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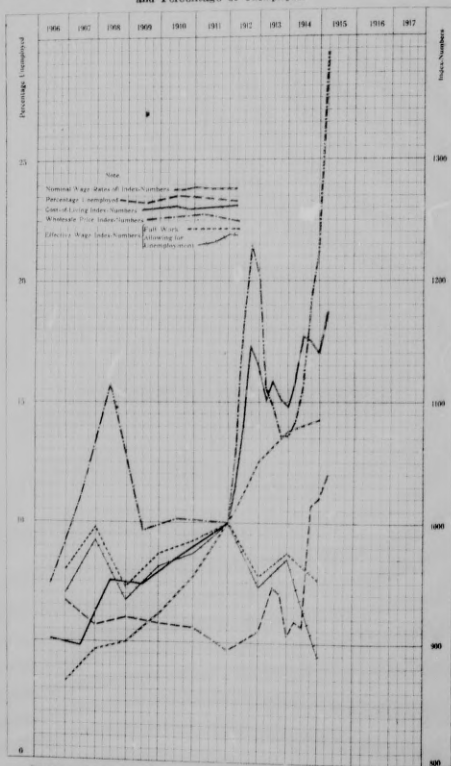
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Graph showing Cost of Living, Wholesale Prices and Nominal and Effective Wage Index-Numbers and Percentage of Unemployed 4

Cost of Living, Wholesale Prices, and Nominal and Effective Wage Index-Numbers and Percentage of Unemployed.



EXPLANATORY NOTE.—The figures on the left represent the scale for the percentage of persons unemployed according to trade union returns. The figures on the right represent the scale for the several index-numbers the year 1911 being taken in each case as base (= 1000). Since the end of the year 1911 the index-numbers for cost of living (average for the six metropolitan towns) and for wholesale prices (Melbourne) are shown each quarter, while unemployment percentages are shown as at the end of each year, while other index-numbers refer to the average for the whole year. Nominal and effective wage index-numbers are only computed annually. It should be observed that the cost-of-living and wholesale price index-numbers since the year 1912 show the average level during the whole of each quarter; but for purposes of convenience they have, however, been plotted on the graph as at the end, and not the middle, of each quarter.

LABOUR BULLETIN.

No. 9.—JANUARY to MARCH, 1915.

SECTION I.—INDUSTRIAL CONDITIONS.

1. **General.**—Returns received from the secretaries of trade unions show that unemployment in the Commonwealth increased from the fourth quarter of 1914 to the first quarter of the current year from 11.0 to 12.0 per cent., the corresponding percentage in the first quarter of 1914 being 5.9. The increase was common to all the States except Tasmania. As regards industrial groups, the returns classified for the whole Commonwealth indicate that an increase occurred in Groups III. (Food, Drink, etc.), Group V. (Books, Printing, etc.), Group VII. (Building), Group VIII. (Mining), Group X. (Other Land Transport), and in the last group (Other and Miscellaneous). The remaining groups shew a decline. Compared with the corresponding quarter of 1914 unemployment in the quarter under review was greater in all the States and in all the industrial groups.

In this issue of the Bulletin special articles are published regarding the subjects of the Prohibition of Strikes and Lockouts, Licences and Permits to Under-Rate Workers, and of certain aspects of the methods of technique adopted for the computation of cost-of-living index numbers. In regard to the latter matter, it appears that the methods adopted by the Bureau are not understood in certain quarters. The object of the article in question is, therefore, to further explain these methods, both generally and with special reference to certain aspects of the matter in regard to which some misapprehension apparently exists.

2. **Weather Conditions and Rural Industries.**—The continued dry weather experienced during the first four months of the year, practically throughout the whole of Australia, caused considerable anxiety as to the prospects for the future, and at the end of April the reports

NOTE.—The Labour Bulletin, in its accounts of proceedings, abstracts of reports, legal decisions, quotations and other matters of concern to labour, is not to be regarded as expressing an official endorsement of any of the views or opinions contained therein.

received indicate that conditions were generally unsatisfactory. Though there was some rain during April, it was stated to be insufficient, and not only was stock in a bad condition, but ploughing and seeding operations were delayed owing to the hardness of the ground. The rains of May, however, entirely altered the agricultural outlook, and are said to have ensured a general breakup of the drought. In New South Wales the rainfall for May was above the average over almost the whole of the State, and the outlook was vastly improved, though mild weather and further rains were needed to establish the certainty of a good season ahead. In Victoria the rainfall experienced in the middle of May caused crops to germinate and grass to grow, but in some parts it was insufficient to ensure satisfactory water supplies, and water carrying had still to be continued in those parts of the State. It is reported that in the Wimmera and Northern country, the Central South, and Gippsland, crops and grass made satisfactory progress, stock were thriving, and water supplies abundant. In Queensland the rain during May, though temporarily replenishing water supplies, was, except in parts of the Upper West, insufficient to give relief to pastures. The sugar-cane crop is stated to be backward, and many crops to be dead. In South Australia the rains recorded throughout the State during May, following on the rainfall of the previous month, greatly improved the outlook. Seeding had been completed, and crops making good headway, and it is stated that the prospect for the coming harvest is brighter than for several years. Reports received from Western Australia and Tasmania indicate that the conditions of stock and crops are favourable.

3. **Variations in Prices and Cost of Living.**—The cost-of-living index number for thirty of the more important towns rose from 1031 in the fourth quarter of 1914, to 1065 in the quarter under review, compared with 1000 for the whole of the year 1912. The index-number for the corresponding quarter (January to March) of 1914 was 1009, of 1913, 958, and of 1912, 947. The cost-of-living index-number for the current quarter was higher than for either the immediately preceding quarter or the corresponding quarter of 1914 in all the States. The increase in cost of living for the current quarter is due to the increase in prices of flour, bread, potatoes, dairy produce, and meat. House rents shew a decline when compared with either the immediately preceding quarter or the corresponding quarter of 1914 in all the States except Tasmania. In that State house rents remained stationary during the quarter under review, and are still above those ruling in the first quarter of 1914. The decrease in house rents, however, has been more than counterbalanced by the advances in prices of food and groceries.

4. **Wholesale Prices.**—The general level of wholesale prices shews that there was a considerable increase during the first quarter of 1915 compared with the immediately preceding quarter. The index-number for the first quarter of 1915 was 1287, compared with 1225 in the last quarter of 1914. The index number was higher in all the groups except Group VIII. (Chemicals). The increase was greatest in those groups comprising foodstuffs.

5. **Industrial Disputes.**—The number of disputes which began during the first quarter of the current year was 67, compared with 78 in the preceding quarter. Of this number, 59 occurred in New South Wales. In the new disputes 9972 persons were directly, and 4960 indirectly involved, giving a total of 14,932. The total number of working days lost in new and old disputes was 186,165, and the estimated total loss in wages £55,005. By far the greater proportion of the disputes occurred in the mining industry. In this industry the total number of persons directly and indirectly affected was 11,206, the number of working days lost, 168,975, and the estimated total loss of wages £85,930.

6. **Changes in Rates of Wages**—The number of changes (all of which were increases) recorded during the first quarter of 1915 was 17, of which seven occurred in New South Wales, three in Victoria, six in Queensland, and one in Western Australia. No changes occurred in either South Australia or Tasmania. The total number of persons affected was 3617, and the aggregate increase in wages per week was £853. The largest number of persons affected, and the largest increase in wages occurred in Group III. (Food, Drink, Tobacco, etc.), in which 2055 persons obtained increases aggregating £507 per week.

7. **Miscellaneous.**—During the quarter under review the number of assisted and nominated immigrants arriving in the Commonwealth was 1926 (comprising 1033 dependants), compared with 3915 during the last quarter of 1914. The greatest number (682) is reported from Victoria. As regards occupations, of the males 269 are classified in the agricultural, pastoral, etc., group, and of the females, 504 are domestic servants.

The State Government Free Employment Bureaux report that during the quarter 39,016 applications for employment were received. During the same period 4815 applications from employers were received, and 11,131 positions filled.

The total number of fatal accidents reported during the quarter was 23, and of other accidents causing incapacitation from work for over 14 days was 1161. The corresponding figures for the fourth quarter of 1914 were 40 and 986 respectively. By far the greatest number of accidents occurred in the mining industry.



SECTION II.—UNEMPLOYMENT.

1. **General.**—Returns as to unemployment for the quarter ended 31st March, 1915, were received from 476 trade unions, having a membership of 279,388. The number unemployed was 33,465, or 12.0 per cent., compared with 11.0 per cent. for the preceding quarter (October to December, 1914), 5.9 per cent. for the corresponding quarter (January to March) of 1914, and 5.5 per cent. for the end of 1912. The percentages of unemployment for years prior to 1913 refer to the end of the year only, and not to intermediate quarters, when the percentages may have been greater, especially during the winter months, than those recorded at the end of the year. The following table shows the number of unions reporting as to unemployment, their membership, and the number and percentage unemployed. The returns do not include persons out of work through strikes or lockouts.

Unemployment.—Number of Unions and Members Reporting, and Number and Percentage Unemployed, 1891 to 1915 (1st Quarter).

PARTICULARS.	Unions.	Membership.	UNEMPLOYED.	
			Number.	Percentage.
1891	25	6,445	599	9.3
1896	25	4,227	457	10.8
1901	39	8,710	574	6.6
1906	47	11,299	753	6.7
1907	51	13,179	757	5.7
1908	68	18,685	1,117	6.0
1909	84	21,122	1,223	5.8
1910	109	32,995	1,857	5.6
1911	160	67,961	3,171	4.7
1912	464	224,023	12,441	5.5
1913, 1st Quarter*	451	237,216	15,234	6.4
2nd	458	243,523	17,854	7.3
3rd	472	252,325	17,698	7.0
4th	465	251,207	13,430	5.3
1914, 1st	462	262,133	15,541	5.9
2nd	467	279,318	15,856	5.7
3rd	466	283,584	30,367	10.7
4th	439	250,716	27,610	11.0
1915, 1st	476	279,388	33,465	12.0

* For years prior to 1913 the figures refer to the end of the year only, and not to separate quarters. The quarterly figures show the number of persons who were out of work for three days or more during a specified week in each quarter; they do not include persons out of work through strikes or lockouts.

For reasons indicated on pages 16 to 18 of Labour Report No. 2 this table does not furnish a complete register of unemployment. Nevertheless, for the purpose of making comparisons and shewing tendencies over a period of years, the percentages returned as unemployed, though not exact, are the most satisfactory available. The significance of the figures shewing the percentage of unemployment may be better understood by reference to the graph on page 4. The figures shew

that the percentage of unemployment increased during the first quarter of 1915 to 12.0, compared with 11.0 in the fourth quarter, 10.7 in the third quarter, 5.7 in the second quarter, and 5.9 in the first quarter, of 1914. During the quarter under review the percentage of unemployment was greater than in the last quarter of 1914 in all the States except Tasmania. It was also greater in all the industrial groups, with the exception of Group I. (Wood, Furniture, etc.), Group II. (Engineering, Metal Works, etc.), Group IV. (Clothing, Hats, Boots, etc.), and Group VI. (Other Manufacturing). Compared with the corresponding quarter (January to March) of 1914, the percentage was higher in all States and in all industrial Groups.

2. Unemployment in Different States for Quarter ended 31st March, 1915.—Of the 476 organisations reporting unemployment, the largest number (147 unions with 122,668 members) was in New South Wales, Victoria (with 111 unions and 81,693 members) coming next. As pointed out in the previous issues of this Bulletin, the industrial occupations of the people, as well as the extent to which the different industries are represented in the returns, vary considerably in the several States. Any comparisons, therefore, that are drawn between these results are necessarily subject to the qualification that the figures relate to some extent to different classes of industry.

In the following table particulars are given for the quarter ended the 31st March last, as to the number and percentage unemployed, and the increase or decrease compared with the preceding quarter (October to December, 1914), and with the corresponding quarter (January to March) of 1914:—

Unemployment in different States for Quarter ended 31st March, 1915.

STATE.	Number Reporting.		Unemployed.		Percentage Unemployed in—		Increase (+) or Decrease (—) in Percentage Compared with—	
	Unions.	Members.	Number	Percentage.	4th Qrt. 1914.	1st Qrt. 1914.	4th Qrt. 1914.	1st Qrt. 1914.
New South Wales ..	147	122,668	10,155	8.3	6.9	6.4	+1.4	+1.9
Victoria ..	111	81,693	11,941	14.6	14.1	4.9	+9.5	+9.7
Queensland ..	49	30,335	5,418	17.9	17.7	5.7	+9.2	+12.2
South Australia ..	58	18,337	2,597	14.2	13.8	5.4	+9.4	+8.8
Western Australia ..	74	21,229	2,738	12.9	8.6	8.2	+4.3	+4.7
Tasmania ..	37	5,126	616	12.0	18.3	3.7	-6.3	+8.3
COMMONWEALTH ..	476	279,398	33,465	12.0	11.0	5.9	+1.0	+6.1

NOTE.—As to the general limitations of the figures given in the above table, see remarks on p. 8.

Compared with the quarter immediately preceding, there was an increase in unemployment in all the States except Tasmania. In New South Wales the increase is due to a relatively large increase in the number of unemployed in the mining industry and in trades connected with manufacture and distribution of food supplies. In some industries, notably iron and steel structural works, textile trades, small

arms, and paper-making industry, improved conditions are reported. In Victoria the conditions were similar to those in New South Wales. In the mining industry and trades dealing with the manufacture and distribution of food supplies, the number of unemployed is reported to be considerably greater during the first quarter of 1915 than in the last quarter of 1914. On the other hand, the iron and textile trades report decreases. The percentage of unemployment shewn in the table on page 9 is considerably greater in Victoria than in New South Wales. In this connection it should be observed that broken and short time have been adopted (e.g., in certain branches of public works) to a larger extent in New South Wales than in Victoria. It appears probable that the adoption of this plan may have resulted in the employment on part time of a relatively larger number of men, with a consequent diminution in the number returned as unemployed for more than three days in the week. The increase in the percentage of unemployment is small both in Queensland and South Australia. In the former State the increase was general throughout most of the industries, but in South Australia, relatively large increases in unemployment in Group I. (Wood, Furniture, etc.), Group III. (Food, Drink, etc.), and Group VII. (Building) were counterbalanced by decreases in Group II. (Engineering, Metal Works, etc.), Group VI. (Other Manufacturing), and Group VIII. (Mining). The increase in unemployment when compared with the preceding quarter was considerably greater in Western Australia than in any other State, and was common to all the industrial groups, with the exception of Group VI. (Other Manufacturing) and Group X. (Other Land Transport). It is reported that the Government has been compelled to considerably reduce the expenditure on public works owing to the financial position. This fact, combined with the cessation of activity in the timber industry and the reduced demand for agricultural labourers, has had an adverse effect on the activity of industry generally. The improvement in Tasmania shewn by the decreased percentage of unemployment is reported to be due to greater activity in mining, and to the increased demand in certain industries for the supply of requirements for the military and naval forces, notably the textile trades and the jam-making industry. Compared with the corresponding quarter (January to March) of 1914, all the States shew an increase in the percentage unemployed, the aggregate increase for the Commonwealth amounting to 6.1 per cent. The increase was greatest in Queensland (12.2 per cent.), followed in the order named by Victoria (9.7 per cent.), South Australia (8.8 per cent.), Tasmania (8.3 per cent.), Western Australia (4.7 per cent.), and New South Wales (1.9 per cent.).

3. Unemployment in Different Industries.—The following table shews the percentages unemployed in several of the fourteen industrial groups. Information as to classification of these groups is given in Labour Report No. 5, page 6. It may be observed that for those industries in which unemployment is either unusually stable, or on the other hand, exceptionally casual, information as to unemployment cannot ordinarily be obtained from trade unions. Hence, certain industries such as railways, shipping, agricultural, pastoral, etc., and domestic, hotels, etc., are insufficiently represented in the returns. Particulars are not, therefore, shewn separately for these groups, such

returns as are available being included in the last group, "Other and Miscellaneous." For purposes of comparison particulars are included in the table as to the percentage unemployed in the quarter immediately preceding (fourth quarter of 1914), and the corresponding quarter last year (first quarter of 1914). The increase or decrease in the percentages for the current quarter, as compared with each of these preceding quarters, is also given:—

Unemployment in different Industries for the Quarter ended 31st March, 1915.

INDUSTRIAL GROUP.	Number Reporting.		Unem- ployed.		Percentage Returned as Unem- ployed.		Increase (+) or Decrease (—) in Percentage compared with —	
	Unions.	Members.	Number.	Percentage.	4th Quarter, 1914.	1st Quarter, 1915.	4th Quarter, 1914.	1st Quarter, 1915.
I.—Wood, Furniture, etc. ..	19	17,520	2,641	15.1	15.7	4.4	—0.6	+10.7
II.—Engineering, Metal Works, etc. ..	59	34,483	2,789	8.1	12.8	6.3	4.7	+1.8
III.—Food, Drink, Tobacco, etc. ..	61	32,619	5,142	15.8	12.3	6.5	+3.5	+0.3
IV.—Clothing, Hats, Boots, etc. ..	28	17,279	1,686	9.8	10.3	7.1	—0.5	+2.7
V.—Books, Printing, etc. ..	26	9,264	603	6.5	6.4	3.8	+0.1	+2.7
VI.—Other Manufacturing ..	64	23,638	2,294	9.7	9.7	4.1	—	+5.6
VII.—Building ..	59	39,390	5,255	13.3	12.9	3.8	+4.4	+13.5
VIII.—Mining, Quarrying, etc. ..	26	31,907	4,396	13.8	8.2	11.8	+5.6	+2.9
X.—Other Land Transport ..	16	19,393	516	2.6	4.6	3.4	+0.4	+1.6
IX., XI., XII., XIII. and XIV.— Other and Miscellaneous ..	119	72,085	8,152	11.3	11.2	5.0	+0.1	+6.3
ALL GROUPS	476	279,388	33,465	12.0	11.9	5.9	+1.9	+6.1

NOTE.—As to the limitations of the figures given in this table see remarks on page 8.

It may be seen that, when compared with the quarter immediately preceding, there was an increase in unemployment in all industrial groups except Group I. (Wood, Furniture, etc.), Group II. (Engineering, Metal Works, etc.), Group IV. (Clothing, Hats, Boots, etc.), and Group VI. (Other Manufacturing). The increase was greatest in Group VIII. (Mining) and in Group VII. (Building). In the building trades all the States report an increase, while in the mining industry all the States except South Australia and Tasmania shew increases. Compared with the corresponding period (January to March) of 1914, the percentage of unemployment has increased in all industrial groups. The increase is greatest in the mining and timber industries, and least in the iron trades and land transport.

4. Causes of Unemployment.—Particulars as to causes of unemployment, classified under three main heads, are available for the first quarter of the current year for 473 unions, having a membership of 276,811. The following table shews that of a total number of 33,346 out of work, 30,795 were unemployed through lack of work, 1955 through sickness and accident, and 596 through other causes (except persons on strike or lockout).

**Unemployment according to Causes for the various Industries, States, and
Commonwealth, Quarter ended 31st March, 1915.**

PARTICULARS.	Members.	Lack of Work.		Sickness and Accident.		Other Causes.		TOTAL.	
		No.	%	No.	%	No.	%	No.	%
CLASSIFIED ACCORDING TO INDUSTRIAL GROUPS.									
I.—Wood, Furniture, etc.	17,529	2,498	14.3	137	0.8	6	..	2,641	15.1
II.—Engineering, Metal Works, etc.	34,481	2,159	6.3	328	1.0	293	0.8	2,780	8.1
III.—Food, Drink, Tobacco, etc.	39,696	4,895	12.3	119	0.4	29	0.1	5,043	12.8
IV.—Clothing, Hats, Boots, etc.	17,279	1,610	9.3	50	0.3	26	0.2	1,686	9.8
V.—Books, Printing, etc.	9,264	524	5.7	47	0.5	32	0.3	603	6.5
VI.—Other Manufacturing	23,638	2,114	8.9	136	0.6	44	0.2	2,294	9.7
VII.—Building	30,390	5,045	16.6	159	0.5	51	0.2	5,255	17.3
VIII.—Mining, Quarrying, etc.	31,807	3,746	11.8	631	2.0	17	0.1	4,394	13.8
X.—Other Land Transport	10,303	396	3.8	72	0.7	48	0.5	516	5.0
IX., XI., XII., XIII., and XIV.—Other and Miscellaneous	72,030	7,808	10.8	274	0.4	50	0.1	8,132	11.3
ALL GROUPS	276,811	30,795	11.1	1,955	0.7	596	0.2	33,346	12.0

CLASSIFIED ACCORDING TO STATES.

New South Wales	129,145	8,852	7.4	961	0.7	303	0.3	10,056	8.4
Victoria	81,639	11,236	13.8	549	0.7	136	0.1	11,921	14.6
Queensland	39,335	5,275	13.4	111	0.4	32	0.1	5,418	13.9
South Australia	18,337	2,374	12.9	174	0.9	49	0.4	2,597	14.2
Western Australia	21,229	2,489	11.7	186	0.9	63	0.3	2,738	12.9
Tasmania	5,126	569	11.1	34	0.7	13	0.2	616	12.0
COMMONWEALTH	276,811	30,795	11.1	1,955	0.7	596	0.2	33,346	12.0

NOTE.—As to the general limitations of the figures given in the above table, see remarks on page 8.

The first part of the above table shows the number unemployed for the causes given, classified according to industries; the second, classified according to States.

The percentage of unemployment due to "lack of work" was 11.1, compared with 10.1 in the preceding quarter. The percentage due to sickness and accident was the same as in the preceding quarter (0.7), while that due to "other causes" (excluding strikes and lockouts) was 0.2, compared with 0.3 in the preceding quarter. Of the total amount of unemployment 92.4 per cent. was due to "lack of work," 5.8 per cent. to "sickness and accident," and 1.8 per cent. to other causes. The percentage unemployed through sickness and accident is nearly three times greater in Group VIII. (Mining) than the average for all groups, and is double that of the next highest group.

Preliminary returns for the second quarter of 1915 are available, and are given below.

Unemployment.—Number of Unions and Members Reporting, and Number and Percentage Unemployed, 1891 to 1915 (2nd Quarter.)

PARTICULARS.	Unions.	Membership.	UNEMPLOYED.	
			Number.	Percentage.
1913, 1st Quarter ..	451	237,216	15,234	6.4
2nd ..	458	243,523	17,854	7.3
3rd ..	472	252,325	17,698	7.0
4th ..	465	251,207	13,430	5.3
1914, 1st ..	462	262,133	15,541	5.9
2nd ..	467	279,318	15,856	5.7
3rd ..	466	283,584	30,367	10.7
4th ..	439	250,716	27,610	11.0
1915, 1st ..	476	279,388	30,795	12.0
2nd ..	456	273,190	26,015	9.5

Unemployment in different States, for Quarter ending 30th June, 1915.

STATE.	Number Reporting.		Unemployed.		Percentage Unemployed in—		Increase (+) or Decrease (—) in Percentage compared with—	
	Unions.	Members.	Number.	Percentage.	1st Quar. 1915.	2nd Quar. 1914.	1st Quar. 1915.	2nd Quar. 1914.
N.S. Wales ..	142	121,508	9,140	7.7	8.3	5.8	— 0.6	+ 1.9
Victoria ..	111	79,307	9,690	12.2	14.6	5.2	— 2.4	+ 7.0
Queensland ..	48	29,655	2,769	9.6	17.9	4.3	— 8.3	+ 3.3
Sth. Australia ..	59	18,330	2,065	10.9	14.2	7.3	— 3.3	+ 3.6
W. Australia ..	60	19,229	1,760	9.2	12.9	6.3	— 3.7	+ 2.9
Tasmania ..	36	5,161	633	12.3	12.0	6.0	+ 0.3	+ 6.3
CWLTB ..	456	273,190	26,015	9.5	12.0	5.7	— 2.5	+ 3.8

Unemployment in different Industries, for the Quarter ending 30th June, 1915.

INDUSTRIAL GROUP.	Number Reporting.		Unem- ployed.		Percentage Returned as Unem- ployed.		Increase (+) or Decrease (—) in Percentage compared with—	
	Unions.	Members.	Number.	Percentage.	1st Quarter 1915.	2nd Quarter 1914.	1st Quarter 1915.	2nd Quarter 1914.
I.—Wood, Furniture, etc. ..	18	13,811	1,997	15.9	15.1	4.9	+ 0.8	+ 9.0
II.—Engineering, Metal Works, etc. ..	57	36,273	2,089	5.8	8.1	6.2	— 2.3	— 0.4
III.—Food, Drink, Tobacco, etc. ..	61	31,737	5,217	16.4	15.8	8.7	+ 0.6	+ 7.7
IV.—Clothing, Hats, Boots, etc. ..	29	18,133	911	5.0	9.8	2.9	— 4.8	+ 2.1
V.—Books, Printing, etc. ..	25	8,866	497	5.6	6.5	3.7	— 0.9	+ 1.9
VI.—Other Manufacturing ..	63	23,284	1,761	7.6	9.7	5.4	— 2.1	+ 2.2
VII.—Building ..	54	28,782	2,887	10.0	17.3	2.5	— 7.3	+ 7.5
VIII.—Mining, Quarrying, etc. ..	23	20,008	3,734	12.9	13.8	8.9	— 3.9	+ 4.0
X.—Other Land Transport ..	14	9,819	509	5.2	5.0	4.2	+ 0.2	+ 1.0
IX., XI., XII., XIII. and XIV.— Other and Miscellaneous ..	112	73,447	6,413	8.8	11.3	5.5	— 2.5	+ 3.3
ALL GROUPS ..	456	273,190	26,015	9.5	12.0	5.7	— 2.5	+ 3.8

SECTION III.—RETAIL PRICES, HOUSE RENT, AND COST OF LIVING.

1. General. During the first quarter of 1915 the cost-of-living index-number for the thirty towns for which particulars are collected shows an increase since the preceding quarter from 1031 to 1065, the index-number for the corresponding quarter (January to March) of 1914 being 1009. The following table furnishes quarterly comparisons for the whole thirty towns since the beginning of the year 1912.

Cost-of-Living Quarterly Index-Numbers.—Average for Thirty Towns, 1912 to 1915.

Particulars.	First Quarter.	Second Quarter.	Third Quarter.	Fourth Quarter.	Whole Year.
1912 ..	947	988	1,037	1,027	1,000*
1913 ..	998	1,012	998	992	1,000
1914 ..	1,009	1,043	1,040	1,031	1,031
1915 ..	1,065	1,134	..	..	..

* Basis of Table.

The cost-of-living index-number for the quarter under review is the highest recorded during the period covered by these investigations, viz., since the beginning of the year 1901. Particulars of the cost-of-living index-numbers in each State for the years 1912, 1913, and 1914, as well as for the first quarter of 1915, and the corresponding quarter (January to March) of 1914, are shown in the following table. The weighted aggregate expenditure for the whole of the towns in 1912 is taken as base (= 1000), and the index-numbers are therefore comparable in all respects, that is to say, they shew not only the variations from year to year in each State, but they also furnish comparisons as to the relative cost in the different States, either in any given year or as between one year and another, and one State and another.

Cost-of-Living Index-Numbers for each State and Commonwealth,† January to March, 1915.

Particulars.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	C'wlth.
Average for 1912 ..	1,042	956	908	1,042	1,103	937	1,000*
.. 1913 ..	1,070	947	888	1,014	1,072	932	1,000
.. 1914 ..	1,092	994	915	1,038	1,088	964	1,031
Quarter—							
Jan. to March, 1914	1,087	958	897	1,013	1,056	933	1,009
Oct. „ Dec., 1914	1,083	997	938	1,020	1,103	985	1,031
Jan. „ March, 1915	1,112	1,035	973	1,060	1,139	1,014	1,065

* Basis of Table.

† Weighted average in each State for the five towns specified in paragraph 3 hereinafter.

2. **Variations in Retail Prices and House Rent Index-numbers 1912 to 1915 (first quarter).**—The table in the preceding paragraph shows the aggregate effect on the cost-of-living index-numbers for each State of variations in prices of commodities and house-rent. In order to shew the movements in the various main groups of expenditure that make up the whole "composite unit," the commodities are divided into three groups, viz., groceries, dairy produce, and meat, and the following table shews the index-number for each group and house-rent separately, compared with the quarter immediately preceding, the corresponding quarter of 1914, and with the average for the whole of the years 1912, 1913, and 1914:—

Cost-of-Living Index-Numbers for each State, January to March, 1915.
Weighted Average Expenditure in each Group for Thirty Towns in 1912 as
Base (= 1000).

Particulars.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	C'wlth.
I.—GROCERIES.							
Average for 1912 ..	1,015	934	1,080	1,001	1,118	1,013	1,000*
" 1913 ..	977	812	998	917	1,027	919	928
" 1914 ..	979	874	979	933	1,060	928	942
Quarter—							
Jan. to March, 1914	973	829	979	963	988	909	916
Oct. .. Dec., 1914	1,005	938	1,001	973	1,118	985	986
Jan. .. March, 1915	1,038	993	1,085	1,057	1,182	1,045	1,041

II.—DAIRY PRODUCE.

Average for 1912 ..	992	956	947	1,069	1,235	971	1,000*
" 1913 ..	991	903	895	1,040	1,186	942	970
" 1914 ..	1,006	954	896	1,066	1,117	1,020	997
Quarter—							
Jan. to March, 1914	1,042	922	879	1,055	1,177	976	994
Oct. .. Dec., 1914	952	919	884	1,041	1,155	999	960
Jan. .. March, 1915	1,031	995	936	1,126	1,230	1,097	1,036

III.—MEAT.

Average for 1912 ..	959	979	863	968	1,463	1,143	1,000*
" 1913 ..	1,045	997	853	1,030	1,426	1,200	1,042
" 1914 ..	1,105	1,098	1,017	1,278	1,501	1,281	1,147
Quarter—							
Jan. to March, 1914	1,045	1,009	930	1,121	1,425	1,196	1,062
Oct. .. Dec., 1914	1,119	1,107	1,149	1,296	1,552	1,315	1,174
Jan. .. March, 1915	1,230	1,164	1,191	1,347	1,612	1,287	1,245

Cost-of-Living Index - Numbers for each State, January to March, 1915.
Weighted Average Expenditure in each Group for Thirty Towns in 1912 as
Base (= 1000).

Particulars.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	C'with.
IV. HOUSE RENT.*							
Average for 1912 ..	1,119	962	781	1,094	871	774	1,000*
" 1913 ..	1,185	1,023	819	1,070	911	810	1,018
" 1914 ..	1,202	1,054	831	998	884	824	1,061
Quarter—							
Jan. to March, 1914	1,210	1,047	829	1,029	888	814	1,062
Oct. .. Dec., 1914	1,183	1,027	821	922	867	832	1,033
Jan. to March, 1915	1,151	1,025	809	904	856	832	1,016

* Basis of Table.

† See remarks on page 17 paragraph (iv.).

(i.) *Groceries*.—During the quarter under review the average cost of the commodities included in this group rose in all the States. The increase was greatest in Queensland and South Australia, and least in New South Wales. Practically the whole of the increase in this group is due to the rise in prices of flour and bread. In all the towns in New South Wales, with the exception of Broken Hill, the advance in the price of flour was considerably less than in the towns in the remaining States. Compared with the corresponding quarter (January to March) of 1914, all the States show a substantial increase in the index number for this group. The increase was greatest in Victoria (20.1 per cent.), followed in the order named by Western Australia (19.6 per cent.), South Australia (17.1 per cent.), Tasmania (15.0 per cent.), Queensland (10.8 per cent.), and New South Wales (6.7 per cent.). The weighted average index number for the whole of the thirty towns during the same period shows an increase of 13.6 per cent.

(ii.) *Dairy Produce*.—The index numbers for this group are higher than in the preceding quarter in all the States. The increase being greatest in Tasmania (9.8 per cent.), and least in Queensland (5.9 per cent.), while the average increase for the whole of the thirty towns is 7.9 per cent. In all the towns the prices of eggs and butter are higher than in the preceding quarter, while in some towns the price of milk is also higher. Compared with the corresponding period (January to March) of last year, the index-numbers for this group are higher in all the States except New South Wales, which shews a decline of 1.1 per cent. The advance in the remaining States is greatest in Tasmania (12.4 per cent.), and least in Western Australia (4.5 per cent.).

(iii.) *Meat*.—The index-numbers for this group are higher than in the preceding quarter in all the States except Tasmania, where there was a decline of 2.1 per cent. The increase was greatest in New South Wales (9.9 per cent.), and least in Queensland (3.7 per cent.). The weighted average index-number for the Commonwealth was 6.0 per cent. higher than in the preceding quarter. Compared with the corresponding period (January to March) of 1914, the index-number for the Commonwealth shews an increase of 17.2 per cent. The increase was greatest in Queensland (28.1 per cent.), followed in the order named by South Australia (20.2 per cent.), New South Wales (17.7 per cent.), Victoria (15.4 per cent.), Western Australia (13.1 per cent.), and Tasmania (7.6 per cent.).

(iv.) *House Rents*.—The index-numbers in this group are lower than in the preceding quarter in all the States except Tasmania, where rents remained stationary. The decrease in the remaining States was greatest in New South Wales (2.7 per cent.), and least in Victoria (0.2 per cent.). Compared with the corresponding quarter (January to March) of last year, the index-numbers for this group are lower in all the States except Tasmania, where the index-number shews an increase of 2.2 per cent. The decrease in the remaining States was greatest in South Australia, amounting to no less than 12.1 per cent. It may be observed that in Adelaide the decline in house-rents began in the latter part of 1912, while in the capital towns of the other States the decline did not set in until the latter half of 1914. The decline in rents, when compared with the same period of last year, amounts to 6.4 per cent. in Western Australia, 4.9 per cent. in New South Wales, 2.4 per cent. in Queensland, and 2.1 per cent. in Victoria.

It was pointed out in the previous issue of this Bulletin (Bulletin No. 8, p. 222), that in Broken Hill and Port Pirie prevailing conditions rendered it a matter of difficulty, if not of impossibility, to ascertain the predominant rents with precision. Similar conditions prevailed during the quarter under review, the rents paid depending upon the extent of unemployment or broken time of the tenant. Predominant rents in these towns have, therefore, been computed in accordance with special inquiries that have been made.

3. *Variations in Cost of Living in each of Thirty Towns, 1912 to 1915 (first quarter)*.—In the following table index-numbers are given for the first quarter of 1915, the preceding quarter (October to December, 1914), and the corresponding quarter (January to March, 1914). The average index-numbers for the whole of the years 1912, 1913, and 1914 are included for comparative purposes. The index-numbers for the first quarter of 1915 shew an increase on the preceding quarter in all the towns, due to the increased cost of food and groceries, which has more than counterbalanced the decrease in cost of housing accommodation which has taken place in many of the towns. The increase

in cost of living since the preceding quarter for the whole of the thirty towns considered as a whole amounts to 3.3 per cent. Compared with the corresponding quarter of 1914, all the towns shew an increase except Broken Hill. This decrease in this town is due to the abnormal conditions obtaining with regard to house rents, to which reference has already been made (see p. 17). The increase in cost of living, compared with the same period of 1914, is due to increased cost of food and groceries. House rents are lower in all the States except Tasmania, but the decline has been more than counterbalanced by the rise in prices of other items. The cost-of-living index-number for the Commonwealth is 5.6 per cent. higher than for the corresponding period of last year. The increase was greatest in Queensland (8.5 per cent.), followed in the order named by Tasmania (8.7 per cent.), Victoria (8.0 per cent.), Western Australia (7.9 per cent.), South Australia (4.5 per cent.), and New South Wales (2.3 per cent.).

Cost-of-Living Index-Numbers (Groceries, Food and House Rent), for each of Thirty Towns, 1912, 1913, 1914 and 1915, with Weighted Average for all Towns in 1912 as Base (= 1000).

Particulars.	1912	1913.	1914.			1915.
	Base for Whole Year (= 1000)	Whole Year.	Whole Year.	1st Quarter (Jan. to March).	4th Quarter (Oct. to Dec.).	1st Quarter (Jan. to March).
NEW SOUTH WALES—						
Sydney	1,093	1,091	1,117	1,112	1,114	1,138
Newcastle	884	913	921	903	927	981
Broken Hill	1,000	1,027	989	1,027	814§	896
Goulburn	965	1,006	1,046	1,021	1,061	1,092
Bathurst	850	880	913	907	902	933
*Weighted Average ..	1,042	1,070	1,093	1,087	1,083	1,112
VICTORIA—						
Melbourne	977	973	1,023	987	1,024	1,062
Ballarat	846	801	837	806	852	893
Benalla	857	833	854	825	861	904
Geelong	922	899	937	881	958	977
Warrnambool	865	865	888	870	897	933
*Weighted Average ..	956	947	994	958	997	1,035
QUEENSLAND—						
Brisbane	907	897	923	905	942	975
Toowoomba	904	855	880	869	918	950
Rockhampton	891	870	914	893	938	979
Charlton Towers ..	933	886	914	888	952	999
Warwick	929	859	844	841	861	901
*Weighted Average ..	908	888	915	897	938	973

Cost-of-Living Index-Numbers (Groceries, Food and House Rent), for each of Thirty Towns, 1912, 1913, 1914 and 1915, with Weighted Average for all Towns in 1912 as Base (= 1000).—Continued.

