

## THE NEEDLE, PIN, FISH-HOOK AND BUTTON TRADES.

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## Introductory.\*

The tables on pages 189 to 192 are based on returns received from firms in Great Britain whose business in 1924 consisted wholly or mainly in the manufacture of needles, pins, buttons, fish-hooks and other metal smallwares. The number of such separate returns was 240. About 30 firms to which schedules were sent did not furnish returns, but these firms, for the most part, had very small establishments and they included some that were no longer in existence at the end of the census year. On the basis of the information available it is estimated that they did not employ more than 100 persons in all and that their total net output probably did not exceed £12,000. No production was recorded for Northern Ireland in 1924.

\* See also the Notes on pages vii-xv.

*Summary of results.*—The following table shows the main results of the Censuses of 1924, 1912 and 1907, comparisons between the figures for the three years being subject to the qualifications mentioned in the next paragraph :—

Particulars.	Unit.	1924.	1912.	1907.
Value of goods made and work done (Gross output) .. .. .	£'000	3,029	1,962	1,599
Cost of materials used .. .. .	"	1,242	908	728
Paid for work given out to other firms .. .. .	"	20	14	25
Net output .. .. .	"	1,767	1,040	846
Average number of persons employed (excluding outworkers) .. .. .	No.	12,715	14,772	13,252
Net output per person employed (excluding outworkers) .. .. .	£	139	70	64
Mechanical power available :—				
Prime movers .. .. .	H.P.	3,777	3,491	3,255
Electric motors driven by purchased electricity .. .. .	"	3,858	888	(not recorded)

*Qualifications affecting comparisons.*—In considering the above table and the other tables in this report which show figures for different censal years, it should be borne in mind that—

(1) The comparability of figures relating to value or cost is affected by the changes which have taken place in the general purchasing power of money.

(2) The Censuses of 1907 and 1924 extended to all firms, however small, but in 1912 firms employing not more than five persons (excluding the proprietors) were merely required to state the average number of persons employed by them in the year. According to the information so furnished the number of persons employed in the establishments thus excluded was 322 or somewhat over 2 per cent. of the number employed by the remaining firms, as shown in the above table. Moreover, correspondence on defects in the original returns for 1912 had not been completed when the war compelled suspension of this work. In these circumstances detailed information for 1912 is not given in the remainder of this report. The resulting errors in the aggregate figures given above are probably not important.

*Value of output and cost of materials.*—The figures in the above table representing the value of goods made and work done are the aggregates of the figures recorded by the firms that made returns, and, for the reasons explained in paragraphs (i) and (ii) on pages xii and xiii, they overstate the value of the output of the Needle, Pin, Fish-hook and Button Trades considered as a whole. The matter is discussed on page 185, where it is stated that in 1924 the value, free from duplication, of the output of these trades was about £3,010,000. There was no duplication in the cost of the materials used, which was returned as £1,242,000.

*Sectional results.*—The manufacture of buttons forms a self-contained trade and needle-making is also largely carried on separately, though many makers of needles also manufacture fish-hooks and fishing tackle and, to a lesser degree, pins. The following table shows the leading results for the principal groups of firms in 1924 :—

Particulars.	Unit.	Manufacturers of buttons and studs.	Firms mainly manufacturers of		
			Needles and fish-hooks.	Pins.	Other metal smallwares.
Value of goods made and work done (Gross output)	£'000	1,238	845	296	650
Cost of materials used .. .. .	"	564	252	133	293
Paid for work given out to other firms .. .. .	"	6	8	5	1
Net output .. .. .	"	668	585	158	356
Average number of persons employed (excluding outworkers) .. .. .	No.	4,866	4,017	1,300	2,532
Net output per person employed (excluding outworkers) .. .. .	£	137	145	122	141
Mechanical power available:					
Prime movers .. .. .	H.P.	1,523	1,339	635	280
Electric motors driven by purchased electricity .. .. .	"	1,462	910	350	1,136

### Production.

Detailed information relating to the output in 1924 of the Needle, Pin, Fish-hook and Button Trades will be found in Table II on page 190.

