



CANNON RESEARCH & PROJECTS

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NEWSLETTER No. 14 - Sept. 2005

A service to the muzzle loading cannon enthusiast

MY WONDERFUL WORLD-WIDE BLUNDER

I apologise to the e-mail recipients for my distribution blunder with newsletter 13. I placed the batch recipients in the TO panel instead of in the BCC panel and some replies to me went to the whole batch. By world-wide blunder I mean it literally, by what other means can one do something wrong in the USA, UK, Thailand, China, Japan, Australia, New Zealand, the Netherlands, France, Sweden, Switzerland, Spain, Portugal and Norway at the push of a button? I think I shall fall on my sword!

ARMSTRONG Vs ARMSTRONG

Two men, of the same surname, but separated by 125 years, each made a significant contribution to the development of English ordnance. The mention of "Armstrong pattern guns" can mean very different things to different people and this has frequently led to confusion.

COLONEL JOHN ARMSTRONG was Surveyor General of the Ordnance from 1722 until 1742. In 1725 Col Armstrong brought some order to the ordnance by specifying and regulating the calibres, lengths, pattern and weights of His Majesty's ordnance. This pattern of gun remained, with occasional slight modifications, the standard English ordnance until Thomas Blomefield's pattern was adopted in 1787. Armstrong's guns were still in service well into the 1800's.

SIR WILLIAM G. ARMSTRONG of the Elswick Ordnance Company, Newcastle-Upon-Tyne, was one of the earliest developers of rifled and breech loading guns from C.1850. Most notable among Sir William's developments were the large calibre muzzle loading coastal and siege guns which were developed in time to have great influence on both the Crimean War and the American Civil War.

GUNPOWDER TESTING

The consistency and reliability of gunpowder was frequently tested by means of various ingenious devices. The consistency of gunpowder in terms of decay over time through component separation, dampness or contamination was important to the reliability and accuracy of muzzle loading cannon. Here the term accuracy is used as it was understood perhaps 200 years ago and not by modern standards.

Gunpowder that had decayed would burn more slowly, reducing the chamber pressure and thus the expected range and striking power on the target. Gunpowder that had become damp and subsequently dried out again would still perform well, but when damp many grains would fuse together and then dry as larger grains or lumps. The change of grain size also affected the performance of the powder in the chamber.

Two basic tests were carried out on gunpowder in order to determine if it would perform to the expected specification. The first was a burn test and the second a recoil test.

BURN TEST (Rate of burning) The burn test consisted of a long plank into the length of which was cut a "V" shaped groove. Gunpowder was trickled into the groove and the remainder scraped off the top in order to leave just the groove filled with powder. The powder was ignited at one end and the time taken to burn the length of the plank indicated the rate of burn. Accurate time pieces were scarce and this test was most often conducted with two planks, and the powder being tested in one was compared with gunpowder of a known quality in the other.

THE EPROUVETTE TEST (Power of gunpowder) Eprouvettes took many forms, but most consisted of some form of gun which was suspended on a pendulum. When fired the gun and pendulum would recoil along a fixed arc which was graduated. Some eprouvettes were captured and held at the rearmost extremity of recoil so that the reading could be taken accurately, others pushed a marker or

a pen which then marked the extremity of the recoil. In such an eprouvette the power of gunpowder could be compared with a known sample, or with previous results.

In some cases a small gun or mortar was placed at a fixed elevation and the range achieved by a carefully measured charge would indicate the condition of the powder.

THE OWNERSHIP OF MUZZLE LOADING CANNON

Genuine antique muzzle loading (ML) cannon, by virtue of their age, and sometimes of their history, are considered items of importance to the national and military heritage of South Africa. Those guns which are placed at historical sites and in memorial parks are particularly valuable to the nation, not only for their intrinsic value, but for their symbolism in respect of whatever conflict or sacrifice they commemorate. These items are protected by law.

The owner, be it a state institution, historical organisation or private individual, is directly responsible for the safety and preservation of any gun which is regarded as a heritage item, and any artefact that has been in this country for a hundred years is regarded as a heritage item. The loss, damage or export of such items is an offence in legal terms and an insult to the men who served the guns.

The South African Heritage Resources Agency (SAHRA) was brought into being as the state agency responsible for the control and administration of all heritage items, including the guns. Unfortunately SAHRA appears to have a focus which does not extend to the 900 odd cannon strewn around the country. The preservation of antique and rare guns thus becomes the responsibility of individual enthusiasts.

