# Sixteenth Annual Report of the Forestry Commissioners for the Year ending September 30th 1935

Presented pursuant to Act 9 & 10 Geo. V., c. 58, s. 8 (4)

Ordered, by The House of Commons, to be printed, 27th April, 1936

LONDON

PRINTED AND PUBLISHED BY HIS MAJESTY'S STATIONERY OFFICE To be purchased directly from H.M. STATIONERY OFFICE at the following addresses Adastral House, Kingsway, London, W.C.2; 120 George Street, Edinburgh 2: York Street, Manchester 1; 1 St. Andrew's Crescent, Cardiff:

80 Chichester Street, Belfast: or through any Bookseller

1936

Price 15. od. Net



82

# CONTENTS.

General           Finance           Finance           Commissioners' Estates           Planting Programme           State Forests           Assistance to Local Authorities and Private Owners         Jubilee Forests           Unemployment Training Camps           National Forest Parks           Mamage from Spring Frosts           State Forestry Fund           General Organisation           Supervision           Acquisition of Land, Buildings and Standing Timber          Maps showing Acquisition of Land           Museries           Seed of Planting            Nurseries             Seed Supply             Advances for Afforestation Purposes <t< th=""><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th></t<>									
Commissioners' Estates			•••						
Land Acquisition          Planting Programme          State Forests          Assistance to Local Authorities and Private Owners         Jubile Forests          Unemployment Training Camps          National Forest Parks          Amenity          Amenity          The Forest Year, 1934–1935         The Forestry Fund          Forestry Operations          Supervision          Acquisition of Land, Buildings and Standing Timber          Maps showing Acquisition of Land          Maps showing Acquisition of Land          Nurseries          Nurseries          Nurseries          Advances for Afforestation Purposes       Education         Education          Apprentices' Schools          Grants to Universities and Colleges          Imperial Forestry Institute          Agency and Advisory Services          Special Services          Publications				•••					
Planting Programme				•••	•••				
State Forests				•••					
Assistance to Local Authorities and Private Owners         Jubilee Forests          Unemployment Training Camps          National Forest Parks          Damage from Spring Frosts          Stations—Forest Year, 1934–1935       The Forestry Fund         Frations—Forest Year, 1934–1935       The Forestry Fund         Stations—Forest Year, 1934–1935          Forestry Operations          Supervision          Adquisition of Land, Buildings and Standing Timber          Maps showing Acquisition of Land          Plantations          Nurseries          Seed Supply          Forest Fires          Advances for Afforestation Purposes       Education         Education          Apprentices' Schools          Apprentices' Schools          Advances for Afforestation Purposes       Education         Education          Advances for Afforestation Purposes          Publications          British Empire Forestry Conference, 1935	Planting Prog	amme	•••	•••					
Unemployment Training Camps          National Forest Parks          Utilisation of Home-grown Timber          Damage from Spring Frosts          stations       Forestry Fund          General Organisation          Forestry Operations          Supervision           Acquisition of Land, Buildings and Standing Timber          Maps showing Acquisition of Land        facing         Cultural Operations           Plantations           Nurseries            Nurseries            Advances for Afforestation Purposes       Education           Forest Fires             Advances for Afforestation Purposes       Education           Education             Apprentices' Schools             Advances for Afforestation Purposes            Educat									
National Forest Parks          Main of Home-grown Timber       Amenity         Amenity          Damage from Spring Frosts          stations—Forest Year, 1934–1935       The Forestry Fund         Freestry Operations          Supervision          Forestry Operations          Maps showing Acquisition of Land          Maps showing Acquisition of Land          Maps showing Acquisition of Land          Plantations          Cost of Planting          Nurseries          Nurseries          Seed Supply          Forest Fires          Advances for Afforestation Purposes         Education          Apprentices' Schols          Apprentices' Schols          Publications          Publications          Publications          Experiment          Publications          Publications	Jubilee Forests	3			•••				
Utilisation of Home-grown Timber         Amenity         Damage from Spring Frosts         stations—Forest Year, 1934–1935         The Forestry Fund         General Organisation         Forestry Operations         Supervision         Acquisition of Land, Buildings and Standing Timber         Maps showing Acquisition of Land facing         Maps showing Acquisition of Land         Muss showing Acquisition of Land         Plantations         Cost of Planting         Nurseries	Unemploymen	t Train	ing Can	nps	• • •				
Amenity           Damage from Spring Frosts          stations—Forest Year, 1934–1935         The Forestry Fund          General Organisation          Forestry Operations          Supervision          Acquisition of Land, Buildings and Standing Timber          Maps showing Acquisition of Land          Plantations          Cost of Planting          Nurseries          Nurseries          Nurseries          Advances for Afforestation Purposes       Education         Education          Apprentices' Schools          Research and Experiment	National Fores	st <b>Par</b> ks	3						
Damage from Spring Frosts          strations—Forest Year, 1934–1935         The Forestry Fund          General Organisation          Forestry Operations          Supervision          Acquisition of Land, Buildings and Standing Timber          Maps showing Acquisition of Land          Maps showing Acquisition of Land          Plantations.          Plantations.          Nurseries          Seed Supply          Forest Fires          Advances for Afforestation Purposes         Education          Apprentices' Schools          Grants to Universities and Colleges         Imperial Forestry Institute          Agency and Advisory Services          Special Services          Publications           British Empire Forestry Conference, 1935       International Congress of Soil Science, 1935         Consultative Committees           Forest Workers' Holdings          Income <td>Utilisation of 1</td> <td>Home-g</td> <td>rown T</td> <td>'imbe<b>r</b></td> <td></td> <td></td> <td></td> <td></td> <td></td>	Utilisation of 1	Home-g	rown T	'imbe <b>r</b>					
strations—Forest Year, 1934–1935         The Forestry Fund          General Organisation          Forestry Operations          Supervision          Acquisition of Land, Buildings and Standing Timber          Maps showing Acquisition of Land          Plantations          Cost of Planting          Nurseries          Nurseries          Seed Supply          Forest Fires          Advances for Afforestation Purposes         Education          Apprentices' Schools          Apprentices' Schools          Research and Experiment          Agency and Advisory Services <td></td> <td></td> <td>•••</td> <td>•••</td> <td></td> <td></td> <td></td> <td></td> <td></td>			•••	•••					
The Forestry Fund          General Organisation          Forestry Operations          Supervision          Acquisition of Land, Buildings and Standing Timber          Maps showing Acquisition of Land          Plantations          Cost of Planting          Nurseries          Advances for Afforestation Purposes       Education         Education          Mappentices' Schools          Research and Experiment          Research and Experiment          Publications      <	Damage from	Spring [	Frosts	•••	• • •				
The Forestry Fund          General Organisation          Forestry Operations          Supervision          Acquisition of Land, Buildings and Standing Timber          Maps showing Acquisition of Land          Plantations          Cost of Planting          Nurseries          Advances for Afforestation Purposes       Education         Education          Mappentices' Schools          Research and Experiment          Research and Experiment          Publications      <	erations—Forest	Voor 1	034_10	35					
General Organisation          Forestry Operations          Supervision          Acquisition of Land, Buildings and Standing Timber          Maps showing Acquisition of Land          Plantations.          Cost of Planting          Cost of Planting          Nurseries          Nurseries          Nurseries          Seed Supply          Seed Supply          Forest Fires          Advances for Afforestation Purposes         Education          Maps showing Acquisities and Colleges         Imperial Forestry Institute       <	The Forestry 1	Tund							
Forestry Operations          Supervision          Acquisition of Land, Buildings and Standing Timber          Maps showing Acquisition of Land          Plantations          Plantations          Cost of Planting          Nurseries          Nurseries          Nurseries          Nurseries          Seed Supply          Forest Fires          Advances for Afforestation Purposes       Education         Education           Apprentices' Schools           Agency and Advisory Services          Special Services           Publications           Exhibits at Agricultural Shows      <									
Acquisition of Land, Buildings and Standing Timber           Maps showing Acquisition of Land         facing         Cultural Operations           facing         Cultural Operations  .									
Acquisition of Land, Buildings and Standing Timber           Maps showing Acquisition of Land         facing         Cultural Operations           facing         Cultural Operations  .	0 1						 		
Maps showing Acquisition of Land         facing         Cultural Operations             Plantations              Plantations               Cost of Planting               Nurseries                Nurseries                Seed Supply                Advances for Afforestation Purposes       Education               Education                Advances for Afforestation Purposes              Education               Apprentices Schools									
Cultural Operations							 		
Plantations							 	-	
Cost of Planting              Nurseries               Seed Supply                Forest Fires                Advances for Afforestation Purposes       Education              Adprentices' Schools               Apprentices' Schools               Apprentices' Schools               Apprentices' Schools               Agency and Advisory Services              Special Services              Publications              British Empire Forestry Conference									
Nurseries              Seed Supply               Forest Fires                Advances for Afforestation Purposes       Education              Adprentices' Schools               Apprentices' Schools               Apprentices' Schools               Apprentices' Schools              Apprentices' Schools              Agency and Advisory Services             Special Services             Publications             British Empire Forestry Conference, 1935            Consultative									
Seed Supply              Forest Fires               Advances for Afforestation Purposes       Education             Advances for Afforestation Purposes       Education             Adprentices' Schools               Apprentices' Schools               Apprentices' Schools               Grants to Universities and Colleges       Imperial Forestry Institute            Research and Experiment              Agency and Advisory Services              Special Services              Publications              British Empire Forestry Conference, 1935       International Congress of Soil	•						 		
Forest Fires               Advances for Afforestation Purposes       Education							 		
Education           Apprentices' Schools           Grants to Universities and Colleges       Imperial Forestry Institute          Research and Experiment           Agency and Advisory Services           Special Services           Publications           British at Agricultural Shows           British Empire Forestry Conference, 1935       International Congress of Soil Science, 1935         Consultative Committees           Forest Workers' Holdings	Forest $\hat{Fir}$	es	•••	•••			 		
Apprentices' Schools          Grants to Universities and Colleges         Imperial Forestry Institute         Research and Experiment         Agency and Advisory Services         Special Services         Publications         Exhibits at Agricultural Shows         British Empire Forestry Conference, 1935         International Congress of Soil Science, 1935         Consultative Committees         Forest Workers' Holdings         Income	Advances for A	Afforest	ation P	urpose	s				
Grants to Universities and Colleges Imperial Forestry Institute Research and Experiment Agency and Advisory Services Special Services Publications Exhibits at Agricultural Shows British Empire Forestry Conference, 1935 International Congress of Soil Science, 1935 Consultative Committees Forest Workers' Holdings Income	Education	•••							
Grants to Universities and Colleges Imperial Forestry Institute Research and Experiment Agency and Advisory Services Special Services Publications Exhibits at Agricultural Shows British Empire Forestry Conference, 1935 International Congress of Soil Science, 1935 Consultative Committees Forest Workers' Holdings Income	Ammentic	es' Scho	ols						
Imperial Forestry Institute          Research and Experiment          Agency and Advisory Services          Special Services          Publications          Exhibits at Agricultural Shows          British Empire Forestry Conference, 1935         International Congress of Soil Science, 1935         Consultative Committees         Forest Workers' Holdings         Income				d Colle	aes				
Research and Experiment          Agency and Advisory Services          Special Services          Publications          Exhibits at Agricultural Shows          British Empire Forestry Conference, 1935         International Congress of Soil Science, 1935         Consultative Committees          Forest Workers' Holdings         Income					~				
Agency and Advisory Services          Special Services          Publications          Exhibits at Agricultural Shows          British Empire Forestry Conference, 1935         International Congress of Soil Science, 1935         Consultative Committees         Forest Workers' Holdings         Income	-	0							
Special Services           Publications           Exhibits at Agricultural Shows           British Empire Forestry Conference, 1935       International Congress of Soil Science, 1935         Consultative Committees           Forest Workers' Holdings									
Publications          Exhibits at Agricultural Shows          British Empire Forestry Conference, 1935         International Congress of Soil Science, 1935         Consultative Committees         Forest Workers' Holdings         Income									
Exhibits at Agricultural Shows British Empire Forestry Conference, 1935 International Congress of Soil Science, 1935 Consultative Committees Forest Workers' Holdings Income	-		•••	•••		•••			
British Empire Forestry Conference, 1935 International Congress of Soil Science, 1935 Consultative Committees Forest Workers' Holdings Income									
International Congress of Soil Science, 1935 Consultative Committees Forest Workers' Holdings Income	Exhibits a	t Agrica	ultural d	Shows					
Consultative Committees Forest Workers' Holdings Income									
Forest Workers' Holdings Income						1935			
Income				•••	•••	•••			
		s' Hold	ings						
ployment in the Commission's Forests	Income	•••							
ipioyment in the commission's Forests		Gar 1		Farat	-				
	ipicyment in the	comm	ISSIOD'S	rorest	5				

# SIXTEENTH ANNUAL REPORT of the FORESTRY COMMISSIONERS

for the

Year ending September 30th, 1935.

The late Colonel W. Steuart-Fothringham.—By the death of Colonel Steuart-Fothringham on 8th April, 1936, the Commission has lost one of its original members and an outstanding figure in Scottish forestry. From his first appointment in November, 1919, Colonel Steuart-Fothringham attended with great regularity the meetings of the Commission and took a prominent part in its work. His personality and his intimate knowledge of rural affairs will be greatly missed by his colleagues.

#### Forest Policy.

During the year under review, the Commissioners were working under a five-year programme laid down by Government at the time of the financial crisis in 1931. This programme provided for an annual grant from the Exchequer to the Forestry Fund of £450,000 per annum, and it was anticipated that it would be possible for the Commissioners to plant 20,000 acres per annum, to acquire a similar area of plantable land and to establish a small number of forest workers' holdings. In January, 1935, the Commissioners represented to Government that it was desirable to review the position generally and to extend the current five-year programme so that the work might be organised to the best advantage.

Forest policy in general was discussed in some detail in the Commissioners' 15th Annual Report (year ending 30th September, 1934) and it is unnecessary to go over the ground again. Briefly, the Commissioners submitted that in face of the unsatisfactory position with regard to the woodlands of the country two important considerations should be kept in view :—

1. A sound and progressive forest policy must form an integral part of the development of rural Britain : agriculture does not cover the whole field.

2. In view of the limited area of land available for forestry in Britain, no provision which can be made for the supply of home-grown timber can possibly be excessive. There are no indications that wood will cease to be a raw material essential, in huge quantities, to an industrial country.

In the Commissioners' judgment a steady development was preferable to a sudden large increase in the work of the Commissioners which might lead to waste. It was suggested accordingly that action should be taken on the following lines :—

(1) Immediately to speed up the acquisition of land and the supply of plants.

