

## CHAPTER XX. FISHERIES.\*

### § 1. General.

1. **Fish Stocks.**—Australia possesses an abundant and varied fish fauna, which embraces both tropical and temperate varieties and includes destructive as well as valuable species. In rivers and lakes both indigenous and imported varieties thrive. The latter have been introduced and acclimatized for industrial and sporting purposes by Governments and angling societies. Exploitation of the fishing areas is controlled by governmental authority. In some cases the minimum size of the fish to be taken is fixed, and in other cases the taking of some kinds is prohibited during periods prescribed according to the necessity.

### § 2. The Development of Fisheries in Australia.

1. **Progress of Industry.**—In 1907 the Commonwealth Government decided to demonstrate what might be attained commercially by the application of modern methods in fishery. A Federal Investigation ship, the *Endeavour*, was constructed specially for the work, and a Director of Fisheries was appointed. Experimental cruises were undertaken, which showed that Australia possesses an asset of considerable value in her sea fisheries. The *Endeavour* was unfortunately lost at sea with all hands at the end of 1914. A description of the trawling grounds discovered, data regarding oceanography to the east of Australia, and a list of the publications of the Department will be found on pp. 333–5 of the Official Year Book No. 14.

2. **Economic Investigations.**—(i) *General.* Although valuable work has been carried out by the State Governments in the way of experiment and culture, much yet remains to be done before the industry is at all commensurate in extent with the industrial progress or consuming capacities of Australia. All live fish imported into Australia are examined on shipboard in order to prevent the importation of undesirable fish. With the object of ascertaining the movements of oceanic fishes, and of estuarine fishes which make periodical oceanic migrations, reports are furnished regarding the various kinds of fishes, etc., and their movements along the coast.

With the object of reviewing the potentialities of the fishing industry of Australia the Development and Migration Commission convened a meeting of State and Commonwealth representatives. The Conference, which was held in Melbourne during September, 1927, affirmed:—

- (1) The importance of establishing a Marine Biological Institution to study the scientific problems connected with Australian fisheries, and to collect and disseminate authoritative information and give advice on matters concerning the fisheries;
- (2) The desirability of establishing an experimental trawling unit to explore the fisheries resources of Australia.

Committees were formed to deal with important problems concerning the preservation, transportation, marketing and distribution of fish, the canning and curing of fish, the production of fish by-products, the factors of destruction in fisheries, the development of the oyster industry, etc. The reports prepared by these Committees were submitted to a further conference held in July, 1929, at which the Commonwealth and all State Governments were represented; it was then unanimously recommended that investigation work should be undertaken by the Commonwealth Government. The Commonwealth Government entrusted this task to the Council for Scientific and Industrial Research and is providing a sum of £80,000, spread over a period of five years, for the following purposes:—(i) to procure a vessel specially designed for the exploration of pelagic or surface-swimming fish, but which could also carry out certain investigations of demersal or bottom-dwelling species; (ii) to undertake experiments in the canning of fish and the determination of the chemical composition of fish thought to be suitable for the manufacture of fish by-products; (iii) to determine, by tests, the

\* A specially contributed article dealing with the Marine and Fresh Water Fisheries of Australia appeared as § 6 of this chapter in Official Year Book No. 17 (see pp. 752–67 therein).

best methods of curing and preserving fish, especially the more common varieties; and (iv) in co-operation with the State authorities, to undertake a study of the systems of distribution of fish in each State with a view to improving existing transport and marketing facilities. A trawler constructed at a cost of £17,000 was commissioned in 1938 and a programme of work was laid down extending over a period of five years. During the first three years, the investigation will be confined to the south-eastern portion of the Australian coast; later it will be extended, within limits, to the south-western portion of the Continent. Experimental cruises completed so far have revealed the presence of four kinds of tuna (bonito, little tunney, skipjack and yellow-fin) and other commercial species. A Fisheries Laboratory and Research Station has been erected at Port Hacking in New South Wales.

The building of a second fishing survey vessel has been ordered. This vessel, which is expected to cost about £7,000, is to be used in Western Australian waters, where salmon and tuna suitable for canning are known to abound.

