

1926.  
NEW ZEALAND.

## DEPARTMENT OF INDUSTRIES AND COMMERCE

(NINTH ANNUAL REPORT OF THE).

*Presented to both Houses of the General Assembly by Command of His Excellency.*

THIS report deals with the work of the Department of Industries and Commerce during the year ended 30th April, 1926.

The functions of the Department are of a wide and varied nature, and it is not intended that the report should deal with the whole of the many subjects which have engaged the attention of the staff during the past year. A considerable amount of work of a special nature was involved in the continuation of the British Empire Exhibition, the return of exhibits to New Zealand, and their sale or dispersal to owners; the display arranged on behalf of the Government at the New Zealand and South Seas Exhibition; and the purchase, importation, and sale to millers of nearly 2,000,000 bushels of wheat. These and other subjects are dealt with hereunder.

### OVERSEAS TRADE.

The external trade of the Dominion during the year 1925 cannot be said to have shown the same satisfactory features as in 1924. The exports during the past calendar year were certainly over two and a half millions greater than in the previous year, but imports at the same time advanced by nearly four millions sterling, and the so-called "favourable" balance of trade amounted in the past year to approximately only £2,800,000.

The following table shows that over a period of years the Dominion had an excess of exports over imports by no means so large as might be considered necessary when regard is had to such matters as the extent of our indebtedness to overseas investors.

				Imports. £	Exports. £	Excess of Exports. £
1921	..	..	..	42,744,122	44,828,460	2,084,338
1922	..	..	..	34,826,074	42,725,949	7,899,875
1923	..	..	..	43,363,983	45,939,793	2,565,810
1924	..	..	..	48,527,603	52,509,223	3,981,620
1925	..	..	..	52,425,757	55,243,047	2,817,290

The average annual excess of exports has therefore been only £3,869,786.

There are, of course, a number of factors other than the export and import of commodities to be considered, and it is apparent that to a considerable extent new capital is continually flowing into the Dominion in the only possible form—*i.e.*, goods—whose value is recorded in the annual statistics.

The value of the main items of export in 1925 as compared with 1924 were—

	1925. £	1924. £
Wool	17,709,899	15,267,544
Sheepskins	1,989,289	1,513,477
Frozen meat (mutton, lamb, and beef)	10,875,541	9,283,136
Butter and cheese	16,032,939	18,664,965
Total of all exports	55,262,272	52,612,711

It should be noted that the export figures for 1925 were materially affected by the high values of wool ruling at the beginning of that year, a factor which, together with increased values of frozen meat, more than offset the decline in exports of dairy-products.

A statement of exports during each quarter of the past two years and for the first quarter of 1926 brings into prominence the fact that, although 1925 showed an increase in exports, the increase

was entirely due to exceptionally good returns during the first half of that year, each of the subsequent quarters and the first quarter of 1926 showing figures much less satisfactory when compared with the returns of 1924.

Exports (excluding specie)—	1924.	1925.	1926.
	£	£	£
March quarter .. .. .	20,661,742	22,821,265	16,258,619
June quarter .. .. .	12,884,956	15,563,471	..
September quarter .. .. .	7,464,868	5,791,655	..
December quarter .. .. .	11,497,653	11,066,656	..

For the financial year ended 31st March, 1926, exports, which amounted to £48,697,587, were exceeded by imports by an amount of £4,328,269. This is the first time since 1921 that an adverse trade balance has been recorded.

Imports for the calendar year 1925 aggregated £52,456,407, as compared with £48,527,603 in 1924, an increase of £3,928,804. The most notable increases in value of imports in 1925 as compared with 1924 are again associated with the motor trade, as follows: Motor-vehicles, £604,798; tircs, covers, and tubes, £552,250. Increases are also recorded in apparel and ready-made clothing, £202,715; boots and shoes, £90,476; drapery, £102,129; cotton piece-goods, £365,239; silks, satins, and velvets, £118,849; crude residual oil, £136,337; timber (sawn), £211,397; cigarettes, £104,644; flour, £124,209; confectionery, £44,051; phosphates, £71,159; musical instruments, £129,844. A decline was recorded in the importation of the following items: Wheat, £241,684; oats, £159,331; sugar, £343,999; coal, £96,989.

Although there has been an appreciable reduction in the value of imports of such items as coal, wheat, and oats, it is still regrettable that over one and a half millions sterling was spent on the importation of these necessary commodities which might well have been produced in the Dominion. New Zealand production could well have reduced the importations of such goods as apparel, boots and shoes, softwood timbers, flour, and confectionery.

An analysis of New Zealand's export trade reveals the fact that for the calendar year 1925 80 per cent. of our exports went to the United Kingdom. Other customers of importance were—United States of America, 8 per cent.; Australia, 4½ per cent.; and Germany, 3 per cent. The following table shows the course of the Dominion's export trade during recent years:—

Exports to—	1923.	1924.	1925.
	Per Cent.	Per Cent.	Per Cent.
United Kingdom .. .. .	81·19	79·90	79·76
United States of America .. .. .	7·67	6·23	7·87
Australia .. .. .	5·74	4·77	4·53
Germany .. .. .	0·41	2·22	2·92
France .. .. .	0·74	1·07	1·07
Canada .. .. .	1·44	1·36	0·77
Japan .. .. .	0·45	0·63	0·42
India .. .. .	0·73	0·94	0·35
Belgium .. .. .	0·02	0·20	0·35
Fiji .. .. .	0·26	0·26	0·24

The following figures show that during the past three years there has been an appreciable decline in the proportion of our exports which go to countries within the Empire. The increase in the trade to Germany (due in 1925 to some extent to increased wool-prices) has been an important factor in bringing about this change.

1923	Proportion of New Zealand Exports to	
	British Empire.	Foreign Countries.
1923 .. .. .	89·36	9·29
1924 .. .. .	87·23	10·35
1925 .. .. .	85·65	12·63

In regard to imports, the United Kingdom continues to maintain its position as the chief supplier of New Zealand's requirements from overseas.

Imports from (Country of Origin)	1924.		1925.	
	Value.	Percentage of Total Dominion Imports.	Value.	Percentage of Total Dominion Imports.
	£		£	
United Kingdom .. .. .	23,068,282	47·53	25,535,332	48·68
United States .. .. .	7,788,293	16·05	8,887,906	16·94
Australia .. .. .	5,651,027	11·64	5,238,773	9·99
Canada .. .. .	3,973,639	8·07	3,914,706	7·46
Dutch East Indies .. .. .	1,080,200	2·17	609,588	1·16
Fiji .. .. .	970,393	2·00	1,239,454	2·36
Ceylon .. .. .	837,506	1·72	844,594	1·61
India .. .. .	741,217	1·53	912,738	1·74
France .. .. .	759,240	1·56	918,178	1·75

It is satisfactory to note that, of the total increase in imports of £3,928,804 for the past year, £2,467,050 may be credited to the United Kingdom.

The banking returns as at the 31st March, 1926, reflect the Dominion's recent adverse trade balance. Compared with the figures of the previous year there has been a marked decline in free or commercial deposits amounting to £2,594,748, and an increase in advances amounting to no less than £4,554,880.

The increase in advances may be considered to reflect the extent to which the banks have, among other commitments, been called upon to finance increased imports, while the amount of deposits is necessarily affected by the reduction in the returns from exports. The figures for the past six years are given hereunder :—

As at 31st March,	Deposits.	Advances.	Excess of	
			Advances	Deposits.
	£	£	£	£
1921 .. .. .	47,155,730	52,446,341	5,290,611	..
1922 .. .. .	40,360,390	46,491,315	6,130,925	..
1923 .. .. .	43,465,816	42,521,573	..	944,243
1924 .. .. .	47,033,293	44,403,524	..	2,629,769
1925 .. .. .	49,897,228	43,730,262	..	6,166,966
1926 .. .. .	47,302,480	48,285,142	982,662	..

In May, 1925, Great Britain, Australia, and New Zealand readopted the gold standard, and so made possible exchange rates which by their comparative stability have eliminated difficulties previously existing. The reduction of the high rates between London and New Zealand has removed the penalty on exports and the bounty on imports which gave rise to much uncertainty and dissatisfaction in 1924 and early 1925.

#### ISLAND TRADE.

##### WESTERN SAMOA.

The satisfactory development of Samoan trade during 1924 was again improved on by the figures of 1925. With the exception of the two boom years, 1919 and 1920, the total external trade in 1925 constituted a record.

The imports and exports of our mandated territory during each of the past three years were as follows :—

	Imports.	Exports.
	£	£
1923 .. .. .	268,881	288,774
1924 .. .. .	274,803	361,418
1925 .. .. .	345,989	378,388

Cocoa and copra constitute practically the whole value of the exports, which in 1925 increased as a result of increased tonnage and prices for copra. This was, however, to some extent offset by a substantial fall in the tonnage and value of cocoa-beans exported.

New Zealand took in 1925 an increased proportion of Samoa's exports. The Dominion's share, however, is relatively small, totalling only £11,600, and consisting mainly of cocoa-beans. The United Kingdom, Germany, and other Continental countries are the main buyers of Samoan products.

The value of the imports into Western Samoa from the main countries concerned were, during 1923-25, as under :—

Year.	Australia.	New Zealand.	United Kingdom.	United States of America.	Canada.	Fiji.
	£	£	£	£	£	£
1923 .. .. .	98,301	77,782	19,788	62,717	4,938	2,647
1924 .. .. .	99,448	87,541	25,340	42,582	6,181	7,972
1925 .. .. .	103,748	91,542	63,885	55,767	12,731	9,060

The Dominion has maintained its position as a leading supplier of Samoan requirements, but there is still apparently considerable room for expansion of our trade in this market. We have lost trade in certain commodities, while there are at the same time opportunities for extended business in many lines now supplied by Australia and the United Kingdom. The Department has drawn the attention of trading interests to these matters, and in several instances appreciable progress is being made in improving the sale of New Zealand productions.

