

ROYAL NAVAL LONGARMS 1700-1870

Part-Two

by D. W. Bailey

The French Wars, 1793-1815

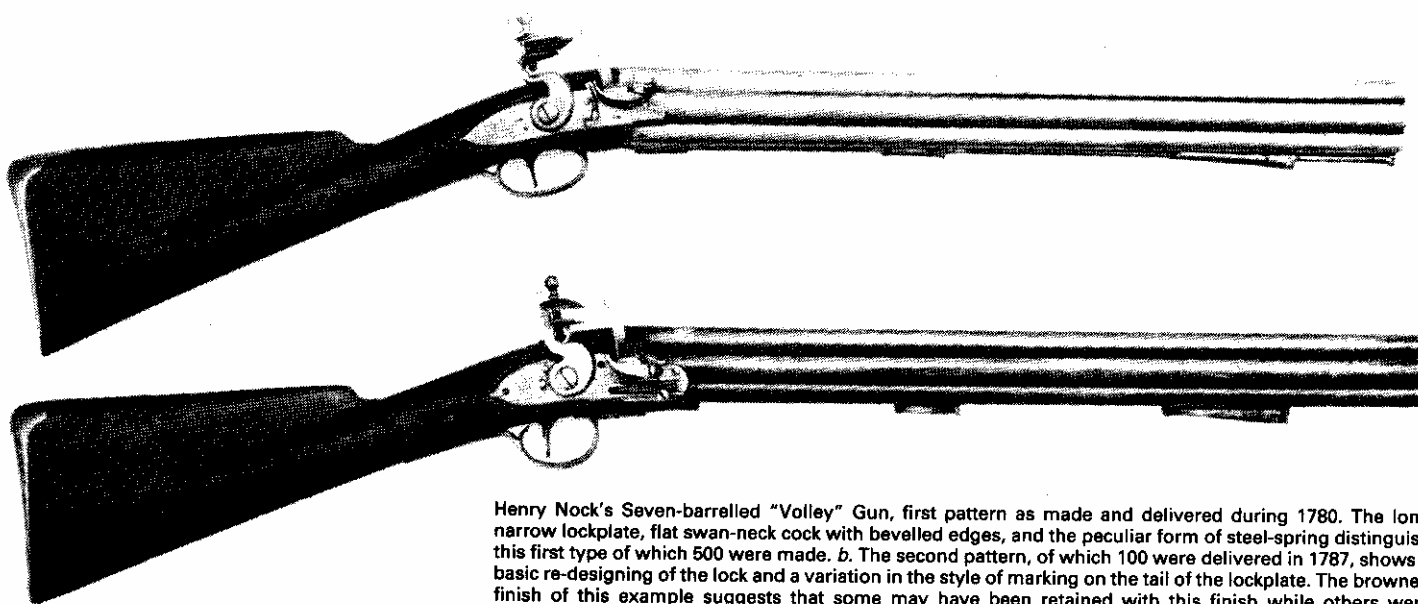
ONE OF THE most remarkable features of naval longarms during the twenty-three years of the French Wars is that not until the closing years is there any clear evidence of a reduction in quality or of a change in design. This is in marked contrast to Land Service arms, but it is only fair to observe that the majority of these went to foreign allied troops and were not served out to the numerically small British Army. Not until about 1805, clearly following the Battle of Trafalgar, were Sea Service Muskets noticeably different from earlier types. Even then it is clear that such variant muskets as were issued were considered in the same light by the Ordnance as were the India Pattern Muskets served out to the Army — temporary expedients not acceptable under normal circumstances.

It must be made clear, and repetition is no bad thing in situations of this sort, that sharply defined types of arms were normally in the hands of troops for several years after the technical adoption of a new pattern or a variation. Changes were made basically on the pre-determined service life of a certain arm, and the British musket of our period was established as having a life of twelve years. Therefore, if the musket in possession of a given unit — be it company, battalion or regiment — was in sound working order the year following the introduction of some new type of variation, these muskets would not normally be replaced for another eleven years. Circumstances which might alter this situation would include the unit's being sent on some special duty where the new type would be of particular value; loss of arms in battle or shipwreck by a significant part of a unit; posting of a unit to some area for an expected long duration, when re-equipment with new arms would lengthen the overall efficiency of the unit. But the Ordnance were loath to part with newly-made arms and kept them in Store as long as it was possible to make replacements from circulating stocks. Weapons which had received little use, or which had been kept in an excellent state of repair, were retained