35697

**A** 2

(2) Over the next four years to work up the planting programme from 21,000 acres to 30,000 acres per annum.

(3) As a long-term policy to continue expanding the programme up to a maximum of 45,000 acres per annum.

The submission also covered three interesting subjects which are referred to later, namely, Unemployment Training Camps, National Forest Parks, and the Home Timber Trade.

In the course of 1935 the question of afforestation in relation to the Special Areas also received further consideration. The Commissioner for the Special Areas for England and Wales (Mr. Malcolm Stewart) represented that in his opinion afforestation had a high employment value and should be pushed forward. The Forestry Commissioners on their part were prepared to do what was possible, provided that the attention paid to the Special Areas did not prejudice the development of forestry as a whole in Great Britain.

The Commissioners accordingly in the late summer of 1935, had a preliminary survey made of the uncultivated land in and near the Special Areas of England and Wales, and as a result came to the conclusion that it might be possible to secure 200,000 acres of plantable land and to establish 1,000 forest workers' holdings. This proposal was supported by the Commissioner for the Special Areas and in due course was placed before Government.

A decision on forest policy was not reached during the year under review, but on 20th February, 1936, the Chancellor of the Exchequer made the following statement in the House of Commons :---

"I discussed with the Forestry Commissioners last summer the requirements of their programme for the general development of forestry in Great Britain, and I agreed to recommend to the House that the annual grant-in-aid to the Forestry Fund for the next five years should be increased to £500,000. This sum, together with the steadily increasing revenue available to the Commission from working receipts, and with certain assistance as regards land acquisition for which the Commissioners of Crown Lands propose to seek power, will enable the Commissioners gradually to expand their normal planting programme to 30,000 acres per annum, an increase of nearly 50 per cent. on the planting rate for recent years.

As regards the Special Areas, on consideration of Mr. Malcolm Stewart's first report, it was arranged that the Forestry Commissioners should make a preliminary survey of the possibilities of afforestation in or near these areas. On the results of this survey the Commissioners estimated that within about 15 miles of the Special Areas there are some 200,000 acres of land which it should be practicable to acquire for afforestation. They accordingly, with Mr. Stewart's support, proposed a scheme of acquisition and planting covering this acreage and providing also for the establishment of 1,000 forest workers' holdings. The scheme contemplated that land acquisition and the establishment of forest workers' holdings should be proceeded with as rapidly as possible; the subsequent planting operations for technical reasons would need to be spread over a period of about ten years.

While the practical limits of such a programme cannot be defined until actual experience has been gained, the Government have accepted the scheme in principle subject to review at a later date in the light of the progress made and of the expenditure involved. For the present, the Commissioners have been authorised to proceed with a first instalment of the scheme, which is estimated to require, as acquisition, establishment of holdings, and planting proceed, additional grants-in-aid to the Forestry Fund of the order of £1,650,000 in all. The grant-in-aid for 1936 will include provision for the initiation of the additional scheme for the Special Areas and will be submitted to Parliament at a total of £700,000, an increase of £250,000 on the provision voted for 1935."

#### FINANCE.

The balance in the Forestry Fund at the commencement of the forest year was £254,149. Receipts from Parliamentary Votes (£450,000) and Forestry Operations (£178,339) amounted to £628,339. Payments amounted to £620,818, so that the balance in the Fund at 30th September, 1935, was £261,670. The progress of payments and receipts is indicated in the table below.

Year ending		Payment	3.		Receipts	• •		Net Paymen	ts.
30th September.	Proposed.	Actual.	Excess (+) Deficit (-)	Proposed.	Actual.	Excess (+) Deficit (-)	Proposed.	Actual.	Excess(+) Deficit(-)
First decade :	£	£	£	£	£	£	£	£	£
1920-29 (10 <del>]</del>	_	4,502,018	· · ·	_	851,484	_	3,892,000	3,650,534	-241,466
financial years)									
Second decade :				İ :					
1 <b>9</b> 30	958,000	808,237	-149,763	145,000	148,337	+ 3,337	813,000	659,900	153,100
1931	1,019,000	842 <b>,4</b> 90	-176,510	158,000	171,556	+13,556	861,000	670,934	-190,066
1932	798,000	761,220	- 36,780	159,000	151,466	- 7,534	639,000	609,754	- 29,246
1933	602,000	582,259	- 19,741	153,000	146,629	- 6,371	449,000	435,630	- 13,370
1934	600,000	618,852	+ 18,852	150,000	172,953	+22,953	450,000	445,899	- 4 101
1935	611,000	620,818	+ 9,818	156,000	178,339	+22,339	455,000	442,479	- 12,521
			·			Total	_	6,915,130	

Forestry Fund: Payments and Receipts.

#### Commissioners' Estates.

The following statement presents a general view of the properties under the charge of the Commissioners at 30th September, 1935. It shows the total number of forests, the ways in which the land is utilised, or proposed to be utilised, the main silvicultural operations conducted during the year and some details regarding Holdings and Estate Management.

regarding fioldings and	Estate manag	ement.	
	England and Wales.	Scotland.	Total. Great Britain.
Number of Forests :			
At beginning of year	101	85	186
At end of year	105	86	191
Utilisation of Ground (Acres):			
Forest Land :			
Acquired Plantations	58,000	7,700	65,700
Planted by Forestry			
Commission	170,500	100,800	271,300
To be planted	128,200	92,500	220,700
NT	356,700	201,000	557,700
Nurseries	560	340	900
Agricultural Forest Workers' Holdings	<b>19,3</b> 00 <b>9,7</b> 00	10,100 2,100	29,400 11,800
Unplantable and Miscel-	3,700	2,100	11,000
laneous	109,000	221,000	330,000
	495,260	434,540	929,800
Silvicultural Operations during Year (Acres) :			
Planted and Sown	12,576	8,916	21,492
Naturally Regenerated	25	6	31
Underplanted	54	13	67
Thinned	2,450	488	2,938
Felled	<b>549</b>	31	580
Holdings and Estate Manage- ment:			
Number of Forest Workers'			
Holdings established :			
At beginning of year	912	321	1,233
During year	12	8	20
At end of year	924	329	1,253
Other Tenancies :			
Agricultural Holdings :			
Under £20 p.a.	447	236	683
Over £20 p.a	264		405
Foresters' Houses	100	50	150
Cottages	287	157	444
Residential and Sporting Easements, Permissions,	274	189	463
Minerals, etc	1,904	94	1,998
Site Rents and Feus		182	1,998
	3,276	1,049	4,325

LAND ACQUISITION.

Acquisitions during the year amounted to 20,651 acres net, of which 14,040 acres were classified as plantable.

Vee	r endin	~	By Lease	By		Total.	
	Septem		or Feu.	Purchase.	Actual.	Acland Proposals.	$\begin{array}{c} \text{Excess} & (+) \\ \text{Deficit} & (-) \end{array}$
First dec 1920-2			Acres. 156.759	Acres. 153,471	Acres. 310.230	Acres. 402,000	Acres. - 91,770
Second d	lecade :		/		010,200		
<b>193</b> 0	•••		8,409	25,951	34,360	34,300	+ 60
1931			4,851	44,007	48,858	34,300	+ 14,558
1932			4,970	41,467	46,437	34,300	+ 12,137
1933			2,885	12,450	15,335	34,300	- 18,965
1934			11,581	17,305	28,886	34,300	- 5,414
1935			268	13,772	14,040	34,300	- 20,260
I	otal		189,723	308,423	498,146	607,800	- 109,654

Acquisition of Plantable Land.

#### PLANTING PROGRAMME.

#### State Forests.

The area planted during the year was 21,492 acres.

Area Planted.

Year e	nding		Proposed	Ac	tually Plant	ted.	Excess (+) Deficit (-) on Decade
30th Sej	ptembe	r.	to be Planted.	New Planting.	Replace- ments.	Total.	or Annual Programme.
			Acres.	Acres.	Acres.	Acres.	Acres.
First decad 1920 Conifers Hardwoo	-29 : 	<b>.</b>	150,000 unspecified	126,444 6,365	4,316 1,146	130,760 7,511	-19,240
<b>a</b>	_					138,271	
Second deca	ade :						
1930	25,000 21,40				3,698	25,102	+102
1931			25,000	24,234	1,396	<b>25,63</b> 0	+630
1932			20,000*	21,959	704	22,663	+2,663
1933			20.000*	20,394	657	21,051	+1,051
1934			20.000*	20,385	1,282	21,667	+1,667
1935			20,000*	20,751	741	21,492	+1,492
Total				261,936	13,940	275.876	

\* Minimum area.

The total area planted to 30th September, 1935, was 275,876 acres, of which 257,552 acres consisted of conifers and 18,324 acres of hardwoods. New planting accounted for 261,936 acres and replacements 13,940 acres. Details are given below.

	Conifers. Acres.	Hardwoods. Acres.	Total. A cres.
New planting Replacements	$246,534 \\ 11,018$	$\substack{15,402\\2,922}$	261,936 13,940
Total	257,552	18,324	275,876

#### Assistance to Local Authorities and Private Owners.

The Commissioners have continued to assist planting by local authorities and private owners by means of grants and a proceedssharing scheme. The total area planted amounts to 106,115 acres, of which 5,498 acres were planted during the year. Particulars of the grants are given on page 34.

First decade:	Acres.
	70.069
1920-29	72,863
Second decade :	
1930	6,548
1931	.5,863
1932	5,184
1933	4,574
1934	5,585
1935	5,498
Total	106,115

#### Jubilee Forests.

By permission of His late Majesty King George V the Commissioners have set aside three forests to commemorate the twentyfifth anniversary of His Majesty's accession. The first, a newly acquired estate of some 6,000 acres in Suffolk, is known as The King's Forest and in it there is being planted Queen Mary's Avenue which will line with beeches the ancient Ickneild Way.

In Wales the name of Vaughan Forest has been changed to Coed-y-Brenin (The King's Forest). This forest, containing nearly 10,500 acres of young plantations and afforestable land, lies mainly to the north of Dolgelly.

In Scotland the former Forest of Glenmore, which lies in romantic scenery round Loch Morlich in the Cairngorms, is now known as The Queen's Forest.

#### Unemployment Training Camps.

The Commissioners have continued to co-operate with the Ministry of Labour in providing sites for training camps and work for the men. The work consists of items such as road-making, which would normally not be undertaken for a number of years, so that the camps do not entail the displacement of local men who depend on the forests for their livelihood.

During the year under review there were in all 13 permanent camps and 15 summer camps, with accommodation for 5,000 men. This represents an increase of 300 men on the figures for the previous year. The camps were distributed in or near the following forests:—(England and Wales) Allerston, Ampleforth, Bourne, Brechfa, Hamsterley, Kershope, Kielder, Mortimer, Redesdale, Rockingham, Rheola, Thetford; (Scotland) Glenbranter, Glenfinart.

At the end of the year two new camps were under construction and sites had been selected for eight more.

#### National Forest Parks.

Reference was made in the Commissioners' last Annual Report to the possibilities of providing recreational facilities on the Commission's unplantable land and to the formation of a Committee, under the Chairmanship of Sir John Stirling-Maxwell, to consider a specific example. The Committee were appointed in March, 1935, "to advise how the surplus and unplantable land in the Forests of Ardgartan, Glenfinart, Benmore and Glenbranter in the County of Argyll may be put to a use of a public character." In their Report\* the Committee stated that the whole area under review (including the adjoining Ardgoil Estate, which the Glasgow Corporation was willing to bring into the scheme) extended to nearly 100 square miles and was particularly suitable for hiking and rambling. They recommended accordingly the encouragement of the use of the area by responsible organisations and especially by those connected with the Youth movement. This would be facilitated by the acquisition of Ardgartan House and policies, and by the provision of youth hostels, alpine huts and camping grounds. The Committee recommended also that Government be asked to provide £5,000 for the Commission's use in developing the proposals put forward, the money to be expended mainly on the lay-out and equipment of camp sites. The acquisition of Ardgartan House and policies should be met from sources outside the Commission.

<sup>\*</sup> Report of the National Forest Park Committee, 1935. H.M. Stationery Office Price 6d.

Considerable progress has been made in giving effect to the Committee's advice. Sanction has been secured for the Commissioners to incur expenditure on camping sites and similar projects, the Jubilee Trust has purchased Ardgartan House, the Carnegie Trust is taking an interest in other parts of the scheme, and a representative Advisory Committee and a small Management Committee have been set up. It is expected, therefore, that the first National Forest Park will begin to function in a small way during the summer of 1936.

#### Utilisation of Home-grown Timber.

Chairman : Sin Edward Grigg, K.C.M.G., K.C.V.O., D.S.O., M.C., M.P.

Sir Alexander Rodger (Forestry Commissioner).

Mr. W. A. Robertson (Director, Forest Products Research Laboratory).

The Rt. Hon. Lord Clinton, G.C.V.O. (Home-grown Timber Marketing Association).

- Mr. W. E. Hiley (Home-grown Timber Marketing Association).
- Mr. Herbert E. Newsum, J.P. (Federated Home-grown Timber Merchants' Associations).
- Mr. J. W. C. Agate, M.C. (Federated Home-grown Timber Merchants' Associations).

Colonel the Hon. Ian M. Campbell (Landowners' Cooperative Forestry Society, Ltd.).

- Captain G. I. Campbell (Landowners' Co-operative Forestry Society, Ltd.).
- Mr. John T. Smith (Home Timber Merchants' Association of Scotland).
- Mr. Thomas McAinsh (Home Timber Merchants' Association of Scotland).

Secretary : Dr. S. E. Wilson.

The Commissioners have completed an enquiry into the wood turnery industry and will publish the results in the near future.

It is interesting to note that large-scale experiments which the Commissioners have made in the marketing of peeled pitprops of various coniferous species have proved successful. As regards quality, the collieries concerned accept the home-grown props as equal to imported. The main consideration is that the home-grown props shall be properly prepared and seasoned.

#### Amenity.

Reference was made in the Commissioners' last Annual Report to the formation of a joint informal Committee of representatives of the Commission and of the Council for the Preservation of Rural England. A representative of the Welsh Council has also been asked to attend when matters directly affecting Wales are under consideration.

The composition of the Committee is as follows :----

Forestry Commission:

Sir Roy Robinson (Chairman).

Sir Francis Acland.

Mr. Walter Smith.

Sir George Courthope.

Sir Alexander Rodger.

Mr. W. L. Taylor.

Council for the Preservation of Rural England:

Sir Lawrence Chubb (Commons, Open Spaces and Footpaths Preservation Society).
Colonel E. N. Buxton (National Trust).
Professor Patrick Abercrombie (C.P.R.E.).
Mr. W. Harding Thompson (C.P.R.E.).
Mr. G. A. Jellicoe (C.P.R.E.).

