member of the graduating class who stands highest in his class at the Sheffield Scientific School.

GIFTS to Columbia University, aggregating $44,770, have been announced, to be used largely to finance research in medicine, chemistry and allied sciences and to support work in other fields. The larger gifts include $24,200 from the John and Mary R. Markle Foundation in support of a study of the chemotherapy of filariasis; $5,000 from the Lederle Laboratories, Inc., to be credited to the Bell gift for enzyme chemistry in the department of medicine, and $4,000 for dietary research from Swift and Company.

Chemical and Engineering News reports that the Howes Publishing Company has endowed an Olney Medal to be awarded by the American Association of Textile Chemists and Colorists "to afford public recognition of outstanding achievement in the field of textile chemistry" and as a testimonial to Louis Atwell Olney, president emeritus of the association and chairman of its research committee, in recognition of his lifetime of devotion and contributions to this field. The candidate receiving the award will be selected by a committee of five members of the association.

THE Library of the U. S. Department of Agriculture is now issuing a monthly Bibliography of Agriculture, which will organize all the information in current agricultural literature, regardless of the form of the publication or the language in which it was originally published. The number of titles listed each year is expected to exceed 50,000.

THE first issue of the *British Journal of Industrial Medicine* is to be published in January, 1944, under the editorship of Dr. Donald Hunter. It will appear quarterly. Its headquarters are at the British Medical Association House, Tavistock Square, London, W.C. 1. Editorial communications should be sent to Dr. Hunter at the London Hospital.

THROUGH Dr. John D. Long, of the Pan American Sanitary Bureau of Washington, who recently visited Uruguay, the Government of the United States has offered a donation of $500,000 to Uruguay for improvements in public health. Uruguay will contribute an additional fund of $100,000 for the same purpose. The work will be carried on by American and Uruguayan specialized technicians.

DISCUSSION

VITAMER OR ISOTEL? BOTH?

IN the issue of SCIENCE for October 29, Dr. Roger J. Williams criticized the choice of the word "vitamer" to "designate vitamin forms that can replace one another."

Rather, I believe, the word vitamer was coined to represent just what its root words mean, life-part, that part of the diet of any animal that performs the same function, regardless of the fact that quite different chemical entities may be required in different species to perform this specific effect that the vitamer under discussion is characterized for.

That is a separate purpose than that for which Dr. Williams suggests the term "isotel." An isotelic vitamin or food factor would be, according to his definition, a factor that can replace another in a given diet or nutrient media, for some specified species, or under a given set of circumstances. Evidently, we are in need of both terms to accurately express ourselves in dealing with the situation we are confronted with.

Vitamer A, accordingly, is that factor in any nutrient system that provides the vitamin A effect. It may be carotene for one species, kryptoxanthin for another, vitamin A_1 in salt water fish, vitamin A_2 for fresh. But for the human species, carotene is isotelic with vitamin A, for carotene can be converted into vitamin A in the human, thus can replace it in the diet of this specific species. Carotene, for the human species, therefore, would be isotelic with vitamin A. In the case of the cat, however, which can not make this conversion, carotene is not isotelic with vitamin A. A list of the vitamin A isotels for the cat would not include this factor.

The A vitamers for the cat are the isotelic substances that afford the nutritive effect of vitamin A for the cat. If the cat can only make use of one substance, there are then no vitamin A isotels for the species, but there always would be a vitamer A for any species that requires that vitamin in any form.

The term vitamer is just as hypothetical as the term carbohydrate or protein. A carbohydrate is that portion of the diet that supplies energy. It may be starch for the human, cellulose for the rabbit. Cellulose is not isotelic with starch for the human organism, but it is for rabbits and ruminants.

As cobalt and manganese are isotelic in their effect of activating enzymes, this term may be found representative for probably all classes of food factors, whether simple or complex. Vitamers, however, seem to be representative of the more complex food factors. Such of the vitamins as are found conjugated with proteins in foods seem to be relatively specific for species. The pellagra preventive vitamer is a good example.

ROYAL LEE

LEE FOUNDATION FOR NUTRITIONAL RESEARCH,
BROOKFIELD, WIS.