Particulars.	1912.	1913.	1914.		1915.	
	Base for Whole Year (= 1000.)	Whole Year.	Whole Year	1st Quarter (Jan. to March).	4th Quarter (Oct. to Dec.)	1st Quarter (Jan. to March).
SOUTH AUSTRALIA—						
Adelaide	1,071	1,038	1,058	1,035	1,039	1,076
Kadina, Moonta, Walla- po	849	845	889	845	886	948
Port Pirie	930	931	977	946	934§	996
Mt. Gambier	810	814	855	829	871	920
Petersburg	938	948	1,042	992	1,037	1,067
*Weighted Average ..	1,042	1,014	1,038	1,013	1,020	1,060
WESTERN AUSTRALIA—						
Perth	1,068	1,044	1,058	1,029	1,066	1,105
Kalgoorlie and Boulder	1,235	1,176	1,195	1,152	1,235	1,260
Mid. Jun. & Guildford	1,040	1,019	1,022	989	1,038	1,091
Bunbury	1,022	1,002	1,029	996	1,048	1,073
Geraldton	1,162	1,166	1,217	1,193	1,204	1,258
*Weighted Average ..	1,103	1,072	1,088	1,056	1,103	1,139
TASMANIA—						
Hobart	965	975	1,009	978	1,030	1,056
Launceston	925	899	938	964	964	993
Zeehan	881	859	831	821	848	865
Beaconsfield	766	745	752	727	772	803
Queenstown	915	916	945	914	957	1,007
*Weighted Average ..	937	932	964	933	985	1,014
† Weighted Average for Commonwealth ..	1,000‡	1,000	1,031	1,009	1,031	1,065

* Average for the five towns. † Average for thirty towns. ‡ Basis of Table, see Labour Report No. 5, pages 27 to 29. § See remarks on page 17, paragraph (iv.) *re* house-rent.

4. **Relative Cost of Living in Different Towns, January to March, 1915.**—In the following table the average expenditure on groceries, food, and house rent for the thirty towns considered as a whole has been taken as base and made to equal 20s. It will be seen that of every 20s. expended, on the average 12s. 9d. must be paid for groceries and food, and 7s. 3d. for rent. The figures given in this table are fully comparable throughout. Thus it may be seen that the same relative quantities of groceries and food, which cost 12s. 2d. in Melbourne, would cost 12s. 7d. in Sydney, 17s. 11d. in Kalgoorlie, 12s. 4d. in Ballarat, and 12s. 9d. on the average prices for all thirty towns. Similarly, compared with a relative payment of 8s. 3d. for housing accommodation in Sydney, in Melbourne only 7s. 10d. is paid, in Adelaide 6s. 3d., in Hobart 6s. 7d., and in Beaconsfield as little as 1s. 9d. Again, the last column (III.) shews the relative amount which

must be paid in each town to secure such relative quantities of groceries and food, and to provide housing accommodation which would cost £1 on the average for all towns.

Purchasing-Power of Money.—Amounts necessary to purchase in each Town for the First Quarter of 1915. Commodities and Housing Accommodation, which together cost £1 on the Average in the Thirty Towns regarded as a whole.

TOWNS.	I. Groceries And Food.	II. Rent.	III. Groceries Food & Rent.	TOWNS.	I. Groceries and Food.	II. Rent.	III. Groceries Food & Rent.
New South Wales—	s. d.	s. d.	s. d.	South Australia—	s. d.	s. d.	s. d.
Sydney ..	12 7	8 9	21 4	Adelaide ..	13 6	6 9	20 3
Newcastle ..	12 8	3 9	18 3	Kulina, Mounta. ..	13 7	4 2	17 9
Broken Hill ..	13 3	1 7½	16 10	Walleroo ..	14 4	4 4½	18 8
Goulburn ..	13 6	2 9	20 3	Port Pirie ..	12 2	5 1	17 3
Bathurst ..	12 4	3 6	17 7	Mt. Gambier ..	13 10	6 2	20 0
*Weighted Average	13 6	8 2	20 11	*Weighted Average	13 6	6 5	19 11
Victoria—				Western Australia—			
Melbourne ..	12 2	7 10	23 0	Perth and ..	14 6	6 3	20 9
Ballaarat ..	12 4	4 7	16 11	Fremantle ..	14 6	6 3	20 9
Bendigo ..	12 4	3 8	17 0	Kalgoorlie and ..	17 11	5 9	23 8
Geelong ..	12 3	6 3	18 4	Boulder ..	15 1	5 5	20 6
Warrnambool ..	11 11	3 7	17 6	Midland Junction ..	15 2	4 11	20 1
*Weighted Average	12 2	7 3	19 3	Banbury ..	16 4	7 3	23 7
Queensland—				Geraldton ..	15 4	6 1	21 5
Brisbane ..	12 3	6 1	18 4	Tasmania—			
Toowoomba ..	12 7	3 3	17 10	Hobart ..	13 3	6 7	19 10
Rockhampton ..	13 11	3 6	18 5	Launceston ..	12 7	6 1	18 8
Charter Towers ..	14 7	4 2	18 4	Zeehan ..	14 1	2 2	16 3
Warwick ..	12 6	4 0	17 0	Beaconsfield ..	13 4	1 9	15 1
*Weighted Average	13 6	5 0	18 3	Queenstown ..	14 4	4 7	18 11
				*Weighted Average	13 2	5 11	19 1
				Weighted Average	12	7 3	20 0½
				for all Towns			

* Average for the five towns. † See remarks on page 17, paragraph (iv).

‡ Basis of Table.

It will be observed from this table that Western Australia is the most expensive, and Queensland the cheapest State, Western Australia being 7.0 per cent. above and Queensland 8.7 per cent. below the average. Kalgoorlie and Geraldton, in Western Australia, are the most expensive towns, and Beaconsfield, in Tasmania, the cheapest. Kalgoorlie is 18.3 per cent. and Geraldton 18.1 per cent. above, and Beaconsfield 24.7 per cent. below the average.

5. Capital Towns only. Cost-of-Living Index-Numbers, 1911 to 1915.—The tables given in the preceding paragraphs of this section refer to the thirty towns of the Commonwealth for which particulars have been collected since the beginning of 1912. In previous reports information has, however, been furnished for the six capital towns back to 1901. In order to maintain the continuity of the results given in these reports, the following particulars are given for the capital towns only, taking the weighted average cost in 1911 for the six capital towns considered as a whole as base (= 1000):—

Retail Prices, House Rent and Cost-of-Living Index-Numbers in each Capital Town, 1911 to 1915, with Weighted Average Expenditure for the whole of the six Capital Towns in the Year 1911 as Base (=1000)*.

Particulars.	1911.	1912.	1913.	1914.			1915.
				Whole Year.	1st Quarter (Jan. to March).	4th Quarter (Oct. to Dec.).	1st Quarter (Jan. to March).
GROCERIES AND FOOD.							
Sydney	989	1,124	1,131	1,156	1,150	1,156	1,231
Melbourne .. .	935	1,082	1,024	1,091	1,028	1,115	1,188
Brisbane .. .	1,018	1,102	1,042	1,078	1,044	1,124	1,193
Adelaide .. .	1,020	1,154	1,119	1,215	1,147	1,233	1,315
Perth	1,346	1,345	1,267	1,302	1,245	1,330	1,420
Hobart	1,058	1,190	1,164	1,212	1,162	1,243	1,293
Weighted Aver.	1,000†	1,129	1,095	1,144	1,105	1,161	1,235

RENT.

Sydney ..	1,090	1,183	1,246	1,279	1,273	1,271	1,228
Melbourne ..	970	1,016	1,089	1,126	1,120	1,093	1,092
Brisbane ..	767	804	863	882	882	865	853
Adelaide ..	1,112	1,160	1,125	1,040	1,075	962	942
Perth ..	810	880	928	914	921	896	869
Hobart ..	805	829	887	914	904	924	24
Weighted Aver.	1,000†	1,064	1,118	1,135	1,135	1,110	1,088

GROCERIES, FOOD, AND RENT.

Sydney ..	1,031	1,148	1,178	1,206	1,201	1,203	1,229
Melbourne ..	950	1,055	1,051	1,105	1,066	1,106	1,147
Brisbane ..	915	979	969	997	977	1,018	1,053
Adelaide ..	1,058	1,157	1,121	1,143	1,118	1,122	1,162
Perth ..	1,126	1,154	1,128	1,143	1,112	1,152	1,193
Hobart ..	954	1,042	1,050	1,090	1,056	1,112	1,141
Weighted Aver.	1,000†	1,101	1,104	1,140	1,117	1,140	1,174

* For corresponding figures for previous years see Report No. 5 (pp. 22 to 27) of Labour and Industrial Branch. † Basis of Table. See Report No. 5, p. 22.

NOTE.—The above figures are comparable in all respects. That is to say, they show not only the increase or decrease in cost of living in each town separately, but also the relative cost as between the several towns.

The weighted average result for the six capital towns taken together shews that there is an increase in cost of living of 3 per cent. on the preceding quarter. The increased cost of food and groceries amounts to 6.4 per cent., while there has been a decrease in the cost of housing accommodation of 2.0 per cent. All the capital towns shew on the one hand an increase in the cost of food and groceries, and on the other (except in Hobart, where rents remained stationary) a decrease in cost of housing accommodation. Compared with the corresponding quarter (January to March) of 1914, the increase in the cost-of-living index-number amounts to 5.1 per cent. The index-number for food and

groceries is 11.8 per cent. higher than for the same period of last year, while the index-number for house rent is 4.1 per cent. less. The increase in cost of living since 1911 is greatest in Melbourne (20.7 per cent.), followed in the order named by Hobart (19.6 per cent.), Sydney (19.2 per cent.), Brisbane (15.1 per cent.), Adelaide (9.8 per cent.), and Perth (6.0 per cent.). The weighted average increase for the six capital towns considered as a whole is 17.4 per cent.

6. Purchasing-Power of Money. In the following table the average cost for the six capital towns in the year 1911 has again been taken as base. This base has been taken as equal to 20s. instead of 1000 as in the former tables. The figures show the variations in cost of living from year to year in each town separately (in the vertical lines), and the relative cost in the several towns in each year (in the horizontal lines). It may be seen, for example, that 20s. 7d. in Sydney in 1911 was equivalent to 18s. 4d. in Brisbane, or 19s. 1d. in Hobart, or that 22s. 11d. in Melbourne for the last quarter was equivalent to 15s. 5d. in Brisbane in 1901, or 22s. 6d. in Perth in 1913.

Purchasing-Power of Money.—Amounts necessary on the Average in each Year from 1901 to 1915 (2nd quarter) to purchase in each Capital Town what would have cost on the Average £1 in 1911 in the Australian Capitals regarded as a whole.*

Year.	Sydney.		Melb'rne.		Brisbane.		Adelaide.		Perth.		Hobart.		Weighted Average of 6 Capital Towns	
	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.
1901	17	16	17	5	15	5	17	3	20	6	17	5	17	7
1902	19	7	18	1	16	6	17	3	21	7	17	10	18	7
1903	19	2	17	7	15	9	16	9	21	8	17	11	18	2
1904	17	5	17	1	14	8	16	3	20	10	17	1	17	2
1905	18	9	17	7	15	5	17	6	20	11	17	9	18	0
1906	18	8	17	7	15	7	17	10	20	5	18	0	18	0
1907	18	6	17	6	15	11	17	11	19	9	17	9	17	11
1908	19	9	18	6	17	1	19	1	20	0	18	5	19	0
1909	19	9	18	1	17	0	19	10	19	9	19	0	19	0
1910	19	11	18	10	17	6	20	2	20	6	19	0	19	5
1911	20	7	19	0	18	4	21	2	22	6	19	1	20	0*
1912	22	11	21	1	19	7	23	2	23	1	20	10	22	0
1913	23	7	21	9	19	5	22	5	22	6	21	1	22	1
1914	24	1	22	1	19	11	22	10	22	10	21	10	22	10
1st Quarter	21	4	19	9	19	6	22	6	22	4	19	7	20	9
2nd "	22	5	20	10	19	6	23	2	23	8	20	2	21	9
3rd "	24	1	22	1	19	8	23	8	23	6	21	5	22	11
4th "	23	10	21	8	19	8	23	3	22	10	22	2	22	7
1st "	23	5	21	6	19	1	22	8	22	6	21	1	22	0
2nd "	23	10	21	2	19	7	22	11	22	11	21	3	22	4
3rd "	23	6	21	1	19	4	22	4	22	4	21	1	22	1
4th "	23	6	20	10	19	6	21	10	22	5	20	10	21	11
1st Quarter	24	0	21	4	19	7	22	4	22	3	21	1	22	4
2nd "	24	3	22	7	19	9	23	6	22	10	22	0	23	1
3rd "	24	2	22	5	20	1	23	2	23	3	21	10	23	0
4th "	24	1	22	1	20	4	22	5	23	0	22	3	22	10
1st "	24	7	22	11	21	1	23	3	23	10	22	10	23	6
2nd "	25	2	25	2	22	8	25	4	24	8	24	3	24	11

* Basis of Table.

† It is necessary to check or that figures given for the Capital towns in this table are not comparable with those given in the table on page 20. This will be at once evident when it is explained that in the case of the above table the base taken is the weighted average of the six Capital towns for 1911, whereas the base of the table on page 20 is the weighted average for 30 towns for the first quarter of 1915.

(i.) *Groceries and Food only.*—The following table has been computed in the same manner as that indicated above, but relates to groceries and food (46 items) only. The average expenditure for the six capital towns in 1911 has again been taken as the basis of the table (= 20s.), and the figures are, of course, comparable throughout.

Purchasing-Power of Money.—Groceries and Food only.—Amount necessary on the Average in each Year from 1901 to 1915 (2nd Quarter) to purchase in each Capital Town what would have cost on the Average £1 in 1911 in the Australian Capitals regarded as a whole.

Year	Sydney.	Melb'ne.	Brisbane.	Adelaide.	Perth.	Hobart.	Weighted Average of 6 Capital Towns.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
1901	18 4	19 4	19 4	20 7	23 8	20 3	19 4
1902	21 4	20 4	20 4	20 6	25 6	21 0	21 1
1903	20 7	19 6	19 9	19 8	25 8	21 1	20 4
1904	17 6	18 4	17 10	18 10	24 3	19 8	18 5
1905	19 5	19 1	18 11	19 10	25 2	20 7	19 8
1906	19 3	18 11	19 2	19 8	24 9	20 11	19 7
1907	18 9	18 6	18 11	19 0	23 11	20 2	19 1
1908	20 7	19 11	20 6	20 2	24 6	21 1	20 7
1909	20 3	19 0	19 8	20 6	24 3	21 10	20 1
1910	20 0	19 2	20 0	20 0	25 0	21 6	20 1
1911	19 9	18 8	20 4	20 5	26 11	21 2	20 0*
1912	22 6	21 8	22 0	23 1	26 11	23 10	22 6
1913	22 8	20 6	20 10	22 5	25 4	23 3	21 11
1914	23 1	21 10	21 7	24 4	26 0	24 3	22 11
1912 { 1st qt'r	20 9	19 9	21 11	22 0	26 0	21 10	21 0
2nd "	21 10	21 5	21 11	22 11	28 2	22 11	22 3
3rd "	23 11	23 2	22 1	23 10	27 4	24 8	23 9
4th "	23 6	22 3	22 3	23 6	26 1	25 9	23 2
1913 { 1st "	22 9	20 9	20 9	22 5	25 6	23 2	22 0
2nd "	23 2	20 10	21 2	22 11	26 0	23 9	22 4
3rd "	22 7	20 5	20 10	22 4	25 0	23 5	21 10
4th "	22 1	20 0	20 8	21 10	24 11	22 9	21 5
1914 { 1st "	23 0	20 7	20 11	22 11	24 11	23 3	22 1
2nd "	23 3	22 4	21 2	25 0	25 11	24 7	23 2
3rd "	23 1	22 0	21 8	24 7	26 9	24 3	23 0
4th "	23 1	22 4	22 6	24 8	26 7	24 10	23 3
1915, 1st "	24 7	23 9	23 11	26 4	28 5	25 10	24 8
.. 2nd "	25 9	27 8	26 4	30 2	30 2	28 3	27 3

* Basis of Table.

(ii) *House Rent only.*—The following table gives similar particulars for house rent only, the average for the six towns in 1911 being again taken as the basis of the table (= 20s.):—

Purchasing-Power of Money. House Rent. Amount payable on the Average in each Year from 1901 to 1915 (2nd Quarter) for House Rent in each Capital Town, compared with a Rent of £1 in 1911 in the Australian Capitals regarded as a whole.

Year.	Sydney.	Melbne.	Brisbane.	Adelaide.	Perth.	Hobart.	Weighted Average of 6 Capital Towns.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
1901	17 3	14 8	9 9	12 7	16 0	13 4	15 1
1902	17 3	14 11	9 10	12 7	15 11	13 5	15 2
1903	17 4	14 11	10 1	12 7	16 0	13 6	15 3
1904	17 5	15 3	10 2	12 7	16 0	13 6	15 4
1905	17 10	15 5	10 5	14 0	14 9	13 7	15 8
1906	17 11	15 8	10 6	15 3	14 4	13 9	15 11
1907	18 4	16 1	11 9	16 3	13 8	14 2	16 4
1908	18 7	16 7	12 4	17 5	13 7	14 7	16 10
1909	19 2	16 10	13 3	18 10	13 4	15 0	17 5
1910	19 10	18 4	14 0	20 4	13 11	15 6	18 5
1911	21 0	19 5	15 4	22 3	16 3	16 1	20 0*
1912	21 8	20 4	16 1	23 2	17 7	16 7	21 3
1913	21 11	21 10	17 3	22 6	18 7	17 10	22 4
1914	25 7	22 6	17 8	20 10	18 3	18 3	22 8
1st qtr	22 4	19 8	16 0	23 3	17 6	16 3	20 6
2nd	23 4	20 0	16 1	23 5	17 2	16 4	21 1
3rd	24 7	20 7	16 2	23 5	18 0	16 10	21 10
4th	24 4	20 11	16 0	22 11	18 3	16 11	21 7
1st	24 5	21 4	16 10	22 11	18 3	18 0	22 0
2nd	24 10	21 9	17 2	22 11	18 6	17 9	22 4
3rd	24 11	22 0	17 3	22 3	18 7	17 8	22 5
4th	25 6	22 1	17 10	21 10	18 11	18 0	22 8
1st	25 6	22 5	17 8	21 6	18 5	18 1	22 8
2nd	25 9	22 10	17 10	21 5	18 5	18 3	23 0
3rd	25 8	22 11	17 10	21 1	18 4	18 5	22 11
4th	25 5	21 10	17 4	19 3	17 11	18 6	22 2
1915	24 7	21 10	17 1	18 10	17 5	18 6	21 9
2nd	24 5	21 9	17 4	18 6	16 11	18 7	21 7

* Basis of Table.

7 **Monthly Fluctuations in Retail Prices of Food and Groceries.** July, 1914 to May, 1915. The following table has been prepared in order to shew the variations in retail prices of food and groceries since July, 1914, the last month prior to the outbreak of war. Particulars for each town are given in the form of index-numbers for food and groceries in each of the months specified. In addition, the index-numbers for the whole of the year 1912 are given in the first column, and in the last column the percentage increase or decrease is shewn for each town in May, 1915, compared with July, 1914.

Retail Prices Index-Numbers (Food and Groceries), for each of Thirty Towns,
for the months specified, with weighted Average for all Towns in 1912
as Base (= 1000).

Particulars.	1912.	1914.			1915.					In- crease from July, 1914, to May, 1915.
	Base for Whole Year (= 1000)	July.	Nov.	Dec.	Jan.	Feb.	Mar.	April.	May.	
NEW SOUTH WALES—										
Sydney	986	1,011	1,000	1,041	1,098	1,060	1,080	1,098	1,112	10.0
Newcastle	994	1,006	996	1,041	1,081	1,071	1,093	1,106	1,127	12.0
Broken Hill	1,186	1,287	1,187	1,260	1,283	1,313	1,320	1,382	1,381	7.3
Goulburn	990	1,037	1,025	1,068	1,080	1,060	1,074	1,096	1,151	11.0
Bathurst	950	962	934	1,007	1,026	1,038	1,045	1,071	1,090	13.3
*Weighted Average	995	1,022	1,007	1,050	1,103	1,071	1,090	1,110	1,125	10.1
VICTORIA—										
Melbourne	919	970	965	1,010	1,019	1,034	1,067	1,125	1,216	25.4
Ballarat	973	967	976	986	1,029	1,040	1,085	1,146	1,240	29.2
Bendigo	976	971	984	1,013	1,019	1,049	1,091	1,152	1,219	25.5
Geelong	952	955	981	1,015	1,003	1,038	1,059	1,109	1,184	24.0
Warrnambool	927	953	953	979	977	1,007	1,073	1,121	1,232	29.3
*Weighted Average	952	960	968	1,009	1,010	1,036	1,069	1,127	1,217	25.8
QUEENSLAND—										
Brisbane	966	926	962	1,019	1,057	1,035	1,046	1,120	1,162	25.5
Toowoomba	964	912	993	1,050	1,071	1,074	1,086	1,150	1,201	31.7
Rockhampton	1,002	1,013	1,026	1,071	1,111	1,095	1,111	1,145	1,208	19.3
Charlton Towers	1,134	1,092	1,155	1,225	1,250	1,206	1,287	1,323	1,392	27.8
Warwick	1,004	940	975	1,009	1,053	1,076	1,084	1,150	1,200	27.4
*Weighted Average	985	948	988	1,044	1,080	1,061	1,078	1,150	1,191	25.6
SOUTH AUSTRALIA—										
Adelaide	1,012	1,097	1,072	1,098	1,134	1,138	1,188	1,251	1,303	18.8
Kadina, Moonta, Wallaroo	1,012	1,070	1,060	1,095	1,138	1,155	1,201	1,268	1,305	20.9
Port Pirie	1,048	1,132	1,120	1,168	1,200	1,210	1,270	1,295	1,312	18.6
Mt. Gambier	964	933	943	981	1,001	1,030	1,069	1,153	1,212	20.9
Petersburg	1,018	1,175	1,140	1,148	1,165	1,169	1,224	1,257	1,347	14.6
*Weighted Average	1,011	1,093	1,070	1,098	1,134	1,140	1,190	1,251	1,303	19.2
WESTERN AUSTRALIA—										
Perth	1,179	1,175	1,170	1,179	1,206	1,230	1,290	1,311	1,317	12.1
Kalgoorlie and Boulder	1,171	1,460	1,518	1,526	1,517	1,532	1,548	1,541	1,584	8.6
Mt. Jun. & Guildford	1,209	1,188	1,194	1,217	1,251	1,306	1,317	1,325	1,344	13.1
Esperance	1,231	1,244	1,258	1,265	1,260	1,307	1,337	1,382	1,397	12.3
Geraldton	1,237	1,268	1,315	1,323	1,374	1,385	1,440	1,465	1,492	16.9
*Weighted Average	1,243	1,238	1,240	1,258	1,278	1,308	1,350	1,365	1,380	11.5
TASMANIA—										
Hobart	1,044	1,063	1,078	1,122	1,114	1,136	1,152	1,220	1,220	15.6
Launceston	986	1,003	1,026	1,053	1,045	1,086	1,092	1,152	1,180	17.6
Zeehan	1,142	1,133	1,165	1,228	1,205	1,197	1,220	1,246	1,343	13.3
Beaconsfield	1,053	1,079	1,090	1,121	1,132	1,136	1,157	1,200	1,250	16.7
Queenstown	1,130	1,153	1,145	1,165	1,202	1,217	1,274	1,287	1,333	15.6
*Weighted Average	1,036	1,054	1,071	1,108	1,103	1,128	1,144	1,203	1,227	16.4
† Weighted Aver. for Cwth.	1,000	1,021	1,018	1,057	1,088	1,084	1,112	1,156	1,203	17.8

* Average for the five towns. † Average for thirty towns. ‡ Basis of Table, see Labour Report No. 5, pages 27 to 29.

The above table shows the aggregate effect of variations in the cost of food and groceries from July, 1914, to May, 1915, but does not indicate the variation in price of the individual commodities included. In the following table particulars are given for the capital towns of the percentage increase or decrease in the price of the several commodities. In beef, mutton, and pork average results are given for all joints, etc., for which prices are collected. It may be seen that the prices of all those items in the groceries group of which the consumption is relatively large have increased in all the towns, but that the increases are generally smaller in Sydney than in the other towns. Milk is dearer in all the towns except Sydney, where the price in May was the same as in July of last year. Other commodities in the dairy produce group have increased in all the towns, but the increase in the case of butter is less in Sydney than in the remaining towns. Meat has increased in price in Sydney, Melbourne, Brisbane, and Adelaide, but in Hobart, though mutton and pork are dearer, beef is cheaper. In Perth the prices of all kinds of meat were lower in May last than in July, 1914.

Percentage Increase or Decrease in Prices of Commodities in May, 1915, compared with July, 1914.

COMMODITY.	INCREASE OR DECREASE* IN COST IN—					
	Sydney.	Melb.	Brisbane	Adelaide	Perth.	Hobart.
	per cent.	per cent.	per cent.	per cent.	per cent.	per cent.
Bread	14.2	50.0	28.6	12.9	42.9	28.6
Flour	35.7	80.9	82.1	78.6	82.9	65.3
Tea	0.4	6.8	5.9	9.3	7.0	9.0
Coffee	-1.9	2.7	-1.2	2.1	6.8	..
Sugar	-2.5	..	10.8	-2.5	..	3.7
Rice	-5.4	1.8	..	..	3.5	-0.3
Sago	-2.8	17.0	14.9	8.8	-3.7	3.7
Jam	-4.9	4.6	4.4	12.1	1.4	-0.5
Oatmeal	35.4	70.4	50.8	70.8	62.3	55.7
Raisins	1.5	5.6	3.2	3.2	2.9	11.2
Currants	0.5	11.1	-2.2	6.5	4.2	8.0
Starch	-0.2	2.8	2.9	1.8	-1.7	..
Blue	3.5	..	3.5	1.5	-2.3	7.1
Candles	3.1	1.5	-1.2	5.6	..	2.6
Soap	-3.9	0.8	28.8	11.8	10.4	-2.0
Potatoes	24.8	10.1	12.9	18.8	-8.9	18.6
Onions	..	..	..	7.6	9.8	-12.4
Kerosene	0.8	4.5	-1.0	1.7	-3.7	7.4
Milk	..	15.8	15.2	3.4	13.3	16.7
Butter	3.3	62.5	81.5	46.9	51.2	60.0
Cheese	0.5	19.9	26.0	23.8	27.0	13.3
Eggs	32.0	41.2	62.0	48.9	47.1	35.8
Bacon	0.9	13.7	16.8	12.1	5.1	9.8
Beef (Fresh)	19.2	18.2	38.3	10.1	-7.4	-4.8
.. (Corned)	25.8	27.4	21.2	8.8	-4.2	-4.5
Mutton	16.4	28.5	5.1	12.4	-0.9	1.1
Pork	1.5	1.5	5.2	7.5	-7.1	1.1

* Minus sign — indicates a decrease.

SECTION IV.—PRICE-INDEXES AND PURCHASING POWER OF MONEY.

1. **General.**—Information regarding the methods and technique adopted for the computation of index-numbers shewing variations in the purchasing power of money and in the prices of separate groups of items of expenditure such as food, groceries, and house-rent has been furnished in various issues of the Labour Reports and Bulletins, and an analysis of the theory upon which the calculation of the index-numbers is based was given in Report No. 1.* The latter was necessarily too technical for the ordinary reader, and it has been thought desirable to briefly review the whole matter, not from a mathematical or technical standpoint, but from a popular point of view, and to furnish simple examples illustrating the results previously obtained by a theoretical analysis of the fundamental principles involved.

In the first place it is necessary to point out that *expenditure* on living depends upon three elements, viz.:—

1. The particular series of commodities consumed.
2. The relative quantities consumed of the commodities.
3. The price of the commodities.

And it is evident that a change in any one of these elements may result in a variation in the *expenditure* on living. The first two of these elements constitute what is called the *standard of living*, and are, of course, subject to individual control, so that the standard varies not only as between nation and nation, but also as between localities and classes, and in the last analysis between individuals. The third element is not subject to individual control, and the *price* of any commodity measures or expresses the *value in exchange* between the unit of money, i.e., the sovereign, and the particular commodity in question. As time goes on the prices of some commodities may increase and of others decrease, though the variations in price are not, of course, usually of the same degree. The purchasing power of the sovereign expressed in relation to any particular commodity varies according to the rise and fall in the price of that commodity, and since the variations in price are not identical, a different result will be obtained, according to the particular commodity used as a measure. For this reason recourse must be had, if it be desired to obtain a general result, to some suitable group of commodities, and as the results obtained will depend to some extent upon the relative quantities used of each commodity included in the group, it becomes necessary, before any satisfactory results can be obtained, to determine approximately the relation between these quantities. In other words, it is necessary to determine

* Prices, Price-Indexes and Cost of Living in Australia, December 1912.

in some suitable manner the first two of the elements indicated above, viz.:—(1) The particular series of commodities consumed, and (2) the relative quantities consumed of the commodities. That is to say *before any investigation can be made as to the effect upon the cost of living of variations in prices, it is essential that some suitable and definite standard of living be determined.* Once this has been done, then, and only then, does it become possible to investigate the effect of variations in prices on the *cost of living, i.e., on the amount necessary to purchase a composite unit, that is, a group of commodities which constitutes the definite standard or regimen, which serves as the basis for comparisons.* These two questions of *standard of living* and *cost of living* must be carefully distinguished, otherwise it is impossible to make any practical analysis of variations in cost of living. It will be shewn hereinafter, however, that unless the standard of living be very substantially altered, the results obtained shewing variations in cost of living due to fluctuations in prices will be affected only to a very slight degree.

It cannot be too explicitly stated that *these investigations are not directly concerned in any change in the standard of living, whether due to variation in prices or to other causes.* The object of the inquiry is to measure the variation in the purchasing power of money, i.e., the variation in the cost of definite quantities of certain commodities, and the inquiry is not, and should not be, in any way directly concerned with the question of how far people change their standard of living on account of change in the purchasing power of money. Of course, if any permanent and substantial change in the standard of living eventually occurs, it will be desirable to readjust in a suitable manner the relative quantities of the commodities included, in order that the basis on which variations in purchasing power of money are computed may conform to the actual regimen of the people. Such a process, though subject to certain limitations, is on the whole quite satisfactory. Not only is it the most convenient for practical purposes, it is also, in an adequate consideration of the subject, seen to be the best possible. Moreover, it must be understood that while no system of measuring variations in the purchasing power of money *per se* can, of course, be universally applicable, yet should the standard change, it is necessary that, if any practical results whatever are to be obtained, some such readjustment be made. And further, were it not that it is satisfactory to adopt a definite composite unit, no results could be obtained and no solution to the problem would be possible.

Assuming, then, for the present that the regimen (i.e., the standard of living or composite unit) is satisfactorily defined, then *cost of living* may be measured by the amount of money necessary to purchase this unit, that is, to obtain definite amounts of food, clothing, housing accommodation and other necessities, as well as comforts and luxuries. It will therefore be seen that in order to measure variations in the cost of living it is essential to obtain records of three things, viz.:—

(a) The nature of the commodities, requirements and services ordinarily bought or paid for by the mass of the community.

(b) The relative quantity or extent to which each item is on the average consumed.

(c) The prices at which these items are bought or paid for by the consumers.

2. The Regimen or Standard of Living or Composite Unit.—After due investigation had been made as to the methods of technique, a matter which will be referred to hereinafter, the first step in the inquiry proper was to decide what commodities, requirements and services should be included. An investigation carried out by the Bureau in 1910-11 into the "expenditure on living," comprising the expenditure of 999 persons, disclosed the fact that the distribution of family expenditures was as follows, viz.:—

- (a) *Rent*, 16.3 per cent. (13s. 3½d.) on the total expenditure (£4 1s. 10½d.);
- (b) *Food*, 28.4 per cent. (£1 3s. 3½d.);
- (c) *Clothing*, 12.3 per cent. (10s. 1½d.);
- (d) *Fuel and Light*, 3.4 per cent. (2s. 9d.); and
- (e) *Other Items*, 39.6 per cent. (£1 12s. 5d.).

Although the composite unit, standard of living, or regimen, at any particular date varies for different classes of people in the same country, and though differences occur in the modes of living of people even of the same class, and in the same locality, yet the fact that the figures just given are representative of the mass of the people is borne out by collateral investigations that have been made in this Bureau. Thus from import, export and production statistics it is found that the average weekly expenditure per head of population is—on meat, 1s. 2½d. per head; on bread, 5½d.; milk, 5½d.; and on tea, coffee and cocoa, 2½d.; while the corresponding amounts computed from the "Cost of Living" investigation were as follow:—1s. 1d. per head on meat, 6d. on bread, 6½d. on milk, and 2½d. on tea, coffee, and cocoa. It is clear, therefore, that the above distribution of expenditure may be taken as representative, with a close degree of precision, of the whole community.

Having thus obtained general information as to the distribution of expenditure, the next step was to select the commodities to be included in the inquiry. Now the object of the investigation being to obtain results representative of variations in the cost of living due to price fluctuations in the community as a whole, the plan (subject to the limitations referred to below) was to include as many commodities, etc., as possible, such as were suggested by reference to the character of the more general needs of the mass of the people. In making the selection, however, it was necessary to have due regard to the following limitations:—

(a) In the first place, it was not intended for the purpose of this inquiry (for reasons indicated hereinafter) to include in the term "cost of living" the cost of satisfying all of the more general needs of the people, but only those of ordinary necessities and conventional comforts.

(b) Secondly, it was necessary to avoid duplication, e.g., such as would occur by including prices of both ordinary flour and self-raising flour.

(c) Thirdly, it was not desired to include commodities in which the grades or qualities vary to such an extent that definite "predominant" or most frequently sold qualities or grades could not be determined with precision by the persons furnishing the data.

(d) Fourthly, it was obviously undesirable to increase the amount of work involved in the investigation by including certain commodities of which the cost and consumption are relatively small, and the exclusion of which does not affect the results obtained.

Finally, since (as has already been pointed out, see page 29) the technique followed requires that the extent to which each commodity included is used should be known, it was not desired to include those commodities for which no information as to relative usage or consumption was available or in regard to which wide variation of usage is characteristic.

On reference to the results, given on page 29 hereinbefore, of the "Cost of Living" inquiry it will be seen that, excluding expenditure on "other items," by far the most important branch of expenditure is that on food followed, in the order named, by rent, clothing, and fuel and light. Commodities comprised under the head of "Clothing" have been entirely omitted from this investigation, owing to the impracticability of obtaining periodic prices for predominant grades and qualities and of satisfactorily determining the relative importance of the various items (see paragraphs (a) and (c) above). For similar reasons commodities comprised under the heading "Fuel and Light" have also for the present, at any rate, been excluded. In country districts wood is extensively used, while gas, coal and electricity are practically not used at all; again, in urban districts the consumption of wood as fuel is relatively small, while gas is used both as an illuminant and as fuel.

The expenditure on "other items" comprises amounts spent on other groceries not food, beverages, tobacco, fares, insurance, contributions to benefit societies, education and school materials, medical expenses, rates and taxes, sports and amusements, furniture, and all other expenditure. It is, of course, obvious that in regard to many of these items, prices cannot be collected; the expenditure upon them is moreover largely a matter of individual taste or caprice. Prices of "other groceries not food," including kerosene, are included in this investigation; the expenditure on these items amounts to nearly 3 per cent. on

the total expenditure. All other items in this group have been advisedly excluded from the present investigation, viz., for one or more of the reasons specified above.