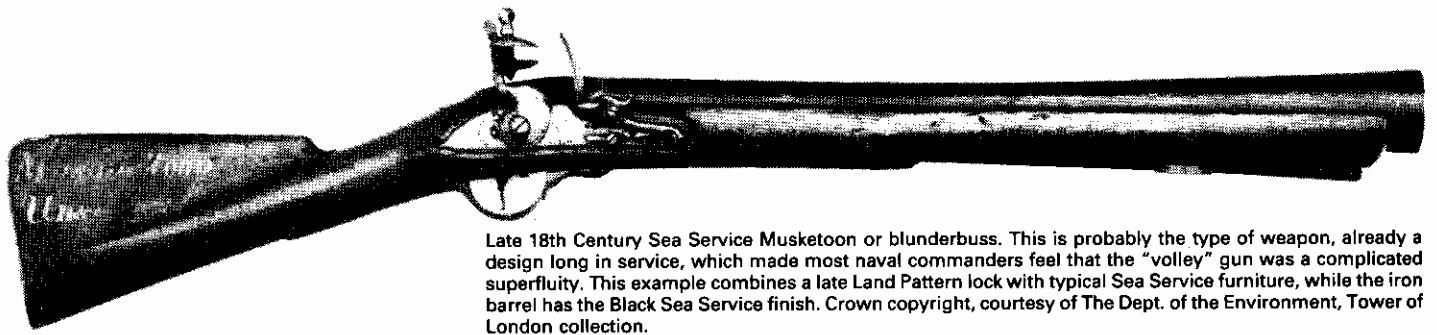
in service long after their nominal service life had expired — hence the Nock Heavy Dragoon Carbines of some units were still in issue in the early 1830s. Life at sea and exposure to salt air and constant damp, not to mention the rough handling arms would normally have received in use by sailors, obviously took a far higher toll of Sea Service arms within the period of their service life, but exceptions would have been found in ships serving for long periods in English ports and quiet stations. Service in India or the East or West Indies would have accelerated normal deterioration.

Some idea of the amount of actual combat use seen by naval small arms may be gained — very approximately — through a consideration that, between 1690 and 1800 (i.e. about 40,150 days) there were 227 sea battles involving more than single-ship actions, plus 70 shore battles. This does not include smaller actions, cutting-out expeditions, operations against smugglers and privateers, or punitive expeditions. During the years 1800 to 1815 (i.e. about 5,840 days) there were 142 sea battles of all sorts and 99 coastal operations. On virtually every occasion small arms would have been used, and in a great many instances only small arms.

No discussion of 18th Century naval small arms would be complete without a mention of the ill-fated Nock's Seven Barrel Gun, or volley gun. Unfortunately, from the historical aspect a mention is all that can be made for, like its near-contemporary the Ferguson rifle, the volley gun made very little impression in its intended field of application. Designed in 1779 by an otherwise unknown James Wilson as a rifled piece, it passed the Board of Ordnance trials and was recommended for naval use but only as a smoothbore arm. As a result only two pattern examples were made with rifled barrels and the entire production of service arms, by Henry Nock were smoothbored. Of the first pattern delivered during 1780 there were 500, and of a second type made during 1787, only 100. The first pattern (Fig. 1a) have a swan-neck cock, and have the steel-spring formed in the manner common to many Queen Anne screw-barrel pistols, with one arm of the spring running vertically upwards just ahead of the cock, and then curving forward and running along beneath the pan. The second pattern (Fig. 1b) was made with a ring-neck cock and the steel spring of conventional design but mounted in reverse to the usual method, with the open end facing forward. The lockplate of the later pattern was shorter than the earlier type, and the pan was mounted lower and more alongside the barrel group. Both patterns have 20 in. barrels of about .52 calibre, and with an overall length of 37 in. and a weight of 12 lb., they must have been an even more cumbersome weapon to manoeuvre than the contemporary blunderbuss. Although many of the complaints levelled against the arms, including excessive recoil, slowness in loading, and unhandiness seem justified when they are compared to other small arms of the period, yet it is difficult to escape the conclusion that the chief reasons for their lack of popularity were



Henry Nock's Seven-barrelled "Volley" Gun, first pattern as made and delivered during 1780. The long narrow lockplate, flat swan-neck cock with bevelled edges, and the peculiar form of steel-spring distinguish this first type of which 500 were made. *b.* The second pattern, of which 100 were delivered in 1787, shows a basic re-designing of the lock and a variation in the style of marking on the tail of the lockplate. The browned finish of this example suggests that some may have been retained with this finish while others were scrubbed bright, giving the two types of naval finish common on other Sea Service arms. In total, 655 "volley" guns were delivered, but it is not clear in which pattern the odd 55 were made. Crown copyright, courtesy of The Dept. of the Environment, Tower of London collection.