*Principal products.*—The following table shows, for 1924 and 1907, the value of the principal products of the Needle, Pin, Fish-hook and Button Trades, the figures for each year being inclusive of the value of similar products returned on schedules for other trades. The amount so included in the 1924 figures is £446,000.

Kind of goods.	1924.	1907.
	Selling value.	Selling value.
	£'000.	£'000.
Needles and crochet hooks .. .. .	770	350
Hair pins, curlers and wavers .. .. .	159	90
Other pins .. .. .	282	227
Fishing tackle and fish-hooks .. .. .	416	131
Buttons and studs :—		
Of metal, covered or not .. .. .	376	296
Other sorts .. .. .	456	191
Buckles, hooks and eyes .. .. .	418	248
Other smallwares .. .. .	489	56
<b>TOTAL VALUE</b> .. .. .	<b>3,366</b>	<b>1,589</b>

More detailed particulars regarding the output of the principal products of these trades in 1924 are given below.

Kind of goods.	Returned on schedules for	
	The Needle, Pin, etc., Trades.	All trades.
	Selling value. £'000.	Selling value. £'000.
Needles :—		
Hosiery (latch) needles .. .. .	96	156
Crochet hooks .. .. .	23	28
Gramophone needles .. .. .	11	41
Other needles .. .. .	518	545
<b>TOTAL—NEEDLES .. .. .</b>	<b>648</b>	<b>770</b>
Pins :—		
Hair pins, curlers and wavers .. .. .	147	159
Other pins .. .. .	260	282
<b>TOTAL—PINS .. .. .</b>	<b>407</b>	<b>441</b>
Fishing tackle and fish-hooks .. .. .	237	416
Buttons and studs :—		
Metal (covered or not) :—		
Push buttons and studs .. .. .	78	78
Other metal buttons and studs .. .. .	297	298
Horn and bone .. .. .	66	70
Celluloid, erinoid, corozo, glass, xylonite, etc. .. .. .	202	202
Mother-of-pearl .. .. .	63	81
Other kinds .. .. .	101	103
<b>TOTAL—BUTTONS AND STUDS .. .. .</b>	<b>807</b>	<b>832</b>
Buckles .. .. .	144	160
Hooks and eyes, etc. .. .. .	257	258
Corset steels and busks .. .. .	144	144
Accoutrements and ornaments .. .. .	55	55
Other smallwares of metal .. .. .	203	272
Other smallwares of erinoid and similar materials .. .. .	18	18
<b>TOTAL VALUE .. .. .</b>	<b>2,920</b>	<b>3,366</b>

*Quantities of needles and buttons made.*—For the Census of 1924 manufacturers were required to state the quantities of needles and of buttons and studs made by them, the former in terms of weight (cwts.) and the latter by number (gross), these being the measurements prescribed in the Import and Export List. The returns showed that hosiery needles are not ordinarily sold by weight and that in the case of needles of other descriptions also many firms did not keep records of the weight of their output. The particulars furnished in respect of *other needles* (see the table above) showed that needles valued at £442,000 weighed 13,320 cwts.; the balance of the output, valued at £103,000, was recorded by value only. As regards buttons and studs, the particulars furnished were fully representative and the numbers shown below, which include estimates made in the Census office to cover relatively small amounts, returned on schedules for other trades, for which quantities were not stated, represent the total quantities made for sale in the year.

Buttons and studs.	Thousand gross.
Metal (covered or not covered) :	
Push buttons and studs .. .. .	1,038
Other metal buttons and studs .. .. .	6,014
<b>TOTAL—METAL .. .. .</b>	<b>7,052</b>
Horn and bone .. .. .	254
Celluloid, erinoid, corozo, glass, xylonite, etc. .. .. .	622
Mother-of-pearl .. .. .	308
Other descriptions .. .. .	495
<b>TOTAL—ALL KINDS .. .. .</b>	<b>8,731</b>

Reckoning by number, metal buttons formed about 80 per cent. of the total production, although they contributed only about 45 per cent. of the value.

In 1907 firms could only be required to state the value of their output and, in reply to a request for particulars of quantity, the information given was insufficient to warrant the estimation of the total quantities produced.

