PROFESSOR I. M. KOLTHOFF, of the University of Utrecht, has accepted a professorship of analytical chemistry at the University of Minnesota and will begin his work in October. Dr. R. S. Livingston, of the University of California, has been appointed assistant professor of physical chemistry.

DR. CARL SNEED WILLIAMSON, formerly of the Mayo Clinic, Rochester, Minn., has been appointed head of the department of surgery at the University of Arkansas School of Medicine, Little Rock, and Dr. Oliver C. Melson, also of the Mayo Clinic, has been appointed head of the department of medicine.

AFTER many years' activity as lecturer on zoology at the institute for investigations in heredity in Berlin-Dahlem, Dr. Paula Hertwig, the daughter of the former professor of biology, Oskar Hertwig, has been given the title of professor.

DISCUSSION AND CORRESPONDENCE

AGE OF THE "SATSOP" AND THE DALLES FORMATIONS OF OREGON AND WASHINGTON

GEOLOGISTS have differed regarding the ages of the "Satsop" and the Dalles formations of the Columbia River Gorge region. Because of their bearing on the history of the Gorge and for other reasons their ages are important.

During a brief investigation of these beds under the auspices of the Carnegie Institution of Washington, the writers secured fragmentary mammalian fossil remains from the Dalles formation representing not a Quaternary, but approximately an upper Miocene or lower Pliocene stage. This age determination is corroborated by the lithologic resemblance of the Dalles beds to the middle Neocene Ellensburg formation of central Washington, by the apparently similar relations of these two formations to the Columbia lavas, and by the induration of the Dalles beds, which is equal to that of lower or middle Neocene deposits of the west, but much greater than that of Quaternary formations.

In interesting papers by J H. Bretz and by I. A. Williams the "Satsop" in the Columbia River Gorge has been considered Quaternary by correlation, mainly through lithologic similarity, with the fossiliferous marine Satsop on the Washington coast. In the eastern part of the gorge, however, the writers have found the "Satsop" gravels beneath the Dalles beds. Moreover, the "Satsop" gravels can be traced into central Washington where they lie at the base of the middle Neocene Ellensburg formation. Further, the induration of the "Satsop" is considerably greater than that of other Pacific Coast upper Pliocene or Quaternary strata. For these three reasons the "Satsop" of the gorge is also believed to be approximately upper Miocene or lower Pliocene rather than Quaternary.

Since the "Satsop" of the gorge is not the correlative of the type Satsop on the coast, the new name, "Hood River Formation," is proposed for these rather unique conglomerate and sandstone strata. The type section may well be the beds so excellently exposed in the cut immediately east of the Columbia River Highway bridge across Hood River.

A more detailed statement of the evidence and of the bearing of these beds on the geological history of the region is in course of publication.

JOHN P. BUWALDA
BERNARD N. MOORE
CALIFORNIA INSTITUTE OF TECHNOLOGY

MORE DATA

UNDER "Datum and Data" in the July 1 issue of SCIENCE, Mr. Blake says that "We speak and hence write English by ear and not by rules of grammar," and that "in ordinary use," data is not the mere plural of datum. It was, no doubt, recognition of these very unfortunate conditions that prompted the commendable letters of protest regarding the use of "data" in the singular.

There is no standard in the education of ears, and thus it becomes very difficult to eliminate "ain't" from spoken English. The old dictum that use is the law of language presupposes *good* usage, and the best existing criterion of good usage is a good dictionary. No reputable dictionary admits, or is likely to admit, "data" as a singular form.

But the correspondence which I have seen regarding the misuse of "data" entirely overlooks the chief abuse, which consists, not in using the word incorrectly as a singular, but in using it at all when the intended meaning can be more accurately expressed otherwise. Any one who cares to observe will find that, in probably nine cases out of ten, clearness can be gained by the substitution of "facts," "figures," "records," "values," "results," "information," or any one of perhaps a dozen other words which may more aptly fit the particular case. The general use of "data" for all such cases is due to the same slovenly thinking which causes a writer to use "etc." when he is at a loss for another word; or to use such expressions as "in regard to same" instead of repeating, or specifying just what he means by "same."