It may now be seen that the scope of this inquiry includes expenditure on (a) Food, (b) House Rent, and (c) Other Groceries not Food, comprising approximately 48 per cent., or nearly one-half, of the total expenditure of a normal family. For families in the lower income groups, however, the percentage of expenditure on food, groceries and rent amounts to about 60 per cent.* The most important branch of expenditure which is entirely excluded is "Clothing;" necessary expenditure on clothing does not, however, vary greatly from year to year, and expenditure on clothing other than what is necessary in accordance with an individual's station in life may well be looked upon as expenditure on a luxury. Variation in expenditure on clothing due to price fluctuations is, in fact, indeterminate owing to the influences of individual taste, fashion, and the immense variety in production. Finally, in respect to this item, it may be pointed out that the question of "change of standard," so largely enters into the result, that the appropriate method for determining change in the expenditure on clothing is the householder's budget only.

Investigations have proved that the percentage of expenditure on food is far greater in families having small incomes than in those having larger incomes, thus indicating that economies in expenditure are primarily effected in regard to matters other than food. The same is true, but to a less extent, in the case of house rent, while, on the other hand, the relative expenditure on amusements, luxuries, and miscellaneous matters is far greater in the case of families having large incomes. Expenditure on clothing remains at a fairly constant percentage in all families grouped according to income. Now these facts shew that, in so far as expenditure on living is affected merely by changes in prices, the proper branches of expenditure to be primarily investigated are those relating to food and house rent, since it is shewn that these needs are the first to be satisfied, the surplus, after their satisfaction, being expended in other ways; in other words, the regimen in regard to food and house rent is substantially constant, while the regimen in regard to other items of expenditure is, to some extent, dependent upon variations in price of those commodities and services (in regard to which the regimen is constant) which have first of all to be paid for. The effect of change in prices on cost of living should obviously, therefore, be primarily investigated from the standpoint of those commodities, for which the need is first satisfied, and in regard to which changes in prices thus have their full influence on the totality of purchases which can be made with a fixed income. Moreover, as has been pointed out above, any method of measuring variations in cost of living is valid only if the regimen or standard of living be constant or *pro tanto* only for that part of a regimen which is constant.

* See "Inquiry into the Cost of Living in Australia, 1910-11," and Labour Report No. 4, "Expenditure on Living in the Commonwealth, November, 1911."

The regimen may, of course, be changed in respect of either of one or both of the first two elements specified on page 27 hereof, viz.:- (a) The particular series of commodities consumed, which really includes changes in quality of the commodities, and (b) the relative quantities consumed of the commodities. Change in quality is continually taking place in regard to all commodities, and nearly every two samples of a commodity would be found, on strict analysis, to differ (*e.g.*, in chemico-physical analysis). The question is really only one of degree, and each case must be decided on its merits. If the objection that strictly applies, viz. that change of quality must invariably be taken into account, were allowed to have weight, we should be landed in an absurd position, viz. that no deductions could strictly be made. It is of importance, therefore, to notice that, by the device of obtaining the "predominant" or "most frequent" price, the class, quality or grade of commodities comprised in the regimen always refer to that class, quality or grade which is most frequently sold. The method, though not theoretically perfect, has distinct advantages (see pages 34-5 hereinafter). Change in the regimen or standard of living ordinarily takes place slowly, and must be met, when necessary, by periodic revisions of the index-numbers. It is important, however, to remember that *even a substantial change in the relative quantities of the commodities concerned shales the index-numbers to a slight degree only.*

After reviewing all the possible items of expenditure in the light of the above considerations, 46 commodities were selected for inclusion in the investigation. These are shewn in the first column of the following statement. This list of commodities corresponds with the first element specified on page 27, viz., the series of commodities consumed. The figures in the second column shew the units of quantity for which prices are collected, while those in the third column correspond with the second element, specified on page 27, viz., the relative quantities consumed, and are based on the average production for Australia and the average export and import returns, generally, for the five years 1906 to 1910, inclusive.

The fourth column shews the relative numbers which have been adopted (in the computation of the index-numbers) as representing the extent of usage or consumption. The effect of thus "rounding off" the mass-units to be used was specially investigated; it was found that for a regimen comprising 73 commodities taking the prices for 1871 to 1911, the index-number referred to the latter year as base obtained by using the actual figures (as shewn in column 3) was 1194, whereas the index-number obtained by using the rounded-off mass units (as in column 4) was 1193. This shews that the error caused through using the latter figures, and thus considerably shortening the arithmetical labour, is negligible.

Retail Prices.—Table shewing Commodities, etc., included in Investigation, Units, Extent of Usage or Consumption and "Mass Units" adopted.

Commodity.	Unit.	Extent of Average Annual Usage or Consumption (000 omitted).	"Mass Units."
GROUP I.—GROCERIES (INCLUDING BREAD).			
1. Bread	2-lb. loaf	468,000	468
2. Flour, ordinary ..	25-lb. bags	11,280	11
3. Tea	lb.	30,000	30
4. Coffee	"	2,100	2
5. Sugar	"	460,000	460
6. Rice	"	50,000	50
7. Sago	"	7,750	8
8. Jam	"	73,500	73
9. Oatmeal	"	35,000	35
10. Raisins	"	14,000	14
11. Currants	"	14,000	14
12. Starch	"	1,000	1
13. Blue	doz. sqs.	500	$\frac{1}{2}$
14. Candles	lb.	16,000	16
15. Soap	"	64,000	64
16. Potatoes	14 lbs.	64,000	64
17. Onions	lb.	68,000	68
18. Kerosene	gallon	17,500	17
GROUP II.—DAIRY PRODUCE.			
19. Milk	quart	300,000	300
20. Butter	lb.	95,000	95
21. Cheese	"	15,000	15
22. Eggs	dozen	18,000	18
23. Bacon, middles ..	lb.	16,000	16
24. Bacon, shoulder ..	"	16,000	16
25. Ham	"	8,500	8
GROUP III.—MEAT.			
26. Beef, sirloin	lb.	67,000	67
27. " rib	"	82,000	82
28. " flank	"	12,000	12
29. " shin	"	14,000	14
30. " steak, rump ..	"	24,000	24
31. " " shoulder ..	"	53,000	53
32. " " buttock ..	"	53,000	53
33. " corned round ..	"	39,000	39
34. " brisket, with bone	"	11,000	11
35. " brisket, without bone	"	32,000	32
36. Mutton, leg	"	92,000	92
37. " shoulder	"	62,000	62
38. " loin	"	30,000	30
39. " neck	"	40,000	40
40. Chops, loin	"	62,000	62
41. " leg	"	15,000	15
42. " neck	"	31,000	31
43. Pork, leg	"	9,500	$9\frac{1}{2}$
44. " loin	"	8,500	$8\frac{1}{2}$
45. " belly	"	10,500	$10\frac{1}{2}$
46. " chops	"	8,500	$8\frac{1}{2}$
GROUP IV.—HOUSE RENT.			
47. House Rent	per week	46,500	$46\frac{1}{2}$

3. **The Collection of the Data.**—Particulars of prices of commodities are collected each month, and of house rents each quarter, under the authority of the Census and Statistics Act 1905. The towns for which these periodic records are collected are shewn in the following statement. The numbers in the last column but one indicate the number of returns which are collected for each town in the respective horizontal line and for each of the three classes of dealers (grocers, butchers, and milk-vendors), and for house agents. The numbers in the last column shew the total number of monthly returns collected for the six towns specified in each line respectively; the total number of monthly returns may accordingly be seen to be 816, that is, 204 in each class, or 136 in each State.

Cost of Living—Towns for which Returns Collected, and Number of Returns.

N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Number of Returns in each Class for each Town.	Total Number of monthly Returns.
Sydney ..	Melbourne	Brisbane	Adelaide	Perth†	Hobart	10	240
Newcastle	Ballarat	Toowoomba	Kadina*	Kalgoorlie‡	Lamington	7	168
Broken Hill	Bendigo	Rock-hampton	Port Pirie	Midland Junction§	Zeehan	7	168
Goulburn	Geelong	Charters Towers	Mount Gambier	Bunbury	Beaconsfield	5	120
Bathurst	Warrnambool	Warwick	Petersburg	Geraldton	Queens-town	5	120

* Including Moonta and Wallaroo.

† Including Fremantle.

‡ Including Boulder Clay.

§ Including Guildford.

In the instructions issued with the forms it was pointed out that prices were to be quoted for the grade or quality most frequently sold to the mass of the community. Thus, if four different qualities of tea were sold, say, at 1s., 1s. 3d., 1s. 6d., and 1s. 9d. per lb., but most was sold at 1s. 3d., then that was the price to enter on the return. It may here be remarked that in order to get a true (weighted) average price, it would be necessary for each dealer furnishing returns to keep a record of the quantity of each commodity sold at each price; this information cannot, of course, in the vast majority of cases be obtained with anything like accuracy. The predominant, or most frequent price, is what is statistically known as the "mode."* As pointed out on page 32 hereof, this method, though not theoretically perfect, has distinct advantages. These may be explained in the following manner:—Suppose that in an investigation into prices, certain grades or qualities of commodities have been selected as representative of the grades or qualities most commonly used, and as furnishing typical price movements for the several commodities included in the regimen, and suppose that owing to a change in quality or in the habits of the people these selected grades cease to be representative either of the quality

* That is, of the frequency curve, or frequency polygon, the abscissæ of which denotes price and the ordinates of which denote the quantities sold at any price in question.

consumed or of the price movements, then the successive index-numbers, being based on a regimen which no longer prevails, cease to have the same significance. If, however, the data collected referred to the "predominant" or "most frequent" prices, then the prices obtained continually relate to the grade or quality most frequently used, whatever that grade or quality may be. To this extent, therefore, the adoption of the principle of the "predominant" price enables the scheme of the investigation in some measure to adjust itself automatically to any minor changes in quality or grade. Of course, in the case of certain commodities in regard to which all the varieties of production and all the changes of fashion have their full influence, it may be impossible either to select any grade which is representative in quality and which truly reflects changes in price, or to determine any quality which is most frequently sold. It is for this reason that certain commodities, such as clothes, boots, furniture, etc., have been excluded from the present investigation.

It may here be pointed out that both in the collection of the data and computation of the results great care is exercised, and that there is reason to believe that the cost of living figures are based upon more extensive data than any which have been obtained in similar investigations in other parts of the world.

In order to give some idea of the comprehensive manner in which the work is executed, it may be mentioned that with regard to the 46 commodities and house rents included in the cost of living inquiry nearly 10,500 prices and quotations are received and tabulated for the 30 towns dealt with each month. This amounts to 126,000 per annum. The complete scheme in regard to cost of living provides for the collection and analysis of over 140,000 separate prices and quotations each year, but owing to the difficulty in getting in all the returns regularly it was necessary to provide for a larger number of returns than were actually required. When it is understood that the cost of living inquiry goes back for the capital towns as far as 1901, and the wholesale price inquiry (80 commodities) as far as 1871, some idea may be gathered as to the magnitude of the work involved. All the returns received are carefully examined, and in cases where any price or quotation is inconsistent or doubtful special inquiries are made from the person furnishing the return, thus affording guarantees of the accuracy of the tabulated results. It is believed, therefore, that a high degree of accuracy is obtained in these investigations, and it is evident that personal impressions or results not based upon an equally systematic and equally extensive inquiry cannot be allowed weight.

4. The Computation of Index-Numbers—The Aggregate Expenditure or Composite Unit Method.—A discussion of the theory upon which the calculation of index-numbers is based was given in Appendix VIII. of Labour Report No. 1, entitled "Prices, Price-indexes and Cost of Living in Australia." It must here suffice to state that the method adopted for the computation of the index-numbers is what may very properly be called the "aggregate expenditure" or "composite unit" method. The first process is, of course, to work out the average price

of each commodity included for each town for the particular month, quarter, or other period under review. The average price in any period of each commodity multiplied by its corresponding "mass-unit" represents, therefore, the relative total expenditure on that commodity in that period *on the basis of the adopted regimen*. It follows, therefore, that by taking for any period the sum of the price of each commodity multiplied by its corresponding "mass-unit" a figure is obtained which represents the relative aggregate or total expenditure of the community in that period on all the commodities, etc., included in the composite unit. By computing these aggregate expenditures for a series of periods and taking the expenditure in any desired period as "base," that is, making the expenditure in that period equal to 1000 units, the relative expenditure in any other period, that is to say, the "index-numbers," are readily ascertained.

In order to illustrate clearly the method adopted it will be well to take a simple numerical example. Suppose that in 1901 the average price of butter was 1s. 3d. per lb., of bread was 3d. per 2lb. loaf, of mutton was 3d. per lb., and of milk was 4d. per quart; and suppose that in 1911 the prices of these four commodities were 1s. 6d. for butter, 4d. for bread, 5d. for mutton, and 5d. for milk. Now the total quantities of each of these commodities consumed in Australia per annum are approximately 90 million lb. of butter, 470 million 2lb. loaves of bread, 330 million lb. of mutton, and 300 million quarts of milk. Therefore, the actual expenditure of the people of Australia on these commodities in 1901 and 1911 respectively would be as follows—

Computation of Index-Numbers: Illustrative Example of Aggregate Expenditure Method.

Particulars.	Unit.	Quantities Consumed, (0,000,000 omitted.)	Prices.		Total Expenditures.	
			1901.	1911.	1901.	1911.
			d.	d.	d.	d.
Butter	lb.	9	15	18	(0,000,000 omitted) 135	(0,000,000 omitted) 162
Bread	2lb. loaf	47	3	4	141	188
Mutton	lb.	33	3	5	99	165
Milk	quart.	30	4	5	120	150
					495	665

The relative aggregate expenditure was 495 in 1901, and rose to 665 in 1911; in other words, the index-number in 1901, taking the expenditure in 1911 as the base ($= 1000$) was $\frac{495}{665} \times 1000 = 744$, and the index-number in 1911, taking the expenditure in 1901 as the base ($= 1000$) was $\frac{665}{495} \times 1000 = 1343$, which might, of course, have been obtained directly by taking the reciprocal of the result previously obtained. If now, instead of only four commodities, a representative group of fifty or more were treated in this way for a series of years, the numbers thus obtained would furnish a satisfactory index of the variations in price from year to year.

In regard to the above illustration it is important to observe two things. Firstly, *the index-numbers obtained by the aggregate expenditure or composite unit method are reversible*, that is to say, if it be desired to ascertain the index-numbers for the year 1911 with the year 1901 as base, the same result is obtained by taking the reciprocal of the index-number for the year 1901 with the year 1911 as base, as would be obtained by computing the index-number for 1911 with the year 1901 as base from the original data. This question of reversibility is of considerable importance, and it was shewn in Report No. 1 that the index-numbers obtained by other methods are not reversible.*

The second matter to be observed in connection with the above illustration is that *the absolute numbers used for the mass-units do not in the least affect the final results, so long as the relation between the mass-units is not violently disturbed*.

There is another view of the matter which is of moment. It is evident that in any attempt to measure the fluctuating purchasing power of money, different commodities have different degrees of importance. Thus a commodity is unimportant if rarely used or if its use is confined to a particular class: for example, bread and meat on the one hand are important, and caviare and *pâte de foie gras* are unimportant. Hence the generality and extent of usage are determining elements in any scheme of estimating variations in the purchasing-power of money. The idea early occurred to economists to measure the change in the purchasing-power of money simply by taking the mere ratios of the prices of a series of commodities, and then finding the general result by computing the arithmetic average of a large series of these ratios. But as indicated, the different commodities are not entitled to be regarded as of equal importance if the method is to have any pretension to precision. Hence it became necessary to assign to each an appropriate weight, depending on the extent of usage: in other words bread and meat must influence the result considerably, and caviare, etc., but slightly, in fact, to any practical order of precision possible, not at all.

The technique of the weight question is by no means a simple matter, and this led two eminent economists, Stanley Jevons and Laspeyres, of Geneva, into false positions, both being wrong, and strange to say, Laspeyres leading persons who originally were, in the main, right in principle, into an error. The whole matter has been considered in Labour Report No. 1,† where it is shewn that *when properly handled the weighted price-ratio method gives results which, omitting negligibly small quantities, are identical with those of the aggregate expenditure, or composite unit method*. But the arithmetical technique of the price-ratio method, when properly carried out, is so tedious that it may be regarded as impractical: it involves a prohibitive amount of work, and as shewn in the Report mentioned, gives no better results than the aggregate expenditure or composite-unit method, which has the advantage of being simple and generally intelligible.

* See "Prices, Price-Indexes, and Cost of Living," Labour Report No. 1, p. 14, and Appendix VIII.

† "Prices, Price-Indexes and Cost of Living in Australia," December 1912, Appendix VIII., p. xxxvii, and Appendix IX., p. xlvii.

5. **The Precision of the Mass-Units.**—In order to obtain a high degree of precision in the measurement of price-indexes, i.e., variations in the purchasing power of money, it is not at all necessary to have a high precision in the relative quantities of the different commodities constituting the composite unit, i.e., in the "mass-units." All that is important is that the same mass-units should be used on each occasion and that they should be *merely approximately correct*. In order to shew the truth of this statement, a simple illustration will first be given, and will be followed by more complete illustrations covering the whole of the commodities included in the investigations.

In the first place, by way of illustration, index-numbers may be computed from mass-units, which are taken to be accurate, and the results compared with numbers computed for the same group of commodities, but with mass-units that are supposed to be inaccurate. Thus suppose that the correct numbers of units of usage for each of a series of any commodities designated by the numbers 1 to 5, inclusive, are 4, 5, 6, 3, and 2 respectively, but through bad estimation they were deemed to be 5, 4, 3, 2, and 1 respectively, it will be seen from the following computation that the correct aggregate cost of this unit was as much as 41s. at the prices on the first date, though the wrong mass-units gave only 25s. 6d. On the left-hand side of the following table the calculation is worked out with the correct mass-units; on the right with the wrong units. It may be seen that taking the index-number for the first period as base (= 1000) in each case, the price-index for the second date with the wrong quantities is 1114, and with the correct quantities 1118. It may thus be seen that the difference is quite negligible, amounting to only 0.4 per cent., and this is all the more significant when it is remembered firstly that most of the price index-numbers for other countries are computed to a base of 100, instead of 1000 as in the above case, i.e., the degree of accuracy is only one-tenth, and secondly, that the supposititious error in the mass-units in the illustration given is very considerable.

Precision of Mass-Units. Computations Illustrating that High Degree of Precision in Estimating the Mass Units is Unnecessary.

COMMODITY.	CORRECT UNITS USED—					INCORRECT UNITS USED—				
	Correct Units.	Price at Date. A.	Cost at Date. A.	Price at Date. B.	Cost at Date. B.	Incorrect Units.	Price at Date. A.	Cost at Date. A.	Price at Date. B.	Cost at Date. B.
1	4	6d.	s. d. 2 0	s. d. 0 7	s. d. 2 4	5	6d.	s. d. 2 6	s. d. 0 7	s. d. 2 11
2	5	1s.	5 0	1 3	6 3	4	1s.	4 0	1 3	5 0
3	6	2s.	12 0	2 6	15 0	3	2s.	6 0	2 6	7 6
4	3	4s.	12 0	3 9	11 3	2	4s.	8 0	3 9	7 6
5	2	5s.	10 0	5 6	11 0	1	5s.	5 0	5 6	5 6
Total	..	..	41 0	..	45 10	..	..	25 6	..	28 5
Index-Number deduced from correct units = 1000 × $\frac{45s. 10d.}{41s. 0d.}$ = 1000 $\frac{550}{492}$ = 1118.						Index-Number deduced from incorrect units = 1000 × $\frac{28s. 5d.}{25s. 6d.}$ = 1000 $\frac{341}{306}$ = 1114.				

In order to make this matter even more clear, further illustrations are given in the following table, including the whole of the commodities involved in the investigations. To the left of the heavy line results are given based on the correct mass-units, the prices taken being those for Melbourne in April and May 1915. To the right of the heavy line, the results given in columns A and B relate to assumed errors in mass-units, while those given in columns C and D relate to assumed errors in prices. The results obtained from the two latter columns are referred to in the next paragraph hereof. In column A it is assumed that the mass-units should really be smaller than those actually used; the reductions were made at random, and are not proportionate. In column B it is assumed that the correct mass-units used are altogether wrong, and have therefore been altered, some having been increased and others decreased very substantially. A glance at the index-numbers in the last line of the table shews that the assumed errors in quantities used make practically no difference to the results.

What has been proved by these arithmetical examples has been established for all cases (i.e., with complete generality) by algebraic methods in the Appendix, to which reference has already been made.* The result may be summarised as follows:—If it is possible to obtain, *even very roughly*, particulars of the relative usage of the different commodities used in the community, we can ascertain the change in the purchasing power of money in that community with a *very high degree of precision*. It is not at all necessary either to know with great exactness the relative quantities used or to know the absolute usage at all. In other words the mass-units may indicate merely approximately the relative quantities used in a day, a month, a year, or any other period. But in order to obtain results that are theoretically perfect, it is unequivocally necessary for the quantities used, i.e., the standard of living to be identical at the two dates. And for a very simple reason, viz., that the regimen must be constant in order to measure unequivocally the *variations in purchasing power*, and conversely the prices must be constant if the general price significance of a *change of regimen* is to be compared. If change of regimen, i.e., of the composite unit is allowed, then the result becomes equivocal. Finally in this connection it may be said that to fail to perceive that the *regimen or composite unit is only a well-ascertained basis* for measuring the variations of purchasing-power, is to wholly fail to understand the essence of the question. The aggregate cost of such a unit is, as it were, only an *incidental element*, although it is used for computing the price-index.

* See Labour Report No. 1, "Prices, Price-Indexes, Cost of Living in Australia," December 1912. Appendix VIII, pp. xxxvi-vii, and Appendix IX, pp. xlvii-ix.

Computation of Index-Numbers.—Illustrations Shewing Negligible Effect of Assumed Errors in Data.

CORRECT DATA USED—				INCORRECT DATA USED—				
Commodity.	Units of Quantity	Mass Units.	Average Prices in Melbourne.		A. Mass Units Used.	B Mass Units Used.	C. Error in Prices. [†]	D. Prices as in column C x Weights as in B.
			April.	May.				
Group I.—								
Bread	2 lbs.	468	4.50	4.50	375	500	..	..
Flour	25 "	11	61.05	60.00	10	10	..	..
Tea	1 lb.	30	15.30	15.80	25	40	-3.00	..
Coffee	"	2	18.80	19.00	*	1	..	..
Sugar	"	460	2.75	2.75	400	500	..	..
Rice	"	50	2.85	2.85	40	40	..	..
Sago	"	8	2.65	2.75	5	10	..	..
Jam	"	73	4.15	4.13	60	60	-0.50	..
Oatmeal	"	35	3.78	3.75	30	40	..	..
Raisins	"	14	6.45	6.65	10	10	..	..
Currants	"	14	6.75	7.00	10	20	..	..
Starch	"	1	5.50	5.55	*	5	..	..
Bile	"	16	6.33	6.33	*	5	..	..
Candles	"	16	6.65	6.75	10	10	-0.65	..
Soup	"	64	3.60	3.68	50	70	..	..
Potatoes	14 lbs.	64	10.14	10.14	50	66	+1.00	..
Onions	1 lb.	68	1.21	1.14	50	80	..	..
Acosmo	1 gal.	17	12.90	13.18	15	15	..	..
Group II.—								
Milk	1 quart	390	6.00	6.17	250	350	+0.50	..
Butter	1 lb.	95	19.00	24.45	50	80	-1.00	..
Cheese	"	15	11.70	13.10	10	20	..	..
Eggs	1 doz	18	27.50	26.20	*	10	..	..
Bacon, Middle	1 lb.	76	14.55	15.25	10	20	..	..
" Shoulders	"	18	9.38	10.06	10	10	..	..
Ham	"	8	14.89	15.10	5	10	+1.00	..
Group III.—								
Beef, Sirloin	1 lb.	67	7.55	8.40	50	60	-0.55	..
" Rib	"	82	6.45	7.40	70	90	..	..
" Shank	"	12	5.80	6.50	10	10	..	..
Steak, Rump	"	14	4.35	5.10	10	20	..	..
" Shoulder	"	34	9.70	10.60	20	20	+0.30	..
" Buttock	"	53	6.05	7.15	50	60	..	..
Beef, C. Round	"	53	5.30	6.10	40	40	..	..
" Brisket with bone	"	39	6.35	7.20	30	50	-0.35	..
" " without "	"	11	3.85	4.80	10	10	..	..
Mutton, Leg	"	53	5.20	6.05	20	40	..	..
" Shoulder	"	92	5.74	6.95	80	80	+1.00	..
" Loin	"	30	4.55	5.70	50	70	..	..
" Neck	"	40	5.65	6.60	20	20	..	..
Chops, Loin	"	62	4.10	5.30	30	50	..	..
" Leg	"	15	6.85	7.50	50	20	-0.85	..
" Neck	"	31	4.65	5.65	10	20	..	..
Pork, Leg	"	94	8.35	8.75	5	10	+1.00	..
" Loin	"	83	9.30	9.80	5	5	..	..
" Belly	"	103	9.10	9.60	5	15	..	..
" Chops	"	83	9.70	10.05	5	5	..	..
Aggregate Expenditure	..	..	1,000	1,081	1,077	1,077	1,081	1,077
Index Numbers	..	..	1,000	1,081	1,077	1,077	1,081	1,077

* These items omitted.

† The negative sign indicates that the amount specified has been deducted from the prices of the commodity in both April and May; the positive sign, that the amount specified has been added.

NOTE.—The index-numbers in the columns to the right of the heavy line are those for May compared with April as base (= 100) in each case.

6. The Precision of the Price-Data.—Attention has already been directed (see pages 34-35) to the steps taken to ensure accuracy in the data collected as to prices. It may be pointed out, however, that a great degree of accuracy in the prices is by no means necessary, provided that the percentage of error is practically constant. Thus the final results are not materially affected even if the prices of the commodities are

uniformly either too low or too high, provided, however, that the degree of error does not vary substantially.* The proof of this again is shewn in the tabular statement on page 40. In column C errors have been assumed in the prices of several important commodities, the amount of the error having been taken to be the same at the two periods, April and May. Since the amount of the error has been taken to be the same and since the prices have changed, it follows that the percentage of the error is not identical as between the two periods. Nevertheless the result shewn in the last line indicates that the index-number on the assumption of erroneous data as to the prices of commodities is exactly the same (1081) as that obtained from the correct data.

7. Precision of Mass-Units and Price-Data Conjointly.—It follows from the preceding paragraphs that *the final results are not vitiated even if there are errors both in the mass-units and the price-data, subject to the conditions specified in paragraphs 5 and 6, viz:—*As regards the mass-units, the same units must be used on each occasion, and they must be merely approximately correct, while as regards the price-data the degree or percentage of error must not vary substantially as between the various dates compared. The result obtained in column D is 1077, compared with the correct result of 1081. This result might, in fact, have been deduced from *a priori* considerations as follows:—Since the assumed error in prices (column C) made no difference in the result obtained (1081), and since the assumed error in the mass-units (column B) gave a result of 1077 in place of the correct result, 1081, it follows that the combination of the two sets of errors must also give a result of 1077. The proposition just enunciated is very important, and by no means implies (as it might seem to do to those who have given the subject inadequate attention) that accuracy of technique is of but little moment or that price-indexes cannot, in the nature of the case, be well ascertained. The mathematical proof in Appendix VIII. already referred to, establishes the contrary, as also do the arithmetical examples above.

8. Considerations regarding Restriction of Investigations to Food, Groceries, and House Rent.—It is a commonplace of economic theory that the value or purchasing-power of money is, like every other value, determined by the interaction of the broad forces of demand and supply, and that its variations from time to time depend upon variations arising out of the interaction. The values of all vendible commodities can be measured by means of their prices, i.e., their values expressed in terms of gold, but in the case of gold, since that commodity is itself the measure and standard of value, there is no medium in which to express its price. The real value of a sovereign is therefore expressed by its relation to other commodities, i.e., by its purchasing power. If prices generally rise, the value or purchasing power of money diminishes. The purchasing-power of money and the general price level of commodities therefore vary inversely. In this connection it must, of course, be understood that gold is merely a commodity, and that its value is affected by two different sets of causes. On the one hand there is a set of causes resulting from variations in the demand and supply of

* The mathematical proof of this is substantially identical with that already referred to in Appendix VIII. of Report No. 1.

the vendible commodities themselves; on the other hand there is the demand and supply of gold itself. Suppose that price statistics of all commodities, without exception, are prepared for two periods, and suppose that the results shew that there was a general and uniform rise in price between the two dates. This rise can be explained only in one of two ways. Either there must, by some extraordinary coincidence or combination of circumstances affecting each of the vendible commodities, have been a general and parallel rise in prices, or the value of one commodity—gold—must have fallen. It is obvious that the latter of these explanations is simple and reasonable, while the former is improbable and unreasonable. The apparent change in the prices can be explained reasonably only by a real, but opposite, change in the value of money. Though an absolutely general and uniform rise in prices never takes place, yet if, during any period, computations based on all vendible articles without exception shew that there had been a variation in what is properly called "the general price-level," this phenomenon, for reasons already stated, can be reasonably explained only on the supposition of an equal and inverse change in the value of money.

(i.) *Exclusion of certain Commodities and Items of Expenditure.*—

It has been pointed out above that the range of objects or items whose price variations can be observed is limited, and the reasons for such limitations have been stated. The limitations are, of course, common to all index-numbers, constructed for the purpose of shewing general variations in prices, whether import and export, wholesale or retail. If, however, the range actually covered is sufficiently extensive and representative, though the results obtained may or may not correspond *exactly* with those which would be obtained if it were possible to include the whole range of items or expenditure, in the absence of special evidence to the contrary it is reasonable to conclude that the error involved is small. Moreover, the only method by which any practical results whatever as to general changes in the purchasing-power of money can be obtained is by the limitation of the investigation to such objects or items whose price variations are observable and the omission of articles, commodities, or items which are not identifiable and comparable or which though still called by the same name are continually undergoing changes in character and quality, or which should be excluded from the investigations for any of the reasons specified on p. 35.

To explain in another way and to supplement what has already been stated, it is necessary to understand that variations in the prices of commodities may theoretically be resolved into two constituent factors, viz:—

(a) First of all, gold regarded as a commodity undergoes variations in value precisely similar in kind to those which all other commodities experience from changes in demand and supply, but in this case of course, since gold is itself the "standard of value," the variations in the value of gold cannot be measured in the same way as price variations are ordinarily measured, viz., in terms of gold, but must necessarily be measured by the relation of gold to commodities and by preference to some suitably-selected composite unit or definite aggregate of commodities.

(b) Secondly, each individual commodity has its own causes of price variation. Frequent changes occur in price owing to changes in the relative supply and demand of the commodity itself. As the value of each commodity is often largely independent of that of other commodities, and consequently has its own causes of variation, the price variations of different commodities vary not only in degree, but also in direction. It is, of course, common knowledge that some prices rise, others remain stationary, and still others fall, and on a *a priori* consideration it is not reasonable to imagine the existence of some influence or extraordinary combination of circumstances which could simultaneously cause a uniform change in the value of objects that are entirely dissimilar as regards their utility, quantity, method of production and factors which control their prices.

In observing the variations in price of any commodity it is ordinarily impracticable to ascertain with any substantial degree of precision to what extent the variations are due to one or other of the above factors. The proper course then is to investigate the changes in price of as many commodities as possible, whose price variations are observable. With a large number of commodities it may then be reasonably assumed as regards the second set of variations mentioned, viz., those due to changes in the relative demand and supply of the commodities themselves, that the variations in excess will tend to balance the variations in defect. The net result, if that be done, is that the aggregate variations obtained represent the changes in the value of gold. If, therefore, the observable commodities are representative and numerous, it follows that the aggregate result obtained will measure with at least approximate accuracy the variation in general-exchange-value measured in terms of gold, that is in the price of commodities generally*.

When a change in price-level extends over a large variety of commodities and items, and where, moreover, a change in a similar direction and of the same degree occurs also in a number of countries, including the country immediately under review, the only reasonable deduction that can be made in the absence of evidence to the contrary, is that the change is due to a variation in the value of money, and that therefore the result obtained from an investigation covering a considerable and representative group of commodities and items not merely measures the exchange-value of gold in relation to the limited number of commodities and items that are included in the investigation, but shews with approximate accuracy the variation in the general purchasing-power of money.

One further *a priori* consideration of importance may be mentioned in connection with this matter, viz., that in statistical investigations what is known as the "parcel method" is frequently adopted either in cases (a) where the whole group is so numerous that an examination of the whole group is impracticable, e.g., in regard to the collection of anthropometrical statistics, where it is obviously impracticable to obtain measurements of all persons. The practice in such cases is to select for investigation a "parcel" of representative persons, and (b) where the whole group is made up of two parts, the characteristics of one of which are readily and accurately observable, but of the other are concealed or are confused with other factors or elements from which they cannot be separated. In such cases any attempt to include data which are not unequivocally observable would introduce elements of uncertainty, and

* See NOTE on page 115.

the results obtained by their inclusion would be less reliable than those obtained by the "parcel method" from the observable and reliable data.

The most important groups of expenditure which have for one or more of the reasons already indicated been excluded from these investigations are (a) clothing, and (b) fuel and light, covering about 13 and 5 per cent., respectively, of the expenditure in the lower income groups. Though the commodities comprised in these groups cannot be included in the computation of the index numbers shewing variations in the purchasing power of money, supplementary investigations have been made in order to indicate generally the direction and degree of the variations in their prices.

(a) *Clothing*.—In the Annual Statements of the Trade of the United Kingdom with Foreign Countries and British Possessions, particulars are given of the quantity and value of exports. The particulars given are based on declarations made by exporters and checked by Customs Officials. From these data average prices of exports to Australia have been computed for the various main groups of textiles and clothing, viz.: (a) Cotton manufactures; (b) hats and bonnets; (c) boots and shoes; (d) linen manufactures; (e) silk manufactures; (f) woollen manufactures; and (g) worsted manufactures. The average result for all these groups shows that the prices increased from 1901 to 1913 by 23.1 per cent. It should be observed, however, that the values are given f.o.b. at port of shipment. The deduced prices do not, therefore, include any variations due to cost of carriage, insurance or freight, nor do they reflect change in prices in Australia due to tariff variations. Owing to the increase in duties imposed by the 1907 tariff, there can be little doubt that the increase in price-level for the commodities specified above deduced from the Board of Trade returns, viz., 23.1 per cent., is less than the actual increase in price of these commodities in Australia. It may, of course, be safely assumed that the increase in prices computed from the Board of Trade returns are not generally due to improvements in the quality, grade, or character of the goods exported. Owing to the fact that values only, and not quantities, of imports are recorded in the Commonwealth Customs returns, a similar analysis on the basis of value, including carriage, insurance, freight and duty cannot be made.*

The analysis of variations in cost of clothing in Australia between 1901 and 1913 may be carried further by an examination of the wages paid in the clothing trades. The weighted average increase in the Commonwealth in earnings of male and female employees between 1901 and 1913 in the bootmaking, clothing (ready-made and order), woollen mills, dress and mantle making, shirt making, underclothing, millinery, and hat and cap making trades and industries was 36.6 per cent. In these industries the percentage of raw materials used on the total value of the output in 1913 was 53.1, and the percentage of wages 29.7. Taking the increase in price (23.1 per cent.) obtained from the Board of Trade returns as corresponding to the increase in price of the raw materials used in these industries in Australia, although, as already pointed out, there is little doubt that such increase is less than the

* Evidence regarding the effect of the tariff on prices of cloth, and of tailor-made clothing, was given before the Interstate Commission. See Tariff Investigation—Apparel: Women's and Men's Outer Garments and Piece Goods. Appendix to Report, p. 102. 1915. Government Printer Melbourne.

actual increase, and taking the increase in wages (36.6 per cent.) as applying to 29.7 per cent. of the total value of the output. The aggregate effect is an increase of 27.94 per cent. in that part of the output represented by the value of raw materials and wages. In other words it is seen that in so far as 82.8 per cent.* of the value of clothing is concerned, the price increased between 1901 and 1913 by 27.94 per cent., compared with an average increase during the same period in the cost of food, groceries, and housing accommodation of 25.5 per cent. in the six capital towns.

(iii.) *Fuel and Light.*—Special investigations have been made with a view to obtaining particulars as to the increase in Melbourne between the years 1901 and 1913 in the prices of gas, coal, and wood (fuel). Kerosene is already included among the commodities for which prices are collected each month. The average price of gas for lighting and cooking purposes has been computed by weighting the prices collected from each gas company in Melbourne according to the relative production of each such company.

Melbourne.—Variation in Prices of Fuel and Gas, 1901 and 1913.

