#### THE FLOCK AND RAG TRADE.

Note.—For information regarding the scope of the Census, instructions given to firms for making returns, and definitions of the terms used in this report, reference should be made to the Introductory Notes on pages v to xviii.

### Introductory.

This trade comprises firms that were engaged wholly or mainly in the manufacture of flocks for bedding and upholstery purposes, and the sorting, cleaning, etc., of textile wastes and rags. The following table shows the main results of the Censuses of 1930 and 1924 in respect of firms in Great Britain that employed an average of more than 10 persons:—

Particulars.	Unit.	1930.	1924.
Value of products (Gross output)	£'000	3,932	6,345
Cost of materials used	. ,,	3,079	4,988
Paid for work given out to other firms	. ,,	6	*
Net output	. ,,	847	1,357
Average number of persons employed	. No.	5,663	6,539
Net output per person employed	. £	149	208
Mechanical power available :—			
Prime movers	н.Р.	8,819	7,248
Electric motors driven by purchased electricity.	. ,,	7,912	5,470
Number of returns	NT.	157	206
Number of establishments	. , ,,	173	*

<sup>\*</sup> Not available.

Deficiencies in 1930 aggregates.—The aggregate number of persons employed in 1930 by firms that stated that they employed not more than 10 persons on the average was 1,690, the corresponding figure for 1924 being 1,115. Taking together the number of persons employed by the larger and the smaller firms, the latter recorded about 23 per cent. of the total for 1930. The value of the gross output of the small firms in 1924 was £1,170,000, and particulars of the goods included in this figure are given below:—

Kind of goods.	Th. tons.	£'000.
Rags, sorted, cleaned, etc.:—	18.00	No See S
Woollen rags not pulled	14.1	608
Linen and cotton rags for paper-making	1.7	28
Cotton waste, cleaned, sorted, etc	3.5	135
Wool waste, cleaned, sorted, etc	4.1	221
Rags and waste, not distinguished		27
Wool flocks	4.2	91
Other waste products, mainly for paper-making		12
Other products		48
Other produces		
Тотац		1.170
10TAL		1,170

FLOCK AND RAG

In addition, 37 firms to which schedules were sent at the 1930 Census and 120 at that of 1924 furnished no information; these firms either had small businesses or had ceased productive operations before the end of the censal year.

Size of firms.—In the following table the main particulars recorded at the Census of 1930 are grouped according to the average numbers of persons shown in the returns:—

Size of firm (average numbers employed).	No. of returns.	Gross output.	Net output.	Average number of persons employed.	Net output per person employed.
		£'000.	£'000.		£
11-24	85	1,070	229	1,463	157
25-49	46	1,116	288	1,495	193
50-99	15	834	108	974	110
100 and over	11	912	222	1,731	128
TOTAL	157	3,932	847	5,663	149

Regional distribution.—In the following table the results recorded at the Censuses of 1930 and 1924 are grouped according to the principal areas\* of Great Britain in which firms in this trade are situated:—

Area.	No. of returns.	Gross output.	Net output.	Average number of persons employed.	Net output per person employed.
The Ball of Control		£'000.	£'000.		£
∫ 1930	12	394	138	798	173
\ 1924	11	293	101	575	176
$\int 1930$	51	1,247	237	1,925	123
(1924)	59	1,970	384	1,945	197
$\int 1930$	57	1,641	330	1,890	175
1924	91	2,780	546	2,545	215
$\int 1930$	23	355	73	602	121
1924	26	722	184	583	316
$5 \text{ and } 7 \left\{ \begin{array}{c} 1930 \\ 1004 \end{array} \right\}$	7	100	33	182	178
[1924]	4	117	35	215	163
and 10 $\begin{cases} 1930 \\ 1004 \end{cases}$	7	195	36	266	134
\\ \and 10 \\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	15	463	107	676	158
TOTAL \$ 1930	157	3,932	847	5,663	149
101AL \ 1924	206	6,345	1.357	6,539	208

<sup>\*</sup> For particulars see page xviii.

