

SECTION III.—VALUE ADDED IN PROCESS OF MANUFACTURE.

1. **General.**—In the table on pages 16 to 21 particulars are given of manufacturing industries in the Commonwealth under the nineteen main groups and ninety-six sub-classes referred to on page 4 hereinbefore. The figures given in this table refer generally to the whole year 1912, and are obtained mainly from the ordinary annual returns collected from manufacturing establishments. The columns headed "Average Rates of Wages" refer, however, to the week ended the 30th November, 1912, only, the particulars given therein being obtained from the special inquiry referred to in the preceding pages. It will be seen later that by combining the results of these two inquiries, viz., (a) the ordinary annual statistics, and (b) the special inquiry regarding wages, certain data are obtained which form the basis for an analysis of the relations between the added value, rates of wages, capital invested, etc. This analysis is now being undertaken.

The columns headed "Number of Employees" refer to the average number employed during the whole year, and include managers, overseers, clerks, and all other workers, except working proprietors. The average rates of wages per week are the weighted averages computed from the wages inquiry for November, 1912, the yearly rate being obtained by multiplying the weekly rate by fifty-two. The capital invested includes value of land, buildings, plant and machinery, but does not include value of raw material, stock in hand, etc., and other items, all of which may be designated as floating capital. The value of the output represents the total market value of the manufactured products as they leave the factories, while the added value (or net output, as it is sometimes called), which is the real measure of the value of production of manufacturing industries, is the difference between the total value of output and the value of the raw material used or worked up, and therefore represents the amount added to the value of raw materials in the process of manufacture. In each case (except rates of wages) the "average per employee," is obtained by dividing the aggregate quantities or values by the total average number of employees. In the present section of this report it is proposed to furnish further tabulations regarding the matter of "added value."

MANUFACTURING INDUSTRIES

INDUSTRY.	Number of Establishments	NO OF EMPLOYEES.			AVERAGE RATES OF WAGES.								
		Males.	Females.	Total.	PER WEEK.			PER ANNUM.					
					Males.	Females.	Person.	Males.	Females.	Person.			
				s.	d.	s.	d.	s.	d.	£	£	£	
I.—TREATING RAW MATERIAL, ETC.													
SUB-CLASS													
1—Boiling-Down and Bone Mills	89	793	14	807	50	0	20	0	49	11	130.00	52.00	129.78
2—Tanneries	174	2,859	20	2,879	45	9	23	6	45	7	118.95	61.10	118.52
3—Fellmongeries	120	2,358	66	2,423	47	3	18	2	46	4	122.85	47.23	120.47
4—Chaff Cutting	455	2,049	22	2,071	44	2	24	0	44	2	114.82	62.40	114.82
5—Bark Mills	21	197	..	197	47	0	..	..	47	0	122.20	..	122.20*
6—Catgut, Sausage Casings	12	388	2	390	46	7	..	..	46	7	121.12	..	121.12*
TOTAL	871	8,644	123	8,767	46	4	19	4	45	0	120.47	50.27	119.60
II.—OILS AND FATS.													
SUB-CLASS													
1—Oil, Grease, Glue	25	294	8	302	46	1	15	4	45	3	119.82	39.87	117.65
2—Soap, Candles	77	1,461	270	1,731	41	2	16	3	37	5	107.03	42.25	97.28
TOTAL	102	1,755	278	2,033	42	2	16	3	38	10	109.63	42.25	100.97
III.—STONE, CLAY, GLASS, ETC.													
SUB-CLASS													
1—Bricks, Pottery, etc.	437	7,091	83	7,174	52	4	19	5	52	0	136.07	50.48	135.20
2—Glass Bottles	21	1,884	2	1,886	47	4	17	6	47	3	123.07	45.50	122.85
3—Glass Beveling	44	810	8	818	47	3	20	0	47	2	122.85	52.00	122.64
4—Lime, Cement, Asphalt	90	1,863	7	1,870	52	1	..	..	52	1	135.42	..	135.42
5—Marble, Stone Dressing	75	756	4	760	58	0	..	..	58	0	137.40	..	137.40
6—Modelling	18	152	2	154	49	1	20	5	48	6	127.62	53.08	126.10
7—Minor Articles (n.e.i.)	4	14	..	14	50	11	..	..	50	11	132.38	..	132.38
TOTAL	709	12,170	106	12,276	51	3	19	6	51	1	133.25	50.70	132.82
IV.—WORKING IN WOOD.													
SUB-CLASS													
1—Cooperage	53	491	2	493	54	4	..	..	54	4	141.27	..	141.27
2—Saw Milling, Joinery, etc.	1,609	27,600	163	27,763	51	4	21	1	51	4	133.47	54.82	133.47
3—Wood Turning, etc.	75	452	14	466	42	2	13	10	41	5	109.93	35.97	107.68
4—Minor Articles (n.e.i.)	10	193	5	198	43	2	19	10	42	8	112.23	51.57	110.93
TOTAL	1,747	28,736	184	28,920	51	3	19	2	51	2	133.25	49.83	133.03
V.—METAL WORKS, MACHINERY, ETC.													
SUB-CLASS													
1—Agricultural Implements	159	4,523	32	4,555	46	11	10	9	46	10	121.98	26.00	121.77
2—Hross, Copper Smithing	99	1,327	37	1,364	41	4	15	10	38	11	107.47	41.17	101.18
3—Cutlery	23	86	4	90	49	0	18	9	47	10	127.40	48.75	124.37
4—Engineering	877	24,002	109	24,111	48	5	20	8	48	4	125.88	53.73	125.67
5—Tinmithing, Sheet Iron, etc.	311	4,928	255	4,883	42	9	16	1	41	7	111.15	41.82	108.12
6—Lead, Shot, Zinc, etc.	6	56	1	57	55	4	..	..	55	4	143.87	..	143.87
7—Cyanide	83	929	1	930	43	2	..	..	43	2	125.23	..	125.23*
8—Smelting	81	6,984	6	6,990	64	3	..	..	64	3	167.05	..	167.05
9—Railway Workshops	73	19,623	31	19,654	54	7	30	4	54	7	141.92	78.87	141.92
10—Stoves, Ovens	42	942	7	949	47	7	..	..	47	7	123.72	..	123.72
11—Wire-working	43	980	24	1,004	47	3	22	10	46	10	122.85	50.37	121.77
TOTAL	1,779	64,080	587	64,647	51	11	17	6	51	8	134.98	45.50	134.33

* The annual rates of wages are computed by multiplying the weekly weighted average wage by 52. No allowance in those industries which are peculiarly subject to such cessations, the percentage or average annual rates of wages to the average annual earnings (obtained by dividing the total amount of wages paid by the average number of earnings per employee in the following industries were: Bark Mills, 47; Catgut, Sausage Casings, 111; and Cyaniding compared with average annual rates of wages, 122, 121, and 125 respectively.