Particulars.	Unit of Quantity.	Price.		Index-Numbers.	
		1901.	1913.	1901.	1913.
		s. d.	s. d.		
Gas ..	1,000 cub. ft.	5 0 $\frac{1}{2}$	4 6 $\frac{1}{2}$	1,000	896
Coal ..	cwt.	1 8 $\frac{1}{2}$	1 7 $\frac{1}{2}$	1,000	959
Wood ..	"	1 0 $\frac{1}{2}$	1 3 $\frac{1}{2}$	1,000	1,278

These results shew that while the price of gas decreased 10.4 per cent., and that of coal 4.1 per cent., the price of wood increased 27.8 per cent. No information is available shewing the relative consumption in Melbourne of gas, coal, and wood, and a weighted average result cannot therefore be computed. On the assumption that the usage of these three commodities is the same, the average increase in price would be 4.4 per cent.

(iv.) *Other Items.*—No definite information is available in regard to variations in prices of other commodities and items. Attention may, however, be drawn to what is generally known as "sympathetic movements" in prices, by which it is understood that prices *in the aggregate tend* to move in the same direction and approximately in the same degree. Thus for example if the prices of sugar and flour be materially increased, it is reasonable to suppose that the price of sweets and cakes and other commodities containing substantial quantities of these ingredients will also rise. Again, if the rents of dwelling houses increase, it is only reasonable to suppose that there will also be a rise in the rent of shops, with a consequential increase in the prices of the commodities purveyed.

* The remaining percentage distribution of the total value of output of the industries specified is as follows:—Fuel and light, 0.7 per cent., and added value (including interest, profits, maintenance and repair, overhead charges, etc.), 16.3 per cent.

While it is true that insurance premiums and contributions to benefit societies have probably not varied, it must be borne in mind that the purchasing-power of money benefits to be derived is increased or reduced in accordance with the general appreciation or depreciation in the purchasing-power of money, and in times of rising prices in order to obtain benefits of the same net value as before, the premiums and contributions would have to be increased *pro rata*.

(c.) *Combination of Results.* Assuming that the results of the preceding investigations regarding variations in price of clothing and fuel and light may be taken as representing on the average the true facts in the six capital towns, they can be combined for general illustrative purposes with the results obtained from the investigations, based on food, groceries, and house rent. Thus in the following table cost of food, groceries, and house rent covering approximately 60 per cent. of the expenditure, has increased 25.5 per cent. (see Report No. 5, p. 23); the costs of clothing and of fuel and light are taken on the basis of the results of the preceding inquiries to have increased 27.9 and 4.4 per cent., respectively, the percentage of expenditure on these groups being 13 and 5, respectively.

The table shews that whereas the results obtained from the prices of those commodities only which are identifiable and comparable (covering about 60 per cent. of the total expenditure on living), indicate an increase between 1901 and 1913 in cost of living of 25.5 per cent., the inclusion of the results obtained as to clothing, fuel and light, subject to the qualifications specified in the preceding paragraphs, shews that the increase (covering in all about 78 per cent. of the expenditure) is 24.5 per cent.

Purchasing Power of Money. Combined Results of Enquiries comprising Food, Groceries and House Rent, Clothing, Fuel and Light.

I. Particulars	II. Percentage of Expenditure on each Group on Total Expenditure	III. Percentage Increase in Cost, 1913, compared with 1901.	IV. Percentage on Column II. in- creased by Per- centage in column III.
Food, groceries, and rent	60	25.5	75.3
Clothing	13	27.9	16.6
Fuel and light	5	4.4	5.2
Total	78	..	97.1

Aggregate result (covering 78 per cent. of normal expenditure on cost of living).
Increase (78 to 97.1) = 24.5 per cent.

It will be seen, therefore, that although a number of commodities and items of expenditure have to be excluded for various reasons from the current investigations on which the index-numbers are based, both *a priori* considerations and practical inquiries into variations in cost of the two main branches of expenditure which are excluded, indicate that the index-numbers reflect with substantial accuracy variations in the value of money. In short, the method adopted of measuring variations in the purchasing power of money is, in spite of the limitations pointed out—limitations which cannot be avoided or obviated—the best possible general measure.

SECTION V.—WHOLESALE PRICES.

1. **Index-Numbers.**—The Melbourne wholesale-price index-number for the first quarter of 1915 is 1387, compared with 1225 for the fourth quarter of 1914, a rise of 13.2 per cent. during the quarter under review. Compared with the index-number for the first quarter of 1914 (1085) the price level for the corresponding quarter of 1915 shows an increase of 27.8 per cent. Index-numbers at decennial periods since 1871, and for each year since 1908, are shewn in the following table:—

Melbourne Wholesale Prices.—Index-Numbers, 1871 to 1915.

YEAR.	1871.	1881.	1891.	1901.	1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915. 1st Qr.
Index No.*	1,229	1,121	945	974	1,115	993	1,003	1,000	1,172	1,088	1,110	1,387

* See graph on page 4 hereinafter.

2. **Variations in Price Levels of Commodity Groups.**—Of the eight groups into which the 92 commodities are classified, Group VIII. (Chemicals), is the only one in which there was a fall in the index-number since the last quarter of 1914, the decline in that group amounting to 7.3 per cent. The most marked increase, amounting to no less than 25.1 per cent., took place in Group III. (Agricultural Produce), while Group VI. (Meat), advanced 12.5 per cent., and Group IV. (Dairy Produce), 11.3 per cent. The increase in Group II. (Textiles, Leather, &c.), was 6.4 per cent., in Group V. (Groceries and Tobacco), 5.6 per cent., in Group VII. (Building Materials), 2.4 per cent., and in Group I. (Metals and Coal), 1.6 per cent. Comparing the index-numbers for the first quarter of 1915 with those for the corresponding period of 1914, the index-numbers for the former period are higher in every group except Group VIII., in which there was a decrease of 13.9 per cent., due principally to the lower price of cotton.

Wholesale Prices.—Index-Numbers for Quarter, January to March, 1915.

GROUP.	No. of Com- modities.	INDEX-NUMBERS.		
		January to March, 1914.	October to December, 1914.	January to March, 1915.
I.—Metals and Coal ..	14	1,046	1,179	1,198
II.—Textiles, Leather, etc.	10	1,059	857	912
III.—Agricultural Produce	16	1,053	1,546	1,934
IV.—Dairy Produce ..	9	1,108	1,083	1,205
V.—Groceries and Tobacco	21	1,024	1,016	1,073
VI.—Meat ..	5	1,349	1,515	1,700
VII.—Building Materials ..	10	1,074	1,086	1,112
VIII.—Chemicals ..	7	1,019	1,648	1,527
ALL GROUPS* ..	92	1,085	1,225	1,387

* Weighted average.

In the following paragraphs brief remarks are given in regard to the chief features of the more important changes during the first quarter of 1915, compared with the last quarter of 1914, in average price of commodities in the various groups, in which a rise or fall in the index-number occurred.

3. **Metals and Coal.**—In this group there were slight rises in nearly every commodity, with the exception of coal, the most pronounced rise being in sheet zinc, the average price of which rose from £18 17s. 6d. to £18 8s. 6d. per ton.

4. **Textiles, Leather, etc.**—With the exception of woolpacks, the price of which fell from 4s. to 2s. 11½d. each, there was little change in the prices of jute goods. Raw cotton increased in price from 4½d. to 4 11½d. per lb., and wool from 9½d. to 2 9-16d. per lb., while tallow rose from £22 16s. 3d. to £30 16s. per ton.

5. **Agricultural Produce.** The only commodities in this group which fell in price were potatoes and onions, the former from £6 10s. 3d. to £4 4s. 8d., and the latter from £11 6s. 1d. to £7 4s. per ton. The following are the more important articles which rose in price, together with their average prices for the last quarter of 1914 and the first quarter of 1915:—Wheat, 5s. 6d. and 7s. 9d. per bushel; flour, £11 15s. 1½d. and £16 14s. 7d. per ton; oats, 3s. 8d. and 4s. 10d. per bushel; oatmeal, £20 15s. and £26 16s. 8d. per ton; maize, 4s. 3d. and 5s. 1d. per bushel; hay (manger trussed), £6 8s. 8d. and £7 13s. 7d. per ton; and chaff £6 4s. 8d. and £8 8s. 6d. per ton.

6. **Dairy Produce.**—The price of butter rose from 1s. to 1s. 1½d. per lb., and of eggs from 9½d. to 1s. 1d. per dozen, while the price of cheese fell from 10½d. to 8½d. per lb. The prices of the other commodities either remained stationary, or altered but slightly.

7. **Groceries.** The more important increases in price were in currants, which rose from 4½d. to 5½d. per lb., tea from 8½d. to 9d. per lb., macaroni from 3½d. to 4½d. per lb., and matches from 2s. 16d. to 4s. 4½d. per gross. Tobacco rose, in consequence of the additional duty, to 5s. 9½d. per lb., and kerosene was advanced ¼d., to 10½d. a gallon.

8. **Meat.** All classes of meat rose, beef from 30s. 9d. to 34s. 6d. per 100 lb., mutton from 3 3-16d. to 3 11-16d. per lb., lamb from 11s. 1d. to 11s. 11d. per carcass, veal from 2 7-16d. to 3d., and pork from 5 15-16d. to 6 1-16d. per lb.

9. **Building Materials.** Flooring and weatherboards advanced from 1½d. to 7½d. per 100 super feet, according to size, while oregon rose from £5 7s. 6d. to £6 9s. 2d., and shelving from £16 10s. to £16 16s. 8d. per 1000 feet. Cement rose from 15s. 7½d. to 17s. 11d. per cask. White lead fell from £42 7s. 3d. to £40 per ton, and Welsh slates from £13 18s. to £13 14s. 2d. per 1000.

10. **Chemicals.** Cream of Tartar fell from 2s. 4½d. to 2s. 1d. per lb., and carbonate of soda from £11 18s. 4d. to £11 per ton, while sulphur rose from £10 9s. to £12 a ton. The other commodities in this group remained unchanged in price.

11. **Variations in Price Levels between July, 1914, and April 1915.**—The variations in the index-numbers of the individual commodity groups since the outbreak of war are shewn in the following table, in which the index-numbers are given for each group for the month of April, 1915, taking July, 1914, the last month before the commencement of the war, as base (= 1000) for each group:—

Melbourne Wholesale Prices.—Variations between July, 1914, and April, 1915.

Particulars.	I. Metals and Coal.	II. Fute, Leather, etc.	III. Agri- cultural Produce, etc.	IV. Dairy Produce.	V. Groceries	VI. Meat.	VII. Building Mater- ials.	VIII. Chem- icals.	All Groups.
July, 1914 ..	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
April, 1915 ..	1,122	908	2,172	1,213	1,002	1,109	1,076	1,132	1,302

SECTION VI.—INDUSTRIAL DISPUTES.

1. **General.**—The systematic collection of information as to strikes and lockouts* throughout the Commonwealth was first undertaken as from the 1st of January, 1913. Detailed particulars of disputes during the year 1913 were published in Labour Report, No. 5. In the following tables summarised information, in comparative form, regarding disputes during 1913 and 1914, are given, as well as particulars of disputes throughout the Commonwealth during the first quarter of 1915. The first table shews the number and magnitude of disputes occurring in each State and Territory during the year 1914†, with comparative figures for the year 1913, while the second table furnishes particulars of strikes and lockouts in 1914, classified according to industrial groups.

Industrial Disputes in each State and Territory.—Comparative Particulars for 1913 and 1914.

Particulars.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	P.T.*	N.T.†	C'with.
No. of Disputes 1914	235	44	18	13	18	6	1	2	237
1913	134	29	17	9	9	8	1	1	208
No. of Work- 1914	54,281	7,051	1,686	1,191	4,409	313	56	68	71,049
people involved 1913	40,011	6,177	2,006	288	967	484	200	170	50,281
No. of Working 1914	727,726	93,932	27,867	15,275	124,175	3,286	350	552	992,153
Days Lost 1913	447,979	77,587	77,178	2,412	12,492	987	1,400	2,500	622,535
Total estimated 1914	363,323	43,747	13,176	7,697	70,552	1,459	179	348	500,475
Loss in Wages 1913	208,468	32,506	37,684	1,020	5,615	434	600	1,675	288,101

* Federal Capital Territory. † Northern Territory.

* For the purpose of these investigations a strike is defined as a concerted withdrawal from work by a part or all of the employees of an establishment, or of several establishments, with a view to enforcing a demand on the part of the employees, or of resisting some demand made by their employers. A lockout is a refusal on the part of an employer, or several employers, to permit a part or all of the employees to continue at work, such refusal being made to enforce a demand on the part of the employers, or to resist some demand made by their employees. Under these definitions certain stoppages of work are excluded, such for example as stop-work meetings and stoppages in which the relation of employer and employee does not exist.

† Further information regarding industrial disputes in 1914, their causes, methods of settlement, etc., will be included in a report to be published shortly.

The number of disputes was greater in 1914 than in 1913 in each of the States and Territories, with the exception of Tasmania and the Federal Capital Territory. In New South Wales the number of disputes recorded for 1914 was 235, as compared with 134 during the year 1913. In Victoria, 44 disputes commenced in 1914, as against 29 in 1913, while in Western Australia there were 18 disputes in 1914 and 9 in 1913. Further information regarding disputes in 1913 and 1914 is given in Section XIV. hereof.

Industrial Disputes in the Commonwealth during the Year, 1914. Classified according to Industrial Groups.

Industrial Group.	No. of Disputes.	No. of Work-people Involved in Disputes	No. of Working Days Lost.	Total Estimated Loss in Wages.
				\$
I.—Wood, Furn., Timber, etc.	5	556	3,086	1,345
II.—Engin., Metal Works, etc.	29	8,039	114,635	60,249
III.—Food, Drink, etc.	9	2,670	61,696	27,020
IV.—Clothing, Hata, Boots, etc.	1	54	25	5
V.—Books, Printing, etc.	3	163	2,212	1,078
VI.—Other Manufacturing	14	1,535	14,184	6,764
VII.—Building	16	4,321	140,881	72,735
VIII.—Mines, Quarries, etc.	186	48,785	582,967	293,722
IX.—Rail & Tramway Services	23	1,994	44,791	24,720
X.—Other Land Transport	6	580	2,612	1,176
XI.—Shipping, Wharf Labour	11	682	8,783	4,282
XII.—Pastoral, Agricultural, etc.	5	359	6,942	2,815
XIII.—Domestic, Hotel, etc.	1	48	73	22
XIV.—Miscellaneous	28	1,263	10,266	4,542
Commonwealth, All Groups	337	71,040	993,153	500,475

Of the 337 disputes which commenced during the year, 1914, no fewer than 186, or 55 per cent., occurred in the mining industry (Group VIII.), the number of employees (48,785) involved in these disputes, representing 69 per cent. of the total number of workpeople involved in all disputes during the year. Employees in Engineering and Metal Works (Group II.), were involved in 29 disputes during the period under review, the number of workpeople involved being 8039, and the loss in working days 114,635. In Group XIV. (Miscellaneous), 28 stoppages of work were recorded. Building operations (Group VII.), were affected by 16 disputes, involving 4321 workpeople, who lost 140,881 working days. Persons engaged in industries included in Other Manufacturing (Group VI.), were involved in 14 disputes, while 23 disputes affected workpeople in Railway and Tramway Services (Group IX.). In Group XI. (Shipping, Wharf Labour, etc.), 11 disputes were recorded, while employees engaged in the manufacture and distribution of Food and Drink (Group III.), were involved in 9 disputes. The number of disputes in other groups was comparatively small.

2. **Number and Magnitude of Disputes in each State and Territory, January to March, 1915.**—In the following table particulars are furnished concerning the 67 disputes which began during January, February and March, 1915, as well as the number of working days lost and estimated loss in wages caused by disputes which commenced prior to the 1st January, 1915, and were not settled at that date:—

Number and Magnitude of Industrial Disputes in Each State and Territory of the Commonwealth, January to March, 1915.

State or Territory.	No. of New Disputes	No. of Establishments involved in New Disputes	No. of Workpeople involved in New Disputes.			No. of Working Days Lost.			Total Estimated Loss in Wages	
			Directly.	Indirectly.	Total.	New Disputes.	Old Disputes.	Total.		
New South Wales	58	70	8,023	4,860	13,792	52,398	130,200	181,508	92,472	
Victoria	3	3	735	7	742	2,467	..	2,467	1,438	
Queensland	4	18	125	84	209	594	657	1,251	600	
South Australia	1	2	150	..	150	900	..	900	470	
Western Australia	..	..	..	..	..	..	..	..	..	
Tasmania	..	..	..	..	..	..	..	..	..	
Northern Territory	1	1	39	..	39	39	..	39	25	
Total C'wealth.	1st Quarter, 1915	67	98	2,972	4,960	14,922	54,208	130,607	186,165	96,005
	4th Quarter, 1914	78	78	2,704	5,069	14,773	48,558	152,012	200,570	90,631
	1st Quarter, 1914	113	818	18,778	10,000	28,787	228,097	32,054	260,151	130,392

* Total loss during the quarter for all disputes, new and old.

Although the number of new disputes (67) which commenced during the quarter under review shews a considerable reduction on the number (113) which began during the corresponding quarter of 1914, as well as on the number (78) which began during the last three months of that year, there is practically no decrease on the average number of disputes (68) which have occurred each quarter since the beginning of 1913. The number of workpeople involved in new industrial disputes during the quarter under review was 14,932, of whom 9,072 were directly, and 4,960 indirectly concerned. These figures are slightly higher than those for the preceding quarter, when 14,773 workpeople were implicated in disputes commencing during that period. The loss in working days during January, February and March for both old and new disputes was 186,165, compared with 200,570 days lost during the preceding quarter, while the estimated total loss in wages for all disputes during the same period was £96,005.

Of the 67 disputes which began during the first quarter, 58 occurred in New South Wales, three in Victoria, four in Queensland, one in South Australia, and one in the Northern Territory. The total number of working days lost by reason of stoppages in New South Wales was 181,508, of which number 129,200 were lost through disputes which commenced prior to the 1st January. In Victoria 2467 working days were lost through new disputes, while in Queensland the total loss in working days was 1251, the number lost through new disputes being 594. In New South Wales the estimated loss in wages for old and new disputes amounted to £92,472. Certain industrial troubles which caused dislocations of work occurred during the quarter, but

these disputes are not included in the tables for the reason that they do not come within the definition of a "strike or lockout."* The following dislocations may be mentioned as examples of disputes which are not included in the tables:—Newsvendors in Sydney were involved in a dispute with the proprietors of two papers concerning the price to be paid by them for the papers, but as the relationship of employer and employee does not exist between the proprietors and the newsvendors, the dispute cannot be classed as a strike or lockout. Several "stop-work" meetings were held during the quarter, but these stoppages are not included as "strikes" for the reason that they were not held *necessarily* for the purpose of enforcing a demand on the part of the employees, or resisting some demand made by the employers. Rabbit trappers in New South Wales stopped work during the quarter owing to a dispute as to the price per pair to be paid to them. Here again the relationship of employer and employee did not exist, and therefore the dispute is not included in the tables.

3. Number and Magnitude of Industrial Disputes in Different Industrial Groups—January to March, 1915.—The following table gives particulars of disputes in the Commonwealth during the first quarter of the year 1915, classified according to industrial groups. The industrial classification is similar to that adopted in connection with labour organisations, unemployment, rates of wage, etc. (see Report No. 5, Labour and Industrial Branch, page 6).

Industrial Disputes.—Number and Magnitude of Industrial Disputes in the Commonwealth, January to March, 1915, according to Industrial Groups.

Industrial Group.*	No. of New Disputes.	No. of Establishments Involved	No. of Work-people Involved in New Disputes.			No. of Working Days Lost.			Total Estimated Loss in Wages †
			Directly.	Indirectly.	Total	New Disputes.	Old Disputes.	Total.	
I. Wood, Furniture, Timber, etc.	1	15	100	..	100	200	..	200	£ 120
II. Engineering, Metal Works, etc.	3	3	112	..	112	179	7,200	7,379	4,341
III. Food, Drink, Tobacco, etc.	..	..	..	..	..	..	657	657	300
VI. Other Manufacturing	5	5	2,597	..	2,597	4,754	..	4,754	2,787
VII. Building	1	1	4	..	4	28	..	28	16
VIII. Mines, Quarries, etc.	46	46	6,366	4,840	11,206	48,975	122,000	168,975	85,930
IX. Railway and Tramway Services	3	3	470	25	495	3,195	..	3,195	1,352
X. Other Transport	3	3	194	36	230	250	..	250	98
XI. Shipping, Wharf Labour, etc.	1	1	39	..	39	39	..	39	25
XIII. Domestic, Hotels, etc.	1	13	49	..	49	333	..	333	165
XIV. Miscellaneous	3	3	41	59	100	346	..	346	151
TOTAL, COMMONWEALTH 1st Quarter, 1915	67	93	9,972	4,960	14,932	56,308	129,857	186,165	95,005

* No dispute, causing stoppage of work, commenced in any of the following Industrial Groups during the first quarter of 1915, viz. III. (Food, Drink, etc.); IV. (Clothing, Hats, etc.); V. (Books, Printing, etc.); XII. (Pastoral, Agricultural, etc.).

† Total loss during the quarter for all disputes, new and old.

In the above table it will be seen that no less than 46 of the total number of 67 disputes occurred in Group VIII. (Mines, Quarries, etc.). The number of workpeople involved in these 46 disputes was

* See page 71 Labour Report, No. 5.

11,206, of which number 6366 were directly, and 4840 indirectly affected. The working days lost during the quarter by reason of dislocations in the mining industry was 168,975, or 91 per cent. of the total number lost during the period under review. In Group VI. (Other Manufacturing) 2597 employees were involved in five disputes, causing a loss of 4754 working days. Three stoppages of work occurred in each of the following groups, viz.:—Group II. (Engineering, Metal Works, etc.), Group IX. (Railway and Tramway Services), Group X. (Other Transport), and Group XIV. (Miscellaneous). The number of workpeople affected by these disputes was comparatively small, and the loss in working days was also small, as the duration of the various stoppages in each case was comparatively short.

4. **Particulars of Principal Disputes during the First Quarter 1915.**—In the tabular statement on pages 57 to 61, summarised particulars are furnished regarding all disputes that began during the quarter. In the following paragraphs additional information is given as to several of the most important disputes which occurred during that quarter.

(i.) *New South Wales.*—In this State the principal disputes during the quarter involved coal miners and others at the Northern and Southern Collieries, dockyard employees at Walsh Island, brickmakers at Homebush Bay, hotel employees at Broken Hill, and railway construction workers on the Glebe-Wardell railway line. The trouble over the working of the afternoon shift was terminated during March. This dispute began in May 1914, and affected six of the largest collieries on the northern field. The dispute continued for over nine months, and the number of employees involved was considerably over 2000. During the course of the dispute a number of conferences were held, but without success. At a conference held on the 8th March, however, between representatives of the Hunter District Colliery Proprietors' Defence Association, the employees interested, the executive of the Colliery Employees Federation, and also of representatives of several unions affected by the dispute, proposals were submitted by the employers for the settlement of the trouble. The proposals were in two sets. The scale for extra payment for men working on the afternoon shift was the same in both proposals; the first, however, provided for arbitration as between the proposals of the proprietors and the miners' representatives regarding the period to be allowed for the abolition of the shift, the second left the way open for an immediate settlement on a basis of compromise arrived at by the conference regarding the time limit. The terms of the agreement ultimately accepted were as follows:—

- (a) An extra payment of not less than 3d. per ton shall be paid on pick coal gotten on the afternoon shift, and 2½d. per ton shall be paid for machine coal gotten on the afternoon shift, also ½d. per ton shall be paid to machine men on the afternoon shift, and 10 per cent. increase to all other classes of labour engaged on the afternoon shift, payment to come into force on the date of the resumption of work at the collieries affected by the afternoon shift dispute.
- (b) The time limits at the various collieries shall be:—Hebburn and Pelaw Main, 2 years; Whitburn, 2½ years; Stanford Merthyr, 3 years; East Greta and Richmond Main, 4 years.

Preparations were made for a resumption of work at the various collieries, but several hitches occurred, owing to the employment of

men who had continued to work at the mines during the course of the dispute. These matters were ultimately settled, with the exception of a dispute at Whitburn Colliery, which arose out of the employment of two men who had withdrawn from the union. This dispute was pending at the end of the quarter. The wireworkers who were on strike at the end of the last quarter resumed work in January, after a stoppage extending over six weeks. The employees at the Government Dockyard, Walsh Island, were involved in two minor disputes during the quarter. The troubles arose over the question of the means provided for the men to disembark from the ferry steamer. The stoppages were of short duration, and work was resumed on the understanding that a proper gangway would be provided. Two disputes occurred at the State Brick Works, Homebush Bay, during the quarter. In each case the cause of the trouble was the dismissal of certain men by the management. The first dispute, which only lasted for one day, was settled by the reinstatement of the dismissed employees, but the other trouble continued for a week before work was resumed. The employee, about whose dismissal the trouble arose, was not reinstated. The principal stoppages in the coal-mining industry occurred at the following collieries:—Dudley, South Clifton, Abermain No. 2, North Bulli, South Bulli, Shortland, Pelaw Main, Wallsend, Corral, and Jeumont. The dispute at the last-named colliery began in January, and was not settled at the end of March. The cause of the stoppage was the dismissal of an employee. Other mining disputes which were pending at the end of the first quarter were those at the undermentioned collieries:—Lambton (B.), Wallsend, Corral, Shortland, Whitburn, Ivanhoe, and Coal Cliff. Railway construction work on the Glebe-Wardell line was delayed for over a week owing to the objection of the men to work with an employee who was not a member of the union. Work was resumed, when the employee in question joined the union. Over 300 men were involved in this trouble. Hotel employees at Broken Hill were involved in a dispute concerning wages and working conditions during March. The workpeople sought a conference with a view to continuing the terms of an existing agreement, but certain hotelkeepers refused, and the employees of these establishments ceased work. The dispute was pending at the end of the quarter.

(ii.) *Victoria.*—In this State the principal dispute occurred at the State shipbuilding yards. Owing to pressure of work in connection with the fitting up of troopships the carpenters and others were working two shifts a day, from 7 a.m. to 3 p.m., and from 3 p.m. to 11 p.m. The wages for carpenters employed on ordinary time are 1s. 7d. per hour, or 12s. 8d. per day. These rates were being paid to the men employed on both shifts. It appears, however, that the union has an agreement with the shipping companies, which provides for higher rates of pay outside ordinary working hours. This agreement provides that the ordinary hours of work shall be from 8 a.m. to 5 p.m., with an hour off for lunch on five days of the week, and from 8 a.m. to noon on Saturdays. Work beyond these hours from Monday to Friday (inclusive) is to be paid for at the rate of time and a-half up to 10 p.m., and double time thereafter, and on Saturdays at the rate of time and a-half up to 5 p.m., and double time thereafter. The men claimed that the agreement rates of pay should be paid, but the management considered that the demands were excessive, contending that the overtime rates in the agreement were intended to apply only to men who

work more than eight hours in a day, and therefore did not apply to men who were employed on shift work. The trouble culminated on the 18th January, when about 600 carpenters ceased work. The matter was still in dispute with the State authorities when the Minister for Defence decided to take over the whole of the work and place the fitting up of the troopships in the hands of private contractors, under departmental supervision. Another matter which entered into this dispute was the rivalry between the two carpenters' unions, viz., the Amalgamated Society of Carpenters and Joiners and Australian Society of Progressive Carpenters and Joiners. This trouble was also overcome by the Defence authorities agreeing to give an equal share of the work on the troopships to members of each Society. Owing to the dismissal of two conductors for alleged carelessness in connection with tickets, motor bus traffic in Melbourne was stopped on the 12th February, as the members of the union considered that the men had been harshly treated. After a conference held between the directors of the company, the Industrial Disputes Committee of the Trades Council and representatives of the union, it was decided that work should be resumed. The conductors in question were suspended until their cases had been considered by a special tribunal, comprised of the secretary of the Union, a member of the Disputes Committee, the General Manager, and a Director of the company, with a chairman to be appointed, when necessary. The employees agreed to give seven days' notice of any proposed "stop work" meeting in future.

(iii.) *Queensland*.—In this State a dispute in which the "strike" provisions of the Industrial Peace Act were brought into operation occurred during January. The Coopers' Wages Board made an Award in November last, granting increased rates of wages, and also a reduction in the number of hours per week. The Award was to come into force on the 1st January, 1915, but an appeal against the Award was lodged by the Master Coopers' Association and two employers, and the Award was, therefore, suspended pending the hearing of the appeal. The Coopers' Union thereupon notified the Industrial Registrar of their intention to strike because the employers had appealed against the Award, and because a conference between the employers and employees had proved abortive. A secret ballot, in accordance with the provisions of the Act, was taken, and resulted in a majority of the members voting in favour of a strike, and the men ceased work on the 26th January. A compulsory conference was summoned by his Honour, Judge Macnaughton, Judge of the Industrial Court, and as a result of the conference the following memorandum of the terms of an agreement was made and published:—

IN THE INDUSTRIAL COURT OF QUEENSLAND.

No. 43 of 1914.

- In the Matter of "The Industrial Peace Act of 1912"; and
- In the Matter of the Award of the Coopers' Trade Board for the State of Queensland; and
- In the Matter of an Appeal therefrom by the Brisbane Master Coopers' Association and David Lanham and Andrew Mercer, two of the Members thereof; and
- In the Matter of a Compulsory Conference called for the purpose of settling an industrial dispute in the calling of Coopers in the State of Queensland.

I, Allan Wight Macnaughton, Judge of the Industrial Court of Queensland, do hereby certify that the Memorandum hereunder set out is the Memorandum of the terms of an Agreement arrived at in the above matter at the Judge's Chambers, Industrial Court, Brisbane, on the twenty-seventh day of January, 1915, between David Lanham and Andrew Mercer, Members of the said Brisbane Master Coopers' Association, and George Bremner and James Wilson, representatives of the employees engaged in the said Coopers' calling in the State of Queensland, that is to say—

1. That employees engaged in the industry between the second day of January, one thousand nine hundred and fifteen, and the twenty-fifth day of January, one thousand nine hundred and fifteen, or for any part thereof, be paid at the rate of one shilling and six pence per hour for each hour worked during that period.

2. That the employees engaged in the industry during the above-mentioned period will not claim, and hereby relinquish all claims for overtime that may be payable under the Award appealed against so far as relates to the extra three hours per week (being the difference between forty-eight hours, the ordinary working time per week prescribed by the Determination of the Coopers' Trade Board for the South-Eastern Division gazetted on the tenth day of September, one thousand nine hundred and twelve, and forty-five hours, the ordinary working time per week prescribed by the Award of the Coopers' Trade Board gazetted on the twenty-sixth day of November, one thousand nine hundred and fourteen) worked by the employees during the said period between the second day of January, one thousand nine hundred and fifteen, and the twenty-fifth day of January, one thousand nine hundred and fifteen.

3. That the Award appealed against should come into operation and take effect as from the first day of January, one thousand nine hundred and fifteen, with the exception as set out in Clause 2 hereof.

4. That the employees engaged in the industry at present out on strike will return to work on Thursday, the twenty-eighth day of January, one thousand nine hundred and fifteen.

5. That the employers and the employees engaged in the industry will not institute proceedings against one another or any of them for any alleged breaches that may be alleged to have been committed by the employers and employees during the period between the first day of January, one thousand nine hundred and fifteen, and the twenty-seventh day of January, one thousand nine hundred and fifteen, as herein contained.

6. That the Appeal be withdrawn.

Dated this tenth day of February, 1915.

[L.S.]

ALLAN W. MACNAUGHTON.

Judge of the Industrial Court.

Sewerage construction labourers at Luggage Point claimed to be paid at a higher rate than 8s. per day for handling gravel. The dispute continued for three weeks. The men who claimed the increased rate left the work, and their places were filled with new men, who were paid 1s per day increase on the old rates.

(iv.) *South Australia*.—Plate-layers on the Port Augusta-Kalgoorlie railway line were involved in a dispute during February concerning payment for waiting time when material was not available. The men claimed full time, but their request was refused. After a stoppage for a week the men's claim was conceded, and work was resumed. The number of men involved in this dispute was 150.

(v.) *Northern Territory*.—Wharf labourers at Port Darwin ceased work during March owing to their request for special rates of pay for handling cement in casks being refused. The dispute only lasted for one day, as their claim was conceded.

Detailed Statement of Industrial Disputes recorded during the First Quarter, 1915.

Industry and Locality Affected.	No. of Work-people Involved.		Dates of Commencement and Termination.	Alleged Cause or Object.	Result.
	Di-rectly.	Indi-rectly.			
New South Wales.					
Boilermakers—Mortlake Gas Works.	27	..	8th-9th March.	Dismissal of two boiler-makers.	Work resumed. Dismissed men not reinstated.
Ironworkers—Lithgow.	40	..	24th-25th March.	Protest against method of taking on new work-ers.	Work resumed on con-sideration of protest by employers.
Engineers—East Greta Colliery.	45	..	17th March.	Objection to non-union-ists.	Non-unionists dismissed
Dockyard Em-ployees—Walsh Island.	1935	..	6th February (half-day dispute).	Men claimed to have landing gangway pro-vided at Walsh Island.	Gangway provided.
Dockyard Em-ployees—Walsh Island.	607	..	2nd March.	Gangway not at landing stage where ferry moor-ed. Men refused to land.	Work resumed on the following day.
Brickmakers—Homebush Bay.	190	..	6th January.	Protest against dismissal of two workmen.	Men reinstated, but placed on other work.
Brickmakers—Homebush Bay.	190	..	2nd-8th March.	Protest against dismissal of a machineman.	Work resumed. Dismissed man not reinstated.
Painters—Broken Hill	4	..	29th January, 2nd February.	Protest against employ-ment of a certain man engaged on painting, who belonged to Amalgamated Miners' As-sociation, and was re-fused admission by Painters' Union	Work resumed. Man re-mained at work.
Railway Construc-tion Workers Glebe-Wardell line, Rozelle.	300	25	25th February, 4th March.	Objection to work with non-unionist.	Man joined union.
Carters—Newcastle.	50	4	12th January.	Claim for reinstatement of dismissed employee.	Employee reinstated.
Hotel Employees—Broken Hill.	40	..	24th March.	Protest against reduction of wages and claim for continuance of agree-ment rates.	Pending at end of March.
Block Boys—City Council, Sydney.	20	..	2nd February.	Boys understood Award had expired, and claimed increased rates of pay.	Resumed work on old conditions.
Wheelers—South Bulli Colliery, Bellambi.	65	450	4th-5th Jan.	Wheelers claimed to be paid for time not worked.	Work resumed. Claim re-fused.
Miners—Abermain, No. 2 Colliery, Kearsley.	450	..	4th-16th Jan.	(a) Withdrawal of 3rd lamp to pair of miners; (b) difference of opin-ion relative to agree-ment about afternoon shift.	(a) Lamp was not con-ceded; (b) company agreed to pay specials on afternoon shift.
Miners—Black Jack Colliery, Unnedah.	29	17	6th January.	Objection to work with miner who was not paying hi union levies.	Member paid levies.
Miners—Jesmond Colliery Wallsend.	20	..	6th January.	Objection to dismissal of shiftman.	Pending at end of March.

Detailed Statement of Industrial Disputes recorded during the First Quarter, 1915—cont.

Industry and Locality Affected.	No. of Work-people Involved.		Dates of Commencement and Termination.	Alleged Cause or Object.	Result.
	Di-rectly.	Indi-rectly.			
New South Wales.					
Engine Drivers and Others—Seaham, No. 2 Colliery, West Wallend.	3	370	11th January.	Objection to work with a certain fireman.	After inquiry, union officials instructed men to resume work.
Miners—Lambton B. Colliery, Redhead.	42	35	11th January.	Objection to defective weighbridge.	Weighbridge to be tested and corrected. Shortage, if any, to be made up to miners.
Miners—Burwood Colliery, Charlestown.	193	59	11th January.	Refusal to work with miner who had not paid union levies.	Miner paid levies.
Wheelers—Burwood Colliery, Charlestown.	13	239	14th January.	To enforce claim for alteration in method of payment—individually instead of collectively.	Work resumed. Conference later date. An individual rate for wheeling agreed upon.
Miners—Central Greta Colliery, Greta.	40	..	14th January.	Objection to reduction in rate of pay for top coal.	Company agreed to continue existing rates.
Wheelers—South Clifton Colliery, Scarborough.	35	208	18th–21st Jan.	Trouble over starting time. Wheelers cautioned against being late.	Wheelers to work their proper time.
Miners—North Bulli Colliery, Colelale.	400	24	18th–19th Jan.	To enforce payment of deficiency claims.	Management settled the deficiency claims.
Wheelers—Dudley Colliery, Dudley.	17	268	18th–25th Jan.	Wheelers claimed an increased tonnage from 2½d. to 2½d.	Increase granted.
Screenmen—Burwood Colliery, Charlestown.	17	257	25th January.	Refusal to work with top hands who were members of the Shiftmen's Union.	Men objected to consented to join Colliery Employees' Federation.
Miners—South Waratah Colliery, Charlestown.	286	..	25th January.	Claim for reinstatement of boy dismissed for disobeying instructions.	Employee reinstated.
Miners—South Waratah Colliery, Charlestown.	286	..	27th January.	Objection to work with officials who were not paying into union.	Work resumed after deputation to management.
Screenboys—Wallend Colliery, Wallend.	8	550	28th January.	Objection to work with boy who was not a member of the union.	Work resumed. Boy joined union.
Wheelers—Lambton B. Colliery, Redhead.	9	70	28th January.	Wheelers claimed to be promoted to coal face in turn.	Conference held. Decided wheelers to go on coal face on certain conditions.
Miners—Corrimal-Balgownie Colliery, Corrimal.	233	90	1st February.	Refusal to work with members who had not paid union levies.	Members paid levies.
Miners—Osborne-Wallend Colliery, Mt. Keira.	190	100	2nd February.	Refusal to work with member who had not paid union levies.	Resumed on such members promising to pay levies.
Wheelers—Elernore Vale Colliery, Wallend.	13	67	9th–11th Feb.	Objection to state of roofing.	Roof timbered.