Northern Ireland.—The following table summarises the particulars recorded at the Census of Production taken by the Government of Northern Ireland for 1930. It should be borne in mind that this information relates to firms that employed an average of more than five persons. Corresponding particulars obtained from all firms at the 1924 Census are also shown.

Particulars.	Unit.	1930.	1924.
Net output	£'000 ,, No. £	82 63 19 170 112	131 99 32 166 193
Time movels 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	н.р.	154 13	122 17

The chief classes of goods included in the gross output values shown in the above table were as follows:—

	1930. £'000	1924. £'000
Rags, sorted, cleaned, etc. (excluding roofing rags and rags for making flocks):—		
Woollen	6	9
Linen and cotton	13	26
Roofing rags and rags for making flocks	4	8
Other waste products (mainly for paper-making)	52	88

#### Production.

Principal products.—The following table shows the value and, where available, the quantity of rags and waste sorted, cleaned, etc., and of wool flocks made in 1930 and 1924 for sale. The figures are confined to materials which were subjected to some process of cleaning, grading, etc., and exclude, so far as possible, goods which were merely bought and re-sold in the same condition. Cotton and wool waste produced by firms in the cotton and wool textile industries are not included in the table as these materials are, for the most part, disposed of in those industries, and do not pass through the hands of waste dealers. Wool flocks recorded as output by the wool trade are also excluded as forming, in the main, a different variety from those produced by the firms in the

Flock and Rag Trade. The following output, which is included in the table, was returned on schedules for other trades:—

		£'000	Entries.
Wool and cotton waste,	not		
separately distinguished		6	1
		(400 tons)	
Wool flocks manufactured	from		
materials other than rags		3	2
		(132 tons)	

Wind of goods	100	1930.	economic (	192	4.
Kind of goods.	Quantity.	Value.	Entries.	Quantity.	Value.
Rags, sorted, cleaned, etc. (excluding roofing rags and rags for making flocks):—	Th. tons.	£'000.	No.	Th. tons.	£'000.
Woollen and worsted rags	{ 24·9 *	885 55	} 49	45·8§	2,146§
Linen and cotton rags	$\left \left\{egin{array}{c} 23\cdot 3 \ * \end{array} ight. ight.$	373 29	} 38	49.6‡	920‡
Roofing rags and rags for making flocks Cotton waste, sorted, cleaned, etc. Wool waste, sorted, cleaned, etc Wool and cotton waste, not	$   \begin{array}{c c}     10 \cdot 6 \\     41 \cdot 1 \\     7 \cdot 4   \end{array} $	45 958 610	27 54 15	† 41·9 9·0	† 1,742 796
separately distinguished, sorted, cleaned, etc Wool flocks:—	1.3	50	3	1860 6 898 1 1860 <u>7 7</u>	_
Manufactured from rags Manufactured from materials other than rags	20·7 3·8	428 96	35 18	} 17.7¶	4099
Jute, coir and other fibres, sacking, rope, cordage, etc., sorted, cleaned, etc	$\left\{egin{array}{c} 12 \cdot 3 \ * \end{array} ight.$	173 75	} 15		
Paper-making materials (other than linen and cotton rags) including waste paper, flock dust, etc., sorted, cleaned, etc	{ 15·5 *	60 23	} 10	} "	274
Total value—Principal products		3,860			6,287

<sup>\*</sup> Weight not stated.

Work done for the trade or on commission, etc.—Firms that made their returns on schedules for the Flock and Rag Trade stated that they received the sum of £13,000 in respect of work done in 1930 for other firms; the amount received for work done for other firms in 1924 was not recorded.

