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OFFICIAL STATISTICS, COMMONWEALTH OF AUSTRALIA.

MANUFACTURING INDUSTRIES,
1937-38.

No. 14. WOOLLEN MILLS.

PREPARED UNDER INSTRUCTIONS FROM
THE HONORABLE THE TREASURER.

BY

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P R E F A C E

1. Industries included in the Series: A complete list of the industries for which summaries in this series are being issued is given on the back of the cover page. They will be published as the material becomes available, and not necessarily in the order shown in the list. The following summaries have already been published: Nos. 6, 4, 3, 1, 2 and 5.
2. Classification of Factories: The classification of factories in Australia is based on the nature of the product. Where two or more distinct types of industrial activity are carried on in one establishment, factory proprietors are requested to furnish separate returns for each activity. In some instances, however, this is not practicable, and in such cases there is no alternative but to classify the factory according to its predominant activity. This difficulty is most acute in the Metal Trades industries (e.g. Engineering firms also producing Agricultural Implements, Stoves and Ovens, and/or Brass and Copper products), but it is also to be found in factories concerned with the treatment or manufacture of Skins, Leather, Clothing, Wood products and some other articles. In consequence, and to an extent which will vary with individual industries, the figures may include the subsidiary but extraneous activities of those establishments included in the industry, while they will exclude relevant activities which are subsidiary to the predominant activity of establishments classified to some other industry. This qualification is not important in the case of Woollen Mills, the industry with which this summary is concerned.
3. Basis of the Statistics: The scope of the factory statistics is fully explained in Part I of the annual Production Bulletin.

Briefly, a "factory" is taken to be an industrial establishment in which four or more hands are employed or in which power other than hand is used.

All persons employed in the manufacturing activities of the factory are counted as factory employees. The figures relating to employment, therefore, exclude all those engaged in selling and distribution, such as salesmen, travellers, collectors, carters engaged solely on outward delivery, and retailing storemen. The figures do include, however, proprietors who work in their own business and "out-workers".

The value of output is the wholesale selling value at the factory of goods made or processed during the year, including by-products. In addition, it includes the value of other work done, such as repair work, assembling and making up for customers.

The value of production is the value of output minus the cost of raw materials, containers, power, fuel, light, lubricants, water, tools replaced, and repairs to plant.

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Canberra, A.C.T.
11th April, 1939.

WOOLLEN MILLS

The following table furnishes a summary of the principal statistics of Woollen Mills, including Woolscouring.

1. WOOLLEN MILLS, INCLUDING WOOLSCOURING - AUSTRALIA, 1930-31 TO 1937-38.

Year	Number of Factories	Persons Employed (a)	Salaries and Wages Paid (b)	Power, Fuel and Light Used	Value of Other Materials Used	Value of Production	Value of Output
	No.	No.	£'000	£'000	£'000	£'000	£'000
1930-31	92	11,551	1,633	301	3,756	2,701	6,759
1931-32	81	13,607	1,946	323	4,894	3,236	8,452
1932-33	69	16,206	2,196	395	6,085	3,828	10,308
1933-34	96	17,546	2,233	398	7,401	3,836	11,636
1934-35	103	17,486	2,235	381	6,505	3,827	10,712
1935-36	94	19,693	2,613	394	7,548	4,603	12,545
1936-37	90	19,239	2,514	358	7,735	4,191	12,283
1937-38	87	19,103	2,742	379	8,046	4,192	12,618

(a) Including Working Proprietors. (b) Exclusive of amounts drawn by Working Proprietors.

In the following table particulars of the Industry are given for each State during the year 1937-38.