## COOK ISLANDS.

The Dominion proper each year does a substantial trade with the Cook and Savage Islands. During the past three years, there have been received from this Group goods to the value of £125,446 in 1923, £149,676 in 1924, and £126,465 in 1925. These figures are representative of our purchases of bananas, oranges, and tomatoes, which were valued in 1925 at approximately £106,000. The total also includes some copra (from Niue Island) to the value of £15,334.

The Dominion sends to the Group each year a considerable quantity of manufactured goods and foodstuffs. The value of these in 1925 was £80,977, as against £100,670 in 1923 and £96,757 in 1924. It is satisfactory to note that 70 per cent. of the island requirements are drawn from the Dominion, the remainder being largely composed of goods not produced in New Zealand. There does not appear to be any likelihood of any marked increase in our share of the trade.

## FIJI.

The Colony of Fiji had in 1925 a total external trade of £3,427,392, imports being valued at £1,271,135, and exports at £2,156,257.

Fijian exports are represented mainly by sugar, copra, and bananas, while trocas-shells, molasses, and rubber are also of some importance. New Zealand is Fiji's best customer, particularly in relation to sugar and bananas. Of a total export in 1925 of 91,744 tons of raw sugar, the Dominion took 64,020 tons, valued at approximately £980,000. New Zealand also purchases practically the whole of Fiji's export of bananas, to a value of approximately £125,000 per annum. Molasses and other commodities place the total of our purchases from the colony well in advance of those of any other country.

On the other hand, while Fiji imports goods to a value of over a million sterling each year, New Zealand's share of the business in 1924, for example, was only £127,839. Australia in that year supplied goods to the extent of £438,715, and from the United Kingdom Fiji bought to a value of £269,231. A close consideration of the classes of goods bought from Australia in 1924 again shows that, for reasons by no means apparent, New Zealand is not securing the proportion of the Fijian trade which our opportunities would appear to warrant.

The following classes of goods to the values stated were supplied in 1924 by Australia and New Zealand :—

	Australia.	New Zealand.
	£	£
Biscuits .. .. .	9,121	86
Beer in bottles .. .. .	5,334	38
Boots and shoes .. .. .	2,158	688
Brushware .. .. .	1,107	82
Canvas .. .. .	2,945	Nil
Cordage and rope .. .. .	5,894	739
Drugs .. .. .	5,186	336
Furniture .. .. .	2,029	405
Hardware .. .. .	23,581	2,957
Jams.. .. .	2,640	22
Leatherware .. .. .	7,908	392
Agricultural machinery .. .. .	13,597	2,768
Manures .. .. .	19,282	6,211
Soaps .. .. .	3,181	1,118
Twine .. .. .	1,317	104

In respect of other commodities, of course, either Australia or New Zealand have special competitive advantages, but in the foregoing, and in regard to other goods now mainly supplied by the United Kingdom, there is ample opportunity for better New Zealand business. Probably our greatest disadvantage is the lack of direct shipping facilities from southern New Zealand ports.

## TONGA.

New Zealand already has an appreciable share in the external trade of Tonga, but there, as in the case of other Pacific islands, a better market is available to Dominion manufacturers and traders. The imports of the kingdom in 1925 were valued at £258,322, of which New Zealand supplied £95,306, Australia £79,482, and the United Kingdom £37,831. The trade has grown rapidly during the past few years, the total imports in 1922 being little more than half the figure reached in 1925.

The main product of Tonga is copra, which to a value of over £280,000 was sent in 1925 to the United Kingdom and Europe. Other exports were negligible, the total value of all, including copra, amounting to £290,115.

## SHIPPING FACILITIES.

A great deal of attention has recently been given by South Island interests to the matter of direct shipping facilities between southern ports and various Pacific islands. There is little doubt that if better opportunities offered it would be possible largely to increase the Dominion's share of the island import trade. The question is mainly one of transport, and from that point of view is dependent upon an improved demand for island products, of which fruit clearly offers the greatest possibilities. Unless the South Island demand for tropical fruits can be proved to be greater than at present indicated it must remain a difficult matter to arrange on a satisfactory financial footing regular direct steamer connections between the islands and Lyttelton and Dunedin. The subject is now receiving full consideration, and trial shipments have been arranged, as a result of which it may be possible to bring about a regular service satisfactory to both importers and exporters.

## CHAMBERS OF COMMERCE.

The Department is represented on the Executive of the Chamber of Commerce in each of the four chief centres, and has in all respects endeavoured to co-operate with those bodies in the development of trade and the elimination of commercial difficulties. Assistance has been rendered by the submission of reports and the collection of information on subjects of interest to and inquiry by the Chambers. The Department was also represented at the annual conference of the Associated Chambers of Commerce held in Dunedin in November last.

## BRITISH COMMERCIAL DIPLOMATIC OFFICERS.

As a result of a generous offer made by the Imperial Government at the Imperial Economic Conference of 1923, the assistance in trade matters of certain officers of the British Diplomatic and Consular Services is now available to Dominion Governments. The Department has already taken advantage of this provision, and expects to be able to an increasing extent to secure the benefits arising from this extensive representation in countries and districts where no Dominion representative is as yet located. The convenience offered by this arrangement has been and will continue to be brought before the notice of New Zealand traders.

## MANUFACTURING INDUSTRIES.

The Department continues to maintain a close association with the manufacturers of the Dominion, and more particularly with those located in the four chief centres. The reopening of the Dunedin office of the Department has been welcomed by manufacturers in that area, who are freely availing themselves of the service which the Department can offer.

## STATISTICAL.

The Department is pleased to be able to report that the figures of factory production prepared by the Government Statistician for the year ended 31st March, 1925, reveal substantial progress in most of the Dominion's secondary industries. The statistics show record high levels for value of output, employment, and wages paid. The following table shows the progress made during the year:—

	1924.	1925.	Increase.
Establishments .. .. .	4,461	4,547	86
Employees .. .. .	77,661	80,327	2,666
Wages and salaries paid .. ..	£14,573,441	£15,690,202	£1,115,761
Power employed (horse-power) ..	250,911	288,406	37,495
	£	£	£
Materials used .. .. .	47,027,033	52,111,967	5,084,934
Value added .. .. .	29,969,364	31,989,381	2,020,017
Total products .. .. .	76,996,397	84,101,348	7,104,951
Land, plant, buildings .. .. .	45,498,054	49,852,505	4,354,451

*Establishments.*—The industries which contributed mainly to the increase in the number of establishments were—Sawmilling, 25; furniture-making, 11; printing and publishing, 18; engineering, 18; motor and cycle engineering, 11.

*Employees.*—The more important increases in the number of hands engaged are to be found in the following industries: Sawmilling, 430; motor and cycle engineering, 299; printing, 906; biscuit and confectionery, 74; brick, tile, and pottery, 38; furniture, 123; flax-milling, 274; meat-freezing, 215. In the clothing and woollen-milling industries decreases have been recorded. The number of employees recorded as “administrative” represent 2,765, or 4 per cent.; “productive,” 71,760, or 89 per cent.; “distributive,” 5,802, or 7 per cent. of the total.

*Wages and Salaries.*—Approximately £53,000 per working-day were paid in wages by New Zealand factories during the year ended 31st March, 1925. The wages paid to all males employed averaged £209 per annum in 1924–25, compared with £197 10s. for the previous year. To females the average wage paid was £95, compared with a slightly higher figure for the previous year—viz., £95 10s. The general average for all employees for 1924–25 was £189 per annum, against £178 10s. in 1923–24.

*Motive Power.*—Substantial increases in motive power (particularly electric power) used per employee are noticeable for the period under review. Whereas the horse-power available per productive employee in 1923–24 was 3.6, the horse-power per employee for 1924–25 is 4.02. This is a remarkably high rate of increase.

*Production.*—The very substantial increase in value of production—viz., £7,104,951—is mainly attributable to the following industries: Meat freezing and preserving, £2,550,711; butter and cheese making, £1,109,432; sawmilling, sash and door making, £608,829; printing and publishing, £429,402; chemicals and fertilizers, £283,807; furniture making, £142,000; engineering, £196,000; biscuits and confectionery, £86,000; tanning, wool-scouring, and fellmongering, £107,000; paper bag and box making, £54,000. Unfortunately, there have been decreases of production in the woollen industry of £157,000, in the boot and shoe industry of £129,000, and the clothing industry of £61,000.

The following table shows in brief form the distribution and extent of factory production in the several districts of the Dominion. It is noteworthy that for the Dominion as a whole the value of the production of the meat-freezing and dairying industries is considerably less than the total value of the production of other factories.

TABLE SHOWING MANUFACTURING ACTIVITIES BY PROVINCES FOR THE YEAR ENDED 31ST MARCH, 1925.