**Prices.**—The average selling values in 1930 and 1924 of the chief products of this trade, as calculated from the Census returns, are shown in the following table:—

TZ: 1 6 J.	Averag	Average value.			
Kind of goods.	1930.	1924.	of 1924.		
Rags, sorted, cleaned, etc. (excluding roofing rags and rags for making		£ per ton.	Per cent.		
flocks):— Woollen and worsted rags	35.5	46.9	75.7		
Linen and cotton rags	16.0	18.5	86.5		
Cotton waste, sorted, cleaned, etc	23.3	41.6	56.0		
Wool waste, sorted, cleaned, etc	82.0	88.8	92.3		
Wool flocks	21.4	23 · 1	92.6		

Volume of production in 1930 and 1924.—The following table compares the volume of production of the principal products of this trade in 1930 and 1924:—

	То	Dayett		
Violet medi	1930.	192	4.	1930 as a percentage
Kind of goods.	As returned.	As returned.	At 1930 average values.	of 1924.
Rags, sorted, cleaned, etc., (excluding roofing rags and rags for making flocks):—	£'000.	£'000.	£'000.	Per cent.
Woollen and worsted rags	940	2,146	1,625	58
Linen and cotton rags	402	920	796	51
Cotton waste, sorted, cleaned, etc.	958	1,742	976	98
Wool waste, sorted, cleaned, etc	610	796	735	83
Wool flocks	524	409	379	138
Other principal products	426	274	206*	207
TOTAL	3,860	6,287	4,717	82

<sup>\*</sup> Based on revaluation of preceding products.

<sup>§ &</sup>quot;Woollen rags, not pulled."

<sup>‡ &</sup>quot;Linen and cotton rags for paper making."

<sup>†</sup> Not separately recorded.

<sup>¶ &</sup>quot;Wool flocks for bedding and upholstery."

 $<sup>\</sup>parallel$  " Other waste products (mainly for paper-making)," £95,000 ; and " Rags and waste, not distinguished," £179,000.

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**Exports and imports.**—In the case of the products of this trade comparison of production with exports and imports is not practicable owing to differences in classification and to the deficiencies in the Census aggregates already referred to.

Other products.—In addition to the output shown in the table of principal products on page 268, the following goods were produced in 1930 and 1924 by firms that made their returns on schedules for the Flock and Rag Trade. These goods are dealt with in the reports on those trades in which the principal output was recorded.

Kind of goods.	1930.	1924.
Ithiu of goods.	Value.	Value.
Recovered wool (shoddy or mungo) Other goods made (including hair, feathers, etc., purified, cleaned or dressed for sale as such)	£'000. 48	£'000.
Total	68	86

## Employment and Wages.

**Employment.**—The following table shows the average numbers of persons employed in 1930 and 1924:—

Persons employed.	Ma	iles.	Females.		Total.	
r ersons emproyed.	Under 18.	All ages.	Under 18.	All ages.	Under 18.	All ages.
1930. Operatives (average for the year) Administrative, technical and	125	2,096	469	2,874	594	4,970
clerical staff (as at 18th October)	30	519	40	174	70	693
TOTAL	155	2,615	509	3,048	664	5,663
1924. Operatives (average for the year) Administrative, technical and	141	2,051	449	3,773	590	5,824
clerical staff (as at 18th October)	31	553	18	162	49	715
TOTAL	172	2,604	467	3,935	639	6,539

**Wages.**—The available information as to the amount of wages paid in 1930 and 1924 is given on pages 18 and 19.

#### Power.

The following table shows the capacity of prime movers, electric generators and electric motors ordinarily in use and in reserve or idle in 1930 and 1924:—

Power		1930.			1924.			
equipment.	Ordinarily in use.	In reserve or idle.	Total.	Ordinarily in use.	In reserve or idle.	Total.		
	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.		
Prime movers.  Reciprocating steam engines  Steam turbines  Internal combustion	6,287 70	286	6,573 70	5,088 —	485 —	5,573		
engines:— Gas Petrol, kerosene or	592	21	613	1,005	13	1,018		
other light oils Heavy oils Water engines	100 890 478	95 —	100 985 478	3 100 554		3 100 554		
TOTAL	8,417	402	8,819	6,750	498	7,248		
ELECTRIC GENERATORS. Driven by	Kw.	Kw.	Kw.	Kw.	Kw.	Kw.		
Reciprocating steam engines Internal combustion	1,121	29	1,150	501	20	521		
engines:— Gas Petrol, kerosene, or other light	12	_	12	78	<u>-</u>	78		
oils	14	_	14	_				
Heavy oils Water engines	3 23	39	42 23		_			
TOTAL	1,173	68	1,241	584	20	604		
ELECTRIC MOTORS. Driven by Electricity generated	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.		
in same works Purchased electricity	841 7,338	145 574	986 7,912	551 5,055	40 415	591 5,470		
1 archasea electricity								

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## Consumption of fuel.