IN COMMONWEALTH, 1912.

CAPITAL INVESTED.		VALUE OF OUTPUT.		ADDED VALUE.		ADDED VALUE EXCLUSIVE OF FUEL & LIGHT		HORSE POWER USED		Percentage of Rate of Wage to Total Value of Output.	Percentage of Rate of Wage to Added Value.	Sub-class
Total	Average per Employee	Total.	Average per Employee.	Total.	Average per Employee	Total.	Average per Employee.	Total.	Average per Employee	%	%	
£	£	£	£	£	£	£	£	H.P.	H.P.	%	%	
234,074	290.05	1,063,683	1318.07	216,226	270.41	193,251	239.47	1,775	2,199.4	9.8	48.1	1
617,993	214.44	2,834,007	984.37	617,302	214.41	595,961	207.00	3,274	1,137.2	12.0	55.6	2
616,158	254.20	4,444,938	1834.47	585,738	241.74	554,203	228.78	3,831	1,581.1	6.6	49.0	3
419,684	202.65	2,068,750	998.91	383,640	185.24	365,608	176.54	3,833	1,874.9	11.5	62.2	4
26,965	136.86	142,889	725.32	20,680	104.97*	19,809	100.55	415	2,106.6	16.8	116.2	5
16,913	43.36	99,281	254.56	49,004	125.65*	48,805	125.14	..	..	47.6	95.2	6
1,931,187	220.27	10,653,548	1215.18	1,874,590	213.82	1,777,727	202.77	13,178	1,503.1	9.8	55.9	
157,747	522.34	529,230	1752.41	83,662	276.03	78,141	258.75	288	0,953.6	6.7	42.8	1
708,937	409.55	1,614,898	932.92	584,128	337.45	553,232	319.60	1,274	0,735.9	10.4	28.8	2
866,684	426.36	2,144,128	1054.66	607,790	328.47	631,373	310.56	1,562	0,768.3	9.6	30.7	
1,814,450	254.66	1,853,546	258.37	1,681,790	234.43	1,410,491	197.96	12,872	1,806.5	52.3	57.7	1
136,293	72.26	377,623	200.22	322,849	171.18	270,529	143.44	350	0,185.5	61.4	71.9	2
133,603	216.18	254,862	412.39	137,643	222.72	135,354	219.02	265	0,428.8	20.7	55.2	3
620,161	376.74	701,336	419.06	536,133	322.23	454,720	272.29	6,983	4,181.4	32.3	41.9	4
129,027	160.77	260,318	354.36	161,729	212.80	159,089	209.33	630	0,828.0	38.9	64.8	5
27,332	134.64	47,077	305.69	32,398	210.37	32,276	209.59	10	0,049.2	41.3	60.0	6
3,370	255.00	3,951	282.21	2,322	165.85	2,255	161.07	53	3,785.7	46.0	79.5	7
2,873,445	234.07	3,507,713	285.73	2,876,864	234.34	2,464,714	200.78	21,163	1,723.9	46.6	56.6	
107,014	217.00	162,549	329.71	81,771	165.86	80,198	162.67	376	0,762.6	42.8	84.9	1
4,110,703	148.38	9,832,810	355.97	4,982,198	179.45	4,938,285	177.87	40,266	1,450.3	37.5	74.3	2
106,490	229.01	146,974	315.40	81,341	178.84	80,606	173.10	670	1,437.7	34.1	60.3	3
46,183	233.24	88,951	449.24	48,482	244.85	46,192	234.30	325	1,641.4	24.7	45.3	4
4,379,399	151.43	10,231,484	355.51	5,195,792	179.66	5,145,541	177.92	41,637	1,439.7	37.4	74.0	
613,271	134.83	1,538,421	337.74	786,825	172.73	755,864	165.94	2,419	0,531.0	36.1	70.5	1
212,796	156.01	344,916	252.87	204,265	149.75	196,850	144.32	547	0,401.0	40.0	67.3	2
28,856	320.02	24,073	258.36	18,046	210.51	18,204	204.27	100	1,111.1	48.5	58.8	3
3,745,647	154.96	7,030,060	328.08	4,393,821	181.73	4,198,152	173.68	18,744	0,775.4	38.3	69.2	4
680,595	141.22	1,802,700	369.17	774,920	158.69	763,131	156.23	1,292	0,264.5	29.3	67.9	5
50,260	88.18	156,962	275.71	21,438	370.10	19,686	345.87	500	8,771.9	5.2	38.3	6
189,502	203.76	200,631	222.18	141,068	151.68*	119,687	128.69	332	0,356.9	56.4	82.2	7
2,267,223	324.35	12,800,439	1344.12	4,149,706	593.66	3,471,372	496.62	23,585	3,374.1	9.1	28.1	8
3,691,953	187.84	5,605,221	289.77	3,129,484	158.77	3,045,008	154.93	9,637	0,490.3	49.0	89.3	9
128,652	135.56	300,621	316.77	188,318	198.43	184,792	194.72	415	0,437.3	39.1	62.6	10
206,177	205.36	557,271	556.06	212,605	211.75	208,987	207.25	601	0,658.3	21.9	57.5	11
11,746,074	181.69	31,446,315	480.43	14,012,456	216.75	12,980,923	200.80	58,232	0,900.7	27.6	62.0	

has been made for cessation of work owing to seasonal slackness or for short time, etc., per employee. It follows that total value and added value is abnormally high. This is further illustrated by the fact that in certain industries (employees) are considerably lower than the average annual rates of wages. For example, during 1912, the average 5112 (representing 42.6 per cent, 83.1 per cent, and 73.8 per cent. of the added value per employee respectively).