Province.	Number of Factories.	Number of Employees	Wages and Salaries paid.	Value of Material used.	Value of Factory Production.		
					Butter, Cheese, and Meat.	Other Products.	Total.
			£	£	£	£	£
Auckland .. .. .	1,339	26,411	5,232,278	16,792,206	11,222,739	16,912,822	28,135,561
Wellington, Hawke's Bay, Taranaki, Marlborough, Nelson	1,644	24,069	4,859,007	18,713,867	15,614,872	13,081,259	28,696,131
Canterbury, Westland .. .. .	821	15,910	3,067,156	9,863,012	5,437,359	10,196,066	15,633,425
Otago, Southland .. .. .	743	13,937	2,531,761	6,792,335	3,574,081	8,062,115	11,636,196
1925 totals .. .. .	4,547	80,327	15,690,202	52,161,420	35,849,051	48,252,262	84,101,313
1924 totals .. .. .	4,461	77,661	14,573,441	47,027,033	32,188,908	44,807,489	76,996,397

The progress of the manufacturing industries of the Dominion, as indicated by the statistical reports, has in general been appreciable, and in certain industries a marked advance in production is recorded. There is, however, a wide field for development, and it is much to be regretted that in some instances the year 1924-25 was distinctly unsatisfactory. This applies more particularly to the footwear, woollen, and clothing industries. In those industries a very heavy importation has been the reflex of falling local production. The footwear industry continues in a state of depression which at the present time is acute. Competition from imported goods often of low quality cannot satisfactorily be met, and part time is being worked by a number of factories.

The woollen and clothing factories are also meeting very keen competition in certain lines. In each of these industries low import prices, often based upon inferior quality, are a source of constant difficulty for local manufacturers, who have no opportunity of meeting such competition by the production of low-grade or shoddy goods.

The matter of increased tariff protection is one to which attention is usually directed in times of industrial depression, and no doubt industrialists will make representations in that connection. Apart from that question, however, there is the wider and more fundamental matter of encouraging a national preference for goods of local manufacture. A great measure of support is justly given by all sections of the community to the principle of Empire trade, and the beneficial effects of maintaining this doctrine are widely known and accepted. It is perhaps not generally recognized that the advocacy of trading within the Empire logically involves an acceptance of the principle of trading within the Dominion, and all the benefits which can be claimed for the wider doctrine apply in equal or greater degree to the proposition of supporting local industry.

An inter-Imperial preference tariff is merely an attempt to effect by Customs law a development of Empire trade, in the same way as a protective tariff in this Dominion seeks to develop New Zealand manufacture and internal trade. While there must be exceptions in relation to many products, consistency appears to demand that supporters of Empire trade and Empire preference tariffs will also support the working-out of the principle in relation to the development of production and trade within the Dominion.

Local manufacturers continue to give their attention to the maintenance of quality and the improvement of packing and display. With increasing output made possible by a development of public support for local industry, price-reductions can be made effective and industries be built up which will provide employment under satisfactory conditions for many thousands of people who can otherwise never enter the productive life of the Dominion. More detailed information in relation to some of the industries is given in the appendix to this report.

#### NEW AND PROSPECTIVE INDUSTRIES.

During the past year a number of new industries have commenced the construction of factories in the Dominion. In Wellington, General Motors (New Zealand), Limited, and the Standard Porcelain Company (Limited), have under construction in the industrial area two large factories, the former for the partial manufacture and assembling of motors, and the latter for the manufacture of porcelain enamelled goods. It is confidently expected that within a few months both industries will be in running-order. In Auckland, preparations are being made by Builders Composite (Limited) for the manufacture of wall-board.

During the past year the Onakaka Ironworks produced a considerable quantity of pig iron, and the competition afforded by the New-Zealand-made iron is reported to have resulted in a reduction in the price of imported pig.

During the past year the manufacture of motor number-plates was undertaken by a New Zealand firm; and, while the laying-down of special plant—itsself of New Zealand manufacture—caused some delay in delivery, the plates have been well made, and represent an advance in New Zealand manufacturers' ability to supply Dominion needs.

Advice has been received by the Department that a number of Australian firms are contemplating the establishment of works in New Zealand. Factories to cost hundreds of thousands of pounds are to be erected by some of the best-known confectionery, jam, and fruit-preserving manufacturers of the Commonwealth. Smaller factories for the manufacture of other lines are contemplated, and the Department has assisted by the collection of information on a number of subjects.

## HEMP INDUSTRY.

Early in 1925 the Department made inquiries concerning the extension of markets for New Zealand hemp and tow, the export of which had decreased from 34,391 tons in 1913 to 15,178 tons in 1924. A request by the Department to the High Commissioner's Office for general information on the state of our trade in this commodity in Europe brought forth a very comprehensive and informative report, which has been discussed with the representatives of the flax-milling industry who were met in conference by officers of this Department and of the Department of Agriculture. The Department is satisfied that for the better satisfaction of both millers and buyers of hemp there is a great need for an improvement in the classifying or sorting of the hemp, which at the present time is tendered for sale in parcels containing qualities which vary over a wide range. This latter fact has caused much annoyance and dissatisfaction to buyers, with consequent detriment to our market, and has also apparently resulted in some friction between flax-millers and the Government Graders. Grading to the satisfaction of all will not eventuate until such time as better and closer classifying is undertaken by the flax-millers. This matter now seems to be receiving recognition, and millers will, it is believed, take active steps along these lines. To arrange effectively and economically for classifying the product of mills, both large and small, some form of co-operative organization may be required, and it has been suggested that in the larger producing areas a co-operative company might handle for classification the output of all mills, making payments to each producer on the basis of the qualities sent in. It is certainly increasingly evident that buyers must be satisfied of the reasonable uniformity of any parcel bought by them, and, failing such uniformity, the tendency is for New Zealand hemp to be neglected, and to suffer in price as compared with the better classified fibres of other countries.

There appears also to be considerable complaint from buyers regarding the alleged unsatisfactory cleaning of New Zealand hemp, this defect giving rise to certain manufacturing difficulties. Whether or not existing machine methods in the Dominion will enable any improvement to be made in this respect is open to doubt, but the matter is now closely under the notice of leading hemp-manufacturers, who recognize the necessity of maintaining a high-quality product.

Both in respect of the shipping and scutching of the hemp, efforts are continually being made to evolve improved processes, and several such investigations have been brought before the Department's notice.

The increasing production of sisal, and the uniformly high standard of quality maintained by producers of that fibre, has during recent years brought about a decided change in the competitive position of New Zealand hemp. It is reliably reported that sisal production costs leave an ample margin on present-day prices; production consequently continues to expand and prices tend to fall. Better organizations for classifying and marketing the Dominion product is essential even to the maintenance of our existing position in the European markets, and very strong action will be required to secure appreciable development of the trade.

## MANUFACTURERS' DIRECTORY.

Some years ago the Department undertook the work of compiling a directory of New Zealand manufacturers, and by arrangement with the Industrial Corporation of New Zealand the directory was published in 1923. While every effort was made to have the publication complete and accurate, difficulty was to some extent experienced in securing from manufacturers the data required. It has now been found that industrial change and progress necessitates the revision of the directory, and accordingly this work has been taken in hand. With the support of manufacturers it is hoped that a fully authoritative work can be made available for reference by buyers of Dominion-made goods.

## SCIENTIFIC AND INDUSTRIAL RESEARCH.

This important matter has during the past year received special consideration, and the desire of manufacturers and others that a definite research organization should be established appears likely to be realized.

The committee referred to in last year's report of this Department was able to arrive at certain conclusions in regard to the subject, but formulated no plan of action pending a visit to New Zealand by Sir Frank Heath, Secretary of the British Department of Scientific and Industrial Research. Sir Frank was able to spend some six weeks in the Dominion, and in that time make a comprehensive tour of both Islands. During his visit the Department co-operated in arranging visits to points of interest, and particularly to industrial plants in the various centres.

The report submitted to Government by Sir Frank Heath is a comprehensive document which can be referred to here only in brief outline. The main recommendation of the report centres around the establishment of a new State Department which, like Sir Frank's own Department in England, would act as a central administrative organization to encourage and organize research and its application to industry, to administer and co-ordinate certain State scientific services, including a laboratory for standards and tests, to advise Government on the subject of scientific and industrial research, and to maintain and administer such special institutes as may be established for the application of science to particular primary or secondary industries.

The organization of the Department is suggested to be based upon an Advisory Council of not more than six members, which would have the assistance of certain Government officers as assessors. The Department would be administered by a permanent secretary.

Special research institutes are suggested as the appropriate organizations necessary to control research in particular industries. Such institutes are suggested in the case of the dairying industry, for research in forestry, and for fuel research. Sir Frank indicates that in these three matters the

need is more pressing than in other directions. The plan of organization, however, contemplates the formation from time to time of further institutes to deal with such problems or industries as considerations of finance and the availability of expert staff may allow.

Each such institute would be controlled by a committee consisting of men of science (selected by the central organization) and of representatives of the industry and of the appropriate Government Departments. The finance would generally be provided by the industry.

In his references to the secondary industries of the Dominion Sir Frank Heath points out the difficulty of providing for research into all the many difficulties which arise. His suggestions and remarks on these matters are quoted in full in Appendix B of this report. The main points of the recommendation in that connection are—

- (1) The provision of financial subsidies to associations of manufacturers combining for research work ;
- (2) The assistance of secondary industries through fuel research ; and
- (3) The appointment to the staff of this Department of technical field officers to advise manufacturers on matters of general engineering or chemical character.

It has been announced by the Right Hon. the Prime Minister that general effect will be given to the recommendations which have been made.

#### BRITISH EMPIRE EXHIBITION: NEW ZEALAND PAVILION, WEMBLEY.

Reference has been made in the Department's reports of the past four years to New Zealand's participation at the above Exhibition. The progress made up to the opening of the 1925 season has already been fully dealt with in these reports.

The work of reconstruction for the second session of New Zealand's display at the British Empire Exhibition was carried on without cessation from the 2nd January until the opening day, 9th May, 1925. The Commissioner states that even with a fully completed building the period was none too long for the work that required to be done. It is with satisfaction that we have to report that the New Zealand exhibit was quite complete on the opening day ; and, in contrast with the 1924 season, it is also very pleasant to be able to state that the exhibit entirely satisfied all New Zealand visitors as well as visitors from other Dominions and from Great Britain. In fact, the New Zealand Pavilion, 1925, was looked upon as one of the greatest attractions at Wembley during that year.

