## DEFENCE.

THE colonists of Australasia have always manifested an objection to the maintenance of a large standing army, and shown a disposition to rely mainly upon the patriotism and valour of the citizens for their own defence. As the Commonwealth, however, possesses a more or less complete system of fortifications armed with expensive ordnance, which requires a more regular and constant attendance than could well be bestowed by those who devote only a portion of their time to military affairs, it is necessary that there should be in each of the states a small permanent military force, consisting for the most part of artillery and submarine miners, whose chief duty is to man the fortifications and keep the valuable armaments therein in a state of efficiency, to be ready for any emergency. the same time, it is expected that they will prove the nucleus for an effective defence force if ever hostilities should unfortunately occur. The responsibility for the defence of Australia now lies with the Federal Government, and, since it assumed control many improvements in organization have been effected, while the expenditure has been considerably reduced.

The greater portion of the Australian forces consists of volunteers enrolled under a system of partial payment, which affords a defence force without the disadvantages and expense of a standing army. The men receive payment according to the number of parades and night drills they attend, as compensation for wages lost while absent from their employment for the purpose of receiving military instruction. For privates the pay is eight shillings per day. The remuneration has hitherto varied in the different states, but under the new scheme introduced by Sir John Forrest an uniform rate is to be adopted in each state with the exception of Tasmania. Very little encouragement is extended by the Commonwealth to those who are purely volunteers, as the system has been tried in the various states and found unsatisfactory, and in New Zealand alone is the volunteer system the mainstay of defence.

The following table shows the strength of the military forces maintained in each state as at 30th June, 1903. The total number of men of military ages (from 20 to 40 years) in Australasia was ascertained at

the Census of 1901 to be 775,000, and compared with this figure the forces of the states appear extremely small.

State.	· Paid.	Militia or Partially Paid.	Volunteers.	Total Forces.
[Headquarters Staff	25			25]
New South Wales	485	4,932	2,740	8,157
Victoria	366	3,272	2,432	6,070
Queensland	210	2,431	248	2,889
South Australia	51	1,857		1,908
Western Australia	51	6	1,390	1,447
Tasmania	40	3	1,807	1,850
Commonwealth	1,228	12,501	8,617	22,346
New Zealand	400		14,086	14,486
Australasia	1,628	12,501	22,703	36,832

The relative strength of the various arms in the Commonwealth states may be summarised as follows:—

Staff, administrative and educational	283
Artillery	
Field	987
Garrison	2,199
Engineers	625
Mounted troops	4,419
Infantry	12,962
Army Service Corps	210
Army Medical Corps	512
Veterinary department	7
Ordnance department	102
Pay department	40
Total	22,346

In addition to the above there are small bodies of reserves in New South Wales and Victoria, and rifle clubs are enrolled in all the states

except Tasmania. These men are all trained to the use of the rifle, and have a slight knowledge of drill, and would be available in time of war to complete the establishment of the regular forces. The following table shows the strength of reservists, members of rifle clubs, and school cadets in the various states, on the 30th June, 1903:—

State.	Reservists and Members of Rifle Clubs.	Cadets.
New South Wales	4,043	89
Victoria	20,504	4,150
Queensland	3,274	964
South Australia	3,497	
Western Australia		
Tasmania		172
Commonwealth	31,318	5,375
New Zealand	2,455	2,429
Australasia	33,773	7,804

In addition to the military forces enumerated, there are in each state, with the exception of Tasmania and Western Australia, small corps of Naval Volunteer Artillery, or partially-paid forces of a similar character, capable of being employed either as light artillery land forces or on board the local war vessels. The strength of these marine forces on the 30th June, 1903, was as follows:—

State.	Paid.	Partially Paid.	Unpaid.	Total.
New South Wales Victoria Queensland South Australia	3 105 41 20	377 115 454 133	1 206 8	381 220 701 161
Commonwealth	169	1,079	215	1,463

On their present footing the combined forces of the Commonwealth states are nearly 24,000 strong, as will be seen above, and of these about 20,000 could be mobilised in a very short time in any one of the states of Queensland, New South Wales, Victoria, or South Australia. Most of the states have also cadet companies, consisting of youths attending school, who are taught the use of arms so as to fit them, on reaching manhood, for taking a patriotic share in the defence of their country.