The laudable desire to adopt "new" words is to a considerable degree offset by failure to see that they are used accurately, and "data" is only one of a large number used erroneously more often than correctly. Though its use in the singular offends the intelligent

reader, the context usually reveals the true meaning. This seems to be less often true in the case of "strata" (used less frequently, but with at least as high a percentage of error). The same desire for new expressions fills our reading matter with such words as "résumé" (for which "summary" is usually better) and "rôle," printed (newspaper style) without accents.

Strangely enough, many a worker who conducts his investigations with the strictest accuracy of which science is capable, publishes his results with little concern for accuracy of statement or nomenclature. Unfortunately, some of the errors escape the attention of even the most vigilant editor. A flagrant error which seems to be gaining ground is the expression "different than." Only two weeks ago it occurred in the *Saturday Evening Post*—one of our most carefully edited journals.

E. H. McCLELLAND
CARNEGIE LIBRARY OF PITTSBURGH

ASSIMILATION OF FIXED NITROGEN BY HAVANA TOBACCO

EXPERIMENTS on the assimilation of different forms of combined nitrogen by Havana tobacco are being made at the Massachusetts Agricultural Experiment Station. Among results to date is the proof of ready assimilation of ureal nitrogen in the unchanged form. Plant growth, however, has not been as rapid with urea as a source of nitrogen as with sodium or calcium nitrate.

A more detailed report of the whole experiment will be made later. On account of the growing importance of urea as a commercial fertilizer, we make this progress report.

A. B. BEAUMONT
G. J. LARSINOS

STANDARD MATHEMATICAL SYMBOLS

A LIST of proposed American standard mathematical symbols has been prepared by a special committee of the American Engineering Standards Committee and the list has been submitted to the sponsor organizations. This list was noted in SCIENCE for August 12, 1927. It has been published in full in the following places: *Jour. Engin. Educ.*, June, 1927; *Jour. Soc. Auto. Engin.*, July, 1927; *Mechanical Engineering*, August, 1927. Since the American Association for the Advancement of Science is one of the sponsor organizations for this standardization project, the permanent secretary wishes to bring this matter to the attention of all members interested, with the request that they examine the list and send him their comments as soon as possible. The comments received will be placed before the executive committee of the association, which is asked officially to approve the list of proposed standard symbols.

BURTON E. LIVINGSTON,
Permanent Secretary

QUOTATIONS

A PORTRAIT PAINTER OF BIRDS

THE birds have lost their most devoted and faithful portrait painter in the tragic and untimely death of Louis Agassiz Fuertes. For he was not only a great ornithologist. He was for the birds what such an artist as Sargent was for men. There are not a few artists who have represented with more or less accuracy the color, form and pose of birds, but the portraits painted by Fuertes, who had a genius for individualizing every bird he saw even in its facial expression and in depicting what he saw with practiced vision that was as a sensitized plate, also revealed the character of the living creature. All birds of a feather look alike to the ordinary observer, but every owl and toucan painted by Fuertes, as Frank M. Chapman said in writing of him many years ago, had its individuality, was instinct with life, and differed from the drawings of the inexperienced or unsympathetic artist as a living bird from a stuffed one.

Dr. Fuertes's opportunities for field study were greater than those of any other painter of birds, from the boreal birds of the Bering Sea to the flamingoes of the warmer regions. He studied the birds of Texas, California, Nevada, Jamaica, the Gulf of St. Lawrence, the Bahamas, Florida, Saskatchewan, Alberta, Yucatan, Mexico, Colombia and Abyssinia. He made thousands of drawings, many of which have been widely reproduced and have been of the greatest value in interesting the public, children especially, in bird life, and acquainting them with the characteristics, the habits and the migrations of birds and their relation to human life.

But the contribution that will be his permanent monument in this state is his collection of portraits of the birds of New York (made for the illustration of Eaton's great work on the "Birds of New York"), which was purchased by Mrs. Russell Sage and presented to the State Museum at Albany. The birds will come and go with the seasons through the years all unwitting of his absence, but they can not become wholly extinct, for they will be preserved there as in life. He whose skill has given them this sort of immortality, in season and out, needs "no trophy, sword or hatchment o'er his bones," for they in turn will preserve the memory of his genius and of his devotion to them.—*The New York Times.*