

lection of optical apparatus and machinery, for instruction and research, particularly in applied optics, optometry and physiological optics. On February 29 an exhibition of the apparatus was held in Fayerweather Hall. Mr. Adolph Lomb himself was present and also Mr. Max Poser, of the Bausch and Lomb Optical Company. President Butler accepted the gift on behalf of the trustees of the university and Dr. Herbert E. Ives, president of the Optical Society of America, delivered an address on modern progress in physiological optics.

DR. PHILIP FRANKLIN, instructor in mathematics at Harvard, has been appointed to fill the vacancy in the mathematics department at the Massachusetts Institute of Technology caused by the death of Professor Joseph Lipka.

THEODORE H. DILLON, professor of electrical engineering at the Massachusetts Institute of Technology, has been appointed to the chair of public utility management in the Graduate School of Business Administration of Harvard University.

DR. J. E. HOLLOWAY, known for his work on the ferns of New Zealand, has been appointed lecturer on botany in the University of Otago, Dunedin.

DISCUSSION AND CORRESPONDENCE PROPORTIONS OF DEFECTIVES FROM THE NORTHWEST AND FROM THE SOUTH- EAST OF EUROPE

THE report of the Committee on Selective Immigration of the Eugenics Committee of the United States of America, published extensively in the newspapers, and recently by the *Eugenical News* (February), contains the following statements:

Dr. Laughlin's studies bring out another very striking and important fact, *viz.*, that immigrants from northwestern Europe on the whole contribute far less in proportion to our alien socially inadequate institutional population than do those from southeastern Europe.

A percentage limitation based on the census of 1890 would therefore not only reduce (1) the inflow of unskilled "cheap" labor, but would also greatly reduce (2) the number of immigrants of the lower grades of intelligence and (3) of immigrants who are making excessive contribution to our feeble-minded, insane, criminal and other socially inadequate classes. Percentage limitation based on the 1890 census, therefore, is the simplest, most logical and most effective means readily at hand for accomplishing all three of these very necessary things.

The proposition numbered (3) is a deduction from the first sentence quoted, but it is an illegitimate and incorrect one; and the first sentence quoted is enlightening only when the precise conditions on which it is based are understood. The proportion of "in-

adequates" contributed by northwestern Europe on the one hand, by southeastern Europe on the other hand, depends on the relative numbers present from particular subdivisions of those regions. The different subdivisions give extremely different proportions of inadequates. Thus, from northwest Europe, according to Laughlin, the proportion of inadequates yielded by Ireland is almost twice that yielded by Germany. It is obvious that the proportions contributed by northwestern Europe will be extremely diverse, depending upon whether the immigrants from that region are preponderatingly of such a type as that coming from Ireland, or of such as that coming from Germany. Parallel statements may be made for the diverse groups coming from southeastern Europe; Austria-Hungary, for example, shows the smallest proportion of defectives yielded by any of the major sources of immigration.

Now, the relative numbers of the different nationalities present in our European-born population of 1890 is extremely different from that of 1910; so much so that deductions based merely upon the relative proportions from northwest and southeast Europe in the two cases yield erroneous conclusions. If Laughlin's "quota fulfilments" are accepted as representative for the diverse groups,¹ the change to the 1890 percentage basis does not, other things being equal, tend to reduce the number of institutional socially inadequates. This is due mainly to the fact that in 1890 Ireland, which yields much the highest proportion of inadequates of any of the major groups, constituted in 1890 twice as great a proportion of our European-born population as it did in 1910. Laughlin's figures, if taken as typical, enable us to compute the respective numbers of institutional inadequates that would be contributed by two equal European-born populations constituted one as in 1910, the other as in 1890. I have carried out this computation; the results are set forth in the volume of hearings recently published by the congressional committee on immigration (pp. 512-518). It is there shown that on the basis of Laughlin's findings a European-born population constituted as in 1890 would contribute practically exactly the same number of institutional defectives as an equal European-born population constituted as in 1910. The proportions of the different kinds of defectives would be diverse in the 1890 combination; the number of insane would be 5.7 per cent. greater; of dependent 57.1 per cent. greater; of epileptic 3.0 per cent. greater; while the