The responsible owner of such a gun should regard himself as the custodian of a national heritage item, and not merely the owner of an old gun. There are many cases in South Africa where guns are better preserved and maintained by private individuals than they are by those organisations from which one would expect better. There are historical and rare guns standing in front of, beside, and behind state and municipal buildings all around the country, which are rotting away in all kinds of weather without the slightest attempt being made to preserve them.

There are several cases where individuals have interceded between elements of corruption and scrap metal merchants to rescue guns before they were melted down and exported, only to return next year as the latest model Japanese car. Had it not been for "Moose" van Rensburg in Fort Beaufort and Zane Palmer in Port Elizabeth, acting on a rumour, the two very rare and historic guns outside the East London City Hall would have been lost forever. This incident is far from unique, the writer can name sixteen individuals who have saved twenty eight guns in the nick of time by buying them back from scrap yards. It is pleasing to be able to add that these guns have been mounted, are maintained, and their future has been ensured by their new owners.

THE BEZUIDENHOUT CANNON (794)

In May 1842 a British force commanded by Capt. TC Smith landed in Port Natal (Durban) in order to annex the area for Britain. The pioneer settlers in the area, who had fled the Cape to escape British rule, decided to resist this invasion of their homeland and they besieged the British forces in the port.

There were frequent exchanges of cannon fire between the two forces and several armed skirmishing sorties undertaken by the British over the following few weeks. It was during this siege that Dick King made his famous ride to summon assistance.

During one of the settler raids on a British post on the perimeter of the camp the settlers temporarily drove the defenders off. During this brief incursion into the British lines one of the settlers, Daniel Bezuidenhout, noticed a cannon on a small ships carriage, which he realised would be of great value to the settlers. Bezuidenhout unclipped the lynch pins, flipped up the capsquares and lifted the gun from its carriage. He then carried the 82 kg gun back to the settler laager.

The gun (Durr 794) is of Swedish manufacture as it has the "EB" markings on one trunnion end. This is the mark of the Ehrendahl foundry who manufactured many small civil guns. The "B" stands for "Bruk" and means "manufactured". The date of casting, "1803" is on the other trunnion end.

In terms of the peace settlement signed on 15 July 1842, the settlers returned to the British several guns and other equipment which they had captured. The cannon captured by Bezuidenhout was not returned as he claimed it as personal property and it was thus not subject to the negotiations between the two belligerents.

Bezuidenhout and his cannon, with family in tow, moved to the Free State when Natal became a British colony. The gun was apparently used in one or two local skirmishes in the Free State between

1843 and 1860 after which Bezuidenhout again moved to the Belfast area in the Transvaal. In 1883 Bezuidenhout sold the gun to a consortium who backed the Blood River commemorations. The gun was fired annually on the Day of the Vow (16 December) until C. 1900.

The gun is still at the Belfast Academy where it, and its history, are being well preserved.

TYPES OF FIRE

The classic case of a cannon ball striking the side of a ship or exploding among the cavalry has been drummed into us by traditional depictions of a battle involving cannon. There were several tactical uses of cannon and their different types of ammunition, some are well known, but others are quite surprising.

DIRECT FIRE was an offensive action by the bombardment of an enemy stronghold or ship in order to breach the defensive walls or to damage the ship sufficiently to bring about her surrender. Surprisingly few ships were actually sunk by gunfire, it was her inability to manoeuvre or to fight that precipitated a surrender.

INDIRECT FIRE was normally done by mortars and howitzers to provide a plunging fire into strongholds, as a defensive weapon against advancing infantry and cavalry or, in very few cases, onto ships. The ammunition used was normally explosive round shell or incendiary carcass, a metal banded sphere filled with a highly combustible mixture of fine gunpowder, pitch, shavings of horn, turpentine, tallow, linseed oil and broken glass. Why broken glass? - I have no idea!

RICOCHET FIRE was normally employed by field artillery on level ground and against infantry, cavalry and other soft targets. A round shot was fired at a very low trajectory and it skipped across the battlefield mowing down anything that was in the way. The buzzing "whoosh" of the shot passing also had a detrimental psychological effect on the intended target.

GRAPE AND CANISTER FIRE was employed as a defensive measure by field artillery as a last attempt to stop or destroy an advancing enemy. Aboard ships it was used at very close quarters to attack the exposed men on the enemy ship.

