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Continued

to the Health Association, indicated that not only was this State lagging behind in its methods of dealing with the social scourge, but that its health organization generally, as controlled by the Public Health Act, was antiquated and ineffective. The holding of the Health Conference in Adelaide should do much to stimulate public opinion on the subject of hygiene, to dispel ignorance of the causes of disease distribution, and to induce a demand for the creation of machinery which will permit of a greater degree of effective co-operation between the practising profession and the administrative health authorities for the protection of the health of the community.

The Advertiser

ADELAIDE: MONDAY,
AUGUST, 25, 1924.

THE SCIENCE CONGRESS.

In accordance with the wise rule by which the Australasian Association for the Advancement of Science varies the places selected for its biennial congresses it has this year fallen to Adelaide to be the Mecca of the savants of the Commonwealth and of the neighboring Dominion which has joined it in what may be called a scientific federation. It is an honor of which South Australia has shown itself not unmindful, judging from the arrangements made for the reception and entertainment of our distinguished guests, the number of new members of the association whom the event has been the means of adding to the roll, and the eagerness with which the proceedings of the Congress to be inaugurated to-day by an address from its president (Sir John Monash) have been awaited. Founded in 1888 on lines avowedly similar to those of the kindred body in the old country, the association has for its primary function the bringing together of workers in various fields of research who would otherwise, except by the interchange of views through correspondence and technical journals, be largely isolated. An opportunity is afforded for enquiry, a comparison of notes, and the ventilation, through sectional papers, of new views or theories. The Congress thus becomes a kind of index of what is being done or thought in the various fields of research by the useful and often brilliant workers (some of world-wide reputation) whom it is the boast of the Commonwealth to have produced in no small number.

In Australia, where in the space of seven or eight decades cities have replaced villages and towns have sprung up in regions which were sheepwalks, scientific study, indeed higher education of every kind, was for a long time uphill work. The new settlers had little money to spare; they came without fortunes,

and such wealth as was produced had largely to be expended in the development of the country. Where life was a struggle for bare necessities there were little means and less inclination to make any sacrifice for the sake of scientific research or literary training. Nous avons change tout cela. In addition to public and private schools for raising the general intellectual level of the community we have universities diffusing culture on as broad and exalted a scale as any attained by the old-world foundations. Their walls may not, like those of the Cambridge and Oxford Universities, reek of an inspiring past, when the greatest and highest figures of the first nation in the world walked their quadrangles, but teachers drawn from these and similar institutions have done much to reproduce under Australian skies their spirit and traditions. To Britain we owe thanks for not a few of the teachers our universities have drawn from her his-

toric seats of learning; and in turn, as we are reminded by the opportune visit to the Commonwealth of Professor Grafton Elliot Smith, she has received from Australian lecture-rooms some of the most brilliant of the minds who illumine her intellectual firmament. A graduate of the Sydney University, this master of anatomical science had only to appear in the larger field of Britain to carry all before him, and by his splendid anthropological work in Egypt to achieve a world-wide celebrity that will endure. By a singular coincidence he entered Cambridge University at the same time as another Australasian student, Professor Ernest Rutherford, who in his exploratory work in the field of atomic structure has made world-famous discoveries. Our educational systems may not have behind them the inspiring traditions of other institutions, but they serve, as we know, not merely by the production or development of exceptional geniuses, but by a general growth of culture in the community, to awaken scholarly sympathies and artistic tastes. If they have a failing, it lies in their omission to provide a sufficient endowment for original discovery in the realms of natural science. We still treat our universities too much as mere schools, and their functions as exclusively the preparation of young people for intellectual gymnastics in the shape of competitive examinations. There is a growing desire among our savants to have them regarded also as centres of discovery, employing investigators whose business is not to put hard questions to clever students, but to interrogate Nature herself and elicit from her those answers by which we measure the growth of human knowledge.

