

ture for identification. During recent excavations in Davidson County, Tenn., Mr. Meyer came upon a number of stone slab graves containing mortuary vessels. Some of these held specimens of charred maize in fairly good condition. From the size and shape of the grains it was possible to identify the variety as Many-Rowed Tropical Flint, a form about half way between true flint and popcorn. The same type of Indian corn occurs in the West Indies, and there appears to have been a very early communication between the West Indies and North America. Not only corn but beans, squashes, pumpkins, and tobacco are of tropical and subtropical origin. These staples, now so important throughout both hemispheres, found their way into North America and were cultivated beyond the Great Lakes in Canada long before the discovery of America. There is abundant evidence of communication between the West Indies and Florida, and up the Mississippi and its tributaries.

THE *Brazil Medico* announces that Dr. Cleef, professor of chemistry at Bello Horizonte, reports the discovery in Minas Geraes of a mineral substance hitherto unknown which possesses great radioactive properties.

UNIVERSITY AND EDUCATIONAL NEWS

YALE UNIVERSITY has begun the construction of the new Sterling Chemical Laboratory. It is hoped that this building will be ready for the use of the department of chemistry in October, 1922.

New members of the faculty at the University of North Carolina, at the beginning of the fall term include G. M. Braune, professor of civil engineering; H. B. Anderson, associate professor of pathology; H. F. Janda, associate professor of highway engineering; F. C. Vilbrandt, associate professor of industrial chemistry; H. W. Crane, associate professor of psychology, and E. L. Mackie, assistant professor of mathematics.

MISS EDITH NASON, Ph.D., Yale, 1921, has been appointed an instructor in organic chemistry at the University of Illinois.

MR. HENRY R. HENZE, who received his Ph.D. degree from Yale in June, 1921, has become adjunct professor of chemistry in the medical school of the University of Texas at Galveston.

DISCUSSION AND CORRESPONDENCE A NEW DEFINITION OF PURE MATHEMATICS

DURING the present year there appeared a volume of the *Acta Mathematica*, volume 38, which was dedicated to the memory of H. Poincaré, the noted French mathematician who died in 1912. This volume opens with an account of his own works by Poincaré in which he deals briefly with his own contributions to the advancement of various subjects. This is followed by a report on the theory of groups and the works of E. Cartan, which Poincaré read before the council of the faculty of sciences of the University of Paris on the eve of the operation resulting in his death. The rest of the volume is devoted to letters and to various articles written by others but relating to Poincaré and his works.

In the present note we desire to direct attention to the second article mentioned above, which seems to be one of the last articles, if not the last article, written by Poincaré, and contains some remarkable statements in regard to the theory of groups. One of these is as follows: "The theory of groups is, so to say, entire mathematics, divested of its matter and reduced to a pure form." The interest in this statement should be increased by the fact that it may be regarded as a new definition of pure mathematics, the skyscraper among scientific structures. One of the best known other definitions is due to B. Peirce, who stated that "mathematics is the science which draws necessary conclusions." It should, however, not be inferred that the latter definition has been generally accepted as an entirely satisfactory one, nor do we want to create the impression that the former is likely to be universally adopted.

It may, however, be a matter of wide interest to see what Poincaré meant by the statement quoted above. Such an insight can probably be best gained by reading his own