

Mr. GALTON, F.R.S., submitted a proposal, which had received the sanction of the Council, for obtaining anthropological statistics from schools, etc., as follows :

PROPOSAL *to APPLY for ANTHROPOLOGICAL STATISTICS from SCHOOLS.* By FRANCIS GALTON, F.R.S.

NOTWITHSTANDING the many efforts made by statisticians, materials do not yet exist from which the physical qualities of the British people may be deduced with such precision as is needed for various theoretical inquiries. We do not know whether the general physique of the nation remains year after year at the same level, or whether it is distinctly deteriorating or advancing in any respects. Still less are we able to ascertain how we stand at this moment in comparison with other nations, because the necessary statistical facts are, speaking generally, as deficient with them as with ourselves.

Yet an important part of this information seems easy of acquirement, if it be sought for in the right direction and not on too large a scale. My object in these short remarks is to point out a method by which I believe the Anthropological Institute might successfully promote the collection of very important materials, and be enabled to publish general results of high value.

The Anthropological Institute could never undertake to deal with individual cases in the way that the census does ; but it might deal with the authorities of a moderate number of homogeneous societies, each representing a well-defined class, if such could be found, who would undertake the collection and classification of their own statistics. Then, by referring to the census, we should learn the proportion which these several classes bear to the entire nation, and be enabled to combine

the returns in that proportion, so as to obtain figures true for the kingdom at large.

Homogeneous groups of boys, girls, and youths already exist in several large schools, under conditions which offer extraordinary facilities for obtaining the required statistics. The masters are trustworthy and intelligent in no common degree; they are in habitual face to face communication with every pupil; and the general organisation of schools is in every way favourable to collecting full and accurate statistics. As different grades of schools represent different orders of the community, their statistics, combined on the principle already explained, ought to give an excellent picture of the younger portion of the British nation. In these short remarks I shall dwell exclusively upon schools, because I believe their authorities might be induced, in not a few instances, to co-operate heartily and with great intelligence; and if they did so, the object of the inquiry and the value of the results would become very generally appreciated. The boys when they grow up into men would retain favourable recollections of the whole procedure, and application might then be made to Universities, Factories, and other large bodies of adults, with greater probability than at present of obtaining the required information.

I suppose the authorities at each school not only to make the necessary measurements, but also to classify them, according to a form previously agreed upon, and common to all, in order that the results from the different schools may be combined together by a no more difficult process than that of simple addition.

I will now submit for consideration, suggestion, and discussion, a plan as to the specific inquiries to be made and the form in which the returns should be sent to us.

Height.—The returns I propose we should ask for, relating to height, would be of the following character.

Returns from School.

TABLE, shewing the number of boys in School of the various degrees of height, classified according to their ages.

HEIGHT (WITHOUT SHOES).		YEARS OF AGE ON THE LAST BIRTHDAY.							
Above.	Under.	Etc.	9	10	11	12	13	14	Etc.
Etc.	Etc.								
5 ft. 1 in.	5 ft. 2 in.								
5 ft. 2 in.	5 ft. 3 in.								
5 ft. 3 in.	5 ft. 4 in.								
Etc.	Etc.								

When we had received returns from a sufficient number of schools, we should sort them into separate groups, and publish the total results of each group. I should deprecate printing the returns of the schools separately, with their names attached, because it would give the appearance of a comparison of the schools, as to which turned out the best developed boys. It is not within our province to do this, and any suspicion that it might be done would foster a tendency to insert doubtful cases in the higher class. What I propose is, to treat the returns, so far as we are concerned, as confidential; to group the schools in natural classes; and to publish aggregate returns in percentages. Thus—schools A, B, C, etc., would be shown to give such and such general results. Of course, the schools could make any other use they pleased of their own statistics.

It will be observed that the figures in the above schedule would not only give us the information we primarily sought, but they would also give us the law of growth in different classes, both in town and in country. This is known to vary exceedingly under different conditions, but exact numerical determinations have yet to be established.

Weight is the second requirement. Its importance in estimating the physique of a nation is even greater than that of height. Taken in conjunction with the latter, it shows in what degree the different classes vary in bulk of frame and general robustness. The returns would refer to the weight of the boy in the dress ordinarily worn in-doors, and they would be classified in exactly the same way as those of height; that is to say, in classes differing each from its predecessor by equal degrees. As the weights furnished with the various forms of large scales commonly in use in England, are adapted to stones of 14 lbs., I should suggest that the above-mentioned degrees be in half stones. Thus—above 6 stones and under $6\frac{1}{2}$ stones; above $6\frac{1}{2}$ stones and under 7 stones, etc.

Thus, there are three subjects of statistical record which I propose on the ground of their being of primary importance.—1. Age, which runs through both the other groups; 2. Height; 3. Weight. It does not seem unreasonable to hope that returns of these might be obtained through the agency of the Anthropological Institute from many large schools of every well-defined grade, condition of residence, and class of society.

It seems to me better not to speak at present of the attractive and numerous problems that might be solved by a wider range of inquiry; because, if we confine the attention of those we ask to few and simple questions, we are far more likely to have them well and thoroughly answered, than if we had issued a more ambitious programme. We shall soon learn the amount

and value of the co-operation we may rely upon, and can arrange our future proceedings accordingly.

DISCUSSION.

Mr. SERJEANT COX said he believed that Quetelet, in his recent work, had made an extensive and valuable collection of statistics of the kind suggested by Mr. Galton, which would form a basis for comparison with those proposed to be collected by the institute. Some hints might be taken from his book as to the facts most desirable to be obtained.

Sir DUNCAN GIBB remarked, that, unless the inquiries suggested in Mr. Galton's paper, were extended to the schools throughout the entire country, they would have no reliable value as statistics. To select a few schools only, in particular places, as he proposed, would be useless for the purposes of comparison as relating to the entire youthful scholastic population. There could be no doubt whatever, of the value of the information to be derived in its bearing upon the physical development of the English people generally, and it should not be limited nor restricted in the mode adopted to obtain it, and he, the speaker, did not see that there would be any material difficulty in obtaining it, when the intelligence and co-operation of the masters of the schools was frankly appealed to.

Mr. GALTON explained, that it was his desire to obtain statistics from schools of all description, as public schools, middle class schools, and others, down to those of pauper children.