Manufacturing Industries

INDUSTRY.	Number of Establishments.	NO OF EMPLOYEES.			AVERAGE RATES OF WAGES.								
		Males	Females.	Total.	PER WEEK.			PER ANNUM.					
					Males.	Females.	Person.	Males.	Females.	Person.			
s. d.	s. d.	s. d.	£	£	£								
VI.—FOOD AND DRINK, ETC.													
SUB-CLASS													
1—Bacon	78	954	20	974	40 10	30 0	40 10	129.57	78.00	120.57			
2—Butter, Cheese	530	3,218	183	3,401	45 0	20 1	44 7	118.95	52.22	115.92			
3—Butterine, Margarine	7	71	2	73	44 1		44 1	114.62		114.62			
4—Meat Preserving, Freezing	201	6,647	170	6,817	56 6	20 3	55 4	148.90	52.65	143.87			
5—Biscuits	39	2,137	1,471	3,608	34 7	16 3	27 5	89.02	42.25	71.28			
6—Confectionery	96	1,900	1,844	3,544	39 9	15 3	26 6	103.35	39.65	85.90			
7—Oatmeal, Macaroni	53	719	508	1,227	41 6	19 0	32 8	107.00	40.40	84.93			
8—Flour Mills	227	2,682	55	2,737	48 6	19 6	48 6	126.10	50.70	126.10			
9—Jams, Pickles, and Sauces	183	2,410	1,074	3,384	38 7	21 3	30 7	100.32	55.25	79.52			
10—Sugar Mills	50	4,331	12	4,343	40 9	28 5	46 9	121.55	73.88	121.55			
11—Sugar Refineries	6	1,556	52	1,608	48 4	18 8	47 6	125.97	48.53	123.60			
12—Aerated Waters	648	3,500	267	3,767	40 1	18 0	38 7	104.22	46.80	100.32			
13—Breweries	110	3,457	7	3,464	49 10		40 10	129.57		129.57			
14—Condiments, Coffee, etc.	46	637	397	1,034	36 0	17 5	28 7	93.69	45.28	74.32			
15—Distilleries	20	148		148	52 1		52 1	135.42		135.42			
16—Malt	37	374	2	376	51 2		51 2	133.03		133.03			
17—Tobacco	35	1,822	1,637	3,459	52 8	30 6	41 9	130.93	79.30	108.55			
18—Salt	6	341	1	342	61 1		51 1	132.82		132.82			
TOTAL	2,311	36,904	8,402	45,306	46 4	20 7	41 0	120.47	53.52	107.90			
VII.—CLOTHING AND TEXTILE FABRICS, ETC.													
SUB-CLASS													
1—Woolen Cloth	23	1,387	1,967	3,354	35 0	21 6	27 1	91.00	55.90	70.42			
2—Boots and Shoes	332	8,163	4,787	12,950	47 4	20 6	37 2	123.07	53.30	90.63			
3—Clothing and Factories	1,238	6,867	22,990	29,856	49 9	21 7	27 9	129.35	56.12	72.15			
4—Dressmaking	094	265	17,416	17,681	50 7	17 8	18 6	131.52	45.93	48.10			
5—Dye-works	24	110	120	230	43 6	10 11	30 10	113.10	51.78	80.17			
6—Furrier	24	76	168	244	45 3	21 4	28 2	117.65	55.47	73.23			
7—Caps and Hats	81	1,272	2,290	3,562	50 5	22 1	32 7	131.04	57.42	84.72			
8—Waterproof Oilskins	10	92	341	433	50 7	22 4	28 3	131.47	58.07	73.45			
9—Hosiery	293	531	10,680	11,211	42 5	19 0	20 2	110.28	49.40	52.43			
10—Bags, Sacks, Mats, Rope, Twine	33	884	422	1,306	35 0	17 11	27 10	92.30	46.58	72.37			
11—Sails, Tents, Tarpaulins	55	353	399	752	42 10	21 11	32 7	111.37	56.98	84.72			
12—Corsets, Ostrich Feathers	5	8	118	126	37 3	18 5	19 11	96.85	47.88	51.78			
TOTAL	3,112	20,008	61,716	81,724	46 10	19 9	28 2	121.77	51.35	68.03			
VIII.—BOOKS, PAPER, PRINTING, ETC.													
SUB-CLASS													
1—Printing, Electro., Stereos.	1,031	16,067	4,398	20,465	48 2	17 7	40 8	125.23	45.72	105.72			
2—Paper, Paper Bags and Boxes	72	1,056	1,730	2,786	42 3	17 4	24 10	109.85	45.07	64.57			
3—Photo, Engraving, Lithography	20	311	23	334	44 10	26 5	43 10	116.57	68.68	113.97			
4—Die Sinking, Ink, Printers' Ink	26	201	9	210	40 7	14 7	37 0	105.52	37.92	96.20			
TOTAL	1,158	17,635	6,160	23,804	47 0	17 6	39 4	124.15	45.50	102.27			
IX.—MUSICAL INSTRUMENTS													
TOTAL	21	558	51	609	52 5	19 5	50 1	136.28	50.48	130.22			
X.—ARMS, EXPLOSIVES, ETC.													
TOTAL	16	407	480	887	52 2	28 10	40 4	135.63	74.97	104.87*			
XI.—VEHICLES, SADDLERY, HARNESS, ETC.													
SUB-CLASS													
1—Coaches, Waggons, Carriage Lamps	776	6,863	43	6,906	42 4	17 0	42 4	110.07	44 20	110.07			
2—Cycles	243	2,503	64	2,567	43 9	21 0	43 7	113.75	54.60	113.32			
3—Perambulators	12	185	8	193	38 8	26 9	38 5	100.53	69.55	99.88			
4—Saddlery, Harness, Whips	218	2,117	188	2,305	44 1	19 9	42 3	114.62	51.35	109.85			
TOTAL	1,249	11,668	303	11,971	42 11	19 11	42 6	111.58	51.78	110.50			

† See footnote * on pages 16 and 17, the figures relate mainly to the Commonwealth Small

VALUE ADDED IN PROCESS OF MANUFACTURE.

in Commonwealth, 1912.—Continued.