2. WOOLLEN MILLS, INCLUDING WOOLSCOURING - STATES, 1937-38.

Particulars	New South Wales (d)	Victoria	Queensland	South Australia (e)	Western Australia	Tasmania	AUSTRALIA
	No.	No.	No.	No.	No.	No.	No.
Number of Factories	21	52	3	7	1	3	87
Number Employed (a) -							
Males ..	2,893	4,874	(c)	559	(c)	539	9,089
Females ..	3,594	4,939	(c)	232	(c)	856	10,014
Total ..	6,487	9,813	(c)	791	(c)	1,395	19,103
	£.	£.	£.	£.	£.	£.	£.
Value of -							
Salaries and Wages Paid (b) ..	935,364	1,402,586	(c)	119,644	(c)	202,007	2,741,729
Fuel used ..	127,795	197,846	(c)	19,288	(c)	20,888	379,380
Materials used ..	2,55,712	3,997,134	(c)	688,410	(c)	582,652	8,046,352
Production ..	1,452,922	2,130,844	(c)	146,323	(c)	349,669	4,192,400
Output ..	4,238,429	6,325,824	(c)	654,021	(c)	953,209	12,618,132
Land and Buildings	769,665	1,264,491	(c)	106,915	(c)	213,008	2,435,114
Plant and Machinery	1,106,119	1,777,059	(c)	170,486	(c)	214,121	3,416,233
	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.
H.P. of Engines Ordinarily in use	11,265	23,404	(c)	2,242	(c)	2,719	41,035

(a) Includes Working Proprietors. (b) Exclusive of amounts drawn by Working Proprietors. (c) Not available for publication. These figures are included in the total for Australia. (d) Exclusive of Woolscouring. (e) Includes Fellmongery.

Particulars of the average salary and wage paid together with the average values per employee of output and production are shown in the following table for each of the years indicated:-

/3. AVERAGE

3. AVERAGE SALARIES AND WAGES PAID, OUTPUT ETC. PER EMPLOYEE -
AUSTRALIA, 1930-31 TO 1937-38.

Year	Salaries and wages per Employee (a)	Value of Output per Person Engaged (b)	Value of Production per Person Engaged (b)	Ratio per cent of Salaries and Wages to Value of Production
	£.	£.	£.	%
1930-31	142	585	234	60.48
1931-32	143	621	238	60.14
1932-33	136	636	236	57.37
1933-34	128	663	219	58.20
1934-35	128	613	219	58.39
1935-36	133	637	234	56.76
1936-37	131	638	218	59.99
1937-38	144	661	219	66.40

(a) Excludes Working Proprietors and amounts drawn by them. (b) Including Working Proprietors.

Particulars of the articles produced in Woollen Mills during 1936-37 and 1937-38 are shown in the following table.

4. ARTICLES PRODUCED - AUSTRALIA.

Particulars	Unit of Quantity	1936-37		1937-38	
		Quantity	Value	Quantity	Value
Woollen Cloth and Tweed ..	sq.yds.	8,944,987	1,280,924	8,544,618	1,163,317
Worsted Cloth ..	sq.yds.	15,474,399	3,117,418	15,420,917	3,389,361
Serge ..	sq.yds.	594,459	109,778	818,421	168,452
Flannel - for outer clothing	sq.yds.	2,732,149	293,659	2,010,325	246,324
for underwear (pure)	sq.yds.	2,329,464	223,209	1,388,619	146,537
for underwear (mixtures) ..	sq.yds.	843,064	72,055	1,222,169	96,814
Blankets ..	pairs	628,131	638,391	563,102	638,172
Rugs and Shawls ..	number	206,513	134,761	144,659	106,490
Collar check, collar cloth, saddlers' kersey and serge	sq.yds.	241,218	32,727	36,866	6,237

The quantities of a number of items produced in Woollen Mills are given in the following table for the past ten years.

5. ARTICLES PRODUCED IN WOOLLEN MILLS - AUSTRALIA.

Year	Tweed and Cloth made	Flannel made	Blankets made	Rugs and Shawls made
	sq.yds.	sq.yds.	pairs	number
1928-29	9,356,042	7,302,306	456,267	159,926
1929-30	9,887,273	5,994,544	355,501	164,886
1930-31	10,732,123	6,557,623	265,248	113,193
1931-32	16,631,833	8,313,069	343,684	95,921
1932-33	21,127,415	9,610,272	485,780	169,448
1933-34	23,279,903	9,851,097	563,239	221,818
1934-35	22,024,039	7,162,524	547,857	176,643
1935-36	24,435,598	8,265,212	619,481	208,279
1936-37	25,013,855	5,904,677	628,131	206,513
1937-38	24,783,956	4,621,113	563,102	144,659

The number of employees in Table 2 has been adjusted to represent the average employment over the whole year in those cases where short time was worked. In the following table the factories have been classified according to the average number employed during the actual period worked.