A Commonwealth Director of Fisheries, entrusted with the task of carrying out these investigations, has been appointed for a period of five years. Other steps have been taken to initiate action according to the programme outlined above, including the building up of a staff of trained investigators. It is hoped that, as a result of the knowledge gained from this investigation, the fishery industry of Australia will develop.

(ii) *Tariff Board Inquiry.* The question of assistance to the fishing industry, including the processing of fish, was the subject of an inquiry by the Tariff Board, whose report was issued in June, 1941.

The Board concluded that the development of a prosperous fishing industry would be an important contribution to the war effort, that the possibilities of commercial exploitation having been established, the stage had now been reached when additional governmental assistance was desirable. It recommended that assistance to the Council for Scientific and Industrial Research be continued and that a Commonwealth Fisheries Development Authority be established with the necessary authority to carry out its functions.

A conference between representatives of the Council for Scientific and Industrial Research and State Departments administering fisheries was held in October, 1941, for the purpose of inquiring into the constitution of the proposed Commonwealth Authority and other related matters.

3. *Canning of Fish.*—Apart from some establishments which may be engaged in the canning of fish as a subsidiary to that of meat and fruit, fish canneries have been established at various places in Australia with varying results. The industry has not developed, however, and the cause has been attributed to either faulty location, failure of supply or failure to ensure a sound market.

There is evidence of the industry being re-established as a result of the development consequent upon the decisions reached at the 1929 conference and there has been a considerable expansion in the output of canned fish since 1936–37. Further development may be expected from the attention directed to the canning of fish as a war-time measure.

The treatment of by-products is a valuable adjunct to the industry and a ready market exists in Australia and overseas for such commodities as fish livers, fish oil, meal and fertilizers.

4. *Consumption of Fish.*—That Australians are not a fish-eating people is evidenced by the fact that the average annual consumption per head of population for the five years ended 1935–36 was estimated at 13.18 lb., inclusive of approximately 4 lb. of imported fish of which 3 lb. was in canned form. In the United Kingdom, the per capita consumption in 1937 was 49.81, compared with 23.8 lb. in New Zealand and 110 lb. in Japan.

The deficiency of fish in the Australian diet has been attributed to the abundance of food available from the soil. It is therefore regarded as an item of luxury or as a welcome change in diet rather than a valuable food. A further reason for the absence of fish from the common diet is that the fishing industry has not been developed to its capacity.

5. *Oyster Fisheries.*—Natural oyster beds exist on the foreshores in the shallow waters of inlets and estuaries in several parts of Australia. By husbanding the natural crop, and by judicious transplanting, the output has been materially augmented. The

areas are leased by the Government to private persons, lengths of foreshore being taken up under oyster leases. In New South Wales and Queensland the industry has developed, and small yields are obtained in South Australia, Victoria and Tasmania.

6. Pearl-shell, Pearls, *Bêche-de-mer*, etc.—(i) *General*. Pearl-shelling is carried on in the tropical waters of Queensland, the Northern Territory and Western Australia. The pearl oyster inhabits the northern and western coastal waters from Cape York to Shark Bay, a length of shore of over 2,000 miles. The shells are marketed in considerable quantities, and pearls are obtained in Queensland, Western Australia and the Northern Territory. The fishing is generally conducted with the aid of diving apparatus in water varying from 4 to 20 fathoms in depth. In Queensland and the Northern Territory the *bêche-de-mer* industry is carried on, and tortoise-shell is obtained on the coasts. Experiments have been made in cultivating the pearl oyster on suitable banks. In October, 1911, a pearl weighing 178 grains, and valued at £3,000, was obtained at Broome. The value of trochus-shell of Australian origin exported during 1939-40 was £37,704.

(ii) *Royal Commission on Pearl-shelling Industry*. In accordance with the "White Australia" policy it was originally determined that the employment of Asiatic labour in the pearl-shelling industry should be restricted, and ultimately cease, and it was proposed that after 31st December, 1913, permits to bring in Asiatics for the pearling-fleet should no longer be issued. In view, however, of the disorganization of the industry occasioned by the War of 1914-19, the time was extended to the 30th June, 1918, after which date permits to introduce Asiatic labour were to be granted only in cases where the diver and tender of a boat were Europeans. The Royal Commission appointed in March, 1912, presented its final report in 1916. The Commissioners stated that, though it might be practicable, they did not consider it advisable or profitable to attempt to transfer the industry from Asiatics to Europeans. They further stated that, while the labour employed is almost entirely Asiatic, they did not consider that the "White Australia" policy would be weakened or imperilled by allowing the industry to continue as then conducted.