Council for the Preservation of Rural Wales:

Lord Howard de Walden or Mr. Clough Williams-Ellis.

Professor G. M. Trevelyan has been good enough to attend in connection with Lake District questions.

The Committee met on a number of occasions during the year under review, and by friendly discussion have made progress with several matters in which there were conflicting interests. Among others may be mentioned the general question of afforestation in relation to amenity, afforestation in the Lake District, Breckland and Snowdonia.

#### Damage from Spring Frosts.

The extensive damage done by frosts in the middle of May, 1935, was the outstanding feature of the year's weather conditions. Late spring frosts prove troublesome practically every year and frequently occasion considerable loss but in severity and widespread occurrence those of last year were unprecedented.

35697

A 4

Low temperatures were experienced, especially in Norfolk and Suffolk, early in May but it was not until the 13th that the frosty period set in generally. The coldest night in some districts was the 14th-15th, when screen temperatures below  $25^{\circ}$  F. were common. In the night of 16th-17th, a grass minimum of  $9^{\circ}$  F. was recorded in the Forest of Dean and a screen minimum of  $17^{\circ}$  F. at Rickmansworth, Herts. On 17th May snow fell in nearly all parts of the country and at Thetford the grass minimum temperature was  $12^{\circ}$  F. Frosts persisted until the 22nd of the month and in certain localities—particularly in north and east England and in Scotland—there was further frosty weather from 31st May to 2nd June.

Rainy periods alternated with spells of frost and snow throughout the month of May, the repeated freezing and thawing adding considerably to the harmful effect. At the time when the frosts occurred many broadleaved species had already burst their buds and most of the conifers were in their most vulnerable state the new shoots being partially developed. As is usual during late frosts young trees and nursery stock suffered more than older trees but many of these, including oak, ash and beech of mature growth, temporarily lost their foliage. On the whole the recovery from damage has been much better than was to be expected.

Information regarding the extent, to which the various species were affected was obtained from each of the Commission's forests and it is proposed shortly to publish the data in Bulletin form. Meanwhile it may be stated that the following species (given in the order of susceptibility) have proved particularly frost-tender: conifers—Abies grandis, Sitka spruce, Norway spruce, Douglas fir, Japanese and European larches; broadleaved species—walnut, ash, Oregon alder, sweet chestnut, pedunculate and sessile oaks, beech. Moderately resistant were: horse chestnut, sycamore, Pinus contorta, Corsican pine. Those least affected were : poplar, mountain ash, birch, hornbeam, lime, elm and Scots pine.

#### **OPERATIONS—FOREST YEAR** 1934-5.

#### The Forestry Fund.

The position of the Forestry Fund at 30th September, 1935, and at the same date in previous years is shown in Table I.

			Receipts.			Balance
Year ending 30th September.	Balance from pre- ceding Year.	Parlia- mentary Votes.	From Forestry Opera- tions, etc. (Table II, Head Z).	Total.	Payments (Table II, Heads A to L).	in Forestry Fund, 30th Sept- ember.
	(1)	(2)	(3)	(4)	(5)	(6)
	£	£	f f	£	£	£
First decade :						
1920–29	—	4,000,000	851,484	4,851,484	4,502,018	—
Second decade:						
1930	349,466	937,800	148,337	1,086,137	808,237	627,366
1931 <sup>°</sup>	627,366	490,000	171,556	661,556	842,490	446,432
1932	446,432	399,000	151,466	550,460	761,220	235,678
1933	235,678	450,000	146,629	596,629	582,259	250,048
1934	250,048	450,000	172,953	622,953	618,852	254,149
1935	254,149	450,000	178,339	628,339	620,818	261,670
Total	—	7,176,800	1,820,764	8,997,564	8,735,894	

Table I.—Forestry Fund Account.

Balances remaining in the Fund at 30th September include provision for the succeeding six months of the financial year.

An analysis of payments and receipts by Heads of Account is given in Table II. Compared with the previous year, total payments rose from £618,852 to £620,818, an increase of £1,966. Receipts were greater by £5,386, and net payments were therefore £3,420 less than in 1934. It may be noted that Heads of Account differ in some respects from those under which estimates are presented to Parliament. Table II.—Payments and Receipts by Heads of Account.

					РАУР	PAYMENTS.							
-	.	0	Ģ.	ġ	F.	Ċ.	н.	J.	Ę.	ij		RECEIPTS.	TEN
Char	Head- juarters' Jharges.	Assistant Commis- sioners' Charzes.	Divisional Officers' Charges.	Forestry Operations.	Advances for Afforesta- tion Purposes.	Education.	Research and Experi- ment.	Agency and Advisory Services.	Special Services.	Forest Workers' Holdings.	Total.	ż	Payments.
(2)		(3)	(4)	(2)	(9)	(2)	(8)	(6)	(01)	(11)	(12)	(13)	(14)
બ		સ	બ	બા	બ	બ	ધ્યે	બા	બા	બ	ઝ	બ	બો
22,	22,676	30,586	74,434	3,118,837	207,824	76,004	36,927	91,776	23,342	325,455	4,502,018	851,484	3,650,534
	2,571	7,658	9,418	598,119	14,102	9,355	6,901	1	493	96,418	808,237	148,337	659,800
ũ	5,267	4,704	9,787	629,461	14,067	9,628	7,577	1	337	96,315	842,490	171,556	670,934
τ <b>ο</b>	5,851	3,414	10,007	603,735	13,649	6,925	6,653		674	46,999	761,220	151,466	609,754
4	4,219	3,416	9,401	465,637	12,103	6,002	7,291	[	568	11,503	582,259	146,629	435,630
	4,119	2,960	9,449	498,053	14,121	5,292	6,286		860	14,643	018,852	172,953	445,899
4	4,343	3,090	10,340	491,506	13,968	5,999	8,479	[	1,066	14,642	620,818	178,339	442,479
- <del>1</del> 8	49,046	55,8285	132,836	6,405,348	289,834	119,205	80,114	91,776	27,340	605,975	8,735,894	1,820,764	6,915,130

14

Table II is limited to sums actually expended or received, recorded by the heads of account under which they occurred. In subsequent tables, which are based on commercial practice, outstanding receipts and payments are brought to account, salaries and overhead charges (Heads A to D) are allocated to appropriate objects of expenditure, and adjustments are made between various heads of account in respect of produce used for forest purposes and transfers of land and buildings between the forests and forest workers' holdings.

Expenditure and income adjusted on the basis stated above are shown in Table IIa.

Income.
and
-Expenditure
IIa.
Table

A to D.			EXPENDIT	EXPENDITURE (including Allocation of Column 1)	og Allocatio	n of Column				INCOME	ME.		
аĀ:	E E	E.	G.	Ë	J.	K.	г.		Z1.	Z5.			NET
e d'a la	vision and Overhead Forestry Charges. Operations.	Advances ry for ons. tation.	B Education.	Research and Experi- ment.	Agency and Advisory Services.	Special Services.	Forest Workers' Holdings.	TOTAL.	Forestry Operations.	Forest Workers' Holdings.	Mis- cellaneous.	TOTAL.	LURE.
Ξ	(2)	(3)	(4)	(5)	(9)	(2)	(8)	(6)	(01)	(11)	(12)	(13)	(14)
લા	બ	ક્ર	બ	બ	બ	બ	भ	બ	ખ	ઝ	બ	ઝ	ધ
582	582,178 3,512,577	77 241,694	4 101,313	79,650	99,233	61,299	389,883	4,485,649	882,108	27,515	6,936	916,559	3,569,090
89999988	83,414 85,803 86,803 701,434 80,972 701,434 661,180 79,182 576,853 576,453 576,454	31         16,944           34         16,944           80         16,341           18         16,341           13         15,450           16,450         16,450	884 8,226 8,884 8,226 8,058 8,058 8,058 8,058	12,338 12,598 12,598 12,182 11,301	1,177 1,167 1,135 1,135 994 1,201	2,097 2,097 2,0997 2,099 2,099 2,099 2,099 2,099 2,099 2,099 2,099 2,099 2,099 2,099 2,099 2,099 2,099 2,097 2,007 2,000 2,000 2,000 2,000 2,000 2,000 2,000 2,000 2,000 2,000 2,000	108, <b>57</b> 5 109,020 66,357 19,437 21,417 21,417	826,970 854,094 755,094 534,459 637,529 637,529	147,994 165,068 144,206 137,941 163,132	12,206 13,583 16,811 17,228 17,372	406 386 77 170 618	160,606 179,037 161,104 155,330 181,022	666,364 557,057 597,476 456,5120 456,5120
026,	10		-	154,134	105,854	77,208	726,374	8,780,024	1,809,661	122,266	8,763	1,040,690	6,839,334
	82.2	3.9	1.8	1.7	1.2	6.0	8.3	100	93.2	6.3	0.5	100	

#### Subheads A to D—General Organisation. Expenditure, £85,263.

Compared with 1934, expenditure rose by £5,663, due to additional staff, normal increments and partial restoration of cuts made in salaries of Civil Servants. A second paid Commissioner was appointed during the year, the number of Divisional Officers decreased from 14 to 13 and the number of District Officers increased from 42 to 47.

### Subhead E—Forestry Operations. Expenditure, £566,454; Income, £169,202.

Details of expenditure and income are given in Table E. Gross expenditure was £10,399 less than in 1934. There were decreases of £25,173 on acquisition of land and £10,354 on miscellaneous items, and increases of £16,417 on cultural operations, £3,523 on preparation and sale of produce and £5,601 on superior and local supervision. Income from forestry operations rose by £6,070.

Overhead Charges, £27,985; Superior Supervision, £35,127 and Local Supervision, £48,364.—Overhead charges are in respect of salaries, allowances and other expenses in the offices of the Commissioners and Assistant Commissioners. Superior supervision represents similar expenditure in respect of the Deputy Surveyors, Divisional Officers and District Officers; and local supervision includes the salaries, housing allowances and miscellaneous expenses of Foresters and Foremen. During the year the number of Foresters and Foremen employed in forestry operations was increased by eleven. At 30th September, the total numbers employed were :—Foresters 156 (Head, 7; Grade I, 29; Grade II, 120) and Foremen 125.

Acquisition of Land, Buildings and Standing Timber.—Expenditure amounted to £70,042 of which £44,701 was in respect of purchases of land including standing timber and buildings, and £25,341 in respect of land held on long lease or feu. (This expenditure is not directly applicable to the areas acquired during the year, particulars of which follow).

The total area of land acquired during the forest year 1934-35 amounted to 22,207 acres, of which 14,638 acres were classified as plantable. On the other hand disposals and adjustments amounted to 1,556 acres (598 acres plantable). Table E.-Forestry Operations.

			EXPEND	ттовъ (Тар	EXPENDITURE (Table IIa, Column 2).	mn 2).	-				INCOME	INCOMR (Table IIa, Column 10).	Column 10	č	
Y car ending 30th September.	Over- head Charges.	Superior Super- vision.	Local Super- vision.	Acquisi- tion of Land, etc.	Cultural Opera- tions.	Prepara- tion and Sale of Produce.	Roads and Build- ings.	Stores and Miscel- laneous.	Total.	Salcs of Land and Build- ings.	Rents and Royaltics.	Forest Froduce.	Other.	Total.	Net Dyver Diture,
	(1)	(2)	(3)	(4)	(2)	(9)	6	(8)	(6)	(10)	(11)	(12)	(13)	(14)	(15)
Timt Joseds .	પ્ને	ક્ય	બ	બ	બો	<b>બા</b>	બ	બ	બ	બ	બ	બ	બ	ધો	પો
1920-29	192,097	201,122	174,130	787,509	1,510,801	118,853	115,488	411,677	3,512,577	78,784	274,091	406,594	122,639	882,108	2,630,469
Second decade: 1930	29,413	29,957	36,674	186,640	280,356	22,871	26,560	63,154	675,631	2,642	65,184	63,949	16,219	147,994	527,837
1931	31,974	30,929	39,413	193,444	285,558	20,972	27,483	71,661	701,434	15,568	71,930	56,768	20,802	165,068	536,306
1032	29,352	30,004	40,633	200,552	252,556	20,345	24,376	63,362	661,180	7,869	70,249	40,477	16,621	144,216	610,964
1933	29,609	29,752	43,407	76,394	254,363	26,766	18,301	48,566	527,218	4,463	75,127	47,321	11,030	137,941	369,277
1934	27,898	31,856	46,034	95,215	265,071	30,966	18,629	61,184	576,853	12,268	78,120	65,893	16,861	163,132	413,721
1935	27,985	35,127	48,364	70,042	2S1,48S	34,489	18,120	50,830	506,454	6,394	81,622	63,112	18,074	169,202	397,252
Total	369,228	388,747	428,715	1,609,796	3,130,193	275,262	248,972	770,434	7,221,347	127,978	716,323	743,114	222,246	1,809,661	5,411,686
Percentage	1.9	5.4	5.9	8.22	43.3	3.8	3.5	10.7	001	1.7	39.6	41.0	12.3	100	

The average rent or feu duty for land acquired for forestry operations during the year by lease or feu was approximately 3s. per acre and the average price for such land purchased, approximately  $\pounds 2$  2s. 6d. per acre. If the whole outlay in respect of land, buildings, timber, etc., were charged against plantable land the figures would be 3s. and  $\pounds 3$  5s. 10d. respectively. Land and buildings for forest workers' holdings are excluded.

The net total area in Great Britain in respect of which the legal formalities of acquisition by the Department had been completed by 30th September, 1935, was 806,424 acres, the corresponding figures in the two previous annual reports being 771,046 and 723,543 acres. In addition to these completed acquisitions, entry had been secured to a number of other properties. Details are given in the table below, which also shows the area of "plantable" and "other land ", i.e., land which is either too poor to plant or is required for other purposes.

Land acquired by Lease, Feu and Purchase from 29th November, 1919, to 30th September, 1935.

		By Le	ase and	Feu.	By	Purchas	se.	, <u>-</u>
<u> </u>		Plant- able (in- cluding planted).	Other Land.	Total.	Plaut- able (in- cluding planted).	Other Land.	Total.	Total Ac- quired.
England and IV-las		Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
England and Wales— Finally completed Entry secured		110,347 2,632	25,103 107	135,450 2,739	188,154	61,813 —	249,967 	385,417 2,739
Total		112,979	25,210	138,189	188,154	61,813	249,967	388,156
Scotland -								
Finally completed Entry secured		76,744	78,822	155,566 —	120,269	145,172	265,441	421,007
Total		76,744	78,822	155,566	120,269	145,172	265,441	421,007
Great Britain	•••	189.723	104,032	293.755	308,423	206,985	515,408	809.163

Of the net total area acquired by lease, feu and purchase in Great Britain to 30th September, 498,146 acres were classified at the time of acquisition as plantable and of this area 301,133 acres (60 per cent.) were in England and Wales and 197,013 acres (40 per cent.) in Scotland.

