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Rationalisation of Research.

FOR the plain man and, even more, for the scientific worker and many Empire industries, it is extremely desirable that some authoritative pronouncement should be issued detailing the *raison d'être* and the lines of work of the several institutions and research centres in Great Britain which are endowed or supported by Government grants. Even the scientific worker of the present day may be pardoned if he finds it difficult, amongst an apparently bewildering number of institutes and research centres, to pick out the one at which he can obtain the most authoritative information upon the work in which he is interested; for the industrial inquirer the position is even more difficult; whilst the farmer is often hopelessly lost, when all he requires to know is the reason why a portion of his crop is failing. The farmer wants the answer at once: he has lost all interest (having lost that part of his crop) six months later, when an answer may arrive, after he has been sent from pillar to post.

The last few years have witnessed the advent of the Imperial Economic Committee, the Empire Marketing Board, the Government research laboratories connected with the Army, Navy, and Air Force, the several agricultural research and experimental stations now in existence in the country, increased by special lines of research undertaken at the Universities of Cambridge, Edinburgh, and so forth; the Forest Products Research Laboratory at Princes Risborough, the Imperial Forestry Institute at Oxford, etc. Among these centres are some which are not directly endowed with Government grants. The rest, under the supervision of the first or second body above mentioned, are, it is believed, influenced or stimulated to carry on work and to build up collections; the latter being either on a local or home standard, or on the far larger and more costly Empire one—these collections requiring buildings for housing and staff to look after them. In other words, the pendulum has swung with a vengeance and the pre-War apathy appears now to be leading the country into unnecessary (because unorganised) duplication of centres, buildings, exhibits, and so forth.

Before the War the scientific inquirer had a few well-known centres to which he resorted for information. To take two examples: Kew, with

its unrivalled collections of plants, timbers, and so forth—a collection of such excellence that it would take years to reproduce anything similar; and anything of less value would still necessitate the inquirer or student, having access to it, visiting Kew to complete his studies and investigations. Another centre designed for answering economic inquiries and for housing collections of economic products was the Imperial Institute—starved of funds for many years, it is true, but still inaugurated with a definite economic aim.

What is the position of the Imperial Institute to-day? From the annual report for 1929, written by the director, Lieut.-General Sir William Furse, and recently issued, it would not be easy for any but the highly technical expert to frame an answer: and the ordinary scientific worker and specialist inquirer would perhaps find it extremely difficult. For the report furnishes plentiful evidence that the Institute is engaged upon a wide series of economic inquiries and investigations involving elaborate research work. How is this co-ordinated with other research centres receiving Government grants?

It may be assumed that both the home government and all the dominion governments have a full belief in the importance and value of the work of the Institute. The high commissioners of all the latter are members of the board of governors; the trustees include several cabinet ministers; government departments are represented on its managing committee, as also are well-known men of science and others representing commercial interests. The Institute consists of several departments: for example, plant and animal products department, of which Sir David Prain is chairman of the advisory council; mineral resources department, of which Sir Richard Redmayne is chairman of the advisory council; Ceylon rubber research scheme; sericulture research. Investigations into vegetable fibres, timbers, crops for Kenya Colony, improvement of Burma rice, and many other important investigations are dealt with in the annual report.

The work carried out by the Institute with the approbation of the Government, and more important still, the Treasury, is of the greatest value, and its inception, although for so long cold-shouldered, may be regarded as an inspiration. The Institute is a centre to which all can resort, the serious investigator and the citizen who wishes to understand something of the great Empire of which he is privileged to be a member. The educational value of the Institute has been increased by the

addition of a cinema, and the provisions made for the visits of parties of school children; and no finer educational centre for the youth of Great Britain could be found.

This being the present position, has not the time arrived when it becomes the duty of Government, in the interest both of the taxpayer and to prevent the wasteful and unnecessary duplication of work, buildings, and exhibits, to have a list drawn up of all institutions existing in Great Britain which are maintained either wholly or in part from Government funds or grants? This list should give details as to the exact nature of the work carried out by each; the reason or necessity for acceding to the demands for extra buildings to accommodate exhibits, perhaps already existing in other institutions in the country, extra staff, and so forth. With such a list available it might be found that Government was making grants to institutions for the purpose of carrying out work which was already being undertaken efficiently by existing institutions.

There would appear to be little doubt that such an inquiry is needed to avoid further waste of money both on the part of the home government and on those of dominions and colonial governments. The latter, as is well known, have received many calls of recent years to collect and forward specimens of a varying nature, many of these requirements being duplications of previous ones already furnished to other institutions. Further, in certain cases these governments are being invited to make grants of money to specialised educational or research centres in Great Britain. It would seem a duty imposed on the home government to be in a position to place before them a list of all centres engaged in the particular line of education or research.

It is known that duplication of the kind to which attention is here directed does exist. It is also known that the average scientific investigator and the commercial man, unless in close touch with the centre of affairs, is bewildered by the apparent multiplicity of institutes and research centres some of which are apparently undertaking work, or competing with each other (in some instances unknowingly), in the same field. A list of Government aided research institutions such as we have suggested above would largely prevent this duplication of effort and, what is perhaps indirectly even more important, would lead to wider use and fuller appreciation of the services which they can render to both science and industry.