and explanation of actual events, and of the laws of man's social life that may be deduced from these, on the basis of the quantitative observation of aggregates). Gabaglio's view is practically identical with those adopted by von Mayr and Block, though it is differently expressed. He says “ statistics may be interpreted in an extended and in a restricted sense. In the former sense it is a method, in the latter a science. As a science it studies the actual social-political order by means of mathematical induction." Most German writers on the subject have endorsed the views of Block and von Mayr. Among them may be mentioned Professors J. Conrad, Lexis and Westergaard, but Dr Augst Meitzen of Berlin, a second edition of whose *Geschichte, Theorie und Technik der Statistik* was published in 1903, makes a much less wide claim. In France opinions are divided, Professors André Liesse and Fernand Faure and others accepting the view that statistics is essentially a method.

This discussion regarding the nature of statistics is to a large extent a discussion about names. There is really no difference of opinion among statistical experts as to the subject-matter of statistics, the only question being—Shall statistics be termed a science as well as a method? That there are some investigations in which statistical procedure is employed which certainly do not belong to the domain of the supposed statistical science is generally admitted. But, as already shown, an attempt has been made to claim that the phenomena of human society, or some part of those phenomena, constitute the subject-matter of an independent statistical science. It is not easy to see why this claim should be admitted. There is no reason either of convenience or logic why the use of a certain scientific method should be held to have created a science in one department of inquiry, while in others the said method is regarded merely as an aid in investigation carried on under the superintendence of a science already in existence. It is impossible to get over the fact that in meteorology, medicine, and other physical sciences statistical inquiries are plainly and obviously examples of the employment of a method, like microscopy, spectrum analysis, or the use of the telescope. Why should the fact of their employment in sociology be considered as authorizing the classification of the phenomena thus dealt with to form a new science ?

The most effective argument put forward by the advocates of this view is the assertion that statistics are merely a conve­nient aid to investigation in the majority of sciences, but are the sole method of inquiry in the case of sociology. When, indeed, it is tested by reference to the important class of social facts which are named economic, it becomes obvious that the argu­ment breaks down. Economics is a branch—the only scientific­ally organized branch—of sociology, and statistics are largely used in it, but no one, so far as we are aware, has proposed to call economics a department of statistical science.

Although, however, the above considerations forbid the acceptance of the continental opinion that the study of man in the social state is identical with statistics, it must be admitted that without statistics the nature of human society could never become known. For society is an aggregate, or rather a congeries of aggregates. Not only that, but the individuals composing these aggregates are not in juxtaposition, and what is, from the sociological point of view, the same aggregate or organ of the “ body politic ” is not always composed of the same individuals. Constancy of social form is maintained concurrently with the most extensive changes in the collocation and identity of the particles composing the form. A “ nation ” is really changed, so far as the individuals composing it are concerned, every moment of time by the operation of the laws of population. But the nation, considered sociologically, remains the same in spite of this slow change in the particles composing it, just as a human being is considered to be the same person year by year, although year by year the particles forming his or her body are constantly being destroyed and fresh particles substi­tuted. Of course the analogy between the life of a human being and the life of a human community must not be pressed too far. Indeed, in several respects human communities more nearly resemble some of the lower forms of animal life than the more highly organized forms of animal existence. There are organ­isms which are fissiparous, and when cut in two form two fresh independent organisms, so diffused is the vitality of the original organism; and the same phenomenon may be observed in regard to human communities.

Now the only means whereby the grouping of the individuals forming a social organism can be ascertained, and the changes in the groups year by year observed, is the statistical method. Accordingly the correct view seems to be that it is the function of this method to make perceptible facts regarding the consti­tution of society on which sociology is to base its conclusions. It is not claimed, or ought not to be claimed, that statistical inves­tigation can supply *the whole of* the facts a knowledge of which will enable sociologists to form a correct theory of the social life of man. The statistical method is essentially a mathematical procedure, attempting to give a quantitative expression to certain facts; and the resolution of differences of quality into differences of quantity has not yet been effected, even in chemical science. In sociological science the importance of differences of quality is enormous, and the effect of these differences on the conclusions to be drawn from figures is sometimes neglected, or insufficiently recognized, even by men of unquestionable ability and good faith. The majority of politicians, social " reformers ” and amateur handlers of statistics generally are in the habit of drawing the conclusions that seem good to them from such figures as they may obtain, merely by treating as homogeneous quantities which are heterogeneous, and as com­parable quantities which are not comparable. Even to the conscientious and intelligent inquirer the difficulty of avoiding mistakes in using statistics prepared by other persons is very great. There are usually “ pit-falls" even in the simplest statistical statement, the position and nature of which are known only to the persons who have actually handled what may be called the “ raw-material " of the statistics in question; and in regard to complex statistical statements the “ outsider " cannot be too careful to ascertain from those who compiled them as far as possible what are the points requiring elucidation.

*The Statistical Method.—*This method is a scientific procedure (1) whereby certain phenomena of aggregation not perceptible to the senses are rendered perceptible to the intellect, and (2) furnishing rules for the correct performance of the quantitative observation of these phenomena. The class of phenomena of aggregation referred to includes only such phenomena as are too large to be perceptible to the senses. It does not, *e.g.* include such phenomena as are the subject-matter of micro­scopy. Things which are very large are often quite as difficult to perceive as those which are very small. A familiar example of this is the difficulty which is sometimes experienced in finding the large names, as of countries or provinces, on a map. Of course, the terms "large," “ too large," "small " and “ too small " must be used with great caution, and with a clear com­prehension on the part of the person using them of the standard of measurement implied by the terms in each particular caste. A careful study of the first few pages of De Morgan's *Differential and Integral Calculus* will materially assist the student of statis­tics in attaining a grasp of the principles on which standards of measurement should be formed. It is not necessary that he should become acquainted with the calculus itself, or even possess anything more than an elementary knowledge of mathe­matical science, but it is essential that he should be fully con­scious of the fact that “ large " and “ small " quantities can only be so designated with propriety by reference to a common standard. It is also necessary that he should be acquainted with the theory of probability as applied to statistical investi­gations, the need of which is well set forth by Mr A. L. Bowley in Part II. of his work, already referred to, and by other writers. Valuable instruction on this technical subject can be obtained from monographs by Professor F. Y. Edgeworth, Professor Karl Pearson, Dr John Venn, Mr Udney Yule and many other contributors to the *Transactions of the Royal Society,* the *Journal of the Royal Statistical Society,* the *Economic Journal,*