In addition to the above-mentioned areas, Crown woodlands extending to about 120,000 acres (of which some 60,000 acres are plantable) have been transferred to the Forestry Commissioners.

The total area of land in the Commissioners' control thus approximates to 929,000 acres. In round figures the utilisation as at 30th September, 1935, was as shown in the table on page 6.

#### Forestry Commission Units.

53.

England and Wales.

- 1. Chopwell, Durham.\*
- 2. Delamere, Cheshire.\*
- 3.
- Hafod Fawr, Merioneth.\* Dean Forest, Glos., Hereford and 4. Monmouth.\*
- Tintern, Monmouth.\* 5.
- Dymock, Glos. and Hereford.\* 6.
- 7. Salcey, Bucks and Northants.\*
- 8. Hazelborough, Bucks and Northants.\*‡
- Alice Holt, Hants.\* 9.
- 10. Woolmer, Hants.\*
- 11.
- 12.
- Bere, Hants.\* New Forest, Hants.\* Parkhurst, Isle of Wight.\* 13.
- Bedgebury, Kent and Sussex.\* Rothbury, Northumberland. 14.
- 15.
- 16. Thornthwaite, Cumberland.
- 17. Allerston, Yorks.
- 18.
- Selby, Yorks. Gwydyr, Caernarvon and Denbigh. 19.
- 20. Coed-y-Brenin, Merioneth.§
- 21. Cannock Chase, Stafford.
- 22. Rockingham, Northants.
- 23.
- Swaffham, Norfolk. Thetford Chase, Norfolk and 24. Suffolk.
- Rendlesham, Suffolk. 25.
- 26. Ampthill, Bedford.
- 27. Mortimer, Hereford, Radnor and Salop.
- 28.
- Walcot, Salop. Kerry, Montgomery and Salop. 29.
- 30. Rheola, Glamorgan.
- 31. Margam, Glamorgan.
- Llantrisant, Glamorgan. Llanover, Monmouth. 32.
- 33.
- Chepstow, Glos. and Monmouth. Bodmin, Cornwall. 34.
- 35.
- Halwill, Devon. 36.
- 37. Haldon, Devon.
- 38.
- Eggesford, Devon. Brendon, Somerset. **3**9.
- Quantocks, Somerset. Wareham, Dorset. 40.
- 41.
- Bramshill, Berks and Hants. 42.
- 43. Chiddingfold, Surrey and Sussex.
- 44.
- Ennerdale, Cumberland. Clipstone, Derby and Notts. 45.
- 46. Beddgelert, Caernarvon.
- 47. Cynwyd, Merioneth.
- and Mont-Dovey, Merioneth 48. gomery.

t Includes area previously known as Brackley. Formerly known as Vaughan.

¶ Formerly known as North Tyne Valley.

- 49. Radnor, Radnor.
- 50.
- Lyminge, Kent. Kielder, Northumberland.¶ 51.

Formerly known as Exmoor.

52.Haugh, Hereford. \* Former Crown woods.

- Wyre, Worcester. 54. Brecon, Brecknock.
- 55. Brechfa, Carmarthen.
- 56. Ringwood, Dorset and Hants. 57.
- Bourne, Lincoln and Rutland.
- 58. Hamsterley, Durham.
- 59. Hope, Derby.
- 60. Laughton, Lincoln.
- 61. Friston, Sussex.
- 62. Micheldever, Hants.
- 63. Ferndown, Dorset.
- 64. Wilsey Down, Cornwall.
- 65. Glasfynydd, Brecknock.
- 66.
- 67.
- Rosedale, Yorks. Ampleforth, Yorks. Cwmeinion, Cardigan. 68.
- 69. Tarenig, Cardigan and Montgomery.
- Mathrafal, Montgomery. Pembrey, Carmarthen. Westbury, Hants. 70.
- 71.
- 72.
- Buriton, Hants and Sussex. 73.
- 74. Bawtry, Notts.
- 75.
- Sherwood, Notts. Swanton, Norfolk. Dunwich, Suffolk. 76.
- 77.
- 78. Brynmawr, Cardigan.
- 79. Bruton, Somerset and Wilts.
- 80. Myherin, Cardigan.
- 81. Harwood, Northumberland.
- 82.
- Kershope, Cumberland. Combley, Isle of Wight. 83.
- 84. Brighstone, Isle of Wight.
- 85. Slaley, Northumberland.
- 86. Clocaenog, Denbigh and Merioneth.
- Dyfnant, Montgomery. Crychan, Carmarthen. 87.
- 88.
- 89. Caio, Carmarthen.
- 90.
- Dartmoor, Devon. Yardley Chase, 91. Bedford and Northants.
- 92.
- Arkengarthdale, Yorks. Mynydd Ddu, Brecknock and 93. Monmouth.
- 94. Herodsfoot, Cornwall.
- 95. West Woods, Wilts.
- 96. Bardney Woods, Lincoln.

Vinehall, Sussex.

Lydford, Devon. Hardknott. Cumberland.

Itton, Monmouth.

Goodwood, Sussex.

97. Redesdale, Northumberland.

Langdale, Yorks. The King's Forest, Suffolk.

Challock, Kent. 98.

99.

100.

101.

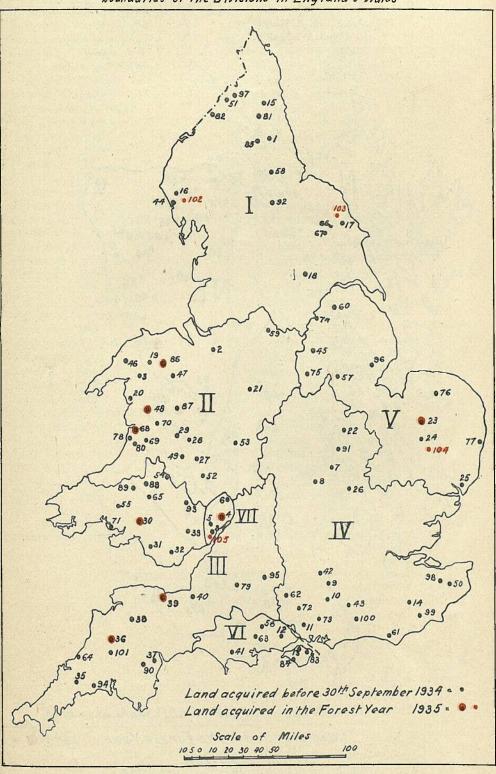
102.

103.

104.

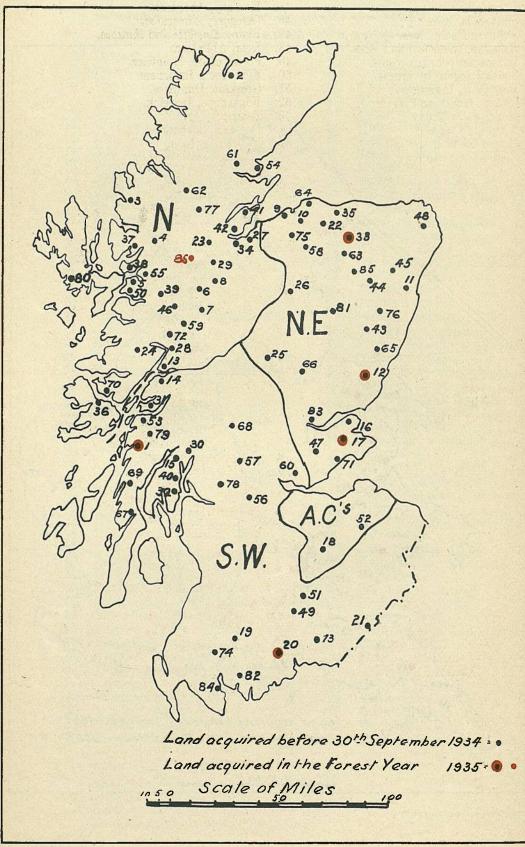
105.

Sketch map showing the location of units and the boundaries of the Divisions in England & Wales



(2371) 350A 1000,7'36 GP 921, C&R 15

Sketch map showing the location of units and the boundaries of the Divisions in Scotland



#### SCOTLAND.

- 1. Inverliever, Argyll.\*
- 2. Borgie, Sutherland.
- 3. Slattadale, Ross.
- Achnashellach, Ross. 4.
- 5. Ratagan, Inverness and Ross.
- Inchnacardoch, Inverness. South Laggan, Inverness. Port Clair, Inverness. 6.
- 7.
- 8.
- 9. Culbin, Moray and Nairn.
- Monaughty, Moray. 10.
- 11. Kirkhill, Aberdeen.
- 12. Montreathmont, Angus.
- Glen Righ, Inverness. Glenduror, Argyll. 13. 14.
- 15.
- Glenbranter, Argyll. Tentsmuir, Fife. 16.
- 17.
- Edensmuir, Fife. Glentress, Peebles. Bennan, Kirkcudbright. 18.
- 19.
- 20.
- Dalbeattie, Kirkcudbright. 21. Newcastleton, Roxburgh.
- 22.
- Teindland, Moray.
- 23. Glenurquhart, Inverness.
- Glenhurich, Argyll. Drummond Hill, Perth. 24.
- 25.
- 26. The Queen's Forest, Inverness.<sup>†</sup>
- 27. Culloden, Inverness.
- 28. Nevis, Inverness.
- 29. Craig-nan-Eun, Inverness.
- 30. Ardgartan, Argyll.
- 31. Barcaldine, Argyll.
- 32. Benmore, Argyll.
- 33. The Bin, Aberdeen.
- 34. Craig Phadrig, Inverness.
- 35. Ordiequish, Moray.
- 36.
- Salen, Argyll. North Strome, Ross. 37.
- 38. South Strome, Ross.
- Glenshiel, Ross. 39.
- **4**0. Glenfinart, Argyll.
- Findon, Ross. Kessock, Ross. 41.
- 42.
- 43. Drumtochty, Kincardine.

- 44. Midmar, Aberdeen.
- 45. Kemnay, Aberdeen.
- Glengarry, Inverness. 46.
- Blairadam, Fife and Kinross. 47.
- 48. Deer, Aberdeen.
- Forest of Ae, Dumfries. 49.
- Eilanreach, Inverness. 50.
- Greskine, Dumfries. 51.
- 52. Edgarhope, Berwick.
- 53.
- Fearnoch, Argyll. Dornoch, Sutherland. 54.
- 55. Inverinate, Ross.
- 56. Lennox Castle, Stirling.
- Loch Ard, Perth. 57.
- 58. Scootmore, Moray.
- Clunes, Inverness. 59.
- Devilla, Fife. **6**0.
- Balblair, Sutherland. 61.
- 62. Lael, Ross.
- 63. Clashindarroch, Aberdeen.
- Roseisle, Moray. 64.
- Inglismaldie, Kincardine. Blackeraig, Perth. 65.
- 66.
- 67. Achaglachgach, Argyll.
- 68. Strathyre, Perth.‡
- 69. Knapdale, Argyll.
- 70.
- 71.
- Fiunary, Argyll. Carden, Fife. Glenloy, Inverness. 72.
- 73.
- Auchenroddan, Dumfries. Kirroughtree, Kirkcudbright. 74.
- 75. Newtyle, Moray.
- Durris, Kincardine. 76.
- Longart, Ross. 77.
- Garadhban, Stirling. 78.
- Inverinan, Argyll. 79.
- 80. Glenbrittle, Isle of Skye.
- Alltcailleach, Aberdeen. 81.
- 82. Fleet, Kirkcudbright.
- 83.
- Kinfauns, Perth. Kilsture, Wigtown. 84.
- Whitehaugh, Aberdeen. 85.
- 86. Guisachan, Inverness.
- \* Former Crown wood.
- † Formerly known as Glenmore.
- <sup>†</sup> Formerly known as Tulloch.

				Plantations.	NS.					
Year ending 30th September.	Prepara- tion of Ground.	Drain- age.	Fencing.	Plant- ing.	Weed- ing and Clean- ing.	Beating- up.	Forest Pro- tection.	T'otal.	NURSER- IES.	GRAND Total.
	(1)	(2)	(3)	(4)	(2)	(9)	(2)	(8)	(6)	(01)
	્ય	બ	્ય	સ	બ	્ય	ભ	ભ	સ	ભ
First decade : 1920-29	151,950	81,147	204,523	243,213	183,499	69,372	95,824	1,029,528	481,273	1,510,801
Second decade : 1930	19,541 17.592	25,042 29,463	34,554 38,449	43,364 43,096	36,070 35,803	22,047 19,040	26,169 27,134	206,787 210.507	73,569 75,051	280,356 285,558
1932	13,241	37,228	31,425 29,748	34,078 29.105	39,439 44,113	16,032 18,729	26,139 32,187	197,582 200,752	54,974 53,611	252,556 254,363
1935 ···· ···	9,716 8,124	36,806 41,604	29,203 29,537	30,804 31,974	43,073 46,695	20,913 21,532	35,617 35,253	206,132 214,719	58,939 66,769	265,071 281,488
Total	230,401	287,853	397,439	455,634	428,692	187,665	278,323	2,266,007	864,186	3,130,193
Percentage`	7.4	6.6	12.7	14.5	13.7	0.9	6.8	72.4	27 · 6	001

Table E5.—Cultural Operations (Table E, Column 5).

22

Cultural Operations.—Expenditure amounted to  $\pounds 281,488$ , details of which are given in Table E5. Plantations accounted for  $\pounds 214,719$  and nurseries  $\pounds 66,769$ .

Plantations.—The total area planted or sown during the year was 21,492 acres, of which 19,618 acres were placed under conifers and 1,874 acres under broadleaved species. Included in the above are 325 acres reafforested in the former Crown woods and 416 acres replanted after damage by fire.

The total addition to the woodland area of Great Britain as a result of the Commission's operations, was 17,451 acres. In forming plantations and beating-up previous years' plantations 53,886,000 trees were used, of which 44 per cent. were Norway and Sitka spruces; 27 per cent. Scots and Corsican pines; 12 per cent. European and Japanese larches; 2 per cent. Douglas fir, and 11 per cent. broadleaved species.

An area of 67 acres of existing woods was underplanted, necessitating the use of 72,000 plants.

The quantities of work done in the plantations during the year are shown in the table below.