During the 1924 period the total attendance at the Exhibition was 17,500,000, and from records taken at various intervals it was computed that the number of visitors to the New Zealand Pavilion was in the vicinity of 4,500,000. During 1925 the total attendance at Wembley was 9,700,000, and from the records taken it was found that the proportion of visitors to the New Zealand Section increased from one in four to one in three, and totalled approximately 3,250,000.

The New Zealand cinema is reported to have been the best in the whole Exhibition. It was efficiently equipped and tastefully decorated, and the films covered almost every aspect of New Zealand life, industry, and scenery. It was a most useful adjunct to the general scheme of propaganda, and the attendances were most gratifying.

Satisfactory arrangements were made with A. J. Carpenter (Limited), of Clapham, with whom a contract was made for catering in the New Zealand restaurant. The arrangements that were made for 1925 were not as satisfactory as the Commissioner would have desired, but most difficulties were overcome, and a menu at a reasonable charge was put on which included many classes of food products produced in New Zealand.

New Zealand's Commissioner, Sir Alexander Roberts, in reporting upon the benefits derived by the Dominion from the display of various classes of exhibits, states that there is no doubt that the dairy-produce section benefited more than any other from the publicity given at Wembley. The adaptability of butter for display purposes was a great advantage, and, as the article lends itself to artistic moulding, some really attractive exhibits were designed. In addition to the display of butter and cheese, an efficient selling organization was set up, which included machinery for putting New Zealand butter in 1 lb. and  $\frac{1}{2}$  lb. cartons. By this means approximately 50,000 packages of dairy-produce were distributed to visitors from all parts of Great Britain. Prices charged for this dairy-produce were kept in conformity with the current retail prices in London shops and stores.

The Commissioner states that, although the frozen-meat exhibit was a somewhat difficult exhibit to deal with, it is gratifying to know that the results obtained were highly satisfactory. This was due, it is stated, to two factors : firstly, that the quality of our mutton and lamb is second to none, and consequently little trouble was experienced in keeping the exhibit in good condition ; and, secondly, that the services of the most expert men in the art of meat-display were placed at the disposal of the New Zealand Commission for this purpose. The frozen-meat section was under the supervision of Mr. R. F. Forsyth, the London manager of the New Zealand Meat Producers Board, and that Board is well satisfied with the publicity obtained by means of the exhibit at Wembley.

Reports indicate that there has been a satisfactory increase in the number of distributors applying for supplies of New Zealand honey since this product was displayed at Wembley.

The selling organization set up by the Fruitgrowers Federation was to some extent handicapped in 1925 by the large number of fruit-stalls that were established throughout the Exhibition under concession from the General Administration. The quality of the New Zealand apples sold was, however, favourably commented upon, and excellent publicity was gained.

The display of wool made in the New Zealand Pavilion was said to be the most attractive wool display in the whole of the Exhibition. The chief interest in this part of the exhibit was said to have been shown by British farmers. The fleeces that were shown represented types of practically every grade and quality of wool produced in the Dominion, and they were so laid out that they could be studied by those who were interested from a practical and commercial point of view.



New Zealand hemp and hemp products provided good material for display, and it was possible to make the exhibit attractive both to those commercially interested and to the general public. A considerable number of inquiries were dealt with, and the inquirers were put in touch with the commercial houses dealing with this product.

An excellent display of grains and seeds clearly showed the Dominion's production in these lines. The kauri-gum exhibit attracted considerable interest.

A most satisfactory exhibit was provided by the exporters of rabbit-skins. This exhibit included specimens in all stages of manufacture, from the dried skins to the finished articles.

The display of sporting trophies was probably one of the greatest attractions in the New Zealand Pavilion, and this exhibit has been commented upon as being entirely the finest of its class that has ever been brought together anywhere in the world. The excellent collection of stags' heads and sporting-fish was attractively displayed.

During 1925, when a comprehensive scheme for placing the Dominion's tourist attractions before the public was adopted, much interest was evidenced in the varied scenic beauties displayed by means of dioramas and illuminated transparencies. The slogan adopted, "New Zealand, a pocket edition of the world, containing the lakes of Italy, the alps of Switzerland, the fiords of Norway, and the thermal regions of New Zealand," had the effect of bringing directly under the notice of visitors the extraordinary variety of tourist attractions to be found in the Dominion. The interviewing officers found, however, that New Zealand is generally regarded as being too far from the United Kingdom to attract from the Home-land tourists in any considerable numbers.

During the period of the Exhibition many distinguished visitors attended the New Zealand Pavilion, and it is of interest to enumerate the following: Their Majesties King George and Queen Mary, the King and Queen of Denmark, and the Queen of Spain; Their Royal Highnesses the Prince of Wales, the Duke and Duchess of York, Prince Henry, Princess Mary, the Duke of Connaught, Princess Beatrice, Princess Helena Victoria, and Princess Purachatra (Siam); some of the ruling princes of the Malay States and chiefs of West Africa; all of the leading politicians and public men of the United Kingdom.

His Majesty King George paid two visits to the Pavilion, and Her Majesty Queen Mary several visits. The Prince of Wales and the Duke of York, as the respective Presidents of the Exhibition in 1924 and 1925, were frequent visitors.

At the conclusion of the 1925 session on the 1st November, the work of demobilization was immediately proceeded with. Many of the exhibits were packed for return to the Dominion, and of those privately owned practically all have now been returned to their owners. A large number of the New Zealand exhibits were handed over on loan, through the High Commissioner, to the Director of the Imperial Institute, where the display of New Zealand's arts, crafts, and products has been extended and greatly improved.

Although the accounts have not yet finally closed, there are now only minor entries to be passed, and a close approximation of the cost can be arrived at. The whole of the subsidy of £30,000 offered by the Exhibition authorities to the New Zealand Government in consideration of participation in the 1925 session was duly received by the Government. Up to the 31st March, 1926, the net expenditure for the two seasons amounted to £106,596. Certain recoveries and expenses still to be dealt with will leave the final net cost at approximately £105,800.

The following is an estimated apportionment of the net cost as between the two sessions of the Exhibition: 1924, £95,250; 1925, £10,550.

It is generally recognized that the benefit to the Dominion from participation at Wembley cannot be measured in terms of money. The enterprise must be considered as a national advertising and educational effort, and from that point of view there can be no doubt as to the good results achieved.

#### NEW ZEALAND AND SOUTH SEAS EXHIBITION, 1925-26.

The Department has been closely associated during the past year with the general management of the New Zealand and South Seas Exhibition, which was opened by His Excellency the Governor-General on the 17th November, 1925.

The New Zealand and South Seas Exhibition Company (Limited), with a nominal capital of £100,000, of which £82,651 was subscribed and fully paid up, was responsible for the project. This company was financially assisted in its great national work by the New Zealand Government, which subsidized the undertaking to the extent of £50,000, and advanced loans up to £55,000, which were duly refunded by the company. It is particularly interesting to note that of the £82,651 paid-up capital, £61,232, or 14s. 10d. per £1 share, is expected to be returned to the shareholders.

The magnitude of the Exhibition may to some extent be gauged by the following interesting facts and figures: The total area of the site was 65 acres, the buildings alone covering 15 acres. The Amusement Park, which proved to be most attractive to visitors, constituted an area of 25 acres, and the sports-ground covered about 6 acres. The excellent Festival Hall, with seating accommodation for 2,300 persons, and its grand dome, was a fitting background to the very artistic and spacious Grand Court, the chief central feature of ornamentation, with the fine set of Exhibition buildings on either side. The only permanent building was the Art Gallery, which it is understood will be retained by the city for the same purpose for which it was built.

The famous Argyll and Sutherland Highlanders Military Band of forty performers was brought out from Britain by special permission of the War Office. This attraction was much appreciated by the 3,200,000 visitors who attended the Exhibition.

Government departmental participation involved this Department in a large amount of detailed work in the organization and administration of the Government Pavilion (No. 5 building). In all twenty-one Departments took part and prepared exhibits, which, within several buildings, took up

an area of 84,600 square feet of space—51,000 square feet in No. 5 building, 7,200 square feet in No. 2 building, and 26,400 square feet in No. 7 building. An area of three-quarters of an acre outside No. 5 building was also occupied by plots laid down by the Departments of Agriculture and Forestry for the practical demonstrations of their functions in the field.

It is very gratifying to be able to report that the displays made by the Government have been commented upon most favourably. The general success achieved is due to the willing co-operation of the Departments, and to the energy and skill of the many officers concerned.