*Other products.*—In addition to the goods dealt with in the preceding paragraphs, firms that made their returns on schedules for the Needle, Pin, etc., Trades recorded in 1924 an output of other products (fancy articles, etc.) valued at £75,000. These goods, being of kinds mainly produced in other trades, are dealt with in the reports on those trades. The corresponding figure for 1907 was £44,000.

*Work done for the trade.*—Firms that made their returns on schedules for the Needle, Pin, etc., Trades stated that they received £34,000 in 1924 for work done for the trade. The corresponding figure for 1907 was £38,000.

*Value of output free from duplication.*—The only item in the gross output (£3,029,000) of the Needle, Pin, etc., Trades in which duplication may be involved is the £34,000 received for work done for the trade. As the firms that furnished particulars on schedules for these trades stated that they paid £20,000 to other firms for work given out to them, it follows that at least £14,000 was received for work done for merchants and for firms in other trades. The value, free from duplication, of the output in 1924 of the Needle, Pin, Fish-hook and Button Trades was, therefore, about £3,010,000. Estimated on the same basis the value, free from duplication, of the output of these trades in 1907 was about £1,586,000.

*Cost of materials and work given out.*—The cost of materials used by firms that made their returns on schedules for the Needle, Pin, etc., Trades was returned as £1,242,000 in 1924 and £728,000 in 1907. Both of these figures are free from duplication.

The amount paid to other firms for work given out to them was returned as £20,000 in 1924, £14,000 in 1912, and £25,000 in 1907.

*Net output.*—The net output in 1924 of the firms that made their returns on schedules for the Needle, Pin, Fish-hook and Button Trades (whose gross output was valued at £3,029,000) was £1,767,000, that sum representing, without duplication, the total amount by which the value, as delivered, of the aggregate output exceeded the cost, as purchased, of the materials used and the amount paid to other firms for work given out to them.

The net output per head of persons employed (excluding outworkers) in the censal year 1924 was £139 as compared with £64 in 1907.

*Exports and imports.*—In 1924 the exports of hosiery (latch) needles were valued at £12,000 f.o.b. and the retained imports at £77,000 c.i.f. British manufacturers with an output valued, at factory, at £156,000 would thus appear to have supplied about two-thirds of the home market. Exports of other needles (except gramophone needles and crochet hooks) were valued at £332,000 f.o.b., or roughly 60 per cent. of the value of the output, and retained imports at £13,500 c.i.f., the bulk of the home market being supplied from British production. Exports of pins of all kinds were valued at £165,000 f.o.b., and retained imports at £19,000 c.i.f.

Particulars of exports and imports of buttons and studs in 1924 are shown, in relation to production, in the following table :—

Buttons and Studs.	Production.		Net imports.		Available for use in the U.K.	
	Th. gross.	Th. gross.	Th. gross.	Per cent.	Th. gross.	Per cent.
Metal (covered or not) :—						
Push buttons and studs .. ..	1,038	56	448	5.4	1,430	68.7
Othersorts ..	6,014	612	1,055	10.2	6,457	83.7
<b>TOTAL—METAL BUTTONS ..</b>	<b>7,052</b>	<b>668</b>	<b>1,503</b>	<b>9.5</b>	<b>7,887</b>	<b>80.9</b>
Horn and bone ..	254	129	801	50.8	926	13.5
Celluloid, erinoid, corozo, glass, xylonite, etc. ..	622	65	2,455	10.5	3,012	18.5
Mother-of-pearl ..	308	214	*	69.5	..	..
Other kinds ..	495	373	4,105	75.4	4,227	2.9

\* Re-exports recorded as in excess of imports to the extent of 237,000 gross.

Retained imports were greatly in excess of British production except for buttons of metal and mother-of-pearl; re-exports of the latter exceeded the total imports owing, probably, to the re-export of an accumulation of buttons imported in earlier years.

