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Work of the Forestry Commission:
Progress and Promise.*

I.

THE Forestry Commission of Great Britain came into being as the result of the Forestry Act of 1919. Under the financial section of that Act, a sum of 3½ million pounds was to be provided for the first ten years of the Commission's work, the money to be voted annually by Parliament in instalments up to the total sum sanctioned for the period.

The Forestry Act was based to a great extent on the advice tendered by the Acland Committee, which reported in May 1917. The Act, quite correctly as many think, did not, however, embody in its clauses the recommendations of the Committee that a hard and fast annual planting programme should be adhered to, coupled with an attempt to procure land, by purchase or otherwise, on a scale sufficient to keep pace with a planting programme laid down in advance. In their review of the ten years' work, the Commissioners can state, and they do so with perhaps pardonable pride, that the two objects have been very nearly achieved, in spite of the set-back which many Government departments experienced when the 'Geddes axe' (1922) was being wielded over Whitehall. Even in the case of such a department as 'Forests', a profession of the open-air, we find that in 1929-30 the technical staff numbered 70, whilst clerical staff numbered 100! Unexpected difficulties also were encountered in obtaining the land required, especially in the north; and the mildest criticism on some of the areas obtained has been that the value of the forest crop they are likely to grow is problematical.

Every annual report since 1923 has referred to this 'Geddes axe' contretemps in the history of the work of the Forestry Commission. But to many practical foresters possessing administrative experience, the view and attitude so taken appear to be somewhat distorted. It is a well-accepted factor in forestry economics that any slump in trade in a country, or part of a country, will be immediately reflected in forestry revenue and returns, either of the country as a whole or in the part of the country affected, and forest officials are well aware that they will experience cuts in the expenditure side of their next forest budgets.

In the case of the Forestry Commission, it is held by a not inconsiderable section of expert opinion in Great Britain that it was, and is, a mistake to tie

* Forestry Commission. Tenth Annual Report of the Forestry Commissioners, year ending Sept. 30, 1929. Pp. 69. (London: H.M. Stationery Office, 1930.) 1s. 3d. net.

the forestry business to an annual programme of planting laid down in advance—and consequently to the necessity of endeavouring to acquire land for the purpose to at least a fixed annual amount. With the finances of the country in their present position, not even the keenest supporter of afforestation in Great Britain would agree to the sacredness of either the 1929–38 planting programme or its more or less prescribed land acquisition plan.

It must be admitted that the Forestry Commission deserves congratulation on its ten years' work. It may be suggested, however, that the Commissioners will be well advised not to pin their faith on adhering to a hard and fast policy of *annual* planting and land acquisition, by area. A clear-sighted forest administration knows full well that it has to 'cut its coat according to its cloth'. Should retrenchment have to come during the present ten years, the Commissioners have now in hand a forest area of considerable size, which doubtless can provide plenty of work for the existing staff; and no one expects the present forest estate, consisting for the major part of young plantations, to show a profit for years to come—so that worry has not to be faced.

It will be readily conceded, as the writer of the review in the report before us says—"The object of the ten-year programme was to avoid uncertainty. Uncertainty is the worst enemy of the Commissioners' work." Every forester should know that success in forestry depends upon continuity in working. What, however, is not so readily appreciated is that this well-recognised axiom applies to forest departments which have under their charge considerable areas of existing revenue-yielding forests. Here interruptions in continuity of working result in serious losses in revenue and check the due expansion and progress of forest management. Great Britain is not in such a position. Therefore it would be difficult to support, on economic grounds, the necessity for adhering to a hard and fast annual planting plan; though it may be a perfectly sound policy to prepare such a scheme and endeavour to work up to it. So far, the Commission has made a fetish of this branch of forest work—at the expense of reafforesting areas felled during the War, which had at least one forestry asset, an established forest soil.

The work carried out under the auspices of the Commissioners up to the end of the growing season of 1929 may be briefly summarised as follows. Of plantable land, 310,230 acres were acquired; of this area, 130,768 acres were planted with conifers and 7511 acres with hardwoods. State-aided planting

(that is, by making money grants to private proprietors) was responsible for another 76,736 acres planted. The original programme did not envisage the creation of forest workers' holdings. As one outcome of the unemployment question this matter was taken up in 1924 and received a warm acceptance by the Government officials concerned; the result was that 618 holdings were completed by the end of the ten year period and another 245 were in progress. Wherever possible, existing buildings have been converted for the purpose of the holdings. But in many cases new buildings have had to be erected and the work has proved somewhat costly. However, in the case of the forest workers' holdings, there are a good many questions of an economic nature to be weighed, apart from the purely financial one. So far as can be foreseen at the present time and under existing social conditions, the forest workers' holdings can be regarded as a sound departure.