/6. FACTORIES

6. FACTORIES CLASSIFIED ACCORDING TO HANDS EMPLOYED - AUSTRALIA,
1930-31 TO 1936-37.

Number of Persons Employed in each Factory	1930-31		1932-33		1933-34		1935-36		(a) 1936-37	
	Number of Factories	Number Employed	Number of Factories	Number Employed	Number of Factories	Number Employed	Number of Factories	Number Employed	Number of Factories	Number Employed
Under 4	6	14	4	8	4	9	4	9	3	7
4	-	-	1	4	-	-	-	-	-	-
5 to 10	12	84	6	48	12	102	11	79	10	71
11 to 20	10	147	8	113	11	164	6	88	7	101
21 to 50	19	636	20	666	14	447	15	742	8	334
51 to 100	13	962	11	832	14	1,004	11	872	14	1,102
Over 100	32	9,917	39	14,680	43	15,872	47	17,928	48	17,691
TOTAL:	92	11,760	89	16,351	98	17,598	94	19,718	90	19,306
Average Number employed per factory:	128		184		180		210		215	

(a) 1937-38 not yet available.

Further details of employment in the industrial group - Woollen Mills, (including Woollscouring) are furnished in the next three tables. In the first the employees have been classified according to the nature of their employment.

7. PERSONS EMPLOYED CLASSIFIED ACCORDING TO GRADE OF OCCUPATION - AUSTRALIA, 1930-31 TO 1937-38.

Grade of Occupation	1930-31	1933-34	1935-36	1936-37	1937-38
	No.	No.	No.	No.	No.
Working Proprietors ..	56	64	65	58	64
Managers and Overseers ..	380	435	464	514	514
Clerical Staff ..	312	448	536	511	510
Engine Drivers and Firemen ..	128	120	126	122	118
Workers, Skilled and Unskilled ..	10,609	16,363	18,387	17,922	17,852
Other (Carters and Messengers)	66	116	115	112	45
TOTAL:	11,551	17,546	19,693	19,239	19,103

The next table shows the actual number of persons employed (excluding Working Proprietors) on the pay-day nearest to the 15th of each month for the years 1936-37 and 1937-38.

8. PERSONS EMPLOYED ON PAY-DAY NEAREST TO THE 15TH OF EACH MONTH - AUSTRALIA, 1936-37 AND 1937-38.
(Working Proprietors Excluded)

Month	1936-37			1937-38		
	Males	Females	Total	Males	Females	Total
	No.	No.	No.	No.	No.	No.
July ..	9,187	10,112	19,299	8,778	9,534	18,312
August ..	9,026	10,256	19,282	8,797	9,610	18,407
September ..	9,134	10,171	19,305	8,749	9,751	18,500
October ..	9,216	10,141	19,357	8,967	9,959	18,926
November ..	9,277	10,139	19,416	9,017	10,003	19,020
December ..	9,170	9,998	19,168	9,022	9,964	18,986
January ..	9,099	10,020	19,119	8,961	10,099	19,060
February ..	9,164	10,156	19,320	9,041	10,108	19,149
March ..	9,158	10,075	19,233	9,110	10,180	19,290
April ..	9,070	9,974	19,044	9,188	10,335	19,523
May ..	8,844	9,902	18,746	9,213	10,245	19,458
June ..	8,640	9,821	18,461	9,136	10,109	19,245
Average:	9,082	10,064	19,146	9,000	9,991	18,991

A classification of the number of employees according to age on or about the 15th June, 1938 is shown in the next table:-

/9. PERSONS

9. PERSONS EMPLOYED CLASSIFIED ACCORDING TO AGE - JUNE, 1938.

Sex	Under 16 years	16 and under 21 years	Adults	Total
	No.	No.	No.	No.
Males	686	2,598	5,852	9,136
Per Cent of Total ..	8%	28%	64%	100%
Females	1,100	3,692	5,317	10,109
Per Cent of Total ..	11%	36%	53%	100%
Persons	1,786	6,290	11,169	19,245
Per Cent of Total ..	9%	33%	58%	100%

Statistics of the power equipment of the factories included in this group are given in the next table. The details given include the rated horse power of engines ordinarily in use for the years 1936-37 and 1937-38 together with those in reserve or idle in the latter year.