Late 18th Century Sea Service Musketoon or blunderbuss. This is probably the type of weapon, already a design long in service, which made most naval commanders feel that the "volley" gun was a complicated superfluity. This example combines a late Land Pattern lock with typical Sea Service furniture, while the iron barrel has the Black Sea Service finish. Crown copyright, courtesy of The Dept. of the Environment, Tower of London collection.

but two: they were an innovation, and they were unnecessary — the same two factors which put paid to the Ferguson breech loader. There is only one confirmed evidence of their use, and that is that they were carried by Lord Howe's fleet which sailed to the relief of the Siege of Gibraltar in September-October of 1782, and Howe's fleet saw no action during the cruise. The arms were returned to Store upon the fleet's return to Portsmouth, and the last mention of them in the Ordnance records occurs in 1791. It seems probable that some at least remained in issue after this time, but that they had fallen into disuse before Trafalgar. In any case, Admiral Lord Nelson's views on shipboard fires would have precluded their use in his ships: there was no firing at all from the fighting-tops of HMS Victory on the fatal day.

During the most active part of the naval wars against France and Spain — down to 1805 — the Sea Service Musket was of the type evolved by the 1780s (see Part 1, Fig. 3c) which in turn was not much changed from that of the 1740s with the notable exception of the lock design and the sideplate. The lock was now the standard Short Land Pattern (Fig. 3) and the sideplate was that of the Marine or Militia Musket, flat and flush with the surface of the wood but of the Short Land outline. The modifications introduced from 1752 involving the addition of sling swivels and cutting away the fore-end to allow for fixing a socket bayonet are now part of the standard design. After 1809 this same musket is fitted with the ring-neck cock adopted at the same time for the India Pattern Muskets of the land services and marines. There were no further changes to the Sea Service Musket during this period. Fig. 4 shows a typical Sea Service Musket of the post 1809 wartime years.

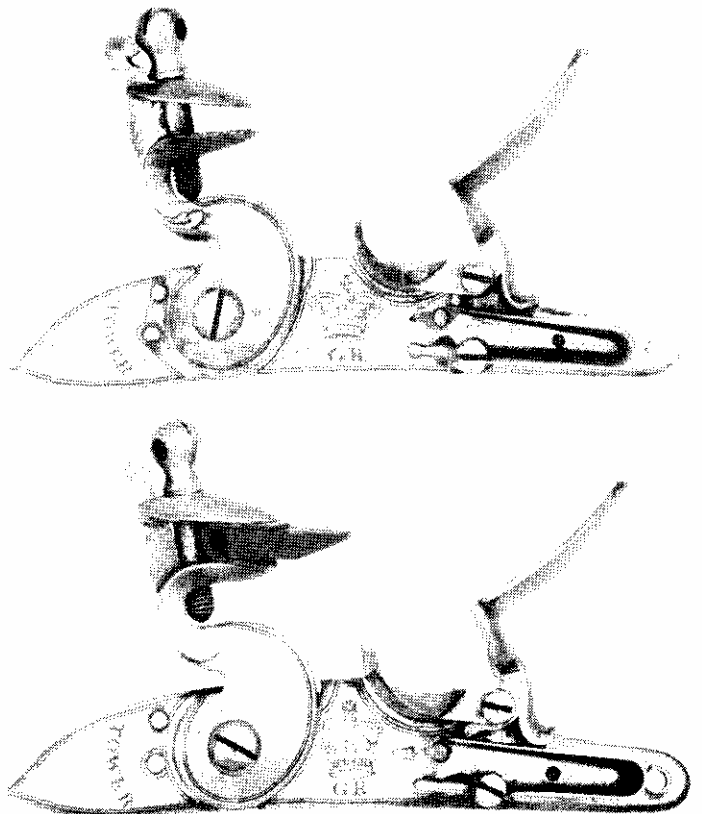
There is no conclusive evidence to suggest a distinctive arming of the Royal Marines during these years, but it is generally assumed that once their Marine or Militia Muskets had been withdrawn at the end of their service life, they were replaced with Short Land Pattern Muskets and later with India Pattern Muskets.

