

YOUR VIRTUAL VISIT - 43

TO THE AUSTRALIAN ARMY MUSEUM OF WESTERN AUSTRALIA



Throughout 2021, the Virtual Visit series will be continuing to present interesting features from the collection and their background stories.

The Australian Army Museum of Western Australia is now open four days per week, Wednesday through Friday plus Sunday. Current COVID19 protocols including contact tracing and social distancing continue to apply.

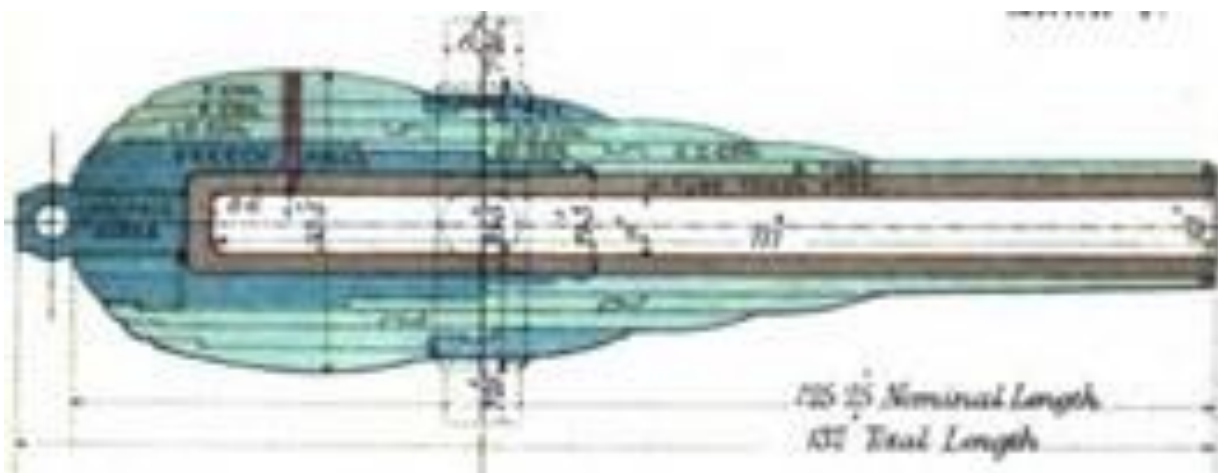
Kings Park Bottle Guns



The Kings Park guns, familiarly known as “bottle guns”, bore the official designation of RML (Rifled Muzzle Loading), 7 inch (calibre) 6.5 ton, Mk 1 guns. They fired a 50.8 kg shell to a range of about 3650 metres.

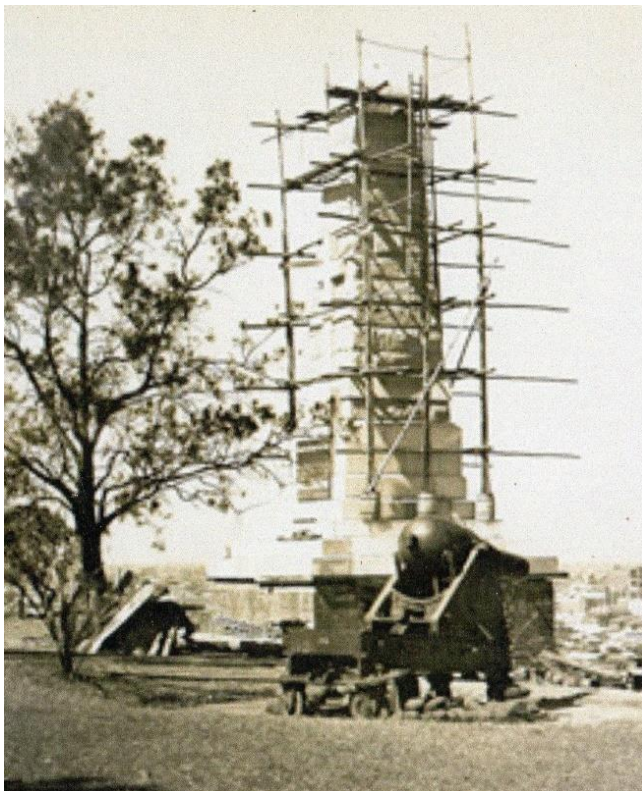
The popular name bottle gun is based on their appearance. Dating from 1866, the two guns were manufactured by the Royal Ordnance Factory in England.

