

THURSDAY, APRIL 15, 1920.

The Encouragement of Discovery.

DURING the past few years much has been done by the State to provide facilities for research, but it is not too much to say that even now neither the public nor our statesmen understand the debt they owe to the peculiar and rare geniuses to whom the greatest discoveries are due, or that any attempt has been made to discharge it. Grants for research expenses or for the maintenance of research workers are available from various sources, and much valuable work is being carried on through this aid. What is wanted to complete the scheme is a fund from which pensions or other substantial money grants could be made for scientific discoveries of an epoch-making character, somewhat in the manner of the award of the Nobel prizes. We referred a few weeks ago (March 4, p. 18) to a deputation which waited upon Mr. Balfour, Lord President of the Council, to urge that a sum of about 20,000l. should be set aside annually for this purpose; and we trust that this modest provision for the encouragement of genius will be forthcoming.

The January number of the *Journal of the British Science Guild* contains a carefully prepared report on the subject of awards of this nature, with particular reference to medical discovery. The committee which presented the report consisted of eleven men of scientific distinction—five representing the British Medical Association and six the British Science Guild; and the members of it formed the deputation to Mr. Balfour, with the addition of several members of the House of Commons. Two cardinal proposals were made—first, that medical discoveries, even when made accidentally and not as a result of designed investigation, should be encouraged by direct pecuniary reward; secondly, that for losses or outlays incurred by private investigators engaged in medical discovery the State should recognise the principle of compensation.

These two proposals rest on the fundamental fact that, owing to the peculiar nature of medical service and the necessity for carefully adjusted ethical sanctions, the individual medical investigator has often to sacrifice the welfare of himself and his family, although his investigation may have the highest social value. The capacity for discovery, including invention, is very unevenly distributed, but in every field of science rewards, both financial and honorary, act as powerful

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evocatives of faculty. In any sphere except medicine, an invention or a discovery has at least a "business" chance of bringing a direct reward, for the investigator can patent his invention or protect himself in some other way. In medicine he cannot patent a new microbe or a new method. The attempts to patent or protect serums or similar products are usually failures, and may end in the removal of a name from the register "for infamous conduct in a professional respect." Probably in this matter the medical profession is too exacting, but there are obvious good reasons for maintaining on the highest ethical level the sanctions of a profession that touch so nearly the private life of the subject. These sanctions, therefore, must continue to be a serious handicap to the medical investigator, who cannot employ the ordinary business methods to secure for himself any profit from his invention, or discovery, or new method of treatment.

If medical discovery is thus shut out from normal commercial reward, there is good ground for the view that the State should establish a system of compensation. To a certain extent, medical research is itself a career, and in the future development of medicine research will offer more and more openings for talent. But meanwhile it is certain that the medical inventor or discoverer has much less chance of making even a respectable living than the clinical medical practitioner. Of this it would be easy to give sufficient proof, but it is not seriously disputed.

Within the medical schools there are many forms of award, such as honorary degrees, money prizes, and the like; but their distribution is largely accidental. Further, the inventor or discoverer has so to specialise his energies that he may positively disqualify himself for the more lucrative administrative or clinical posts. This is more or less true of every branch of applied science, not to speak of pure science; it is overwhelmingly true of medical scientific investigation.

The joint committee and the deputation have uncovered an important scientific area where the State might well recognise a duty to compensate. How profoundly the economic motive operates to increase the production of inventions the Courts for the war awards have abundantly shown. It would be to the ultimate advantage of the State to pay for medical and other scientific discoveries which bring no financial gain to the men who made them: the method of payment is a detail and need offer no more difficulty than that involved in making other awards. The principle is so sound that it ought at once to be conceded.

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