10. POWER EMPLOYED TO DRIVE MACHINERY - AUSTRALIA.

Class of Engine	Rated H.P. of Engines		
	Ordinarily in use		In Reserve or Idle
	1936-37	1937-38	1937-38
Steam - Reciprocating ..	4,993	4,667	2,105
Turbine	1,340	1,340	-
Internal Combustion -			
Gas	3	38	-
Petrol or Other Light Oils ..	35	35	-
Heavy Oils	386	386	290
Water	192	192	-
Total Prime Movers	6,949	6,658	2,395
Motors driven by electricity -			
Purchased	30,516	34,377	3,537
Own Generation	4,003	4,197	404
Total Electricity	34,519	38,574	3,941
Total Power Used (a):	37,465	41,035	6,336

(a) Without Duplication.

Some particulars of the machine equipment of Woollen Mills are given in the next table.

11. MACHINERY EQUIPMENT - WOOLLEN MILLS - AUSTRALIA.

Year	Carding Machines	Combing Machines	Spindles	Looms
	No.	No.	No.	No.
1932-33	454	276	309,434	3,644
1933-34	460	282	312,361	3,748
1934-35	458	287	318,369	3,811
1935-36	463	292	327,837	4,194
1936-37	414	220	361,152	4,299
1937-38	481	319	393,270	4,332

Details of the quantities and values of the various items of power, fuel and light used in Woollen Mills, including Woolscouring, are shown in the following table:-

12. POWER, FUEL AND LIGHT, ETC. USED - AUSTRALIA, 1937-38.

Particulars	Unit of Quantity	Quantity	Value
			£.
Coal - Black	ton	69,771	94,048
Brown	"	18,630	22,233
Coke	"	569	826
Wood	"	34,497	12,925
Fuel Oil	gallon	56,173	1,275
Electricity	-	(a)	178,683
Gas	-	(a)	363
Other (Charcoal, etc.) ..	-	(a)	10,612
Water used	-	(a)	42,046
Lubricating Oil	-	(a)	16,369
TOTAL:		Value only	379,380

(a) Value only available.

Particulars of the book values of premises occupied and plant used in Woollen Mills at the 30th June for each of the five years ended 1938 are shown in the next table. In addition, details of the values of additions and replacements made and depreciation allowed during the year 1937-38 are also shown. It should be noted that the amounts expended in Additions and Replacements refer to expenditure incurred by existing factories and do not include the cost of erecting and equipping new factories; those latter items, however, are included with the book values shown at 30th June. The amounts shown for Depreciation are those returned by factories. Changes in the number of factories operating and other factors affect comparison from year to year.

13. VALUE OF LAND AND BUILDINGS, PLANT AND MACHINERY - AUSTRALIA, 1937-38.

Particulars	Land and Buildings	Plant and Machinery
	£.	£.
Additions and Replacements made during year (a)	102,412	215,859
Depreciation allowed during year (a)	33,928	246,510
Book Value (a) as at 30th June -		
1938	2,435,114	3,416,233
1937	2,432,499	3,474,275
1936	2,455,141	3,343,968
1935	2,335,913	3,239,780
1934	2,359,997	3,306,164

(a) See Note above.

The values of imports and exports of a number of items included in the group - Woollen Mills, including Woolscouring - are given in the following tables:-

14. IMPORTS - WOOLLEN PIECE GOODS, YARNS, TOPS AND NOILS - AUSTRALIA.

Item	Quantities			Values		
	1935-36	1936-37	1937-38	1935-36	1936-37	1937-38
	sq.yd.	sq.yd.	sq.yd.	£.	£.	£.
Woolens - Flannels including Demott containing Wool ..	74,631	74,078	71,241	6,284	10,656	8,299
Woolens - Italian Cloth, containing Wool ..	7,093	2,932	14,858	783	339	1,503
Woolens - Mcquettes ..	(a)	177,669	529,426	(a)	23,646	69,032
Woolen for Outer Clothing - worsted ..	315,147	231,306	256,352	32,532	63,410	80,825
Other, wholly woollen ..	650,452	612,366	422,300	39,400	146,754	100,245
Woolen, mixed with Cotton or other Materials ..	436,349	236,274	199,228	63,190	20,357	41,426
Woolen, mixed with other fibres knitted or lock-stitched in tubular form or otherwise ..	2,584	3,813	4,715	363	473	974
Other woollen ..	268,140	621,688	816,025	32,841	68,268	96,312
For Ties - Wool or Chiefly Wool ..	36,830	34,922	39,288	12,361	13,726	14,369
Yarns - Woollen (Carded) ..	22,112	7,599	11,284	8,100	3,417	4,271
Worsteds (Combed or Carded) ..	152,688	96,758	76,936	68,257	44,481	41,513
Other Woollen (including Mohair and Alpaca) ..	99,472	71,193	150,549	24,544	19,589	31,280
Tops - Wool ..	646	3,040	6,336	60	453	1,025
Noils ..	-	1,715	224	-	318	124

(a) Included in Other Woollen.

