original mixed mesophytic forest prepared by Drs. E. N. Transeau and H. C. Sampson and as yet unpublished. Economic damage to the bean crop in Ohio was confined to the habitat originally occupied by the mixed mesophytic forest in the southern third of the state, with the possible exception of two restricted infestations. This area covers, roughly, the territory south of a line running from Preble County on the west to Fairfield County and thence to Licking County and northeast to Columbiana County.

The distribution of the insect in Ohio[1] corresponds with the trend indicated earlier when studies were being carried on in the southeastern states.[2] It was noted in 1921 that the preferred habitat appeared to be the slopes and valleys in the mountainous or hilly regions.

Studies of evaporation and climate are being made with the aim of analyzing the observations made and to ascertain if such studies may be of value in affording an index for use in forecasting the limits of economic damage of an introduced insect pest in its new habitat. Dr. Transeau informs me that he will soon publish a paper in *Ecology* regarding this important principle.

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CONFUSION IN SCIENTIFIC TERMINOLOGY

THE writer agrees with Professor Uhler's protest regarding the present confusion in the terminology of science. The situation apparently requires the creation of an international commission, involving the English-speaking peoples, which might attempt to standardize the symbols and terms used commonly by physicists, chemists, engineers and mathematicians. A joint committee of the American Association and the British Association for the Advancement of Science should serve the purpose as well as any other representatives.

The International Electrotechnical Commission obviously could not function because the problem relates to English usage and is not limited to electrical subjects. A comprehensive effort toward promoting uniformity in electrical terms is embodied in the work of the Standards Committee of the American Institute of Electrical Engineers. These standards are not recognized, however, by other scientific or engineering interests and are not given sufficient attention by the electrical engineers themselves.

Over ten years ago the electrical engineers decided with good reason that "electrostatic capacity" should henceforth be called "capacitance." Physicists in general have not adopted the new term and in consequence the student passing from his physics courses to electrical engineering subjects is obliged to change his vocabulary. It is the practice of most electrical engineers to use "pound-foot" as a unit of torque, while mechanical engineers commonly use the "foot-pound." The confusion of the latter unit with the same unit of energy is a source of distress to students in elementary mechanics.

The writer has always surmised that the word "voltage," so commonly used to-day, was originally coined by a plumber while engaged in colloquial conversation with his helper. To be consistent one should substitute "amperage" for "current," "ohmage" for "resistance," "gaussage" for "flux density," "kilowatt-hourage" for "energy," etc. Indeed, if one caught the habit, and "garb" were used for "clothing" it should be plumberized into "garbage." If it is argued that "voltage" is justified by the suggestion that the unit is to be in volts in the same manner that "acreage" of land suggests that the unit be in acres, it is without foundation, since the volt is the only practical unit.

The oldest and most rational claimant for the title is "potential." "Difference of potential" or "potential difference" adds nothing to the meaning, since the term applies only to the condition between two specified points, just as we use the word "distance" and not "difference of distance." "Potential difference," moreover, usually involves the use of the clumsy symbol "P.D." Whatever term is adopted it is hoped that some effort may be made to rid from electrical terminology the chain of analogous terms, such as voltage, potential difference, pressure and tension, which only serve to confuse the student and add nothing to the clarity of the meaning.

The situation is further confused when no attempt is made to distinguish between electromotive force and potential. In an early issue of one of the first electrical engineering journals published in the United States (*The Electrician and Electrical Engineer,* of 1884) a writer says, "In fact the terms emf and potential (thus) have been indiscriminately employed in the same sense by writers on electrical subjects to the great confusion of the student." It is a curious fact that this confusion has continued for forty-three years. The amateur radio fan is oblivious of all this. To him everything is "voltage."

[1] DeLong, D. M. *Jr. Ec. Ent.*, Vol. 19, 1926, p. 247.
[2] Howard, Neale F. *Loc. cit.*, Vol. 15, 1922, p. 266.

Another matter that deserves attention is the pronunciation of the terms and symbols. Who has not heard the word "centimeter" pronounced with a French beginning and an English ending? The writer as a student thought from the class-room pronunciation that Joule was a Frenchman until his biography chanced to come into view. The pronunciation of Greek symbols runs all the way from the Doric to the Attic. The writer recently ran across a text in which it was explained that "micro" was Greek for "millionth."

It is most unfortunate in mathematical discussions that the letters of the English alphabet have no distinctive names. It is troublesome enough over the telephone, but when the letters C and Z come through the filter of a professorial full beard the probability of distinction is fifty-fifty. The English have of course avoided this confusion by calling the latter letter "zed."

The importance of taking immediate action in the matter is well illustrated by Professor Uhler's reference to the present usage of the word "battery." It is probable that "battery" has been used incorrectly in place of "cell" for at least thirty years. It is doubtful indeed that a present attempt to revert to the proper usage would have any measure of success.

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SCIENTIFIC BOOKS

The Elements of General Zoology. A Guide to the Study of Animal Biology Correlating Function and Structure with Notes on Practical Exercises. By WILLIAM J. DAKIN. Oxford University Press, London (American Branch, New York) VII+1—496 pp., 252 figs. 1927.

ZOOLOGY is so rapidly becoming an experimental science that the need for an elementary text stressing the physiological rather than the morphological aspect has been keenly felt by many teachers. Professor William J. Dakin has attempted to meet this demand by writing a text-book of physiology illustrated by numerous examples from all fields of zoology. Among the topics considered in this very attractive volume are: the composition of the animal body, nutrition, respiration and the respiratory organs, the blood and its circulation, temperature and animal life, movement of animals, nervous system and sense organs, excretion, growth and reproduction, etc. The book affords an excellent outline for those teachers desiring to change the usual course in general zoology into a more physiological one.

It must be admitted, however, that the title is somewhat misleading, for only a few of the elements of general zoology are included in the work, while others are treated very inadequately. Such is particularly true of the brief chapter on heredity and evolution. The shortcomings of the physiological approach to a general course in zoology are all too obvious in the chapter on the skeleton, where various parts are considered as so many distinct types of machines and no suggestion is given as to how one type has evolved from another. To-day, when function is being emphasized, frequently to the exclusion of form, beginning students should be made to realize that many structures, such as the thyroid, for example, may assume totally new functions in vertebrate evolution without losing their morphological identity. It is evolution which makes zoology a unified science and the student of zoology at the outset of his career should be given the opportunity of glimpsing the whole edifice of animal life before being called upon to analyze the functions of its various parts.

Professor Dakin's book is splendidly illustrated and the many original diagrams will be welcomed by all teachers of zoology. Some teachers, however, will consider the scattering of laboratory directions throughout the body of the text a decided disadvantage from the pedagogical standpoint. Further, one can not help but wonder how long a book without head bands will last in the hands of the average college student.

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SCIENTIFIC APPARATUS AND LABORATORY METHODS

A NEW DEVICE FOR FILING MICROSCOPE SLIDES[1]

THE usual difficulties in filing microscopic preparations mounted on glass slides are: (a) They are inaccessible or lost among hundreds of others filed in small boxes of one sort or another; (b) the more elaborate small cabinets designed for this purpose are relatively expensive and inelastic; (c) slides filed one against the other in drawers stick together and are easily broken; (d) bacterial smears, which are usually without coverslips and sticky with immersion oil, can not be filed one against the other; (e) it is time-consuming to hunt up slides filed in one place and notes filed in another. The device to be described is believed to overcome these difficulties.

A piece of sheet metal, preferably aluminum, three

[1] From the Department of Pathology and Bacteriology of Johns Hopkins University, Baltimore, Maryland.