The following table shows the quantities of coal, coke and electricity recorded as used in 1930:—

Kind of fuel used.	For power (driving engines).	For other purposes (so far as recorded).
Coal	Tons. 19,676	Tons.
Coke	408	5,511* 1,523*
Glastiit and Call	pi regrande	B.T.U. (Kwhrs.)
Electricity used for all purposes:— Generated in same works	ALC: 201 10021 101 1	1,088
Purchased		4,554
	-Electricity	5,642

<sup>\*</sup> These figures were recorded by firms representing  $93 \cdot 6$  per cent. of the net output of the whole trade.

## TABLES.

## I. Summary of results.

Particulars.	Unit.	England and Wales.	Scotland.	Great Britain.
Value of goods made and work done (Gross output)	£'000	3,737	195	3,932
Cost of materials used	,,	2,920	159	3,079
Paid for work given out to other firms	,,	6	1	6
Net output	,,	811	36	847
Average number of persons employed	No.	5,397	266	5,663
Net output per person employed Mechanical power available :—	£	150	134	149
Prime movers Electric motors driven by purchased	H.P.	8,669	150	8,819
electricity	,,	7,713	199	7,912

## II. Production.

Goods sold or added to stock and work done.	Unit.	England and Wales.	Scotland.	Great Britain.
Rags, sorted, cleaned, etc. (excluding roofing rags and rags for making flocks):—  Woollen and Quantity stated Quantity not stated  Linen and cot-Quantity stated Quantity not stated  Roofing rags and rags for making flocks  Cotton waste, sorted, cleaned, etc.  Wool waste, sorted, cleaned, etc.  Wool and cotton waste, not separately distinguished  Wool flocks:—  Manufactured from rags {  Manufactured from materials other than rags	Th. tons. £'000 £'000 Th. tons. £'000	24·5 872 55 13·9 272 29 9·0 40 41·1 958 7·4 610 0·9 44 * * 3·7 93	0·4 13 — 9·4 101 — 1·6 5 — — — — * *	$24 \cdot 9$ $885$ $55$ $23 \cdot 3$ $373$ $29$ $10 \cdot 6$ $45$ $41 \cdot 1$ $958$ $7 \cdot 4$ $610$ $0 \cdot 9$ $44$ $20 \cdot 7$ $428$ $3 \cdot 7$ $93$

Goods sold or added to stock and work done.	Unit.	England and Wales.	Scotland.	Great Britain.
Jute, coir and other fibres, \ Quantity	Th. tons.	*	*	12.3
sacking, rope, cordage, stated	£'000	*	*	173
etc., sorted, cleaned, Quantity				-
etc	£'000	*	*	75
Paper-making materials, Quantity	Th. tons.	*	*	15.5
(other than linen and cotton rags) including	£'000	*	*	60
waste namer flock dust   Quantity				
etc., sorted, cleaned, etc.	£'000	*	*	23
Recovered wool (shoddy or mungo)	£'000	*	*	48
Other goods made, including hair,				
feathers, etc., purified, cleaned and		*	*	00
dressed	"			20
sion, etc		13†	000000000000000000000000000000000000000	13†
51011, 600.	,,		170 100000	
TOTAL VALUE OF GOODS MADE AND			3300	
WORK DONE (GROSS OUTPUT)	£'000	3,737	195	3,932
A STATE OF THE STA	d			

<sup>\*</sup>Owing to the possible disclosure of information relating to individual firms, separate particulars for England and Wales and for Scotland cannot be given.

† Amount received for work done.

## III. Employment.

A.—Numbers employed in week ended 18th October, 1930.