15. EXPORTS - WOOLLEN YARNS, TOPS AND NOILS - AUSTRALIA.

Item	Quantities			Values		
	1935-36	1936-37	1937-38	1935-36	1936-37	1937-38
	lb.	lb.	lb.	£.	£.	£.
Yarn - Wool or known as Wool including Worsteds ..	10,695	26,167	25,946	2,847	6,603	6,464
Wool Tops, Noils and Waste ..	5,672,731	5,592,584	5,356,505	577,033	678,642	602,116

The following table shows the weekly minimum rates of wage and hours of labour in operation at 30th June, 1938, as prescribed by Commonwealth and State Industrial Tribunals. Where no rate is shown it indicates that the particular occupation is not specifically provided for in the award or determination.

16. WOOLLEN MILLS

Minimum Weekly Rate of Wage and Hours of Labour as at 30th June, 1938.

Occupation		New South Wales		Victoria		Queensland		South Australia		Western Australia		Tasmania (b)	
		Hrs.	Week-ly Wage	Hrs.	Week-ly Wage	Hrs.	Week-ly Wage	Hrs.	Week-ly Wage	Hrs.	Week-ly Wage	Hrs.	Week-ly Wage
MALES -													
Wool sorters	C	44	82/- to 98/-	44	82/- to 98/-	..	..	44	82/- to 98/-	44	82/- to 98/-	44	82/- to 98/-
	S	44	90/6	44	81/- to 97/-	..	..	..	..	..	..	44	77/- to 93/-
Wool scourers	C	44	81/- & 85/-	44	81/- & 85/-	..	..	44	81/- & 85/-	44	81/- & 85/-	44	81/- & 85/-
	S	44	85/6	44	80/- & 84/-	44	87/- (a)	..	..	..	..	44	75/- & 80/-
Dye House men	C	44	81/- to 85/-	44	81/- to 85/-	..	..	44	81/- to 85/-	44	81/- to 85/-	44	81/- to 85/-
	S	44	83/6	44	80/- to 84/-	..	..	..	..	..	..	44	75/- & 80/-
Willey House men	C	44	81/- to 87/-	44	81/- to 87/-	..	..	44	81/- to 87/-	44	81/- to 87/-	44	81/- to 87/-
	S	44	82/6	44	80/- to 86/-	..	..	..	..	..	..	44	75/- to 82/-
Carders	C	44	80/- to 86/-	44	80/- to 86/-	..	..	44	80/- to 86/-	44	80/- to 86/-	44	80/- to 86/-
	S	44	82/-	44	79/- to 85/-	..	..	..	..	..	..	44	75/- to 81/-
Spinners	C	44	80/- & 82/-	44	80/- & 82/-	..	..	44	80/- & 82/-	44	80/- & 82/-	44	80/- & 82/-
	S	44	83/-	44	79/- & 81/-	44	92/- (a)	..	..	..	..	44	75/- & 76/6
Combers	C	44	80/- to 92/-	44	80/- to 92/-	..	..	44	80/- to 92/-	44	80/- to 92/-	44	80/- to 92/-
	S	44	87/-	44	79/- to 91/-	..	..	..	..	..	..	44	75/- to 87/-
Gill box hands	C	44	80/- & 82/-	44	80/- & 82/-	..	..	44	80/- & 82/-	44	80/- & 82/-	44	80/- & 82/-
	S	..	..	44	79/- & 81/-	..	..	..	..	..	..	44	75/-
Warpers	C	44	82/-	44	82/-	..	..	44	82/-	44	82/-	44	82/-
	S	44	87/6	44	81/-	..	..	..	..	..	..	44	77/-
Twister-in	C	44	81/-	44	81/-	..	..	44	81/-	44	81/-	44	81/-
	S	44	84/-	44	80/-	..	..	..	..	..	..	44	76/-
Box loom tuners	C	44	83/- to 97/-	44	83/- to 97/-	..	..	44	83/- to 97/-	44	83/- to 97/-	44	83/- to 97/-

16. WOOLLEN MILLS (Continued).

Minimum Weekly Rate of Wage and Hours of Labour as at 30th June, 1938.

