for dealing with certain branches of applied science which can be brought to bear upon the operations of war. It is necessary to regularise the position and to extend the sphere of influence of such bodies. In order to carry out these objects without delay, the following measures appear to be necessary:—

"(1) The Royal Society to be formally constituted as an advisory body in regard to scientific questions arising out of the war, and requiring to be dealt with by his Majesty's Government.

"(2) For this purpose the Royal Society would establish a general advisory committee to which all Departments of State would be directed to apply for assistance in regard to such matters as the following:—

"(a) New inventions or suggestions involving the application of science to warfare by sea or land.

"(b) Any problems arising out of the proved needs of war which call for scientific treatment and investigation.

"(c) Improved methods of manufacture, or new manufactures, requiring to be started.

"(3) The duties of the general advisory committee would be:—

"(a) To make such subcommittees as are needed to deal with all the above-mentioned matters.

"(b) To allocate them either to these subcommittees, or to individual experts, as may seem most efficacious.

"(c) To secure co-ordination and to prevent overlapping of work.

"(4) The general advisory committee should also be empowered to make suggestions to the head of any Department of State in regard to questions of applied science.

"(5) The subcommittees would not necessarily consist only of fellows of the Royal Society, but would contain members of other scientific societies, or individual experts, together with representatives, nominated by the Department of State concerned.

"(6) Such representatives would act as intermediaries between the subcommittee and the Department, and would obtain from the latter any information required.

"(7) If, arising out of the war, new processes of manufacture were needed to be begun, or existing processes to be improved or extended, the subcommittee involved would co-operate with the Munitions Department, and would provide such expert knowledge as might be required.

"(8) When special experiments, lying beyond the resources at the disposal of, or accessible to, the Royal Society, became necessary, funds should be made available *ad hoc*, either by the Treasury, or by the Department concerned."

It will be observed that Lord Sydenham's draft scheme deals only with exigencies of war. But is it too much to hope that if and when peace comes, the organisation would not be allowed to lapse? This will not be the last war; we have learned, in the crucible of fire, that we must be prepared. Nor is what we usually term "war" what is most to be dreaded. It is the insidious advance by fair means or foul means of our enemies the Germans to obtain a monopoly of all fields of human endeavour. That nation is organised for that purpose, and this war is merely one attempt, and let us hope a fruitless attempt, to obtain world-wide dominion.

May I conclude by quoting again from Sir Norman Lockyer's presidential address?

"Without such a machinery [as that of a Scientific National Council], how can our Ministers and our rulers be kept completely informed on a thousand things of vital importance? Why should our position and requirements as an industrial and thinking nation receive less attention from the authorities than the head-dress of the Guards? How, in the words of Lord

Curzon, can 'the life and vigour of a nation be summed up before the world in the person of its Sovereign' if the national organisation is so defective that it has no means of keeping the head of the State informed on things touching the most vital and lasting interests of the country?"

In the course of his remarks while moving a vote of thanks to Sir William Ramsay for his address, the president said:—Though some of us may differ from Sir William as to the likelihood of another war as great as this, on one point we are all bound to agree with him, namely, that there should be prompt national organisation of all the scientific capacity we possess; co-ordination, and supreme control by a council—it need not consist of more than a dozen men, whose duty it should be to apply scientific results to the war in every department. There is no doubt in the world that we can have an organisation in Great Britain equal to anything which the Germans possess if we will only make up our minds to do it. Our Parliamentary Committees and other committees dealing with most important aspects of this war will not succeed in doing anything of real importance to our present needs unless they work through such a council as has been suggested. From that point of view I think the British Science Guild might be of service. We must spare no effort to impress upon the Government and the public that the course proposed by Sir William should be taken at once.

Sir Archibald Geikie, in seconding the vote of thanks, said:—It is a painful history—the history of the indifference of the State to science and our country. I throw my mind back to the time when I heard Sir Lyon Playfair give that address from which Sir William has quoted, and I know that every word then said was true. I dare say that since that time some of the indifference—I would almost call it the antipathy—on the part of the official mind towards science has altered a little for the better, but there is still plenty to be done. It is not all the fault of Governments. They themselves have to work against the dead-weight of this incubus of indifference which goes right through society. The Royal Society has been mentioned, and I am proud of its history. As you are aware, the Royal Society is actively at work at present, the council having been converted into a war committee so as to devote the whole of its efforts to war matters. If there is to be some central committee dealing with scientific matters, I am sure there could be no more efficient centre than the council of the Royal Society.

The proceedings terminated with a vote of thanks to the chairman, proposed by Sir Ronald Ross, seconded by Sir A. Phillips, and carried unanimously.

A CONSULTATIVE COUNCIL IN CHEMISTRY.

WE print below a letter issued by the president and council of the Chemical Society with the view of assisting the Government to bring the war to a successful conclusion. Fellows of the society are invited to offer suggestions likely to be of value to our armed forces, to state in what branch of work they consider they can be of most use to the country at the present juncture, and what facilities they can offer either as regards laboratory accommodation or time available for voluntary work on national services. The council has constituted itself a consultative committee to consider suggestions and inventions placed before it; and its action should be the means of placing at the disposal of the country an effective body of expert opinion. The co-ordination and organisation of the various branches of chemical science and their appli-

cation are of the utmost importance to the Empire; and the efforts being made by the Chemical Society with these ends in view will give satisfaction to all who realise the difficulty of the problems before us.

