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The Boxer Indemnity and Chinese Education.

IF it were not for the remarkable powers of recuperation which China has shown on more than one occasion after an apparently crushing disaster, present conditions in that country would appear to afford anything but an opportune moment for discussion of the possibilities of reform and regeneration. An enormous number of her population, estimated at thirty millions, has been rendered destitute by floods, and the country is in the throes of civil war between rival provincial governors. Yet the situation is not entirely without hope. China, for better or for worse, has adopted the form of Western institutions of government. Whatever may be the outcome of the present struggle, which represents on one side an attempt to secure unity with strong central control by force, the future of the country will depend upon how far the Chinese are enabled to assimilate the spirit of Western culture, without which superficial measures of reform may well be a delusion and a disaster. A wise use of the Boxer indemnity, which is to be remitted from the year 1922, would play a paramount part in shaping the course of events. The size, the vastness of the resources, and the immense numbers of the population of China, make the question of her future development of vital and world-wide interest. It is unnecessary to emphasise here the importance of China as a centre of production in relation to world supply, both now and still more in the future. The fact alone that two hundred thousand foreigners are resident in the country, for the most part interested in some form of industry or commerce, makes good government and the stability of the country a matter of immediate concern to the nations to which they belong, while it is no longer possible that a state of unrest in almost any country, however remote, can for any length of time fail to affect other parts of the world.

Without going into detail, it may be useful to recapitulate briefly the present position of the Boxer indemnity so far as Great Britain is concerned. In 1922 it was decided by the Government then in power to remit the balance of the indemnity due from China to Great Britain on account of the Boxer Rising in 1900. The indemnity was payable over a term of years which had been extended to 1945. The payments affected thus cover a period of twenty-three years, the amount payable being 400,000*l.* per annum, representing a capital sum of approximately 11,000,000*l.* The remission, however, was not absolute: the amount due is still to be collected from various sources of Chinese revenue; but instead of being paid into the Sinking Fund, it is to be devoted to objects beneficial to both

countries. A Bill to give effect to this decision was introduced into Parliament in May of this year, but has still to be passed by the legislature.

It is scarcely necessary to enter into the reasons which led to this course of action on the part of the British Government; nor indeed have they ever been fully stated. One consideration which no doubt carried great weight was the fact that of the powers interested, two—the United States and Japan—had already remitted their indemnities on conditions. Great Britain could not have stood aside without damage to her prestige. France also, without remitting her payments, has devoted them to liquidating the affairs of a French bank in China of which the depositors were mainly Chinese. The claims of Germany, the largest participant, were cancelled during the War. Payments to Russia ceased after the collapse of that country, but, by arrangement between China and the Soviet Government, the whole of the Russian indemnity, arrears and future payments alike, is to be devoted to “promotion of education among the Chinese people.”

Misappropriation of the funds made available by the cancellation of the obligation to Germany, has served as a warning to those powers which were prepared for remission. They desired to act for the benefit of China; but it was clear that in the disturbed condition of the country which has prevailed since the reform movement of 1911, a strong hand was needed to secure that the people as a whole would profit by the advantages which should accrue from a judicious expenditure of the amount thus made available.

In the Bill introduced into Parliament it was stated, following the announcement on remission made in December 1922, that the amounts receivable from the indemnity fund were to be expended upon objects beneficial to both countries. Various suggestions have been put forward to give precision to this vague phrase. Deputations have urged that the money should be expended on public works under British supervision. Another suggestion was that a Science Museum should be instituted at Peking. In favour of the latter proposal there is little to be said. Even if the country were sufficiently advanced to reap the full benefit of such an institution, difficulties of communication and transport would militate against the free and extended use which alone would justify such a disposal of the funds. The benefit would be confined to Peking. For the former, the proposal to devote the money to public works, there is more to be said, but here again the amount is so small relatively to the size of the country, that in the end it could do little more than benefit one or two more or less restricted areas. Nor is appropriation for this purpose by any means such an urgent need as it has been attempted to make out.

If a broad view of the situation be taken, there can be no two opinions that both the needs of China and the wishes of the Chinese themselves point unmistakably in one direction, and that is education. This view has, at any rate, commended itself to the two powers which have already remitted the indemnity. In each case the funds are to be made available for education. It was at the suggestion of the Chinese themselves that the Russian indemnity has been devoted to this purpose. Among British residents in China, those who are most competent to speak with authority, namely, the representatives of the British Chambers of Commerce, have been most emphatic in urging the claims of education. Further, they have insisted that the situation calls for education on British lines. Thereby they hope that something of the British public school spirit may be introduced into Chinese education.