CAPITAL INVESTED.		VALUE OF OUTPUT.		ADDED VALUE.		ADDED VALUE EXCLUSIVE OF FUEL & LIGHT.		HORSE POWER USED		Per-cent- age of Rate of Wage to Total Value of Out-put.	Per-cent- age of Rate of Wage to Added Value.	Sub- Class
Total	Average per Em- ployee.	Total	Average per Em- ployee.	Total	Average per Em- ployee	Total	Average per Em- ployee	Total	Average per Em- ployee	%	%	
£		£	£	£	£	£	£	H.P.	H.P.			
330,076	338.88	1,707,947	1753.53	352,546	361.95	338,444	347.47	1,285	1,3193	7.4	35.9	1
1,448,595	425.93	9,760,205	2869.83	1,083,859	318.68	1,013,704	298.06	7,093	2,0855	4.0	36.4	2
15,772	216.05	143,213	1961.82	34,653	474.69	33,394	457.45	118	0.1616	5.8	24.2	3
2,685,226	393.90	8,351,250	1225.06	1,742,531	255.61	1,618,064	237.44	15,912	2,3341	11.7	56.2	4
470,548	130.41	1,518,488	420.86	586,927	162.67	563,723	156.24	1,583	0.4387	16.9	43.6	5
523,999	147.85	1,553,407	438.32	603,927	170.47	586,330	165.44	1,270	0.3583	15.7	40.6	6
437,532	356.58	797,387	649.86	214,627	174.92	203,494	165.85	2,157	1.7579	13.1	48.6	7
1,809,315	661.05	7,646,303	2793.68	1,281,463	468.10	1,205,899	440.59	14,847	5.4246	4.5	28.9	8
453,511	103.44	1,884,045	429.75	607,865	138.65	589,027	134.36	1,296	0.2956	18.5	57.6	9
2,655,000	611.32	1,605,588	369.09	752,704	173.31	712,184	163.98	12,077	2.9880	32.9	70.5	10
1,361,254	846.61	3,849,548	2393.99	591,780	368.02	539,322	335.39	3,628	2.2562	5.2	33.7	11
971,223	275.82	1,603,956	425.79	1,010,734	288.31	994,387	263.97	2,333	0.6193	23.6	37.3	12
2,605,353	752.12	3,647,850	1053.07	2,153,780	621.76	2,076,374	599.56	5,678	1.6391	12.3	20.9	13
266,712	257.94	1,202,055	1162.52	264,114	255.42	258,438	249.94	1,009	0.9758	6.4	29.0	14
289,699	1957.42	221,943	1499.61	117,932	796.84	82,239	555.67	525	3.5472	9.0	16.9	15
309,266	822.51	711,702	1892.82	153,344	407.82	142,191	378.17	506	1.3457	7.0	32.6	16
576,316	166.61	2,096,157	779.46	1,073,444	310.33	1,069,177	309.10	917	0.2661	13.9	35.2	17
79,298	231.86	132,170	386.46	76,389	223.35	73,116	213.79	475	1.3888	34.4	59.6	18
17,288,801	381.60	49,033,214	1082.26	12,702,820	280.37	12,100,607	267.09	73,609	1.6247	10.0	38.5	
804,876	239.97	930,485	277.42	461,757	137.67	439,048	130.90	3,692	1.1067	25.4	50.7	1
996,673	76.96	3,819,371	294.03	1,634,621	126.22	1,617,377	124.89	2,646	0.2043	32.8	77.0	2
2,329,340	77.99	5,607,431	104.44	3,110,444	104.14	3,080,894	103.16	1,206	0.0403	37.1	69.2	3
952,697	53.88	2,429,315	137.39	1,179,385	66.70	1,170,242	66.19	371	0.0209	35.0	71.6	4
55,724	233.15	52,080	221.67	41,247	172.58	30,305	164.46	106	0.4435	36.2	46.2	5
24,508	100.44	77,991	319.03	34,048	139.54	33,796	138.51	16	0.0655	29.9	52.2	6
352,313	98.91	830,746	233.22	465,954	130.81	454,893	127.71	1,108	0.3110	36.3	64.9	7
53,061	122.54	126,361	291.82	64,527	125.92	53,821	124.29	39	0.0906	25.2	57.9	8
570,564	50.89	1,889,697	198.55	764,987	68.15	751,612	67.04	1,152	0.1027	31.1	76.5	9
292,701	224.12	627,126	480.18	208,598	159.72	202,711	155.21	2,088	1.5987	15.1	45.0	10
109,380	145.46	456,375	606.88	126,029	167.59	124,887	166.07	160	0.2127	14.0	50.6	11
7,056	56.00	20,371	165.64	9,768	77.52	9,629	76.42			31.3	66.7	12
6,548,911	80.13	17,068,745	208.85	8,090,465	98.99	7,978,215	97.62	12,584	0.1539	32.6	68.7	
5,119,608	250.16	6,146,846	300.36	4,243,212	207.34	4,172,283	203.88	8,567	0.4186	35.2	51.2	1
508,851	182.05	680,173	243.35	350,752	125.49	335,292	119.96	2,026	0.7248	26.5	52.0	2
97,959	233.29	83,767	250.80	65,371	195.72	63,745	190.85	119	0.3562	45.4	58.2	3
51,070	240.04	76,427	363.03	41,433	107.30	40,419	192.47	127	0.6047	26.4	48.7	4
5,778,083	242.73	6,937,213	293.53	4,700,768	197.47	4,611,739	193.74	10,839	0.4553	34.8	51.8	1
106,891	175.19	203,063	333.43	116,450	101.21	115,937	100.27	547	0.8981	39.1	68.1	1
271,123	305.66	233,362	263.77	88,459	99.73*	84,864	95.67	552	0.6223	39.8	103.0†	
1,024,020	148.28	1,802,524	261.01	1,088,297	157.58	1,063,512	153.99	2,151	0.3114	42.2	69.6	1
613,065	238.82	649,654	253.08	413,256	100.08	404,041	157.89	739	0.2378	44.8	70.2	2
21,347	110.60	52,948	274.34	24,781	128.30	24,626	127.59	23	0.1191	36.4	78.1	3
325,989	141.42	703,317	305.12	373,149	161.88	371,914	161.35	124	0.0537	36.0	67.0	4
1,984,421	165.77	3,208,443	268.01	1,890,483	158.67	1,864,093	155.72	3,037	0.2537	41.2	69.6	

Arms Factory, which is not necessarily worked for a profit.