The outbreak of hostilities with the Boers in October, 1899, served to demonstrate the strength of the loyalty of these states to the mother country. From all parts of Australasia members of the various defence forces, as well as civilians, volunteered for service with the Imperial troops in South Africa. The total number of men despatched in the various contingents was 22,928. The table below shows the number of men and horses sent from each state:—

State.	Officers.	Non- commissioned Officers and Men.	Horses.
New South Wales	327	6,000	E 055
	021	0,000	5,877
Victoria	183	3,393	3,878
Queensland	143	2,756	3,085
South Australia	78	1,450	1,524
Western Australia	63	1,160	1,044
Tasmania	35	827	725
Commonwealth	. 829	15,586	16,133
New Zealand	342	6,171	6,662
Australasia	1,171	21,757	22,795

In addition to the above, several special service officers were, at the request of the colonial Governments, attached to the British troops for the purpose of gaining experience, and 14 nurses were despatched from New South Wales.

The states again offered to assist Great Britain on the outbreak of hostilities in China. The Imperial Authorities accepted the offer, and contingents of naval volunteers were despatched from New South Wales and Victoria numbering 260 and 200 men respectively, while South Australia equipped and sent the gunboat Protector.

## NAVAL DEFENCE.

The boundaries of the Australian Naval Station have been defined as follow:—From 95° E. long. by the parallel of 10° S. lat. to 130° E. long; thence north to 2° N. lat., and along that parallel to 136° E. long; thence north to 12° N. lat., and along that parallel to 160° W. long; thence south to the Equator, and east to 149° 30′ W. long.;

bounded on the south by the Antarctic Circle; and including the

numerous groups of islands situated within the limits specified.

The defence of Australasia and its trade is entrusted to ships of the Imperial navy, under an agreement entered into between the British Government and the Governments of the Commonwealth and New Zealand. The agreement provides that the naval force on the Australian Station shall consist of not less than—

- 1 Armoured cruiser, first-class;
- 2 Second-class cruisers;
- 4 Third-class cruisers;
- 4 Sloops;

and of a Royal Naval Reserve of 25 officers and 700 seamen and stokers.

This force is under the control and orders of the Naval Commanderin-Chief on the Australian Station. One of the ships is to be kept in reserve, and three are to be partly manned and used as drill ships for training the Royal Naval Reserve, the remainder being kept in commission and fully manned. The three drill ships and one other vessel are to be manned by Australians and New Zealanders as far as procurable, paid at special rates, and enrolled in proportion to the relative population of the Commonwealth and New Zealand, but the vessels are to be officered by officers of the Royal Navy and of the Royal Naval Reserve. order to insure the inclusion of Australian-born officers in the Royal Navy, 8 nominations for cadetships are to be given annually in the Commonwealth and 2 in New Zealand. In consideration of the services rendered, the Commonwealth is to pay five-twelfths and New Zealand one-twelfth of the total annual cost of maintenance, provided that the total amount to be paid in one year shall not exceed £200,000 and £40,000 respectively. In reckoning the total annual cost, a sum equal to 5 per cent. on the prime cost of the ships composing the naval force is to be included. The agreement covers a period of ten years, and only terminates if notice to that effect shall have been given two years previously, viz., at the end of the eighth year, or at the end of any subsequent year, and then two years from such date. In time of peace one drill ship and one other cruiser are to be stationed in the waters of New Zealand as their headquarters, but they may be temporarily removed if any emergency arises to justify such a course. The base of the naval force is to be the ports of Australia and New Zealand, and their sphere of operations the waters of the Australia, China, and East Indies Stations where the Admiralty believe they can most effectively act against hostile vessels which threaten the trade or interests of Australia and New Zealand. No change in this arrangement can be made without the consent of the Governments of the Commonwealth and New Zealand, and nothing in the agreement shall be taken to mean that the naval force named therein shall be the only force used in Australasian waters should the necessity arise for a larger force.

The agreement was embodied in the Naval Agreement Bill and passed by the Commonwealth Parliament, being assented to on the 28th August, 1903. It has also been passed by the New Zealand Parliament. Prior to this agreement the defence of the Australasian coast was entrusted to the British ships on the Australian Station and the Australasian Auxiliary Squadron, and these vessels are still on duty.