The varied activities of the Public Works Department were attractively portrayed by working models of railways under construction, of hydro-electric installations, and of irrigation schemes now in course of preparation. The Department of Agriculture, in a space of 5,000 ft., and in half an acre at the rear of the Government Pavilion, provided excellent educative exhibits of the work carried out by the several Divisions of the Department, in respect of dairy-produce, grain and seeds, wool, honey, fruit, and other products. The agricultural plots prepared by the Fields Division were a unique exhibit, and were said to constitute a display never before attempted anywhere in the world. The Court of Education, housed in No. 7 building, exhibited in a practical manner the technical work that is being done by the pupils in all schools, and gave wide information on all aspects of education in the Dominion. The exhibit of the State Forest Service was designed to show up in bold relief the outstanding features of the forestry situation of the Dominion, and by means of diagrams and actual specimens to depict the effort that this Department is making for the conservation and development of New Zealand's timber resources. The Health Department presented in an interesting and educative way the work of this Department for the public welfare. An outstanding feature of this exhibit was a comprehensive display from Wembley, loaned by the Ministry of Health, London. The Post and Telegraph Department's exhibit featured a complete model post and telegraph office, open to the public view, which actually rendered the full postal and telegraphic services required by all the exhibitors at and visitors to the Exhibition. The display made by the Railway Department was housed in two buildings. No. 5 building held the advertising, signalling, and permanent-way sections and booking-office, where excellent facilities for visitors were fully appreciated and availed of. In No. 2 building there was shown rolling-stock comprising the latest type of sleeping-car and locomotive. The Tourist Department's exhibit formed a very attractive entrance to the main Government Pavilion. A special feature of the Publicity Section was a cinema-theatre, where over 400,000 people witnessed films depicting the wonderful scenic features of this Dominion. The Public Trust Department made an attractive exhibit in the secondary-industries building. Some excellent samples of work done by prisoners was shown in the Prison Department's Court, where working models also made an attractive and educational display of that Department's many and varied activities. The exhibits of the Defence Department and Navy Department were very popular and most interesting, the former including a fully equipped aeroplane and the latter a model of warships at sea in cruising formation. The Departments of Labour, Mines, Lands and Survey, Industries and Commerce, Census and Statistics, External Affairs, Government Printing, Samoan and Cook Islands, Dominion Museum, and Observatory also displayed their functions in an interesting and practical manner. No. 5 building also contained an attractive reception-room for the use of Ministers of the Crown and for the entertainment of distinguished visitors and the administrative offices.

As final accounts cannot be prepared for some considerable time, the actual cost of departmental participation cannot be definitely stated, but it is expected that the total net expenditure for all Departments and general administration will be approximately £31,000.

The Secretary of the Department of Industries and Commerce was appointed Commissioner of the Government Pavilion.

The Department also took an active interest in the organization, preparation, and arrangement of the exhibits that were made by the Provinces of Auckland, Wellington, and Canterbury. Assistance was also rendered to the Exhibition Company in its negotiations with other countries, this Department acting as intermediary between the New Zealand Government and the Governments of Great Britain, Canada, Australia, and Fiji, all of which made comprehensive and interesting displays.

At the Exhibition New Zealand manufacturers made a splendid show of the goods that are being produced in the Dominion, a space of 77,500 square feet being so occupied. The Courts erected and the artistic method of display adopted by the many firms represented reflect great credit on the secondary industries of the Dominion. The Department had a special office in this pavilion, and was closely associated with the manufacturers' associations responsible for the organization and administration of this section.

The Exhibition, which can justly be regarded as a great success, was closed, after a session of five and a half months, by the Prime Minister, the Right Hon. J. G. Coates, on the 1st May, 1925.

#### CANADIAN NATIONAL EXHIBITION.

The Government has decided to make a display at the Canadian National Exhibition, Toronto, which is to be held this year during the fortnight from the 28th August to 12th September, 1926. The Canadian Exhibition authorities have allotted 17,000 square feet of space free of charge to the New Zealand Government. A good selection of exhibits has been collected by the Department, the opportunity arising from the closing of the New Zealand and South Seas Exhibition being fully availed of. Most of the exhibits have gone forward by the "Canadian Explorer," which sailed for Montreal on the 1st June.

For the New Zealand Section of this Exhibition Mr. Peter Barr, of Dunedin, has been appointed Commissioner, and Mr. J. W. Collins, Secretary of the Department of Industries and Commerce, Deputy Commissioner.

It is fully expected that the general publicity that will be given to New Zealand's scenic beauties and sporting attractions will encourage tourists to the Dominion, and that the practical display of our products will encourage greater trade with Canada. More than two million people are expected to visit this Exhibition during the brief period of its currency.

#### INDUSTRIAL EXHIBITIONS.

It is the policy of manufacturers' associations to promote the development of local industry by the frequent display of New-Zealand-made goods at industrial exhibitions. The Department has co-operated during the past year in the organization of such an exhibition held in Wellington in August, 1925. The Department also provided a small exhibit at that exhibition, and at the Auckland Winter Show and Industrial Exhibition, also held during August last. These exhibitions have undoubtedly had a marked educative value, and must tend towards the creation of a public interest in and support for local manufactures.

#### WHEAT AND WHEAT-PRODUCTS.

In the annual reports of the Department for previous years extensive reference has been made to the matter of the supply and prices of wheat and its products, and the varying nature of the Government's association with the trade.

For the season 1924-25 the Department was closely concerned in the matter, the importation and resale of over 4,000,000 bushels being carried out on Government account. It was hoped and anticipated that with the close of the season 1924-25 the Government would be able finally to terminate its connection with this trade, and to leave the market to find its own level behind the protection of the Customs tariff provided in 1921.

As from the 1st March, 1925, the prohibition of importation of wheat and flour ceased, and the duties of 2s. per cental on wheat and 3s. per cental on flour were in force and effect. Difficulty, however, again arose for the reason that the price which millers were able to pay for local wheat in competition with imported flour did not meet with the approval of growers. After considerable discussion as to what constituted a fair price for wheat the representatives of both millers and growers placed their difficulties before the Government, and asked for action which would protect growers against the sudden and substantial fall in world market values which took place in March, 1925, and at the same time end the deadlock which had arisen as between buyers and sellers. It was also urged that arrangements were necessary to enable supplementary supplies of wheat to be imported for milling within the Dominion. Millers urged that they could not pay the full duty levied upon wheat and compete with imported flour even though the latter also bore duty at the tariff rate.

Negotiations resulted in an agreement between growers and millers whereby an increase in wheat-prices was arranged while flour-prices were reduced. This was possible by a substantial increase in prices of bran and pollard, which had previously been sold at very low rates. Growers indicated that they would raise no objection to Government importing duty-free and selling to millers such quantities of wheat as might be found necessary to ensure a full national supply. It was agreed that the prices at which such imported wheat would be sold to millers would be on a parity with the agreed prices for local wheat, and would vary from port to port according to the value of flour and wheat at those ports. For that reason prices at which the imported wheat was sold to millers were higher in the North Island and in Otago and Southland than at Lyttelton, Timaru, and Oamaru. It was recognized, of course, that the purchase price in Australia, together with the cost of importation, must necessarily be covered by the average sale price, and that while outside markets were fluctuating, as far as possible a stable price of flour should be maintained in the Dominion.

The scheme in effect represented an endeavour to maintain for a period of months a firm market for wheat, flour, and bread in the Dominion, as had been done in previous years, but with the important difference that in 1925 there existed no embargo against importation of flour.

As the world market value of wheat remained at a comparatively high level (and in fact, for portion of the year, rose to specially high points) there was in practice no great difficulty in carrying out the scheme. Wheat was purchased at satisfactory prices, and over a period of eight months, from July, 1925, to February, 1926, inclusive, importation was effected by the Department of an amount of 1,794,119 bushels, or 48,057 tons. The weight sold was less than the weight purchased by an amount of only 2,423 bushels, representing a loss of 0.14 per cent. Judged by all previous records of importation and by reports of the operations of commercial firms, this loss in weight is particularly low. This satisfactory result has been achieved only by constant attention to such matters as the checking of input weights and the prevention of waste on discharge—factors which otherwise tend to give rise to serious loss. The Department desires again to record its appreciation of the careful attention which Mr. Alexander Davidson, our representative in Australia, has at all times given to the many matters arising in relation to weight and quality.

The wheat was freighted in twelve shipments (eleven of which were complete cargoes), eight being from the Australian harvest of 1924-25 and four from the harvest of 1925-26. The purchase price of the wheat totalled £585,222 5s. 7d. While the quantity imported by the Department in 1925-26 was less than half that of the previous year, a quantity amounting to over 1,300,000 bushels was brought in during the months of July, August, and September, 1925, and the arrangements for shipment and discharge required close attention.

Shipping delays arising from adverse weather were to some extent unavoidable, but were kept at a minimum, and no serious inconvenience in the matter of supply arose from any such delays. No industrial disturbances affected either loading, transport, or discharge. The Department has previously pointed out the difficulties and dangers which arise from the necessity of importation of this essential foodstuff. Probably the most real danger is that of a labour dispute in the transport

industry, either in the Dominion or in our main source of supply, Australia. Such matters as the payment for wheat purchased, insurance, loading-expenses, &c., gave no difficulty, and were carried out on lines previously adopted. The return to the gold standard in May, 1925, eliminated difficulties and heavy expense previously existing in regard to remittances to Australia. The Treasury Department and High Commissioner's Office gave the Department valuable assistance in effecting certain economies in these matters. The whole of the Department's operations in the matter of the purchase of wheat during the past year were carried on without Government being called on to advance any funds, the business being handled on deposits made by millers before shipment of the wheat.

It has been mentioned above that the Government after 1924-25 was desirous of taking no further active part in the matter of wheat-supplies, and that the embargo on importation was removed at the end of February, 1925. From that time the duty of 2s. per cental was imposed on importations of wheat. This had the effect of maintaining at a relatively high level the price of wheat required for poultry-food—a section of the demand which is not directly affected by the price of Australian flour. The anomalous position consequently arose of New Zealand wheat being worth more for poultry-food than local millers could afford to pay for it in competition with Australian flour.

With some fluctuations between March and the spring months, the price of fowl-wheat remained relatively high. Supplies from local production were substantially exhausted by October, and accordingly, at the request of the poultry industry, the Government decided to allow from the 1st November importation under permit duty-free. The conditions of these permits were such as to ensure that supplies were brought in and distributed for no other purpose than for consumption as poultry-food. Under this arrangement a quantity of approximately 250,000 bushels was brought in duty-free during the months of November, December, and January. It may be stated briefly, therefore, that for the season 1925-26 the Dominion's supplies were provided (a) by a local harvest of 5,447,758 bushels; (b) by Government importation for milling purposes totalling 1,791,696 bushels, and by merchants' importations of fowl-wheat of 355,601 bushels, of which approximately 250,000 bushels were admitted duty-free. In addition, of course, a considerable quantity of flour was imported throughout the year, this averaging about 1,000 tons per month, or approximately one-eleventh part of the national requirements of flour. As this importation of flour during 1925-26 would represent nearly 600,000 bushels of wheat, the total annual wheat requirements of the Dominion were again shown to be approximately 8,250,000 bushels.