Manufacturing Industries

INDUSTRY.	Number of Establishments.	NO OF EMPLOYEES.			AVERAGE RATES OF WAGES.					
		Males.	Females.	Total.	PER WEEK.			PER ANNUM.		
					Males.	Females.	Per. Or.	Males.	Females.	Person.
XII.—SHIP AND BOAT BUILDING.										
SUB-CLASS										
1—Dock Ships	21	1,501	..	1,501	57 2	..	57 2	148.63	..	148.63
2—Ship Building	76	2,226	1	2,227	51 6	..	51 6	133.90	..	133.90
TOTAL	97	3,727	1	3,728	55 6	..	55 5	144.08	..	144.08
XIII.—FURNITURE, BEDDING, ETC.										
SUB-CLASS										
1—Bedding, Upholstery, etc.	113	1,336	539	1,875	45 9	21 6	39 9	118.95	55.90	163.85
2—Furniture, Billiard Tables, Cabinet Makers	480	6,985	178	7,163	49 5	21 8	48 5	128.48	56.33	125.58
3—Picture Framing	61	426	96	522	40 7	19 7	37 4	105.52	50.92	97.07
4—Venetian Blinds	16	98	7	105	38 6	18 9	37 2	100.10	48.75	96.63
TOTAL	670	8,845	820	9,665	48 4	21 4	46 4	125.67	55.47	120.47
XIV.—DRUGS AND CHEMICALS.										
SUB-CLASS										
1—Chemical Works	78	1,546	694	2,240	47 8	15 10	30 4	123.93	41 17	102.27
2—Fertilizers	16	743	9	752	51 10	9 0	51 9	134.77	23.40	134.55
3—Paint, Varnish, White Lead	36	336	159	495	43 0	15 1	38 9	111.80	39.22	100.75
4—Essential Oils	32	162	3	165	37 8	20 4	33 8	97.93	52.87	87.53
5—Blacking, Blue	40	325	248	573	37 7	17 9	25 5	97.72	46.15	66.08
TOTAL	202	3,112	1,113	4,225	46 0	16 11	36 8	119.60	43.98	95.33
XV.—SURGICAL AND OTHER SCIENTIFIC INSTRUMENTS.										
44	182	29	211	42 9	25 8	41 0	111.15	66.73	106.60	
XVI.—TIMEPIECES, JEWELLERY AND PLATED WARE.										
SUB-CLASS										
1—Electroplating	42	309	20	329	42 1	18 7	41 4	109.42	48 32	107.47
2—Jewellery	175	1,608	184	1,792	50 2	26 0	48 0	130.43	67.60	124.80
TOTAL	177	1,917	204	2,121	48 9	25 6	46 11	126.75	66.30	121.98
XVII.—HEAT, LIGHT AND POWER.										
SUB-CLASS										
1—Electric Apparatus	44	611	7	618	42 11	21 3	42 10	111.58	55 25	111.37
2—Electric Light	179	2,628	15	2,643	56 0	..	56 0	145.60	..	145.60
3—Gas, Coke	136	4,643	116	4,659	54 5	..	54 5	141.48	..	141.48
4—Lamp-makers	5	47	60	107	53 0	17 9	29 7	137.80	46.15	76.92
5—Hydraulic Power	3	34	..	34	58 4	..	58 4	151.66	..	151.66
6—Minor Articles (n.e.i.)	5	110	295	405	50 7	20 7	33 3	131.52	53 52	86.45*
TOTAL	372	8,073	393	8,466	53 10	19 6	53 2	139.97	50 70	138.23
XVIII.—LEATHERWARE (N.E.I.)										
66	825	330	1,155	39 1	19 2	33 3	101.62	49 83	86.45	
XIX.—MINOR WARES (N.E.I.)										
SUB-CLASS										
1—Basket, Wickerware	33	379	17	396	37 6	17 5	36 3	97.50	45 28	94 25
2—Brooms, Brushware	57	654	128	782	38 11	19 0	35 5	101.18	49 40	92.08
3—Rubber Goods	21	1,100	346	1,452	45 10	22 11	40 6	119.17	50 58	105 30
4—Umbrellas	19	112	251	363	36 0	19 9	24 4	93.60	51.35	69.67
5—Minor Articles (n.e.i.)	25	96	73	169	44 4	14 8	31 6	115.27	38 13	81.95
TOTAL	155	2,347	815	3,162	42 3	19 10	35 2	109.85	51 57	91.43
ALL CLASSES	14,878	231,593	82,084	313,677	49 3	19 8	41 6	128.05	51.13	107.90

* See footnote on pages 16 and 17. The actual earnings in this Sub-Class in 1912 averaged £122 for Males, £43 for

VALUE ADDED IN PROCESS OF MANUFACTURE.

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in Commonwealth, 1912.—Continued.