### Wages in 1924.

Under the Census of Production Act, 1906, the powers of the Board of Trade to require information do not extend to particulars of the amount of wages paid, and, consequently, no information on this head was secured in connexion with the Census of 1924. As a result, however, of the voluntary enquiry undertaken by the Ministry of Labour into wages and hours in the United Kingdom in 1924, information was obtained as to the total wage-bill of a group of firms in the Needle, Pin, Fish-hook and Button Trades which made returns both to the Ministry of Labour and to the Census of Production office. According to the Census records this group of firms employed, in the week ended 18th October, 1924, 6,455 operatives, or 55 per cent. of the total of 11,723 operatives for the trades as a whole, and their net output totalled £1,030,000, or 58 per cent. of the aggregate net output of £1,767,000 for the trades as a whole. The total wage-bill of these firms, as returned to the Ministry of Labour was £545,000, representing about 53 per cent. of their aggregate net output.

### Employment.

The detailed information relating to employment in 1924 is summarised in Table III on pages 191 and 192. The following table sets out certain particulars for that year together with those relating to the 1907 Census. For the purpose of this comparison, the average numbers of operatives of each sex returned for 1924 have been divided between the two age-groups in the proportions shown by the data relating to the week ended 18th October :—

Average number (excluding outworkers).	Males.		Females.		Males and females.	
	Under 18.	All ages.	Under 18.	All ages.	Under 18.	All ages.
<b>1924.</b>						
Operatives .. ..	714	3,756	2,228	7,881	2,942	11,637
Administrative, etc. .. ..	58	653	85	425	143	1,078
<b>TOTAL .. ..</b>	<b>772</b>	<b>4,409</b>	<b>2,313</b>	<b>8,306</b>	<b>3,085</b>	<b>12,715</b>
<b>1907.</b>						
Wage earners .. ..	646	3,868	2,313	8,345	2,959	12,213
Salaried .. ..	36	652	91	387	127	1,039
<b>TOTAL .. ..</b>	<b>682</b>	<b>4,520</b>	<b>2,404</b>	<b>8,732</b>	<b>3,086</b>	<b>13,252</b>
Average number of outworkers :—						
1924 .. ..	44		544		588	
1907 .. ..	283		1,365		1,648	

The numbers of operatives recorded month by month in 1924 ranged from 301 above the average, in May, to 234 below the average, in January (see Table III B on page 191).

**Mechanical Power.**

The detailed information relating to mechanical power in 1924 is summarised in Table IV on page 192. The following table sets out the particulars for 1924 and 1907 relating to the capacity and kinds of *prime movers* and the capacity of *electric generators* installed.

Power equipment.	1924.			1907.
	Ordinarily in use.	In reserve or idle.	Total.	Total.
	H.P.	H.P.	H.P.	H.P.
<b>PRIME MOVERS :—</b>				
Reciprocating steam engines .. ..	460	47	507	1,812
Gas engines .. .. .	2,532	405	2,937	} 1,268
Petrol and light oil engines .. ..	26	—	26	
Heavy oil engines .. .. .	220	—	220	} 175
Water power .. .. .	87	—	87	
<b>TOTAL .. .. .</b>	<b>3,325</b>	<b>452</b>	<b>3,777</b>	<b>3,255</b>
<b>ELECTRIC GENERATORS :—</b>				
Driven by—				
Reciprocating steam engines .. ..	31	—	31	167
Gas engines .. .. .	317	107	424	} 33
Petrol and light oil engines .. ..	2	—	2	
Heavy oil engines .. .. .	50	—	50	
Water power .. .. .	6	—	6	
<b>TOTAL .. .. .</b>	<b>406</b>	<b>107</b>	<b>513</b>	<b>200</b>

The capacity of *electric motors* recorded in 1924 was as shown below :—

Electric motors.	1924.		
	Ordinarily in use.	In reserve or idle.	Total.
	H.P.	H.P.	H.P.
Driven by :—			
Electricity generated in own works .. ..	424	14	438
Purchased electricity .. .. .	3,393	465	3,858

Corresponding information was not required for 1907. The total number of Board of Trade units of electricity purchased for power and lighting purposes in that year was returned as 221,000.

