Thirteenth Annual Report of the Forestry Commissioners*

THE Forestry Commission is in its second decade. For the work proposed for the decade it had been estimated that a sum of about 11¼ million pounds would be required; working receipts were estimated at £2,160,000, the net contribution from the Exchequer being £9,115,000. The chief works to be carried out were the afforestation of 353,000 acres and the establishment of 3,000 workers' holdings. For the purposes in view it would be necessary to acquire each year 6,000 acres of plantable land and 2,500 acres of agricultural land. These proposals were subject to a severe cut at the hands of the May Committee in the interests of economy (NATURE, Sept. 17, 1932, p. 427). As a result of subsequent discussions between the Commissioners and the Chancellor of the Exchequer, the latter undertook to provide annually for the next five years a sum of £450,000, this with working receipts giving the Commissioners about £600,000 annually for forestry operations.

Changes of policy in Government departments other than that dealing with forestry, however admirable their main aims at retrenchment may be, often result, in the first instance, in unavoidable losses. In the case of forestry, sudden fluctuations of policy, justified apparently by the necessities of the Exchequer, are particularly liable to lead to loss and waste. In the present case, where so large an amount of the work of the Forestry Commission is planting and the provision of the plants required annually for the estimated area to be afforested, a serious annual curtailment of the land to be planted up would of necessity be followed by a drastic decrease in the number of plants required for the purpose. This inevitable result was foreseen at the time the recommendations of the May Committee were accepted and at the subsequent discussion between the Commission and the Chancellor of the Exchequer. Questions asked in the House of Commons on the subject in July last appeared to show that the unavoidable outcome in this respect had not been appreciated. The Report for 1932 thus alludes to this important matter, and merits putting on record:

"It will be appreciated that the sudden change in the Commission's planting programme could not be made without waste. The material losses are most apparent in respect of nursery plants. . . . In view of all the facts it was decided to retain in the nursery only those surplus plants which were within the economic limit of age [four years old] and, further, did not necessitate additional expenditure in weeding, etc. There has thus been a destruction of surplus plants beginning in the nursery season 1932 and not yet at an end. When the readjustment has been completed it is estimated that the cost price of the plants involved will amount to approximately £50,000."

The net total area acquired in Great Britain to September 30, 1932, was 709,008 acres, of which 439,885 acres were classified at the time of acquisition as plantable. Of the plantable area 265,275 acres (60 per cent) are situated in England and Wales and 174,610 acres (40 per cent) in Scotland. The total area planted or sown during the year was 22,663 acres, of which 21,277 acres were placed under conifers and 1,386 acres under broad-leaved species. Included in the above are 522 acres reafforested in the former Crown woodlands and 182 acres replanted after damage by fire. The 'Cost of Planting' still unfortunately remains at a high figure. It is stated that "The outlay per acre on labour and material on the areas planted between 1919 and 1932 was as follows: England and Wales, £9 3*s.* 0*d.*; Scotland, £9 15*s.* 1*d.*; Great Britain, £9 7*s.* 3*d.* These figures cover the cost of preparation of ground, drainage, fencing, plants, planting, replacement of failures and weeding but do not include expenditure on forest protection, overhead charges and supervision." Perhaps 'Cost of Formation' would be a better term than 'Cost of Planting' for operations which cover a great deal more than the mere 'planting'.

The total addition to the forest area of Great Britain during the year was 16,927 acres. In forming plantations and beating-up previous years' plantations 51,600,000 trees were used, of which 39 per cent were Norway and Sitka spruces; 32 per cent Scots and Corsican pines; 14 per cent European and Japanese larches, and 3 per cent Douglas fir. An area of 242 acres of existing woods was underplanted, necessitating the use of 217,000 plants.

Grants to private individuals and local authorities for planting and scrub-clearing (on the basis of £2 per acre for planted conifers and £4 per acre for approved hardwoods to be maintained thereafter as forest crops; and £1 per acre for clearance of scrub on areas of not less than 20 acres) amounted to £11,710, advances in respect of a proceeds-sharing scheme to £1,483 and overhead and supervisory charges to £3,148.

In connexion with afforestation schemes generally, many countries are now interested in the question of the annual production of seed of a varying number of important timber trees, both conifer and hardwoods; the failure of a seed year of an important species becoming of almost world-wide importance. In this matter the British Empire has an interesting record, for it is many years since interchanges or gifts of forest tree seeds were started between Australia, India and South Africa, to mention three countries only. The competition in modern times for the seed of certain species has become greater and this applies more especially to some of the temperate conifers such as Sitka spruce, Japanese larch and so forth. With this competition the prices of seed of certain species have risen considerably. It is pleasant to recognise that inter-Empire and international courtesy results in handsome gifts of seed being made by one country to another. On this interesting matter the report has the following: "The only seed which had to be imported from North America was Sitka spruce from the Queen Charlotte Islands: Japanese larch could not be obtained from Japan. Norway spruce and European larch were in abundant supply from the Continent, but only a moderate quantity of Corsican pine was procurable. As regards Great Britain, Scots pine seed was plentiful, but requirements of European larch could not be met; seeds of hardwoods with the exception of ash were again scarce." The Commissioners acknowledge their thanks for gifts of seed from the

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forest authorities of Bulgaria, France, Greece and Portugal.

