

DEFENCE.

IN all the colonies a small permanent military force, consisting for the most part of artillery and submarine miners, is maintained. The colonists of Australasia have always manifested an objection to the maintenance of a standing army, and a disposition to rely mainly upon the patriotism and valour of the citizens for their own defence; but each colony 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; hence it has been found advisable to institute the small permanent forces alluded to, whose chief duty it is to man the fortifications and keep the valuable armaments therein in a state of efficiency, so as to be ready for any emergency. At the same time, it is expected that they will prove the nucleus for an effective defence force if ever hostilities should unfortunately occur. The greater portion of the Australian forces, however, consists of volunteers enrolled under a system of partial payment, which affords an effective 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, in order to compensate them for loss of wages during the time they are away from their employment for the purpose of receiving military instruction. The remuneration varies in the different colonies, the New South Wales scale being 8s. for each whole-day parade, 4s. for a half-day parade, and 2s. for a night drill. There has been a marked tendency in most of the colonies to discourage the services of those who are purely volunteers, as the system was found to work unsatisfactorily, especially in the country districts. In New Zealand and Western Australia alone is the volunteer system the mainstay of defence.

The following table shows the strength of the military forces maintained by each colony. The figures refer to the end of the year 1894,

with the exception of those for the colony of Victoria, which refer to the 1st July, 1895 :—

Colony	Paid.	Partially Paid.	Unpaid.	Total Forces.
New South Wales.....	635	4,089	840	5,564
Victoria	334	2,917	3,650	6,901
Queensland	130	1,806	1,504	3,440
South Australia.....	22	1,187	824	2,033
Western Australia	36	.....	740	776
Tasmania	14	408	989	1,411
New Zealand	215	.....	4,172	4,387
Australasia.....	1,386	10,407	12,719	24,512

The figures relating to New South Wales, Victoria, Queensland, and Tasmania include the members of the civilian rifle clubs, numbering about 4,500 men. These men are all trained to the use of the rifle and are not unaccustomed to drill, and in time of need will be available to fill the ranks of the regular forces. The members of the rifle clubs of New South Wales, numbering 650 men, were enrolled as a volunteer reserve force in 1895.

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

Staff, and all arms not enumerated	850
Artillery	3,725
Engineers	721
Cavalry	654
Mounted Rifles	2,707
Infantry	15,855

making a total strength, as shown above, of 24,512 men.

In addition to the military forces enumerated, all the colonies, with the exception of Tasmania and Western Australia, have small corps of Naval Volunteer Artillery, or a partially-paid force of a similar character, capable of being employed either as a light artillery land force or on board the local war vessels. In Victoria there was, on the 1st July, 1896, a permanent naval force of 181 men. The strength of the marine forces of the colonies is as follows :—

New South Wales.....	544
Victoria	332
Queensland.....	329
South Australia.....	142
New Zealand	1,271
Australasia.....	2,618

Thus on their present footing the combined forces of all the Australasian colonies are 27,130 strong, and of these nearly 18,000 could be mobilised in any one of the colonies of Queensland, New South Wales,

Victoria, or South Australia. Most of the colonies have also cadet companies, consisting of youths attending the Public Schools, 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 if need be. The cadets have not been enumerated in the figures given.

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 12° N. lat., and along that parallel to 160° 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 the Australasian coast is entrusted to the British ships on the Australian Station and the Australasian Auxiliary Squadron. Sydney, the head-quarters of the fleet, ranks as a first-class naval station, and extensive repairing yards and store-houses have been provided for the accommodation of the ships of war. The vessels of the Imperial fleet are detailed below. The Penguin, Dart, and Waterwitch are engaged in surveying service :—