## TABLES.

## I.—Summary of results.

*Note.—No production was recorded for Northern Ireland.*

Particulars.	Unit.	England and Wales.	Scotland	Great Britain.
Value of goods made and work done (gross output) .. .. .	£'000	3,007	22	3,029
Cost of material used .. .. .	"	1,233	9	1,242
Paid for work given out to other firms ..	"	20	—	20
Net output .. .. .	"	1,754	13	1,767
Average number of persons employed (excluding outworkers) .. ..	No.	12,583	132	12,715
Net output per person employed (excluding outworkers) .. .. .	£	139	98	139
Mechanical power available :—				
Prime movers .. .. .	H.P.	3,767	10	3,777
Electric motors driven by purchased electricity .. .. .	"	3,847	11	3,858

## II.—Production.

Goods sold or added to stock.	Great Britain.*	
	Quantity.	Selling value.
	Th. gross.	£'000.
Needles :—		
Hosiery (latch) needles .. .. .	..	96
Crochet hooks (steel) .. .. .	..	23
Gramophone needles .. .. .	..	11
Other needles; .. .. .	..	518
TOTAL—NEEDLES .. .. .	..	648
Pins :—		
Hair pins (including curlers and wavers).. ..	..	147
Other pins .. .. .	..	260
TOTAL—PINS .. .. .	..	407
Fishing tackle and fish-hooks .. .. .	..	237
Buttons and studs :—		
Metal (covered or not)—		
Push buttons and studs .. .. .	1,038	78
Other metal buttons and studs.. .. .	5,995	297
TOTAL—BUTTONS AND STUDS OF METAL .. ..	7,033	375
Horn and bone .. .. .	240	66
Celluloid, corozo, glass, xylonite, etc. .. ..	405	93
Mother-of-pearl .. .. .	241	63
Erinoid .. .. .	217	109
Other kinds .. .. .	486	101
TOTAL—ALL BUTTONS AND STUDS .. .. .	8,622	807
Buckles .. .. .	..	144
Hooks and eyes, boot eyelets, lacing hooks, etc. .. ..	..	257
Corset steels and busks .. .. .	..	144
Accoutrements, badges, uniform accessories and fittings .. ..	..	55
Thimbles, stationers' sundries and other metal smallwares.. ..	..	203
Other manufactures of erinoid and similar materials .. ..	..	18
Fancy articles .. .. .	..	46
Other goods made .. .. .	..	29
Work done for the trade .. .. .	..	34†
TOTAL VALUE OF GOODS MADE AND WORK DONE (GROSS OUTPUT) .. .. .	..	3,029

\* In order to avoid the possible disclosure of information relating to the few firms in Scotland, detailed particulars of output are given only for Great Britain as a whole.

† Amount received for work done.

## III.—Employment.

A.—NUMBERS EMPLOYED IN WEEK ENDED 18TH OCTOBER, 1924  
(EXCLUDING OUTWORKERS).

Kind of staff.	Males.		Females.		Males and females.	
	Under 18.	All ages.	Under 18.	All ages.	Under 18.	All ages.
<i>England and Wales :—</i>						
Operatives .. .. .	711	3,753	2,217	7,863	2,928	11,616
Administrative, etc.*	58	644	84	420	142	1,064
TOTAL .. .. .	769	4,397	2,301	8,283	3,070	12,680
<i>Scotland :—</i>						
Operatives .. .. .	8	27	28	80	36	107
Administrative, etc.*	—	9	1	5	1	14
TOTAL .. .. .	8	36	29	85	37	121
<i>Great Britain :—</i>						
Operatives .. .. .	719	3,780	2,245	7,943	2,964	11,723
Administrative, etc.*	58	653	85	425	143	1,078
TOTAL .. .. .	777	4,433	2,330	8,368	3,107	12,801

\* Administrative, technical and clerical staff.

B.—OPERATIVES EMPLOYED IN ONE WEEK IN EACH MONTH OF 1924  
(EXCLUDING OUTWORKERS).