ANTI-RIGGING FIRE was the employment of a wide range of expanding shot by a ship to damage or destroy the masts and rigging of an enemy ship. The aiming of a ship's guns depended heavily upon the ability of the ship to manoeuvre, and without masts and rigging she was a sitting duck. The ammunition thus employed included bar shot, two shot connected by a square iron bar about 30 cm long, chain shot, two shot joined by a length of chain and a bewildering assortment of lesser known expanding shot.

HOT SHOT was the firing of red hot cannon balls at, or into combustible targets. In the Cape Peninsula there were eleven specially constructed ovens at various coastal defence batteries specially for this purpose. Special tongs were used to lift, carry and load the heated shot into the gun. Needless to say the gun had to be fired immediately before the hot shot caused its own firing. The red hot shot would ignite any flammable substance such as gunpowder, oils or cloth and if it became lodged in wood it had sufficient residual heat to ignite the wood.

HOUT BAY DOES IT AGAIN

I am pleased to report that the Bastille Day firing on 14 July was a great success. A French naval gun crew ran out the gun, the French flag flew from the mast, the Navy Band played the French Anthem and a French Admiral fired the gun. I hear that the wine that followed was South African.

Hout Bay, aided and abetted by Dave Cowley and a first class gun crew, have demonstrated how operational cannon can be used to build closer international ties, celebrate across language and cultural divides and draw attention to their ever growing activities which are attracting tourists and day-trippers to their community. A formula of initiative, diligence and perseverance worth emulating !

GUNSMOKE

The Dutch 6 pounder (Durr 390) at Durbanville Hills Wine Farm and the 8 pounder (Durr 462) at Hoogelegen also in Durbanville were successfully proof fired in August. These two guns will participate in the firing on 6 January to call the Burghers to arms again exactly as they did in January 1806 prior to the Battle of Blouberg.

CANNON FOR MELKBOSCHSTRAND

A group of businessmen resident in Melkboschstrand approached me about 18 months ago for a cannon which could be placed near the site where the English landed during their invasion on 6 January 1806. I am pleased to report that it took very little persuasion by myself to convince the Stellenbosch Commando Unit to donate an 8 pdr Dutch gun which was standing on a rather decrepit carriage at their HQ. The group have also contracted me to build a standing carriage for the gun which they intend placing on some form of pedestal at one of the oldest buildings in the area. The gun will serve as a memorial to those who participated and, in particular those who died in the Battle of Blouberg which followed their landing.

RE-ENACTMENT OF THE BATTLE OF BLOUBERG

We are still determined to provide some form of dramatic re-enactment of the Battle of Blouberg on the bi-centenary on 7 January 2006, less than 4 months away. The display will be much smaller and less ambitious than was originally planned, but to do nothing is not considered an option.

We already have seven guns which are small enough to be transported and are in firing order and have been proof fired ready for the occasion. We are inviting some visiting guns and gunners from Port Elizabeth, Grahamstown and Fort Beaufort to participate.

We are also inviting the Black Powder Club to bring along their colourful uniforms, their tricorne hats and muskets so that they can add to the general confusion and the fog of battle.

We have approached the owners of a suitably flat and accessible field in the Melkboschstrand area for permission to conduct our noisy manoeuvres there. The area is suitable from a public accessibility, parking and amenities point of view.

We estimate that the entire operation will cost several thousand Rand, and we already have R 8.00 in the fund and a pledge for a further R3.00. Yes ! We have a long way to go.

CANNON FELLOWSHIP LAUNCH

Jon Hall, Ian van Oordt and I launched the Cannon Association of South Africa on 23 August and the applications for membership and letters of support are streaming in. We are confident that we can provide an interesting and useful set of benefits to members. Once we have sufficient members we will hold the inaugural general meeting at which we will finalise the constitution and objectives of the organisation. Members in places distant from Cape Town will be asked to make their voices heard via e-mail.

If you have not yet received a letter and application form for this fellowship, please let me know. I want to be sure that if I do not hear from you, it is because you are ignoring me, and not because you did not know what was going on.

INFLATION

Gunpowder bought from City Guns in Cape Town cost R190 per kilo in May 2005. Gunpowder from the same source cost R443,36 per kilo on 2 August 2005. At this rate gunpowder will soon be listed among platinum, gold, silver and, probably crude oil. Happy days !

Gerry de Vries : Researcher to the Durr Record of Cannon in SA

: Acting Secretary to the Cannon Assn. of SA.