At the end of September 1930 the Forestry Commission had under its charge 602,000 acres of land, of which 251,000 acres had been acquired by purchase, 231,000 acres by long lease or feu, and the balance, approximately 120,000 acres, consisting of Crown Woods, had been transferred to the Commissioners under the Transfer of Woods Act of 1923. The following extract from the report will indicate that sound views now prevail on the subject of land acquisition:

"In acquiring land the Commissioners have kept constantly in view their main functions, which are to establish forests and forest workers' holdings. The acquisition of assets surplus to those requirements has been avoided so far as possible, and where it has been necessary to acquire surplus assets in order to build up desirable forest properties the policy is to dispose of them as rapidly as sound business permits."

The activities of the Commissioners in the direction of forest education and research work are discussed at length. Expert opinion in Great Britain is by no means agreed either as to the value of some of the Commission's activities in these directions or the soundness of some of the advice given by the Commissioners. References have already been made to such matters in our columns; the points in question, moreover, are well known to those interested in these matters throughout the country and need no further emphasis here.

Weighed dispassionately, however, the consensus of opinion will be that the Commissioners in the work of the past ten years have deserved well of their country and have earned the thanks of their countrymen. The chairmen have been Lord Lovat,

one of the originators of the scheme (1919-27); Lord Clinton (1927 to 1929, end of ten-year period); Sir John Stirling Maxwell, the present chairman. Mr. R. L. Robinson has been the Technical Commissioner throughout the period.

The summary of the ten years' work is unfortunately drawn up on the most approved Whitehall lines. It bristles with statistics and tabular statements, resembling a report emanating from the Treasury or Board of Trade. From the point of view of the public the report is useless. Several of the reports of forestry departments issued in other parts of the Empire are nowadays human documents, often illustrated. The Commissioners have missed a great opportunity for propaganda to interest the public; whilst they would have set an example which might have had the beneficial result of brightening up Whitehall reports and Blue Books generally.

Concepts of Social Biology.

The Biological Basis of Human Nature. By Prof. H. S. Jennings. Pp. xviii + 384. (London: Faber and Faber, Ltd., 1930.) 15s. net.

ALMOST everything which has been written on the biological foundations of human society is based upon a false antithesis with a historical background, which should be evident to everyone who is familiar with the progress of animal biology during the last century. Before the emergence of the cell doctrine during the 'thirties, Kölliker's discovery that the sperm is produced by the transformation of a single cell in the testis of the male parent, and the elucidation of the phenomenon of fertilisation by Fol in 1879, the prevailing biological concept of inheritance was very much like the legal one. While the egg was still regarded as an adult in miniature, it was natural to think that we pass on our noses in much the same way as we pass on our mortgages. When the essential features of fertilisation were established, it was natural that biologists should challenge the legal view of inheritance associated by custom with the name of Lamarck. Had Weissmann confined himself to this modest task, his influence on biological theory would have been one of permanent usefulness. Unfortunately, he could not stop at that. From a total misconception of the rôle of the external environment in relation to the materials of inheritance, biological doctrine swung over to a total neglect of the rôle of environment in the process of development.

Weissmann's conception of development, elabo-

rated in association with Roux, reduced the external medium to a perfect vacuum. As in Stevenson's fable, the gyves were firmly riveted on the left leg before the ulcer on the right had healed. To-day the progress of experimental embryology has relegated Weissmann's theory of development and the hypothesis of germinal selection to the same limbo as the Lamarckian doctrine. In animal biology, heredity and environment are used as classifications of two types of variables which interact at every stage of development, to produce at the end of the process one of a large number of possibilities called an individual. Heredity includes the class of variables which can be defined in terms of the material of which the sperm and egg are respectively composed. Environment includes that whole class of variables which are significant in the further development of the fertilised egg. A difference between two animals may be predominantly a genetic or predominantly an environmental one. To speak of characters as hereditary or environmental, innate or acquired, is, strictly speaking, meaningless.

In animal biology these are commonplaces. Unfortunately, in human affairs they are still startling and almost revolutionary ideas. The main concern of Prof. Jennings in "The Biological Basis of Human Nature" is to see that they shall become commonplace in social biology. He has performed this signal service with the lucidity, good humour, and terseness which have enhanced his reputation as one of the most penetrating and provocative thinkers in contemporary biology. "A burden of concepts and definitions", he says, "has come down from pre-existing days; the pouring of the new wine of experimental knowledge into these has resulted in confusion. And this confusion is worse confounded by the strange and strong propensity of workers in heredity to flout and deny and despise the observations of the workers in environmental action; the equally strange and strong propensity of students of environmental effects to flout and despise the work on inheritance." On behalf of the workers on heredity, it may be pointed out that extravagant dogmatism concerning the hereditary significance of human differences is less common among biologists than among statisticians, retired majors, and clergymen with journalistic propensities. The leading geneticists, and among them first and foremost T. H. Morgan himself, have usually shown extreme reserve in discussing the genetic aspect of social behaviour.

"The Biological Basis of Human Nature" does not set out to be a comprehensive text-book of