Detailed Statement of Industrial Disputes recorded during the First Quarter, 1915—cont.

Industry and Locality Affected.	No. of Work-people Involved.		Dates of Commencement and Termination.	Alleged Cause or Object.	Result.
	Di-rectly.	Indi-rectly.			
New South Wales.					
Miners— Abermain, No. 2 Colliery, Kearsley.	400	..	15th-20th Feb.	Onsetters and banksmen claimed increased rates of wages.	Manager refused claim until colliery became a day-shift colliery.
Miners— Shortland Colliery, Adamstown.	31	55	15th February.	Objection to management shifting men from places drawn in the cavel.	Men allowed to work in places drawn in the cavel.
Wheelers— Shortland Colliery, Adamstown.	14	72	17th-22nd Feb.	Protest against dismissal of a driver.	Driver reinstated.
Wheelers— Lambton B. Colliery, Redhead.	9	74	24th February.	Claim by wheelers for increased rates of pay when wheeling from three bords.	Claim refused. Work resumed.
Miners— Burwood Extended Colliery, Redhead.	120	..	26th-27th Feb.	Manager instructed machinemen and shiftmen to fill coal, alleged to be a breach of custom.	Arrangements to resume work, manager agreeing to observe usual custom.
Machinemen— Abermain No. 1 Colliery, Abermain.	38	..	27th February.	Claim by men for alteration in existing conditions.	Understanding arrived at, and men returned to work.
Wheelers— South Clifton Colliery, Scarborough.	25	235	3rd-7th March.	Protest against imprisonment of certain wheelers for non-payment of fines imposed under Industrial Arbitration Act.	Miners arranged to do wheeling. Work resumed by wheelers on former conditions.
Miners— Bellbird Colliery, Cessnock.	185	..	4th-6th March.	Wheelers refused to work horses which had worked double shifts.	Manager agreed to work horses single shifts only, so far as possible.
Miner— North Bull Colliery, Bulli.	240	166	6th-8th March.	Objection to pair of miners being omitted from cavel.	Cavel redrawn with omitted names included.
Miners— Corrimal-Balgownie Colliery, Corrimal.	257	..	8th March.	Protest against exclusion of certain special places from cavel.	Pending at end of March.
Miners— Bulli Colliery, Bulli.	75	..	9th March.	Claim for reinstatement of miner, whose lamp had been stopped for going home early.	Miner apologised and was reinstated.
Miners— Coal Cliff Colliery, Clifton.	152	122	9th March.	Objection to delay in sorting picks.	Pending at end of March.
Miners— Berton Colliery, Carrington.	166	153	15th March.	Objection to working afternoon shift.	Afternoon shift abolished.
Miners— Lambton B. Colliery, Redhead.	50	40	15th March.	Refusal to work under Award as amended. Tonnage rates reduced.	Pending at end of March.
Miners— East Greta Colliery, East Greta.	93	..	16th March.	Objection to work with men who had continued at work during afternoon shift trouble.	Men objected to were suspended.
Miners— Stanford Merthyr Colliery, Stanford Merthyr.	545	..	16th March.	Objection to work with men who had continued at work during afternoon shift trouble.	Men objected to resigned.

Detailed Statement of Industrial Disputes recorded during the First Quarter, 1915—cont.

Industry and Locality Affected	No. of Workmen Involved.		Dates of Commencement and Termination	Alleged Cause or Object.	Result.
	To	From (not exactly)			
New South Wales.					
Miners— Police Main Colliery, Kueri Kueri	300	340	17th-20th March.	Sympathy with Police Main miners who were objected to by Richmond Main employees.	Matters were adjusted by officials of Colliery Employers' Federation.
Miners— Avermore No. 2 Colliery, Keweenaw	200	100	18th-19th March.	Objection to certain explosives.	Resumed work when required explosives sent to hand.
Woodworkers & others— Whitmore Colliery, Greta	275	18	18th March.	Objection to work with men who continued to work at colliery during afternoon shift trouble.	Pending at end of March.
Woodworkers— Kerridge Vale Colliery, Wallend	21	60	18th March.	Protest against dismissal of a driver for alleged negligence.	Work resumed. Dismissed employee was not reinstated.
Miners— Burrendell E.C. Coalfield Colliery, Burrendell	118	—	22nd-24th March.	Protest against employment of banksman who was not member of the union.	Banksman or checkweighman to confine himself to check weighing.
Miners— Wallend Colliery, Wallend	400	200	23rd March.	Miners claimed compensation for deficient working places.	Pending at end of March.
Wheelers— North Bull Colliery, Bulli	46	250	23rd March.	Protest against refusal of wheelers' claim for higher rates of pay.	Claim for higher wages granted.
Miners— Central Greta Colliery, Greta	78	—	25th March.	Protest against dismissal of wheeler. Claim for reinstatement.	Wheeler reinstated.
Woodworkers— Shortland Colliery, Adams town	70	—	31st March.	Objection to penalising two miners for dirty skips.	Pending at end of March.
Miners— Dunlop Colliery, Piper's Flat	85	36	31st March.	Protest against dismissal of a flat driver. Claim for reinstatement.	Pending at end of March.
Victoria.					
Carpenters on Tramways State Shop building Yards	775	—	18th-21st Jan.	Claim for overtime rates of pay for time worked outside of ordinary working hours. Two shifts were being worked, 7 a.m. to 3 p.m. 3 p.m. to 11 p.m.	Commonwealth Government took over work from State authorities and placed work with private contractors under departmental supervision.
Sleeper Layers— Geelong Queensland Railway Lane	20	—	26th January.	Objection to work with non-unionists.	Work resumed on old conditions.
Motor Transport Drivers and Conductors, Melbourne.	140	7	12th February.	Protest against dismissal of two conductors.	Charges against conductors to be considered by a specially appointed tribunal.
Queensland.					
Coopers— Brisbane and other Towns.	100	—	25th-27th Jan.	Appeal lodged by employers against new Award. Men decided by ballot under Industrial Peace Act to strike as a protest against delay in Award coming into force.	Compulsory conference under State Act. Appeal to be withdrawn and Award to come into force on date specified in Award.

Detailed Statement of Industrial Disputes recorded during the First Quarter, 1915—*cont.*

Industry and Locality Affected.	No. of Work-people Involved.		Dates of Commencement and Termination.	Alleged Cause or Object.	Result.
	Di-	Indi-			
	rectly.	rectly.			
Queensland.					
Draymen— Maryborough.	4	25	20th March.	Claim for increase in rates of wages.	Pending at end of March.
Sewerage Em- ployees (Engine Drivers), Hamilton.	10	59	10th–20th Jan.	Alleged victimisation and question of wages.	Men reinstated and concessions made <i>re</i> wages.
Sewerage Con- struction Workers Loggago Point.	11	..	4th–25th March.	Claim for increased rates of wages.	Concessions <i>re</i> wages granted.
South Australia.					
Platelayers— Port Augusta— Kalgoorlie Railway Line.	150	..	12th–18th Feb.	Claim for payment of full time to platelayers when waiting for material.	Claims granted.
Northern Territory.					
Wharf Labourers, Port Darwin.	39	..	3rd March.	Claim for special rate for handling cement in casks.	Special rates paid.

SECTION VII. CHANGES IN RATES OF WAGES.

1. **General.**—In the first issue of this Bulletin it was pointed out that for the purposes of the statistical investigations made by this Bureau in regard to variations in wages, a change in rate of wages is defined as a change in the weekly rate of remuneration of a certain class of employees apart from any change in the nature of the work performed, or apart from any revision of rates due to increased length of service or experience.*

Information was also given in Labour Report No. 5 (see pages 63-4) as to the sources of information and methods of collection and computation. In addition to the organisations and persons specified therein as furnishing returns to this Bureau, it may be mentioned that the various Government Departments have also sent in returns concerning changes in rates of wages affecting their employees. Particulars regarding changes in rates of wages in each State in 1913, their effect, and the methods by which they were brought about, are given in Labour Report No. 5. Summarised figures, shewing in comparative form the number of changes and of workpeople affected, and the amount of increase per week in 1913 and 1914 are furnished in Labour Bulletin No. 8.

In the following tables particulars are shewn regarding the number of changes and of persons affected, the total amount of increase per week, and the average increase per person affected per week for

* It is obvious that under this definition certain classes of changes are excluded, such, for example, as (a) Changes in rates of pay due to promotions, progressive increments, or, on the other hand, to reduction in pay or grade to inefficient workers, and (b) Changes in average earnings in an occupation due to a change in the proportions which higher paid classes of workers bear to lower paid classes.

each State in the Commonwealth during the three months, January to March, 1915, and also particulars shewing changes according to industrial groups.

As regards the number of persons affected, the particulars given refer to the number of persons ordinarily engaged in the various industries. The results as to the amount of increase in wages are computed for a full week's work for all persons ordinarily engaged in the several industries and occupations affected, and in case of changes in existing minimum rates under awards or determinations of industrial tribunals, it has ordinarily been assumed (in the absence of any definite information to the contrary) that the whole of the employees in each occupation received the minimum rates of wage before and after the change.

It should be clearly understood that *the figures given in the third line of the following table (amount of increase per week) do not relate to the increase each week, but only to the increase in a single week on the assumption that the full number of persons ordinarily engaged in the particular trade or occupation affected by the change is employed during that week.* It is obvious, therefore, that the aggregate effect per annum cannot be obtained without making due allowance for unemployment and for occupations in which employment is seasonal or intermittent. It is also obvious that since unemployment and activity in all branches of industry may vary from year to year, and in many branches from season to season also, no accurate estimate of the actual effect of the changes in the total amount of wages received or paid *per annum* can be made, until the determining factors have been investigated. These factors are (a) the amount of unemployment and (b) the period of employment in seasonal industries. It is hoped that provision will be made for the necessary investigations in regard to these two matters to be commenced at an early date.

2 Number and Magnitude of Changes in Each State, January to March, 1915.—During the three months under review only 17 changes in rates of wages were recorded, compared with an average of 86 changes per quarter during the years 1913 and 1914. The falling-off in the number of changes may be attributed to the inactivity of the Industrial Courts and Wages Boards in the several States. Shortly after the outbreak of war the question arose as to the action which should be taken on applications for awards or determinations and for the establishment of new boards. A number of boards had been considering applications for increased rates of wages, but in view of the unsettled state of trade and industry the gazettal of the awards and determinations was postponed. In New South Wales the want of uniformity in the attitude of the boards led to an application to the Court of Industrial Arbitration for a ruling as to whether boards should refuse to consider any and, if any, what applications for increased wages. In his judgment, Mr. Justice Heydon held that all applications to boards or the Industrial Court for increases in wages should, except under special circumstances, be suspended, and that existing awards should accordingly be renewed for a short period.* In Victoria the Government was requested by certain employers to suspend the operations of all existing determinations and

* See New South Wales Industrial Gazette, December 1914, p. 14.

the hearing of all cases which were then being considered by wages boards. Early in August 1914, the Premier of Victoria declined to suspend the operations of existing determinations, but decided that no applications for increases on existing rates should be heard. This did not prevent existing boards which had not yet issued a determination from doing so, but the Premier suggested that during the crisis boards should not meet except for the purpose of amending such literal errors in the determinations as practical experience had shewn to exist. In Queensland the Judge of the Industrial Court on the 4th September, 1914,* when considering the question of the suspension of awards, pointed out that the only means, by which the provisions of any existing award could be suspended, was by a majority of the employers and employees, after having come to an agreement to adopt one or other of two courses, viz.—(a) To apply to the Governor-in-Council to suspend the award and to ask the Governor-in-Council to appeal against the award with a view to having the provisions agreed upon inserted therein, or (b) to apply to the court for an extension of the time for appealing from the award, and this application, if granted, would enable them to apply to have the award varied in accordance with their agreement. This pronouncement resulted in the suspension of the operation of several recent awards, pending the hearing of appeals for variation. In South Australia and Tasmania proposals for the suspension of existing determinations were made, but no action was taken in this direction. In South Australia, however, no determination was made during either the last quarter of 1914 or the first quarter of 1915, while in Tasmania one determination only was made during the same period. This determination was gazetted in March, but did not come into force until the 1st of May.

In Western Australia no pronouncement was made regarding operations under the Arbitration Act in war time, but the Industrial Court made only one award during the first quarter of the year. A number of industrial agreements were filed, but no changes in rates of wages were made, as they merely extended for further periods the provisions of existing agreements. One award, regulating the wages and working conditions of builders and other workers engaged in the construction at Port Darwin of freezing works for the export of meat, was made by the Commonwealth Court of Conciliation and Arbitration. Particulars concerning the effect of this award are not included in the tabulations, but information is being collected and will be published later. The preceding information relates to the attitude of industrial tribunals since the outbreak of war up to the end of the first quarter of 1915.

It may be pointed out, however, that since the end of that quarter repeated applications for increases in rates of wages have been made by employees. The main reasons advanced for early consideration of their claims being the increase in cost of living and the statement that normal conditions again prevail in many trades. Mr. Justice Heydon, in the Court of Industrial Arbitration in New South Wales, stated on the 25th January last that the prospects on the whole appeared to be hopeful, and he relaxed the restraint placed upon boards by his

* See Government Gazette of that date.

pronouncement of the 30th November, 1914,* to the extent that boards (other than those constituted for Government workers†) might again consider claims for increase of wages. He stated, however, that boards should take into account the existing state of things and the effect of the war, both upon the industry itself and the community, and with a view to the saving of expense he urged the boards to discourage, and if necessary, to refuse to hear evidence.‡ On the 15th April, 1915,§ Mr Justice Heyden, in delivering judgment in an appeal case before the Arbitration Court, stated that the decision of the Court in January that the doors of the wages boards might be reopened should be adhered to and that there then appeared to be stronger ground for the decision than there was originally. He further stated that, in view of the improved industrial position, wages questions should again be considered by the boards almost as before the war, except in the case of industries which were actually suffering through war conditions. As a result of these decisions many of the boards in New South Wales have now resumed operations. In Victoria on the 28th April, 1915, the Premier affirmed his previous decision, and stated that subject to the limitations expressed in August, 1914, wages board operations had remained in abeyance since the outbreak of war. Various protests have been made against the refusal of the Government to remove the embargo which prevents wages boards from dealing generally with wages and working conditions. In Queensland, in accordance with Mr Justice Macnaughton's pronouncement, several appeals have been heard and awards made by boards. In South Australia the boards have not made any new determinations. Both the Commonwealth** and the Western Australian Arbitration Courts continue the hearing of plaints, but in Tasmania no further action has been taken under the Wages Board Acts. It is intended to publish at an early date a more complete account of the effect of the war on the operations under the Wages Board and Arbitration Court Acts.

The following table gives particulars of changes in rates of wages in each State during the first quarter of 1915, together with comparative results for the corresponding quarter of 1914 and the quarter immediately preceding. No changes were recorded during the quarter under review in either South Australia or Tasmania:—

* See New South Wales Industrial Gazette, December 1914, p. 14. † Sanction was granted on the 25th May, 1915, to the withdrawal of the restriction placed upon these Boards.
‡ See New South Wales Industrial Gazette, February 1915, pp. 494-7. § New South Wales Industrial Gazette, May 1915, p. 1127.

** In the case of the Australian Workers' Union and Others v. Vestey Brothers, the Deputy-President (Mr Justice Powers), on the 15th March, stated in his judgment as follows:—

"I have endeavoured to fix the rates to be awarded without taking into consideration more than I could help the general effect of the war on the cost of living—because the people of every portion of the Empire must suffer some temporary loss while it lasts. So far, all sections of the community in Australia have shown a desire to bear their share. Trade organisations have asked the Court to postpone the hearing of their claims so as to allow awards to be made under normal conditions. Members of organisations are in many cases helping, out of their living wage, those who are not employed. Employers have not pressed for reductions on existing rates, although not able in all times to pay full wages and salaries to their employees. The Commonwealth and State Governments have increased lately through the war and the drought combined, no general claim has been made on the part of a burden cast on the Empire by the war and are satisfied as long as possible to work on rates fixed before the war."

Changes in Rates of Wages.—Number of Changes, Persons Affected, Aggregate Amount of Increase per week, and Average Increase per Head per week in each State, January to March, 1915.

PARTICULARS.	N.S.W.	Vic.	Q'ld.	S.A.	W.A.	Tas.	COMMONWEALTH.		
							1st Q'ter, 1915.	4th Q'ter, 1914.	1st Q'ter, 1914.
No. of Changes	7	3	6	..	1	..	17	79	81
No. of Persons Affected ..	1,375	158	2,070	..	14	..	3,617*	15,063	21,053
Total Am't of Increase per week ..	250	85	511	..	7	..	853	3,711	5,393
Aver. Increase per Head per week ..	3s. 7d.	10s. 9d.	4s. 11d.	..	10s.	..	4s. 9d.	4s. 11d.	4s. 1d.

* Total number of workpeople affected by changes in rates during 4th quarter, 1914.
Five changes during this quarter were decreases.

The above figures shew a considerable diminution in the number of changes recorded. The number of workpeople affected by the 17 changes was 3617, while the total increase in wages per week was £853, an average increase of 4s. 9d. per week per person affected. Of the 17 increases included in the table, 7 occurred in New South Wales, 3 in Victoria, 6 in Queensland, and 1 in Western Australia. No decreases in rates of wages were reported during the quarter. In a number of industries and occupations, however, the hours of labour were reduced, the hourly rates of wages remaining unchanged, with the result that there was a decrease in *weekly earnings*. The most important change recorded during the period under review was the alteration in the rates of wages of employees in the meat export industry in Queensland. This change was brought about by direct negotiations between the representatives of the men and their employers.

3. Number and Magnitude of Changes in Rates of Wages, according to Industrial Groups—January to March, 1915.—The following table gives particulars of changes during the first quarter of the year 1915, classified according to industrial groups:—

Changes in Rates of Wages.—Number of Changes and Persons Affected, and Aggregate Amount of Increase per week, according to Industrial Groups, January to March, 1915.

Industrial Group.	No. of Changes.	No. of Persons Affected.	Amount of Increase per week.	Industrial Group.	No. of Changes.	No. of Persons Affected.	Amount of Increase per week.
I. Wood, Furniture, Timber, etc. ..	3	236	94	XIII. Domestic, Hotels, etc. ..	1	40	12
III. Food, Drink, Tobacco, etc. ..	4	2,055	507	XIV. Miscellaneous ..	12	44	15
IV. Clothing, Hats, Boots, etc. ..	1	8	2				
VI. Other Manufacturing ..	4	664	124	TOTAL	17	3,617	853
VII. Building ..	1	129	44	1st Quarter, 1915	79*	15,063	3,711
VIII. Mines, Quarries, etc.	1	490	55	4th Quarter, 1914	81*	24,953	5,393
				1st Quarter, 1914			

* In these results an Award or Industrial Agreement under the Commonwealth Arbitration and Conciliation Act has been counted as one change only, although such Award or Agreement may be operative in more than one State.

† These figures represent the net increase during the 1st Quarter, 1914.

The groups in which the largest number of changes occurred were Group III. (Food, Drink, etc.), and Group VI. (Other Manufacturing). In the first-named group the number of persons who received increased rates of wages was 2055, the total amount of increase per week being

£507. Included in this group are employees in the meat export industry in Queensland, bakers and bread carters in the South Coast district of New South Wales, grocers' assistants in Sydney and suburbs, and tobacco workers in Queensland.

The workpeople who benefited by the four increases in Class VI (Other Manufacturing), were monumental masons and cement workers in New South Wales, opticians in Victoria, and saddlers in Queensland. Three changes in wages affected employees engaged in Group I (Wood, Furniture, etc.). The occupations of these workers were timber stackers and sorters in Victoria, and coopers and furniture makers in Queensland. The change affecting the timber stackers and sorters in Melbourne was brought about by agreement resulting from direct negotiations between the representatives of the firms and the union. The agreement was not registered under the Commonwealth Act, and no provision exists under the Victorian State Act for the registration and filing of industrial agreements. One change is recorded in Group VIII (Mines, Quarries, etc.). The persons affected by this increase were quarrymen and gutters in the County of Cumberland, in New South Wales. The changes in the other groups were small, and affected workpeople employed in the following occupations:—Laundry carters and engine drivers and firemen at steel works in New South Wales; machine pressers (tailors) in Victoria; plasterers in Queensland; and undertakers' assistants and grave diggers in Western Australia.

4. **Particulars of Individual Changes during January to March, 1915.**—In the following tabular statement particulars are given of each change that occurred during the quarter under review, shewing the locality and industry, the date on which the change came into operation, the approximate number of persons affected, the method by which each change was brought about, and the general effect of the change in regard to wages, etc.

Particulars of Changes in Rates of Wages during the First Quarter, 1915.

Locality, Industry and Occupations Affected	Date from which Change took Effect	Approximate No. of Workpeople Affected.		Method by which Change brought about.	Particulars of Change.
		Males.	Females.		
New South Wales. South Coast District. Bread Baking. Bakers, Bread Carters.	17th Mar.	95	..	Award of Industrial Board.	Bakers received in- creases of from 5s. to 10s. 6d. per week. Bread carters of 7s. 6d. per week.
Metropolitan Area. Grocers' Assist- ants 21 years of age.	31st Mar.	281	..	Do.	Wages of assistants reaching 21 years of age increased from 44s. to 48s. per week.
State, excluding County of Yarra- rinnia. Monumental Trade. Masons, Fixers, Letter Cutters, Carvers, Assist- ants.	17th Feb.	299	..	Do.	Increases ranging from 1½d. to 3d. per hour. Hours of labour per week re- duced from 48 to 44.

Particulars of Changes in Rates of Wages during the First Quarter, 1915.

Locality, Industry and Occupations Affected.	Date from which Change took Effect.	Approximate No. of Workpeople Affected.		Method by which Change brought about.	Particulars of Change.
		Males.	Females		
<i>Portland & Excelsior.</i> Cement Workers & Lime Workers Various Occupations.	10th Mar.	410	..	Increases made after direct negotiations. Rates subsequently embodied in State Award.	Increases ranging from 1s. 6d. to 4s. 6d. per week.
<i>State.</i> Quarrying, Quarry- men, Cutters (hand), Cutters (machine).	3rd Mar.	400	..	Award of Industrial Board.	First Award. In- creases ranging from 1d. to 2½d. per hour.
<i>Newcastle.</i> Iron and steel Manufacture, En- gine-drivers and Firemen.	17th Mar.	30	..	Do.	Increase of 6s. per week.
<i>County of Cumberland.</i> Laundry Carters.	17th Mar.	40	..	Do.	Conditions of employ- ment altered. Esti- mated to benefit employees to ex- tent of 6s. per week.
Victoria.					
<i>Timber Wharves, Melb.</i> Timber Industry, Timber stackers, and Sorters.	27th Feb.	120	..	Direct negotiations between represent- atives of Timber Merchants' Ass- ociation and of Timber stackers' and Sorters' Union.	Increase of 4d. per hour.
<i>Cities, Towns and Boroughs.</i> Opticians.	15th Jan.	30	..	Determination of Wages Board.	First determination. Increases ranging from 2s. to 15s. per week.
<i>Melbourne.</i> Tailoring, Machine Pressers.	10th Mar.	8	..	Direct negotiations between the repre- sentatives of firms and Union.	Increase of 5s. per week.
Queensland.					
<i>State.</i> Coopering, Coopers.	1st Jan.	120	..	Award of Wages Board.	Increase from 66s. for 48 hours, to 67s. 6d. for 45 hours.
<i>Central Division.</i> Furniture Makers.	10th Feb.	46	..	Award of Industrial Court varying Award of Wages Board.	First Award. Esti- mated increase of 5s. 6d. per week on existing rates.
<i>State.</i> Tobacco Workers.	6th Feb.	30	30	Award of Wages Board.	Male workers increase of from 1s. to 9s. per week. Females from 1s. 6d. to 4s. 6d. per week.
<i>Central, Southern and Northern Districts.</i> Meat Exporting, Slaughtermen, Slaughter House Employees, Pres- erving Works Employees, Fer- tilizer Hands.	1st Jan.	1,700	..	Direct negotiations between represent- atives of employ- ers and employees.	Increases of from 1s. 6d. to 12s. per week. The majority of the employees received an increase of 5s. per week.
<i>Central Division.</i> Saddlers.	4th Jan.	24	..	Award of Wages Board.	First Award. Increase of approximately 3s. per week on ex- isting rates.
<i>South Eastern Division.</i> Building Trade, Plasterers.	19th Feb.	120	..	Do.	Increase of 7s. 4d. per week on previous rates.
Western Australia. Undertakers' Grooms, Gravestiggers.	16th Mar.	14	..	Award of State In- dustrial Court.	Increase of 10s. per week.

SECTION VIII.—CURRENT RATES OF WAGES AND HOURS OF LABOUR.

1. **General.**—The information given in the following paragraphs relates to the current rates of weekly wages and hours of labour at the 31st March, 1915,* in the six capital towns (with the exception of those comprised in Groups VIII. (Mining), XI. (Shipping), and XII. (Agricultural, Pastoral, etc.), which obviously relate mainly to trades and occupations carried on outside the metropolitan area), and is based principally on data taken from awards and determinations of industrial tribunals and from industrial agreements. In a few cases, however, where no minimum rates are in force under the various Arbitration or Wages Boards Acts, the ruling trade-union or "predominant" rates have been included. Revised particulars of rates of wages and hours of labour will be published in detail for various industries and occupations in a Report to be issued at an early date. Comparisons between the results given in the following tables must be made subject to certain qualifications, regarding absence of uniformity in the data for the several States, stated on page 45 of Labour Report No. 5.

2. **Weighted Average Rates of Wages Payable to Journeymen or Adult Male Workers in each State, 31st March, 1915.**—The following table shows the weighted average weekly rate of wage payable to journeymen or male adult workers for a full week's work in each State and the Commonwealth. Taking the average for the whole Commonwealth as the base (= 1000), index-numbers for each State are also shown. The number of occupations upon which these results are based amounts in the aggregate to no fewer than 3948.

Weighted Average Nominal Weekly Rates of Wages payable to Journeymen or Adult Male Workers for a Full Week's Work, and Wage Index-Numbers in each State and Commonwealth, 31st March, 1915.

Particulars.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	C'with.
Number of Occupations included	874	909	627	567	489	482	3,948
Weighted Average Weekly Rates of Wages	s. d. 56 3	s. d. 54 8	s. d. 53 4	s. d. 54 3	s. d. 63 1	s. d. 52 9	s. d. 55 7
Index-Numbers	1,012	983	959	976	1,135	949	1,000*

* Weighted Average.

* For similar particulars to the 30th April, 1914, see Labour Report No. 5 (pages 44 to 50), and (with respect to weekly wages only) to the 31st December, 1914, see Labour Bulletin No. 8 (pages 29 to 326).

The results shew that nominal rates of wages are highest in Western Australia, followed in the order named by New South Wales, Victoria, South Australia, Queensland, and Tasmania.

3. Weighted Average Rates of Wages Payable to Journeymen or Adult Male Workers in each Industrial Group, 31st March, 1915.—

The following table gives similar particulars in regard to the several industrial groups and to the weighted average for all groups combined. In computing the index-numbers the weighted average is taken as base (= 1000).

Weighted Average Weekly Rates of Wages payable to Journeymen or Adult Male Workers for a full Week's Work, and Wage Index-Numbers in each Industrial Group, 31st March, 1915.

Industrial Groups.	No. of Rates Included.	Weighted Aver. Weekly Wage (for Full Week's Work).		Index-Numbers.
		s.	d.	
I. Wood, Furniture, etc. . .	270	59	7	1,071
II. Engineering, Metal Works, etc.	636	57	8	1,037
III. Food, Drink, etc. . .	576	55	7	1,000
IV. Clothing, Boots, etc. . .	124	53	2	955
V. Books, Printing, etc. . .	205	64	5	1,158
VI. Other Manufacturing . .	875	56	1	1,009
VII. Building	190	65	6	1,178
VIII. Mining	161	65	9	1,182
IX. Rail & Tram Services, etc.	224	59	7	1,072
X. Other Land Transport . .	70	52	9	948
XI. Shipping, etc.	198	49	10	896
XII. Agricultural, Pastoral, etc.	72	49	4	887
XIII. Domestic, Hotels, etc.*	114	48	6	872
XIV. Miscellaneous	233	53	10	968
All Groups	3,948	55	7	1,000†

* The value of Board and Lodging (estimated at 15s. per week) for each of the capital towns, except Melbourne (where the value has been determined as estimated at 14s. per week), is included, where supplied, in order that the results may be comparable with the rates paid in other industries.

† Weighted average.

The above figures shew that the highest average wage is that paid in Group VIII. (Mining), 65s. 9d. per week, or 18 per cent. above the weighted average for all groups. The rates of wages range from 65s. 9d. per week down to 48s. 6d. per week, the lowest being in Group XIII. (Hotels, etc.), which is 13 per cent. below the average for all groups.

4. Weighted Average Rates of Wages Payable to Adult Female Workers in each State, 31st March, 1915.—The following table shews the weighted average weekly rate of wage payable to journeymen or female adult workers for a full week's work in each State and the Commonwealth. Taking the average for the whole Commonwealth as the base (= 1000), index-numbers for each State are also shewn.

Weighted Average Nominal Weekly Rates of Wages payable to Adult Female Workers for a Full Week's Work, and Wage Index-Numbers in each State and Commonwealth, 31st March, 1915.

Particulars.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	C'with.
Number of Occupations included	85	87	37	47	24	28	308
Weighted Average Weekly Rates of Wages	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Index-Numbers	26 10	26 11	27 2	24 0	37 5	26 3	27 1
	991	993	1,003	887	1,382	968	1,000*

* Weighted Average.

It will be seen that nominal rates of wages for female workers are highest in Western Australia, followed in the order named by Queensland, Victoria, New South Wales, Tasmania, and South Australia.

5. Weighted Average Rates of Wages Payable to Adult Female Workers in Industrial Groups, 31st March, 1915.—The following table gives separate particulars regarding the nominal rates of wages of adult females in the chief industrial groups in which they are employed, and also shows the weighted average for all groups combined. Index-numbers based on the average nominal wage for the Commonwealth (= 1000) are also given:—

Weighted Average Weekly Rates of Wages payable to Adult Female Workers for a Full Week's Work, and Wage Index-Numbers in Industrial Groups, 31st March, 1915.

Industrial Groups.	No. of Rates Included.	Weighted Aver. Weekly Wage (for Full Week's Work).	Index-Numbers.
III. Food, Drink, etc., ..	35	s. d.	
IV. Clothing, Boots, etc., ..	114	23 6	866
I., II., V., VI. Other Manufacturing ..	84	24 11	921
XIII. Domestic, Hotels, etc., ..	57	27 1	1,001
XIV. Shop Assistants, Clerks, etc., ..	18	30 3*	1,117
		29 10	1,103
All Groups	308	27 1	1,000†

* The value of Board and Lodging (estimated at 15s. per week) for Sydney, Brisbane, Adelaide, Perth and Hobart, and (estimated at 14s. per week) for Melbourne, is included, where supplied, in order that the results may be comparable with the rates paid in other industries.

† Weighted average.

The results set out above shew that omitting Group XIII. (Hotels, Restaurant, and Domestic Workers), the highest average wage is that paid in Group XIV. (Shop Assistants, Clerks, etc.), 29s. 10d. This is followed in the order named by Groups I., II., V., and VI. (Other Manufacturing), 27s. 1d., Group IV. (Clothing, Boots, etc.), 24s. 11d., and Group III. (Food, Drink, etc.), 23s. 6d. It should be observed that the wage specified for the highest Group (Domestic, Hotels, etc.), includes not only the wages paid in money, but also the money equivalent of board and lodging where such is provided.

6. Relative Hours of Labour and Hourly Rates of Wages, 1915.

—The rates of wages referred to in the preceding paragraphs of this Section relate to the minimum rates payable for a full week's work. It should be observed, however, that the number of hours which constitute a full week's work differs in many instances, not only as between various trades and occupations in each individual State, but also as between the same trades and occupations in the several States. In order to secure what may be for some purposes a more adequate standard of comparison, it is therefore desirable to reduce the data to a common basis, viz., the rate of wage per hour. Particulars are given in the following table, classified according to States as well as industrial groups.

(i) *Males*.—The table on page 72 shews (a) the average weekly wage, (b) the average number of working hours per week for a full week's work, and (c) the average hourly wage for each State and industrial group except Groups XI. (Shipping, etc.), and XII. (Agricultural, Pastoral, etc.). Owing to the fact that many of the occupations included in these two groups are of a casual or seasonal nature, and that the hours of labour in these occupations are not regulated either by awards or determinations of industrial tribunals or otherwise, the necessary data for the computation of the average number of working hours are not available.

The general effect of reducing the rates of wages to a common basis (*i.e.*, per hour) is to decrease the amount of the difference between the several States. In Western Australia, however, the fact that the average hours per week is less than in any other State causes a corresponding increase in the hourly rate of wage as compared with the other States. On page 68 index-numbers are given shewing the relative average *weekly* rates of wages for each State; the corresponding index-numbers for the *hourly* rates are as follows:—New South Wales, 1001; Victoria, 981; Queensland, 968; South Australia, 983; Western Australia, 1163; and Tasmania, 813.

Weighted Average Nominal Weekly and Hourly Rates of Wages, Payable to Journey-men or Adult Male Workers, and Weekly Hours of Labour, 31st March, 1915.