Persons employed.	Males.		Females.		Males and females.	
	Under 18.	All ages.	Under 18.	All ages.	Under 18.	All ages.
England and Wales:— Operatives Administrative, etc.*	117 29	2,011 493	437 36	2,667 158	554 65	4,678 651
TOTAL	146	2,504	473	2,825	619	5,329
Scotland:— Operatives Administrative, etc.*	6	47 26	24 4	155 16	30 5	202 42
TOTAL	7	73	28	171	35	244
Great Britain:— Operatives Administrative, etc.*	123 30	2,058 519	461 40	2,822 174	584 70	4,880 693
TOTAL	153	2,577	501	2,996	654	5,573

<sup>\*</sup> Administrative, technical and clerical staff.

## B.—Operatives employed in one week in each month of 1930.

	Males and females.			Males and females.			
Week ended	England and Wales.	Scotland.	Great Britain.	Week ended	England and Wales.	Scotland.	Great Britain.
Jan. 18th Feb. 15th Mar. 15th April 12th May 17th June 21st	5,037 4,972 4,875 4,859 4,777 4,680	244 258 257 257 235 228	5,281 5,230 5,132 5,116 5,012 4,908	July 19th Aug. 16th Sept. 13th Oct. 18th Nov. 15th Dec. 13th	4,696 4,684 4,622 4,678 4,576 4,492	199 200 209 202 198 199	4,895 4,884 4,831 4,880 4,774 4,691
AVERA	GE FOR T	HE 12 MON	THS		4,746	224	4,970

### IV. Power.

Particulars of prime movers, electric generators and electric motors.

Power	England and Wales.		Scotland.		Great Britain.	
equipment.	Ordinarily in use.	In reserve or idle.	Ordinarily in use.	In reserve or idle.	Ordinarily in use.	In reserve or idle.
Prime movers.	H.P.	н.р.	н.р.	H.P.	H.P.	H.P.
Reciprocating steam engines Steam turbines Internal combustion	6,137 70	286 —	150 —	_	6,287 70	286 —
engines:— Gas Petrol, kerosene or other light	592	21		<u> </u>	592	21
oils	100	_	_		100	_
Heavy oils	890	95	- 3	_	890	95
Water engines	478	<del></del>	_	<del>-</del>	478	
TOTAL	8,267	402	150		8,417	402
TOTAL OF PRIME MOVERS IN- STALLED	8,669		150		8,819	

Power	England and Wales.		Scotla	and.	Great Britain.	
equipment.	Ordinarily in use.	In reserve or idle.	Ordinarily in use.	In reserve or idle.	Ordinarily in use.	In reserve or idle.
ELECTRIC GENERATORS Driven by	Kw.	Kw.	Kw.	Kw.	Kw.	Kw.
Reciprocating steam engines Internal combus- tion engines :—	1,121	29			1,121	29
Gas Petrol, kerosene or other	12	1 .1 <u>09</u> 2   81 .600 5 .766	961 <u>.6</u> 911.5 910.2	70 <u>2</u> 702 202	12	
light oils  Heavy oils  Water engines	14 3 23		670 <u>.2</u> }		$\begin{array}{c} 14 \\ 3 \\ 23 \end{array}$	
TOTAL	1,173	68	_	_	1,173	68
TOTAL OF ELECTRIC GENERATORS INSTALLED	1,2	41	. T		1,241	
ELECTRIC MOTORS. Driven by Electricity gener-	H.P.	H.P.	н.р.	H.P.	н.р.	H.P.
ated in same works Purchased electri-	841	145	-	_	841	145
city	7,211	502	127	72	7,338	574
TOTAL	8,052	647	127	72	8,179	719
TOTAL OF ELECTRIC MOTORS INSTALLED	8,69	9	199		8,89	98

# V. Consumption of fuel.

Kind of fuel used.	England and Wales.	Scotland.	Great Britain.
Coal used for power	Tons. 19,206 408	Tons. 470	Tons. 19,676 408
	B.T.U. (Kwhrs.)	B.T.U. (Kwhrs.)	B.T.U. (Kwhrs.)
Electricity used for all purposes :— Generated in same works Purchased	1,088 4,514	40	1,088 4,554
Total—Electricity	5,602	40	5,642