for them. .. No guns have yet been mounted in any of the forts, although a large number of rifled-breech-loading Armstrongs have been deposited outside the different forts in anticipation of the time when carriages and other necessary items for getting them into position shall be forthcoming. At Fort Purbrook a counterweight gun-pit on the Moncrieff system has been prepared for one of the guns, and two or three have also been completed at Forts Widley and Wallington, but up to the present none of the pieces of ordnance have been set up in their appointed places.

It also seems that the pace of innovation in the construction of artillery was too much for the Royal Engineers responsible for the adaptation of the forts to receive the new weapons. When Fort Nelson was first constructed the intended armament was the smooth bore muzzle loading 68 pounder. It was to mount thirty guns but positions for 18 only were prepared. In addition the flanks, moat and gorge were to mount forty-eight smaller guns with some 13-inch mortars. From the time the forts were completed there seemed to be countless plans to update and remodel them to take the new armament. In 1881 the Lieutenant General of Artillery and Stores decided to arm one fort at Plymouth and one at Portsmouth with its peace time armament complete. The Generals Commanding selected Fort Widley at Portsmouth and Crownhill Fort at Plymouth.

It was not until the 1890s that forts such as Nelson and Brockhurst received their full complement of guns and could at long last be considered as sufficiently armed. It has often been quoted that the forts were never armed. Armament lists prove this to be a fallacy. The only forts that did not eventually receive their full armaments were those which were declared obsolete.

Some forts such as Nelson never did receive their flank defence 32 pounders for the caponiers as machine guns were eventually perfected that could achieve the same or better defence. The Imperial Defence Loan of 1888 provided funds to complete the magazine arrangements and armament of the remaining forts.

The sea batteries, such as those at Spithead, fared even worse as the engineers struggled to modify casemates that were constructed for much smaller guns than those that were eventually produced and regarded by the military authorities as being essential to combat great advances in the field of warship armament.

By the late 1890s the land forts were considered as having little use in the grand scheme of defence and their armament was largely obsolete, except where they also had a role in Coast Defence. Most of the forts were disarmed by 1908 and had never fired a shot in anger. They had however served the country well as barracks and training establishments especially for the Volunteer Artillery which was to man them in time of war. There is no doubt that the forts guarded our naval ports well and were instrumental in dissuading any foreign nation from invading. Many of the forts remain in military hands.

This extract is taken from
'**Arming the Forts'**
by David Moore.

Arming the Forts : David Moore

ARMING THE FORTS

In 1859 a Royal Commission was set up to Consider the Defences of the United Kingdom. Its recommendations resulted in a fortification programme that involved one of the largest ever expenditure of defence funds. The major harbours and Royal Dockyards of the UK, including Portsmouth, Plymouth, Pembroke, Dover, Cork, the approaches to Chatham and the Medway, were fortified with land forts and sea batteries of the latest design. In addition some lesser harbours, such as Newhaven, were also defended by forts and batteries. The most important harbours of Portsmouth, Plymouth and Milford Haven were defended by the largest concentration of land forts forming ring fortresses.

The Commission had to consider how these forts were to be manned, and more importantly in terms of expenditure, how they were to be armed. The Commission interviewed many specialists including artillery officers whose opinions shaped their response on the subject of armament. The most significant influence was the advent of the rifled gun. Its superior range resulted in the obsolescence of existing defensive lines, such as the old town lines of Gosport and Portsmouth. The new forts were to take the form of polygons in which the main armament was distinct from that mounted for local and flank defence. This new 'system' named after one utilised on the continent, the 'Prussian system', employed lines of forts that were self contained but mutually supportive, each one in the line providing flanking fire for those adjacent to it.

The armament was classified under three headings:-

- The guns on the main ramparts were the long range weapons required to keep the enemy well to the distance.
- The guns on the flanks provided a crossfire across the intervals between the forts and also fired across the faces of adjoining forts.
- The guns in the caponiers fired along the ditches of the forts to provide local defence.

At the time that the Commission was formed, some forts were already proposed or under construction, such as the Gosport Advanced Lines of Forts Grange, Rowner and Brockhurst and Forts Scraesdon and Tregantle at Plymouth. They were to be armed with a mixture of smooth bore guns and mortars including the 32 and 68 pounder S.B. the 8-inch shell gun and the 13-inch mortar.

William Armstrong, later Sir William, was called by the Commission to explain the possible impact of his new Rifled Breech Loading guns on the construction of the forts. The Commission considered this gun to have great potential and they believed that the 7-inch R.B.L. would become the standard artillery piece for land front forts. It had already been tried by the Royal Navy and H.M.S. Warrior was fitted with the 110 pounder version.

The standard procedure for introducing new guns into the defences so that maximum firepower and efficiency could be obtained was to mount the newest ones in the forts as the main armament. These would be operated continuously under fire and would be manned by permanent, well trained crews. As they were already in position they would be sufficient to repel a surprise attack.
Obsolescent guns would be stored in the forts and used to supplement the main armament when an attack was likely and warning was given. In some instances a small number of these would be mounted to supplement the main armament. Unmounted ones would need mounting and some facility for doing this was required. Other more obsolescent guns were to be kept in arsenals near to the fronts. These would be mounted if the war was to last more that a few weeks. As new guns were introduced they would replace the most up-to-date guns already mounted and each type of gun would pass through the three stages above. The navy always had priority, receiving the latest guns before the forts did.

The forts were slow be completed and even slower to receive their intended armament. The Hampshire Telegraph of 8th. April 1882 reports

'*The nominal date for the commencement of the fortifications was about 1861, but no real progress was made with the building until about four years later. Indeed the works cannot be said to be even now completed as year by year grants are asked*

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