

of unselfishness lived only for their good and for the advancement of the science."

REGISTRATION for the new courses in public health administration, offered by the University and Bellevue Hospital Medical College, indicate that many health officers, both of the New York City's health department and from other localities of New York State, are taking work in compliance with the new requirement of the New York State Public Health Council. Those connected with the municipal health department who have enrolled for this work now number twenty, while the enrollment of those who have elected the correspondence method for meeting the new ruling has reached a total of fifty. The new courses, which were first offered by the university during the past summer, have been arranged in accordance with the new regulation of the Public Health Council, which has made it obligatory for health officers to supplement their professional education with further instruction in administering to the general health of the community. For students who have previously secured their M.D. degree, upon the completion of one year of study, including actual attendance at lectures and laboratory work, it is possible to earn the degree of doctor of public health.

FROM investigations carried on by the New York State College of Forestry, at Syracuse, in the basket willow growing section about Liverpool and Lyons in New York state and in the study of reports of basket manufacturers, it finds that the bulk of the willow ware used in the United States is manufactured in the little town of Liverpool, just north of Syracuse. The Liverpool shops use over 3,000 tons of basket willow stock which is 75 per cent. of the total stock used in the country. About a year ago basket willow stock was bringing from \$20 to \$25 per ton delivered at the Liverpool factories. To-day, owing to the cutting off of the foreign supply the prices average about \$30 a ton, and that in spite of the increased local production. There are few industries using the products of the forests where there is as little waste as in the basket willow industry. The only part of the willow stem or

cane that is thrown away is the bark. The College of Forestry is planning to carry on investigations in the Eastern Forest Products Laboratory to see whether the bark of the willow does not have some use as a source of certain chemical products. The returns from land upon which basket willow is grown are larger than the returns from any crop produced on lands in the state outside of nursery stock. Often land of little or no value because of its wet condition can be used for the growing of willow and as culture is not necessary there is practically no labor except at the time of cutting in the fall. Cutting is usually carried on in November and as the canes are taken out they are tied up in bundles of from 50 to 100 each. At the factory the canes are steamed, peeled and dried and are then ready for use. In sections about Liverpool and about Lyons it has been estimated that owners of willow holts often take in from fifty to one hundred dollars per acre per year over a growing period of 30 years.

UNIVERSITY AND EDUCATIONAL NEWS

A GIFT of \$150,000 to Harvard University with which to found a professorship in archeology is contained in the will of Mrs. Eunice Melles Hudson, widow of a former president of the American Bell Telephone Company, which was filed for probate here.

ON the recommendation of the minister of public instruction, there were created by a decree dated October 7, 1915, a chair of topographic anatomy and a chair of bacteriology in the Faculté de médecine of the University of Paris.

THE committee of inquiry of the American Association of University Professors which is preparing a report on the case of Dr. Scott Nearing, of the University of Pennsylvania, consists of the following: Professors Davis R. Dewey, Massachusetts Institute of Technology; Henry Farnam, Yale University; F. H. Giddings, Columbia University; Roscoe Pound, Harvard University; A. O. Lovejoy, *Chairman*, Johns Hopkins University.

DR. FREDERICK A. WOLF, plant pathologist of the Alabama Agricultural Experiment Sta-

tion, has accepted the position as head of the department of botany and plant pathology in the North Carolina Agricultural and Mechanical College, West Raleigh, N. C. He will enter upon his new duties on January 1.

ARTHUR S. RHOADS, who has a bachelor's and master's degree in science from the Pennsylvania State College, has recently taken a position as assistant in forest pathology in the New York College of Forestry.

DR. E. W. A. WALKER, fellow of University College, Oxford, has been appointed lecturer in pathology.

DISCUSSION AND CORRESPONDENCE

PRE-CAMBRIAN NOMENCLATURE

TO THE EDITOR OF SCIENCE: The State Geological Reports often contain facts which are of wide interest but which are liable to be overlooked. As all general conclusions must depend on local facts, it seems to me to be the duty of those who recognize the wide bearing of these local facts to bring them to public notice. I have just received a book¹ in which the results of the "Contributions to Pre-Cambrian Geology" by R. C. Allen, affect not merely Michigan, but the whole subject of Pre-Cambrian nomenclature. For instance the very interesting and valuable tables published by Miller and Knight showing the correlation of Pre-Cambrian rocks² might be revised by the authors in view of this publication.

Now the main point is this: Andrew C. Lawson in his study of the pre-Cambrian rocks urges that the Animikie, which has always been considered a part of the Huronian period, is a period independent of, and later than the Huronian period. The author, R. C. Allen, shows good reason to believe that the Gogebic which has always been correlated with the Animikie should be correlated with the *middle* Huronian. He accordingly correlates the Animikie as *middle* Huronian. This seems to me to be worthy of

mention in as much as Allen has not confined himself to work in Michigan but has worked in the original Animikie region. I first met him there.

Now, in view of these facts, I may put in print suspicions which I have only breathed in conversation, namely, that in the original Huronian where there are bright bits of jasper in the Thessalon conglomerate, they were derived from a *middle* iron-bearing series which is not well represented in that area. In view of the facts brought forward by Allen which indicate that the Gogebic was invaded by granite intrusions, and then later was overlaid unconformably by another formation, the Copps formation, it seems to me it would be very premature to make the changes suggested by Lawson or by Miller and Knight. I have no doubt the facts presented in this report will have to be carefully scrutinized by these writers, who will undoubtedly form their own conclusions.

In the meantime we must be very careful about trying to make widespread pre-Cambrian subdivisions. In any one district the division line between those strata affected by granite intrusions and metamorphosis and those not so affected is marked, and such was practically the line between the Huronian and Laurentian as originally mapped. But it becomes more and more clear that granite intrusions on a large scale have taken place in different regions at different dates. And it is very doubtful to me whether the habit of grouping granite intrusions under names which are more or less correlated with inter-geologic periods is a wise arrangement.

The same report contains a valuable paper by Case and Robinson which emphasizes and shows the correctness of the downward salients of Schuchert's curve showing the extent of the ocean in those times in the paleozoic section in Michigan. What we need to do for the pre-Cambrian is to adopt the same laborious process that Schuchert has completed and see if possibly different types of strata, such as the great Middle Huronian (Mio-Huronian) iron-bearing formation may not, as I have suggested, correlate with definite stages in the

¹ Pub. 18, Geol. Series 15, Mich. Geol. and Biol. Surv., by Allen and Barrett.

² P.-C. Geol. of SE. Ont., by Miller and Knight, Rep. Bureau of Mines, Vol. XXII.