Division.	Planted and Sown.	Naturally Regener- ated.	Under- planted.	Thinned.	Felled.
	Acres.	Acres.	Acres.	Acres.	Acres.
Ι	3,401		_	181	6
II	2,832	l	26	166	<b>45</b>
III	2,360		27	131	13
IV	824	_	· <u></u>	164	92
V	2,204		<u> </u>	43	110
VI	637	—	1	569	100
VII	318	25		1,196	183
England and Wales	12,576	25	54	2,450	549
N	2,145		3	79	
N.E	2,285		8	239	21
S.W	4,138	6	2	150	8
A.C	348	-	_	20	2
Scotland	8,916	6	13	488	31
Total	21,492	31	67	2,938	580

Silvicultural Operations.

<u> </u>						
		A	rea pla	nted (acr	es).	
Forest.	Affo	rested.	Re-af	forested.	Т	otal.
	Coni- fers.	Broad- leaved.	Coni- fers.	Broad- leaved.	Coni- fers.	Broad- leaved.
Alice Holt, Hants* Allerston, Yorks Ampleforth, Yorks Ampthill, Bedford Arkengarthdale, Yorks Bardney Woods Lincoln	$ \begin{array}{c}$	6   13	8 	4   44		4 6 13 — 57
Bardney Woods, Lincoln Bawtry, Notts Beddgelert, Caernarvon Bedgebury, Kentand Sussex* Bere, Hants* Bodmin, Cornwall Bourne, Lincoln and Rutland Bramsbill, Berks and Hants Brechfa, Carmarthen Brecon, Brecknock Brendon, Somerset† Brighstone, Isle of Wight Bruton, Somerset and Wilts Bruton, Somerset and Wilts Buriton, Hants and Sussex Caio, Carmarthen Cannock Chase, Stafford	58 3 3 487 106 55 29 53 53 124 73	13 	$ \begin{array}{c}     - \\     1 \\     - \\     45 \\     - \\     - \\     - \\     19 \\     - \\     $		$ \begin{array}{c} 1 \\ 58 \\ 11 \\ - \\ 48 \\ - \\ 106 \\ 55 \\ 29 \\ 19 \\ 53 \\ - \\ 124 \\ 135 \\ \end{array} $	
Chepstow, Glos. and Mon- mouth.	-	_		_	_	-
Chiddingfold, Surrey and Sussex. Chopwell, Durham*		— —	14 	12 	14 	12 
Clipstone, Derby and Notts Clocaenog, Denbigh and Merioneth.	400		82 46	_	145 446	
Coed-y-Brenin, Merioneth <sup>‡</sup> Combley, Isle of Wight Crychan, Carmarthen Cwmeinion, Cardigan Cynwyd, Merioneth Dartmoor, Devon Dean Forest, Glos., Here-	570 102 25 	   77	$     \begin{array}{r}       34 \\       17 \\       43 \\       - \\       8 \\       8 \\       27     \end{array} $	26 — — 3 80	604 17 145 25 8 97 72	26 — — 3 157
ford and Monmouth.* Delamere, Cheshire* Dovey, Merioneth and Mont-	235	 	11 23	=	11 258	7
gomery. Dunwich, Suffolk Dyfnant, Montgomery Dymock, Gloucester and Hereford.*	2 34 20		6	 	$\begin{array}{c}2\\40\\20\end{array}$	
Eggesford, Devon Ennerdale, Cumberland Ferndown, Dorset	 			 	$\begin{array}{c} 11\\152\\-\end{array}$	1 1

\* Former Crown woods.
† Formerly known as Exmoor.

	Species	s planted,	including	beating	g-up (t	housan	ds).		
Scots and Corsican Pines.	Eur. and Jap. Larches.	Douglas Fir.	Norway and Sitka Spruces.	Oak.	Ash.	Beech.	Others.	Total.	Forest.
2 662 57 3 —	25 327 40 —	5 	70 73 262	70 8 32 8 —	9 - 14	$ \begin{array}{c c} 10 \\ 32 \\ 5 \\ \\ \\ \\ \\ \\ \\ $	$ \begin{array}{c c} - & & \\ 39 \\ 11 \\ 1 \\ 2 \\ \end{array} $	$107 \\ 1,147 \\ 237 \\ 12 \\ 264$	Alice Holt.* Allerston. Ampleforth. Ampthill. Arkengarth- dale.
-		—	1	96	52	1	-	150	Bardney
$\begin{array}{c} 44\\\\ 14\\\\ 152\\ 28\\ 7\\ 76\\ 80\\\\ 1\\\\ 25\\ 460\\ \end{array}$	$ \begin{array}{c} 8\\ -\\ 19\\ 25\\ 36\\ -\\ 295\\ 80\\ 29\\ -\\ 4\\ -\\ 30\\ 15\\ \end{array} $	$ \begin{array}{c} - \\ - \\ 19 \\ - \\ 51 \\ - \\ 15 \\ - \\ 6 \\ - \\ 14 \\ - \\ \end{array} $	$ \begin{array}{c} 48\\ 158\\ 16\\ -\\ 31\\ 11\\ -\\ 463\\ 168\\ 8\\ 33\\ 86\\ -\\ 221\\ 150\\ \end{array} $	8  10 333      		$ \begin{array}{c} - \\ - \\ - \\ - \\ 20 \\ 1 \\ 185 \\ - \\ 125 \\ 1 \\ 14 \\ \end{array} $	$ \begin{array}{c} - \\ 12 \\ - \\ 1 \\ - \\ 35 \\ 1 \\ 40 \\ 2 \\ 6 \\ 28 \\ 33 \\ 128 \\ \end{array} $	108 158 61 36 108 450 152 257 130 356 70 97 154 324 767	Woods. Bawtry. Beddgelert. Bedgebury.* Bere.* Bodmin. Bourne. Bramshill. Brechfa. Brecon. Brendon.† Brighstone. Bruton. Brynmawr. Buriton. Caino. Cannock Chase.
_	5	—	6			5	• 1	17	Chepstow.
3  925 38	1 12 8 185		61  785	54 8 	11  82 	1 1 	3 86 26	131 17 1,110 1,034	Chiddingfold. Chopwell.* Clipstone. Clocaenog.
91 	96 41 58 1 21 — 113	95 	806 ,  166 49 7 212 44	68 — — 481		   76	47 2 10  11 5 42	$1,135 \\ 111 \\ 299 \\ 50 \\ 71 \\ 221 \\ 826$	[in.‡ Coed-y-Bren- Combley. Crychan. Cwmeinion. Cynwyd. Dartmoor. Dean Forest.*
41 34	1 177	 51	10 397	_		_1	2 71	55 730	Delamere.* Dovey.
73 4 —	 58	1 1	 69 6	4 111		$-\frac{2}{3}$	1 11 22	80 89 200	Dunwich. Dyfnant. Dymock.*
 	22 1	15 	5 298 9		1 `1		$\begin{array}{c} 2\\ 4\\ -\end{array}$	22 334 190	Eggesford. Ennerdale. Ferndown.

## September, 1935-England and Wales.

‡ Formerly known as Vaughan.

Year ended 30th Plantations.

		A	rea pla	nted (acre	es).	
Forest.	Affe	rested.	Re-aff	forested.	Т	otal.
	Coni- fers.	Broad- leaved.	Coni- fers.	Broad- leaved.	Coni- fers.	Broad- leaved.
Friston, Sussex		61	-			61
Glasfynydd, Brecknock Goodwood, Sussex	14		. <u> </u>	55	14	
Gwydyr, Caernarvon ald	473	_	29		502	
Denbigh.						
Hafod Fawr, Merioneth*	20			· —	20	
Haldon, Devon	22	—	- 33		55	-
Halwill, Devon		···	2	1	155	-,
Hamsterley, Durham Harwood, Northumberland	94	1	37		37 94	1 1
Haugh, Hereford				10		10
Hazelborough, Bucks and			_	19		19
Northants.*+						
Herodsfoot, Cornwall		<u> </u>	12	· - <u></u>	12	
Hope, Derby	—	_				—
Kerry, Montgomery and Salop	502	5	18		26 503	
Kershope, Cumberland Kielder, Northumberland <sup>‡</sup>	$503 \\ 1,511$		_		1,511	5
Laughton, Lincoln			·			_
Llanover, Monmouth	16	_	53	_	69	_
Llantrisant, Glamorgan	3	1		—	3	1
Lydford, Devon	37		13	—	50	
Lyminge, Kent	— i	—	7	10	7	10
Margam, Glamorgan	—			-		-
Mathrafal, Montgomery	—	75	16	22	16	97
Micheldever, Hants Mortimer, Hereford, Radnor		75	52	22	142	- JI
and Salop.			02		- 12	
Myherin, Cardigan	231	2	71	_	302	2
Mynydd Ddu, Brecknock and	102	1	_		102	1
Monmouth.						
New Forest, Hants*	—	—	116	18	116	18
Parkhurst, Isle of Wight*	100		—	10	100	10 2
Pembrey, Carmarthen	108	2	4	-	108 4	4
Quantocks, Somerset Radnor, Radnor	56		. 4	_	$6\overline{5}$	_
Redesdale, Northumberland	416		`	~-	416	_ [
Rendlesham, Suffolk	166	46	4	10	170	56
Rheola, Glamorgan	<b>3</b> 09	2	. 90	10	399	12
Ringwood, Dorset and Hants	159	<b>—</b>	—		159	175
Rockingham, Northants	· 12	7 🖯	—	168	$\frac{12}{60}$	175
Rosedale, Yorks	69				69	_
Rothbury, Northumberland Salcey, Bucks and Northants*	_	_		13		13
Salcey, Bucks and Northants* Selby, Yorks	·	_	_	_	_	
Sherwood, Notts	···-	_	—	_	·	·
Slaley, Northumberland	100	—	—	-	100	-
Swaffham, Norfolk	4	, †	17		21	
Swanton, Norfolk	- 156	14	21	13	177	27
Tarenig, Cardigan and Mont-	36	-		· —	36	
gomery. Thetford Chase, Norfolk and	··· 9 <b>2</b> 5	- 148 "	109	. 20	1,034	168
Suffolk. Thornthwaite, Cumberland	19	• • 16 •	·		19	16
	Tral			undlar Irnov		n olzlev

Former Crown woods. † Includes forest previously known as Brackley.
Formerly known as North Tyne Valley.

	Species	planted,	including	beating	-up (tł	nousand	s).		
Scots and Corsican Pines.	Eur. and Jap. Larches.	Douglas Fir.	Norway and Sitka Spruces.	Oak.	Ash.	Beech.	Others.	Total.	Forest.
  130	1 		$ \begin{array}{c} - \\ 57 \\ \overline{812} \end{array} $			91  175 10	$\begin{vmatrix} 42 \\ 4 \\ -4 \\ 41 \end{vmatrix}$	133 62 175 1,107	Friston. Glasfynydd. Goodwood. Gwydyr.
$     \begin{array}{c}                                     $			$ \begin{array}{r}     40 \\     21 \\     299 \\     46 \\     185 \\     3 \\     1 \end{array} $			$\begin{vmatrix} -\\ -\\ -\\ -\\ 1\\ -1\\ 13\\ 3 \end{vmatrix}$	$     \begin{bmatrix}             - 1 \\             8 \\             12 \\             2 \\           $	40 180 308 129 189 34 86	Hafod Fawr.* Haldon. Halwill. Hamsterley. Harwood. Haugh. Hazel-
$ \begin{array}{c} - \\ - \\ - \\ 48 \\ 193 \\ 34 \\ 22 \\ 8 \\ 5 \\ - \\ 130 \\ \end{array} $	$ \begin{array}{c} 1 \\ -16 \\ -24 \\ 138 \\ 4 \\ 32 \\ 49 \\ 82 \\ 30 \\ -195 \\ \end{array} $	$ \begin{array}{c c} 15 \\ -5 \\ -37 \\ -45 \\ 20 \\ -4 \\ -6 \\ - \\ -6 \\ - \\ - \\ - \\ - \\ - \\ - \\ - \\ - \\ - \\ -$	$ \begin{array}{c} - \\ 63 \\ 149 \\ 860 \\ 2,429 \\ 13 \\ 50 \\ - \\ 5 \\ 40 \\ 95 \\ 2 \\ - \\ 18 \\ 18 \\ \end{array} $			$ \begin{array}{c} - \\ - \\ - \\ - \\ - \\ - \\ - \\ - \\ - \\ - \\$	$ \begin{array}{c} - \\ 36 \\ 5 \\ 3 \\ 5 \\ 40 \\ 1 \\ 4 \\ - \\ 3 \\ 11 \end{array} $	$\begin{array}{c} 16\\ 99\\ 175\\ 863\\ 2,543\\ 246\\ 225\\ 59\\ 79\\ 153\\ 195\\ 40\\ 344\\ 384 \end{array}$	borough.*† Herodsfoot. Hope. Kerry. Kershope. Kielder.‡ Laughton. Llanover. Llantrisant. Lydford. Lyminge. Margam. Mathrafal. Micheldever. Mortimer.
45 2	98 67	69 10	511 79	=			10 40	733 198	Myherin. Mynydd Ddu.
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c} 10 \\ - \\ 1 \\ 24 \\ 1 \\ 3 \\ 199 \\ 1 \\ 35 \\ 4 \\ 5 \\ - \\ 10 \\ 2 \\ -66 \\ - \\ 66 \\ - \\ - \\ 66 \\ - \\ - \\ - \\ - \\ - \\ - \\ - \\ - \\ - \\ -$	$ \begin{array}{c} 31 \\ - \\ 10 \\ - \\ 5 \\ - \\ - \\ - \\ - \\ - \\ - \\ - \\ - \\ - \\ -$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	57 15 		$ \begin{array}{c} 18\\7\\-\\\\15\\-\\6\\5\\-\\7\\4\\1\\4\\-\\\\\\8\\-\\8\\-\\8\\-\\8\\-\\8\\-\\\\8\\-\\8\\-\\8\\-\\$	$ \begin{array}{c} 12\\ 6\\ 8\\ -13\\ 4\\ -56\\ -3\\ -8\\ -\\ -\\ -\\ -\\ 11\\ 1\\ 3\\ -\\ 4\\ \end{array} $	$\begin{array}{c} 457\\ 43\\ 414\\ 21\\ 197\\ 675\\ 595\\ 894\\ 637\\ 215\\ 32\\ 42\\ 409\\ 209\\ 246\\ 73\\ 441\\ 121\\ \end{array}$	New Forest.* Parkhurst.* Pembrey. Quantocks. Radnor. Redesdale. Rendlesham. Rheola. Ringwood. Rockingham. Rosedale. Rothbury. Salcey.* Selby. Sherwood. Slaley. Swaffham. Swanton. Tarenig.
3,408	199	176	-	227	-	184	26	4,220	Thetford Chase
9	26	1	112	2	14	6	20	190	Thornthwaite.