The design was pioneered by Sir William Armstrong and involved a wrought-iron (later mild steel) tube surrounded by a number of wrought-iron strengthening coils shrunk over the inner tube to keep it under compression.



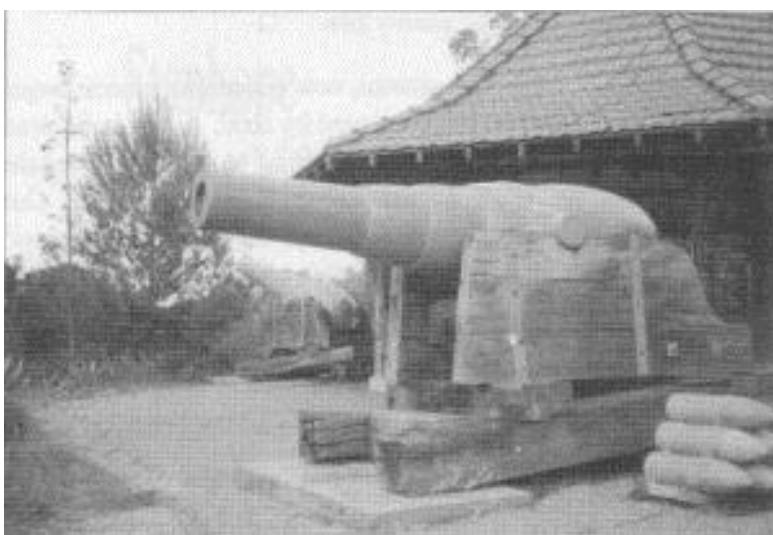
The heavier of the two was placed on a steel mounting for coastal defence and the other had a timber carriage, having originally served onboard HMS *Dreadnought* a wooden first-rate battleship, launched 1857 and scrapped in 1875. Even before the guns arrived onboard the SS *Suffolk* in 1881, they were considered obsolete. They were landed on the beach near Fremantle where they lay undisturbed for a number of years, as colonial financial constraints prevented their being adapted for service use. Finally, they were taken to the Western Australian defence facility at Karrakatta.

It had originally been thought that the guns could be served by a volunteer militia, designated **Fremantle Naval Artillery Volunteers**, which had been raised in 1879 by Lieutenant GA Forsyth. This unit was restricted to ex-Royal Navy personnel and had a strength of 23, rising briefly to 38 in 1884. Exhibits in the Army Museum's **Pre 1914 Gallery** trace the evolution of this Fremantle unit in its coastal and field configurations through weapons, uniforms, and photographs.



In November 1905 the guns were moved to Kings Park, Perth, and mounted at Mount Eliza, overlooking Perth Water. However, in 1932, following the landscaping of the State War Memorial concourse, the guns were sold for scrap and dismantled. The mountings were removed but the guns survived and were buried between the State War Memorial and the first rotunda.

They remained buried until 1966 when after several unsuccessful attempts; they were located in their buried locations using a magnetometer. After excavation, restoration and mounting on timber replica carriages was then undertaken. Successful completion was heralded by the firing of blank charges in a ceremony on 23 February 1969.



In October 2003, after further horticultural developments at Kings Park, the guns were subsequently relocated to HMAS Stirling. They were displayed at the entrance to Garden Island.