Whilst much has been done to assist the Government in many of the scientific problems arising from the war, the technical knowledge and talent of the nation are not being utilised to their utmost. No one knows what is being done, and there is no way of finding out what problems in chemistry, physics, and engineering are urgently requiring solution. The practical man with his problem has no means of getting in touch with the inventor who delights in grappling with practical difficulties, or with the man of science who can bring his expert knowledge to bear upon it. Further, it is realised that an over-worked War Office is not the place at which original methods or devices can be given adequate and competent consideration.

In order to remedy this unsatisfactory condition of affairs some system for organising and co-ordinating the inventive power of the country must be devised. With the object of doing this for chemistry and its allied sciences, the Chemical Society has put forward its scheme. The society will have the co-operation of committees specially qualified to deal with individual problems; each of these committees will consist of eight members, of whom six will be appointed by one of the kindred societies, while the other two will be members of the council of the Chemical Society, to form a link with it as the central body which will forward inventions or suggestions and the reports upon them to the proper authority. For dealing with questions of the general policy to be pursued, both during and after the war, a committee thoroughly representative of chemical opinion in all its branches will, we understand, be appointed immediately.

The Chemical Society,
Burlington House, Piccadilly,
London, W.

DEAR SIR,—In March last the Council of the Chemical Society presented to the Prime Minister a memorial on "The Position of the Chemical Industries" in this country and asked him to receive a deputation from the Society to explain in greater detail the opinions set forth therein. A similar memorial had also been presented by the Royal Society, and on May 6th the Presidents of the Boards of Trade and Education received a joint deputation from the two societies. The deputation¹ assured his Majesty's Ministers of the loyal desire of the Fellows of both Societies to assist the Government and promised their hearty co-operation in all that could be done to utilise the great but latent chemical talent of the nation.

As the war proceeds, the paramount part which chemical science is playing and is destined to play in the present struggle becomes daily more evident to everyone, and in pursuance of the assurance given to the President of the Board of Trade, the Council has constituted itself a Consultative Body which will meet at frequent intervals to consider, organise, and utilise all suggestions and inventions which may be communicated to it, and will report on the same to the proper authorities. In this work it will have the assistance of Committees specially qualified to deal with individual problems, the nature of which will doubtless be very diverse. The Council is of opinion that much can be done in this way to relieve the overwrought Government Departments of work which would probably appear less complex to such Committees of chemical experts.

¹ A report of the proceedings will appear in the Transactions for July.

This Consultative Body having now been formed, the President and Council invite the Fellows of their own and kindred societies to forward *in strict confidence* suggestions and inventions for its careful consideration. However trivial some of these suggestions may appear if taken alone, it is always possible that when brought into correlation with others they may lead to results of great value, and it is this process of correlation and subsequent presentation to the suitable Government authorities which the Council has in view.

All suggestions should be addressed to the Council of the Chemical Society, Burlington House, London, W., and will be regarded as confidential by the Council, which feels that it may rely on the loyal and energetic co-operation of the Fellows in this attempt to render assistance to the Empire.

It is of great importance that the Council should know on whom it can rely for help and the nature of the services each Fellow can render; it will be of considerable assistance, therefore, if you will kindly fill in and return the form attached.

Issued by the authority of the Council,
ALEXANDER SCOTT,
President.

July 1, 1915.

THE RESEARCH DEFENCE SOCIETY.

HAPPY are those scientific societies which have not been thrown out of work by the War, but have found something that they can do for the country in its time of suffering. The Research Defence Society, if its only occupation were to denounce and oppose anti-vivisection, would have been well-nigh useless since last August; none of us, now, is thinking of this old adversary of science. But the Research Defence Society found plenty of work; it set itself to the business of explaining and commending, to audiences of soldiers, the protective treatment against typhoid fever, and, at its annual general meeting on June 30, it was able to give a good report of this part of its work.

Last October, with the approval of the War Office, it published a four-page leaflet, "Protection Against Typhoid Fever." Consignments of this leaflet were sent, with the help of the War Office, to be distributed through the Army. Many scientific or philanthropic bodies also helped in the work of distribution. About 350,000 copies of this leaflet have already been issued. It has been translated into French, and 20,000 copies of this translation have been distributed, by the help of M. Maton, Belgian Military Attaché in England. Copies of the leaflet can be had on application to the hon. secretary of the society, 21 Ladbroke Square, London, W. The society also has given a great many lectures to soldiers, illustrated with lantern-slides and moving pictures, on wound infection and on the infective diseases, with special reference to the protective treatment against typhoid fever.

The opposition to this treatment, happily, is nearly over. It would not stand against the facts of the case, and there is an end of the matter. Mr. Tennant, in the House of Commons, on July 1, gave the latest figures relating to it, and they leave nothing to be said. But there is another disease, tetanus, which has been fought, and beaten, among the Expeditionary Force, by a protective treatment. None of us can soon forget the terror of the news, early in the war, that tetanus was frequently occurring. We feared lest it should be again as dreadful as it was in the American Civil War. Everything was in its favour: the soil was heavily charged with tetanus-germs, many of the wounds were deeply lacerated, and the vast majority of them were septic. It is impossible to