

period of three years, and cost more than \$100,000.

### UNIVERSITY AND EDUCATIONAL NEWS

THE Yale University School of Medicine will receive \$14,845 by the will of Norman B. Bayley.

THE new master of Magdalene College, Cambridge, Mr. A. C. Benson, has established a Charles Kingsley lectureship in natural science in the college with an income of £150.

A SCHOOL of applied social sciences will be opened at Western Reserve University, at the beginning of the next academic year. It will be a graduate school with a two-year course, in which supervised field work will be an essential part of the plan.

At the University of Cambridge the proposed grace relating to the admission of women to the first and second M.B. examinations and the examination in architectural studies has been withdrawn, in order that reports on the subjects may be presented to the senate by the boards concerned.

MR. J. H. HILL has been appointed professor of mathematics at the Ohio Northern University.

R. L. DAUGHERTY has been appointed professor of hydraulic engineering at Rensselaer Polytechnic Institute. He has for the past six years been assistant professor of hydraulics in Sibley College, Cornell University. He succeeds at Rensselaer Professor Lewis F. Moody who has gone into private practise. Professor Daugherty is the author of "Hydraulic Turbines," "Centrifugal Pumps" and "Hydraulics." He graduated from Leland Stanford University in 1909 and was an instructor in experimental engineering there the following year.

THE following appointments have been made to the medical faculty of New York University: clinical professors of surgery, Drs. Joseph B. Bissell, Thomas A. Smith, Walter C. Cramp and Arthur M. Wright; professor of clinical surgery, Dr. William C. Lusk; chief of clinic, department of surgery, college dis-

pensary and instructor in surgery, Dr. W. Howard Barber; instructor in surgery, Dr. George Francis Cahill; clinical professor of medicine, Dr. Theodore J. Abbott; instructor in medicine, Dr. Hubert V. Guile; clinical professor of cancer research, Dr. Benjamin M. Levine; assistant professor of bacteriology and hygiene, Dr. Charles Krumiede, and instructor in bacteriology, Miss Mary Smeeton.

### DISCUSSION AND CORRESPONDENCE

#### BEES AND MENDELISM

SOME confusion of thought as regards Mendelian expectations is apparent in Mr. Quinn's article<sup>1</sup> dealing with his interesting observations on the inheritance of body color in crosses of Italian with Caucasian bees. Mr. Quinn considers that his observations are not in accord with those of Newell because the latter concluded that "the production of an  $F_1$  (heterozygous) drone seems to be an impossibility and this, in turn, makes the production of a strict  $F_2$  generation look like another impossibility." But Quinn reports obtaining a typical 1:2:1 ratio of pure yellow: heterozygous yellow: pure gray queens in  $F_2$ , which he considers evidence that the drones as well as the queens of the  $F_1$  generation are heterozygotes. This would indeed be true if a single  $F_1$  queen mated with a single drone gave the result stated. But Quinn does not so report the facts. His statement apparently applies to the  $F_2$  queens considered collectively, not to those produced by a single  $F_1$  mother. If, as both Newell and Quinn suppose, all  $F_1$  queens are heterozygotes and produce equal numbers of I and C gametes, and if they are mated some with pure I and others with pure C drones, then the expectation as regards their female offspring is that actually observed by Quinn. For a mating with a pure I drone should produce 1 II + 1 IC zygotes; and a mating with a pure C drone should produce 1 IC + 1 CC zygotes; and if the two kinds of matings are equally productive, their combined result would be 1 II + 2 IC + 1 CC, as reported by Quinn. It is therefore unneces-

<sup>1</sup> SCIENCE, June 30, 1916.