Industrial Groups.	Particulars.	Sydney.	Melbourne.	Brisbane.	Adelaide.	Perth.	Hobart.	Average for Six Capital Cities.
I. Wood, Furniture, &c.	Weekly Wage	60.8	57.11	57.3	55.8	66.1	54.10	56.7
	Working Hours	48.00	48.07	48.32	48.00	48.00	48.00	48.17
	Hourly Wage	1.27	1.21	1.22	1.2	1.37	1.14	1.2
II. Engineering, Metal Works, &c.	Weekly Wage	58.10	56.5	54.4	55.10	66.11	55.9	57.8
	Working Hours	48.00	48.00	45.65	48.00	48.00	48.00	47.76
	Hourly Wage	1.22	1.21	1.2	1.2	1.37	1.2	1.23
III. Food, Drink, etc.	Weekly Wage	56.10	55.8	54.10	54.8	58.7	50.11	55.7
	Working Hours	48.00	48.87	49.82	49.40	49.50	49.30	49.57
	Hourly Wage	1.2	1.14	1.1	1.11	1.22	1.04	1.13
IV. Clothing, Textile, etc.	Weekly Wage	55.71	52.3	52.3	51.2	62.8	49.8	54.2
	Working Hours	47.90	48.00	48.00	48.00	48.00	48.00	47.90
	Hourly Wage	1.2	1.09	1.1	1.07	1.31	1.04	1.14
V. Books, Printing, etc.	Weekly Wage	66.2	64.3	59.4	60.3	68.5	61.9	64.3
	Working Hours	48.00	47.76	45.60	47.56	45.73	46.22	46.28
	Hourly Wage	1.38	1.35	1.3	1.27	1.5	1.34	1.37
VI. Other Manufacturing	Weekly Wage	57.3	55.4	53.11	54.2	62.3	55.2	56.1
	Working Hours	48.07	48.18	47.57	48.21	48.10	48.24	47.96
	Hourly Wage	1.21	1.15	1.12	1.13	1.3	1.14	1.17
VII. Building	Weekly Wage	68.4	64.5	61.13	62.9	68.6	59.8	65.8
	Working Hours	47.18	45.53	44.00	47.41	47.90	46.37	46.27
	Hourly Wage	1.45	1.42	1.39	1.34	1.43	1.29	1.42
VIII. Mining*	Weekly Wage	61.5	57.5	66.7	64.3	80.9	57.8	66.9
	Working Hours	47.78	47.67	46.84	47.71	47.54	48.00	47.37
	Hourly Wage	1.29	1.21	1.42	1.35	1.7	1.2	1.42
IX. Rail & Tram, etc.	Weekly Wage	61.0	58.9	51.2	59.9	63.1	54.10	56.7
	Working Hours	47.00	48.77	49.32	48.50	48.41	49.10	48.31
	Hourly Wage	1.3	1.21	1.04	1.24	1.31	1.11	1.22
X. Other Land Transport	Weekly Wage	52.0	53.5	51.8	50.9	62.9	45.1	52.9
	Working Hours	46.18	45.61	46.50	46.73	48.00	45.78	46.00
	Hourly Wage	1.13	1.21	1.11	1.09	1.31	0.99	1.14
XI. Shipping, etc.	Weekly Wage	90.4	83.2	88.8	92.0	88.1	49.5	86.0
	Working Hours	—	—	—	—	—	—	—
	Hourly Wage	—	—	—	—	—	—	—
XII. Agriculture, Pastoral, etc.	Weekly Wage	49.11	48.6	47.0	48.2	52.10	52.5	48.4
	Working Hours	—	—	—	—	—	—	—
	Hourly Wage	—	—	—	—	—	—	—
XIII. Domestic Hotels, etc.	Weekly Wage	49.11	46.9	47.7	49.8	49.10	42.6	46.8
	Working Hours	57.32	57.07	59.30	55.70	55.60	58.00	57.34
	Hourly Wage	0.86	0.82	0.8	0.9	0.9	0.73	0.82
XIV. Housework	Weekly Wage	31.8	34.8	31.8	34.9	58.0	49.5	34.0
	Working Hours	49.00	48.84	49.44	48.24	47.05	48.50	48.53
	Hourly Wage	0.65	0.71	0.64	0.73	1.23	1.01	0.71
All Groups	Weekly Wage**	56.3	54.9	53.1	54.71	61.1	52.0	55.7
	Working Hours	47.27	48.55	48.70	48.40	48.11	48.50	48.09
	Hourly Wage	1.21	1.13	1.1	1.13	1.27	1.1	1.14

Particulars relate to the Average Weighted weekly wage, working hours and hourly wage respectively. * Average wages and hours prevailing at the principal L.L.M. centres in each State. † Average wages quoted include value of retelling and accommodation, where provided. ‡ Average wages include value of board and lodging estimated at 15s. per week to stewards. § Average wages include value of board and lodging where supplied. || Average wages include value of board and lodging where supplied. In Sydney, Brisbane, Adelaide, Perth and Hobart. ¶ Average wages include value of board and lodging where supplied. In Melbourne it has been determined by a Wages Board at 15s. per week. ** All industrial groups. †† Building groups, XI and XII.

(ii.) *Females*.—In the following table similar information is given for adult female workers:—

Weighted Average Nominal Weekly and Hourly Rates of Wages payable to Adult Female Workers and Weekly Hours of Labour, 31st March, 1915.

Industrial Groups.	Particulars.*	Sydney.	Melbourne.	Brisbane.	Adelaide.	Perth.	Hobart.	Average for Six Capital Towns.
III. Food, Drink, etc.	Weekly Wage	23/7	21/7	19/3	21/0	21/3	20/0	21/5
	Working Hours	48.00	48.00	48.00	48.00	48.00	48.00	48.00
	Hourly Wage	0/6	0/6½	0/4½	0/5½	0/5½	0/5	0/5½
IV. Clothing, Boots, etc.	Weekly Wage	25/4	24/8	23/4	21/9	35/10	23/8	24/11
	Working Hours	47.80	48.00	48.00	48.00	48.00	48.00	47.95
	Hourly Wage	0/5½	0/6½	0/5½	0/5½	0/9	0/5	0/6½
I, II V. & VI. All other Manufacturing	Weekly Wage	27/6	27/6	21/10	27/0	..	27/8	27/1
	Working Hours	47.43	47.30	47.43	48.00	..	48.00	47.69
	Hourly Wage	0/7	0/7	0/5½	0/5½	..	0/6½	0/6½
XIII. Domestic, Hotels, etc.	Weekly Wage†	28/3	28/4	32/10	27/11	30/7	32/8	31/3
	Working Hours	52.08	50.77	55.17	52.44	51.80	58.00	52.40
	Hourly Wage	0/6½	0/6½	0/7½	0/6½	0/9½	0/6½	0/7
XIV. Shop Assistants, Clerks, etc.	Weekly Wage	28/5	32/8	30/0	25/0	..	..	29/7
	Working Hours	50.70	48.50	48.00	50.00	..	..	49.48
	Hourly Wage	0/6½	0/8	0/7½	0/5	..	..	0/7½
All Groups	Weekly Wage	26/10	26/11	27/2	24/0	37/5	26/3	27/1
	Working Hours	49.34	48.46	49.84	49.34	49.86	50.74	49.10
	Hourly Wage	0/6½	0/6½	0/6½	0/5½	0/9	0/6½	0/6½

* The particulars relate to the **Average Weighted** weekly wage, working hours and hourly wage, respectively.

† The value of Board and lodging (estimated at 15s. per week) for Sydney, Brisbane, Adelaide, Perth and Hobart, and estimated at 14s. per week for Melbourne, is included where provided, in order that the results may be comparable with the rates paid in other industries.

SECTION IX.—OPERATIONS UNDER ARBITRATION AND WAGES BOARDS ACTS.

1. **General**.—In Labour Bulletin No. 8 (page 266) particulars were furnished of operations under the Commonwealth Conciliation and Arbitration Act and State Arbitration Court and Wages Boards Acts, for each quarter of the year 1914, shewing that in the last quarter, owing mainly to the suspension of proceedings on account of the war, there was a considerable falling-off in the number of awards and determinations made and industrial agreements filed.* In the following statement particulars are given of the number of awards and determinations made and agreements filed in each State and under the Commonwealth Act during each of the four quarters of the year 1914, and the first quarter of the year 1915:—

* A brief account of the effect of the war on operations of industrial tribunals is given on pages 62 to 64 hereinafter. It is intended to publish a more detailed statement at an early date.

Awards and Determinations Made and Industrial Agreements Filed in each Quarter of 1914-15.

State, etc.	1st Quarter		2nd Quarter		3rd Quarter		4th Quarter		1st Quarter	
	Awards or Determinations made	Agreements Filed	Awards or Determinations made	Agreements Filed	Awards or Determinations made	Agreements Filed	Awards or Determinations made	Agreements Filed	Awards or Determinations made	Agreements Filed
N. South Wales	17	8	22	28	38	32	12	4	28	3
Victoria	17	1	14	15	15	16	3	1	3	1
Queensland	1	1	11	9	16	10	5	1	1	1
South Australia	1	2	1	1	1	1	1	6	1	1
West. Australia	2	10	1	5	3	3	2	3	1	7
Tasmania	1	1	1	1	1	1	1	1	1	1
4 months Act	1	1	1	16	2	1	1	21*	1	1
Total	32	26	56	76	78	61	22	34	35	21

* Of this number, 15 settlements were made between the Federated Engine-drivers' and Firemen's Association and various employers.

There is a fundamental difference between the various systems as regards the period for which awards and determinations remain in force. Thus in New South Wales, as well as under the Commonwealth Act, awards are made for definite periods, and at the end of the periods specified they lapse unless renewed or renewed. In Western Australia awards are made by the Industrial Court, for definite periods, but subject to the provisions of Sec. 83 of the "Industrial Arbitration Act, 1913." Subsection 1 of this section provides that "notwithstanding the expiry of the term of an industrial award heretofore or hereafter made it shall, subject to any award of the court, continue in force in respect of all persons and bodies bound thereby, except those who retire therefrom." Subsection 2 of the same section of the Act further provides that "At any time after the expiry of the terms of an industrial award any person or body bound thereby may retire therefrom by filing in the office of the Clerk of the Court a notice in the prescribed form signifying his or its intention to retire at the expiration of thirty days from the date of such filing, and such person or body shall thereafter cease to be bound thereby. Provided that no union which is bound in reason of being represented on any industrial association shall retire without the consent of such association." In the other States, however, determinations and awards are made for indefinite periods, and remain in force until reviewed. The result is that in New South Wales, owing to the suspension of operations under the Act (to which reference is made in Section VII., page 62) there were at the end of the year 1914 now fewer than 59 industries for which awards were in existence, but for which no Award was in force. In Western Australia out of 14 awards which expired during the year 1914, only one had been reviewed. The awards remain in operation until parties retire therefrom, under Sec. 83 (2) of the Act.

The relaxation of the original pronouncement of Mr. Justice Heydon of the 30th November, 1914, regarding the operations of Boards in war time (see page 62 hereinafore) is reflected in the additional number of awards made during the quarter ended the 31st March last. Of the 28 awards which came into force in that State during that

quarter, 21 were of an interim nature, continuing for short periods of from 12 days to six months the rates of wages and conditions of labour provided in prior awards. It was expressly laid down, however, that even when old Awards had been continued, applications need not wait until the extended period had run out.* The remaining seven Awards in New South Wales provided for increases in wages, and these are the only instances during the quarter under review in which minimum wages were increased under State and Commonwealth Acts in force. During the quarter the following industries or occupations came under awards or determinations for the first time, viz., in Victoria, photographic employees and opticians; in Queensland, bridge carpenters; and in Western Australia, undertakers' assistants; while in the Northern Territory certain employees engaged on the construction of freezing works came under an award of the Commonwealth Court. The remaining determination in Victoria was made for the purpose of bringing the State determination for the tanning industry into line with the Commonwealth award, which had been made on the 18th May, 1914.

It is understood that the provisions of Awards which have expired, but have not been renewed in New South Wales, are being observed.

The number of industrial boards in existence in New South Wales on the 31st March, 1915, was 217, while the total number of awards of Boards and of the Court in force on that date was 245. In Victoria there were on the same date 136 Wages Boards in existence, affecting about 150,000 employees. Of these, 131 Boards had made 135 determinations which were in force. All the Boards authorised, with the exception of four, had met for the purpose of fixing wages, hours, etc., but five Boards had not made any determination. The number of Wages Boards authorised in Queensland up to the 31st March, 1915, was 103, of which the authorisation was subsequently rescinded in one instance, the employees affected numbering about 90,000. In 95 cases determinations were in force, including an award by the Industrial Court, under sec. 7 of the Industrial Peace Act 1912 for an industry not under a Board. In South Australia there were, at the end of March, 1915, 56 trades under Boards, covering about 25,000 employees. Fifty-five determinations were in force, including six made by the Industrial Court, in lieu of Wages Boards, on the Minister for Industry reporting the inability to appoint Boards as authorised, or the failure of the constituted Boards to discharge the duties required under their appointment. One award was made by the Court on an application from the employees in the paint manufacturing industry, and another for the engineers at Port Pirie engaged at the works of the Broken Hill Proprietary Limited was made after a compulsory conference had been held by the President. In Western Australia awards have been made under "The Industrial Arbitration Act 1912" for 47 Industrial Unions, but only 14 were current on the 31st March, 1915, the 33 awards which expired between the 4th December, 1912, and the 31st December, 1914, and which had not been reviewed by the Court at the 31st March, 1915, remained in operation in respect of all persons and bodies bound thereby, except those who retired therefrom. An investigation

* See New South Wales Industrial Gazette, December, 1914, p. 11, and February, 1915, p. 106.

is now proceeding in respect to retirements from these and all awards made under the 1902 Act, which were revived under Sec. 83 of the Act of 1912. The result of this investigation will be included in the next issue of this Bulletin. The Wages Boards system was inaugurated in Tasmania in 1911. Up to 31st March, 1915, resolutions authorising the appointment of 29 Boards had been carried in Parliament, and 24 Boards had made determinations, three remained to be constituted, while the other two had not made any determination. The number of Commonwealth Conciliation and Arbitration Court awards in force on the 31st March, 1915, was 19.

2. **Boards Authorised, and Awards, Determinations and Agreements in Force, 31st March, 1915.**—The following tabular statement gives particulars of operations under the various Acts up to the end of March, 1915.

Boards Authorised and Constituted, Awards, Determinations and Agreements in Force, 31st March, 1915.

PARLIAMENTS.	E. with N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	Total
1. <i>Boards Authorised, Constituted, and in Force</i> — Number of Boards authorised	238*	141	102	56	—	29	566
— constituted	249†	137	97	51	—	26	560
— dissolved in whole	—	23	1	1	—	—	25
— in existence	217*	136	96	51	—	26	526
2. <i>Boards constituted which have made Awards or Determinations</i> — Number of Boards which had made or varied awards or determinations	—	130	131	34	47	—	342
— which had not made any award or determination	—	37	5	2	4	—	48
3. <i>Number of Awards and Determinations in Force</i>	19	245	135	95	55	14*	568
4. <i>Scope of State Awards and Determinations</i> — Number applying to the whole State	—	15	10	6	—	—	31
— Metropolitan area only	—	56	—	30	54	9	149
— Metropolitan and Country towns	—	40	111	13	—	5	170
— Country towns	—	124	14	46	1	—	186
5. <i>Number of Commonwealth Awards in Force in each State</i>	—	16	17	15	15	8	67†
6. <i>Industrial Agreements in Force</i>	178	77	—	10	17	—	272
7. <i>Number of Commonwealth Agreements in Force in each State</i>	—	36	75	28	31	20	190
8. <i>Number of Persons operating under State Awards and Determinations constituted</i>	—	30,000	150,000	90,000	25,000	**	—

* Excluding Special Demonstration Boards. † Boards constituted and subsequently dissolved or superseded. In New South Wales 23 Boards were dissolved owing to alteration in the sectional arrangement of industries and callings. In Victoria one Board was superseded by three Boards. In Queensland authorisation for one Board was subsequently rescinded. ‡ In addition, 2 awards and determinations had been made, but had not come into operation on the 31st March, 1915. Of that number 1 was in Queensland, and 1 in Tasmania. The figures are exclusive of awards and determinations which had expired by effluxion of time, and had not been renewed on the 31st March, 1915, and with respect to Western Australia, excluding any awards made and expired under the Act of 1902, but which were revived by Sec. 83(1) of the Act of 1912, and such other awards made under the Act of 1912, in which notice of retirement therefrom has not been filed in terms of Sec. 83(2) of the Act of 1912. § Including an award made by the Industrial Court under Sec. 7 of the Industrial Act 1912, for an industry not under an Industrial Board. ¶ Including 8 awards made by the Industrial Court. ** Including an industrial agreement, declared by the Industrial Court, under the South-West Industrial Division Act 1912, to be a common rule for the timber industry in industry in the Northern Territory. †† Not available. ‡‡ Including an award made for 20

The total number of Boards authorised up to the 31st March, 1915, in the five States in which the Board system is in force was 560; the total number constituted being 551, of which 25 had been dissolved or superseded. The number of Boards in existence at that date was accordingly 526, of which 486 had either made original awards or determinations or varied existing awards or determinations, and 40 had not made any award or determination. The difference between the number of Boards in existence and the number which had made awards or determinations, is accounted for mainly by the fact that in New South Wales a number of Boards constituted under the Act of 1912 had not made awards, owing to existing awards made under the Act of 1908 being still in force. In the following line (Number of Awards and Determinations in force) it may be seen that the total number in force (including awards made by the Commonwealth and Western Australian Arbitration Courts) was 589. This total is subject to adjustment pending the result of an investigation now being made, as to retirements, vide pages 75-76. In New South Wales, the number of awards in force includes 23 awards under the Act of 1908. This leaves 222 awards in force made by 190 Boards under the new Act constituted. In explanation of the fact that the number of awards in force in New South Wales, Victoria, and Tasmania exceeds the number of Boards which had made such awards or determinations, it may be mentioned that several of the Boards have made separate awards for different districts or for different branches of an industry.

As regards the territorial scope of the State awards and determinations in force at the end of March, 1915, it will be seen that 50 apply to the whole of a State, 160 to one of the metropolitan areas, 170 to metropolitan and country towns, while the remaining 190 apply to country areas only.

Of the Commonwealth awards there are four in connection with the shipping industry, two in connection with Waterside Workers, and one each affecting Postal Electricians and the Telegraph and Telephone (Construction) Linemen, which apply to each of the six States. There are three awards which apply to five States, three which apply to four States, and four to two States, and one to the Northern Territory.

The total number of industrial agreements in force (including agreements under section 24 and Part VI. of the Commonwealth Conciliation and Arbitration Act) was 371. The second last line of the table shows the number of Commonwealth agreements operating in each State. The total number of awards, determinations and agreements in force under the various Acts at the end of March, 1915, was 969, comprising 589 awards and determinations and 371 agreements.

In the subjoined table particulars are given for the whole Commonwealth of the number of boards authorised, constituted, and in existence, and of the number of awards, determinations, and industrial agreements in force at quarterly periods from the end of the year 1913 to the 31st March, 1915, inclusive.

Particulars of Boards and of Awards, Determinations and Industrial Agreements in Force, at 31st December, 1913, and Approximately Quarterly Periods to 31st March, 1915.

Periods.	Boards Authorised.	Boards Constituted.	Boards in Existence.	Boards which had made Awards or Determinations	Awards or Determinations in Force†	Industrial Agreements in Force.
31st Dec., 1913*	504	501	484	387	575‡	401
30th April, 1914*	525	509	492	422	575	415
30th June, 1914	537	523	504	457	584	429
30th Sept., 1914*	549	539	517	474	599	409
31st Dec., 1914*	553	544	522	478	576‡	366‡
31st March, 1915	560	551	526	486	589‡	371‡

* Details have already been published as follows:—To 31st December, 1913, (Year Book, No. 7, pages 931-3; to 30th April, 1914, (Labour Bulletin No. 5, pp. 66-8); to 30th September, 1914 (Labour Report No. 5, pp. 61-2); and to 31st December, 1914 (Labour Bulletin No. 8, pp. 266-9).

† Including Awards made by Arbitration Courts as well as Boards and subject to the qualifications referred to on pages 75 and 76, with respect to retirements.

‡ Owing to a number of Awards made under the N.S.W. Industrial Disputes Act, 1908, being still in force, the Boards constituted for such industries under the Industrial Arbitration Act, 1912, had not made any Awards.

§ See remarks and table on pages 73-4.

¶ Excluding Awards or Determinations which expired in New South Wales (under the Act of 1908) on 31st December, 1913.

SECTION X.—ASSISTED IMMIGRANTS.

1. **General.**—In the following table particulars are given of the total number of immigrants, the cost of whose passage was wholly or partly defrayed by the State Governments, up to the end of the year 1908, and the number arriving in each year since that date:—

[Commonwealth.—Number of Assisted, Selected, or Nominated Immigrants.

Particulars.	To end of 1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915, 1st Qtr.	Total.
No. of Immigrants ...	660,065	9,820	16,781	39,796	46,712	37,445	20,805	1,996	833,420

During the six years 1909 to 1914, inclusive, the average number of assisted immigrants was 7140 per quarter, and the average number in 1914 was 5201 per quarter. The number of assisted immigrants arriving during the first quarter of 1915 was 1996, and during the fourth quarter of the preceding year 3915, hence the number arriving during the first quarter of 1915 was 72 per cent. below the average for the six years 1909 to 1914, and 62 per cent. below the average number for 1914.

2. **Number of Assisted Immigrants in each State, January to March, 1915.**—The following table shews the number of selected and nominated immigrants arriving in each State during the first quarter of the year 1915:—

Assisted Immigrants.—Number Arriving in each State, January to March, 1915.

Particulars.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	C'wth.
Selected ..	204	411	107	..	74	..	796
Nominated ..	290	271	250	68	291	30	1,200
TOTAL	494	682	357	68	365	30	1,996

With the exception of South Australia, where there was an increase of 23 per cent., there was a decline in the number of immigrants arriving in every State, compared with the preceding quarter, New South Wales shewing a decrease of 60 per cent., Victoria 55 per cent., Queensland 56 per cent., Western Australia 27 per cent., and Tasmania 19 per cent.

3. **Number of Assisted Immigrants, Classified in Industrial Groups, January to March, 1915.**—The following table gives particulars of assisted immigrants of each sex, classified according to industrial groups, dependants being specified separately:—

Assisted Immigrants.—Classified according to Sex and Industrial Group, January to March, 1915.

Industry.	Males.	Females.	Industry.	Males.	Females.
I. Wood, Timber, Furniture, etc.	6	..	IX. Rail and Tramway Transport ..	1	..
II. Engineering, Metals, etc.	12	..	X. Other Land Transport	7	..
III. Food, Drink, Tobacco, etc.	3	2	XI. Shipping, Wharf Labour, etc.	..	..
IV. Clothing, Hats, Boots, etc.	7	11	XII. Agricultural, Pastoral, Rural, etc.	269*	2
V. Books, Printing, Binding, etc.	3	..	XIII. Domestic, Hotels, etc.	2	504
VI. Other Manufacturing	3	5	XIV. General Labour and Miscellaneous ..	78	27
VII. Building	9	..	Adults ..	51	430
VIII. Mining	12	..	Dependants (Children under 12 years ..	275	277
			TOTAL	738	1,258

* Including 24 "Dreadnought Boys" who arrived in New South Wales.

As regards males, the number of dependants was 326, or 44 per cent. of the whole, and of the balance, 269, or 36 per cent., were in Group XII. (Agricultural, Pastoral, etc.). Of these agricultural immigrants, 31 (including 24 "Dreadnought Boys"), arrived in New South Wales, 141 in Victoria, 69 in Queensland, and 28 in Western Australia. The greater number of these immigrants were selected, only 27 having been nominated.

STATE FREE EMPLOYMENT BUREAUX.

Of the 1258 female immigrants, 707, or 56 per cent., were dependants, and 504, or 40 per cent., were in Group XIII. (Domestic, Hotels, etc.), and of the latter number, 393 were selected, and 111 nominated. The numbers of females in Group XIII. arriving in the various States were:—New South Wales 175, Victoria 196, Queensland 61, and Western Australia 72.

SECTION XI.—STATE FREE EMPLOYMENT BUREAUX.

1. **General.**—In the following paragraphs particulars are given of the operations of the various State Labour Bureaux. In Labour Report No. 5 (pages 85-8), attention was drawn to the fact that the systems adopted in the several States for the registration of applications for work and of applications from employers are not uniform, and that the comparisons which can be drawn from the figures shewing the result of the operations of these Bureaux are subject to certain limitations.

2. **Applications and Positions Filled, 1913, 1914, and First Quarter of 1915.**—The following table shews the total number of applications for employment and from employers, and the number of positions filled during the year 1913, in each quarter of 1914, and in the first quarter of 1915.

State Free Employment Bureaux.—Applications for Employment and from Employers, and Positions Filled in the Commonwealth, during the Years 1913 and 1914, and the First Quarter of 1915.

Year.	Applications for Employment.			Applications from Employers.			Position filled
	On Live Register at Beginning of Quarter.	Received during quarter.	Total.	On Live Register at Beginning of Quarter.	Received during quarter.	Total.	
1913							
1914—1st Quarter	2,520	81,356	83,876	*321	*26,103	*26,424	35,312
" 2nd	2,326	22,446	24,772	*1,017	*7,776	*8,793	10,006
" 3rd	4,622	22,069	26,691	*460	*7,353	*7,813	9,161
" 4th	6,850	26,955	33,805	*1,021	*7,754	*8,775	8,360
1915—1st	8,892	29,447	38,339	*779	*6,340	*7,119	9,838
	9,075	29,941	39,016	†370	†4,445	†4,815	11,131

* Exclusive of Victoria and South Australia for which States particulars are not available.
 † Exclusive of Victoria, South Australia and Western Australia.

3. **Applications and Positions Filled in each State.**—The following table shews the number of applications for employment and from employers, and the number of positions filled in each State during the first quarter of 1915. It will be seen that the total number of applications for employment was 39,016, as against 38,339 for the preceding quarter, an increase of 1.8 per cent.; and the number of positions filled 11,131, as against 9838, an increase of 13.1 per cent.

State Free Employment Bureaux—Applications for Employment and from Employers, and Positions Filled in different States, January to March, 1915.

State.	†Applications for Employment.			Applications from Employers.			‡Positions Filled.
	On Live Register at Beginning of Quarter.	Received during Quarter.	Total.	Vacant at Beginning of Quarter.	Notified during Quarter.	Total.	
New South Wales	..	4,468	4,468	295	2,864	3,159	*2,868
Victoria	6,944	12,963	19,907	..	+	+	3,110
Queensland	629	2,408	3,037	75	1,578	1,653	*1,462
South Australia	821	5,719	6,540	..	++	+	*2,331
Western Australia	681	4,295	4,976	..	++	+	1,359
Tasmania	..	88	88	..	3	3	1
COMMONWEALTH†	9,075	29,941	39,016	370	4,445	4,815	11,131

* Including persons who received advances of travelling expenses from the Labour Bureau, but who were not directly engaged through the medium of that institution. † Exclusive of females in Western Australia. ‡ Not available. § In Tasmania, positions which have not been previously notified to the Bureau by employers, are, in many cases, filled through the medium of the Labour Bureau.

NOTE.—Any deductions which can be drawn from the above figures as to the relative state of the labour market in the several States are subject to certain limitations, inasmuch as the scope and functions of the Bureaux are by no means identical. (See Remarks on pages 85 to 88 of Labour Report No. 5.)

During the first quarter of 1915, out of every 1000 applicants for positions, 285 obtained work, as against 256 for the preceding quarter.

4. **Applications and Positions Filled in Various Industrial Groups.**—The following table furnishes particulars for the first quarter of the current year of the operations of the State Labour Bureaux, classified according to industrial groups:—

State Free Employment Bureaux.—Applications for Employment and from Employers, and Positions Filled in different Industrial Occupations, January to March, 1915.

Industrial Group.	† Applications for Employment.			§§ Applications from Employers.			Positions filled. ¶
	On Live Register at Beginning of Quarter.	Received during Quarter.	Total.	Vacant at Beginning of Quarter.	Notified during Quarter.	Total.	
I. Wood, Furniture, Saw-mill, Timber Workers, etc.	173	491	664	1	79	80	131
II. Engineering, Metal Works, etc.*	954	1,471	2,425	..	79	79	328
III. Food, Drink, Tobacco, etc.	18	63	81	..	44	44	38
IV. Clothing, Hats, Boots, etc.	1	27	28	..	16	16	13
V. Books, Printing, etc.	49	129	178	..	5	5	17
VI. Other Manufacturing	1	27	28	..	27	27	16
VII. Building	1,453	4,923	6,376	28	634	662	952
VIII. Mining	12	117	129	..	93	93	102
IX. Rail and Tram Services†	1,300	5,901	7,201	200	771	971	3,222
X. Other Land Transport	..	16	16	..	8	8	8
XI. Shipping, Wharf Labour, etc.	31	77	108	..	23	23	23
XII. Agricultural, Pastoral, Rural, etc.‡	61	782	843	41	580	621	579
XIII. Domestic, Hotels, etc.	14	1,343	1,357	88	858	946	744
XIV. General Labour and Miscellaneous§	4,327	10,279	14,606	12	1,228	1,240	3,569
TOTAL**	9,075	29,941	39,016	370	4,445	4,815	11,131

* Including railway and tramway workshops. † Excluding railway and tramway workshops, but including construction and maintenance of permanent way and works. ‡ Including horticultural, viticultural and gardening. § Excluding railway and tramway employees and labourers employed on railway and tramway construction and maintenance. ¶ Including persons in New South Wales, Queensland, and Western Australia, who received advances of travelling expenses from the Labour Bureaux, but who were not directly engaged through the medium of that institution. † Exclusive of Western Australia. ** Inclusive of males in Western Australia. §§ Exclusive of Victoria, South Australia, and Western Australia.

It may be seen that in every group there were more applicants for work than positions vacant. Of the five groups in which the number of applicants was over 1000, the over supply of labour was most marked in Group II. (Engineering, etc.), with only 135 positions filled for every 1000 applications for work, followed by Group VII. (Building) with 154, Group XIV. (Miscellaneous) with 244, Group IX. (Rail and Tram Service) with 447, and Group XIII. (Domestic, etc.), with 548 positions filled for every 1000 applications.

5. **Applications and Positions Filled, Males and Females.**—Of the total number of registrations for employment, 37,747 were from males and 1269 from females. Of these female applicants, 1191 were reported from New South Wales, and 78 from Queensland. No particulars

regarding female applicants in Western Australia are available. Of the 1191 female applicants in New South Wales, 1104 were in Group XIII. (Domestic, etc.).

Regarding positions filled, 10,431 males, or 27.6 per cent., and 700 females, or 55.2 per cent., obtained work. Of 700 positions obtained by females, 617 were in Group XIII. (Domestic, etc.). No particulars regarding positions filled by female applicants in Western Australia are available.

The following table gives particulars, for male and female workers separately, of the number of applications for employment, and from employers, and the number of positions filled:—

State Free Employment Bureaux.—Applications and Positions Filled, Males and Females, January to March, 1915.

Particulars.	Applications for Employment.			† Applications from Employers.			Positions filled.
	On Live Register at Beginning of Quarter.	Received during Quarter.	Total.	On Live Register at Beginning of Quarter.	Received during Quarter.	Total.	
Males	9,075	28,672	37,747	357	3,638	3,995	10,431
Females*	..	1,269	1,269	13	807	820	700
TOTAL*	9,075	29,941	39,016	370	4,445	4,815	11,131

* Exclusive of females in Western Australia, for which State no particulars are available.

† Exclusive of Victoria, South Australia and Western Australia.

SECTION XII.—INDUSTRIAL ACCIDENTS.

1. **Scope of Investigation.**—It has been found impracticable at the present stage to extend the scope of these investigations to all industrial accidents sustained by workmen in the course of their employment, and the particulars given in this section relate only to such accidents as are reported to various State authorities under the provisions of Acts relating to factories, mines, boilers, scaffolding and lifts. Since statutory provisions do not exist in all the States for the reporting of accidents of the nature indicated, and even in those States in which such provisions exist they do not in all cases extend to the whole State, the following tabular statement has been compiled in order to shew the localities to which these provisions apply in the several States:—

Industrial Accidents.—Localities in each State to which Statutory Provisions relating to the Reporting of Accidents apply.

STATE.	COMPULSORY REPORTING OF ACCIDENTS—				
	In Factories.	In Mines.	Other Machinery and Boilers.	Scaffolding.	Lifts.
N.S.W.	Metropolitan, Newcastle, Western, Goulburn, Albury and Broken Hill Districts.	(Applies to all Miners coming under Provisions of Miners' Accident Relief Act—about 30,000 out of 37,000 Miners included).	*	Metropolitan and Newcastle Districts.	Metropolitan and Newcastle Districts.
Victoria	Whole State.	Whole State.	Boilers, Whole State. Machinery, no provision.	*	Whole State.
Queensland	Metropolitan and 12 other proclaimed towns.	Whole State.	Whole State.	Whole State.	*
S. Australia	Metropolitan Area.	Whole State.	Boilers, Whole State. Machinery, no provision.	Metropolitan Area.	Metropolitan Area.
W. Australia	Central and South Western Divisions.	Whole State.	Same as Factories.	*	*
Tasmania	Whole State.	Whole State.	Northern, North-Eastern, North-Western, Western and Southern Districts.	*	*

* No provision for compulsory reporting of accidents.

2. Number of Accidents Reported during years 1913 and 1914 and the First Quarter of 1915.—The following table shews the number of accidents which occurred in each State during the year 1913 and each quarter of 1914, and the first quarter of 1915:—

Industrial Accidents. Number Reported in each State during the Years 1913 and 1914, and the First Quarter of 1915.

Particulars.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	C'whth.
No. of Fatal Accidents.	1913	82	24	33	5	7	185
	1914-1st Quarter	20	1	12	..	34	44
	2nd ..	15	11	3	..	5	41
	3rd ..	12	7	6	..	8	34
	4th ..	14	7	4	..	4	40
	1915-1st ..	10	2	5	1	10	33
No. of Accidents incapacitating for over 14 days.	1913	3,427	308	286	117	213	5,030
	1914-1st Quarter	885	83	105	27	190	1,310
	2nd ..	934	94	73	20	189	1,331
	3rd ..	899	98	84	22	163	1,265
	4th ..	529	72	122	15	221	986
	1915-1st ..	662	96	145	12	219	1,161

The average number of fatal accidents for the first quarter of 1915 is 28 per cent. below the quarterly average for 1913, and 17 per cent. below that for 1914, while the average number of accidents incapacitating for over 14 days for the first quarter of 1915 is 8 per cent. below the quarterly average for 1913, and 6 per cent. below that for 1914.

3. Number of Accidents reported in each Industrial Group during First Quarter, 1915.—The following table gives particulars of accidents in various industrial groups:—

Industrial Accidents.—Number Reported in various Industrial Groups during First Quarter, 1915.

Industrial Group.	Fatal.	Incapacitated for over 14 days.	Industrial Group.	Fatal.	Incapacitated for over 14 days.
I. Wood, Furniture, etc.	1	53	VII. Building and Scaf. folding ..	1	1
II. Engineering, etc. ..	1	56	VIII. Mining ..	28	945
III. Food, Drink, etc. ..	..	29	IX. Lifts ..	..	4
IV. Clothing, Hats, etc. ..	..	16	X. Miscellaneous ..	..	..
V. Books, Printing, etc. ..	..	19			
VI. Other Manufacturing	2	38	TOTAL	33	1,161

The largest number of accidents, as in preceding quarters, occurred in the mining industry, which comprised 85 per cent. of the fatal and 81 per cent. of the non-fatal accidents, as compared with 65 per cent. and 80 per cent., respectively, in the preceding quarter.

In New South Wales the number of fatal mining accidents was eight, in Victoria one, in Queensland five, in South Australia one, in Western Australia ten, and in Tasmania three. Of these accidents seven occurred in connection with coal mining, and 21 with metalliferous mining. The number of non-fatal mining accidents was greatest in New South Wales, where 587 such accidents occurred, followed by Western Australia 217, Queensland 124, Victoria 9, and Tasmania 8. Of these accidents 478 occurred in connection with coal mining, and 467 with metalliferous mining.

SECTION XIII.—THE COMMONWEALTH CONCILIATION
RECORD OF COURT OPERATIONS UNDER THE COMMON-
AND THE ARBITRATION (PUBLIC SERVICE) ACT

1.—COURT

(i.) COMPULSORY CONFERENCE

PARTIES TO CONFERENCE.		PROCEDURE.	INDUSTRY AND LOCALITY AFFECTED.
Employees.	Employers.		
Australian Theatrical and Amusement Employees' Association.	Brennan's Amphitheatres Ltd.	Application made by the Employees' Association.	Vandeville Entertainments in Commonwealth.

* The President may whenever, in his opinion, it is desirable for the purpose of preventing or settling Conference presided over by himself.

(ii.) PLAINTS FILED

CLAIMANT.	RESPONDENT.
Small Arms Factory Employees' Association.	The Minister of Defence.

* The Court shall have cognisance for purposes of prevention and settlement of all Industrial Disputes

(iii.) CASES

CLAIMANT.	RESPONDENTS.	DATE OF FILING OF REFERENCE.	INDUSTRY AND LOCALITY AFFECTED.
Sir William Vestey and E. H. Vestey, trading as Vestey Bros.	Employees of Vestey Bros. in the Northern Territory, who are members of the Aus- tralian Workers' Union, the Amalga- mated Society of Car- penters and Joiners; the Amalgamated So- ciety of Engineers.	1st Dec., 1914.	Building of Refrigerating works in the Northern Territory.

† A résumé of the main provisions of the Commonwealth Conciliation and Arbitration Acts, 1904-11,

AND ARBITRATION ACT 1904-1914. §

WEALTH CONCILIATION AND ARBITRATION ACT 1904-1914

1911 FOR THE QUARTER ENDED 31st MARCH, 1915.

PROCEEDINGS.

SUMMONED UNDER SECTION 16 (a).*

NATURE OF DISPUTE.	DATE OF HEARING.	RESULT.
Two agreements between Brennan's Amphitheatre Ltd. and Employees' Association, under which parties had been working for 12 months had been determined by employers as from 1st March, 1915, and a dispute had arisen as to rates and conditions of employment, and as to employment of non-unionists.	1915. Melb. 31st March.	Deputy President summoned conference held in Melbourne on 31st March, 1915. Arrangement arrived at whereby work continued under terms of old agreement until dispute settled by arbitration. Employees' Association agreed to file plaint for whole of the vaudeville industry by 1st August, 1915.

an Industrial Dispute, summon any person to attend at a time and place specified in the summons, at a

UNDER SECTION 19 (5).*

DATE FILED.	INDUSTRY AND LOCALITY AFFECTED.	NATURE OF CLAIM.
2nd Feb., 1915.	Small Arms Manufacture at Lithgow, New South Wales.	Claim in respect to hours, overtime, apprenticeship, conditions, holidays, and wages for apprentices, youths, toolsmiths, die, hammer-smiths, headley hammer, etc., etc., and also preference to members of Association.

which are submitted to the Court by an organisation by plaint.

