

THE CARNEGIE TRUST.¹

THE Carnegie Trust for the Universities of Scotland has been in operation for twelve years, and it is now possible to draw some general conclusions as to the success which has attended its working. No other scheme for the endowment of higher education and research in this country has been planned on such a large scale as that indicated in the present report and its predecessors, and the progress of an experiment of such magnitude has been followed with interest by all who have to do with University affairs.

The financial statement for the year 1912-13 shows that the annual income of the trust amounts to rather more than 100,000*l.*, and after defraying the expenses of administration there is left about 99,000*l.* as the net revenue available for distribution under the two main heads of the scheme. Half of this sum is earmarked annually for the payment of students' fees, while the other moiety is devoted (a) to the better equipment of the Scottish universities and colleges by the foundation of additional chairs and lectureships, and by the provision of new laboratories and permanent equipment, and (b) to the endowment of research. Of course, the equipment section of the expenditure also plays its part in the advancement of research work, as it furnishes places in which investigations can be carried on and also helps to provide posts for men who become directors of research in their various departments. It will be seen that the operations of the trustees are financially on a grand scale; for the funds at their disposal annually represent a sum equivalent to about 60 per cent. of the total Government grant in support of the higher educational institutions in England and Wales.

In the allocation of the funds, the trustees have been guided by two main considerations. First, they decided that their assistance to the four universities and their kindred colleges should be given under a quinquennial scheme, so that each step forward has been based upon the allocation of approximately half a million sterling. Secondly, a general rule was laid down that the trust would not hamper its income by paying salaries for new posts year by year out of the annual revenue, but instead, any new chair or lectureship is endowed fully at the start, so that its subsequent career entails no further draft upon the funds of the trustees. In this way, each chair on its foundation disappears from the books of the trust, and the next quinquennial distribution can be devoted to entirely fresh needs.

Any visitor to the Scottish universities in recent years must have been struck by the progress which has been made in the provision of new laboratories and departments of all kinds; buildings have sprung up until the older part of the fabric appears to be lost in the new. But buildings alone are of little value, and the influence of the trust is equally marked in the large increases of staff which have been rendered possible.

These, however, though they represent the major part of the trust's expenditure, are by no means the most striking monument which the trustees have raised, for their endowment of research and post-graduate study has been on an equally far-reaching scale. A system of scholarships and fellowships has been founded, which is supplemented by a series of grants in aid of research to Scottish graduates resident in Scotland; and this part of the trust's work has been of equal, if not greater, importance to the Scottish university system. Thus from the time a student enters the University to the day he leaves Scotland he finds a helping hand extended to him should he wish to grasp it.

¹ Twelfth Annual Report of the Carnegie Trust for the Universities of Scotland, 1912-13.

During his undergraduate career, he may obtain payment of his university fees; later, he may aspire to carry out researches, in which case he may apply for a scholarship or a fellowship. The research scholarships are conferred upon students on the recommendation of experts—usually the persons under whom the beginner in research will have to take his first steps in original work. Research fellowships are meant for men who have already accomplished something, and they are allocated on the merits of the work which the candidate has already published. In neither case is there any competitive examination, nor do the trustees bind themselves to furnish a fixed number of scholarships or fellowships in a given year. This is one of the most desirable features of their policy; for, as any teacher knows, an institution may turn out, say twenty first-class men in a given year, whilst in the following year only one or two may appear, so that the granting of a fixed number of scholarships per annum simply means that in some years a first-class man may not secure an appointment to a scholarship which in the following year will fall to the lot of a much inferior man owing to there being a dearth of candidates. It should be pointed out that the trustees retain all these appointments in their own hands, so that graduates of all the four universities are dealt with on equal terms. The scholarships are of the value of 100*l.* per annum, and are tenable for one year with a possibility of extension or of the holder's promotion to a fellowship; the fellowships are of the value of 150*l.* per annum, and are normally tenable for two years, though further renewals are possible.

The facts given in the report with regard to the subsequent careers of scholars and fellows go to prove that the research training they have undergone has fitted these men for the most varied appointments; and it must be remembered that the actual output of research work during the tenure of a scholarship or fellowship is not by any means the full index of the success of the scheme. Most of the men continue their investigations after they have severed their actual connection with the trust, and their later work must to some extent be placed to the credit of the trustees.

The impetus to research which has been produced by the work of the trust can be gauged from an example chosen from one science, chemistry. In the eight years 1903-11, the trust appointed in this department forty-five scholars, twenty-five fellows, and thirty-one grantees. The work of these has resulted in the publication of more than 130 original communications to scientific journals. Now, in 1912, the contributions of the whole British chemical world to the Transactions of the Chemical Society amounted to only double this number, 266, so that it is evident that the Carnegie Trust, by its encouragement of research, has indirectly in the course of eight years produced a series of results equal to half the annual output of the whole Empire at the present time. This, it must be remembered, represents only a single department of the trust's activities; for, in addition to chemistry, work is being carried out in physics, biology, medicine, economics, history, and languages.

One final point deserves note. In dealing with a machine of this magnitude, it is, of course, impossible to proceed without laying down some general rules; but the Carnegie Trustees have hitherto avoided the pitfall of too great rigidity, and the flexibility of their system is one of its most valuable features. There can be no doubt that Dr. Andrew Carnegie's experiment has resulted in brilliant success in the development of the research talent of his native country.

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