(iii) *Tariff Board Inquiry*. Arising out of an application for the payment of a bounty on pearl-shell gathered by fishing vessels registered in Australia, the industry was the subject of an inquiry by the Tariff Board which presented its report in 1935. The Board did not approve the granting of a bounty but recommended some relief to the industry in the form of the remission of prime and customs duty.

### § 3. The Fishing Industry.

1. Boats and Men Engaged, and Take.—(i) *General Fisheries*. The returns have been compiled from particulars supplied by the State Departments, and while the data do not generally lend themselves to presentation on a uniform basis, the principal facts have been incorporated in the following tables.—

#### GENERAL FISHERIES, 1939-40.

State or Territory.	No. of Boats Engaged.	Value of Boats and Equip-ment.	No. of Men Engaged.	Total Take of—		Gross Value of Take—	
				Fish.	Spiny Lobster (Crayfish).	Fish.	Spiny Lobster (Crayfish).
	No.	£	No.	Cwt.	Doz.	£	£
New South Wales(a)	1,779	174,000	(b)2,635	275,387	10,915	511,939	(c)50,016
Victoria..	852	109,365	1,337	106,127	5,901	245,485	6,786
Queensland ..	1,017	100,375	1,996	73,720	(d)16,646	160,404	de7,558
South Australia(a)	1,330	160,000	1,780	89,000	23,000	222,000	17,750
Western Australia(a)	333	58,488	724	55,975	(g)	183,271	25,000
Tasmania(a)(h) ..	235	59,900	349	25,000	88,661	47,500	(f)48,764
Northern Territory	10	700	15	(g)	(g)	(g)	(g)
Total ..	5,556	662,828	8,836	625,200	145,125	1,370,599	155,874

FO (a) Year ended December, 1939. (b) Fishermen's licences issued. (c) Including £33,918, the value of 9,545 cwt. of prawns and 6,435 dozen crabs. (d) Crabs. (e) Including 20 turbot valued at £27. (f) Including prawns and crabs. (g) Not available. (h) Includes oyster fisheries.

Returns for Australia for the last five years are given in the table below :—

### GENERAL FISHERIES : AUSTRALIA.

Particulars.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
No. of boats engaged .. ..	4,589	4,555	5,002	5,462	5,556
No. of men engaged .. ..	7,963	8,237	8,342	9,081	8,836
Fish obtained—					
Quantity .. .. cwt.	540,167	556,645	574,115	612,735	625,209
Gross value .. .. £	1,180,885	1,369,332	1,334,095	1,385,281	1,370,599
Lobsters obtained—Gross value £	117,058	142,943	136,683	134,866	155,874

(a) Excluding South Australia.

(ii) *Edible Oyster Fisheries.* Edible oyster fisheries are of small dimensions outside New South Wales and Queensland. During 1939-40 the available returns show the following takes:—New South Wales, 71,191 cwt., value £101,692; Queensland, 9,902 cwt., value £13,313. In Tasmania the scallop is far more important than the oyster. In 1939 the scallops taken in Tasmania were valued at £13,650.

Returns for Australia for the last five years are given in the following table :—

### EDIBLE OYSTER FISHERIES : AUSTRALIA.

Particulars.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
Boats engaged .. .. No.	699	711	757	754	791
Men engaged .. .. "	687	712	677	850	875
Oysters obtained—					
Quantity .. .. cwt.	63,501	74,283	83,666	89,145	82,312
Gross value (a) .. .. £	89,989	102,683	124,169	132,201	129,946

(a) Including scallops in Tasmania valued at £6,650 in 1935; £7,800 in 1936; £9,500 in 1937; £14,500 in 1938; and £13,650 in 1939.