	September,	1935—England	and	Wales-contd.
--	------------	--------------	-----	--------------

Plantations. Year ended 30th

	,	Aı	rea plan	ted (acres	s).	
Forest.	Affo	rested.	Re-aff	orested.	Т	otal.
	Coni- fers.	Broad- leaved.	Coni- fers.	Broad- leaved.	Coni- fers.	Broad- leaved.
Tintern, Monmouth <sup>*</sup> Walcot, Salop Wareham, Dorset Westbury, Hants West Woods, Wilts Wilsey Down, Cornwall Wyre, Worcester Yardley Chase, Bedford and Northants. Total	$ \begin{array}{c}     29 \\     \hline     106 \\     \hline     77 \\     \hline     77 \\     \hline     9,173 \end{array} $	20 3      785	$ \begin{array}{c} 10 \\ 52 \\ \\ \\ \\ 99 \\ \hline 1,388 \end{array} $	10 	$ \begin{array}{r}     39 \\     52 \\     106 \\     \hline     77 \\     5 \\     99 \\     \hline     10,561 \\ \end{array} $	$ \begin{array}{r}     30 \\     3 \\     50 \\     83 \\     \\     46 \\     \overline{1,684} \end{array} $
By direct sowing (included		11		7		18
above).	 		Pl	antation	 .s. Ye	ear ende
Achaglachgach, ArgyllAchnashellach, RossAlltcailleach, AberdeenArdgartan, ArgyllAuchenroddan, DumfriesBalblair, SutherlandBarcaldine, ArgyllBenmore, ArgyllBennan, KirkcudbrightBin ('The), AberdeenBlackcraig, PerthBlackcraig, PerthCarden, FifeClashindarroch, AberdeenClunes, InvernessCulloden, InvernessDalbeattie, KirkcudbrightDevilla, FifeDornoch, SutherlandDrummond Hill, PerthDrumtochty, KincardineEdgarhope, BerwickEilanreach, InvernessCurtins, KincardineDrumtochty, KincardineCharlon, RossFindon, RossFindon, RossFleet, KirkcudbrightGaradhban, StirlingGlenbranter, Argyll	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$		$ \begin{array}{c} -\\ -\\ -\\ -\\ -\\ -\\ -\\ -\\ -\\ -\\ -\\ -\\ -\\ $		$\left \begin{array}{c} 76\\ -\\ 149\\ 301\\ 13\\ 54\\ 155\\ 116\\ 82\\ 205\\ 101\\ 56\\ 9\\ 23\\ 445\\ 151\\ 50\\ 6\\ -\\ -\\ 157\\ 106\\ 52\\ -\\ 160\\ 112\\ 100\\ 23\\ 8\\ 80\\ 62\\ 230\\ 28\\ 8\\ 200\\ 28\\ 230\\ 28\\ 230\\ 28\\ 200\\ 104\\ 106\\ \end{array}\right.$	

\* Former Crown wood.

	Species	planted,	including	beating	g-up (tl	nousand	s).		
Scots and Corsican Pines.	Eur. and Jap. Larches.	Douglas Fir.	Norway and Sitka Spruces.	Oak.	Asb.	Beech.	Others.	Total.	Forest.
84 451   	$     \begin{array}{c}       115 \\       64 \\       \\       \\       20 \\       159     \end{array} $	$ \begin{array}{c}                                     $	$ \begin{array}{c} 19\\ 1\\ 46\\ -\\ 144\\ 2\\ 13\\ \end{array} $		$ \begin{array}{c} 25 \\ 3 \\ - \\ 13 \\ - \\ 13 \\ - \\ 19 \\ \end{array} $	20  174 99  13 18	$ \begin{array}{c} 11 \\ -6 \\ -25 \\ 13 \\ 4 \\ 2 \end{array} $	298 92 504 174 137 157 40 314	Tintern.* Walcot. Wareham. Westbury. West Woods. Wilsey Down. Wyre. Yardley Chase.
10,478	3,585	910	12,754	2,443	494	1,805	1,207	<b>3</b> 3,676	Total.

29

September, 1935-England and Wales-contd.

30th September, 1935-Scotland.

				-					
2		27	119			2	5	155	Achaglachgach.
_	4	1	18		_		5	27	Achnashellach.
133	87	_	35	_		_	3	258	Alltcailleach.
8	18	15	493			_	49	583	Ardgartan.
30	1		9	_	_	1	3	44	Auchenroddan.
71	39	2	17	_	_		1	130	Balblair.
56	42	2	181	i	_		13	294	Barcaldine.
2	$\overline{40}$	$2 \\ 2 \\ 3$	· 189	-	1		27	262	Benmore.
56	_	_	98	_	_			154	Bennan.
196	109	4	438			11	49	807	Bin (The).
_	54		142			1	12	209	Blackcraig.
65	9	_	35			$\frac{1}{2}$	3	114	Blairadam.
4	7	_	14	3	_		13	41	Borgie.
4		_	50	_		_	10	54	Carden.
83	460		259	_	_	2	54	858	Clashindarroch.
22	9	_	259	_		4	51	294	Clunes.
53	17	18	29	1		$\frac{1}{2}$	16	135	Craig-nan-Eun.
297	8	- 9	20	1			44	378	Culbin.
1	1		2					4	Culloden.
127	36		151			4	1	319	Dalbeattie.
15	12		234			1	40	302	Dalbeattie.
98	10		37	·			3	148	Devilla.
	1	_				1		140	Dornoch.
113	$12\overline{6}$		17	5	_	-	1	262	Drummond Hill.
2	179	1	28				8	218	Drumtochty.
l —	39		121	l		2	35	197	Durris.
55	_	l	1					55	Edensmuir.
65	51		6	l		_		122	Edgarhope.
	4		59	-		12	3	78	Eilanreach.
26	3	15	61				34	139	Fearnoch.
101	15		13	í _	Í	2	1	132	Findon.
32	86		324		-	$\overline{6}$	57	505	Fiunary.
	58		5	211	38	_	57	369	Fleet.
10			393			1	12	416	Forest of Ae.
36	36		89		-		25	186	Garadhban.
	2		237			_	16	255	Glenbranter.
12	33		141			3	8	197	Glenbrittle.
21	18		139		İ		11	189	Glenduror.
						<u>!</u>		105	Gienautor.

Plantations. Year ended

				А	rea pla	nted (acro	es).	
Forest.			Affo	rested.	Re-af	forested.	To	otal.
			Coni- fers	Broad- leaved.	Coni- fers.	Broad- leaved.	Coni- fer <b>s</b> .	Broad- leaved.
Glenfinart, Argyll			120				120	
Glengarry, Inverness	s	•••	214				214	-
Glenhurich, Argyll	•••	•••	246	—	-	- 1	246	-
Glenloy, Inverness	•••		150		-	—	150	
Glen Righ, Invernes			-	-		—		. –
Glenshiel, Ross	•••					—		_
Glentress, Peebles		•••	288		7	—	295	_
Glenurquhart, Inver		•••	102		-	—	102	E
Greskine, Dumfries	•••	•••	40	5	-	_	40	5
Inchnacardoch, Inve		•••	6		54		$\frac{6}{54}$	
Inglismaldie, Kincar	dine	•••	182	_	94		182	
Inverinan, Argyll Inverinate, Ross	•••	•••	182				102	_
Inverliever, Argyll*	•••	•••			114	,	114	
Kemnay, Aberdeen		•••						
Kessock, Ross	•••	•••		_				_
Kilsture, Wigtown	•••	•••	8	<b>3</b> 9		_	8	39
Kinfauns, Perth			49			_	49	
Kirkhill, Aberdeen					<b>—</b>	_		_
Kirroughtree, Kirkc			286	5	_	_	286	5
Knapdale, Argyll	••••		350	3		_	350	3
Lael, Ross			101	_			101	<u> </u>
Lennox Castle, Stirl			62		_		62	_
Loch Ard, Perth			652	3	_		652	3
Longart, Ross			68	_	—	_	68	_
Midmar, Aberdeen				_	49	—	49	_
Monaughty, Moray	•••		-	_	9	—	9	_
Montreathmont, An	gus		—	_				
Nevis, Inverness	• • • •	•••	203	—	i —	—	203	<del></del>
Newcastleton, Roxbu	ırgh	•••	166	1	-	· —	166	1
Newtyle, Moray	•••		—	—	50	—	50	
North Strome, Ross	•••	•••	36	<u> </u>			36	
Ordiequish, Moray	•••	•••		—	30		30	
Port Clair, Inverness		•••	72	—			72	
Queen's Forest (The)				-		—		
Ratagan, Inverness a	and Ro	os <b>s</b>	17	_	-	. —		—
Roseisle, Moray	•••	•••	181	_	- i	_	181	—
Salen, Argyll	•••	•••	150	_		_	150	-
Scootmore, Moray	•••	•••	120		74		194	
Slattadale, Ross		••••	_	-				   1
South Laggan, Inver		••••	101	_	_		101	
South Strome, Ross Strathyre, Perth ‡	•••		423	1		_	423	
	•••	•••	420	1	30		30	
Teindland, Moray Tentsmuir, Fife	•••	•••	73	_			73	
romonum, rino	•••			_				
$\operatorname{Total}$			7,417	76	1,237	101	8,654	177
·					Pla	intation	s. Ye	ar ended
England and Wales			9,173	785	1,388	899	10,561	1,684
Scotland	•••		9,175 7,417	76	1,237	101	8,654	1,004
	•••	•••	-,-=	10				
Total			16,590	861	2,625	1,000	19,215	1,861
* Former	Crow		<u>له 1</u>	Ferman		n as Glen		

\* Former Crown wood. † Formerly known as Glenmore.

	Species	planted, i	including	beating	-up (th	ousand	s).	1	
Scots and Corsican Pines.	Eur. and Jap. Larches.	Douglas Fir.	Norway and Sitka Spruces.	Oak.	Ash.		Others.	Total.	Forest.
$\begin{array}{c} 9\\ 9\\ 15\\ 32\\ 36\\ 2\\ -\\ 246\\ 26\\ 10\\ 43\\ 60\\ 8\\ 20\\ 8\\ 51\\ 2\\ -\\ 12\\ 181\\ 16\\ 67\\ -\\ 178\\ 20\\ 18\\ 34\\ 126\\ 60\\ 1\\ 96\\ -\\ 28\\ 25\\ 140\\ 500\\ 13\\ 30\\ 1\\ -\\ 153\\ 11\\ 177\\ \end{array}$	$\begin{array}{c} - \\ 5 \\ 5 \\ 28 \\ - \\ 6 \\ 281 \\ 19 \\ 3 \\ 4 \\ - \\ 26 \\ 30 \\ 20 \\ - \\ 3 \\ 13 \\ 23 \\ - \\ 112 \\ 98 \\ 106 \\ - \\ 80 \\ 17 \\ 19 \\ 1 \\ 5 \\ 27 \\ - \\ 17 \\ 9 \\ 5 \\ 9 \\ - \\ 6 \\ 68 \\ 42 \\ 6 \\ 5 \\ 90 \\ 129 \\ 8 \\ - \end{array}$	$ \begin{array}{c}         1 \\         2 \\         \\         15 \\         5 \\         18 \\         -4 \\         -5 \\         -5 \\         -8 \\         -2 \\         -3 \\         -3 \\         -2 \\         -3 \\    $	$\begin{array}{c} 199\\ 396\\ 436\\ 231\\ 22\\ 60\\ 85\\ 136\\ 91\\ 47\\ 29\\ 236\\ 33\\ 177\\ 27\\ 2\\ 5\\ 64\\ 12\\ 202\\ 454\\ 54\\ 112\\ 1,013\\ 90\\ 62\\ 3\\ 21\\ 290\\ 315\\ 9\\ 68\\ 10\\ 114\\ 218\\ 65\\ 1\\ 160\\ 314\\ 17\\ 17\\ 105\\ 567\\ 17\\ 4\end{array}$			$ \begin{array}{c}                                     $	$ \begin{array}{c} 2\\ 26\\ 2\\ -1\\ 19\\ 15\\ 23\\ 8\\ 17\\ 39\\ 13\\ 12\\ 16\\ -1\\ -2\\ 73\\ 10\\ 8\\ 43\\ 4\\ 6\\ 13\\ 222\\ 2\\ 1\\ -53\\ 4\\ 3\\ 1\\ 1\\ 6\\ 34\\ 4\\ 4\\ \end{array} \right) $	$\begin{array}{c} 210\\ 443\\ 475\\ 297\\ 25\\ 85\\ 627\\ 220\\ 114\\ 116\\ 128\\ 301\\ 96\\ 221\\ 95\\ 7\\ 164\\ 87\\ 27\\ 507\\ 691\\ 241\\ 120\\ 1,366\\ 131\\ 106\\ 51\\ 175\\ 399\\ 318\\ 123\\ 78\\ 68\\ 178\\ 68\\ 178\\ 8358\\ 92\\ 513\\ 304\\ 393\\ 27\\ 78\\ 68\\ 178\\ 185\\ 185\\ 185\\ 185\\ 185\\ 185\\ 185\\ 18$	Glenfinart. Glengarry. Glenhurich. Glen Righ. Glen Righ. Glenshiel. Glentress. Glenurquhart. Greskine. Inchnacardoch. Inglismaldie. Inverinate. Inverinate. Inverinate. Inverliever. <sup>9</sup> Kemnay. Kessock. Kilsture. Kinfauns. Kirkhill. Kirroughtree. Knapdale. Lael. Lennox Castle. Loch Ard. Longart. Midmar. Monaughty. Montreathmont. Nevis. Newcastleton. Newtyle. North Strome. Ordiequish. Port Clair. Queen's Forest Ratagan. (The)† Roseisle. Salen. Scotmore. Slattadale. Strathyre.‡ Teindland. Tentsmuir.
4,255	2,939	238	11,052	<b>3</b> 40	75	98	1,213	20,210	Total.
30th Sej	ptember,	1935—	 Summar	y.					
$10,478 \\ 4.255$	3,585 2,939	910 238	$12,754 \\ 11,052$	2,443	494 75	1,805 98		33,676 20,210	
14,733	6,524	1,148	23,806	2,783	569	1,903	2,420	53,886	Total.

30th September, 19	5-Scotland-contd.
--------------------	-------------------

‡ Formerly known as Tulloch.