Occupation		New South Wales		Victoria		Queensland		South Australia		Western Australia		Tasmania (b)	
		Hrs.	Weekly Wage	Hrs.	Weekly Wage	Hrs.	Weekly Wage	Hrs.	Weekly Wage	Hrs.	Weekly Wage	Hrs.	Weekly Wage
MALES (Cont'd.) -													
Box loom tuners (Cont'd)	S	44	89/6	44	82/-	..	..	..	..	..	..	44	78/-
			to		to								to
			101/-		96/-								92/-
Plain loom tuners	C	44	81/-	44	81/-	..	..	44	81/-	44	81/-	44	81/-
			to		to								to
			92/-		92/-				92/-		92/-		92/-
	S	44	86/-	44	80/-	44	81/-	..	..	..	..	44	76/-
			to		to		to						to
			97/6		91/-		92/-						87/-
Weavers	C	44	83/-	44	83/-	..	..	44	83/-	44	83/-	44	83/-
	S	44	82/-	44	82/-	..	..	..	..	..	..	44	78/-
Perchers	C	44	80/-	44	80/-	..	..	44	80/-	44	80/-	44	80/-
	S	44	82/-	44	79/-	..	..	..	..	..	..	44	75/-
Finishers	C	44	80/-	44	80/-	..	..	44	80/-	44	80/-	44	80/-
			to		to								to
			87/-		87/-				87/-		87/-		87/-
	S	44	82/6	44	79/-	..	..	..	..	..	..	44	75/-
			to		to								to
			87/6		86/-								82/-
FEMALES -													
Combers	C	44	44/6	44	44/6	..	..	44	44/6	44	44/6	44	44/6
	S	44	47/6	44	44/-	..	..	..	..	..	..	44	40/3
Warpers	C	44	46/6	44	46/6	..	..	44	46/6	44	46/6	44	46/6
	S	44	51/6	44	46/-	..	..	..	..	..	..	44	42/3
			&		&								&
			56/6										
Twisters	C	44	44/6	44	44/6	..	..	44	44/6	44	44/6	44	44/6
	S	44	47/6	44	44/-	..	..	..	..	..	..	44	40/3
Weavers	C	44	47/6	44	47/6	..	..	44	47/6	44	47/6	44	47/6
	S	44	50/6	44	47/-	..	..	..	..	..	..	44	43/3
Menders	C	44	43/6	44	43/6	..	..	44	43/6	44	43/6	44	43/6
			&		&				&		&		&
			46/6		46/6				46/6		46/6		46/6
	S	44	46/6	44	43/-	..	..	..	..	..	..	44	40/3
			&		&								&
			46/6		46/-								46/3
JUNIOR MALES (c) - S													
Under 16 years		44	24/8	44		44	23/6	..	..	..	..	44	
" 17 "		44	27/2	44		44	26/-	..	..	..	..	44	
" 18 "		44	29/9	44	(d)	44	29/3	..	..	..	..	44	(d)
" 19 "		44	34/6	44		44	31/9	..	..	..	..	44	
" 20 "		44	44/10	44		44	38/-	..	..	..	..	44	
" 21 "		44	56/10	44		44	48/-	..	..	..	..	44	
JUNIOR FEMALES (c) - S													
Under 16 years		44	18/2	44		44	17/2	..	..	..	..	44	
" 17 "		44	22/8	44		44	20/7	..	..	..	..	44	
" 18 "		44	26/5	44	(d)	44	24/2	..	..	..	..	44	(d)
" 19 "		44	29/8	44		44	25/8	..	..	..	..	44	
" 20 "		44	35/4	44		44	30/-	..	..	..	..	44	
" 21 "		44	40/5	44		44	34/-	..	..	..	..	44	

S denotes State Award.

C denotes Commonwealth Court Award.

(a) Foreman or man capable of taking charge of machines in the absence of the foreman. (b) The wage rates shown for Tasmania under State Determination were superseded by a new determination which came into force as from 1st December, 1938. (c) Juniors - Under the provisions of the Commonwealth Arbitration Courts "Textile Workers" award junior rates (male and female) are based on "age", "commencing age" and "experience". (d) Rates vary according to age and experience.