And a country like Australia cannot be too well supplied with seekers after natural truth. It is on science that we depend even more than on an abundant population for the development of those sources of wealth which a kindly Nature has placed within our grasp. The results of much of the scientific work produced elsewhere, under other conditions, are of little value, and we are obliged to rely on original research. We have great problems to solve in agriculture, stock-breeding, geology, and mining, and not least of all in the art of national defence, and on the extent to which science is applied to their solution may depend the settlement required not only to develop Australia, but to keep it white. Our graziers, farmers, and dairymen have lost much of their old conservatism, but the scope for the introduction of new processes into their respective industries is still vast, if not indeed incalculable. In the still more important field of human health, what is accomplished is hardly even a beginning. If science has a right to assistance from the State in the exploration of the field of bio-chemistry and plant physiology in relation to agriculture, still more has it in the systematic investigation of functional and other diseases of the human body. Our savants have a legitimate grievance in the too slight interest taken in science, though the growing place assigned it in the curriculum of the secondary schools gives promise of better things. Perhaps the learned may be reaping the fruit of their own past aloofness from the multitude, of the habit, of which they are now fast ridding themselves, of addressing the multitude in a language beyond their comprehension. Ever since Huxley, lecturing before an audience of working men on a piece of chalk, showed that it was possible to be at once erudite and intelligible, the learned have displayed an ambition to obtain the widest audience for their teachings by the use of such language as will ensure that they shall be easily grasped. Science no longer soars so high above the head of the average man as to be beyond his ken. It takes a lower flight in addressing the uninitiated and finds its reward in their grateful attention and interest.

EUGENICS AND CIVILISATION.

By an undesigned coincidence, our issue of Saturday contained, on opposite pages, a long review of Professor William McDougall's "Ethics and Some World Problems," and the report of a lecture by Professor Agar, of Melbourne, at the Institute Building, North-terrace, on the previous evening, on "Eugenics and Civilisation." Both the book and the lecture deal with the same important questions—the multiplication of the unfit, the menace of an excessive population of inferior type, the influence of heredity and environment on the race and the individual, and the possible

methods of checking the existing dangerous tendencies. Professor Agar takes almost as gloomy a view of the future as does Professor McDougall. He, too, laments the absence of any effective restraint on the increase of the inferior types of humanity at the expense of those better worth preserving, and speculates in a somewhat pessimistic vein on the ultimate effect upon civilisation. Statistics seem to show that "social status is inversely correlated with infertility," while there is a definite relation between ability and social status. Superior intelligence is said to be five times as common among men of superior social status as among their inferiors. During the last century the reproduction rate of the "classes" has constantly tended downward, and, unfortunately, while the working class, presenting a vast reservoir of ability, is continually drained of its ablest members, they, too, lose fertility when placed in their new status. Meanwhile there is evidence of alarming fecundity among the sub-normal population, who are relatively weak and inefficient, both physically and intellectually. All this would appear to illustrate the biological law formulated by Herbert Spencer half a century ago, that genesis varies inversely to individuation; or, in other words, as individuals of the higher type become more perfectly adapted to their environment, and show consequent increase of longevity, they become less fertile. But, whatever the biological explanation, the fact is emphasised that the feeble stocks of mankind, even in the most advanced societies, are being reproduced at a comparatively high rate, and the average human standard therefore falls.

Perhaps the most difficult problem which faces the eugenicist is connected, not with the lowest classes of the feeble-minded, such as idiots and imbeciles, but with the "sub-man," or, as he is called by American sociologists, the "moron." The moron, according to Professor MacBride, who writes in the July number of "Science Progress" on "Some Causes of a C3 Population," is a mental defective, but a mental defective of a comparatively high grade, and "precisely therein lies his danger to society." Idiots and imbeciles are segregated, and do not procreate their kind, but morons, who are of the "mental age" of eight, nine, and ten years, possess just enough intelligence to be able to support themselves in the lowest paid and least skilled occupations, especially in a society whose legislation exhibits a high degree of protective tenderness towards the "under-dog." The morons, says Professor MacBride, constitute the C3 population of Great Britain—the low grade which was found useless for national defence in the Great War. Professor Agar tells us that when both parents are feeble-minded all the progeny will probably be the same. If one parent is feeble-minded, the proportion of the sub-normal among the offspring will be about 50 per cent. Where both parents are normal, but of tainted stock, there will be a big proportion of feeble-minded children. According to Professor Agar, the majority of modern biologists hold, with Weismann, that differences due to environment cannot be inherited, and even the minority allow that they can only be inherited in a slight degree. Good environment is of the utmost importance to individuals, but only of minor importance to the race. Statistics, however, suggest that the factor of longevity is definitely inherited. The various degrees of normal intelligence are also transmissible. Professor MacBride, who is a neo-Lamarckian, believing that inheritance of function, i.e., of acquired characters, really takes place, and is of chief importance in the evolutionary process, sets himself to prove that the causes of mental and bodily defect are due to a pathological process of "germ-weakening," the effect of bad environment, and that when a defect is once produced, it tends to be hereditary. His conclusion is that reckless reproduction is the cause alike of over-population and the production of a C3 population weak in body and mind. There is, he contends, only one remedy for it—rigid birth control and eventual sterilisation of the unfit.