Cost of Planting.—The outlay per acre on labour and material on the areas planted between 1919 and 1935 was as follows :—

		£	s.	d.
England and Wales		9	9	7
Scotland		9	15	6
Great Britain	 	9	11	6

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, supervision and overhead charges.

Nurseries.—The total area under nurseries at 30th September, 1935, was 897 acres stocked with 144 million seedlings and 74 million transplants. Comparative figures for the three years 1933-35 are given in the following table :—

Year	Country.		8	Seed Sown			Stock of Plants at 30th September (thousands).						
end- ing			(lb.).			Transplants.			Seedlings.			Area (Acres).	
30th Sept.			Conifer- ous.	Broad- leaved.	Total.	Conifer- ous.	Broad- leaved.	Total.	Conifer- ous.	Broad- leaved.	Total.	(120x00)	
1935	England	and	4,414	54,046	58,460	42,400	7,026	49,426	66,660	11,021	77, <b></b> 081	559	
	Wales. Scotland		3,653	3,436	7,089	23,726	831	24,557	65,061	1,554	66,615	338	
	Tot	al	8,067	57,482	65,549	66,126	7,857	73,983	131,721	12,575	144,296	897	
 1934	England	and	5,727	147,382	153,109	48,675	4,314	52,989	71,715	17,322	89,037	491	
	Wales. Scotland		3,067	3,523	6,590	32,759	472	33,231	50,494	1,389	51,883	311	
	Tot	al	8,794	150,905	159,699	81,434	4,786	86,220	122,209	18,711	140,920	802	
1933	England	and	4,321	79,244	8 <b>3,</b> 565	40,149	4,510	44,659	76,069	5,572	81,641	512	
	Wales. Scotland	•••	1,949	508	2,457	32,417	962	33,379	57,306	607	57,918	317	
	Tot	al	6,270	79,752	86,022	72,566	ō,472	78,038	138,375	6,179	139,554	829	

Nurseries.

Details showing by Divisions the utilisation of nursery area are as follows :----

Division.	Seedbeds.	Lines.	Fallow and Green Crops.	Other.	Total.
	Acres.	Acres.	Acres.	Acres.	Acres.
I	25.5	$43 \cdot 5$	31.6	$36 \cdot 3$	136.9
II	25.7	$28 \cdot 2$	16.6	11.9	82.4
III	11.1	$22 \cdot 6$	14.3	8.5	56.5
IV	14.7	$22 \cdot 0$	7.1	6.7	50.5
V	39.1	73.3	13.0	$30 \cdot 3$	155.7
VI	$15 \cdot 1$	16.6	2.9	$2 \cdot 7$	37.3
VII	9.1	$15 \cdot 1$	10.0	5.1	39.3
England and Wales	140.3	221.3	95.5	101.5	558.6
N	20.0	$23 \cdot 9$	$24 \cdot 4$	14.0	82.3
N.E	$25 \cdot 0$	40.6	19.4	$16 \cdot 6$	101.6
S.W	39.5	$44 \cdot 8$	58.4	11.0	153.7
Scotland	84.5	10 <b>9·3</b>	102.2	41.6	337.6
Total	224.8	330.6	197.7	143.1	896.2

Utilisation of Nursery Area.

Seed Supply.—The 1934 crop of Sitka spruce was only moderate both in Canada and the United States of America and the Commissioners were unable to satisfy their full requirements of this species. On the other hand there was a good crop of Douglas fir. Abundant supplies of Japanese larch seed were obtainable from Japan. On the Continent, Norway spruce, European larch and Corsican pine seed was not too plentiful although sufficient was forthcoming for the current sowing programmes; oak seed was reported to be available in fairly large quantities but beech was scarce.

As regards home-collected seed, in England and Wales Scots pine was again of good quality and sufficient quantities of oak, ash, beech, sycamore and chestnut were obtained to meet requirements. In Scotland, Scots pine, European larch and oak yielded plentiful supplies but there was a shortage of beech.

The quantity of seed sold during the year amounted to 323 lb.

The Commissioners have to express their thanks for gifts of seed from the Forest Authorities of Canada, Chile, Greece, Palestine, Rumania and Spain.

Forest Fires.—Dry conditions were experienced for the third year in succession but there was some diminution in the number of forest fires, which amounted to 487 compared with 500 in 1934 and 621 in 1933. The damage done was considerably less, the value being assessed at £4,090 compared with £12,166 in 1934 and £19,040 in 1933. Comparative figures for the five years 1931 to 1935 are given below.

		1931.	1932.	1933.	1934.	<i>1935</i> .
Number of fires	÷	213	315	621	500	487
Area burnt (acres)		171	<b>262</b>	1,297	741	270
Damage valued at		£2,143	£2,81 <b>3</b>	£19,040	<b>£12,</b> 166	£4,090

In addition six fires caused damage to buildings amounting to £190.

Claims amounting to  $\pounds 626$  have been lodged by the Commissioners in respect of the damage done during the year.

The following table gives the causes of fires in 1935 and it will be seen that 271 (56 per cent.) originated in sparks from railway engines and 83 (17 per cent.) were caused by the general public. Incendiarism apart, carelessness is the factor most difficult to guard against.

Origin.		Percentage of total number.
Railways	271	<b>5</b> 6
General public :		
From public roads, etc.	48	10
Other	35	7
Adjoining land	50	10
Incendiarism	12	2
Commission's employees	9	2
Road engines	8	<b>2</b>
Other	9	2
Unknown	45	9
Totals	487	100

#### Subhead F—Advances for Afforestation Purposes. Expenditure £16,639.

Grants to private individuals and local authorities for planting amounted to  $\pounds 11,818$ , advances in respect of a proceeds-sharing scheme to  $\pounds 1,436$  and overhead and supervisory charges to  $\pounds 3,385$ . The grants were as follows :—

(1) Conifers.—Up to £2 per acre planted and thereafter maintained as a forest crop.

(2) Hardwoods.—For every acre planted with approved species and thereafter maintained as an area for the production of hardwoods :—up to £4 per acre for oak or ash; £3 per acre for beech, sycamore or chestnut, and £2 per acre for other approved species.

	England & Wales.	Scotland.	Total.
Number of Schemes	 203	129	332
Planting conifers Planting hardwoods	 Acres. 2,047 609	Acres. 2,566 112	Acres. 4,613 721

The number of schemes in respect of which grants were paid during the year and the areas dealt with are stated below :—

The area planted under the proceeds-sharing scheme was 164 acres.

# Subhead G—Education. Expenditure: Gross £8,013, Net £7,975.

Details of expenditure are given in Table G.

Table G.-Education.

		Exp	enditure	(Table II	a, Colum	n 4).			
	Superior	A	pprentice	s' Schools	•				
Year ending 30th September.	Super- vision and Over- head	Salaries and Expenses of In- structors.	and	Allow- ances to Appren- tices.	Stores, Fuel, Light, etc.	Grants to Institu- tions.	Total.	INCOME.	NET Expin- diture.
First decade :	£	£	£	£	£	£	£	£	£
1920-29	13,125	15,401	6,195	21,709	14,192	30,691	101,313	2,427	98,886
Becond decade :           1930            1931            1932            1933            1934            1935	900 880 789 1,010 1,148 976	820 759 882 980 1,072 1,142	838 1,949 259 188 270 205	2,203 2,143 1,982 1,473 1,163 1,177	1,215 1,450 968 719 623 634	4,232 4,230 4,004 3,856 3,782 3,879	10,208 11,411 8,884 8,226 8,058 8,013	<b>263</b> 64 5 38 34 38	9,945 11,347 8,879 8,188 8,024 7,975
Total	18,828	21,056	9,904	31,850	19,801	54,674	156,113	2,869	153,244
Percentage	12.1	13.5	6•3	20 • 4	12.7	35 · 0	100		

Apprentices' Schools: Expenditure, £3,158.—Thirty-seven forest apprentices underwent courses of instruction at Parkend (Forest of Dean) and Benmore (Argyllshire). Of those who completed the two years' course 15 were granted certificates of proficiency.

Grants to Universities, Colleges, etc.: Expenditure, £1,879.— Grants were made to the following during the year :—Oxford University; Cambridge University; University College of North Wales, Bangor; Armstrong College, Newcastle-on-Tyne; Aberdeen University; Edinburgh and East of Scotland College of Agriculture; Royal Scottish Forestry Society. The number of students studying forestry at the Universities was 91; 26 forestry degrees were granted, and three candidates obtained diplomas.

Imperial Forestry Institute: Expenditure, £2,000.—The annual grant to the Imperial Forestry Institute from the Forestry Fund was continued. Fourteen students attended for the whole or part of the year, comprising 4 post-graduate probationers from the Colonial Services, 8 forest officers on leave (India 3, Dominion Services 1, Colonial Services 4) and 2 private students.

### Subhead H—Research and Experiment. Expenditure: Gross, £13,739; Net, £13,596.

Table H.—Research and Experiment.

				EXPENDITUR	E (Table IIa	, Column 5)				
Year ending 30th September.			Superior Super- vision and Overhead Charges.	Salaries and Expenses.	Labour, Stores, etc.	Grants to Institu- tions.	Total.	INCOME.	NET Expendi- ture.	
First decade			£	£	£	£	£	£	£	
1920-29           Second decade           1930           1931           1932           1933           1934           1935			13,699	38,458	20,230	7,263	79,650	1,058	78,592	
	····	···· ··· ···	1,316 1,292 1,149 1,233 1,181 1,297	5,079 5,323 5,329 5,294 4,911 5,012	4,529 4,588 4,452 4,009 3,804 4,265	1,414 1,395 1,396 1,646 1,405 3,165	12,338 12,598 12,326 12,182 11,301 13,739	105 278 42 78 420 143	12,233 12,320 12,284 12,104 10,881 13,596	
Total	•••		21,167	69,406	45,877	17,684	154,134	2,124	152,010	
Percentag	18		13.7	45.0	<b>29</b> • 8	11 • 5	100			

Details of expenditure are given in Table H.

/euans	OI	ехрепшине	are	groen	ш	rame	11.	

Production.—The routine work of measuring permanent sample plots was continued as in previous years. Twenty plots were remeasured and two new plots established. The total number at the end of the year was 211, of which 114 are in England and Wales and 97 in Scotland.

Nursery and Plantation Experiments.—The small size of the average one-year-old seedling of Sitka spruce and Norway spruce raised in the nurseries has led to many attempts to produce larger plants. In the past year early sowing (March) was again shown to be an important factor in the production of stronger seedlings, while the difficulty in securing satisfactory tilth conditions has been overcome to a great extent by the use of coarse sand or grit for covering the seed.

In the plantation experiments the beneficial effects of basic slag are clearly shown on certain soils. The response is closely dependent on the soil type : on the better types of peat for example, basic slag has not been of any permanent value when applied to such species as Sitka spruce and Scots pine and the stimulus is only marked on the poorest land. Certain broadleaved species, in particular the alders, are making good growth on poor heath land with the aid of slag; without manure the plants show no signs of becoming established.

Entomology and Mycology.—Work on the pine shoot beetle was continued with special reference to the part played by parasites and predators in controlling the pest. Experiments on the control of chafers by the use of insecticides applied to the soil gave encouraging results which will be followed up. The species of chafer responsible for much of the damage in nurseries is the garden chafer, *Phyllopertha horticola*; until recent years this species was not known as a serious pest in forest nurseries.

Elm disease continues to spread slowly in most districts. A new centre of somewhat intense infection appears to be developing in the West of England.

Specimens of coniferous poles affected by rot at the base of the stem have been examined in the laboratory and the fungus responsible identified. There appear to be several rot-producing fungi, but the most important of these is *Fomes annosus*.

Botany and Soils.—Dr. M. C. Rayner of Bedford College, London, has continued her researches into the mycorrhiza of pines and other conifers. The improvement in the condition for the growth of pines as a result of the addition of organic composts to the soil was strikingly evidenced in plots of direct sowing at Wareham in Dorset. A new series of pine sowings, in which various types of compost were applied, was started on heather moorland at Allerston in Yorkshire.

Investigations on moorland soils in Aberdeenshire have been carried out for the Commissioners by the Macaulay Institute for Soil Research at Aberdeen.

Advisory Committee on Forest Research.—The eighth meeting of the Committee was held at Scarborough in July, 1935, when experimental plots in Allerston Forest were visited.

Utilisation.—The Commissioners are co-operating with the Forest Products Research Laboratory in a joint investigation on pruning in relation to the quality of timber.

# Subhead J—Agency and Advisory Services. Expenditure: Gross, £1,201; Net, £1,116.

No direct expenditure was incurred under this head. The sum of  $\pounds 1,201$  is an apportionment of overhead and supervisory charges in respect of the time of various officers of the Commission who have been engaged in answering enquiries and advising woodland owners as to the treatment of their woods.

# Subhead K—Special Services. Expenditure: Gross, £5,012; Net, £5,008.

Details of expenditure are given in Table K.

Table K.—Special Services.

	Εx	PENDITUR	E (Table )	IIa, Colui	nn 7).			Naa	
Year ending 30th September.	Superior Supervision and Overhead Charges.	supervision and Overhead Charges. Charges. Charges. Consulta- nittees' Expenses. Charges. Consulta- nittees' Charges. Consulta- nittees' Charges. Consulta- cations. Consulta-		Total.	In- come.	NET Expen- diture.			
First decade :	ಸು	£	ž	ŧ	£	_ ±	نان	ž	
1920-29	26,585	523	1,995	12,368	19,828	61,299	347	60,952	
Second decade : 1930 1931 1932 1933 1934 1935	1,822 1,478 1,684 1,598 1,591 3,750	60 32 25 7 1 10	68 126 87 28 116 196	$147 \\ 255 \\ 561 \\ 466 \\ 745 \\ 1,056$		2,097 1,891 2,357 2,099 2,453 5,012	8 2 6 4	2,097 1,883 2,355 2.099 2,447 5,008	
Total Percentage	38,508 49·9	658 0·8	$\begin{array}{c} 2.616 \\ 3 \cdot 4 \end{array}$	15,598 20.2	19,828 <i>25</i> ·7	77,208 100	367	76,841	

Publications.—During the year the following publications were issued :—Fifteenth Annual Report of the Forestry Commissioners (being the report for the year ending 30th September, 1934) and the Report of the National Forest Park Committee, 1935. Leaflet No. 12 (Income Tax and Death Duties on Woodlands) was revised and reprinted.

In addition a Statement on Forestry in Great Britain and (in co-operation with the Board of Trade) a report on The Supply, Consumption and Marketing of Timber in the United Kingdom were prepared for the Fourth British Empire Forestry Conference.

Exhibits at Agricultural Shows.—Forestry exhibits were sent by the Commissioners to the Shows of the Royal Agricultural Society at Newcastle, the Royal Welsh Agricultural Society at Haverfordwest and the Highland and Agricultural Society at Aberdeen.