(iii) *Pearls, Pearl-shell and Bêche-de-mer.* Details regarding the production, trade, etc., for these items, so far as they are ascertainable, are given hereunder. For obvious reasons no correct estimate can be obtained of the value of pearls. Pearl-shell (*Margaritifera*) is widely distributed in North Australian waters over an area facing some thousands of miles of coastline, though not intensively over the whole distance. The north-west beds are the most prolific, but those around and to the north of Cape York are also of importance. There is need for further investigation into the occurrence of this valuable shell, as well as of trochus, green snail, window-pane shell (*Placuna*), the various types of trepang or bêche-de-mer (*Holothuria*), both in tropical Australian waters and those of Papua and the mandated area of New Guinea. Particulars returned for the year 1939-40 are as follows :—

### PEARL, PEARL-SHELL AND BÊCHE-DE-MER FISHERIES, (a) 1939-40.

State or Territory.	Number of Boats Engaged.	Value of boats and Equip-ment.	Number of Men Engaged.	Pearl-shell.		Gross Value of Pearls obtained. (b)	Gross Value of Bêche-de-mer obtained.	Gross Value of Tortoise-shell obtained.
				Quantity obtained.	Gross Value.			
Queensland (c) .. ..	No. 85	£ 93,750	No. 763	Tons. 1,211	£ 116,438	£ 418	£ 669	£ 7.
Western Australia (d) .. ..	73	65,706	565	807	70,392	2,202	..	..
(e) .. ..	9	5,000	80	131	11,434	..	..	..
Northern Territory .. ..								
Australia .. ..	167	164,456	1,408	2,149	198,264	2,620	669	7

(a) No pearl-shelling industry in New South Wales, Victoria, South Australia and Tasmania.  
 (b) Incomplete; as returned. (c) Also trochus-shell to the value of £36,370. (d) Year ended December, 1939 (e) Also 20 cwt. trochus-shell valued at £79.

The figures for tortoise-shell and trochus-shell as returned are incomplete, as the necessary information is not collected in full detail. In the following summary of production during the last five years export figures of Australian origin are inserted for both of these items :—

**PEARL, PEARL-SHELL AND BÊCHE-DE-MER FISHERIES : AUSTRALIA.**

Particulars.		1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
Boats engaged ..	No.	215	221	204	181	167
Men engaged ..	..	1,991	2,241	1,941	1,750	1,408
Pearl-shell obtained—						
Quantity ..	tons	2,275	2,780	2,854	2,543	2,149
Value ..	£	239,952	340,244	310,655	222,281	198,264
Value of—						
Pearls obtained (a) ..	£	6,031	5,495	4,111	3,397	2,620
Bêche-de-mer obtained	£	15,082	6,495	14,237	8,145	669
Tortoise-shell exported	£	402	367	380	151	205
Trochus-shell exported	£	41,590	51,209	32,147	34,166	37,704

(a) Incomplete ; as returned.

2. Value of Production—Gross and Local.—(i) *General.* As the outcome of a series of conferences by Australian Statisticians it is now possible to present the value of production of the fishing industry on a more satisfactory basis than was possible hitherto. It should be remembered, however, that the actual collection of statistics of the quantity of fish taken presents many difficulties and the gross values are not complete in some of the States. Particulars of the value of other materials used in the process of production are not available for all States, and consequently the values can only be stated at the point of production and not on a net basis as has been done with other industries. Variations in the relative proportions of marketing costs to gross production suggest that complete uniformity in method has not yet been attained.

**GROSS AND LOCAL VALUE OF FISHERIES PRODUCTION, 1939-40.**

State.	Gross Production Valued at Principal Markets.	Marketing Costs.	Gross Production Valued at Place of Production.	Value of other Materials used in process of Production.	Net Value of Production.(a)
	£	£	£	£	£
New South Wales ..	664,000	156,000	508,000	52,000	456,000
Victoria ..	252,687	53,055	199,632	(b)	(b)
Queensland ..	335,000	50,000	285,000	65,000	220,000
South Australia ..	238,625	36,616	202,009	(b)	(b)
Western Australia ..	280,944	28,107	252,837	26,345	226,492
Tasmania ..	109,910	..	109,910	(b)	(b)
Total ..	(c)1,811,166	323,778	1,557,388	(b)	(b)

(a) No deduction has been made for depreciation and maintenance.  
(c) Excluding production in the Northern Territory.

(b) Not available.

(ii) *States 1930-31 to 1939-40.* In the following table the local value of fisheries production and the local value per head of population are given by States for each year since 1930-31. Local value is gross value less marketing costs and is the value at the

place of production. The value of materials used in the course of production is not available for all States and consequently production is valued at that point. These values therefore overstate the net values by the extent of these costs.