CAPITAL INVESTED.		VALUE OF OUTPUT.		ADDED VALUE.		ADDED VALUE EXCLUSIVE OF FUEL & LIGHT		HORSE POWER USED		Per-centage of Rate of Wage to Total Value of Out-put.	Per-centage of Rate of Wage to Added Value.	Sub-Class
Total.	Average per Em- ployee.	Total.	Average per Em- ployee.	Total.	Average per Em- ployee.	Total.	Average per Em- ployee.	Total.	Average per Em- ployee.			
£	£	£	£	£	£	£	£	H.P.	H.P.	%	%	
1,633,617	1021.66	290,076	193.25	248,793	165.76	241,938	161.18	3,307	2,2032	76.9	89.8	1
325,913	146.34	560,841	251.83	367,313	164.93	301,994	162.55	1,149	0.5159	53.2	81.2	2
1,850,430	498.77	850,917	228.25	616,106	165.26	603,932	162.00	4,456	1.1052	63.1	87.2	
198,393	105.80	790,206	421.49	299,339	159.64	293,098	156.32	835	0.4453	24.5	64.4	1
905,578	126.42	1,942,149	271.13	1,128,856	157.59	1,114,547	155.59	3,508	0.4897	46.4	79.7	2
123,131	245.46	165,642	317.32	83,301	159.58	82,036	157.15	156	0.2969	30.6	60.6	3
20,789	197.99	35,776	340.72	18,020	177.42	16,492	176.11	46	0.4380	28.4	54.8	4
1,252,891	129.63	2,933,863	309.56	1,530,125	158.31	1,508,173	156.05	4,544	0.4701	39.7	76.1	
794,016	354.47	1,476,074	658.96	671,851	299.93	646,868	288.78	2,097	0.9361	15.5	34.0	1
411,014	548.56	495,761	659.26	150,796	240.39	170,238	226.38	1,995	2.8529	20.4	56.3	2
122,579	247.63	228,857	462.34	109,590	221.39	107,462	217.19	721	1.4565	21.8	45.7	3
7,980	46.54	34,465	208.88	22,556	138.70	25,264	134.03	59	0.3575	41.9	64.2	4
117,642	205.13	442,449	772.16	139,073	242.71	136,914	238.94	368	0.6422	8.6	27.2	5
1,452,831	343.86	2,977,606	633.75	1,123,776	265.98	1,083,736	256.51	5,240	1.2402	15.0	35.9	
70,923	336.12	59,667	282.78	42,284	200.40	41,534	196.84	55	0.2606	37.7	53.5	1
92,993	282.65	76,505	233.41	60,084	182.62	57,703	175.39	262	0.7963	46.0	58.5	1
313,104	174.72	723,526	403.75	358,108	199.83	354,305	197.72	279	0.1556	30.9	62.5	2
406,097	191.46	800,121	377.23	418,192	197.16	412,008	194.25	541	0.2550	32.3	61.0	
110,455	178.73	161,154	260.76	89,670	145.09	87,517	141.61	280	0.4536	42.7	76.6	1
4,435,739	1078.39	1,941,421	734.56	1,888,943	714.69	1,415,912	535.72	32,137	49.9951	19.8	20.4	2
5,091,685	1092.87	2,630,578	564.62	1,809,614	368.41	1,731,814	371.71	4,166	0.8941	25.1	36.3	3
30,911	283.28	39,784	371.81	25,768	240.82	25,433	237.60	24	0.2243	20.7	32.0	4
124,445	3660.15	44,378	1305.24	38,781	1140.62	34,808	1026.41	1,350	39.7058	11.6	13.3	5
111,640	276.65	84,660	209.03	32,905	81.24*	30,961	76.44	204	0.6518	41.4	106.3	*6
9,904,275	1164.80	4,901,975	579.02	3,885,681	458.98	3,326,535	392.93	138,221	16.3266	23.0	30.1	
148,341	128.43	531,323	460.02	192,049	106.27	189,702	164.24	395	0.3419	18.8	51.8	1
35,633	89.96	75,461	190.55	48,276	121.91	48,181	121.67	11	0.0277	49.5	77.0	1
75,661	96.74	236,741	302.73	98,705	126.22	97,501	124.76	167	0.2135	30.4	73.0	2
207,976	143.23	760,692	623.80	258,476	178.01	245,271	168.92	1,106	0.7617	20.1	59.0	3
49,995	137.72	133,430	367.57	41,891	115.15	41,330	113.86	25	0.0688	16.5	53.0	4
33,184	196.35	45,983	272.68	18,570	109.88	18,106	107.14	58	0.3431	30.1	45.5	5
402,439	127.27	1,252,307	396.05	465,828	147.32	450,440	142.46	1,367	0.4323	23.1	62.0	
19,272,051	220.84	148,775,467	474.29	60,499,787	192.87	57,371,802	182.90	391,759	1.2489	22.8	55.9	

Females, and £85 for All Persons employed, representing 80 per cent. of the Added Value per Employee.

2. **Classification of Employees according to Added Value.**—From the data given in the table on pages 16 to 21 the average number of employees (male and female) engaged in the various industries have been grouped according to the average added value per employee. As already pointed out, the "added" value or net-output is the difference between the total value of the output as it leaves the factories and the value of the raw materials worked up or used. The results are given in the following table, which also shows the percentage of persons whose average added value falls within each group. The average added value in each group is also given. The added value is, of course, subject to various deductions before it can be regarded as indicating the profit of manufacture.

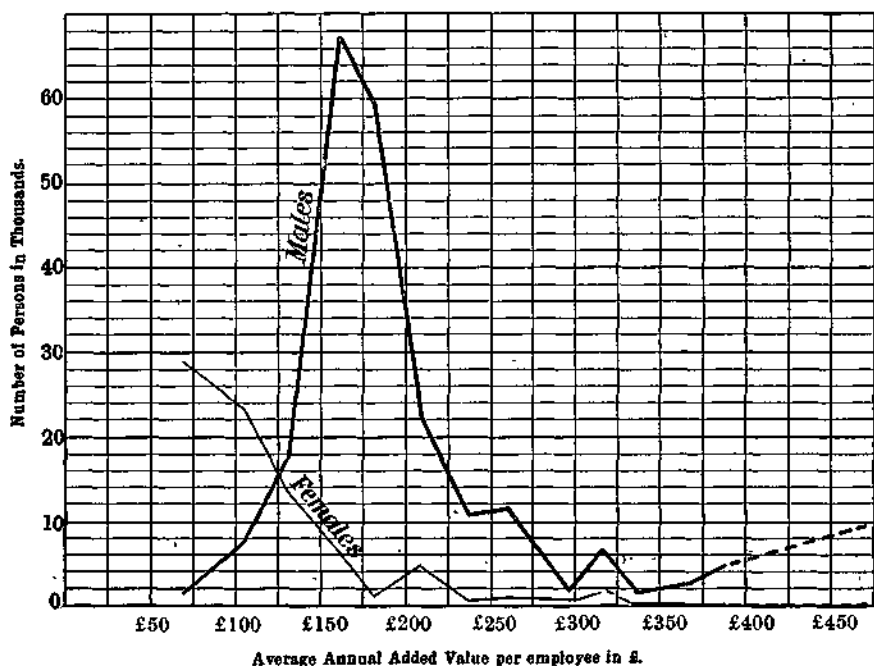
Manufacturing Industries.—Number and Percentage of Employees engaged in Industries, classified according to Added Value per Employee, 1912.

