

LETTERS TO THE EDITOR.

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The Organisation of Scientific Workers.

THE Whitley Report on Industrial Councils raises several questions of peculiar interest to scientific workers. It is proposed that a predominant part of the control of any industry shall be based on the recommendations of industrial councils, bodies composed of representatives of the employers' associations and trade unions concerned. Among the subjects with which these bodies will deal are conditions of employment, technical education, and industrial research (para. 16), which are of special interest to the scientific staff. Owing, however, to the lack of organisation among scientific men, there is no method of obtaining their representation on these councils, and if this is not done these matters will be decided by the other bodies involved, without reference to those whom they particularly concern. The need for such organisation is urgent, for it is made clear (Appendix, question 3) that only trade unions and employers' associations are to be represented, and that any body formed later than the council can be admitted only with the approval of its predecessors. The interests of the scientific workers in any industry, therefore, demand that they should form themselves into trade unions.

This statement is not so alarming as it at first sight appears, for legally a trade union is merely any body among the objects of which is the regulation of conditions of employment; so that any organisation formed to represent its members on the councils would be automatically a trade union. Employers' associations are technically trade unions. The other methods of obtaining its aims are determined by itself, and, naturally, no course of action repugnant to the majority of scientific men could be taken by a body that they themselves govern.

For very similar reasons it seems desirable that workers in pure science should form a trade union among themselves. The Department of Scientific and Industrial Research is likely to extend its influence very much in the near future, and pure research will be aided by the establishment of many fellowships and studentships, the workers appointed being in the position of employees of the Department. Here, again, there is no machinery for ascertaining the opinion of the employee on matters that concern him; and it seems at least as desirable to consult the opinions of research workers in their own affairs as those of ordinary workmen, as will be done when the Whitley report is carried out. That the success of the scheme promoted by the Department depends largely on the satisfaction of the employees with their position is admitted repeatedly in its latest report (pp. 21, 43), and a means of expressing their views is needed; this can be afforded only by a general organisation of research workers on a democratic basis and working in close touch with the Department. At the same time such a body must deal with conditions of research in general, and would come within the legal definition of a trade union.

The only body at present in process of formation that aims at attaining these objects is the National Union of Scientific Workers. Its inclusion of both pure and applied science within its scope corresponds with the policy of the Department of Scientific and Industrial Research, and seems highly desirable from the point of view of the co-ordination of science and industry.

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SCIENCE AND PARLIAMENTARY REPRESENTATION.

THE discussion which has followed the meeting of the medical profession held at Steinway Hall on October 1, "having for its object the securing of a more adequate representation of the medical profession in Parliament," has served to show that its restricted objective is hazardous and inadequate. But at least it made prominent one of the essential conditions of successful emergence from the earthquake of the world war, viz. the instant and judicious application of competent knowledge to every branch of national and provincial administration. Those who think this must accompany schemes of national development will thank the conveners of the recent meeting, recognise the value of the discussion it induced, and proceed to ponder how fitting use may be made of the opportunity described by Dr. Addison, the Minister of Reconstruction. It has been made clear that, in the opinion of many entrusted with the executive power of the State, the time has come when those who possess trained knowledge have special opportunities to which as patriots they ought to respond. These opportunities have not come to medicine alone; they have come to every branch of science and technology. It may be well, therefore, to review very briefly the circumstances in which the contributions of trained knowledge to national development may now be made continuously effective. Most of the factors of use or abuse are common to the professions, and if medicine is chiefly referred to in illustrating, it will be as a tribute to its splendid services to-day and to its Steinway Hall initiative.

Nothing can be satisfactorily attempted in Parliament or politics generally unless goals are so clearly stated that willing players of the game can see them. At the recent meeting, where one goal was assumed to be sought, two were set. There was, first, the goal of the "representation of the medical profession" in Parliament, to quote some of the speakers, the *Times* leading article, and some later letter-writers. There was, secondly, the goal of making possible to the community and Parliament "the considered experience and help of medical men as representative of the public interest and aiders of their constituencies" (Dr. Addison). Now the two may stand in the same field, but they are different. They may not be wholly incompatible, but they are diverse; twins, perhaps, but of very different temperaments. Despite some obscurities, Dr. Addison's address suggests that he prefers the second. In letters to the medical and general Press some powerful critics have made it clear that they agree with him. So do we. It is the more catholic, practical, and promising; and for this reason: whatever the professions apart from politics surmise, the political instincts of a politically matured people are not likely to err. It may be hoped, therefore, that these will promote, not the representation of particular interests in Parliament, but the selection of leading men from all

spheres of intellectual and industrial activity to assist in the control of national affairs.

