

all, for the lesson they have taught on the importance of testing every theory by a patient collection and impartial discussion of the facts; in a word, for having imported the spirit of science into what, in the largest sense of the word, may be called politics, instead of importing the spirit of politics, in its narrower sense, into science.

What is more important than to rescue questions of this nature, such as Finance and Political economy, for instance, in some degree at least, from the domain of party contention? And how can we better contribute to that desirable result, than by discussing the carefully collected facts in a scientific spirit on an arena within which no party spirit is excited, no party allegiance is acknowledged, no party victory has to be lost or won, and when men are at liberty to convince or be convinced without risking a charge of treachery or a change of ministry as the consequence? But, in fact, these studies could not fairly have been excluded from our peripatetic university of science.

Who shall separate Political altogether from the influences of Physical Geography, or Ethnology from Physiology, or the destinies of man upon this globe from the study of his physical nature? By its employment of the doctrine of probabilities, one branch of statistics is brought into immediate contact with the higher mathematics, and the actuary is thus enabled to extract certainty in the gross out of uncertainty in the detail, and to provide man with the means of securing himself against some of the worst contingencies to which his life and property are exposed. In fact, statistics themselves are the introduction of the principle of induction into the investigation of the affairs of human life,—an operation which requires the exercise of at least the same philosophical qualities as other sciences. It is not enough in any case merely to collect facts and reduce them into a tabular form. They must be analyzed as well as compared; the accompanying circumstances must be studied (which is more difficult in moral than in material investigations), that we may be sure that we are (that is to say, in reality calling the same things by the same names) treating of the same facts under the same circumstances; and all disturbing influences must be carefully eliminated before any such pure experiment can be got at as can fairly be considered to have established a satisfactory conclusion. In some cases this is easier than in others. In regard to the probabilities of life or health, for instance, there are, at least, no passions or prejudices, no private interests at work, to interfere with the faithful accumulation of the facts, and if they be numerous enough, it might be supposed that their number would be a sufficient protection against the effect of any partial disturbances. But even here, caution, and special, as well as extensive knowledge, are required. There are disturbing influences even here,—habits of life, nature of employment, immigration or emigration, ignorance or misstatement of age, local epidemics, &c., which leave sources of error, in even the most extended investigations. Still results are attained, errors are more and more carefully watched against, and allowed for, or excluded, and more and more of certainty is gradually introduced. And here I should not omit to notice the valuable services of the Society of Actuaries, not long ago established, and who are represented in our statistical section. They discuss all questions to which the science of probability can be applied; and that circle is constantly extending—assurance in all its branches, annuities, reversionary interests, the laws of population, mortality, and sickness; they publish transactions; and what is of the greatest importance in this, as indeed in any branch of inductive science, they hold an extensive correspondence with foreign countries. In fact, they are doing for the contingencies of human life, and for materials apparently as uncertain, something like what meteorology is doing for the winds and waves.

What shall I say to the statistics of crime, of education, of pauperism, of charity, at once and reciprocally the effect and the cause of that increasing attention to the condition of the people, which so favorably distinguishes the present age? Who can look at the mere surface of society, transparently betraying the abysses which yawn beneath, and not desire to know something of their secrets, to throw in the moral drag, and to bring to the light of day some of the phenomena, the monstrous forms of misery and vice which it holds within its dark recesses? and who can look at these things, no longer matter of conjecture, but retained, classed, and tabled, without having the desire awakened—strengthened to do something towards remedying the evils thus revealed, and without feeling himself guided and assisted towards a remedy? Yet here, more than in other cases, should a man suspect himself; here should he guard himself against hasty conclusions, drawn from the first appearance of the results, for here are disturbing influences most busily at work, not only from without, but from within—not only in the nature of the facts themselves, but in the

feelings, passions, prejudices, habits, and moral constitution of the observer.

Still, the tabling of the facts is of infinite importance. If they disturb, as they are sure to do, some feeling, some prejudice, some theory, conviction, it will be felt, that anyhow the facts have to be accounted for; further investigation will follow; and if it appear that no correction is required, the truth will be established, and the hostile theory will, sooner or later, give way and disappear. In these things it is, of course, more than usually important that the facts to be selected for collection should be such as are, in their own nature, and under the circumstances, likely to be ascertained correctly, and that the business of collection should be in the hands of those who have no bias to do it otherwise than fairly, no interest in the result; and this was, I believe, kept studiously in view by those who had the management of our great statistical work, the recent Census of our own country, which we are still studying, but, whether they were successful or not, in this respect, has already become matter of discussion.

The work itself is, doubtless, one of the greatest monuments that has ever been presented to a nation as a record of its own constituent elements and condition; compiled and commented on with singular industry, judgment, accuracy, and impartiality,—the Domesday-book of the people of England, as the great volume of the Conqueror was of its surface.

Nor can I, while speaking of statistics, avoid referring to the Statistical Congress which took place at Brussels, about this time last year; which had mainly for its object to produce uniformity among different nations in the selection of the facts which they should record, and in the manner of recording them, without which, indeed, no satisfactory comparisons can be established, no results can safely be deduced. To bring about such an uniformity absolutely is, I am afraid, hopeless, inasmuch as the grounds of difference are, in many cases, so deeply imbedded in the laws, the institutions, and the habits of the different countries, that no hammer of the statist is likely to remove them.

To understand, however, the points of difference, even if they are not removed, is, in itself, one great step towards the object. It at least prevents false conclusions, if it does not fully provide the means of establishing the true ones. It gets rid of sources of error, even if it fail of giving the full means of a-certaining truth. Take, for instance, the case of criminal statistics. We wish to ascertain the comparative prevalence of different crimes, either at different times or in different countries. For this purpose must we not know under what heads the jurists and statisticians of the times or countries to be compared array the various offences which are recorded; with what amounts of penalty they were visited; and with what rigour, from time to time, the penalties were enforced?

That which is called manslaughter in one country, and assassination in another, is called murder in a third. That which in one country is punished with death, in another is visited by imprisonment. The bankruptcy which in one country is a crime, in another is a civil offence. The juvenile offences which in one country are punished by imprisonment, and swell the criminal calendar, in another are treated, as they should in many cases be, only as a subject of compassion and correction,—take no place in the criminal calendar at all.

Indeed, it is one of the difficulties which beset a large proportion of these investigations, whether into morals, health, education, or legislation, and which must always distinguish them from those which deal either with matter or defined abstractions, that, in using the same terms, we are often uncertain whether we mean the same things; whether, in fact, when we are using the same denominations the same weight- and measures are really employed. Such conferences, however, as those of Brussels tend much to limit the extent of error.

Among the objects which may best occupy the attention of the Statistical Section, at the present moment, will be the discussion of a decimal coinage, and the statistics of agricultural produce. It is important in regard to both, that by previous sifting and discussion not only the best conclusions should be arrived at, but the subject should be so familiarized to general apprehension as to secure the widest co-operation. In regard to a change in the coinage, the interests and feelings of the lower classes must be especially consulted; and, with this view, without expressing any ultimate opinion, I would recommend to those who are considering the question, the perusal of a pamphlet, full of important matter, by the late Mr. Laurie, the work of the last hours of a man of eminent knowledge and virtue, which be