The foregoing deals generally with the subject in relation to the year 1925-26. During that year, however, a very great deal of attention has been given to the matter of the future policy in regard to wheat-supplies, and more particularly with reference to the year 1926-27.

In May, 1925, a conference of millers and growers agreed that millers would pay for wheat to be harvested in 1926 prices based on 6s. 5d., 6s. 7d., and 6s. 9d., for Tuscan, Hunter's, and Velvet varieties respectively, free on board Lyttelton, Timaru, or Oamaru, sacks extra. The Government ratified this agreement, and gave an indication that, if necessary, an embargo upon importation of wheat and flour in 1926 would be arranged, it being quite understood that the offer of millers was dependent upon there being no serious fall in world market prices. The prices arranged were apparently acceptable to growers, who in general made every endeavour to grow wheat. An exceptionally wet winter and spring, however, made the preparation and sowing of large areas quite impossible, and when the planting season was over it was known that an area of approximately only 160,000 acres had been sown. This even at a satisfactory average yield would produce little more than half the annual requirements. A conference of growers, at which millers were represented, decided in early December last to request that the Government take control of the market during the season 1926-27, purchasing wheat from growers at the prices arranged in May, reselling to millers, and importing the necessary additional quantities from overseas. This would, of course, have involved the reimposition of an embargo against importations of wheat and flour. In order that growers might be assured of the prices which they had expected to receive, the Government agreed to adopt control on the lines pursued some years ago. The Department acted in this matter under the direction of the Minister of Agriculture, and steps preliminary to the carrying-out of control were taken in December and January. In those months, however, apparently as a result of continued high prices in overseas markets, growers and merchants expressed a desire to reconsider the matter, and after considerable discussion a request was made to Government to refrain from adopting control and to allow the market to take its own course behind the protection of the tariff. Government accordingly did not proceed with control, and preliminary action in that direction was cancelled. At the same time, while agreeing to "a free market with duties," it was decided that wheat for consumption as fowl-food should be admitted, under permit, free of duty. The Department has therefore, in conjunction with the Customs Department, issued permits to recognized produce-merchants, and under the policy laid down will continue to do so until the harvest of 1927 is available.

Since this decision was announced there has been, as in 1925, a conflict of opinion as to the true value of wheat which growers have available. Millers have offered for the several varieties 6s. 8d., 6s. 10d., and 7s., f.o.b., sacks extra. Growers consider these prices are at least 4d. below fair market value, and in many instances have refused to sell below a basis of 7s. per bushel for Tuscan wheat. Allegedly, under necessity of continuing operations, some millers are reported to have paid growers' prices, while other mills are said to be prepared to close down if supplies cannot be bought on a basis of 6s. 8d. for Tuscan. During the discussion of the matter a considerable amount of attention has been paid to the general tariff question of protecting the wheat-growing and flour-milling industries, and considerable misunderstanding of the facts has been evident.

It is not proposed that the matter should be dealt with extensively in this report, but a few outstanding facts may be mentioned. The Government has expressed on several occasions the opinion that it is in the best national interests that New Zealand should be self-supporting in its supply of wheat and wheat-products. The recognized method to ensure that supply is by imposition of Customs duties, and this course has been adopted,

The effects of those duties and the relationship between the wheat-growing and milling industries are, however, not fully appreciated. In the first place it may be pointed out that the two industries are in New Zealand interdependent—wheat as such having only a limited use in the Dominion, and the milling industry, on the other hand, being dependent (without appreciable tariff protection) on an adequate supply of locally produced grain. It follows that the duties on flour and wheat must be so designed as to (a) provide adequate inducement for wheat-production, and (b) protect the milling industry from excessive competition from overseas.

Inasmuch as New Zealand millers are the main buyers of local wheat, the duty on flour, and consequently the price which millers can pay growers and yet maintain their competition with imported flour, is of vital importance to growers. A duty on wheat would therefore, without an adequate duty on flour, be of little benefit to growers, and would merely tend to increase the price to be paid for wheat used as such—*e.g.*, fowl-wheat. On the other hand, a duty on flour without an appropriate duty on wheat would tend to result in the importation of wheat for gristing locally, and consequently would depress local wheat-prices to the duty-free import parity. The question is therefore one of correct adjustment of the duties for the purpose of achieving the dual objective. The difficulty of the matter is, however, greatly increased by the fact that the tariff reasonably applicable to the South Island does not meet the position in the North Island, where a different level of prices must normally prevail, where virtually no wheat is produced, and where the local milling-capacity is not equal to the demand. Southern wheat and flour is normally transported to the North Island, and the value f.o.b. southern ports is therefore normally ruled by its value in competition with imported supplies brought directly into North Island ports. This latter fact tends to reduce the real value of the tariff protection given to wheat-growing by an amount equal to the cost of conveyance from South to North. In a year when New Zealand wheat-production is less than the national needs, either wheat or its products must be brought in. It will probably be agreed that it is preferable that the wheat should be imported and that it should be ground locally. There is, however, the objection that, so far as a large portion of the North Island demand is concerned, there is no milling-capacity available to do this gristing without incurring costs of transportation from the South Island.

These and many other matters give rise to considerable difficulty in laying down a policy satisfactory in all its aspects. At the present time, however, there is reason for believing that the duty on wheat, while mathematically equivalent to the duty on flour, is in actual effect too high in relation to the existing duty on flour. In other words, the import parity duty-paid of wheat as such is higher than the duty-paid import cost of a similar quantity of wheat in the form of flour. For this reason it may be said that the flour-milling industry has no tariff protection, and is in fact placed by the tariff under a handicap which it can overcome only so long as local wheat can be secured at a price, based upon flour import parity, which will allow local mills to compete with imports. The position is obscured from time to time by special circumstances arising from such factors as the admission of fowl-wheat duty-free, or the urgent need of mills to secure supplies even at non-payable prices.

#### REGULATIONS.

In addition to the Board of Trade Gas Amending Regulations (referred to elsewhere in this report), an Order in Council was issued in May, 1926, making regulations under section 26 of the Board of Trade Act relative to the control of motor-omnibuses. These regulations, which have been the subject of considerable discussion between interested parties, were drawn up by and issued through the Public Works Department, which is charged with the administration of the matter.

#### GAS REGULATIONS.

The Board of Trade regulations for control over the sale and supply of gas provide safeguards in regard to heating-value, purity, pressure, price, and measurement. The regulations are administered by this Department with a Board of Gas Referees, consisting of Dr. J. S. Maclaurin (Dominion Analyst) and Messrs. R. W. Holmes and A. Ford, the latter gentleman having been appointed to fill the vacancy caused by the resignation of Mr. R. Dougall.

Several officers have been appointed Gas Examiners under the regulations, and since September last the gas supplied in Auckland, Wellington, and Christchurch has been regularly tested and has been found to comply with the provisions regarding calorific value, purity, and pressure. The average calorific value in each of these cities was well above the declared calorific value, which is 450, 475, and 470 British thermal units per cubic foot in Auckland, Wellington, and Christchurch respectively. Official tests of the Dunedin gas-supply will be commenced as soon as the Government laboratory which is being established in that city is completed.

Investigations have been made relative to prices and costs in the four chief centres, and price-reductions have been found possible and made effective in Wellington and Christchurch.

To provide for certain necessary alterations in the original regulations, amending regulations were made and gazetted in March, 1926. Provision has been made for the collection of a levy from companies sufficient to pay the costs of administration, which will not, however, amount to a large sum.

The accurate measurement of gas passing through consumers' meters is of course a matter of material importance, and the regulations now make provision for the testing and stamping by official inspectors of all meters—either new or repaired—going into use.

Applications for positions of meter-inspectors will shortly be called.

## CONTROL OF TAILORING TRADE: SALE OF GARMENTS TO MEASURE.

These regulations, which were set out in full as an appendix to the Department's Report for 1925, came into force in February of last year.

The Department of Labour has co-operated with this Department in carrying out the provisions of the regulations. During the past year it was found necessary to take legal action in three instances, the cases being handled by the Labour Department. In each case the Magistrate upheld the Department's view and penalties were imposed. The offences were of a somewhat similar nature, being based upon the selling of clothing as "hand-made" or "hand-tailored" when in fact the minimum amount of hand-work had not been done.

The general opinion of those concerned is that the regulations and the publicity given to them have had the effect of preventing the misuse of the words "hand-made" or "tailor-made," thus protecting both the order-tailoring trade and the consuming public.

## INVESTIGATIONS.

The Department undertakes as part of its regular functions the making of investigations into various trades and industries for the purpose of advising Government regarding tariff and other questions relating to such industries. Inquiries relative to price-levels have not been made to the same extent as in past years, competition, both local and from overseas, being so keen in many trades as to preclude the possibility of any general charging of excessive prices. In a number of trades, however, combinations of sellers have been formed (often for mutual protection and the proper development of business) which are liable to bring about an elimination of that competition which is essential to the protection of buyers.

The Department endeavours at all times to keep touch with the changing conditions in various trades and industries, and both for reasons of restrictive control and for the assistance of industry or commerce exercises the statutory right of full and extensive inquiry where circumstances necessitate. The nature, scope, and results of these investigations are often of a confidential nature, and no reports are published.