That knowledgeable candidates with expert capacity must first be citizens of a free country before they are expert consultant members of its Parliament is essential to the future of knowledge as a political instrument and to the success of those who thus use it. This is especially true to-day from causes that are not yet sufficiently realised. In many departments of commercial, professional, and class effort class interests have had to be emphasised beyond prudence to get any type of organisation accepted by disunited individual units. Much organisation of a roughly hewn type has been accepted, therefore, and in industry, as in war, generalship has had to be improvised, with like disastrous results sometimes. The price which has inevitably to be paid for inefficient organisation, for organisation, that is, which permits the machine to run the man, is troubling the counsels of parties and groups, and threatening grave evil to the country—in its executive action itself a bad culprit.

It is to inadequate knowledge at the top of professional and class organisations that most of the prevalent functional disorders are due. The tool is not just now esteemed. It is highly probable that the good sense of the community, dimly conscious of class dangers, will assert itself on suitable occasions against class demands and all extensions of class representation. Moreover, the future is not with this method, as trade-unions and capitalistic organisations are finding out. That way lies death. A virile race uses organisations, but is not mastered by them or dictated to by them. Surely it will be most unfortunate, futile as well as unfortunate, for the as yet unmobilised scouts of knowledge to handicap themselves by following an example seen to be reactionary and dangerous. Theirs the better prospect of appealing directly to the happier instincts of a free and growing race, of demonstrating that in seeking to serve their country in the hour of its greatest need they wish to place its interests before any other interest, personal, professional, or, for that matter, partisan. They stand as citizens to serve as citizens: that is the path of honour and of leadership. It is the path also of success.

The work to be done has to be done in Parliament, we are told, and through Parliament. This implies ability to understand and to participate in the general work of Parliament, whence all their opportunities will arise. Important as is the physician's experience and mental equipment in diagnosis, when he has his patient before him the prime factors are the patient himself and his potential response to any treatment. So, if the professional man, the expert, is to hold his own in a Chamber sufficiently filled with the representatives of commerce and labour, however true to his own professional responsibilities he may be, he must first look at the work to be done from the point of view of the national interest so far as his special gift can further it, in order that the object of the Bill which takes time may be worthy of

Time. He must be able to establish and to maintain touch with his parliamentary colleagues, to adjust that which he knows to the medium in which it has to be applied—no light task—and thus to make effective the special contribution he has to bring. His most valuable aid may sometimes consist in preventing gross mistakes being perpetrated in ignorance, but to pull up any machine in full motion demands exact knowledge of its mechanism. No Member of Parliament who knows his own special business, his business as a legislator, and the routine of the House, would fail to get a hearing; what a power he might become! He cannot understand his business as a legislator unless he makes that his first and chief object.

If this is true of the House of Commons, how much more true is it in the constituencies. The closest contact of knowledgeable candidates with the electorate is necessary to-day if electors are to learn their duty, choose and support educated and efficient administrators, and discountenance inefficient administrators. Can the electorate be adequately served if selected constituencies are to be offered eminent experts in science and technology with specialist limitations, whose presence in Parliament is desired that they may attend the consulting-rooms of State Departments, sit on Special Committees, or voice, occasionally, some sectional interest? Surely these services can be commanded at any time without imposing a preliminary qualification which would in itself then be but a pretence. And what of the influence of such practice on the men themselves and on the repute of the intellectual ministry for which they stand? It may well be that some of the most useful men of one category would also be available in another; as was said, the two goals are not wholly incompatible. The consultant might be the man who, before his constituents, could interest them in knowledge, reveal the folly of some section in a contested Bill, or, later, show how a clause, vital to the success of a new Act, might at once be made locally operative. If so, both needs would be met in the same man. But even then it is on the citizen plane that true representation has to be sought. Both in the Commons and in the constituencies this is the type of service which is alive: it grows.

Knowledge is not static; it is dynamic. It perfects itself in practice amid ever-changing atmospheres, and owes most of its efficacy at any time to perceptions and extensions gained in performance of function. In free nations the demands of each parliamentary session will give professional counsel its chance and chiefly determine its usefulness. The limitations of Parliament as a patient are gross and grave. But it is the only patient here on view. Knowledge has its work therewith, and knowledge must do it: it can only be done on the basis of approved citizenship. The nation should get nothing meaner.

