

been begun in breeding, hatching and rearing. Unfortunately, Professor Willard Thompson, the director, who is mainly responsible for the planning of the equipment, is returning to America next month, and his successor has not yet been appointed, though it is unlikely that the change will affect the continuity of the policy.

The institute will be devoted to the practical testing of scientific theories and knowledge. Information derived from purely scientific research at Cambridge and elsewhere will be submitted to investigation under practical conditions, and the results will be carefully analyzed and tabulated. Methods of housing will enter largely into the scheme, and criticism of some of the designs that have been adopted would be premature in view of the fact that the purpose is to break new ground and not merely to confirm principles already adopted in this country. For example, a square laying house, 20 ft. by 20 ft., of a type not uncommon in America, has been set up with a view to testing such accommodation for farm flocks, and it is claimed that a square building entails less structural cost than a long one. It remains to be seen, however, whether the window-space is sufficient and the interior adequately lighted to afford proper scratching quarters for a large flock of hens during an English winter.

The institute provides for a practical test of all systems of housing and rearing, while special interest attaches to its investigation of food problems. Some striking results have already been obtained by the use of milk in rearing chickens, and also for providing a supplementary food for laying stock in the place of meat and fish meal; and it would appear that where there is an economical supply of milk, such as is obtained at the institute from goats which subsist largely upon the herbage in the stock runs, a substantial gain will result. A portion of the experiment farm has been set aside for waterfowl, and pigeons and rabbits are also included in the scheme, which is likely to be of considerable benefit to the small farmer.

### MORTALITY IN GERMANY

A CORRESPONDENT of the *Journal* of the American Medical Association writes as follows in regard to the effort of Germany to attain the lowest mortality rate in Europe:

For a century, Norway had the lowest mortality in Europe. As early as the middle of the eighteenth century, infant mortality in Norway was as low as it is to-day in the German *reich* because of the widespread application of advanced principles of social welfare. Hence, the chances of attaining old age in Norway were better than in other countries. In recent years, however, Germany, weakened by war and by scarcity of food, is

among the nations in which mortality conditions are most favorable. Oberregierungs-Rat Roesle, in an article in the *Deutsche medizinische Wochenschrift*, points out that Germany does not lack much of holding the European low mortality record. As early as 1920, the mortality of Germany dropped to 15.1 per thousand of population, thus attaining very nearly the prewar minimum. In 1924 and 1925, the rate reached the low figures of 12.12 and 11.9, respectively. The contest with Norway, among the European nations, began in the first decade of this century, when the mortality rate of Denmark threatened to wrest the record from Norway. In 1912, the Netherlands, a new competitor, appeared. The mortality rate of the Netherlands for the years 1923, 1924 and 1925 nearly equaled the world record, which New Zealand, with a rate of 8.3, holds at present. In 1923, the rate for the Netherlands was 9.9, which was as low as that of Australia in 1924, and then dropped to 9.2. The lowest mortality rates after the Netherlands are recorded in Denmark (11 per thousand), Norway (11.1), Sweden (11.4), England and Wales (11.6), Switzerland (11.8), and Germany (11.9). In almost all those countries, however, the birth rate threatens to fall lower than the lowest birth rate record, heretofore held by France. Whereas in France the declining birth rate has, since 1922, been brought to a standstill, as was the case before the war, in all the countries with strikingly low mortality rates the birth rate has fallen markedly. Two countries, England and Sweden, have attained the minimum for France; Switzerland reached it in 1923. Also Germany's birth rate is only slightly higher than that of France. In 1924, the birth rate for Germany (living births) was 20.5 per thousand of population; the rate for France was 19.2, for England, 18.3, and for Sweden, 18.1. The low birth rate, therefore, which results in a low infant mortality rate, influences favorably the general mortality rate. Low mortality rates in the countries in which they obtain go hand in hand with low infant mortality rates. Since the war, a new record for infant mortality has been established. Previously, Norway, with a figure of 6.4 per hundred living births, had the lowest infant mortality, but Sweden for 1923 announced a rate of 5.6 and the Netherlands a rate of 5.7. Switzerland, England and Denmark reached the lowest infant mortality rates of record for their respective countries: 6, 6.9 and 7.7. Germany, whose infant mortality rate in 1921, 1922 and 1923 hovered around 13, in 1924 recorded a rate of 10.8, thus gaining a position among the countries with the lowest infant mortality rates. The most important aspect of the situation is the excess of births over deaths, which constitutes an expression of the natural increase in population. In increase of population the Netherlands surpasses all other European countries, with an excess of births over deaths of 10 per thousand of population, whereas the corresponding excess in Germany, England, Sweden, Switzerland, France, Belgium and Austria since 1922 has always been below that figure. Also the tuberculosis mortality rate for Germany has fallen considerably, and bids fair soon to overtake the countries with the best

records in that regard; namely, Denmark, England, the Netherlands and Belgium. According to Roesle, not only the general mortality rate but also the infant and the tuberculosis mortality rates have thus taken a very different course, during recent years, in Germany than was prophesied in many quarters.