LIMITS OF ADDED VALUE PER EMPLOYEE.	Average Added Value per Em- ployee.	MALES.		FEMALES.		PERSONS.	
		Average No. Em- ployed.	Per- centage on Total Males.	Average No. Em- ployed.	Per- centage on Total Fe- males.	Average No. Em- ployed.	Per- centage on Total Persons
	£	No.	%	No.	%	No.	%
Under £100	69	1,321	0.57	28,989	35.32	30,310	9.66
£100 and under £125	105	7,651	3.30	23,340	28.44	30,991	9.88
125 " 150	131	17,783	7.68	13,451	16.39	31,234	9.96
150 " 175	161	67,308	29.07	6,347	7.73	73,655	23.48
175 " 200	182	59,236	25.59	1,015	1.24	60,251	19.21
200 " 225	209	22,369	9.66	4,649	5.66	27,018	8.61
225 " 250	237	10,757	4.64	470	0.57	11,227	3.58
250 " 275	260	11,577	5.00	848	1.03	12,425	3.96
275 " 300	297	1,840	0.79	702	0.85	2,542	0.81
300 " 325	316	6,703	2.89	1,827	2.23	8,530	2.72
325 " 350	337	1,461	0.63	270	0.33	1,731	0.55
350 " 375	366	2,510	1.08	72	0.09	2,582	0.82
375 " 400	388	4,699	2.03	17	0.02	4,716	1.51
400 and over	596	16,378	7.07	87	0.10	16,465	5.25
	193	231,593	100.0	82,084	100.0	313,677	100.0

The number of male and female employees in each of the above groups is shown in relation to the average added value per employee in each group in the graph on page 23. As regards males, the graph shows clearly that a large proportion are engaged in industries in which the added value ranges from £150 to under £200 per annum per employee. . . . The number employed in such industries is 126,544, or 54.7 per cent. of the total number of male employees. The apparent increase at the end of the graph (shown in broken lines) in the number of males employed in industries in which a high added value is obtained is, of course, due to the fact that the whole of the em-

ployees in these industries (£400 and over) are not distributed in groups graduated according to added value. Of the females, 52,329, or 63.8 per cent., are employed in industries in which the average added value is less than £125 per annum. Taking both sexes together, out of a total number of 313,677 employees, 226,441, or 72 per cent., are engaged in industries yielding an annual added value per employee of less than £200, whilst 92,535, or nearly 30 per cent., are occupied in industries producing less than £150 per annum per employee. There is, of course, a wide divergence in the distribution in the various groups as between male and female workers. Thus the industries in which the added value is less than £150 per employee include only 26,755 males, as compared with 65,780 females, whereas industries in which the added value is £150, but less than £200, comprise as many as 126,544 males, and only 7362 females.

Manufacturing Industries.—Graph showing Number of Male and Female Employees grouped according to Added Value, 1912.



(i.) *Industries in which the Average Annual Added Value per Employee was less than £150, 1912.*—An analysis of the industries in which the average net production per employee was less than £150 per annum, shews that they comprise a considerable part of the clothing and textile manufactures. A complete list of these industries is given in the following statement, which shews the number of males and females employed in each sub-class falling within this group:—

**Manufacturing Industries in which the Average Added Value per Employee
was less than £150 per annum, 1912.**

CLASS.		INDUSTRY.	AVERAGE NO. EMPLOYED.	
No.	Sub-Class.		Males.	Females.
I.	5	Bark Mills	197	..
	6	Sausage Casings	388	2
V.	2	Brass and Copper Smithing	1,327	37
VI.	9	Jams, Pickles, etc.	2,410	1,974
VII.	1	Woollen Mills	1,387	1,967
	2	Boots and Shoes	8,163	4,787
	3	Clothing Factories	6,867	22,999
	4	Dressmaking, etc.	265	17,416
	6	Furriers	76	168
	7	Hats, Caps, etc.	1,272	2,290
	8	Waterproofs, etc.	92	341
	9	Underclothing, etc.	531	10,680
	12	Corset Making	8	118
VIII.	2	Paper, Paper Bags, etc.	1,056	1,739
X.		Arms and Explosives	407	480
XI.	3	Perambulators	185	8
XIV.	4	Essential Oils	162	3
XVII.	1	Electrical Apparatus	611	7
	6	Minor Articles, n.e.i.	110	295
XIX.	1	Basket and Wickerware	379	17
	2	Brooms and Brushware	654	128
	4	Umbrellas	112	251
	5	Minor Articles, n.e.i.	96	73

The above industries include in all 26,775 males and 65,780 females. Of the twelve sub-classes comprised in Class VII. (Clothing and Textile Fabrics) no fewer than nine are included in the above statement, and in these nine sub-classes there are 18,661 males and 60,766 females employed. In addition, it will be seen that Group VI., sub-class 9 (Jams, Pickles, etc.), and Group VIII., sub-class 2 (Paper, Paper-bags, etc.), both include a large number of females. In Group XVII., sub-class 6 (Minor Articles, n.e.i.), and Group XIX., sub-class 4 (Umbrellas), there are a larger number of females than males employed. It may be remarked that the employees comprised in Group X. (Arms and Explosives) consist mainly of workers at the Commonwealth Government small arms factory at Lithgow and the Cordite and Ammunition factory at Maribyrnong. These establishments are not necessarily run to produce profits, and the added value per employee is accordingly small.

(ii.) *Industries in which the Average Annual Added Value per Employee was £150, but less than £200, 1912.*—This group of industries includes the thirty-five sub-classes shewn in the following table, and comprises nineteen industries working in wood and metals, four in foodstuffs, three in clothing and textile fabrics, three in leatherware and rubber, and two in clay, glass, etc., together with Chaffcutting, Cyaniding, Bedding, etc., Photo-engraving, and Die-sinking. The

number of males engaged in those industries was 126,544, or 54.7 per cent., and the number of females 7362, or 9.0 per cent., of the total number of males and females, respectively, in all manufacturing industries.

Manufacturing Industries in which the Average Added Value per Employee was £150, but less than £200, 1912.

CLASS.		INDUSTRY.	AVERAGE NO. EMPLOYED.	
No.	Sub-Class.		Males.	Females.
I.	4	Chaffcutting	2,049	22
III.	2	Glass Bottles	1,884	2
	7	Minor Wares, N.E.I.	14	..
IV.	1	Cooperage	491	2
	2	Saw Mills and Joinery	27,600	163
	3	Wood Carving	452	14
V.	1	Agricultural Implements	4,523	32
	4	Engineering, etc.	24,002	169
	5	Tinamithing, etc.	4,628	255
	7	Cyaniding	929	1
	9	Railway Workshops	19,623	31
	10	Stoves, Ovens, etc.	942	7
VI.	5	Biscuits, etc.	2,137	1,471
	6	Confectionery	1,900	1,644
	7	Oatmeal and Gristing	719	508
	10	Sugar Factories	4,331	12
VII.	5	Dyeworks	110	129
	10	Rope, Twine, etc.	884	422
	11	Tents, Sails, etc.	353	399
VIII.	3	Photo. Engraving, etc.	311	23
	4	Ink, Die Sinking, etc.	201	9
IX.	1	Musical Instruments, etc.	558	51
XI.	1	Coachbuilding, etc.	6,863	43
	2	Cycles, etc.	2,503	64
	4.	Saddlery and Harness	2,117	188
XII.	1	Docks and Slips	1,501	..
	2	Ship and Boat Building	2,226	1
XIII.	1	Bedding, etc.	1,336	539
	2	Furniture, etc.	6,985	178
	3	Picture Framing	426	96
	4	Venetian Blinds	98	7
XVI.	1	Electroplating	309	20
	2	Jewellery	1,608	184
XVIII.	1	Leatherware, N.E.I.	825	330
XIX.	3	Rubber Goods	1,106	346