To sum up. The coming General Election will make a special demand on the men best equipped to serve the country, and in many respects that demand has never been easier to meet. During

no previous epoch has the country depended more for its preservation on competent and ascertained knowledge, and never have we had with us a larger number of available men skilled in some branch of knowledge and already familiar with the administrative and functional routine through which that can best be applied to national work. Men of affairs, themselves prominent in the ranks of men of science, are neither few in number nor unknown to constituencies. Something has been said in medicine about the exact constitution and responsibilities of the committee which should select suitable candidates for whom seats could be found. It does not matter very much what method of selection is taken so that the right goal is clearly set up, and there are those ready to be true to the test of the time. A very small sum of money—small as sums go to-day—in the hands of a few administrators acquainted with the problems and with the *personnel* of the scientific world would permit them at once to consult the party Whips and arrange for the candidature of an experimental group such as competent State chiefs would gladly welcome to the House and constituencies live to be thankful they ever sent there.

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EPIDEMIC INFLUENZA.

THE name "influenza" is of Italian origin, and is derived from the Latin *influxio*, which signifies a humour or catarrh. Creighton¹ gives the following account of its introduction into the English language:—

"It was in 1743 that the Italian name 'influenza' first came to England, the rumour of a great epidemic, so called, at Rome and elsewhere in Italy having reached London a month or two before the disease itself. The epidemic of 1743 was soon over, and the Italian name forgotten, so that when the same malady became common in 1762 someone with a good memory or a turn for history remarked that it resembled 'the disease called influenza' nearly twenty years before. After the epidemic of 1782 the Italian name came into more general use, and from the beginning of the present century [*i.e.* 1801] it became at once popular and vague. The great epidemics of it in 1833 and 1847 fixed its associations so closely with catarrh that an 'influenza cold' became an admitted synonym for coryza or any common cold attended with sharp fever." The last-named usage has lingered in common parlance to the present day, and such "running" colds are frequently contagious. The series of epidemics from 1889 to 1893 effectually dispelled the idea of the necessary association of epidemic influenza with catarrh.

It has also been customary since 1893 to term "influenza" any brief febrile affection associated with more or less headache and muscular pain. The nature of such attacks is little known, but the majority are certainly not true influenza. Epidemic influenza is a malady which has probably

existed from the earliest times. Creighton traces allusions to it in the medieval Latin writers, and in the sixteenth and seventeenth centuries strange epidemics are recorded from time to time under such names as "new disease," "hot ague," "sweating sickness," and others which seem undoubtedly to have been manifestations of it, and the disease has recurred again and again with an interval of a few years. In the nineteenth century, after an outbreak in 1855, more than a generation passed with little or no mention of epidemic influenza in this country, when in the early weeks of the winter of 1889 reports began to be published on the reappearance of influenza in Moscow, Petrograd, Berlin, and other foreign capitals. This epidemic wave, like many that preceded it, had an obvious course from Asiatic and European Russia towards Western Europe, and eventually reached London, and in January, 1890, had a decided effect upon the bills of mortality of the city. It spread all over England, Scotland, and Ireland, but by the spring of that year had almost disappeared.

The features of the disease at this time were a sharp and sudden attack of fever, accompanied with headache, pain at the back of the eyes, pains in the limbs, and severe back-ache, with prostration and a general feeling of misery. Catarrhal symptoms were by no means prominent, but in the elderly the disease was frequently complicated by bronchitis, pneumonia, and heart failure, and convalescence was often prolonged. The pronounced back-ache and absence of catarrh at first suggested that the malady might be dengue fever, but it was soon recognised that the epidemic was one of genuine influenza. The disease recurred in 1891, 1891-92, and 1893-94, and then waned and almost disappeared. The worst period was in January, 1891; in the week ending January 23 the death-rate in London rose to 46 per 1000 living (a month previously it had been 21.9), and 506 deaths from influenza were registered, as well as a very high mortality from bronchitis and pneumonia.

After a period of quiescence lasting for three-and-twenty years, influenza in epidemic form once more made its appearance towards the middle of the present year. In May and June it ravaged Madrid and other parts of Spain, afterwards attacking the British and German forces on the Western front, and travelling to this country, Holland, and Scandinavia. London experienced a sharp attack in July, and some 1600 deaths are attributed to it. On the whole, however, this outbreak was a mild one, except among the debilitated and the aged. The usual course pursued by the disease was a sudden onset of sharp fever lasting about three days, with headache and muscular pain, but little catarrh, followed by rapid convalescence. By the end of August the epidemic was practically at an end. During the present month another outbreak has occurred and is in progress, and this time the disease is assuming a more serious character, and many deaths from pneumonia and bronchitis complicating it have been reported, particularly

¹ "History of Epidemics in Britain," vol. ii., p. 304.