

depend more upon speculation than upon prophecy, because as yet, except in the classical records of the armies recruited in the Civil War, anthropological statistics are not available.

The extent of this foreign invasion of the country is stupendous. Twenty-five million emigrants have landed since 1820, and in 1907 no fewer than one and a quarter million souls were added to the population; and, what is still more remarkable, the source of supply has completely changed in recent years. A quarter of a century ago two-thirds of the annual immigration was in origin Teutonic or Anglo-Saxon; at present less than one-sixth is derived from this source. The newcomers are now mainly south Italian, Russian, or Austro-Hungarian. "We have even tapped the political sinks of Europe, and are now drawing large numbers of Greeks, Armenians, and Syrians." Ninety per cent. of the tailors of New York are Russo-Polish Jews; all day labourers, once Irish, are now Italian; fruit-vendors, once Italian, are now Greek. Chicago is now the second Bohemian, the third Swedish, the fourth Polish, the fifth German city in the world.

The question then arises, Will these racial groups coalesce into a more or less uniform American type? In dealing with this problem, Prof. Ripley discusses the causes which promote and those which operate to prevent the union of these races. On the one hand, as tending to combination, he notices the extreme mobility of the newer industrial immigrants, and their readiness to wander into the most distant parts of the country in search of employment; the inequality of the sexes, males being in a large majority, which results in marriage of the newcomers with locally born women. In this connection, he remarks the tendency of the male as he rises in the world endeavouring to improve his social position by marrying into a class higher than his own. The main cause which checks further union of the races is the concentration or segregation of the immigrants in compact industrial colonies or in the large cities of the west. While the Teutonic races wander far afield as colonists, the Mediterranean, Slavic, and Oriental races herd in the towns.

An investigation of marriage statistics brings out many interesting facts. Even in the case of the Jews, the most exclusive of peoples, there is more intermarriage than is commonly supposed, the Jews in Boston constantly taking as wives Irish or Irish-American women. All the facts of marriage and birth-rates, however, indicate a relative submergence of the Anglo-Saxon stock in the near future. While the birth-rate among them is steadily declining, the fecundity of the foreign races newly arrived in the country shows little signs of diminishing. In Massachusetts the birth-rate of these two races is in the proportion of about one to three. This superiority will probably not be maintained, as even now the fecundity of the foreigners seems to be diminishing after the second generation; but their vitality under a favourable environment is remarkable.

As Prof. Ripley observes, this race struggle is only in its very earliest stage, and it remains to be seen whether the Anglo-Saxon will be able to preserve and transmit his characteristic culture over these hordes of foreigners.

America, including Canada, is thus confronted with a novel series of problems, racial and social, and to add to these she has to deal with a fresh set of difficulties connected with the Negro and the Filipino, with which Prof. Ripley was unable to deal in this address. He cherishes a pious hope that a satisfactory solution will be attained; but this lies in the lap of the future, and it will be well that this notable address should attract on both sides of the Atlantic the attention which it deserves.

UNIVERSITY AND EDUCATIONAL INTELLIGENCE.

CAMBRIDGE.—The general board of studies recommends the appointment of an assistant to the Quick professor of biology. It is proposed that Prof. Nuttall should appoint him with the approval of the Vice-Chancellor; the appointment will terminate on the appointment of a successor to the present professor. It carries with it a stipend of 100*l.* a year.

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It is suggested to increase the stipend of the curator of the botanic garden to 350*l.* a year. It is now nearly thirty years since the present curator was appointed, and the position the Cambridge Botanic Garden now occupies is largely due to Mr. Lynch's ability and devotion.

PROF. R. C. MACLAURIN, professor of mathematical physics in Columbia University, and previously professor of mathematics in the University of New Zealand, has accepted, we learn from *Science*, the offer of the presidency of the Massachusetts Institute of Technology.

THE Chelsea Secondary School for Girls was formally opened on November 20. The school was originally part of the South-Western Polytechnic, and the transfer was effected in September last. The new buildings are situated in Hortensia Road, and represent the first school building expressly designed and erected by the London County Council for the secondary education of girls. The aim of the new school is to provide a liberal education for girls up to the age of eighteen or nineteen years. The claims of science to a prominent place in the school curriculum have been duly recognised, and ample accommodation has been provided for the practical study of chemistry, physics, and botany. The home arts are to be taught, and suitable rooms have been arranged for this purpose, as well as for practical work in geography.

THE report of the principal of the Bradford Technical College for the session 1907-8 shows that the total number of students in attendance during the session was virtually the same as in the previous year; but there was, unfortunately, a fall in the number of day students from 242 to 217. The average age of these students at the commencement of the session was nineteen years, as compared with eighteen years five months at the corresponding period of 1906. We notice that a new scholarship scheme has been adopted during the session. It provides opportunity for the transference of evening students of exceptional ability to the day courses, and offers special scholarships for apprentices in works. In order to carry the specialised training to as high a point as practicable, a number of fourth-year scholarships are offered to day students who have completed their three years' course, and as a recognition of the necessity for securing the best brains and the highest possible preliminary training a certain number of entrance scholarships are awarded on merit alone. The scheme affords evidence of the desire that all sections of the community should have equal facilities, as they have an equal claim to the advantages of the college training. The scheme for building a new block for the accommodation of the department of textile industries on an adjoining site already purchased has taken definite shape; detailed plans are being prepared, and building is to be begun shortly. The staff of the department of chemistry and dyeing has been strengthened with the view of the encouragement of research work in the college. The testing laboratory of the department of textile industries has been employed to a much greater extent than previously in carrying out investigations for the trade. It is pleasing to note that the advantages offered to manufacturers and others are being more fully realised.

SOCIETIES AND ACADEMIES.

LONDON.

Physical Society, November 13.—Dr. C. Chree, F.R.S., president, in the chair.—The photoelectric properties of potassium-sodium alloy: Dr. Fleming. It is well known that, under the action of ordinary and ultra-violet light, the electro-positive metals lose a negative charge of electricity, the effect being most pronounced in the case of rubidium, potassium, and the liquid alloy of potassium-sodium. Potassium and sodium are melted together and then decanted over into a chamber containing a platinum plate, so that a mass of the liquid potassium-sodium alloy having a perfectly clean surface was obtained in a glass tube, and a platinum plate was fixed above it in an inclined position.