

charlatanism, but science remains incomplete unless it includes sociology, in the Comtean sense of a synthesis of the social sciences. In the public view, its place has usually been taken by economics, which deals only with a single aspect of social life. Unless science be understood to embrace social as well as physical and biological phenomena, it would seem impossible to bring it to bear effectively on social conduct.

As science becomes more specialized, so that workers in different branches find it increasingly difficult to understand one another's language, the need for a synthetic outlook becomes more urgent. This view has been frequently expressed in NATURE.

It is regrettable that so few workers in experimental science have taken a keen interest in social science, if we except the recent enthusiasm in some

quarters for the Marxian system, which exalts the economic above all other social factors. The Sociological Society (founded 1904, since 1930 the Institute of Sociology) has attracted few scientific workers, in spite of the early efforts of Francis Galton and Patrick Geddes, but it would seem an appropriate centre for discussions of the social relations of science, whilst the annual gatherings of the British Association afford an excellent opportunity for bringing results before the public. It needs to be shown that a new society, unless its programme be very carefully thought out and some guiding principle of synthesis adopted, would do the work better than existing organizations. There will be general agreement as to the need for such action as that suggested, but it is not clear that the solution proposed is the best.

Summary

THE comments in the foregoing letters may be conveniently summarized in three groups: *why* is it necessary to go deeper into the social relations of science, *what* are the activities envisaged, and *how* can they best be brought about.

The rapid and persistent growth of natural knowledge leads to effects which have to be correlated (Bragg, Fleure). There is a need for intensification and direction in the study of the social relations of science (Boswell) and guidance in the organization of society (Hall). All is not well in the way science is applied to social life (Levy). The liberty of science is threatened (Hopkins). Social developments are ill-balanced (Bartlett, Philip) and may destroy civilization (Bernal, Donnan, Kerr, Lindemann).

The social problems created by science can be solved by scientific method (Flugel) but educative action is needed both for scientific workers (Blackett) and for other citizens (Kerr). As the sciences become more specialized, the need for their synthesis increases (Desch, Salisbury, Spearman) and also that for a closer relationship between scientific and social workers (Laski, Marquand, C. S. Myers). It is the duty of scientific workers, as citizens, to study the social implications of science (Needham, Stopford) and to see that Government and legislature receive the best advice from those scientifically qualified (Egerton, Ryle).

The proposed organization would provide a meeting place between men of science and others interested in statescraft (Crew) and would prevent them from going about the business in the wrong way (Tizard). It should study the social background of science (Le Gros Clark), the historical relations between science and society (Blackett) and, in general, the reversible reaction science \rightleftharpoons society (Donnan). In particular, it would investigate the repercussions of science on social affairs and also likely future developments (Boswell, Russell).

As specific problems, it might find out the number of scientific workers, how they are financed and how their work is co-ordinated (Bernal, Huxley, Needham) and might draw up a code of ethics for them (Hill). The mechanism of production, the unsatisfactory

method of dealing with new inventions, the imperfections of the financial system, the lack of statistics, problems of employment and ecological studies also deserve attention (Sargant Florence, Paget, Salisbury).

The organization envisaged should eventually humanize scientific teaching (Read), bring together results scattered in many journals (Boswell), act as co-ordinating body to other societies (C. S. Myers) and encourage them to study specific problems—for example, the anthropological and folklore societies might inquire into the springs of human action (Fleure). It should obtain and distribute funds for research (Huxley, Hall, Wells) and might eventually act as information bureau and consultative body for administration and industry (Flugel, Huxley).

The need for preventing unnecessary duplication is stressed, particularly with reference to the activities of the British Association, the Royal Society and the Institute of Sociology (Ferguson, Egerton, Desch). Sociologists would welcome co-operation (Farquharson) and the proposed organization might grow into a section of the B.A. (Crew).

Other than scientific workers should be welcomed as members (Hopkins, Levy, Philip, Stopford). Sociology should be well represented (Ginsberg). Representatives of the chief societies interested in social questions should be included (C. S. Myers) but membership should be individual (Haldane). Manual workers should be allowed to join (Haldane) but economic quacks should be excluded (Marquand).

Apart from one correspondent (J. L. Myres) the comments and criticisms are mostly constructive. The chief difficulties foreseen are in connexion with retaining a cool, scientific attitude towards emotional and political subjects (Ferguson, Chalmers Mitchell, Stopford) and of obtaining a fair, unbiased board of referees for the publications (Blackett, Haldane, Levy). Here, perhaps, the First Interim Report on Schemes and Proposals for Economic and Social Reforms, published by the British Science Guild and the Engineers' Study Group (see NATURE, May 25, 1935) shows that at least one group of investigators found that the problem was not insoluble.