condensation of water on the glass walls after the mercury had more than half filled the pump, and practically no water was carried over by the mercury at the end of the stroke; then, during the fall of the mercury, no flashing was to be observed at first, but it commenced abruptly and continued after the mercury had come about halfway down. With varying original partial pressures of water vapor, the point at which flashing began differed; but in each instance there was complete absence of flashing while the space above the mercury was saturated, and flashing occurred as in a perfectly dry pump as soon as the space was less than saturated.

These results seem reasonable enough. No considerable potential difference between the mercury and the uncovered glass above it can build up, by separation of the glass and mercury, as long as a slightly conducting film of liquid water is on the glass; but as soon as the liquid film has evaporated, separation of the glass and mercury, as the latter falls in the pump, gives increasing potential difference until discharge through the space above the mercury, with an accompanying flash, occurs; and unsaturated water vapor does not interfere with the process.

THOMAS S. LOGAN
ROGER K. TAYLOR

CHEMICAL LABORATORY,
JOHNS HOPKINS UNIVERSITY

GAS DISCHARGE WAVE-LENGTH LIST IN THE EXTREME ULTRA-VIOLET

WE have prepared a list, arranged in order of wave-length, of the published lines in the extreme ultra-violet (λ 2500 to λ 100) arising from discharges in gases. The elements included are hydrogen, helium, carbon, nitrogen, oxygen, neon, sodium, silicon, argon and mercury. Thanks to support from the Carnegie Institution of Washington it has been possible to publish a limited mimeographed edition of the list, copies of which have been sent to a few spectroscopists to whom we thought it might be of particular use. We should be glad to give copies to any others who may write requesting them.

JANET M. MACINNES
JOSEPH C. BOYCE

PALMER PHYSICAL LABORATORY,
PRINCETON UNIVERSITY

MORE ABOUT A UNIFORM BIBLIOGRAPHIC SYSTEM

IN the issue of SCIENCE for January 10, 1930, Dr. M. C. Merrill, editor of the *Journal of Agricultural Research,* calls attention to certain alleged disadvantages of the name-date system of presenting literature citations. He involves the name-date system in an instance of *reductio ad absurdum* by citing a case where nineteen literature citations were noted at one point. The case used to illustrate the alleged absurdity is rather an exceptional one. An inspection of current articles in a variety of scientific journals will show that the total number of literature citations in the text of papers which refer to a large number of papers is comparatively small. A survey of over 5,100 citations has shown that over 95 per cent. referred to only one article in the bibliography; over 3 per cent. referred to two articles; more than 1 per cent. to three articles, while .31 per cent of them referred to four articles. This makes the proverbial 99.4 per cent. of these citations which referred to one, two or three articles, or 99.9 per cent. of the citations referring to five articles or less. One citation was found in the *Journal of Agricultural Research* which referred to seventeen different articles. This calculates to .01946 per cent. Dr. Merrill calls attention to one other such exception. No others were found containing more than seven citations at one point. It might also be mentioned that, of the ten lines used by Dr. Merrill in his elaborated citation in SCIENCE, nearly three are given over to comments not usually incorporated in such citations.

The use of the letters *a, b, c,* etc., to differentiate between papers published the same year by one author is no more cumbersome than their use for insertion of additional references into a completed manuscript at the galley-proof or other stage. The writer prefers an alphabetical list of references in practically all instances.

Attention is called to the situation where two years' numbers of a journal are bound into one volume. In this connection we should recall that where the name-number system is used the date is included under "literature cited," and it is as easily made accurate and definite by the name-date as by the name-number system. Furthermore, the name-date system keeps before the reader the information regarding the date of publication, which is an aid in evaluating in many instances.

Undoubtedly no one bibliographic system is perfect, nor will it cover all the exceptional cases. Certain possible improvements were suggested in the August 30 issue of SCIENCE. An additional suggestion is the desirability of using bold-faced type to designate the volume number. The advantages of giving the full titles under "literature cited" and of giving a definite and uniform position to each of the four items —name, date, title and literature reference—are again emphasized. This latter suggestion varies from the form used by various journals mainly in placing the reference itself upon a new line in each case rather

than letting it follow the title as is now frequently customary.