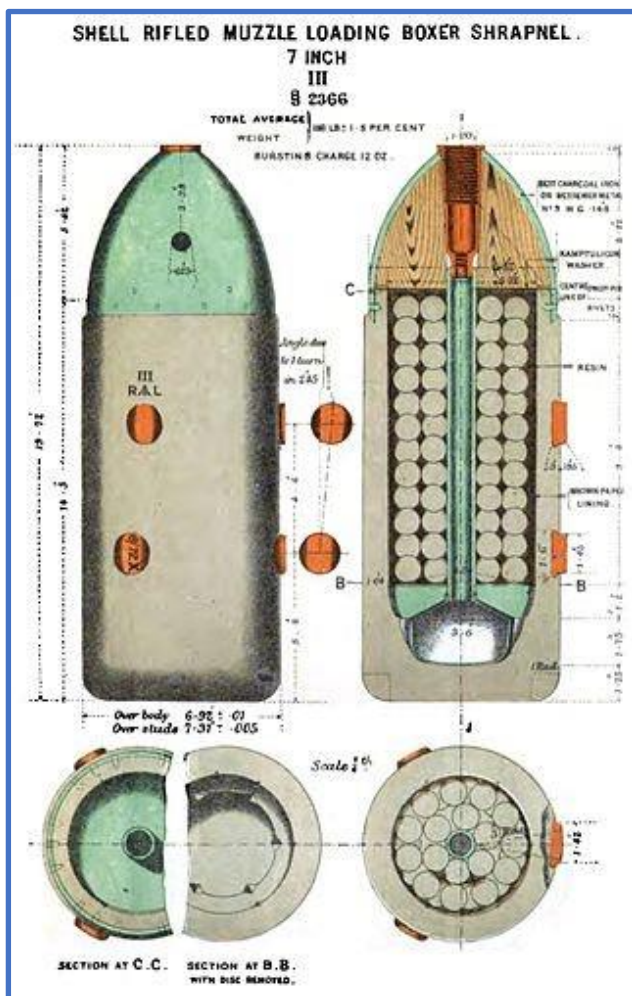
Both weapons have since been sympathetically restored by Navy and occupy prominent positions at the entrance to Fleet Base West. Unfortunately, under current

security regulations public access is limited.



Like that of the Amiens gun at the Australian War Memorial, the carriage, an important part of the technology has not survived. Heritage and technology unappreciated, these components were unfortunately sold for scrap.

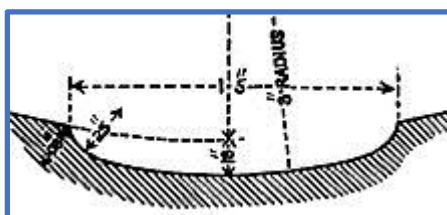
Ammunition and Rifling



The bottle guns fired Palliser pattern shot and used the Woolwich pattern of rifling. Palliser shot was an early British armour-piercing projectile, intended to pierce the armour protection of warships invented by Sir William Palliser in the second half of the 19th century. Bronze studs were installed into the outside of the projectile to engage the rifling grooves in the gun barrel. The base had a hollow pocket necessitated by difficulties in casting large solid projectiles without their cracking when they cooled. The hole at the base was threaded to accept a copper gas check. This prevented propellant gases from blowing around the projectile, providing obturation as the driving band had yet to be perfected. Later designs did away with the studs on the projectile body, with the gas checks being set with grooves to impart spin to the projectile.

Palliser shot in many calibres stayed in service in the armour-piercing role until phased out of British service in 1909 for naval and fortress use, and 1921 for

land service.



Larger types of rifled muzzle-loading guns adopted rifling on the Woolwich principle. The new Woolwich rifling system, a modification of the French system, was adopted in May 1865 with three broad shallow grooves with one turn in 35 calibres.

LINKS FOR FURTHER ENJOYMENT

Visit the Australian Army Museum of Western Australia web site

<https://armymuseumwa.com.au/>

NHS REVIEW Vol 20 No.1 Mar 1999 (Article by Jim Davies & Errol Stevens) *A Companion to the Royal Navy* by David A Thomas (Harrap UK 1988) *Defence PR News Release*

<https://www.navyhistory.org.au/coastal-defence-and-the-kings-park-naval-guns-perth/2/>

<https://www.navyhistory.org.au/coastal-defence-and-the-kings-park-naval-guns-perth/>
http://members.upnaway.com/~obees/soldiers/guns_of_wa/site.html

<https://www.victorianforts.co.uk/index.htm>
<https://www.victorianforts.co.uk/art/7inR1.htm>



<https://www.steppeshillfarmantiques.com/antique-silver/d/victorian-novelty-silver-rifled-muzzle-loading-shell-propelling-pencil/247644>

<https://www.grahamsmithantiques.com/sold-archive-c42/model-coastal-artillery-gun-p1027> Note that the carriage and barrel depicted in this model are facing the wrong way and that on firing the gun recoiled up the inclined plane not down, Correct orientation is as illustrated below.