## CHATTELS TRANSFER ACT, 1924.

Section 57 of this Act makes certain special provisions in respect of classes of chattels recognized as being the subject of customary hire-purchase agreements. The main purpose of the section is to provide that in all such cases the hire-purchase agreement is valid and effectual for all purposes without registration, and that the interest of bailors of chattels, the subject of such customary hire-purchase agreements, shall be protected against the claims of creditors of a bankrupt bailee.

These provisions apply only to such chattels as are set out in the Seventh Schedule to the Act, but it is also provided that the scope of the section may be extended by the addition by Order in Council of other classes of chattels. Such Orders in Council may be made if the Governor-General is satisfied of the existence of a practice of dealing in the chattels in question by the system of hire-purchase.

A number of applications to add to the schedule have been received, and the Department has been called upon to make inquiry into the commercial practices in such matters and to make reports and recommendations to Government on such applications. Since the passing of the Act, Orders in Council have been made bringing under the provisions of section 57 the following classes of chattels: Electric equipment, apparatus and appliances in connection with the use of electric energy; tractors; computing-scales, weighing-machines, bread- and bacon-slicing machines, and cheese-cutting machines; gas-stoves, gas-geysers, gas washing-coppers.

## COMMISSION OF INQUIRY.

During the past year the Government arranged for the hearing by Sir John Hosking of a claim on petition by the Woolston Tanneries (Limited) for State compensation in respect of trading losses arising out of operations carried on allegedly under such circumstances as to justify or warrant a payment by the State.

The first portion of the claim was based upon the suggestion that as a result of War Regulations portion of the business of the company—the fellmongery department—could not be carried on, and that expense and loss of profit resulted from an alleged unreasonable restriction. This claim was, during the hearing before the Commissioner, abandoned.

The second section of the petition was heard over a period of several days. It was alleged by the petitioners that, with the support and at the request of the Board of Trade, the company made provision for the production of large quantities of leather in 1920, in order that a national shortage might be avoided, and that the company sold or offered to sell such leather at prices which would prevent serious increases in prices of leather goods. Voluminous evidence was tendered both for the petitioners and for the Government. Evidence as to the Department's connection with the matter was given by the Secretary, who, with other officers, had appeared at previous hearings of the claim before parliamentary Committees. The Commissioner gave his decision on all points against the company, and indicated clearly that the loss made by the firm could not in any sense be regarded as resulting from any pressure or request from the Department, and the claim, which mentioned sums of many thousands of pounds, was accordingly rejected.

## COMMERCIAL TRUSTS ACT.

Brief reference was made in the annual report for 1924-25 to the action taken under the Commercial Trusts Act against several firms engaged in the manufacture, sale, and distribution of flour and by-products. Detailed comment on this important case was held over pending the hearing of an appeal by the Crown against the decision of His Honour Mr. Justice Sim, who heard the case in Dunedin in November, 1924, and whose judgment was in favour of the defendants.

The case for the Crown, upon evidence collected by the Department in conjunction with the Crown Solicitors, was based upon section 5 of the Commercial Trusts Act, 1910. It was claimed that an offence against that section had been committed by Distributors Limited (a firm engaged in the sale and distribution of flour, bran, and pollard), and by certain milling companies associated with Distributors Limited. It was contended that by conspiring to form a commercial trust of such a nature as to be contrary to the public interest the parties had offended against the law. Penalties were sought, and an injunction against the continuance of the trust was asked for.

It was not disputed that a trust had been formed, the question turning essentially upon the point as to whether or not the operations of the combination were of such a nature as to be contrary to the public interest. The Crown sought to show that by placing restrictions upon the output of individual mills, by the partial elimination of the choice of brands and qualities of flour available to users, by the production and forced sale at maximum prices of flour of unsatisfactory quality, and by its operations generally, the trust was of a harmful nature. The defence claimed that such activities were in their effects of little detriment, and that compensating benefits must be considered. It was further claimed that the unsatisfactory condition of the industry necessitated some such combined action on the part of producing firms, and that had such action not been taken the industry would have suffered from ruinous competition.

Lengthy evidence and argument was placed before the Court, judgment, as above mentioned, being given against the Crown. From this judgment the Attorney-General appealed, and the case came before the Court of Appeal in Wellington in July, 1925. The Crown was represented by the Hon. the Attorney-General (Sir Francis Bell, K.C.), the Solicitor-General (Mr. Arthur Fair, K.C.), and Mr. F. B. Adams, Crown Solicitor, Dunedin. Counsel for defendants were Messrs. C. P. Skerrett, K.C., and M. Myers, K.C., with junior counsel.

After a hearing which lasted for seven days the appeal was upheld by a majority judgment, and the case was remitted to the Supreme Court for fixation of penalties and costs. The defendants were each fined £50, but an injunction against the continuance of the trust was held over pending an appeal by the companies to the Privy Council. This further appeal will be heard during the current year, when a final interpretation of the law on this matter will be secured.

Apart from the merits of the case in question, the subject is of considerable importance to the trading community, which will no doubt appreciate a further clarification of the rights and responsibilities of trade combinations.

Other suggested offences against this Act are from time to time under consideration by the Department, but in general it may be said that although, in the Dominion as in other countries, combinations of trading interests form an increasingly prominent feature of modern commerce, traders do not allow their operations to exceed the limits laid down by the law. At the same time it may be noted that the administration of this law and the detection of possible offences is by no means a simple matter, and even without reference to the underlying question of the reasonableness and justification of the legislation against trust methods, continuous attention must be given to restriction of possible harmful trade practices.

For the Department of Industries and Commerce,  
G. W. CLINKARD,  
Acting-Secretary.

## APPENDIX A.

## MANUFACTURING INDUSTRIES.

## AGRICULTURAL IMPLEMENTS AND DAIRYING MACHINERY.

Output: 1906, £200,000; 1924, £600,000; 1925, £620,000. Employees: 1924, 761; 1925, 759.

The production of this industry increased by £20,000 during the year ended 31st March, 1925. Reports from manufacturers of agricultural implements in both Islands indicate keen competition from overseas, but at the same time state that sales of New-Zealand-made machinery have been satisfactory. Importations of Danish, Swedish, and German dairying machinery are increasing, to the detriment of the locally produced articles. This foreign competition, together with a rather unfavourable dairying season, has probably resulted in a falling-off in the value of the output of Dominion manufacturers during the year ended 31st March, 1926. The prospects for the coming year are reasonably satisfactory.

## ENGINEERING.

Output: 1906, £437,000; 1924, £1,750,000; 1925, £1,846,000. Employees: 1924, 3,336; 1925, 3,359.

The output of this industry for 1925 is approximately £100,000 more than it was during 1924. A rather pleasing feature in the engineering industry is that most of the foundaries have used Onakaka (New Zealand) pig iron during the past year, and have proved the quality to be quite equal, and in most cases superior, to the best imported pig iron. The installation of bulk-oil plants has assisted this industry. The better class of labour offering has resulted in greater output *per capita*. The

slight improvement experienced is expected to be maintained during the coming year. The sheet-metal industry is prosperous, and the domestic section of engineering discloses increased output and considerable development and improvements in the manufacture of gas, electric, and fuel stoves, and heating-appliances.

#### BOOT AND SHOE MAKING.

Output : 1906, £501,000 ; 1924, £1,355,000 ; 1925, £1,226,000. Employees : 1924, 2,308 ; 1925, 2,319.

The manufacturers of boots and shoes state that there is not sufficient demand for New-Zealand-made boots and shoes to absorb the skilled labour that is offering. The industry is still depressed as a result of heavy importations of lower grades of footwear, much of which is still on the market. The evidence indicates that those factories which have specialized in particular classes of footwear are generally in a better position than those making a wide range of samples.

#### CLOTHING.

Output : 1906, £423,000 ; 1924, £2,400,000 ; 1925, £2,339,000. Employees : 1924, 6,576 ; 1925, 6,426.

The reduced output in this industry of approximately £60,000 is accounted for by the fact that heavy importations of ready-made clothing were received in New Zealand during 1924 and the early part of 1925. It will be noticed that there was a reduction in the number of hands employed to the extent of 150. Since March, 1925, a slight improvement has been experienced. This, possibly, so far as the South Island is concerned, may be attributed to some extent to the New Zealand and South Seas Exhibition, and also to the fact that locally made light tweeds are again fashionable for ladies' overcoats and costumes. North Island manufacturers, on the other hand, state that business is quiet, although there are indications of a slight improvement. Generally speaking, however, the prospects are not bright. Plenty of skilled labour is available, and there is a considerable amount of unemployment in this class of labour in each of the four centres.

#### ROPE AND TWINE.

Output : 1906, £100,000 ; 1924, £218,000 ; 1925, £223,000. Employees : 1924, 230 ; 1925, 209.

Although the output in this industry shows a slight increase in value, the number of hands employed has been reduced by twenty-one. This is attributable to the fact that during the year ended 31st March, 1925, a small harvest resulted in a much reduced demand for binder-twine. On the other hand, the demand for rope was substantial, and sales were satisfactory. It is not likely that the figures for the year ended March, 1926, will show much improvement in this industry, but there are good prospects for the coming season.

#### PRINTING, PUBLISHING, AND BOOKBINDING.

Output : 1906, £1,068,000 ; 1924, £3,623,000 ; 1925, £4,053,000. Employees : 1924, 4,980 ; 1925, 5,886.

Increased production during 1924-25 indicated prosperity ; for the year ended March, 1926, however, those engaged in this industry in the North Island state that business had been quiet. Reports from the South Island, on the other hand, show that a very satisfactory year has been experienced. With the exception of linotype operators, skilled labour is plentiful.

#### BRICK, TILES, AND POTTERY.

Output : 1906, £217,000 ; 1924, £599,000 ; 1925, £635,000. Employees : 1924, 1,177 ; 1925, 1,250.