*England and Wales. (Annual average : Males, 3,729 ; Females, 7,790 ; Total, 11,519.)*

Week ended.	Males.	Females.	Total.	Week ended.	Males.	Females.	Total.
Jan. 12th ..	3,659	7,635	11,294	July 19th ..	3,743	7,737	11,480
Feb. 16th ..	3,684	7,721	11,405	Aug. 16th ..	3,719	7,688	11,407
Mar. 15th ..	3,761	7,760	11,521	Sept. 13th ..	3,730	7,775	11,505
April 12th ..	3,762	7,928	11,690	Oct. 18th ..	3,753	7,863	11,616
May 17th ..	3,768	8,036	11,804	Nov. 15th ..	3,743	7,807	11,550
June 21st ..	3,711	7,836	11,547	Dec. 13th ..	3,718	7,693	11,411

*Scotland. (Annual average : Males, 27 ; Females, 91 ; Total, 118.)*

Week ended.	Males.	Females.	Total.	Week ended.	Males.	Females.	Total.
Jan. 12th ..	26	83	109	July 19th ..	27	105	132
Feb. 16th ..	27	82	109	Aug. 16th ..	26	87	113
Mar. 15th ..	26	88	114	Sept. 13th ..	27	88	115
April 12th ..	34	93	127	Oct. 18th ..	27	80	107
May 17th ..	27	107	134	Nov. 15th ..	26	87	113
June 21st ..	26	107	133	Dec. 13th ..	26	87	113

*Great Britain. (Annual average : Males, 3,756 ; Females, 7,881 ; Total, 11,637.)*

Week ended.	Males.	Females.	Total.	Week ended.	Males.	Females.	Total.
Jan. 12th ..	3,685	7,718	11,403	July 19th ..	3,770	7,842	11,612
Feb. 16th ..	3,711	7,803	11,514	Aug. 16th ..	3,745	7,775	11,520
Mar. 15th ..	3,787	7,848	11,635	Sept. 13th ..	3,757	7,863	11,620
April 12th ..	3,796	8,021	11,817	Oct. 18th ..	3,780	7,943	11,723
May 17th ..	3,795	8,143	11,938	Nov. 15th ..	3,769	7,894	11,663
June 21st ..	3,737	7,943	11,680	Dec. 13th ..	3,744	7,780	11,524

## C.—NUMBER OF OUTWORKERS AT TWO SPECIFIED PERIODS IN 1924.

Country.	January.			July.		
	Males.	Females.	Total.	Males.	Females.	Total.
England and Wales* ..	53	529	582	36	559	595

\* No outworkers were recorded as employed in Scotland.

## IV.—Mechanical Power.

PARTICULARS OF PRIME MOVERS, ELECTRIC GENERATORS  
AND ELECTRIC MOTORS.

Power Equipment.	England and Wales.		Scotland.		Great Britain.	
	Ordinarily in use.	In reserve or idle.	Ordinarily in use.	In reserve or idle.	Ordinarily in use.	In reserve or idle.
	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.
<b>PRIME MOVERS :—</b>						
Reciprocating steam engines .. ..	460	47	—	—	460	47
Gas engines .. ..	2,526	401	6	4	2,532	405
Petrol and light oil engines .. ..	26	—	—	—	26	—
Heavy oil engines ..	220	—	—	—	220	—
Water power .. ..	87	—	—	—	87	—
<b>TOTAL .. ..</b>	<b>3,319</b>	<b>448</b>	<b>6</b>	<b>4</b>	<b>3,325</b>	<b>452</b>
<b>TOTAL OF PRIME MOVERS INSTALLED .. ..</b>	<b>3,767</b>		<b>10</b>		<b>3,777</b>	
	Kw.	Kw.	Kw.	Kw.	Kw.	Kw.
<b>ELECTRIC GENERATORS :—</b>						
<b>Driven by—</b>						
Reciprocating steam engines .. ..	31	—	—	—	31	—
Gas engines .. ..	317	107	—	—	317	107
Petrol and light oil engines .. ..	2	—	—	—	2	—
Heavy oil engines..	50	—	—	—	50	—
Water power .. ..	6	—	—	—	6	—
<b>TOTAL .. ..</b>	<b>406</b>	<b>107</b>	<b>—</b>	<b>—</b>	<b>406</b>	<b>107</b>
<b>TOTAL OF ELECTRIC GENERATORS INSTALLED</b>	<b>513</b>		<b>—</b>		<b>513</b>	
	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.
<b>ELECTRIC MOTORS :—</b>						
<b>Driven by—</b>						
Electricity generated in own works ..	424	14	—	—	424	14
Purchased electricity	3,382	465	11	—	3,393	465