HEARD.

NATURE OF CLAIM.	DATE OF HEARING.	RESULT.
Dispute in respect to rates of pay and hours of work of carpenters, fitters, plumbers, blacksmiths, plasterers, concrete workers, concrete tradesmen and/or ordinary labourers, casual labourers, unloading at wharf or railway yard at end of wharf, draymen, cooks, kitchenmen, and tradesmen.	Melbourne, 1915, Feb. 22nd, Mar. 11th, 25th; Sydney, 1915, Mar. 15th, 18th, 19th.	Final award was delivered by Deputy President (Mr. Justice Powers), on 19th March, 1915.

and the Arbitration (Public Service) Act, 1911, was given in Labour Bulletin, No. 5, pages 53 to 59.

(iv.) APPLICATION FOR LEAVE

APPLICANT.	IN THE MATTER OF—	DATE OF FILING PLAINT.
Federated Engine Drivers' and Firemen's Association of Australasia.	Federated Engine Drivers' and Firemen's Association of Australasia and Broken Hill Proprietary Co. Ltd., and two others.	21st May, 1914.

(v.) APPLICATION FOR THE CANCELLATION OF THE REGISTRATION.

APPLICANT.	NAME OF ORGANISATION.
Industrial Registrar.	Post and Telegraph General Division Association of Workers of West Australia.

* If it appears to the Court, on the application of any organisation or person interested, or of the order the registration of the organisation to be cancelled, and thereupon it shall be cancelled accordingly.

2.—REGISTRAR'S

(i.) ORGANISATION OF EMPLOYEES

NAME OF ORGANISATION.	CONSTITUTION.
The Rope and Cordage Employees' Union of Australia.	Union composed of persons (male and female) engaged in production, sale or distribution of rope, twine, cordage (including metal), mats and hessian, lag and sack-making and repairing, in or about any rope or cordage, sack or lag works in the Commonwealth of Australia.

* Any Association of not less than 100 employees in an industry can, on compliance with the pre-

(ii.) CHANGE OF NAME OF ORGANISATION

NAME OF ORGANISATION AS REGISTERED.
General Division Telephone Traffic Officers' Association.

(iii.) CHANGE OF CONSTITUTION UNDER

NAME OF REGISTERED ORGANISATION.
The Australian Tramway Employees' Association.

TO WITHDRAW PLAINT.

INDUSTRY AND LOCALITY.	DATE OF HEARING.	RESULT.
Engine Drivers and Firemen engaged in Mining and Ore treatment at Broken Hill, N.S.W. and Port Pirie, S.A.	Melb., 1915, March 20th.	The Deputy President, Mr. Justice Powers, granted the application. The claimant did not desire to proceed with plaint at present, as the intention was to file a plaint later on to bring all the companies concerned under one plaint.

TION OF AN ORGANISATION UNDER SECTION 60.*

REASONS FOR CANCELLATION.	DATE OF HEARING.	RESULT.
That the members had previous to the application transferred to their respective Commonwealth organisations duly registered under the Act.	Melb., 1915, Mar. 10th	Deputy President (Mr. Justice Powers) ordered that the registration be cancelled on the 10th March, 1915.

Registrar, that for any reason the registration of an organisation ought to be cancelled, the Court shall

OPERATIONS.

REGISTERED UNDER SECTION 55 (b).*

TOTAL NUMBER OF MEMBERS.	REGISTERED.		REGISTERED OFFICE AND NAME OF SECRETARY
	State.	Date	
418.	Vic.	5th February, 1915.	Trades Hall, Carlton. Isaac Johnston.

scribed conditions, as set out in the Schedule to the Act be registered as an organisation.

UNDER STATUTORY RULES 1913, No. 331, REG. 17.

CHANGE TO—	DATE OF CHANGE.
Commonwealth General Division Telephone Officers' Association.	3rd February, 1915.

STATUTORY RULES, 1915, No. 89.

CONSTITUTION CHANGED TO—	DATE OF CHANGE.
OLD CONSTITUTION— "The Association shall be open to all employees whether permanent or casual in the tramway services of Australia. Honorary members need not necessarily be tramway employees, and shall in all cases be made by resolution of a general meeting." CHANGED TO— "The Association shall be open to all employees whether permanent or casual in the tramway services of Australia, together with such other persons whether employees in the industry or not, as have been appointed officers of the Association and admitted as members thereof."	4th Mar., 1915.

SECTION XIV THE PROHIBITION OF STRIKES AND LOCK
OUTS IN AUSTRALIA

deemed to be a misdemeanour punishable under the Act, provided reasonable time had elapsed for a reference to the court of the matter in dispute, or if the suspension or discontinuance of an industry or the working of any persons were for "any other good cause."

In 1908 the prohibition of strikes and lock-outs was made absolute in New South Wales, under Section 42 of the Industrial Disputes Act.* It should be observed, however, that a strike or lock-out was defined under this Act, to include a stoppage of work *in consequence of a dispute*, vide footnote to definitions, page 90. This qualification was omitted in the Act of 1912. The experiences of 1909, more especially in connection with the strike on the Northern coalfields, led to the insertion of more stringent clauses in an amending Act passed towards the end of that year. According to the original Act of 1908 any person instigating or aiding in a lock-out or strike was liable, like the participant, to a fine or, in default, to imprisonment for two months. Under the Amending Act of 1909 the option of a fine for instigators or aiders was withdrawn, and they were made liable to a longer term of imprisonment. There was a general similarity between the Acts of 1908 and 1901, and in both Acts the penalties for strikes and lock-outs were identical. The Act of 1908 was further amended in 1910 and 1911, and was repealed by the Industrial Arbitration Act 1912, sections 44 and 45 of which now relate to the prohibition of strikes and lock-outs.

In Western Australia strikes and lock-outs have been prohibited since 1902, when the Industrial Conciliation and Arbitration Act came into force. The prohibitory clauses of that Act (see sec. 98) were practically identical with those of the New South Wales Act of 1901, and have not been materially altered by subsequent legislation.

By the Commonwealth Conciliation and Arbitration Act, passed in 1904, strikes and lock-outs are prohibited,† but the operation of that Act is confined to industrial disputes extending beyond the limits of any one State.

In South Australia the Factories Act 1907, No. 945 (sections 158 and 159), made it a misdemeanour for "any organisation of employers and employees, or member thereof, to take part in a lock-out or strike on account of any matter in respect of which a Board has made a determination." So much of this Act as related to strikes and lock-outs, and the Conciliation Act 1894, were repealed by the Industrial Arbitration Act 1912, No. 1110. By sections 38 and 39 of that Act strikes and lock-outs are prohibited absolutely, under penalties which may involve imprisonment with or without hard labour for a term not exceeding three months. This is the only Act at present in force in any State under which imprisonment can be ordered for taking part in a strike or lock-out.

* Section 42 reads as follows:—If any person (a) does any act or thing in the nature of a lock-out or strike, or takes part in a lock-out or strike, or suspends or discontinues employment or work in any industry; or (b) instigates to or aids in any of the above-mentioned acts, he shall be liable to a penalty not exceeding one thousand pounds, or in default to imprisonment not exceeding two months. Provided that nothing in this section shall prohibit the suspension or discontinuance of any industry or the working of any persons therein for any cause not constituting a lock-out or strike.

† Part II., Section 6.

In Tasmania and Queensland prohibition of strikes and lock-outs was not introduced until the Acts now in force were passed, viz., the Wages Boards Act 1910, No. 62, and the Industrial Peace Act 1912, No. 19, in the respective States. It will be seen in the following paragraphs that the prohibition is not absolute in either of these States. In Victoria strikes and lock-outs are not prohibited, but by sec. 173 of the Factories and Shops Act 1912, No. 2386, "where the Minister is satisfied that an organized strike or industrial dispute is about to take place or has actually taken place in connection with any process, trade, occupation, or employment as to any matter which is the subject of a determination of a special board or of the Court of Industrial Appeals the Governor-in-Council may suspend for any period not exceeding twelve months the whole or any part or parts of such determination. This power has been exercised on one occasion only."

2. *Definition.* (i) *Lock-outs.*—Under the Commonwealth Conciliation and Arbitration Act 1912 (sec. 4), a lock-out is defined as including "the closing of a place of employment, or the total or partial suspension of work by an employer, with a view to compel his employees, or to aid another employer in compelling his employees, to accept any term or condition of employment." This definition is substantially followed in the New South Wales Arbitration Act 1912 (sec. 4), and the Western Australian Industrial Arbitration Act 1912 (sec. 4). The definitions of a lock-out contained in the Queensland Industrial Peace Act 1912 (sec. 3), and the South Australian Industrial Arbitration Act 1912 (sec. 3) are identical and read as follows:—"Lock-out means the act of an employer in closing his place of business, or suspending or discontinuing his business or any branch thereof, or a refusal or failure by an employer to continue to employ any number of his employees, with intent (a) to compel or induce any employees to agree to terms of employment, or comply with any demands made upon them by the said or any other employer; or (b) to cause loss or inconvenience to his employees, or any of them; or (c) to incite, instigate, aid, abet or procure any other lock-out; or (d) to assist any other employer to compel or induce any employees to agree to terms of employment, or comply with any demands made by him."

(ii) *Strikes.*—In sec. 4 of the Commonwealth Act a strike is defined as including "the total or partial cessation of work by employees, acting in combination as a means of enforcing compliance with demands made by them or other employees on employers." The definitions in the New

*On the 12th October, 1912, an Award made by the Court of Industrial Appeals in Victoria was rejected by the Builders' Labourers, whereupon the operation of the Award was suspended for six months, pending the reference of a dispute to the Commonwealth Arbitration Court.

1 A lock-out was defined under the Industrial Arbitration Act of 1901 as follows:—"Lock-out means the closing of a place of employment or the suspension of work by an employer done with a view to compel his employees or to aid another employer in compelling his employees to accept a term or terms of employment." Under the Industrial Disputes Act 1908 a lock-out included the closing of a place of employment or a suspension of work or a refusal to continue to employ any number of his employees in consequence of a dispute, &c.

2 The Western Australian Act of 1902 contained no definition of either a lock-out or a strike.

South Wales (sec. 5*) and Western Australian (sec. 4) Acts are somewhat more elaborate, and specifically include a "refusal under a common understanding" by employees to work with a view to enforcing their demands. In the Queensland (sec. 3) and South Australian (sec. 3) Acts the definitions are still more elaborate, and are identical in the two Acts. They read as follows:—"The act of any number of employees who are or have been in the employment either of the same employer or different employers, in discontinuing their employment, whether wholly or partially, or in ceasing to work, or in refusing or failing to continue to work therein, or in breaking their contracts of service, or in refusing or failing after any such discontinuance or cessation of work to resume work or return to their employment, the said discontinuance, cessation, breach, refusal, or failure being due to or in pursuance of any combination, agreement, or understanding, whether expressed or implied, entered into by the said employees or any of them with intent, (a) to compel or induce any such employer to agree to terms of employment, or to employ or cease to employ any person or class of persons, or to comply with any demands made by the employees; or (b) to cause loss or inconvenience to any such employer in the conduct of his business; or (c) to incite, instigate, aid, abet, or procure any other strike; or (d) to assist employees in the employment of any other employer to compel or induce that employer to agree to terms of employment, or to employ or cease to employ any person or class of persons, or to comply with any demands made by any employees."

In Victoria no definition of an "organised strike" or "industrial dispute" is given in the Factories Act, neither does the Tasmanian Act, 1910-11, contain a definition of either a lock-out or a strike.

3. Prohibition of Strikes and Lock-outs.—Sec. 6 of the Commonwealth Conciliation and Arbitration Act, 1904-14, provides that "no person or organisation shall, on account of any industrial dispute, do anything in the nature of a lock-out or strike, or continue any lock-out or strike." No proceedings for a breach of that provision may be taken without the leave of the President, and the prohibition does "not apply to anything proved to have been done for good cause independent of the industrial dispute." The onus of such proof, however, lies on the defendant.

Sections 44 and 45 of the New South Wales Industrial Arbitration Act 1912 provide that "if any person, including an industrial union of employers, does any act or thing in the nature of a lock-out or strike, or takes part in a lock-out or strike, or instigates to or aids in any of the above-mentioned acts, the court may order him to pay a penalty."

Under the Queensland Industrial Peace Act, sec. 35 (1), distinction is drawn between public utilities and other industries, and

* Under the Industrial Arbitration Act 1901 a Strike was defined as meaning the cessation of work by a body of employees acting in combination done as a means of enforcing compliance with demands made by them or other employees on employers. Under the Industrial Disputes Act 1908 "To strike or to go on strike" included the cessation of work by any number of employees acting in combination, or a concerted refusal or a refusal under a common understanding by any number of employees to continue to work for an employer in consequence of a dispute, with a view to compel their employers or to aid other employees in compelling their employer to accept terms of employment or with a view to enforce compliance with demands made by them or other employees on employers.

Whilst not prohibiting strikes or lock-outs under all circumstances, the Act requires certain conditions to be observed before either is lawful. In the case of public utilities (which includes the manufacture, production, or supply of coal, gas, electric light or energy, water, milk, flour, bread, or meat for domestic consumption, etc.) these conditions are (i.) a compulsory conference called by the judge and proved to be abortive; (ii.) fourteen-days notice in writing of the intention to lock out or strike, given to the Registrar, and (iii.) a secret ballot conducted by the Registrar, which results in favour of a lock-out or strike. In cases other than public utilities, only the last two conditions are imposed. Sections 28 and 29 of the South Australian Industrial Arbitration Act 1912 provide that "any person or association who or which does any act or thing in the nature of, continues or takes part in any lock-out or strike, shall be liable to a penalty."

The Western Australian Industrial Arbitration Act 1912 (sec. 104) makes it an offence for any person to take part in, do, or be concerned in doing, any matter or thing in the nature of a lock-out or strike. In Tasmania sections 54 and 55 of the Wages Boards Act 1910 provide that "no organisation of employers or employees or member thereof shall counsel, take part in, support, or assist directly or indirectly, any lock-out or strike in respect of any matter in respect of which a Board has made a determination."

In addition to the preceding direct prohibitions of strikes and lock-outs, several of the Acts contain what may be termed supplementary prohibitory clauses. Under sections 7 and 8 of the Commonwealth Act, and sections 105 and 106 of the Western Australian Act, it is provided that employers or employees refusing to offer or accept employment upon the terms of an industrial agreement,* or any organisation of employers or employees, which, for the purpose of enforcing compliance with the demands of any employers or employees, orders its members to refuse to offer or accept employment, shall be deemed to be guilty of a lock-out or strike, as the case may be.

The prohibitory clauses of the Western Australian Act are generally more elaborate than those of other States. In addition to the direct prohibition of lock-outs and strikes, it is provided that no person shall suspend or discontinue employment or work in any industry before a reasonable time has elapsed for a reference to the Court of the matter in dispute, or during the pendency of any proceedings before the Court in relation to an industrial dispute. Instigating to, or aiding in any of these Acts is also prohibited. It is expressly stated, however, that the prohibition does not apply to suspension or discontinuance independent of an industrial dispute, but the onus of proof that such independent good cause exists lies on the defendant.

Prohibitory clauses relating to "any organisation or union ordering its members to refuse to offer or accept employment" (without any restrictions as to whether such employment is in terms of any award or industrial agreement) are included in the Acts in force in Queensland (sections 28 and 29), South Australia (section 41), and Western

* The marginal notes to sections 7 and 105 respectively include also the word "award," but the sections confine the provision to industrial agreements only.

† These provisions are based on the New South Wales Industrial Arbitration Act 1901, see p. 91 herebefore.

Australia (section 106), and further, under section 46 of the New South Wales Act, section 36 (3) of the Queensland Act, and section 46 of the South Australian Act, any organisation of employees may be penalised, upon any of its members being convicted of taking part in a strike. Moreover, in South Australia, section 42 of the Industrial Arbitration Act 1912 provides that "any person who being bound by an award or order of the Court or determination award or order of a wages board, or an agreement under section 48 of the Factories Act Amendment Act 1910 as to employment in any industry, without reasonable cause or excuse refuses or neglects to offer or accept employment, or to continue to employ or be employed upon the terms of such award, order, determination, or agreement shall be deemed to do an act in the nature of a lock-out or strike, according to the nature of the case."

Special clauses of a prohibitory nature are contained in the South Australian Act in regard to picketing;* in the Western Australian Act in regard to aiding (a) any lock-out or strike by any gift of money or other valuable thing,[†] (b) the payment or application of a union's funds or property for or in connection with or to aid or assist any person engaged in any strike or lock-out in that State;[‡] (c) a majority of the members of any industrial union or industrial association being parties to a strike or lock-out,[§] and in the New South Wales Act in regard to instigating or aiding, by an industrial union, any other union or any of its members in a lock-out or strike.^{||}

4. **Penalties.** (i) *Lock-outs.*—The penalties provided by the several Acts in the case of a lock-out by any person or organisation are as follows:—(a) Under the Commonwealth Act (sec. 6 (1)) the New South Wales Act (sec. 44) and the Queensland Act* (sec. 36 (1)), the maximum penalty is £1000; (b) under the South Australian Act** (sec. 33) (in the case of an association) the penal clauses provide for a fine not exceeding £500, or, if a person, imprisonment with or without hard labour

* South Australian Industrial Arbitration Act 1912, Sec. 42. "Notwithstanding anything contained in the Conspiracy and Protection of Property Act 1878 any person who (a) attends at or near any workshop, factory, place of business or other place where an industrial dispute is taking place or is threatened or impending, or has taken place or at or near the residence or place of business of any person, and (b) induces or attempts to induce any other person to take part in such industrial dispute or in a lock-out or strike or to do or abstain from doing any act, matter or thing whereby any party to an industrial dispute, or any other person either directly or indirectly interested therein or connected therewith may or might be injured in his trade, business or calling shall be liable to a penalty."

† Western Australian Industrial Arbitration Act 1912, Sec. 104 (2). "Every person who makes any gift of money or other valuable thing to, or for the benefit of any person who is a party to any strike or lock-out, or to or for the benefit of any industrial union, industrial association, trade union or other society or association of which any such person is a member, shall be deemed to have aided in a strike or lock-out within the meaning of this section."

‡ Ibid. Section 7, sub-section 4 (b). "No part of the funds or property of the industrial union shall be paid or applied for or in connection with or to aid or assist any person engaged in any strike or lock-out in this State."

§ Ibid. Sec. 104 (4). "When a strike or lock-out takes place, and a majority of the members of any industrial union or industrial association are at any time parties to the strike or lock-out, the said union or association shall be deemed to have instigated the strike or lock-out."

|| New South Wales Industrial Arbitration Act 1912, Sec. 10. "The Court may, if satisfied that an industrial union is instigating or aiding any other union or any of its members in a lock-out or strike, for which such other union or any of its members are liable to a penalty under this Act" impose certain penalties.

* An industrial association is rendered liable for the act of any officer or majority of its members taking part in or inciting a lock-out.—Sec. 37.

** An association is rendered liable to the penalty, where a majority of its members are at any time parties to a lock-out.—Sec. 40.

for a term not exceeding three months; (c) under the Western Australian Act (sec. 104 (1)) (in the case of an employer or industrial union or association) a fine of £100, in other cases £10; and (d) under the Tasmanian Act (sec. 54) (in the case of an organisation) £500, and of an individual £10.

An injunction directing any person to desist from any continuation or repetition of a lock-out, under pain of imprisonment for any period not exceeding twelve months, may be granted under the Commonwealth Act (sec. 5). Similarly, an injunction may be granted against a person under the New South Wales Act (sec. 18); the South Australian Act (sec. 44 (1)); and the Queensland Act (sec. 39), under pain of imprisonment for a period not exceeding six months, or in the case of an association, in the South Australian (sec. 44 (1)) and Queensland (sec. 39) Acts, a penalty of £500.

In South Australia an association is liable to be ordered to pay any amount of the penalty (not exceeding £50) which may be imposed on any of its members for taking part in a lock-out. This is the only State in which an offence by a single member other than an officer of an association may render the association liable to a penalty for taking part in a lock-out.

Under the Commonwealth Act (sec. 50) persons taking part in a lock-out render themselves liable to be placed under further disabilities. These are as follows:—(a) Any such person shall not be entitled to any rights, privileges, benefits, or advantages under the Act; (b) he shall cease to be and shall not be qualified to become a member or officer of any organisation or of any association which is, or is part of, any organisation; (c) he shall lose all existing or accruing rights to any payment out of the funds of any organisation, or of any association which is, or is part of, any organisation, and the receipt by him of any such payment, or the making of any such payment to him by any person or organisation or by any such association, shall be an offence under the Act, subject to a penalty of £20.

(ii) *Strike*. The penalties provided by the several Acts in the case of a strike by any organisation or association are as follows:—(a) Under the Commonwealth Act (sec. 6 (1)) a fine of £1000, the New South Wales Act (sec. 17), the Queensland Act* (sec. 36 (4)), a maximum penalty of £1000; (b) under the South Australian Act† (sec. 39) a maximum penalty of £500, and the Tasmanian Act (sec. 55) a fine of £500; and (c) under the Western Australian Act‡ (sec. 104 (1)) a fine of £100. In the case of an individual the penalties provided by the several Acts for taking part in a strike are as follows:—(a) Under the Commonwealth Act (sec. 6 (1)) a fine of £1000; (b) the New South Wales Act (sec. 45 (1)) and the Queensland Act (sec. 36 (2)) a maximum penalty of £50; (c) the South Australian Act (sec. 39) a maximum penalty of £500, or imprisonment for a period not exceeding three months; (d) the Tasmanian Act (sec. 55) a fine of £20; and (e) the Western Australian Act (sec. 104 (1)) a fine of £10.

* An industrial association is rendered liable for the act of any officer or majority of its members taking part in or inciting a strike.—Sec. 37.

† An association is rendered liable to the penalty where a majority of its members are at any time parties to a strike.—Sec. 40.

‡ Where a majority of the members of an association are at any time parties to a strike, the association is rendered liable to the penalty imposed.—Sec. 104 (4).

Other special provisions relating to the liability of industrial organisations are contained in the New South Wales Act. Sec. 47 thereof provides that if any industrial union or trade union of employees instigates or aids in any strike, the Court may, in its discretion, suspend the operation of or cancel the registration under the Act of the said union, and with the consent of the parties bound by such award or industrial agreement, cancel any award, whether made under this Act or the repealed Acts, so far as it relates to the members of such industrial or trade union, or may do both these things. Further, sec. 24 (1) (g) of the same Act provides that if a union or any substantial number of its members take part in, instigate or aid in any strike, any declaration that preference of employment shall be given to members of such union shall be cancelled, and if any lesser number of its members take part in, instigate or aid in any strike, the Court may suspend such declaration of preference for such period as to it may seem just.

Labour organisations may also be ordered to pay portion of any penalties imposed on their members. The New South Wales Act (sec. 46 (1)), the Queensland Act (sec. 36 (3)), and the South Australian Act (sec. 46), all provide that where any person has been ordered to pay a penalty for taking part in a strike, and it appears that he was at the time of committing the offence a member of a trade union, such union may be ordered in New South Wales and Queensland to pay any amount not exceeding £20, and in South Australia £10 of the penalty.

Special provisions for the recovery of any penalty imposed upon a person for taking part in, or instigating or aiding any strike, are contained in the Acts in force in New South Wales, Queensland, and Western Australia. The provisions in these States differ considerably, and are as follows:—Section 45 (2) of the New South Wales Act provides that the amount of such penalty may be made a charge on any wages which are then or which may thereafter be due to such person, in one payment or by instalments, and no charge upon or assignment of such wages wherever or however made shall have any force against the attachment. Sec. 36 (2) of the Queensland Act provides that any penalty imposed may also be made a charge on the defendant's wages, but payment thereof is limited to 20 per cent. of the amount due to him from any employer in any one week. Under the South Australian Act (sec. 45 (1)) any monetary penalty imposed on a person may be made a charge on any wages then or thereafter due to such person from his employer to the extent of (sec. 45 (2)) any surplus above £2 per week in the case of a person who is married or is a widower, or widow with a child or children under the age of 21 years, or above the sum of £1 per week in the case of any other person.

An injunction may be granted to restrain any person from continuing or repeating any instigation to or aid in a strike, under the Commonwealth Act (sec. 5); the New South Wales Act (sec. 48); the Queensland Act (sec. 39); and the South Australian Act (sec. 44 (1)), subject to the same penalties as those specified with respect to a lock-out (see page 95). Under sec. 50 of the Commonwealth Act persons taking part in a strike render themselves liable to the same disabilities as in the case of a person taking part in a lock-out. For particulars see page 96 hereinbefore. In South Australia "picketing" in connection with

any strike is prohibited under a maximum penalty of £20, or to imprisonment with or without hard labour, for a term not exceeding three months, see South Australian Act (sec. 43).

5. **Prosecutions under Prohibitory Clauses.**—Particulars regarding prosecutions under the prohibitory clauses are available for certain years subsequent to 1908 for each of the five States which have adopted prohibition. In Tasmania the provisions did not come into force until 1911, and in Queensland until 1912. Particulars are available of prosecutions in New South Wales under the Industrial Disputes Act 1908 and the Industrial Arbitration Act 1912. No statistical particulars are available regarding prosecutions under the New South Wales Act of 1901 for organising or taking part in strikes and lock-outs, but it is known that the number of convictions under that Act was small.

In South Australia no prosecutions were made under the 1907 Act, and in Western Australia only a small number, of which no official record is available, was instituted under the Act of 1902. Under the Federal Act no proceedings have been brought for breach of the prohibitory clauses. The effect of that Act in preventing strikes is considered in the report of the "Commonwealth Industrial Registrar" for the year 1913, and up to 1st May, 1914 (pp. 54-6). It is stated therein that "up to the date of this report not a single instance of a strike within the jurisdiction of the Court had been brought to my knowledge, and I know of no instance in which an award of the Court has been flouted, either by an employer or employee." In the same report certain remarks made by the President of the Court (Mr. Justice Higgins), are reported. The President stated that "it is satisfactory to know that the awards of this Court have never been flouted either by employers or employees, and though strikes have been numerous since this Court has been instituted, I cannot call to mind any strike in connection with a dispute extending beyond the limits of one State. The awards are obeyed, and the law against 'two State' strikes is obeyed."

In the case of the Waterside Worker's dispute in 1914, a dispute which was admitted to extend beyond the limits of one State, certain wharf labourers and stevedores refused to work overtime after the 9th February, 1914.* Although the President of the Commonwealth Court summoned a compulsory conference and offered to inquire immediately into the leg of demands and to make the award retrospective to the day the men resumed overtime work, certain members of the Sydney branch of the Waterside Workers' Federation and the Port Phillip stevedores refused to accept the president's offer, and did not resume overtime work for some days, after which an award was made by the President. In April, 1914, a dispute arose between the Federal Master Bakers' Association and the Baking Trade Employees' Federation in regard to the question of "day baking," both parties admitting that the dispute extended to more than one State.† On proceedings being instituted under the Queensland State Act against certain parties in connection with this dispute for striking without notice, Mr. Justice Macnaughton, held that the dispute extended beyond the limits of the State of Queensland, and that the matter was, therefore, within the jurisdiction of the State Industrial Court. In the report of the

* See judgment of the President, 10th April 1914 pp. 1-2.

† See judgment of Deputy-President, 20th April, 1914, p. 2.

"Commonwealth Industrial Registrar" already referred to (p. 54), the following remarks are quoted: "In the case of the day-baking dispute, Mr. Justice Rich did not make an award which could be enforced by penalties or imprisonment. His Honor merely refused to order that night work should be discontinued, and there was no breach of an award of the Court by the employees in New South Wales demanding day baking, and insisting on the demand, which was eventually conceded by the employers." It may be mentioned that several minor disputes causing stoppage of work* have taken place in one or other of the Federal Territories (Federal Capital and Northern) to which the Commonwealth Act was made, by Administration Acts passed in 1910, to apply.

In the table on page 100 particulars are given for the years 1912 to 1914, inclusive, regarding (a) the number of prosecutions instituted against associations and individuals for offences against the prohibition of strikes; (b) the number of convictions recorded; (c) the penalties imposed; (d) the amounts paid. It should be observed that this table relates to prosecutions on account of strikes only.

As regards lock-outs, in New South Wales, under the Industrial Disputes Act 1908, two prosecutions were brought against individuals, and two against associations. In each of these cases convictions were recorded, and penalties, amounting in all to £94, were imposed and paid. In Western Australian there was one prosecution in 1914, against an individual on account of a lock-out, but no conviction was recorded.

The particulars given in the table regarding strikes in New South Wales refers to proceedings under the Industrial Arbitration Act 1912. Under the Industrial Disputes Act 1908 the total number of prosecutions for strikes was 302, and of convictions 261. All of these proceedings were against individuals, and not organisations. In five cases imprisonment was ordered; in sixteen cases penalties amounting in the aggregate to £1309, were imposed, or in default imprisonment, of which sum £9 only has been paid, while imprisonment, followed in thirteen cases by default. As to the remaining 240 convictions, fines totalling £872 were imposed, but were subsequently reduced to £754, of which all but £1 has been paid.

Under the penal provisions of the Queensland Industrial Peace Act 1912, prosecutions were commenced during the two years the Act has been in force in six cases only—one in 1913 and five in 1914—and in each instance were either withdrawn or not continued. The 1913 case was against a person for inciting to strike, and was withdrawn as the result of an agreement being reached after a compulsory conference was summoned by the Judge. In four out of the five cases commenced in 1914, it was held by the Judge that the dispute extended beyond the limits of the State of Queensland, and that the matter was therefore not within the jurisdiction of the State Industrial Court. The remaining case was against an association for inciting to strike and striking without notice. The Judge summoned a compulsory conference, at which the complainants agreed not to proceed with the summons.

* In regard to the question as to whether strikes and lock-outs which fall within the statistical definitions constitute breaches of the prohibitory clauses, see footnote on page 102.

Prohibition of Strikes, Particulars of Prosecutions and Convictions and of Penalties Imposed and Paid, 1912 to 1914.

Year.	N.S. WALES.		QUEENSLAND.		S. AUSTRALIA.		W. AUSTRALIA.		TOTAL.	
	Associations.	Individuals.	Associations.	Individuals.	Associations.	Individuals.	Associations.	Individuals.	Associations.	Individuals.
NUMBER OF PROSECUTIONS.										
1912	..	144	..	..	..	..	..	..	..	144
1913	..	378	..	1	..	1	..	33	1	416
1914	6	1,527	2	3	3	7	1	34	12	1,564
Total	6	2,042	2	4	3	11	2	67	13	2,125*
NUMBER OF CONVICTIONS.										
1912	..	93	..	..	..	..	..	..	..	93
1913	..	349	..	..	..	4	1	33	1	386
1914	3	943	..	..	2	4	1	34	6	981
Total	3	1,385	..	..	2	8	2	67	7	1,460
PENALTIES IMPOSED.										
1912	£	£	£	£	£	£	£	£	£	£
1912	..	384	..	..	..	..	..	..	..	384
1913	..	2,352	..	..	..	20	100	2	100	2,374
1914	2,250	3,861	..	..	40	54	10	68	2,300	3,983
Total	2,250†	6,597‡	..	..	40	74	110	70	2,400	6,741
PENALTIES PAID.										
1912	..	97	..	..	..	..	..	..	..	97
1913	..	1,621	..	..	..	..	50	2	50	1,623
1914	..	483	..	..	40	20	10	..	50	563
Total	..	2,201	..	..	40	20	60	2	100	2,223

* Including one prosecution instituted in Tasmania in 1912. No conviction was recorded.

† Excluding 223 cases in which the summonses were not served.

‡ Fines remitted by the Minister to £7,954 3s. 2d., made up as follows:—(1912), £96 15s.; (1913), £1652 11s. 8d.; and (1914), £2080 in respect of associations, and £3224 16s. 6d. in respect of individuals.

From the foregoing table it will be seen that during the three years 1912 to 1914, inclusive, 2138 prosecutions were instituted, including 13 against associations, and 2125 against individuals, for instigating or taking part in strikes, and 1467 convictions, comprising seven against associations and 1460 against individuals, recorded. Penalties were imposed, amounting in the aggregate to £9141, of which £1793 was subsequently remitted in New South Wales, thereby reducing the total to £7348, of which £2230 was imposed on associations, and £5118 on individuals. Of this sum £2223 has been paid, comprising £100 by associations and £2223 by individuals.

The number of prosecutions (2048) and convictions (1388) recorded in New South Wales largely exceed those in the other States, and constitute respectively 95.8 per cent. of the total number of prosecutions, and 94.6 per cent. of the convictions. The relative amounts of penalties

imposed (£8847) and paid (£2201) in New South Wales represent 96.8 per cent. and 94.7 per cent. respectively, of the aggregate amount for all States. In Queensland six prosecutions were instituted, but no convictions were recorded. In South Australia 14 prosecutions and 10 convictions were recorded, involving penalties amounting to £114, of which £60 has been paid. In Western Australia convictions were recorded in each of 69 prosecutions instituted, comprising two against associations and 67 against individuals, and penalties were imposed amounting to £110 in the case of associations, and £70 in the case of individuals. Amounts paid in Western Australia in respect of the fines imposed upon associations and individuals total £60 and £20, respectively.

Including the proceedings instituted under the New South Wales Industrial Disputes Act 1908 against associations and individuals respectively for taking part in a lock-out, and against individuals for taking part in strikes (see page 99), and the prosecutions instituted in Western Australia and Tasmania for taking part in a lock-out and a strike respectively, the total number of prosecutions initiated from 1909 to 1914, inclusive (excluding Western Australia prior to the year 1912), was 2445, resulting in 1732 convictions.

Of these 2445 prosecutions, 15 were against associations, and 2430 against individuals, and of the 1732 convictions 9 were recorded against associations, and 1723 against individuals. The aggregate penalties imposed totalled £11,416, of which £3011 was subsequently remitted in New South Wales (£1711 by order of the Minister, and £1300 by default), £3178 has been paid, and a balance of £5226 remains unsatisfied at the end of the year 1914. The unpaid penalties are made up of £5064 in New South Wales, £54 in South Australia, and £118 in Western Australia. Applications for remission of £4613 of the unpaid penalties in New South Wales are still receiving the consideration of the Executive Council. With respect to a further sum of £209, the defendants have no assets known to the Minister upon which execution in respect thereof can be levied. New South Wales is the only State in which imprisonment upon conviction was ordered, either directly or by default, against individuals for instigating or taking part in a strike, and it may be noted that such punishment was ordered under the Act of 1908, and not under that now in force.

6. Number of Prosecutions in relation to Total Number of Disputes, 1913-14.—General comparisons between the number of strikes and lock-outs, in respect of which proceedings were instituted under the penal clauses, and the total number of strikes and lock-outs that occurred, can be made for the years 1913 and 1914 for New South Wales, South Australia, and Western Australia. Comparisons of this nature cannot readily be made for Queensland and Tasmania, since the prohibition is not absolute in either of these States, so that it would be necessary to ascertain for these two States not merely the total number of strikes and lock-outs, but the number which were in contravention of the prohibitory clauses. That information is not, however, available. Moreover, it should be observed that, even in the three States

for which comparisons can be made, it is possible that some of the disputes recorded may not legally constitute breaches of the respective Acts, although they fall within the statistical definitions.*

Subject to the above qualifications, the following table shews for each of the three States in which the prohibition of strikes and lock-outs is unconditional—firstly, the number of separate disputes in respect of which proceedings were instituted under the penal clauses, in comparison with the total number of disputes recorded in the years 1913 and 1914; secondly, the number of individuals against whom proceedings were taken, compared with the total number of persons directly involved in strikes and lock-outs in 1913 and 1914; and thirdly the percentages shewn by these two comparisons.

It should be pointed out that where proceedings have been taken against an association and individuals in connection with the same dislocation of employment, such proceedings have been taken as relating to one strike or lock-out only, and for the purpose of computing the number of persons proceeded against, prosecutions of associations have been taken as relating to one person only.

Number of Strikes and Lock-outs, Persons involved and Prosecutions instituted, 1913 and 1914.