### FALL EXCURSION OF THE NEW ENGLAND INTERCOLLEGIATE GEOLOGISTS

THE twenty-second annual excursion of the New England Intercollegiate Geologists was held in the vicinity of New Haven, October 8 and 9. Dr. C. R. Longwell, of Yale University, made the arrangements for the excursion. Friday afternoon points of interest about New Haven were visited. The intrusive dikes and sheets at West Rock, Pine Rock and East Rock were of special interest because of the classic studies made by Professor J. D. Dana. They also served to stimulate a discussion of the advance of geologic thought since the death of Professor Dana.

On Saturday the group studied the Anterior Trap sheet north of East Haven, the major fault between the Triassic basin and the rocks of the Eastern Highland of Connecticut south of Beacon Hill, the replacement of the Middletown series by granite near Haycock Point, the geology of the new reservoir of the New Haven Water Company near North Branford, the "fanglomerates" at the base of Quonnipaug Mountain in North Guilford and an explosive volcanic vent south of Durham. The day's work centered about the question concerning the method of formation of the Triassic depression. It was generally agreed that the theory illustrated by Barrell's diagrams was correct.

The attendance was record breaking. The institutions represented were Brown (8), Choate School (1), Clark University (4), Columbia University (1), Colby (2), Hartford High School (3), Harvard (8), Mount Holyoke (4), Norwalk High School (1), Rhode Island Teachers College (2), Smith College (4), Trinity College (3), Tufts (1), University of Vermont (1), Wesleyan (4), Williams (1), Yale (23). The total attendance was therefore seventy-one, over twenty more than were ever present before.

WILBUR G. FOYE,  
*Secretary*

### APPOINTMENTS AT STANFORD UNIVERSITY

STANFORD UNIVERSITY, following out its plan of development, has made a number of new appointments to its faculty this year.

Dr. Arthur L. Bloomfield, an authority on diseases of the throat and respiratory tract, has gone from the Johns Hopkins University to become head of the department of medicine in the Stanford Medical School, succeeding the late Dr. A. W. Hewlett. In the

Medical School, also, Dr. Emile Holman has become head of the department of surgery as successor to Dr. Stanley Stillman, who has retired. Dr. Philip E. Smith, for fourteen years connected with the department of anatomy at the University of California, has become associate professor in the same department at Stanford. Dr. Frederick Leet Reichert is taking the place of Dr. Edward B. Towne as associate professor of surgery at the Stanford Hospital.

The new head of the department of mechanical engineering, Arthur B. Domonoske, formerly of the University of California, has taken up his duties, succeeding Professor Everett Parker Lesley, who is devoting all his time to his work as one of the division heads in the newly instituted Daniel Guggenheim Laboratory of Aeronautics. Similarly, in the absence of Professor Eliot Blackwelder, of the department of geology, Dr. Paul MacClintock, of the department of geology at the University of Chicago and dean in the college of arts, literature and science there, is at Stanford during the present quarter.

With the addition this year of Dr. James W. McBain to the faculty of the department of chemistry one of the most important laboratories for research in the field of colloid chemistry will be established. Dr. McBain, now Leverhulme professor of physical science at Bristol, holding a chair endowed for him individually by Lord Leverhulme, a distinguished leader in his specialty of colloids, will take up his work in January, being on leave for the first quarter of this year. With him will come also his two chief aids at Bristol, Dr. Mary Evelyn Laing, as research associate, and Miss Mabel Harriett Norris, research assistant. They will join the Stanford faculty, enabling Dr. McBain to continue without interruption the investigations on which he has been engaged and to proceed with new work.

### SCIENTIFIC NOTES AND NEWS

THE Nobel prize for medicine has been awarded to Professor Johannes Fibiger, of the University of Copenhagen, for his work on cancer.

DR. W. D. COOLIDGE, assistant director of the General Electric Company's research laboratory at Schenectady, N. Y., gave, at the Franklin Institute on October 19, the first public demonstration of his new cathode ray tube, a preliminary account of which was given in *SCIENCE* for November 13, 1925. At the same time the institute presented Dr. Coolidge with their Howard N. Potts gold medal, given for "distinguished work in science or the arts."

THE Perkin medal for 1927 has been awarded to Dr. John Teeple, treasurer of the American Chemical Society, for "significant scientific, technical and ad-