The vessels of the Imperial fleet which are still on service are detailed

below. The Penguin and Dart are engaged in surveying service.

		j.		water			Armament.			oal rance.
Name.	Class.	Displacement.	Indicated horse-power.	Draught of w extreme.	Length.	Beam.	Guns.	Speed.	Coal that can be carried in bunkers.	Distance that can be steamed at 10 knots' speed.
Royal Arthur (flagship)	Twin-screw cruiser, 1st class, pro- tected.	tons. 7,700	10,000	ft. in 24 10	ft. in. 360 0	ft. in. 60 8	One 9·2·in. B.L., 12 6·in. B.L.Q.F., 12 6·Pr., 5 3·Pr., 7 Nordenfeldt.	knots. 19·75		knots. 10,000
Phœbe	Twin-screw cruiser, 3rd class.	2,575	7,500	15 (	265 0	41-0	Eight 4.7 Q.F., 83-in. Pr. Q.F., 4 M., 1 L.	19.2	300	4,800
Archer	Twin-screw cruiser, 3rd class.	1,770	3,500	15 7	225 0	36 0	Six 6-in.5-ton B.L.V.C.P. 8 3-Pr., 2 Nordenfeldt.	16.5	325	7,000
Pylades	Screw cruiser, 3rd class.	1,420	1,510	16 11	200 0	38 0	Eleven 5-in. 38-ewt. B.L. R., 8 M., 1 L.	12.6	425	6,600
Sparrow	Screw gun- boat, 1st class.	805	1,200	13 3	165 0	30 0 	Six 4-in. 26-ewt. B.L.R, 2 Q.F. Hotchkiss, 2 M.	13.7	105	••
Lizard	Screw gun- loat, 1st class	715	1,000	12 6	165 0	29 0 	Six 4-in. 25-cwt. B.L. 4 M.	12.6	105	••
Torch	Screw sloop	960	1,100	14 6	180 0	32 6	Six 4-in. Q.F., 2 3-Pr. Q.F. Hotchkiss, 2 0.45- in. Maxim.	13.25	130	2,000
Penguin .	Serew sloop	1,130	700	14 0	180 0	38 0	Two 64-pr. M., 1 L., 2	10.1	200	'
Dart	Screw yacht	470	250	12 11	133 0	25 2	2 L., 2 M	7.5	64	

Q.F., Quick-firing guns; M., Machine guns; L., Light guns under 15 cwt.; B.L.R., Breech-loading rifled guns; V.C.P., Vavasseur Centre Pivot.

The Royal Arthur has no armour, but carries a protective deck of steel, varying in thickness from 1 to 5 inches. Her 6-inch guns are also enclosed in casemates of steel 6 inches thick. Sydney is the head-quarters of the fleet, and ranks as a first-class naval station, extensive repairing yards and store-houses having been provided for the accommodation of ships of war.

The ships which formed the Australian Auxiliary Squadron are still in Australian waters, and the fleet consists of five fast cruisers and two torpedo gunboats of the Archer (improved type) and Rattlesnake classes of the British Navy. The squadron is commanded by the Admiral on the Australian Station, whose head-quarters are in Sydney, where a residence is provided for him by the

state of New South Wales. The squadron, which arrived in Port Jackson on the 5th September, 1891, consists of the following vessels:-

1	ا و		ter	!		Armament.			Co endu	
Name.	Displacement.	Indicated horse-power.	Draught of water extreme.	Length.	Bean.	Guns.	Torpedo tubes.	Speed.	Coal that can be carried in bunkers.	Distance that can be steamed at 10 knots' speed.
*Katoomba Ringarooma Mildura Wallaroo Tauranga Boomerang Karrakatta	tons. 2,575 2,575 2,575 2,575 2,575 735 735	7,500 7,500 7,500 7,500 7,500 7,500 3,500	ft, in. 17 6 17 6 16 6 17 3 17 6 10 8 10 9	ft. in. 265 0 265 0 265 0 265 0 265 0 230 0	ft. in. 41 0 41 0 41 0 41 0 41 0 27 0 27 0	Eight 4-7 Q.F. guns, eight 3-pr. Q.F. guns, one 7-pr. M.L.R. gun (boat and field), four 4-45-in. 5-barrel Nordenfeldt.  Two 4-7 in. Q.F. guns, four 3-pr. Q.F. guns.	\begin{pmatrix} \\ \ 4 \\ 4 \\ \ 3 \end{pmatrix}	knots. 19·2 19·2 19·2 10·2 16·5 19·0 19·0	tons. 300 300 300 300 300 300 160 160	knots 6,000 6,000 6,000 6,000 2,500 2,500

<sup>\*</sup> Guard ship of reserve.

Q.F.—Quick-firing guns. M.L.R.—Muzzle-loading rifled guns.

The Boomerang and Karrakatta are classed as torpedo gun-boats; all the other vessels are third-class screw cruisers. The hull of each vessel is of steel. The deck armour over machinery space is 2-in. and 1-in., and the conning-towers are protected by 3-inch armour, except in the case of the torpedo gun-boats, the towers of which have 1-in. armour. Each of the cruisers carries four, and each of the torpedo gun-boats three torpedo tubes. In the event of any of the squadron being lost, the vessel is to be replaced by the British Government.

