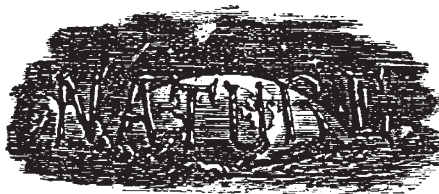


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## A DIRECTORATE OF SCIENTIFIC INFORMATION

THESE are those who affect to believe that scientific people are somehow responsible for the war: whereas, in fact, because of the international character of their interests and friendships, they are singularly innocent. Each generation tends to imagine that its own experience, like its fashions of thought, expression or personal adornment, is unique. This war, therefore, must have some special cause—why not blame it on science? The fact is that history books are already full (too full) of conquerors out for glory and loot, guilty of persecution and treachery, moving masses of ordinary decent men to follow them in hysterias worked up by appealing to fear, hatred and greed.

It is true, nevertheless, that the special character of this war, as to some extent of the last, depends very largely on science: not in its ferocity or its attacks on civilians, as the story of the Thirty Years War—and of many others—will show: but in its speed, its weapons of offence and defence, its transport, its communications. It is a scientific war, and one chief factor in winning it will be to employ the methods of science quickly and to the best advantage; not only in offence and defence, in interception and attack, but also in maintaining the ordered life and well-being of the community on the home front.

In the Service ministries and in civil defence the directors of scientific research have large resources and organizations at their disposal. The Department of Scientific and Industrial Research, the Medical Research Council and the Agricultural Research Council advise these and other ministries, and many of the latter have scientific advisers and establishments of their own. The Ministry of Information alone appears to have no special

organization from which scientific advice, scientific criticism and scientific fact can be obtained. It is now in course of reconstruction, and we may hope that the omission may be repaired. For the war is a scientific war, and the science of it is not all so secret or so unintelligible that it cannot usefully be made public. If, as Mr. Wilfred Trotter maintained in a striking letter in *The Times* of September 25, our chief advantage over the Nazis lies in the free use of our minds, there should be a special place for science, and its services to the national cause, within the structure of the Ministry of Information.

This view may seem strange, even amusing, to senior administrators of the old type, trained perhaps thirty years ago in a school of ancient philosophy. It will not seem so strange to their younger colleagues, and not at all strange to the large number of skilled working people who are perhaps the most important class in our community. To many of the latter, science is a thing of high repute, and information and advice given in technical and scientific form (provided that is not too dull) carries special conviction. The nation has particular need of their help, their technical skill and resource: it will receive them the more freely if, within the limits of necessary secrecy, they can be told how and why.

During the war, the lives of many of us will be greatly, if temporarily, changed. Scientific knowledge will be needed to ensure that home supplies of food are increased in the right and most economical way; that the food is efficiently used and a high standard of nutrition maintained; that major epidemics are avoided; that medical treatment is forestalled, or economized, by preventive measures and an insistence on public

health. In all such matters great improvement is possible: we lag, for example, far behind Holland, Norway, Australia and New Zealand in avoiding infantile mortality. Persistent education, therefore, is required giving scientific reasons in popular form, if standards of life are to be maintained, or—as they ought to be—improved. We say improved. To reduce, for example, the infantile mortality (under one year) to that of Holland would, in a three years war, save more than fifty thousand children whom we shall badly need in the future; apart from the saving of health and lives in the later years of the rest. Persistent propaganda by the Ministry of Information could help to move public authorities, and the people themselves, to take what steps are possible in all such respects: and that propaganda, to be convincing in quality and effective in results, should be based on scientific knowledge.

In other material respects the life of the community must be altered. 'Black-outs' and air-raid precautions, fuel rationing, limitation of transport and communications, the transfer of manufacturing capacity to munitions, the necessity of using home supplies, where possible, of raw materials; all these, and many others, involve scientific knowledge, investigation and adjustment. Often it will be useful and encouraging to our own people, valuable to our prestige abroad, and no help to the enemy, and will assist in removing misunderstanding and lack of confidence, if scientific reasons can be given frankly (when they exist) for action which the Government has to take. In a community of free people, good will and understanding are incalculable assets, and can be obtained by confident, frank and accurate statement of the facts; which can often be expressed in scientific or statistical terms. A Director of Scientific Information, with a small scientific staff, some of whom should be experienced in journalism, having good outside contacts among scientific people, would serve a similar purpose in this respect to the directors of scientific research in the Service ministries.

In the fighting services themselves the methods of defence and offence are largely scientific. Some of these methods are highly secret: others are well known to the enemy. There could be no conceivable harm, and there might be great good, in informing the public freely of the latter. To take a trivial example, ingenious persons could be saved the trouble of working out devices which are either known already or impracticable, and

inventions committees could be saved the trouble of examining and replying to them. Moreover, and this is not trivial, information not obviously secret which could be used by an intelligent scientific enemy, might be saved from publication by the scrutiny of an alert scientific censorship. In the absence of such scrutiny, the present danger is that everything scientific may be censored, even laws of Nature.

There is intense anxiety on the part of the scientific community to be of service, and progress may seem slow in utilizing some of the best brains available. This anxiety leads to recurring suggestions that a Ministry of Science should be set up, or that research should be 'co-ordinated' on a grand scale by a National Research Council of some kind. It is really better to work by and through existing agencies, with additions where necessary, and long experience in the last war and since has shown that bright ideas advanced by ingenious minds not in touch with actual needs are of little value compared with direct attack, by orthodox scientific methods, by those who are in touch.

The important thing is to provide facilities for able young scientific men (the older ones are largely in touch already) to make contact with various practical problems of national importance. The problems cannot all be predicted beforehand; some will arise as the war goes on. Nor, for reasons of necessary secrecy, can they always be publicly announced. Within such limits, however, as are necessary, the more clearly the scientific aspects of practical problems can be stated, the more chance is there of the right scientific people emerging to attack them. These problems are not only those of the fighting services; they are also connected with the whole life and activity of the nation. From the wide contacts it will have, the Ministry of Information, through its scientific staff, could act to a significant extent as a clearing-house of scientific ideas, problems and persons.

We do not wish to exaggerate the part which science has to play in the task which lies before us; and we are well aware how much already is being done in the use of scientific methods and research for national defence. Measured in terms of its necessary establishment, a Directorate of Scientific Information would be an insignificant addition to the Ministry; its usefulness, however, under wise guidance, might be great beyond comparison.