Name.	Class.	Displacement.	Indicated horse-power.	Draught of water extreme.	Length.	Beam.	Armament.	Speed.	Coal endurance	
							Guns.		Coal that can be carried in bunkers.	Distance that can be steamed at 10 knots' speed.
Orlando..	Twin-screw cruiser, 1st class, armoured.	tons. 5,600	3,500	ft. in. 24	ft. in. 230	ft. in. 0 56	Two 0.2-in. 22-ton B.L.R., 10 6-in. 5-ton B.L.R., 10 Q.F. Hotchkiss, 7 M., 3 L.	18.5	tons. 900	knots. 7,000
Pylades..	Screw cruiser, 3rd class.	1,420	1,400	15	9 200	0 38	Fourteen 5-in. 38-cwt. B.L.R., 8 M., 1 L.M.	13.1	425	6,600
Rapid....	Screw cruiser, 3rd class.	1,420	1,400	15	9 200	0 38	Two 6-in. 4-ton B.L.R., 10 5-in. 38-cwt. B.L.R., 4 M., 1 L.	13.1	425	6,600
Royalist..	Screw cruiser, 3rd class.	1,420	1,510	15	9 200	0 38	Two 6-in. 4-ton B.L.R., 10 5-in. 38-cwt. B.L.R., 4 M., 1 L.	13.1	425	6,600
Lizard ..	Screw gun-boat, 1st class.	715	1,000	13	6 165	0 29	Six 4-in. 25-cwt. B.L.R., 4 M.	12.7	105	2,500
Goldfinch	Screw gun-boat, 1st class.	805	1,200	12	8 165	0 30	Six 4-in. 26-cwt. B.L.R., 2 Q.F. Hotchkiss, 2 M.	13.0	105	..
Ringdove	Screw gun-boat, 1st class.	805	1,200	12	8 165	0 30	Six 4-in. 26-cwt. B.L.R., 2 Q.F. Hotchkiss, 2 M.	13.0	105	..
Penguin..	Screw sloop..	1,130	700	14	0 180	0 38	Two 64-pr. M., 1 L., 2 M.	10.0	200	..
Dart	Screw yacht..	470	200	12	11 133	0 25	2 L.	8.8	70	..
Water- witch.	Screw yacht..	470	250	12	6 140	0 26	2 L.	9.0	64	..

M.L.R., Muzzle-loading rifled guns; Q.F., Quick-firing guns; M., Machine guns; L., Light guns under 15 cwt.; B.L.R., Breech-loading rifled guns.

The hull of the *Orlando* is of steel, and those of the other vessels are of composite materials. The *Orlando* has a 10-inch armoured belt at water-line, with 3-inch armoured deck, and 12-inch conning tower; and in addition to the armament mentioned in the table, she has two torpedo tubes.

As opportunity offers, the Admiral of the Fleet is empowered to grant commissions, for periods not exceeding six months, to officers of the naval forces of the colonies, in order that they may gain some experience of the conditions under which modern naval warfare is practised. Four cadetships and three engineer studentships in the Imperial Navy are given annually to Australian boys, who must not be less than 13 nor more than 14½ years of age.

An undertaking has been entered into by all the colonies for the payment of a *pro rata* subsidy towards the maintenance of an auxiliary fleet. The total subvention to be paid amounts to £126,000 per annum, the contribution of each colony being determined on the basis of population. The distribution of the subsidy in 1895, according to population, was as follows :—

	£
New South Wales	37,961
Victoria	35,767
Queensland	13,503
South Australia	10,690
Western Australia	2,490
Tasmania	4,776
New Zealand	20,813
Australasia.....	£126,000