Particulars.	Total No. of Strikes and Lock-outs Recorded.	No. of Strikes and Lock-outs in respect of which Proceedings were Taken.	Total No. of Persons Directly Involved in Strikes and Lock-outs	No. of Prosecutions Instituted.	Percentage of—	
					Strikes and Lock-outs in respect of which Proceedings were Instituted.	Prosecutions to No. of Persons Directly Involved in Strikes and Lock-outs.
N.S. Wales	369*	30	59,602	1,904	8.13	3.19
S. Australia	22†	5	888	14	22.73	1.58
W. Australia	27	3	2,084	70	11.11	3.36
Total	418	38	62,574	1,988	9.09	3.18

* Excluding two strikes in the Federal Capital Territory.

† Excluding three strikes in the Northern Territory.

It will be observed from the foregoing particulars that the aggregate number of strikes and lock-outs which were recorded in the years 1913 and 1914, in the three States in which unconditional prohibitory provisions are in force, totalled 418. In respect of these, proceedings were instituted in connection with 38 dislocations (9.09 per cent.), which resulted in the prosecution of 1,988 persons and associations (3.18 per cent.) of the total number of persons (62,574) directly involved therein. The outstanding feature of these results is the large numbers in New South Wales, compared with the other States, of strikes

* See Labour Report No. 5, page 71. For the purposes of statistical investigation the following definitions of (a) a strike, (b) a lockout, or (c) a sympathetic strike, have been accepted:—

(a) A strike is defined as a concerted withdrawal from work by a part or all of the employees of an establishment or of several establishments, with a view to enforcing a demand on the part of the employees, or of resisting some demand made by their employers.

(b) A lockout is a refusal on the part of an employer or several employers to permit a part or all of the employees to continue at work, such refusal being made to enforce a demand on the part of the employers, or to resist some demand made by their employees.

(c) A sympathetic strike is one in which the employees of an establishment, or of several establishments, made no demand for their own benefit, but leave work in order to assist employees or some other establishment or establishments, on strike or locked out, for the purpose of enforcing or resisting a demand.

and lock-outs and prosecutions. This predominance calls for some further investigation as to the relation these results bear to the different classes of industries involved, and to the working population in each State. Particulars of an analysis on this basis are contained in the following paragraph.

7. **Analysis of Strikes and Lock-outs, 1913 and 1914.**—The figures which have been published from time to time in the Commonwealth Labour Reports and Bulletins shew that there has been on the whole a considerable preponderance in the *absolute* number of strikes and lock-outs in New South Wales over the other States.* Attention has frequently been drawn to the fact that a considerable proportion of these disputes occur in the coal-mining industry, in which a much larger number of men are employed in New South Wales than in any other State. It may, therefore, be desirable for certain purposes to present a further analysis of the figures, shewing the number of disputes, classified in broad industrial groups, on a comparable basis, i.e., the number, say, per 100,000 employees. For this purpose the total number of wage-earners in each State has been classified on the basis of the results of the Census of 1911 into three industrial groups, viz.:—(i.) Manufacturing, (ii.) Mining and Quarrying, and (iii.) Other Industries.† The total number of strikes and lock-outs in 1913 and 1914, the only years for which information is available, and the number of working days lost thereby, have also been classified in the same three groups. The average annual number of strikes and lock-outs and the number of working days lost per 100,000 employees, have thus been ascertained for each group and each State. It should be observed that the first two of these industrial groups include most of the industries in which the workers have been strongly organised and in which the rates of wages and conditions of labour are under the regulation of industrial tribunals. The third group includes the largest number of workers, comprising those engaged in pastoral and agricultural occupations, who are not organised and whose wages and conditions of labour are not generally controlled by wages boards or industrial courts.

The first part of the following table shews the *total absolute figures for the years 1913 and 1914 combined*, for each State and industrial group, together with the totals for all industries other than mining and quarrying, and for all industries together. The second part shews the *average results per annum on a comparable basis per 100,000 employees*.

* See Labour Report No. 5, page 73, and Labour Bulletin No. 3, p. 244.

† The following table shows the estimated average number of persons in receipt of wages or salary in each State, classified in special Industrial Groups, during the years 1913 and 1914:—

State.	Manufacturing.	Mining and Quarrying.	Other Industries.	All Industries.
New South Wales ..	128,400	37,600	287,600	453,600
Victoria	125,100	16,800	204,900	346,800
Queensland	44,000	14,400	107,700	166,100
South Australia ..	39,200	3,100	70,200	112,500
Western Australia ..	21,000	15,800	52,100	89,900
Tasmania	9,800	5,100	27,100	42,000
Total	358,500	92,800	749,600	1,191,900

Strikes and Lock-outs, and Working Days lost, Classified in Specified Industrial Groups. Total Numbers, 1913 and 1914 combined, and Average Annual Numbers per 100,000 Employees engaged in each Group.

State.	Manufacturing.		Mining and Quarrying.		Other.		All Industries other than Mining and Quarrying.		All Industries.	
	Strikes and Lock-outs.	Working Days Lost.	Strikes and Lock-outs.	Working Days Lost.	Strikes and Lock-outs.	Working Days Lost.	Strikes and Lock-outs.	Working Days Lost.	Strikes and Lock-outs.	Working Days Lost.
N.S. Wales ..	59	231,800	250	815,000	60	148,960	119	380,760	369	1,196,660
Victoria ..	18	29,100	25	81,800	30	68,450	48	97,550	73	179,150
Queensland ..	8	5,100	7	55,050	20	23,000	28	28,100	35	83,150
S. Australia ..	4	350	..	..	18	17,300	22	17,650	22	17,650
W. Australia ..	2	1,950	6	13,400	19	115,560	21	117,510	27	130,910
Tasmania ..	7	3,500	1	450	6	430	13	3,930	14	4,280
Commonwealth	98	271,800	289	966,300	158*	*378,500	256*	*650,300	545*	1,616,600

TOTAL NUMBER OF DISPUTES AND WORKING-DAYS LOST, 1913 AND 1914 COMBINED—
ABSOLUTE RESULTS.

AVERAGE ANNUAL NUMBER OF DISPUTES AND WORKING DAYS LOST ON COMPARABLE BASIS PER 100,000 EMPLOYEES.

State.	Manufacturing.		Mining and Quarrying.		Other.		All Industries other than Mining and Quarrying.		All Industries.	
	Strikes and Lock-outs.	Working Days Lost.	Strikes and Lock-outs.	Working Days Lost.	Strikes and Lock-outs.	Working Days Lost.	Strikes and Lock-outs.	Working Days Lost.	Strikes and Lock-outs.	Working Days Lost.
N.S. Wales ..	23	90,270	332	1,084,070	10	25,900	14	45,770	41	131,910
Victoria ..	7	11,630	74	242,790	7	16,700	7	14,780	10	25,830
Queensland ..	9	5,840	24	191,140	9	10,660	9	9,250	11	25,030
S. Australia ..	7	610	..	..	13	12,340	12	9,800	12	9,560
W. Australia ..	5	4,460	19	42,530	18	110,900	14	79,400	15	72,910
Tasmania ..	35	17,700	10	3,330	11	790	18	5,310	17	5,070
Commonwealth	14	37,920	156	520,640	11	*25,250	12	29,610	23	67,880

* Including two strikes in the Federal Capital Territory, and three strikes in the Northern Territory. † See remarks on pages 53 and 54 re the dispute on the Northern coalfields regarding the afternoon shift question.

Referring to the first part of the above table it will be seen that the absolute number of strikes and lock-outs and the number of working days lost largely preponderate in New South Wales in each of the three groups. The proportion of the number of strikes and lock-outs in New South Wales to the total number in the Commonwealth is, however, much greater in the mining and quarrying group, in which it amounts to 86.5 per cent. of the total number in that group, compared with 60.2 per cent. in manufacturing, and 38.0 per cent. in other industries. The absolute number of strikes in New South Wales was ten times the number in Victoria in the mining and quarrying industries, slightly over three times the number in manufacturing, and twice the number in other industries. The figures relating to the number of working days lost show similar results with respect to the first-mentioned industrial group, and approximately the same to the last-mentioned industrial group, but in the manufacturing group the number of working days lost in New South Wales was nearly eight times as large as the number in Victoria.

The latter part of the table shows that, after allowance has been made for the greater number of wage-earners in New South Wales, the relative number of strikes and lock-outs and working days lost

is also greater, taking all industries together, in that State than in any other State. Excluding the mining and quarrying industries, however, the number of strikes per 100,000 employees in New South Wales was the same as in Western Australia, and less than the number in Tasmania, while the relative number of working days lost was considerably less than in Western Australia. In manufacturing industries the average annual number of strikes and lock-outs during 1913 and 1914 per 100,000 employees was greatest in Tasmania, though the number of working days lost was not nearly so great in that State as in New South Wales. In the mining and quarrying groups the figures for New South Wales per 100,000 employees are a long way above those for the other States. Several explanations have been advanced to account for the large number of disputes in the Northern coalfields of New South Wales, but none of them appears to be quite satisfactory and they are all of a speculative character. For example, it has been stated that the fact that the industry is so distinctly localised tends to aggravate the discussion of matters relating to working conditions and other questions in regard to which the employers and employees are, or may be, at issue, with the result that feeling is embittered and fomentation promoted. Or again, it has been asserted that the working conditions in the industry are of so complex a character that it is only to be expected that the number of disputes should be relatively large.

Of the 815,900 working days lost in disputes in the mining group in New South Wales, one dispute alone, viz., the stoppage on the Northern coalfields in regard to the afternoon shift question, resulted in a loss of no fewer than approximately 523,000 working days, or nearly one-third of the total number of working days lost in all States and in all industries.

As regards industries other than manufacturing and mining and quarrying, the average annual number of disputes per 100,000 employees was greatest in Western Australia, followed in the order named by South Australia, Tasmania, New South Wales, Queensland, and Victoria.

SECTION XV.—UNDER-RATE WORKERS.

1. **General.**—Attention has frequently been directed to the difficulty in regard to the employment of inefficient or inexperienced workers, to which the application of a general minimum wage to a trade or industry might lead, especially in earlier years, when there was no provision in the Acts for differential rating of workers of less than normal efficiency. The effect of the Industrial Arbitration and Wages Boards Acts upon the employment of this class of worker has remained a controversial question, and the "permit system," which was first introduced in 1900, is a matter concerning which, as regards its suitability, adequacy and ultimate results, diverse opinions are held. It has been alleged, for example, that especially in an over-supplied labour market, the minimum wage system tends to sacrifice the old and infirm for the benefit of the strong amongst the workers, by depriving the former of the right they possessed, before the introduction of minimum wage laws, of earning wages according to the measure of their ability. Consequently it is

asserted that the inefficient or inexperienced worker has a right to be relieved from such a position.* In this connection it may be observed that the Chief Inspector of Factories in Victoria, in his report for the year 1902, stated that there was no foundation for the view that the Special Board system is hard on the old and infirm worker. On the contrary, it is stated, "experience goes to shew that the old and infirm worker benefits by the fact that a minimum wage exists. He obtains a license to work at a rate less than the general minimum, and obtains the work without the fear that advantage will be taken of his age or infirmity, and without the danger of being merely used as an instrument to lower the wages of the skilled and capable worker."†

At the present time each of the Industrial Arbitration and Wages Boards Acts in force in the several States, as well as the Commonwealth Conciliation Arbitration Act, 1904-14, contain provisions for the issue of licenses permitting the holders thereof to work at a rate lower than the general minimum rates prescribed for adult workers in the same occupation. Licenses are granted to workers in respect of two classes of disability, viz.: (a) Inefficiency, and (b) Inexperience. Those coming within the former class comprise workers who by reason of old age, slowness or infirmity, are unable to obtain employment at the minimum wage fixed, while those in the latter class are mainly improvers over the age of twenty-one years who have had insufficient experience in their particular trades or occupations. Each permit granted allows the holder to work for a certain specified period at not less than a specified rate of wage,‡ thus creating for the individual a new legal minimum wage. From what has been stated above it will be seen that it is of importance in connection with the operation of the minimum wage laws, to ascertain to what extent licenses have been granted under the provisions indicated exempting workers from the general minimum rate, and whether there has been any extension in the number and proportion of licenses granted.

(A) *Inefficient Workers.* The earliest provisions of the nature indicated in regard to aged and infirm workers were contained in the Victorian Factories and Shops Act and the Western Australian Industrial Conciliation and Arbitration Act, both passed in 1900. Under Section 15, sub-section 22, of the Victorian Act, it was provided that "if it is proved to the satisfaction of the Chief Inspector that any person by reason of age or infirmity is unable to obtain employment at the minimum wage fixed by any special board the Chief Inspector may in such case grant to such aged or infirm worker a license for twelve months to work at a less wage (to be named in the license) than the said minimum wage, and such license may be renewed from time to time." In 1903 this clause was extended to slow workers, and the provisions are now embodied in the Factories and Shops Act 1912 (Section 202).

* See Report on the Wages Board Systems, etc. of Australia and New Zealand, London, 1908. (C.D. 4167) pp. 45 and 193.

† See Report of Chief Inspector of Factories for Victoria, 1902, Govt. Printer, p. 13.

‡ In the case of an inefficient worker, the rate of wage is ordinarily fixed according to the qualifications of the applicant. Inexperienced workers, except in South Australia, are employed at the rates of wages fixed by the Boards for improvers, according to the length of their experience. In South Australia the wages of inexperienced workers are fixed in the same way as in the case of aged, slow, or infirm workers.

In New South Wales the first provision for granting lower rates to employees unable to earn the prescribed minimum fixed by an award was introduced in the Industrial Arbitration Act 1901 (Section 36), under which the Court was authorised to specify some tribunal to have power to fix such lower rates. Later by the Industrial Disputes Act 1908 (Section 27 f.), boards authorised under the Act were given similar powers, and it was further provided by that section that, if no such tribunal were specified by the board, the Registrar should have power to grant permits. Under the Industrial Arbitration Act 1912 (Section 27), the Registrar has full powers to grant and cancel permits to aged, infirm, or slow workers unable to earn the minimum wages prescribed by awards.

The Western Australian Act of 1900 (Section 85) empowered the Court to make special provision for a lower rate (than the minimum wage) to be fixed in the case of any worker who is unable to earn the prescribed minimum. In practice this provision has been applied in the awards which have been made to aged and infirm workers only, except apparently in one case, viz., the W.A. Amalgamated Society of Railway Employees' Union v. the Commissioner of Railways (vide W.A. Arbitration Report Vol IV., page 283) where the provisions are extended to "incompetent workers," i.e., any employee unable to earn the prescribed minimum wage. In the Industrial Arbitration Act 1912 (Section 84 (1) a) the power to fix a lower rate is now expressly limited to any worker who is unable to earn the prescribed minimum by reason of old age and infirmity only.

In 1906 provisions regarding under-rate workers came into force in South Australia under the Factories Act (Section 29), while in 1908 similar provisions were included in the Wages Boards Act of Queensland (Section 30 (1)), and in 1910 in the Wages Boards Act of Tasmania (Section 28). By the Commonwealth Conciliation and Arbitration Act 1904-1914 (Section 40 (1) b), the Court is empowered to make provision for fixing a lower rate in the case of employees who are unable to earn the prescribed minimum wage.

(ii.) *Inexperienced Workers.*—Provision for the exemption of inexperienced workers from the general minimum rates were first contained in the Victorian Factories and Shops Act 1900 (Section 4), which provided that "the Minister is hereby authorised to grant to any person over twenty-one years of age, who has satisfied him that such person has not had the full experience prescribed for improvers by any Special Board appointed as hereinafter provided, a license to work as an improver for the period named in such license at the wage fixed by the Board for an improver of the like experience."

Similar provisions were introduced in South Australia by the Factories Act 1906 (Section 26), in Queensland by the Wages Boards Act 1908 (Section 27), and in Tasmania by the Wages Boards Act 1910 (Section 4, sub-clause II. of the "Improver" interpretation clause), and are now embodied in the Acts at present in force in those States. The Commonwealth Act and the New South Wales and Western Australian Acts do not contain any provision authorising the granting of licenses on account of inexperience.

2 Comparative Statement regarding Provisions of Acts relating to Permits. In the following tabular statement information is given in comparable form regarding the provisions made in the Commonwealth and State Acts for the issue of permits to under-rate workers. The statement shows (a) the various provisions under which permits or licenses are granted to inefficient and inexperienced adult

Under-Rate Workers.—Principal

Particulars	Acts and Sections under which Permits Granted.	Class of Workers to whom Permits may be Granted.
NEW SOUTH WALES	Industrial Arbitration Act, 1912, Sec. 27 (1).	Aged, slow or infirm.
VICTORIA	Factories and Shops Act, 1912, Sec. 232.	Aged, slow or infirm.
	Factories and Shops Act, 1912, Sec. 194.	Improver over 21 years of age.
WESTERN AUSTRALIA	Industrial Peace Act, 1912, Sec. III, sec. 15.	Aged, slow or infirm.
	Industrial Peace Act, 1912, Sec. III, sec. 14.	Improver over 21 years of age.
SOUTH AUSTRALIA	Factories Acts, 1907 (Sec. 103), 1910 (Sec. 24).	Aged, slow, infirm or inexperienced.
	Industrial Arbitration Act, 1912, Sec. 77.	Inexperienced.
QUEENSLAND	Industrial Arbitration Act, 1912, Sec. 84.	Aged, or infirm.
TASMANIA	Wages Boards Act, 1910, Sec. 28.	Aged, slow or infirm.
	Wages Boards Act, 1910, Interpretation Clause, Sec. 4, Improver sub-clause II.	Improver over 21 years of age.
COMMONWEALTH	Commonwealth Conciliation and Arbitration Act, 1904-1914, Sec. 40 (1) (b).	Unable to earn the minimum wage prescribed.

* Ordinarily a Police Magistrate.

workers; (b) the class of workers to whom such permits may be granted; (c) the officer or tribunal authorised to grant permits; (d) the maximum number of under-rate workers that may be employed in proportion to the number earning the general minimum, and (e) the term for which permits may be granted.

In the Commonwealth, New South Wales and Western Australian Acts no specific provision is contained as to the proportion of inefficient workers that may be employed by any individual employer. In the awards made by the Arbitration Court in Western Australia, however, the practice is generally adopted of fixing a limit to the proportionate number that may be engaged. In New South Wales no uniform principle or practice is followed in granting permits with a view to regulating the number or proportion of workers

either to each industry or employer; each applicant is dealt with on his merits, and the individual case alone receives consideration.

As regards the respective periods for which permits are granted it will be seen that statutory limitations exist in all the Acts except those of the Commonwealth and New South Wales. Under the Commonwealth legislation no permits have up to the present been granted,

Provisions of Acts in Force, 1914.

Officer or Tribunal Authorised to Grant Permits.	Proportionate Number of Under-rate Workers Allowed.	Term for which Permits may be Granted.
Industrial Registrar.	†	†
Chief Inspector of Factories.	Not to exceed one-fifth of the number of employees, earning the minimum adult wage, except with the consent of the Minister.	Twelve months, but may be renewed from time to time.
The Minister for Labour.	†	†
Industrial Registrar.	Not to exceed one-fifth of the total number of employees earning the minimum adult wage, but one allowed to any registered factory.	Not exceeding twelve months, but may be renewed from time to time.
Industrial Registrar.	†	†
Chief Inspector of Factories.	Not to exceed one-fifth of the number of employees earning the minimum adult wage, but each employer may employ one.	Not exceeding twelve months.
Person or tribunal appointed by the Industrial Court.*	† Usually fixed by the Industrial Court at 1 to 4 or 4— or fraction thereof workers earning the minimum adult wage.	Six months, and thereafter until 14 days' notice of objection has expired.
Chief Inspector of Factories.	Not to exceed one-fifth of the number of employees, earning the minimum adult wage, but each employer may employ one.	Until revoked by the Chief Inspector of Factories.
The Minister for Public Health.	†	†
†	†	†

† No provision made by Act.

while in New South Wales they are granted for varying terms of from one month to upwards of two years.

3. Number of Applications for Permits and Number Granted.—

Particulars regarding the number of applications for permits and the number granted and in force are not available for years prior to the financial year ended the 30th June, 1911, except for the State of South Australia. Particulars are available from 1911 for all the States except New South Wales, Western Australia, and Tasmania. In New South Wales no reliable records are available until after the passing of the Industrial Arbitration Act 1912. In Western Australia police magistrates are ordinarily appointed as the "person or tribunal" empowered to grant permits, and no records are kept of the total number granted. In Tasmania the Wages Boards Act came into force

in the early part of the year 1911, but no permits were granted during the first half of that year. In the following table particulars are given regarding the number of applications for permits and the number granted during each financial year specified, and of the number in force at the end of each financial year. Estimates are also given, where available, as to the total number of persons working under awards and determinations; the number of licenses issued per 10,000 employees, and the estimated average percentage of the under-rate wage to the prescribed minimum wage.

Under-Rate Workers—Number of Applications for Permits, Number of Permits Granted and in Force, 1911 to 1914.

State.	Year Ended 30th June.	NUMBER OF APPLICATIONS BY				NUMBER OF PERMITS								Estimated No. of Persons working under Awards or Determinations.	No. of Permits in Force per 10,000 Persons work- ing under Awards, &c.	Estimated Average Per- centage of Under-rate to prescribed Minimum wage
		Aged, Slow or Infirm Workers.	Improvers & Inexperienced Workers.	Total.	GRANTED TO.			IN FORCE AT END OF PERIOD.								
					Aged, Slow or Infirm Workers.	Improvers & Inexperienced Workers.	Total.	Aged, Slow or Infirm Workers.	Improvers & Inexperienced Workers.	Total.						
N.S. Wales	1911	*	†	*	*	†	*		*	†	*					
	1912	123	†	123	92	†	92	84	†	84	*	*	*	*	*	*
	1913	617	†	617	404	†	404	481	†	481	255,000	19				
	1914	682	†	682	502	†	502	971	†	971	260,000	38				*
Victoria	1911	186	670	856	181	660	841	676	208	884	130,000	68				
	1912	503	1,374	1,877	384	1,355	1,739	726	521	1,247	150,000	83				
	1913	520	1,528	2,048	412	1,429	1,841	721	972	1,693	150,000	113				69
	1914	463	1,306	1,769	354	1,263	1,617	649	960	1,609	150,000	107				
Queensland	1911	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	1912	583	†	583	583	†	583	70	†	70	*	*	*	*	*	*
	1913	129	137	265	116	132	248	185	121	306	65,000	47				
	1914	251	264	515	125	238	363	256	168	424	90,000	47				70
S. Australia	1911	*	*	191	54	110	164	*	*	137	14,000	98				
	1912	*	*	348	84	209	293	*	*	246	19,000	130				
	1913	*	*	373	97	214	311	*	*	228	22,000	104				
	1914	*	*	339	114	185	299	*	*	229	25,000	92				82
Tasmania	1911	**	**	**	**	**	**	**	**	**						
	1912	37	*	37	36	4	40	36	4	40						
	1913	45	*	45	40	28	68	76	26	102						
	1914	14	*	14	7	14	21	83	16	99						*
Commonwealth ex- clusive of W. Aust.	1913	†	†	3348	1,060	1,803	2,872	†	†	2,810	†	42,000	55			
	1914	†	†	3300	1,102	1,700	2,802	†	†	3,332	†	525,000	61			70††
* Not available.																

* Not available. † No provision in Act. ‡ Includes only particulars of operations under 1912 Act (assented to 15th April, 1912). § Excluding Tasmania. ¶ Particulars incomplete.
 †† Average for Victoria, Queensland and South Australia only. ‡‡ Excluding applications from improvers and inexperienced workers in Tasmania. ** No permits were granted during this period.
 § Total number for the years 1908 to 1912 inclusive.

It will be seen that anything like complete results for the Commonwealth as a whole are available for two years only, and that even for these years the figures are incomplete. Nevertheless an inspection of the results shewing the total number of permits granted and the total number in force indicates that there has been some general increase in the figures. But in spite of these indications of increase the number of permits in force must be regarded as comparatively small, amounting on the average in 1914 to only 0.61 per cent. of the estimated number of persons working under awards and determinations. In some of the States, however, employers have criticised the administration on the ground that permits are not granted with sufficient freedom, while on

the other hand employees have alleged that they are granted too frequently. At the end of the year 1914 the number of permits in force was greatest in Victoria (1609), followed by New South Wales (971), Queensland (424), and South Australia (229), with Tasmania last (99). The percentage of permits in force on the estimated number of persons working under awards or determinations is highest in Victoria (1.07), followed by South Australia (0.92), Queensland (0.47), and New South Wales (0.38).

Brief reference has been made in the footnote on page 106 to the methods adopted for determining the "individual minimum" wage. The figures given in the last column of the preceding table shew that the percentage of the estimated average of the wages specified in the permits at which applicants may be employed (i.e., the average "individual minimum" rate) on the general minimum adult rate is almost identical in Victoria and Queensland, but is considerably higher in South Australia. The information available regarding the occupations of persons to whom licenses were granted and the reasons for which such licenses were granted is meagre and insufficient for the purpose of deducing any general analysis. Arrangements are being made for the collection of more complete records for future years.

SECTION XVI—REPORTS OF DEPARTMENTS AND BUREAUX IN AUSTRALIA.

(In this Section particulars are furnished of Reports specially affecting labour and industrial matters in the Commonwealth, received since the publication of the last Labour Bulletin.)

A.—COMMONWEALTH.

1. Report on Proceedings under the Conciliation and Arbitration Act for the year 1913 and up to 1st May, 1914. (Melbourne, Government Printer.)
2. Interstate Commission. Tariff Investigation. Reports Nos. 91 to 94. Appendices Nos. 76 to 83, 98 to 104. (Melbourne, Government Printer.)
3. The Safety Valve (Official Organ of the Federated Engine Drivers' and Fitters' Association of Australasia), June 1915. (Sydney, "The Worker" Office.)
4. Amalgamated Society of Carpenters' and Joiners' Monthly Report, May 1915. (Sydney, F. W. White.)
5. Amalgamated Society of Engineers, Monthly Report, April 1915. (Sydney, H. Hearne and Co.)
6. The Postmaster (Official Organ of the Commonwealth Postmasters' Association), March 1915. (Brighton "Southern Cross" Press.)
7. The Australasian Typographical Journal, May 1915. (Melbourne, J. Osborn.)

B.—NEW SOUTH WALES.

1. New South Wales Industrial Gazette, March to May 1915. (Sydney, Government Printer.)
2. Electrical Trades' Journal, May 1915. (Sydney, "The Worker" Office.)
3. The Furniture Trades' Journal, May 1915. (Sydney, Burrows and Co.)
4. The Baking Trades' Gazette, May 1915. (Sydney, A. J. Tomalin and Co.)

C.—VICTORIA.

1. The Railways Union Gazette, June 1915. (Melbourne, H. Henkel.)
2. The Timber Worker (Official Organ of the Amalgamated Timber Workers' Union, Victorian Branch), June 1915. (Melbourne, H. Henkel.)
3. The Grocers' Assistant (Official Organ of the United Grocers', Tea, and Dairy Produce Employees' Union of Victoria), May 1915. (Melbourne, Phoenix Press.)
4. The Tramway Journal (Official Organ of the Victorian Branch of the Australian Tramway Employees' Association), April 1915. (Melbourne, J. W. Ireland.)

D.—QUEENSLAND.

1. Report of the Royal Commission on Mackay Sugar Mills. (Brisbane, Government Printer.)
2. The Queensland Railway Times, April 1915. (Ipswich, J. Wilkinson.)

E.—SOUTH AUSTRALIA.

1. The Farm, Stock and Station Journal (Official Organ of the South Australian Farmers' Co-operative Union Limited), June 1915. (Adelaide, R. M. Osborne.)

SECTION XVII.—IMPERIAL AND FOREIGN PUBLICATIONS RECEIVED.

(In this Section particulars are furnished of Reports specially affecting labour, received from other countries since the publication of the last Labour Bulletin.)

A.—UNITED KINGDOM.

1. Board of Trade Labour Gazette, January to March 1915 (London, T. Fisher Unwin.)
2. Seventeenth Abstract of Labour Statistics of the United Kingdom. Cd. 7733. (London, T. Fisher Unwin.)
3. The Effect of War upon Employment. (London, published by the London Municipal Society.)
4. Bulletin of the International Labour Office, Vol. IX. Nos. 6 to 10. (Woolwich, The Pioneer Press Limited.)
5. The World's Labour Laws, February 1915. (Woolwich, The Pioneer Press Limited.)

B.—CANADA.

1. The Labour Gazette, January to March 1915. (Ottawa, Government Printer.)
2. Report of the Department of Labour for the year ending 31st March, 1914. (Ottawa, Government Printer.)
3. Seventh Report of the Registrar of Boards of Conciliation and Investigation. (Ottawa, Government Printer.)
4. Reports of the Special Committee on an Act respecting Industrial and Co-operative Societies. (Ottawa, Government Printer.)

C.—NEW ZEALAND.

1. Journal of the Department of Labour, March to May 1915. (Wellington, Government Printer.)
2. Awards, Agreements and Decisions under the Industrial Conciliation and Arbitration Act, Vol. XV., Parts 10, 11, Awards Nos. 3997 to 4027. (Wellington, Government Printer.)

D.—UNITED STATES OF AMERICA.

1. Department of Labour, Bureau of Labour Statistics. Bulletins. (Washington, Government Printing Office.)
 - (a) Wages and Hours of Labour Series. No. 8, Wages and Regularity and Standardisation of Piece Rates in the Dress and Waist Industry, New York City. No. 10, Wages and Hours of Labour in the Cotton, Woollen and Silk Industries, 1907 to 1913. No. 11, Wages and Hours of Labour in the Iron and Steel Industry, 1907 to 1912. No. 13, Wages and Hours of Labour in the Boot and Shoe and Hosiery and Underwear Industries, 1907 to 1913.
 - (b) Workmen's Insurance and Compensation Series. No. 6, Compensation for Accidents to Employees of the United States.
 - (c) Wholesale Prices Series. No. 2, Wholesale Prices, 1890 to 1913.
 - (d) Conciliation and Arbitration Series. No. 5, Conciliation, Arbitration and Sanitation in the Dress and Waist Industry of New York City.
 - (e) Labour Laws of the U.S.A. Series. No. 3, Labour Laws of the United States, with Decisions of the Courts relating thereto. No. 4, Decisions of Courts and Opinions affecting Labour, 1913.
 - (f) Foreign Labour Law Series. No. 1, Administration and Factory Inspection in certain European Countries.
2. Colorado. Fourteenth Report of the Bureau of Labour Statistics. (Denver, Smith-Brooks Printing Co.)

3. **Massachusetts.** (a) Eighth Report of the State Free Employment Offices. (b) Report of Cases under the Workmen's Compensation Act, 30th June, 1914, to 30th December, 1914. (c) Forty-fifth Report on the Statistics of Labour. (d) Twenty-seventh and twenty-eighth Quarterly Reports on Unemployment. (Boston, Wright and Potter Printing Co.)

4. **Minnesota.** Fourteenth Report of the Department of Labour and Industries. (Minneapolis, Syndicate Printing Co.)

5. **New Jersey.** Industrial Directory, 1915. (Camden, S. Chew and Sons Co.)

6. **New York Labour Bulletin.** No. 69, Idleness of Organised Wage-earners in 1914. (Albany, J. B. Lyon Co.)

7. **Porto Rico.** (a) Report on the Housing Conditions of Labourers in Porto Rico. (b) Third Annual Report of the Bureau of Labour. (San Juan, Bureau of Supplies, Printing and Transportation.)

8. **Washington.** Ninth Report of the Bureau of Labour Statistics. (Olympia, F. M. Lamborn.)

E.—FRANCE.

1. **Bulletin of the Minister of Labour,** October-December 1914. (Paris, Berger-Levrault.)

F.—GERMANY.

1. **Bulletin of the International Union of Woodworkers,** Nos. 1 and 2, 1915. (Berlin, published by the Union.)

2. **International Metalworkers' Review,** November-December 1914. (Stuttgart, A. Schlieke and Co.)

G.—HOLLAND.

1. **Monthly Journal of the Central Bureau of Statistics,** December 1914, January to March 1915. (La Hague, Gebr. Belinfante.)

H.—ITALY.

1. **Monthly Bulletin of the Bureau of Labour,** September to December 1914. (Rome, Officina Poligrafica Italiana.)

2. **Semi-monthly Bulletin of the Bureau of Labour,** Nos. 1 to 3, 1915. (Rome, Officina Poligrafica Italiana.)

3. **Proceedings of the Superior Council on Labour,** March 1914. (Rome, L. Cecchini.)

I.—NORWAY.

1. **Social Review** (Journal of the Department for Social Matters, Trade, Industry, and Fisheries). Nos. 5 and 6, 1914; No. 1, 1915. (Christiania, H. Aschehoug and Co.)

J.—DENMARK.

1. **Unemployment Insurance, 1913-14.** (Copenhagen, H. Jensen.)

K.—FINLAND.

1. **Journal of Labour Statistics,** Nos. 4 to 6, 1914; No. 1, 1915. (Helsingfors, Government Printer.)

L.—SPAIN.

1. **Bulletin of the Institute for Social Reform,** Nos. 126 to 130. (Madrid, M. Minuesa de los Rios.)

M.—SWEDEN.

1. **Social Review** (Journal of the Swedish Labour Department), Nos. 11 and 12, 1914; Nos. 1 to 3, 1915. (Stockholm, P. A. Norstedt and Sons.)

2. **Conditions of Labour in Agriculture, 1913.** (Stockholm, P. A. Norstedt and Sons.)

3. **Collective Agreements in 1913.** (Stockholm, P. A. Norstedt and Sons.)

4. **Labour Exchanges in Sweden, 1902-1912.** (Stockholm, P. A. Norstedt and Sons.)

5. **Economic Journal,** No. 12, 1914; No. 1, 1915. (Upsala and Stockholm, Almqvist and Wiksell.)

N.—ARGENTINE REPUBLIC.

1. **Bulletin of the Department of Labour,** No. 29, 1914. (Buenos Aires, Alsina Printing Office.)

Note on the Principle of Expressing a General-Value-Relation between Gold and a Group of Commodities. (See pp. 42, 43.)

* The principle enunciated can be readily illustrated geometrically, and stated generally is as follows:—

If there be $n + 1$ things (viz., n different commodities besides gold) of which n have each a relation (viz., price) with the remaining one (gold), then this relation may be represented by the distance to a point P , at a distance x along a line from a point (origin) O , measured along the line. Thus we shall have for n things a series of points $P_1, P_2, \dots, P_n$ at the distances $x_1, x_2, \dots, x_n$ from the point O . For simplicity, first let us suppose that these are of equal importance or weight, then we shall have the relation of the whole group of n things represented by the distance OP_a , equals, say, x_a . P_a being a point distant from O , the mean distance x_a of the whole series of n points. This is represented algebraically by

$$x_a = \frac{1}{n} (x_1 + x_2 + \dots + x_n)$$

Now it is evident that if the series of points change their positions from one date to another, x_a will change, unless the changes should happen fortuitously to balance one another. If the general relation of gold to the commodities were *constant*, then, although x_1, x_2 , etc. changed from one date to another, x_a would not change. Thus variations in the relations of the n commodities to gold may be conceived as affected by two things, viz., the *individual change* of relation of anyone (i.e., individual price) and *general change* of relation (price or price-index of the group). The significance of the latter is obviously better determined when n is a large number (i.e., when the number of commodities is great). Price-indexes at different dates are therefore measures of the distance x_a at those dates. If the points P_1, P_2 , etc. are of unequal importance, that is, if the commodities are not of equal importance, then this may be represented by repeating the points whatever number of times corresponds to their importance. Thus, if this number of times (their weight) be represented by w_1, w_2 , etc., the algebraic expression for the weighted mean distance evidently becomes

$$x'_a = \frac{w_1 x_1 + w_2 x_2 + \dots + w_n x_n}{w_1 + w_2 + \dots + w_n}$$

that is, the distance OP'_a , and the variation of x'_a measures the variation of the price-relation of the one commodity, gold, to the n other commodities, since a price-index is proportioned to the distance x_a , viz., the distance which represents the general trend of movement of the n commodities in relation to the one commodity, viz., gold, taken as a standard. Or, again, from the analogy of statics the point P'_a is the centre of inertia of the system of n commodities of unequal or equal weight, as the case may be. Very little familiarity with algebra is necessary to establish that with the increase of n the effect on x'_a of variations in x or w is diminished, and the effect of small variations tends to become negligible.

This illustration is, of course, to be taken only *pro tanto*; the complexities of the matter are avoided, especially as regards the average of quantities and their reciprocals. In Labour and Industrial Report No. 1, however, the whole matter was exhaustively considered, and the illustration is unexceptionable. See pp. xxvi and xxvii, and in particular pp. xxxiii to xxxvii of the report.