Acquisitions of land on a reduced scale were sanctioned, as also the inauguration of a certain number of forest workers' holdings. Acquisitions of land during the year amounted to 81,933 acres, of which 46,437 acres were classified as plantable; whilst 115 holdings were completed during the year, the total number now amounting to 1,156 at an average cost per holding of £499.

The balance in the Forestry Fund at the commencement of the forest year was £446,432. Receipts from Parliamentary votes (£447,000) and forestry operations (£151,466) amounted to £598,466. Payments amounted to £761,220, so that the balance in the Fund at the end of the year was £283,678.

During the year the Commission lost Lord Lovat, its first chairman, and Mr. H. A. Pritchard, assistant commissioner for England and Wales. This thirteenth annual report may be regarded as a most fitting memorial to Lord Lovat, to whose remarkable energy and enthusiasm, supported by a strong body of commissioners and a keen staff, the present position of forestry in Great Britain must be ascribed.

Racial Distributions and Archæology

IN a lecture delivered in January last year at the John Rylands Library, Manchester, and recently available (*Bull.* John Rylands Library, vol. 17, No. 2. Separates, Manchester University Press, 1*s.* net) Prof. H. J. Fleure puts forward a tentative correlation of the evidence of archæology, human palæontology and ethnology. Prof. Fleure aims at showing that certain phases of culture may be associated with certain physical types of man in the past, and that, subject to the reservation that modification of culture may have taken place from outside, this association still holds good in modern representatives of, or approximations to, these ancient physical types. He also suggests the possible lines along which races have attained their present distribution.

Homo sapiens and *Homo neanderthalensis* clearly were differentiated at an early date. The former is known from East Africa, the latter essentially belongs to Eurasia. In the Old Stone Age, the flake implement is associated generally with Neanderthal man, while the finer technique of the core implements points to it being the work of *Homo sapiens*. The distribution of the core implement suggests that it may have arisen in Africa or south-west Asia and spread, on one hand to India, and on the other to western Europe.

The rise of hunting differentiates the work of the men from that of the women, the latter continuing to be food gatherers. Among modern food gatherers and hunters are the pygmy peoples of Africa and south-east Asia. Their breadth of head is possibly an ancestral trait derived from extinct types of man, such as Neanderthal man, whose heads incline to brachycephaly, if the torus is ignored. Unfortunately, no ancient skeletons of pygmies are known. On the other hand, a majority of the representatives of early *Homo sapiens* have long heads and most of the characters of the one of the two types into which these can be differentiated, are found among primitive hunter and collector groups, such as the jungle tribes of India, the Veddah of Ceylon and the Australian. The Bushmen and the extinct Tasmanian also include a good proportion of extreme long heads, as also do the Eskimo. These two groups may represent two early drifts of man, pushed to the farthest corners of the earth, while the pygmies took refuge in the equatorial forests.

There are numerous groups in which most have moderately long heads, while a few have extremely long heads. These are common in Africa, around the western Mediterranean, in North Africa and a related type is found in the Deccan of India, while much the same may be said of large groups in the East Indies. All are essentially herdsmen or cultivators. African groups show that hunter men acquired cultivator women. The herdsman grew from the hunter. Herding made men more predominant than ever and increased their pride in their breed. Cultivation first arose in north-east Africa and south-west Asia, perhaps in India as well, and there may have been a primary spread thence to the west and south-east. The spread to the south in Africa encountered difficulties of climate and the cultivator remained essentially a woman. It is, therefore, probable that much of the stock whence springs the pygmies was handed down in Africa, while in south-east Asia, there are traces, if rare, of this early stock, and the inhabitants of Papua have kinky hair. It seems useful, therefore, to think of a gradation with an increase in importance of the older types and style of life as one goes south in Africa, or through south-east Asia to Papua; while the absence of cultivators in Australia and Tasmania points to the isolation of these two areas before the arrival of cultivators in Papua.

North of this area of culture and drift lies the mountain mass of Tibet with its westward extensions. North of this the ways would be open only after the last glaciation. The north-eastward drifts through Asia, continuing into America, belong to a Tardenoisian or late Capsian phase.

In this connexion the rise and spread of broad-headed man must be considered. The main area of distribution is the mountain zones of Asia, Anatolia and Central Europe. Tentatively it may be suggested that the type came into existence in south-west Asia, in or near the Anatolian peninsula. Knowledge of ancient skulls is still insufficient to say when these broadheads moved into Central Europe; but there are broadheads from an epipalæolithic station at Ofnet; and from the beginning of the Bronze Age there is a peasantry in Central Europe. Some of the peoples of the Pamirs are broad-headed and in other respects like the people of Central Europe. It is difficult not to suggest a common intermediate origin for the two. In Anatolia and the western part of the Balkan peninsula there is a very broad-headed type with very straight occiput. This may be a specialisation which has superseded the older form.

Farther east and associated with the high plateau of the Gobi is a different intensification of broad-headedness, the most marked form being that with the face flattened, oblique eyes, yellow-brown skin and lank hair.

It is possible that these broad-headed types spread in the early days of the development of cultivation. There was evidently an important spread of popula-