Although the writer prefers the name-date system, he is more interested in the matter of uniformity among the different journals. Dr. Merrill apparently agrees with the idea of the desirability of uniformity. If a uniform and improved bibliographic system, the printing expense of which will not be more than the value received, may be cooperatively evolved and adopted, the purpose of the writer's original article will have been accomplished. Such a result can not, however, be accomplished without cooperation in relinquishing certain cherished bibliographic forms by practically all those interested.

Since the foregoing part of this note was written, an editorial has appeared in the January 20 issue of the new edition of *Industrial and Engineering Chemistry* emphasizing the need of standardization of literature references. The present writer believes that a standard form of bibliography and citation should be based upon the preference of those who search the literature with due regard to the preference and convenience of the publisher and printer. The opinions expressed by Dr. Merrill and by *Industrial and Engineering Chemistry* are more from an editorial viewpoint. Those most interested and most affected are the research man, the author and the teacher who use the literature as a basis for scientific progress. An expression of opinion from a large number of men who are interested primarily from the investigators' standpoint should be obtained. Following the adoption of a standard system authors should be required to conform before their papers are considered for acceptance. Let us hope that further consideration may result in the adoption of a uniform standard system for all scientific journals.

J. L. ST. JOHN

STATE COLLEGE OF WASHINGTON

ATTACK BY A SCREECH-OWL

IN the SCIENCE issue of November 1, 1929, there was a short article by Mr. Albert M. Reese, of West Virginia University, about an attack of a screech-owl on several residents of Morgantown, West Virginia.

About 1915, on a farm in north central Mississippi, I had a somewhat similar experience. A colored boy about fifteen years of age complained to me that he was being attacked from the air by some mysterious birds in a wooded section along a creek. These attacks were experienced by the boy between sundown and dark. I went with him the next evening after the complaint was made to the place where the attacks had occurred. Down swooped the birds over our heads, making sounds like some one slapping two thin boards together. They tipped the top of my head several times but did no harm. We scared them off with sticks after they had made many attempts to scratch our heads. I went back to the same place on several evenings for new experiences, even though it did make the cold chills run up my spine to be attacked from the air by birds that I could not see until they were right on me. I took my gun along one evening, and again without warning the attack was on. I saw an object move on a branch of a tree about ten feet from the ground and I fired. Down came a young screech-owl. From then on there were no more attacks by the parents of this young owl. My idea is that screech-owls will attack people only when they have a nest or young birds around. Screech-owls are like many other birds, in that they protect their young ones even after they begin to fly.

W. W. CHAPMAN

PHILADELPHIA, PENNSYLVANIA

MARMOSA AS A STOWAWAY AGAIN

IT seems worth while to add still another note concerning the finding of this small Marsupial, Marmosa (known as the mouse opossum), on a banana stalk in a grocery store. This time it is quite a family group, the female and a litter of nine young. They were found here in a store in Waco, Texas. It was impossible to learn whether the bananas had come from Porto Rico or Central America since the jobber had both in the warehouse.

In this case the interesting feature is the large size of the litter. Rather large litters might be expected from opossums, but the other cases reported have been much smaller. Dr. L. A. Adams, of the University of Illinois, in SCIENCE of February 24, 1928; Professor Geo. Wagner, of the University of Wisconsin, in SCIENCE of April 20, 1928, and Professor Robert K. Enders, of Missouri Valley College, in SCIENCE of April 25, 1930, have all mentioned one or two young with a female. Mr. E. R. Warren in SCIENCE of April 20, 1928, mentions a litter but not the number. It is also interesting to note that the adults reported are females. This may be due to the fact that the female attempts to hide with the young and does not escape before or during the shipment.

The color of the fur of the adult in this case is a golden brown with darker lines through the eyes. The young are almost pure brown. All nine are carried on the back and sides of the mother. They cling to the fur with their mouths and feet and occasionally are aided by the prehensile tail. The mother has been seen to toss the young from the floor to her back with her nose, and the young grasp the fur of her back upon alighting.

G. E. POTTER

BAYLOR UNIVERSITY