#### LOCAL VALUE OF FISHERIES PRODUCTION.

Year.	N.S.W.	Vic.	Qld.	S.A.	W. A.	Tas.	Total.
LOCAL VALUE.(a)							
	£	£	£	£	£	£	£
1930-31 ..	635,000	166,450	269,351	149,972	239,733	80,870	1,541,376
1931-32 ..	591,000	153,099	237,684	152,740	210,596	85,140	1,430,259
1932-33 ..	544,000	151,571	255,488	152,127	212,177	75,360	1,390,723
1933-34 ..	536,000	132,452	248,375	152,041	195,985	72,080	1,336,933
1934-35 ..	536,000	140,549	261,411	151,843	181,913	71,300	1,343,016
1935-36 ..	583,000	146,946	287,000	151,800	179,405	71,040	1,419,191
1936-37 ..	650,000	161,999	336,000	184,669	224,432	80,900	1,638,000
1937-38 ..	548,000	168,095	296,000	209,234	286,580	87,050	1,594,959
1938-39 ..	620,000	176,919	277,000	220,401	269,894	90,350	1,654,564
1939-40 ..	508,000	199,632	285,000	202,009	252,837	109,910	1,557,388

#### LOCAL VALUE PER HEAD OF MEAN POPULATION.

	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
1930-31 ..	5 0	1 10	5 11	5 3	11 1	7 3	4 11
1931-32 ..	4 7	1 8	5 1	5 4	9 9	7 6	4 4
1932-33 ..	4 2	1 8	5 6	5 3	9 9	6 7	4 3
1933-34 ..	4 1	1 5	5 3	5 3	8 11	6 4	4 0
1934-35 ..	4 1	1 6	5 5	5 2	8 3	6 3	4 0
1935-36 ..	4 5	1 7	5 11	5 2	8 0	6 2	4 3
1936-37 ..	4 9	1 9	6 10	6 3	9 11	7 0	4 10
1937-38 ..	4 0	1 10	5 11	7 1	12 6	7 5	4 8
1938-39 ..	4 6	1 11	5 6	7 5	11 8	7 8	4 9
1939-40 ..	3 8	2 1	5 7	6 9	10 10	9 3	4 5

(a) No deduction has been made for depreciation and maintenance.

3. Fish Preserving.—To encourage the industry the Federal Parliament provided a bounty of  $\frac{1}{4}$ d. per lb. for fish preserved as prescribed during the ten years 1907-8 to 1916-17, but the bounty failed to develop the industry, and was not renewed on its expiration in 1916-17. The amount of bounty paid during the ten years was only £3,005. As previously mentioned large quantities of fish are now being canned in Australia. The Tariff Board in its report on the fishing industry in 1941 stated that monetary grants or loans to existing processors or canners of fish were not justified at present.

4. State Revenue from Fisheries.—The revenue from fisheries in each State during the year 1939-40 is given hereunder :—

#### FISHERIES : REVENUE, 1939-40.

State or Territory.	Licences.	Leases.	Fines and Forfeitures.	Other Sources.	Total.
	£	£	£	£	£
New South Wales (a) ..	3,930	9,213	516	785	14,444
Victoria ..	1,283	87	481	37	1,888
Queensland ..	3,075	1,401	195	31	4,702
South Australia (a) ..	1,909	..	..	..	1,909
Western Australia (a) ..	1,320	15	172	49	1,556
Tasmania (a) ..	590	..	..	152	742
Northern Territory ..	75	..	..	..	75
Total ..	12,182	10,716	1,364	1,054	25,316

(a) Year ended December, 1939.