The Commonwealth possesses a number of vessels which are available for harbour defence in Victoria, Queensland, and South Australia. The names and classes of the vessels in Victoria are :-

Name.	Class.	Displace- ment.	Armament.		
	•	tons.			
Cerberus	Armoured turret ship (twin screw).	3,480	Four 10-in. 18-ton M.L.R., six 6-pdr. Q.F., four 1-in. Nordenfeldt—4 barrels.		
Countess of Hope- toun.	First-class steel torpedo boat.	120	Three 14-in. Mark IX R.G.F. torpedoes, and two 2-barrel Nordenfeldt 1-in. M. guns.		
Childers	do do	63	Two 14-in. Fiume torpedoes, and two 1-pdr. Hotchkiss Q.F. guns.		
Nepean	Second-class steel torpedo boat.	12	Two 14-in. Mark IV Fiume torpedoes.		
Lonsdale	do do	12	do do do		
Gordon	Wooden torpedo boat	12 .	Two 14-in, Mark IV Fiume torpedoes three 2-barrel 1-in, Nordenfeldt guns.		

The turret ship Cerberus is in good condition, and it is proposed to re-arm her with modern B.L. guns, in which case the vessel will be an efficient harbour defence.

There are two vessels available for harbour defence in Queensland, and particulars of their armament are shown below:—

Name.	Class.	Displace- ment.	Armament.
Gayundah	Steel gunboat (twin screw)	Tons. 360	One 8-in. B.L., one 6-in. B.L. Armstrong, two 3-pdr. 1\(\frac{1}{2}\)-in. Nordenfeldt, one 1-in. four-barrelled Nordenfeldt, one Maxim.
Paluma	do	360	One 6-in. B.L.; two 5-in.B.L.; two 1\frac{1}{2}-in. Q.F. Nordenfeldts; one 1-in. four-barrelled Nordenfeldt; one 0.45-in five-barrelled Nordenfeldt.

In South Australia one twin-screw steel cruiser, the Protector, of 920 tons, is available. The armament of the Protector consists of one '8-in. 12-ton B.L., five 6-in. 4-ton B.L., and four 3-pdr. Q.F. This vessel has lately seen service in the war with China, and was reported by the Commander-in-Chief of that station to be "an efficient and well-kept man-of-war, reflecting credit on captain, officers, and men." There are also some large arms available in South Australia, comprising two 6-in. 5-ton B.L. guns, intended for use in an auxiliary gun-vessel, and five Gatling machine guns for boat or land service, while in Tasmania there is one torpedo boat with dropping gear for Whitehead torpedoes. New Zealand possesses three Thorneycroft torpedo boats and two steam launches fitted for torpedo work.

## Cost of Defence.

The following table shows the expenditure by the Commonwealth Government on naval and military defence for the year ended 30th June, 1903:—

State.	Amount.	Per head.
	£	s. d.
New South Wales		3 11
Victoria	265,722	4 5
Queensland		44
South Australia	56,062	3 1
Western Australia	33,661	3 1
Tasmania	26,075	2 11
Commonwealth	£767,088	$\overline{4}$ $\overline{0}$

In all the states, with the exception of Western Australia, a certain amount of money has been spent out of loans for purposes of defence. The amounts thus spent during 1902-3 were as follow:—

	£
Queensland	12,931
South Australia	3,393
South Australia	346
Commonwealth	16,670
New Zealand	37,004
Australasia	£53;674

The total loan expenditure in each state for defence purposes to the end of the financial year 1902-3 was as follows:—

State.	Amount.	Per head.
•	£	£. s. d.
New South Wales		1 0 3
Victoria	149,324	$0\ 2\ 4$
Queensland	377,097	0 14 8
South Australia		0 16 0
Tasmania		0 14 7
Commonwealth	2,369,260	0 12 3
New Zealand		0 18 2
Australasia	£3,103,099	0 13 3

<sup>\*</sup> Inclusive of £312,485 for naval station, Port Jackson.

This does not represent the whole cost of the fortifications, as large sums have from time to time been expended from the general revenues of the states in the construction of works of defence; the amount of such payments, however, it is now impossible to determine.

In 1890 a military commission was appointed by the Imperial and the different Australian Governments to take evidence and report on the question of fortifying King George's Sound, Hobart, Thursday Island, and Port Darwin, at the joint expense of the states. The commission visited the points mentioned during 1891, and as a result of the evidence taken fortifications were erected at King George's Sound and Thursday Island, and it is probable that similar works will eventually be erected at Hobart and Port Darwin.