British Empire Forestry Conference, 1935.—The fourth British Empire Forestry Conference was held in the Union of South Africa from 2nd September to 7th October, 1935.

Great Britain was represented by Sir Roy Robinson, who acted as Chairman; Messrs. W. H. Guillebaud and A. P. Long, Forestry Commission; Professor R. S. Troup, Imperial Forestry Institute; Mr. C. J. Chaplin, Forest Products Research Laboratory, and Mr. C. P. Ackers, British Forestry Societies. Mr. C. E. Legat, secretary of the Empire Forestry Association, also attended from London. International Congress of Soil Science, 1935.—The third Congress took place in July and August, 1935. During the tour, which followed meetings in Oxford, the Forestry Commission's areas at Thetford and Rosedale were visited.

Consultative Committees.—The undermentioned members of the respective Committees were appointed or re-appointed as from the 25th March, 1935, in accordance with Section 1 (3) of the Forestry (Consultative Committees) Order, 1920. Lieut.-Colonel Sir Francis D. W. Drummond was re-appointed Chairman of the Welsh Committee and Alderman T. Parry was re-appointed a member of the same Committee. The Commissioners regret however to report the deaths of Sir Francis Drummond and Alderman Parry. The Earl of Powis was appointed Chairman of the Welsh Committee and Mr. L. R. Pym, Vice-Chairman.

The Committees each held one meeting during the year, their advice having been sought on the Commission's publications from the point of view of private owners; other subjects under consideration by one or other of the Committees included ordnance survey maps and forestry educational films.

#### ENGLISH COMMITTEE.

Chairman: —Leslie S. Wood, Esq., F.S.I., F.L.A.S. Vice-Chairman: —Alex F. Luttrell, Esq., D.L., J.P.

C. P. Ackers, Esq. Herbert E. Newsum, Esq., J.P. Hon. N. A. Orde-Powlett. Lt.-Col. E. R. Pratt. Arthur Arnold, Esq., F.L.A.S. E. Callaway, Esq. R. C. B. Gardner, Esq. H. V. Raffety, Esq., C.B.E., F.S.I. F. J. Green, Esq. Thomas Roberts, Esq. C. O. Hanson, Esq., I.S.O., M.B.E. Col. L. Ropner, M.C., M.P. Sir Henry Hoare, Bart., J.P. Col. W. St. A. Warde-Aldam; D.S.O. E. C. Horton, Esq., O.B.E. J. W. Watt, Esq. Col. G. F. T. Leather. T. Williams, Esq., M.P. Brig.-Gen. H. G. J. Lotbinière, D.S.O.

Secretary :- F. W. Hamilton, Esq.

WELSH COMMITTEE.

Chairman :- Rt. Hon. The Earl of Powis, D.L., J.P.

Vice-Chairman:-L. R. Pym, Esq., F.L.A.S.

Sir Michael Robert Duff-Assheton-Bryner Jones, Esq., C.B., С. C.B.É., M.Sc. Smith, Bart. H. Hadyn Jones, Esq., M.P. Lt.-Col. J. C. Wynne Finch, J.P. Major John Francis, D.S.O., F.S.I. Sackville Owen, Esq. J. I. Storrar, Esq., M.A., F.L.A.S. Rt. Hon. Lord Glanusk, D.S.O., D.L. Thomas Thomson, Esq., M.Sc. R. W. Treseder, Esq. Hugh V. C. Webb, Esq., F.S.I. Major R. J. Wordsworth. Col. F. Hibbert, M.Inst.C.E., F.G.S. H. A. Hyde, Esq., M.A., F.L.S. Secretary :- F. W. Hamilton, Esq.

# SCOTTISH COMMITTEE.

Chairman :---Sir Hugh Shaw-Stewart, Bart., K.C.B., T.D.

Vice-Chairman:-Rt. Hon. The Earl of Stair, D.S.O.

- Lt.-Col. F. R. S. Balfour, F.L.S., D.L., J.P. Professor A. W. Borthwick, O.B.E.,
- D.Sc.
- Gilbert Brown, Esq. Sir James C. Calder, C.B.E.
- Capt. George Campbell.
- Sir Iain Colquhoun, Bart., D.S.O. Reginald F. J. Fairlie, Esq., A.R.S.A.
- Robert Galloway, Esq., S.S.C.
- Sir John Milne Home.

P. R. Laird, Esq. George Leven, Esq. James Maclaren, Esq. J. Matson, Esq., O.B.E. Joseph F. Rennie, Esq. John T. Smith, Esq. William Wright Professor SirSmith. Sir John Stirling-Maxwell, Bart., K.T. H. George Younger, Esq.

#### Secretary:-F. C. Handford, Esq.

Table L.—Forest Workers' Holdings.

	NET EXPEN- DITURE.		(12)	બ	362,368	96,369	95,437	39,546	2,209	4*045	4,134	604,108	
luma 11).		Total.	(11)	બ	27,515	12,206	13,583	16,811	17,228	17,372	17,551	122,266	001
INCOME (Table IIa, Column 11).		Other.	(10)	બ	1,254	87	15	30	83	94	54	1,617	1.3
INCOME (		Kents.	(6)	બ	26,261	12,119	13,568	16,781	17,145	17,278	17,497	120,649	98.7
		Total.	(8)	બ	389,883	108,575	109,020	66,357	19,437	21,417	21,685	726,374	001
	Miscel-	laneous.	(2)	બ	4,120	473	758	1,032	937	878	585	8,783	1.2
umn 8).	Fencing,	Drainage, etc.	(9)	બ	17,561	5,902	6,713	4,511	1,004	1,238	874	37,803	5.2
fable IIa, Col		Repairs.	(2)	બ	3,882	2,536	3,528	6,696	3,424	2,926	4,110	27,102	3.7
EXPENDITURE (Table IIa, Column 8)	Buildings.	Adapta- tions.	(4)	બ	32,302	10,932	15,435	4,352	3,166	2,285	2,502	470,974	9.8
EX		New.	(3)	બ	192,184	43,126	64,095	26,635	4,375	2,064	2,617	325,096	44.8
	Purchase and Rent	of Land and Buildings.	(2)	બ	103,940	34,410	17,437	3,974	(cr.) 1,101*	4,546	4,060	167,266	23.0
	Superior Super- vision and Overhead		(1)	બ	35,894	11,196	11,054	9,157	7,632	7,480	6,937	89,350	12.3
		;			:	:	:	:	;	:	:	:	:
Year ending 30th September.			Trimet doordo .	1920-29	Second decade : 1930	1931	1932	1933	1934	1935	Total	Percentage	

41

# Subhead L—Forest Workers' Holdings. Expenditure, £21,685; Income, £17,551.

Total expenditure was approximately the same as in 1934. Details are given in Table L.

Twenty holdings were completed during the year making the total number at 30th September, 1,253. The average cost of establishing holdings is  $\pounds 497$ , of which land accounts for  $\pounds 70$ , and cost of buildings, drainage, water supply, etc.,  $\pounds 427$ .

The information contained in the following statement indicates the way in which the holdings have been utilised and shows the estimated value of live stock, etc.

Number of forest workers resident on the	
holdings	1,209
Total number of residents on the holdings	4,941
Average annual rent of house, outbuildings	
and land	£14 7s.
Average area (including outrun)	10.9 acres.
Head of live stock :	
Horses	436
Cows	914
Other cattle (including calves)	1,109
Sheep	5,029
Pigs …	2,749
Poultry	53,402
Miscellaneous (including goats)	$1,\!124$
Estimated value of the live stock	$\pm 44,092$

### Subhead Z-Income, £187,023.

Total income was £6,001 greater than in 1934. Rents and royalties increased by £3,502 and sales of forest produce by £7,219 but sales of land and buildings decreased by £5,864. Details are given in Table Z.

	1	Fores	try Operati	ons.		Forest Workers'			
Year ending 30th September.	Sales of Land and Buildings.	Rents and Royalties.	Forest Produce.	Other.	Totel.	Holdings (Rents, etc.).	Miscel- laneous.	Grand Total.	
Direct de la de la	£	£	£	£	£	£	£	£	
First decade : 1920-29 Second decade :	78,784	274,091	406,594	122,639	882,108	27,515	6,936	916,55 <sup>µ</sup>	
1930            1931            1932            1933            1934            1935	2,642 15,568 7,869 4,403 12,258 6,394	65,184 71,930 70,249 75,127 78,120 81,622	63,949 56,768 49,477 47,321 55,893 63,112	16,219 20,802 16,621 11,030 16,861 18,074	147,994 165,068 144,216 137,941 163,132 169,202	12,206 13,583 16,811 17,228 17,372 17,551	406 386 77 170 518 270	160,606 179,037 161,104 155,339 181,022 187,023	
Total	127,978	716,323	743,114	222,246	1,809,661	122,266	8,763	1,940,690	
Percentage	6.6	36-9	38.3	11.4	93·2	6.3	0.5	100	

Table Z.—Income.

Rents and royalties include  $\pounds 17,962$  from the Forest of Dean mines; "other" income includes sales of live stock  $\pounds 10,212$  and miscellaneous estate, farm and forest receipts  $\pounds 5,775$ .

# Employment in the Commission's Forests.

The number of manual workers employed in the Commission's forests is stated in the table below :---

	Summ	er (Mir	imum)		Winter (Maximum).					
1920				210	1920-21			935		
1921		•••		495	1921 - 22			1,780		
1922				525	1922 - 23			1,778		
1923				880	1923 - 24			2,220		
1924				1,620	1924 - 25			2,650		
1925	•••			1,980	1925 - 26			2,960		
1926				2,335	1926 - 27			3,185		
1927		•		2,735	1927 - 28			3,495		
1928				2,740	1928 - 29			3,565		
1929				2,640	1929-30			3,835		
1930		•••		3,130	1930-31			3,850		
1931	•••			2,830	<b>1931</b> –32			3,505		
19 <b>32</b>				2,720	1932 - 33			3,985		
1933				2,845	1933-34			3,735		
1934	•••			3,015	1934- <b>3</b> 5			4,020		
1935	•••			3,280	1935 - 36		1	4.155		

(Signed) R. L. ROBINSON (Chairman).

- F. D. ACLAND.
- G. L. COURTHOPE.
- D. R. GRENFELL.
- A. Rodger.
- W. R. Smith.
- S. STRANG STEEL.

JOHN SUTHERLAND.

A. G. HERBERT,

Secretary,

9, Savile Row,

London, W.1.

# APPENDIX.

### Imports of Timber, Wood Manufactures and Pulp of Wood.

Statistics relating to these imports are given in the following table, the figures in each case being for the calendar year.

The quantity of unmanufactured timber imported during 1935 was approximately 10,446,000 loads, or 909,000 loads (8 per cent.) less than in the previous year. The value, £35,564,000, was £3,934,000 (10 per cent.) below that for 1934. Sawn and hewn softwoods fell by 744,000 loads (11.8 per cent.) and 37,000 loads (9.1 per cent.) respectively, the decline in values being £4,301,000 (19.8 per cent.) and £89,000 (14.3 per cent.). On the other hand sawn hardwoods rose slightly, the increase both in quantity and value approximating to 6 per cent. Imports of planed and dressed timber showed a slight increase of 31,000 loads (3.1 per cent.) but there was a noticeable decrease in value which fell by £378,000 (8.5 per cent.). Pitprops rose by 104,000 loads (4.6 per cent.) and £381,000 (11.8 per cent.) but sleepers showed a reduction of 34,000 loads (11.2 per cent.) and £84,000 (9 per cent.).

The value of wood manufactures was increased by  $\pounds 610,000$  (11 per cent.) to  $\pounds 6,169,000$ . More than half of this sum was accounted for by plywood which rose by  $\pounds 759,000$  (27.7 per cent.).

Imports of pulp of wood at 2,221,000 tons and valued at  $\pounds 9,148,000$  were slightly less than in 1934.

		uantities	(thousand	ls).		Value (th	ousands).	
Description.	Average 1909-13.	Average 1914-18.	1934.	1935.		Average 1914-18.	1934.	1935.
Hewn-hard— Mahogany Walnut Oak Teak Other sorts Hewn-soft (fir, pine, spruce, etc.).	Loads.* 	Loads.* 	Loads.* 26 3 5 1 48 405	$\left.\begin{array}{c} \text{TIMBE}\\ \text{Loads.*}\\ 29\\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ $	₽. <u>£</u> — — — 1,353	£ — — 583	£ 233 30 39 9 353 623	$\left.\begin{array}{c} \pm\\ 254\\ 362\\ 534\end{array}\right)$
Sawn-hard— Mahogany Walnut Oak Teak Other sorts Sawn-soft, other than planed or dressed. Planed or			16 6 217 31 389 6,297	17 6 228 38 409 5,553			232 98 1,907 546 2,647 21,716	257 103 2,034 673 2,676 17,415
dressed Hard Soft Other		_	69 930	brace 1,030 $ brace$	_	=	499 3,955	$\Big\}$ 4,076
descriptions— Pitprops Staves Sleepers Vencers and papel more	2,944 161 	1,673 71 130 —	2,274 63 303 12	$2,378 \\ 61 \\ 269 \\ 13$	3,510 795 —	4,425 648 602 —	3,238 334 936 741	3,619 340 852 766
panel wood. Telegraph poles Boxboards Not elsewhere specified.	 6,557†	 3,550†	44 208 8	} - {	 21,903†	 24,362†	165 1,020 177	} 1,603
Total unmanu- factured timber.	10,204	5,553	11,355	10,446	27,561	30,620	39,498	35,564
Furniture and cabinet ware. Builders' wood- work (window frames, doors, etc.).	_	_		od Manue —	ACTURES. 416 180	115 62	<b>3</b> 86 1,160	409 1,014
Plywood Domestic wood- work (bread platters, trays, etc.).		_	_	=		-	2,739 170	<b>3,498</b> 180
Tool handles Not elsewhere specified.	_	-		_	2,099	1,821	119 985	} 1,068
Total manufac- tured timber.					2,695	1,998	5,559	6,169
Pulp of wood	Tons. 859	Tons. 682	Tons. 2,244	Pulp of V Tons. 2,221	⊽оо <b>д.</b> 4,058	7,915	9,627	9,148
* Load $= 50$ cu	<u>r</u>	!		1				<u> </u>

Imports of Timber, Wood Manufactures and Pulp of Wood.

\*Load = 50 cu. ft. † These figures apply mainly to sawn softwoods. It is not possible to differentiate according to the various categories enumerated above owing to a change in the Board of Trade classification from 1920 onwards.