¹ Laughlin's data and conclusions have been subjected to destructive criticism by R. R. Lutz (Hearings of the Committee on Immigration 1924, pages 250-283), and John M. Gillman (*Ibid.*, pp. 540-550), but these criticisms seem not to affect directly the data as to the relative proportions of defectives derived from different European-born groups.

number of criminals would be 42.4 per cent. less; of feeble-minded 20.9 per cent. less; of tuberculous 19.6 per cent. less. These increases and decreases in the different classes offset each other, so that for all classes of inadequates together the number from the 1890 European-born population is merely 0.9 per cent. greater than from the 1910 population. There appears, then, to be no basis in Laughlin's studies for the statement numbered (3) quoted above from the report of the immigration committee.

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THE POLICY OF THE SIGMA XI IN REGARD TO STATE COLLEGES

IN a recent number of *SCIENCE* (October 7, 1923) the writer made the statement that "the policy of the Sigma Xi has been to refuse the granting of chapters to state colleges." The statement was made with the knowledge that only two state colleges have been granted chapters of the Sigma Xi and upon the assumption that other state colleges had petitioned for chapters and been denied. The inference follows that state colleges, due to their nature or class or on account of a prejudice, have less chance of being granted a chapter of the Sigma Xi than do state universities. The truth of the statement as made has been questioned by some and affirmed by others. The detailed information necessary for the formation of a definite opinion regarding the policy of the Sigma Xi is not available. However, certain available facts serve to indicate the policy of the Sigma Xi and are herewith set forth.

The president and secretary of the Sigma Xi, through personal communications, state that it is not the policy of the Sigma Xi to discriminate against any class of institutions, that all petitions for chapters receive the same serious investigation and consideration irrespective of the nature or class of the institution.

There is nothing in the constitution or appendices to the constitution of the Sigma Xi to indicate a prejudice against state colleges. The policy of the Sigma Xi, as indicated by the constitution, is that a chapter may be established at any educational or research institution in which scientific research is cultivated and promoted, but that great care should be observed in establishing chapters and that the aims of the Sigma Xi will best be obtained by a strictly conservative policy. Obtaining a chapter requires the approval of the executive committee and a three fourths vote of the convention. It is obvious that when an action is determined by voting no constitution can predetermine the action.

Only two of the forty chapters of the Sigma Xi

are held by state colleges. This fact has been advanced by some as evidence that the policy of the Sigma Xi is unfavorable to state colleges. It has been advanced by others as conclusive evidence that the Sigma Xi does not discriminate against state colleges, that the policy of the Sigma Xi is unfavorable to state colleges only to the extent of requiring research standards that the state colleges do not have.

We are justified in assuming that the executive committee is impartial in considering applications for chapters. But the fact remains that state colleges, with but two exceptions, have not been granted chapters. Why have not more state colleges been granted chapters of the Sigma Xi? Have they failed to petition for chapters, or have they failed by virtue of their function or otherwise to meet the requirements? The correct answers to these questions are worthy of consideration but can not be given by the writer.

The State College of Washington has never petitioned for a chapter of the Sigma Xi. I believe the reason has been that chapters, with one or two exceptions, were not being established in other state colleges and there was no basis for determining in advance what the result of such a petition would be. The State College has formed a research group known as the Research Council. This has been effective in stimulating research.

If the state colleges can not meet the requirements set for the granting of chapters of the Sigma Xi, wherein do they fail? Only the executive committee can answer this question. They do not fail because of their function which includes both instruction and research. The object of the Sigma Xi is to encourage original investigation. The requirements for membership set by the Sigma Xi deal with research. A full statement setting forth wherein state college and other educational institutions fail in research attitude, facilities or production will be of inestimable value.

Those institutions which can not meet the requirements set by the Sigma Xi need an active research organization more than those institutions in which research has been developed to the highest degree. The former need aid and encouragement. Will research be furthered more by granting them membership in the Sigma Xi now or by holding up before them the promise of membership when they have fulfilled certain requirements? The Sigma Xi has wisely given an affirmative answer to the latter question. The research men in those institutions which have been denied chapters of the Sigma Xi and in those institutions which have not applied for chapters should form one or more active organizations. Such institutions need and there is no reason for their being without a scientific society of such nature