The fleet consists of five fast cruisers and two torpedo gunboats of the Archer (improved type) and Rattlesnake classes of the British Navy. Three cruisers and one gunboat are continuously kept in commission, and the remainder are held in reserve in Australasian ports, ready for commission whenever circumstances may require their use. The agreement is for a period of ten years, and is then or at the end of any subsequent year terminable, provided two years' notice has been given. The vessels have been built by the British Government, but the Australasian colonies pay the interest on their prime cost to the amount of £35,000, as well as the actual cost of maintenance, which is not to exceed £91,000, making the total sum of £126,000 which is distributed above. On the termination of the agreement the vessels will remain the property of the Imperial Government. The strength of the British fleet in Australian waters before the agreement was entered into is maintained independently of the presence of the Australasian vessels. 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 colony of New South Wales. The squadron, which arrived

in Port Jackson on the 5th September, 1891, consists of the following vessels:—

Name.	Displacement.	Indicated horse-power.	Draught of water extreme.	Length.	Beam.	Armament.		Speed.	Coal endurance.	
						Guns.	Torpedo tubes.		Coal that can be carried in bunkers.	Distance that can be steamed at 10 knots speed.
	tons.		ft. in.	ft. in.	ft. in.			knots.	tons.	knots.
Katoomba	2,575	7,500	16 6	265 0	41 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 Nordenfeldts.	4	16·5	300	6,000
Ringarooma	2,575	7,500	16 6	265 0	41 0		4	16·5	300	6,000
Mildura†	2,575	7,500	16 6	265 0	41 0		4	16·5	300	6,000
Wallerawang	2,575	7,500	16 6	265 0	41 0		4	16·5	300	6,000
Tauranga†	2,575	7,500	16 6	265 0	41 0		4	16·5	300	6,000
Boomerang†	735	4,500	10 6	230 0	27 0	{ Two 4·7 in. Q.F. guns, four 3-pr. Q.F. guns.	5	*18·75	100	2,500
Karrakatta	735	4,500	10 6	230 0	27 0		5	*18·75	100	2,500

* This speed can be increased until, under favourable conditions, for a short period, a maximum of 21 knots can be obtained. Q.F.—Quick-firing guns. † In reserve.

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 gunboats, the towers of which have 1-in. armour.

The only war vessels which the colony of New South Wales possesses are two small torpedo boats, the Acheron and the Avernus, which are manned by the Naval Artillery Volunteers.

Victoria has the following vessels available for harbour defence:—

Name.	Class.	Displacement.	Armament.
		Tons.	
Cerberus	Armoured turret ship (twin screw).	3,480	Four 10-in. M.L.R., four 1-in. Nordenfeldts, 4 barrels; twenty-four Q.F. guns, one 13½-pdr., and one 26-pdr. B.L. gun.
Nelson	Wooden frigate	2,730	Two 7-in. M.L.R., fourteen 64-pdrs., two Gatlings.
Countess of Hopetoun.	First-class steel torpedo boat.	120	Three 14-in. Fiume torpedoes, and two 2-barrel Nordenfeldt M. guns.
Childers	do do ..	63	Three 15-in. and three 14-in. Fiume torpedoes, and two 1-pdr. Hotchkiss Q.F. guns.
Nepean	Second-class steel torpedo boat.	12	Four 14-in. Fiume torpedoes.
Lonsdale	do do ..	12	do do
Gordon	Wooden torpedo boat ..	12	Four 14-in. Fiume torpedoes, three 2-barrel Nordenfeldt guns.
Gannet	Armed steamer (twin screw).	347	One 6-in. R.B.L., two 1-in. Nordenfeldts, 2 barrels.
Commissioner	Wooden steam launch....	40	Spar torpedoes, and dropping gear for two 14-in. R.L. torpedoes.
Customs No. 1....	do do ..	30	do do do

In addition to the vessels mentioned, Victoria in 1895 owned two steel gunboats, the Victoria and the Albert, which it had been decided to sell in consequence of the promulgation of an opinion by the Colonial Defence Committee that where there are complete fixed defences floating defences do not add to the strength of a place, but in most cases even tend to weaken it, by interfering with and limiting the arcs of fire of the battery guns. For this reason the colony also decided to give up the use of the Melbourne Harbour Trust's hopper barges, the Batman and the Fawkner. In 1896 the Government of Western Australia purchased the gunboat Victoria, with the intention of employing it in surveying service.