Thus far in the development of sea service arms, the evolution has been comparatively definite and clear-cut — as much so as any British arms development in the 18th Century can be. For the period from the later years of the Napoleonic Wars until the adoption of the P/39 percussion Sea Service Musket the story becomes most unclear and indeed somewhat speculative. There are two closely connected basic reasons for this change: a relative relaxing of the pressure on the Navy during the later war years, with a corresponding decline in urgency on the part of the supply system of the Ordnance, and subsequently the introduction of peacetime economic measures. Both had the same result so far as our story is concerned: the introduction of expedients.

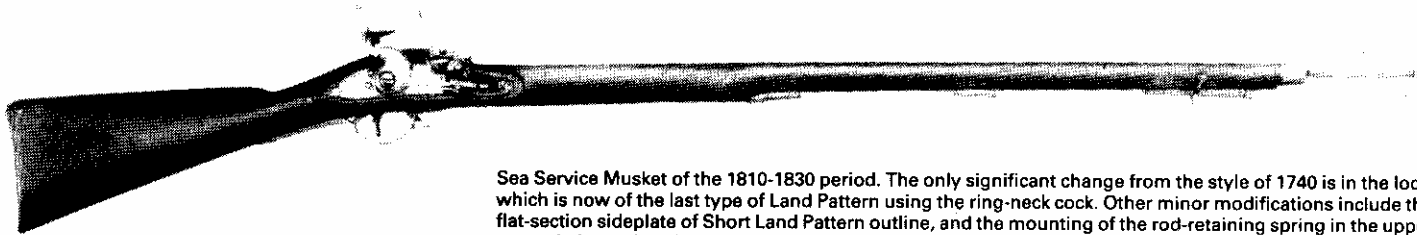
The first in a series of expedients is shown in Fig. 5. It is not clear whether this musket appeared during the 1810-1815 period, or just at the close of the war, or whether in fact it may have appeared in the immediate post-war years. It is basically a cut-down pre-1810 India Pattern Musket having modifications which are directly associated with Sea Service Muskets. These include the shortening of the barrel to 36½ in. and a corresponding shortening of the fore-end to suit the fixing of the socket bayonet, the correct re-location of the bayonet stud on the top of the barrel, and the riveting of a rod-retaining spring inside the tailpipe. A New Land Pattern fore-end cap has been fitted, but there is no alteration in the positioning of the ramrod pipes. The use of a New Land Pattern element suggests that these muskets may have been fabricated just at the end of the war when production of New Land Pattern arms was beginning to replace that of earlier types. This variant has been noted in both black and bright finishes, suggesting a reasonable production, and it seems probable that they remained in issue concurrently with earlier types well into the post-war period.

The Post-War Years, 1815-c.1830

The close of the French Wars in 1815 affected the Royal Navy far more than the land services, primarily because the numbers in the Army had never been as large as those in the Navy in terms of British subjects. The eagerness of the politicians to drastically cut back military expenditure of all sorts after twenty-five years of supporting a huge Navy, expeditionary forces and numerous allied armies and governments on the Continent can hardly be wondered at. But for the armed forces a long period of half-pay and begging in the streets was about to begin. The Navy was reduced from a force of 99 ships of the line and 495 cruisers (plus smaller vessels) manned by 130,000 men and 31,400 marines in 1813, to 13 ships of the line and a total of 89 other vessels manned by a total of 23,000 men by 1817. And it was during this period that the last orders for military arms were completed by the London and Birmingham



a. The Short Land Pattern Lock of the type adopted for the Sea Service Musket during the mid-1760s. Note that on this earlier style the comb of the cock curls inwards, and the floral design at the throat. The broad, flattened pattern of the Crown in the Royal Cypher is also typical of the earlier period. b. A later version of the Land Pattern lock with much plainer comb to the cock, no floral sprig at the throat, and with the Crown grown taller and narrower. The word TOWER appears to be stamped rather than engraved. This style appeared in the 1780s and continued in use until the introduction of the ring-neck cock in 1809. Crown copyright, courtesy of The Dept. of the Environment, Tower of London collection.