It was a delusion of the nineteenth century, Professor MacBride says, to

attach all the blame for the imperfections of Britain's slum population to its surroundings. Rather he finds in the absence of a rigorous natural selection one of the potent causes of a C3 population. To illustrate this point he takes the case of Bethnal Green, the home of one of the poorest communities in London. Eighty years ago, when it first became a town, its sanitary condition was frightful, and there was an appalling death rate. But the survivors constituted a healthy population of tremendous vigor. During the nineteenth century a pure water supply and proper drainage were introduced, yet the surviving population is not as healthy now as it was then, and the proportion of paupers is just as high. What are we to conclude? Is natural selection to be allowed to operate ruthlessly for weeding out the unfit, and social reform to be sacrificed? The proposition has only to be stated to meet with condemnation. If Professor MacBride is right, and bodily and mental defect is due to germ-weakening, itself the result of bad environment, then we may trust to continual improvement of the environment, socially and industrially, in time to bring about germ-strengthening. Professor MacBride advocates the reduction of births, the protection of the mother's blood supply from the enfeebling consequences of too frequent child-bearing, with the result that the latest births tend to be sub-normal, and the sterilisation of the feeblest stocks. The difficulty with the remedy of birth control, as Professor Agar and other authorities recognise, lies in its practice by the fit rather than the unfit. In some of the American states compulsory sterilisation is practised on certain classes of mental defectives, but it is not from these, but from the highest grades of the sub-normal, including the morons, that the real danger arises. The only hope Professor Agar appears to have is that with wider knowledge of birth control the difference in the birth rate between the two great classes, the more intelligent and the less, may become smaller. There is this to be said for education—that it is a factor in the environment which undoubtedly spurs the individual to more eugenic conduct, and therefore valuable as a force in human improvement.

Register

25 AUG 1924

HEALTH CONFERENCE.

A Valuable Association.

The annual conference of the Health Association of Australasia was opened at the Lister Hall, Adelaide, on Saturday afternoon. The President (Dr. F. S. Hone), occupied the chair, and welcomed the interstate visitors. In the absence of Dr. F. R. Kerr, of Melbourne, Mr. J. P. Marcus (local secretary) acted as secretary of the conference. Mr. Marcus read the annual report, which stated inter alia:—

It was regretted that the quarterly publication of The Health Forum had had to be abandoned for financial reasons, and its place had been taken by a bi-monthly bulletin. Splendid work had been done by the branches during the year, and they had contributed largely to the stimulation of public interest in matters of health. The association was the same numerically. There were no organised branches in Tasmania, Western Australia, or New Zealand, but there were many active members in those States.

It was resolved that the meeting should request the Federal executive to endeavour to arrange for a monthly publication of the journal of the association.

The President intimated that the constitution centralized all the powers and control in a Federal council, whereas it was considered that the association was more likely to make successful progress if the primary power were in the hands of the branches, and the Federal council retained as a co-ordinating body exercising such powers as should be decided upon at the annual meetings of the branches.

It was resolved, "That the Federal council consider the notices of amendment of the constitution given by the Queensland branch, and send a draft as approved by them to all State branches."