It will be seen, therefore, that no fewer than 133,906 persons, that is, 42.7 per cent. of the total number employed in manufacturing establishments, are engaged in industries in which the average added value was as much as £150, but less than £200 per employee. As regards males, the greatest number employed in any individual industry were in Class IV., sub-class 2 (Sawmills, Joinery, etc.), followed in the order named by Class V., sub-class 4 (Engineering, etc.); with 24,002, and sub-class 9 (Railway Workshops) with 19,623. Of the females, 3635, or nearly 50 per cent., were comprised in the four sub-classes of Class VI. (Food, Drink, etc.).

(iii.) *Industries in which the Average Annual Added Value per Employee was £200, but less than £300, 1912.*—In this group there are twenty-two industries, of which four are included in each of the Classes VI. (Food, Drink, etc.), III. (Clay, Glass, etc.), and XIV. (Drugs and Chemicals), three in Class I. (Treating Raw Materials), two in Class V. (Engineering, etc.), and one each in Classes II. (Oils and Fats), IV. (Wood Working), VIII. (Books, Printing, etc.), XV. (Surgical Instruments), and XVII. (Heat, Light, and Power). The number of persons employed in these industries was 53,212—46,543 males and 6669 females, equalling 20.0 and 8.1 per cent., respectively, of the total number engaged in all manufacturing establishments.

Manufacturing Industries in which the Average Added Value per Employee was £200, but less than £300, 1912.

CLASS.		INDUSTRY.	AVERAGE NO. EMPLOYED.	
No.	Sub-Class.		Males.	Females.
I.	1	Boiling Down, etc.	793	14
	2	Tanneries	2,859	20
	3	Fellmongery	2,358	65
II.	1	Oil, Grease and Glue	294	8
III.	1	Bricks and Pottery	7,091	83
	3	Glass Bevvollng	610	8
	5	Stone Dressing	756	4
IV.	6	Modelling	152	2
	4	Minor Articles, N.E.I.	193	5
-V.	3	Cutlery	86	4
	11	Wireworking	980	24
VI.	4	Meat Preserving, etc.	6,647	170
	12	Aerated Waters	3,500	267
	14	Condiments, Coffee, etc.	637	397
	18	Salt	341	1
VIII.	1	Printing and Publishing	16,067	4,398
XIV.	1	Chemical Works	1,546	694
	2	Fertilizers	743	9
	3	Paints, Varnish, etc.	336	159
	5	Blacking, Blue, etc.	325	248
XV.	1	Surgical Instruments	182	29
XVII.	4	Lampware	47	60

Of the 53,212 persons employed in the above industries, 46,543, or 87.5 per cent., are males, and 6669, or 12.5 per cent., are females. As regards the number of persons engaged in individual industries, Class VIII., sub-class 1 (Printing and Publishing) is the most important, followed in order by Class III., sub-class 1 (Bricks and Pottery) with 7174, down to Class V., sub-class 3 (Cutlery), with ninety employees.

(iv.) *Industries in which the Average Annual Added Value per Employee was £300 and over, 1912.* This group comprises sixteen industries, employing 34,024 persons, of which 31,751, or 93.3 per cent., are males, and 2273, or 6.7 per cent., are females. Of these sixteen industries nine are included in Food and Drink, three in Heat, Light, and Power, two in Engineering, etc., and one in Oils and Fats, and one in Clay, Glass, etc.

Manufacturing Industries in which the Average Annual Added Value per Employee was £300 or over, 1912.

CLASS.		INDUSTRY.	AVERAGE NO. EMPLOYED.	
No.	Sub-Class.		Males.	Females.
II.	2	Soap and Candles	1,461	270
III.	4	Lime, Cement, etc.	1,663	7
V.	6	Lead, Shot, etc.	56	1
	8	Smelting	6,984	6
VI.	1	Bacon Curing	954	20
	2	Butter, Cheese, etc.	3,218	183
	3	Butterine, etc.	71	2
	8	Flour Milling	2,682	55
	11	Sugar Refining	1,556	52
	13	Brewing	3,457	7
	15	Distilling	148	..
	16	Malting	374	2
	17	Tobacco, Cigars, etc.	1,822	1,637
XVII.	2	Electric Lighting	2,628	15
	3	Gas and Coke	4,643	16
	5	Hydraulic Power	34	..

The above industries include 31,751 males and 2273 females, being relatively 13.7 per cent. and 2.8 per cent. of the total number engaged in all manufacturing establishments. Of the whole eighteen sub-classes which are comprised within Class VI. (Food and Drink), nine are included in the above table. As regards the number of employees in industries included in the above group, Class V., sub-class 8 (Smelting), has the largest number, 6990; with Class XVII., sub-class 3 (Gas and Coke), next. These are followed by four sub-classes of Class VI., viz., sub-class 13 (Brewing), 3464; 17 (Tobacco, Cigars, etc.), 3459; 2 (Butter, Cheese, etc.), 3401; and 8 (Flour, Milling), 2737, and then by Class XVII., sub-class 2 (Electric Lighting), down to Class V., sub-class 6 (Lead, Shot, etc.), which accounts for fifty-seven employees only.

SECTION IV.—CAPITAL INVESTED AND ADDED VALUE PER EMPLOYEE IN RELATION TO RATES OF WAGES.

1. **General.**—The table on pages 28 and 29 shows the various industrial sub-classes arranged according to ascending order of magnitude of the added value per employee. For comparative purposes particulars are also given of the average annual rates of wages (for males, females, and all wage-earners together, computed from the special returns collected in November, 1912) and of the capital invested (land, buildings, plant, and machinery), value of output, and value of raw materials used, each per employee (computed from the annual manufacturing returns for 1912). Particulars of the average number of persons employed and of the total capital invested, the total value of output, raw materials, and added value may be found in the table already