Queensland has two gunboats, one of which, the Paluma, is usually employed on survey service on the coast of Queensland at the joint expense of the Queensland and British authorities, but the vessel has been lent temporarily to the Imperial Government, and is now in commission as tender to the Orlando. The other gunboat, the Gayundah, was paid off and placed in reserve on the 30th September, 1892. Particulars of the vessels available for the defence of Queensland ports are given below:—

Name.	Class.	Displacement.	Armament.
		Tons.	
Gayundah.....	Steel gunboat (twin screw)	360	One 8-in. B.L. Armstrong, one 6-in. B.L. Armstrong, two 3-pdr. Q.F., 2 M.
Paluma	do ..	360	One 8-in. B.L. Armstrong, one 6-in. B.L. Armstrong, one 3-pdr. Q.F., 2 M.
Otter	Tender (twin screw).....	120	One 64-pounder, M.L.R.
Bonito	Barge (twin screw)	450	One gun.
Stingaree	do	450	One gun.
Pumba	do	450	One gun.
Dolphin	do	450	One gun.
Bream	do	450	One gun.
Midge.....	Steam pinnace .....	....	Two machine guns.
Mosquito	Second-class steel torpedo boat.	....	Two machine guns.

South Australia maintains one twin-screw steel cruiser, the Protector, of 920 tons. The armament of this vessel consists of one 8-in. 11½-ton B.L., seven 6-in. 4-ton B.L., four 3-pdr. Q.F., and five Gatling machine guns. Tasmania owns one torpedo boat; and Western Australia one schooner, the Meda, of 150 tons, employed on survey service at the joint expense of the Imperial and Colonial Governments. Western Australia has also purchased from the Victorian Government the steel gunboat Victoria, for employment in surveying service. New Zealand possesses four Thorneycroft torpedo boats and four steam launches fitted for torpedo work.

COST OF DEFENCE.

Most of the colonies have spent considerable sums in works of defence, and the principal ports are well protected by extensive fortifications, erected by the various Governments at great cost.

The total expenditure from the Consolidated Revenue for defence purposes during 1894-95 was as follows :—

Colony.	Amount.	Per head.
	£	s. d.
New South Wales	272,358	4 5
Victoria	194,020	3 3
Queensland	63,068	2 10
South Australia ..	34,236	1 11
Western Australia	16,128	3 11
Tasmania	12,425	1 7
New Zealand	78,119	2 4
Australasia	670,354	3 3

In all the colonies, with the exception of Western Australia, a certain amount of money has been spent out of loans on works of defence. Victoria, however, for several years has discontinued the expenditure of loan moneys for this service. The amounts thus spent during 1894-95 were as follow :—

	£
New South Wales.....	*48,979
Queensland	2,019
South Australia.....	151
Tasmania	538
New Zealand	2,494

Australasia £54,181

* Inclusive of £33,796 for naval station, Port Jackson.

The total debt incurred by each colony for defence purposes to the end of 1894-95 was as follows :—

Colony.	Amount.	Per head.
	£	s. d.
New South Wales	*1,197,306	19 2
Victoria	98,299	1 8
Queensland	196,124	8 8
South Australia	236,412	13 5
Tasmania	121,301	15 5
New Zealand	877,944	25 6
Australasia	2,727,386	13 1

* Inclusive of £294,395 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 colonies 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 colonies. The commission visited the points mentioned during 1891, and as a result of the evidence taken fortifications have been erected at King George's Sound and Thursday Island, and it is probable that similar works will be begun at Hobart and Port Darwin in the near future. The garrison of the batteries in King George's Sound is supplied by Western Australia, and that colony bore one-fourth of the cost of construction and equipment, the other provinces contributing the remainder on a population basis. The cost of the defences at Thursday Island was shared by the different colonies in proportion to the number of their inhabitants. The forts are maintained under a like arrangement.