

vision of economic zoology. Professor A. G. Ruggles was, at the same time, appointed station entomologist, which position carries with it the office of state entomologist. At the December meeting of the board Professor F. L. Washburn, who has held the position of state entomologist in Minnesota for nearly sixteen years, asked and obtained permission to be relieved of that position and its attendant police duties, and the action of the board on the eighteenth was necessary to fill the vacancy thus caused.

MR. D. C. DUNCAN, assistant professor of physics at Purdue University, has resigned his position to accept appointment in a similar capacity at the Pennsylvania State College.

E. G. WOODWARD, formerly head of the dairy department at the University of Nevada, has been made head of the dairy division, State College of Washington.

I. D. CHARLTON, professor of agricultural engineering at the State College of Washington, has resigned to accept a similar position at the University of Minnesota.

DR. WILSON GEE, professor of biology in Emory University, has resigned to become assistant director of agricultural extension work in South Carolina. His successor is Dr. R. C. Rhodes, formerly assistant professor of biology in the University of Mississippi.

PROFESSOR F. DE QUERVAIN has been appointed to the chair of surgery in the University of Berne in succession to the late Professor Kocher.

## DISCUSSION AND CORRESPONDENCE

### VITAMINES AND NUTRITION

IN this national food crisis when people are scrutinizing the make-up of their diet for patriotic, economic and physiologic reasons the proper selection of food materials looms up as a problem of no mean proportions. Especially is this true with those who, having attempted to keep abreast of the most recent developments in nutrition, have had their faith in former practises shaken by a smattering of knowledge of the importance of vitamins in the dietary. Truly, from the standpoint of

the investigator, an appreciation of the rôle of vitamins has made and will make much progress in nutrition possible and in every way more complete, but from the standpoint of the people as a whole it is questionable if the possibility of a lack of vitamins in the diet is of more serious import than that of the lack of suitable proteins or mineral constituents.

Vitamins as a class are now acceptably divided into a fat soluble and a water soluble type. Both are absolutely essential in a complete diet and both vary considerably in their occurrence. Individually many foods are deficient in one or both of them, but safety has undoubtedly been assured to the consumer by his desire for variety. It is scarcely to be doubted that in the American diet there is probably no danger of a lack of sufficiency of the water soluble vitamin, but with the fat soluble type the case is not so clear. Up to the present, studies on its occurrence are limited to a few seeds and leaves, and fats of plant and animal origin. While butter fat is richer in this dietary essential than butter substitutes, it is still too early to predict if in the aggregate this special property of butter fat warrants its taking a superior place in the mixed diet. The fat soluble vitamin has recently been found in this laboratory to occur in liberal amounts in edible roots as compared with our cereal grains, but it has also been found to be quite easily destroyed—apparently by oxidation. The chemical stability of the dietary essential and its occurrence in various foods is now being studied in this laboratory to determine if there is any probability of a varied diet of raw and prepared foods being deficient in this constituent.

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## A FLOOD IN THE VALLEY OF THE ORISKANY CREEK, NEW YORK

ON Monday, June 11, 1917, there occurred in central New York a flood which was remarkable in respect to the damage done in a very limited area, and the control of the waters by physiographic conditions.