For the year ended 31st March, 1925, this industry again experienced a prosperous period. With a possible tightening of the money-market owing to excessive importations during the past year the prospects for building finance are not particularly bright, and this industry may consequently suffer to some extent.

#### BISCUITS AND CONFECTIONERY.

Output : 1906, £364,000 ; 1924, £1,384,000 ; 1925, £1,470,000. Employees : 1924, 2,064 ; 1925, 2,138.

A very decided improvement in this industry may be attributed to the excellent quality of the confectionery and biscuits that are being turned out by local manufacturers. Improved packing and display are also increasing the demand. The output in 1924-25 increased by £85,000, while the year ending 31st March, 1926, has probably shown a further increase in production. Although the local industry is facing rather keen competition from overseas manufacturers, prospects for the ensuing year are good.

#### SAUCES, PICKLES, AND VINEGARS.

Output : 1906, £56,000 ; 1924, £198,000 ; 1925, £200,000. Employees : 1924, 203 ; 1925, 187.

Although there were less hands employed in this industry to the 31st March, 1925, than there were in the previous year, the output increased slightly. Generally speaking, conditions and prospects are normal.

#### SOAP AND CANDLES.

Output : 1906, £179,000 ; 1924, £497,000 ; 1925, £561,000. Employees : 1924, 380 ; 1925, 394.

Competition from overseas is very keen in all fancy lines manufactured in this industry. Ample labour is available in both Islands for all requirements. Business in the candle section continues to diminish. The progress made in this industry is attributable to the fact that manufacturers are paying more attention to the quality and packing of fancy soaps. Indications point in the direction of steady progress in this section.



## COACH AND MOTOR BODY BUILDING.

Output: 1906, £295,000; 1924, £711,000; 1925, £721,000. Employees; 1924, 1,231; 1925, 1,275.

While trade conditions in this industry have been relatively good, labour is now plentiful, and the consensus of opinion amongst manufacturers is that prospects are only fair. While the difficulty arising, however, is apparently due in some measure to a change in the nature of the manufacturing-work to be done in the Dominion, the local manufacturers are not securing anything approaching a relative proportion of the increased trade in motor-vehicles. There are several new factories under erection throughout the Dominion for the assembling of motor-cars and the partial construction and assembling of motor-bodies on a massed production basis.

## FURNITURE AND CABINET MAKING.

Output: 1906, £328,000; 1924, £1,114,000; 1925, £1,256,000. Employees: 1924, 2,063; 1925, 2,186.

The year 1924-25 has shown considerable improvement in output and employment in this industry. Skilled labour, particularly in the upholstering branch, is scarce. Throughout the past year business was very satisfactory. It is, however, anticipated that trade during the coming year will be rather quiet, and local competition is keen. Increased output is reported by manufacturers of gramophones, and good progress is being made by the piano and pianola making industry, which is employing an ever-increasing number of hands.

## CHEMICALS AND FERTILIZERS.

Output: 1906, £95,000; 1924, £515,000; 1925, £799,000. Employees: 1924, 333; 1925, 346.

The increased output in this industry is attributable mainly to the extra demand for super-phosphates. This industry has been free of labour troubles, and there is no difficulty in obtaining sufficient labour for all requirements. Business generally has been very satisfactory, and demand for all classes of manures is growing steadily. New works have been established at New Plymouth and at Wangānui. Owing to stormy weather and labour troubles at Nauru and Ocean Islands there has, since December, 1925, been some difficulty in obtaining sufficient supplies of phosphate rock. An improvement in deliveries has, however, recently taken place, and further development in this important industry may be anticipated.

## WOOLLEN-MILLS.

Output: 1906, £397,000; 1924, £1,421,000; 1925, £1,264,000. Employees: 1924, 2,580; 1925, 2,273.

In common with the clothing industry and the boot-manufacturing industry, the woollen-mills have experienced during the year ended 31st March, 1925, a dull period, the value of production having fallen £157,000 and the number of employees by 307. Recent reports indicate that conditions are improving, and manufacturers expect to see a further recovery during the coming year.

## JAMS AND PRESERVES.

Output: 1906, £98,000; 1924, £244,000; 1925, £240,000. Employees: 1924, 269; 1925, 269.

This industry appears to be stationary, and although it has been subjected to rather severe competition from Australia and America, it is nevertheless holding its own. Considerable development is pending on account of the fact that existing factories in both Islands are being extended and new machinery is being installed.

## TANNING.

Output: 1924, £588,810; 1925, £591,165. Employees: 1924, 561; 1925, 550.

This industry has been directly affected by the unsatisfactory conditions ruling in the footwear-manufacturing industry. The trade has been depressed for some time past, and, although in certain sections business is reasonably good, there can be no general recovery until boot-manufacturers regain their position in the local market.

The undermentioned industries produced in 1924-25 an increased value of goods as compared with 1923-24 :-

Industry.	Value of Output.		
	1924.	1925.	Increase.
	£	£	£
Paper bag and box making .. .. .	111,000	165,000	54,000
Lime-burning and cement-manufacturing .. .. .	880,000	966,000	86,000
Leadlight and glass bevelling manufacturing .. .. .	162,000	194,000	32,000
Sailmaking and oilskins-manufacturing .. .. .	139,000	176,000	37,000
Paints and varnishes .. .. .	97,000	119,000	22,000
Hosiery .. .. .	156,000	170,000	14,000
Flax-milling .. .. .	334,000	520,000	186,000

The foregoing industries, with the possible exception of flax-milling, are expected to show continued progress in the current year.

## APPENDIX B.

EXTRACT FROM REPORT BY SIR FRANK HEATH ON THE ORGANIZATION OF SCIENTIFIC AND INDUSTRIAL RESEARCH IN NEW ZEALAND.

## IV. THE SECONDARY INDUSTRIES.

35. I have taken great care to try and obtain a broad general view of the secondary industries of New Zealand and to meet representative manufacturers in each centre I have visited. All are agreed that more science is needed, and some are taking steps to appoint scientific men in their works, as others, and the more progressive, have already done. It is natural that the industrialists should be rather vague as to the best means of attaining the end they desire, for the majority of factories are too small to make it possible for them to face the expense of the smallest scientific organization in their works. It is noticeable that the Statistical Report on Factory Production, 1925 (page 23), shows over 80 per cent. of the factories in the Dominion employ less than twenty-one workers apiece, while there seems to be a tendency for the proportion of small works to increase—though the tendency is far less marked than in Australia. Everywhere I have pointed out to manufacturers that the State could not possibly employ a staff adequate to solve all the manifold problems arising in the course of production in the many industries now carried on, and that even a staff adequate in numbers and scientific qualifications could not hope to solve these difficulties unless they were actually attached to the works. Here, as elsewhere, a choice must be made of the more urgent problems, and considerations both of economy and of man-power suggest that the firms in each industry should combine to finance, with some Government assistance in suitable cases, the conduct of research work on one or more problems of common interest to them all. In the case of the bigger industries co-operative research associations might be formed on a model similar to that adopted in the Old Country, while in the case of smaller and poorer industries a research worker might be selected by a suitable professor and directed to work at selected problems under his guidance. But either plan would necessitate the free access to the works of all contributors for the scientific worker, and full facilities for the making of works experiments. This suggestion was received with considerable sympathy in all quarters, especially when I emphasized the importance of initiative and individual effort for successful business, and the danger a State-controlled scheme would bring with it, of destroying these virtues just in proportion as it was successful. A relatively small sum of money placed at the disposal of the new central organization, to be expended in grants under proper conditions, to co-operative efforts of the kind indicated, would produce the maximum effect, and would have all the advantages of an experiment which could be abandoned if it proved unsuccessful. It is essential, however, that an experiment of this kind should have a fair trial, and manufacturers should be required to find a contribution of amount sufficient, with any State subsidy, to pay the salary and expenses of one well-qualified man of science at the least, and to guarantee a continuance of the contribution for at least five years. I strongly recommend that the central organization should press for a compulsory levy on the industry for this purpose, as is the practice in the dairy, meat, and fruit industries for marketing purposes, and that it should be very slow to accept voluntary contributions which it will be difficult to collect or to continue in times of bad trade.

36. For the rest, the State assistance to the secondary industries should be rendered by the work that it is hoped will be undertaken in the economical use of fuel, and by the work on the testing and standardization of materials and instruments, which is dealt with in Section V of this report. In addition, it should be possible for the new organization to give advice to industries as to the sources from which special information can possibly be obtained through a section of records which I shall recommend should be established; by the organization of the science libraries of the country, which should be undertaken as part of the duties of the central authority; and by its close liaison with the Research Department at Home, and similar organizations in other dominions of the Empire.

37. The new central organization will need all the assistance it can obtain in forming a just estimate of the needs and attitude of the secondary industries if mistakes are to be avoided and useful work is to be done. For this help it will naturally look to the Department of Industries and Commerce, which appears to me to be getting into daily closer touch with the manufacturers and business men of the community. In a later paragraph I recommend the Secretary of this Department should, with other high officers from other Departments, be appointed as assessor to the Advisory Council of the new organization; but this does not seem to me to be enough. I suggest that the Department of Industries and Commerce should include upon its staff two or more well-qualified field officers of technical training and experience—one, say, on the engineering side, the other on the chemical—whose duty it should be to study the secondary industries of the Dominion at first hand and keep the Secretary informed of their technical difficulties and successes. The powers entrusted to the Department under the Act are so wide that some provision of this kind appears to me to be desirable in any case. If the industries are to be assisted scientifically by the new body, which will have many other scientific responsibilities upon its shoulders, this strengthening of the staff of the Department of Industries and Commerce appears to me to be necessary.

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