Similar particulars for Australia for the last five years are given in the following table :—

### FISHERIES : REVENUE, AUSTRALIA.

Particulars.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
	£	£	£	£	£
Licences .. ..	8,445	10,120	12,706	15,563	12,182
Leases .. ..	12,517	11,552	11,988	12,446	10,716
Fines and Forfeitures .. ..	1,224	1,617	1,512	1,397	1,364
Other Sources .. ..	960	1,270	4,888	4,867	1,054
Total .. ..	23,146	24,559	31,094	34,273	25,316

### § 4. Oversea Trade in Fishery Products.

1. Imports of Fish.—The large importations of fish and fish products made each year offer further evidence of the need to develop the fishing industry of Australia. Imports for the last five years were as follows :—

### FISH AND FISH PRODUCTS : IMPORTS INTO AUSTRALIA.

Classification.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
QUANTITY.					
Fish—	cwt.	cwt.	cwt.	cwt.	cwt.
Fresh or preserved by cold process .. ..	85,777	75,911	79,411	83,393	68,177
Potted or concentrated .. ..	7,426	8,349	7,733	9,435	7,300
Preserved in Tins—					
Herrings .. ..	39,461	47,254	39,819	38,917	32,800
Salmon .. ..	154,863	163,655	163,079	166,695	147,125
Sardines .. ..	39,128	40,593	31,408	29,372	29,019
Other .. ..	13,074	9,215	10,754	14,306	6,897
Crustaceans .. ..	4,008	4,300	5,793	6,829	7,677
Oysters .. ..	(a)	1,643	2,033	1,939	2,159
Smoked or dried (not salted) .. ..	6,694	9,274	9,623	8,122	5,474
Other .. ..	4,408	5,617	4,549	7,987	3,441
Oysters in the shell .. ..	4,982	2,349	893	635	1,049

### VALUE IN AUSTRALIAN CURRENCY.

Fish—	£A.	£A.	£A.	£A.	£A.
Fresh or preserved by cold process .. ..	257,870	272,559	288,796	273,289	247,577
Potted or concentrated .. ..	109,943	117,189	109,685	122,250	102,918
Preserved in Tins—					
Herrings .. ..	116,277	145,001	129,576	138,391	118,256
Salmon .. ..	523,509	580,538	657,936	716,164	677,685
Sardines .. ..	230,270	208,644	192,658	182,336	181,396
Other .. ..	59,288	41,678	50,113	63,996	34,124
Crustaceans .. ..	38,864	39,369	57,451	70,328	71,225
Oysters .. ..	(a)	11,374	14,003	13,995	17,611
Smoked or dried (not salted) .. ..	18,582	26,406	27,687	23,603	17,633
Other .. ..	11,350	14,538	11,736	10,948	10,307
Oysters in the shell .. ..	4,044	1,468	881	704	1,068
Total .. ..	1,369,997	1,458,764	1,540,522	1,616,004	1,479,800

(a) Not recorded separately.

Tinned fish constitutes by far the largest proportion of the imports; salmon from Canada, herrings from the United Kingdom and sardines from Norway were the chief varieties imported. The potted fish comes chiefly from the United Kingdom, which also supplied a considerable proportion of the fresh fish imported in 1938-39; the bulk of the remainder came from New Zealand and the Union of South Africa. The small import of oysters is supplied by New Zealand, while Japan furnished 5,812 cwt. of the crustaceans imported. Details for later years are not available for publication.

2. **Exports of Fish.**—The exports of fish are comparatively insignificant. During 1939-40 they were as follows:—Fresh or preserved by cold process, 1,346 cwt., £5,470; oysters, fresh, 297 cwt., £760; potted or concentrated, £912; preserved in tins, 8,605 cwt., £43,908; smoked or dried, 542 cwt., £2,274; other including salted, 502 cwt., £4,868.

3. **Exports of Pearl and other Shell.**—The exports of pearl, tortoise and trochus-shell of Australian origin are given hereunder for the five years ended 1939-40.

**PEARL, TORTOISE AND TROCHUS-SHELL : EXPORTS FROM AUSTRALIA.**

Article.			1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
Pearl-shell ..	cwt.		56,306	52,058	53,289	52,532	48,581
	£		302,491	319,631	345,580	244,266	224,646
Tortoise-shell ..	cwt.		6	6	10	4	6
	£		402	367	380	151	205
Trochus-shell ..	cwt.		9,260	8,847	6,370	9,108	12,905
	£		41,590	51,209	32,147	34,166	37,704

The bulk of the pearl-shell exported during 1938-39 was consigned to the United States of America and the United Kingdom, the respective values of the shipments amounting to £139,921 and £90,777, and trochus-shell to the value of £31,755 was dispatched to Japan. Details for later years are not available for publication.