While the Chinese are endowed with many admirable qualities, in which those who know them best can see much that is closely akin to ourselves, they have many weaknesses which are no doubt due to the isolation in which their civilisation developed. Among them must be reckoned a too restricted view of their obligations and duties as citizens, arising from their intense preoccupation with the claims of the family group. To this must be attributed many of the defects of their government and public life, while, coupled with their distrust of foreigners, it has been responsible for their failure in their international relations both in peace and in war. Without any desire to offend, it may be said that they lack the training in public morality which education on British lines might be expected to develop. By long tradition the Chinese have a devotion to education which amounts almost to veneration; but that they themselves recognise the defects of their system is shown by the efforts at reformation which they have made since 1911. Chinese education is now under the control of a Minister of Education, and with Peking as administrative centre, there is a national system which includes primary and secondary schools, colleges and several universities. China thus possesses the skeleton of a system; but it must be confessed that it is nothing more than a skeleton, and perhaps, to continue the metaphor, not very successfully articulated. In addition, account must be taken of a number of educational institutions of all grades partly or wholly under foreign management, to a great extent the result of missionary enterprise.

The problem how best to utilise the resources which would be made available by using the Boxer Indemnity is in reality twofold. Although it has been possible to touch upon conditions in China only in the most cursory manner, probably enough has been said to show that a prolonged training is necessary before the

country can take the place in the comity of nations to which its importance, particularly in commerce, and its ancient civilisation might lay claim. Nor has anything been said of the danger to the rest of the world which lurks in neglect of this aspect of the question. It follows, however, that on one hand means should be found to give every assistance to the efforts of the Chinese themselves to reform and regenerate their educational system: on the other, it is urgently necessary to secure that such efforts at reform should be inspired by ideals of public and international morality in consonance, but not necessarily identical, with those of Western nations—a not insoluble problem, as is shown by the example of Japan.

It is evident that two considerations must be kept to the fore. In the first place, the sum available is small in proportion to the needs of so vast and so thickly populated a country, and as the funds come to an end in twenty-three years, permanence in result can only be secured by the co-operation of the Chinese themselves. Secondly, however, much as it may be desired to inculcate the spirit of a Western ideal, the education should be thoroughly national in character. The denationalised Chinese student is providing an element of danger in the present political situation which, with extended facilities for education on the lines of which he is the product, might become exceedingly grave. It is therefore necessary that most careful consideration should be given to any scheme which invites or requires Chinese co-operation such as was suggested by the representatives of the British Chambers of Commerce in conference at Shanghai in February 1923, who while urging emphatically that the funds from the Boxer Indemnity should be applied in the direction of education on British lines, regarded it as essential that in distribution there should be "adequate representation of China's opinion," or such a scheme as that outlined recently in these columns (August 30, p. 301), and also by Dr. R. P. Scott in the November issue of the *Empire Review* (see *NATURE*, November 15, p. 726). These schemes take into account the broad issues we have stated, namely, that; so far as possible, China as a whole should benefit in the exercise of British goodwill, that the fundamental considerations for success are real co-operation and sound finance; also, that higher education is the only field on which effective co-operation is feasible.

In conclusion, there are two points to which it is hoped attention would be given in working out details. One is that, in addition to scholarships for Chinese students tenable in Europe or America, there should be an exchange of lecturers for periods of at least a year; and secondly, that ample provision should be made for research in the geography, social history, and economics of China.

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The Glands that regulate Sex.

The Internal Secretions of the Sex Glands: the Problem of the "Puberty Gland." By Prof. Alexander Lipschütz. With a preface by F. H. A. Marshall. Pp. xviii + 513. (Cambridge: W. Heffer and Sons, Ltd.; London: Simpkin, Marshall and Co., Ltd.; Baltimore, Md.: Williams and Wilkins Co., 1924.) 21s. net.

THE field of sexual physiology has been so active since "Die Pubertätsdrüse und ihre Wirkungen" was published in 1917, that it has been found necessary to rewrite the book and to give it a new title. Comparison of old and new provides a clear indication of the advances that have been made and of the modifications in opinion—including the author's own—that they have caused. The book is well planned and well written (in English): the illustrations are bountiful and excellent. There are a few of the inevitable typographical errors, and occasionally the author might perhaps have been happier in the choice of his word. But these are merely finicky fault-findings. This book can be strongly recommended to all those for whom the sections in Marshall's "Physiology of Reproduction" dealing with this subject are not sufficiently complete or recent, for in his treatment of the problems of sexual differentiation the author writes as a master.

The general theme of the book is that "in the ontogenetic development of the soma there is in the beginning an asexual stage, the subsequent differentiation of which is caused by the formative action of the sexual glands" (Steinach 1912, Lipschütz 1917). It is submitted that the soma is indifferent in the sense that either male or female sex-characters can develop, according to the kind of the sex-hormone, male or female, produced by the gonads. It can be said that the author has no difficulty in showing that in the mammal the sex-glands elaborate hormones which are able to modify the organism in a sex-specific way.

The book is of particular interest for the reason that it demonstrates in the clearest possible way the interrelationship of genetics and physiology. The problems of sex-determination have been appropriated by the geneticist, those of sex-differentiation by the physiologist, and as yet there is no link between the two. The author falters when brought face to face with the sex-chromosome sex-determining mechanism and finds it difficult to reconcile his theory of sexual differentiation with the established facts of sex-determination. The point of view of the physiologist is expressed in the statement (p. 104) that "*ceteris paribus*, femaleness depends on the ovary, maleness upon the testicle." The geneticist agrees that in the mammal, if an individual is to assume the sexual characterisation appropriate to the male, there must