Sea Service Musket of the 1810-1830 period. The only significant change from the style of 1740 is in the lock, which is now of the last type of Land Pattern using the ring-neck cock. Other minor modifications include the flat-section sideplate of Short Land Pattern outline, and the mounting of the rod-retaining spring in the upper ramrod pipe rather than the lower. This is a particularly fine example of England's wartime production, the stockwork, inletting and finishing being of excellent quality throughout. Crown copyright, courtesy of The Dept. of the Environment, Tower of London collection.

gun trades prior to the general revival of production consequent upon the experimentation with, and introduction of, the percussion ignition system.

Several fragments of documentary evidence from 1817, 1829 and 1830 suggest what the state of affairs was generally with regard to military arms production, and fortunately with some specific reference to sea service arms. It is generally agreed by contemporary writers, both official and unofficial, that no government orders for military arms were given to the gun trade from the completion of an order for 84,507 New Land Pattern arms in August, 1817, until at least 1829-30 when percussion experiments got under way. In the Third Report of the Select Committee on Finance, 1817, we find the following statement of arms then in Store:

Musquets in good order:	743,000
ditto, repairable	75,000
	<hr/> 818,000

along with 14,000 rifles and 36,000 carbines. What these figures unfortunately do not tell us is what percentages of the muskets are Sea Service. Fig. 6 shows a musket of Sea Service dimensions and style, built very largely from New Land Pattern parts including a New Land Pattern stock, but using an older form of India Pattern lock, and a modified India Pattern barrel. This particular combination of components seems to fit in very well with the period 1814-1817 when the last order for New Land Pattern arms was completed, and I strongly suggest that this New Land Pattern Sea Service Musket dates from this period. To use up existing stocks of India Pattern barrels and locks while setting them up with current furniture of the style then in production makes sense for a Sea Service arm; the barrel length was unlike any of the new pattern arms, and India Pattern barrels were plentiful, as were locks. The India Pattern lock is more robust in design and construction than the New Land Pattern, whose refinements would be superfluous on a Sea Service arm. The musket shown is fully as well finished as other New Land Pattern arms. The ramrod and fore-end cap, as also the tailpipe (which has a rod-retaining spring riveted inside it) are of the India Pattern. The barrel tang has had its corners rounded off to conform to New Land Pattern design. It may well have been that this was to be the official successor to the Sea Service Musket shown in Fig. 4, but the cessation of all new production military arms after 1817 suggests that only a single group of these arms were ever produced, within the overall contract for 84,500 New Land Pattern muskets.

The controversy over the utility of establishing a large-scale Governmental arms factory as opposed to relying upon the Birmingham and London gun trades, brought out two particularly interesting pieces of evidence relating to the fabrication of Sea Service arms during the post-1815 years. A statement of the

activities and expenditure of the Royal Small Arms Factory at Enfield Lock during fiscal 1829 reveals:

"Musquets for sea-service, made out of old land-service, repaired, barrels cut, looped and ground, locks repaired, hardened and polished, the whole made off as new 494 at 6/6 each."

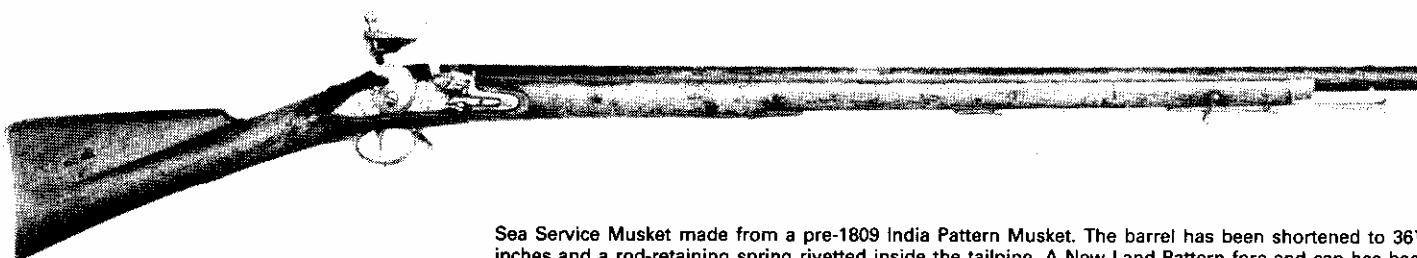
Unfortunately the Return for 1829 is the only one which appears to have been printed, and this was undoubtedly due to the demand for figures created by the controversy. The musket described could well be one such as shown in Fig. 5 and production — or rather fabrication — of this style may indeed post-date the New Land Pattern Sea Service Musket.

The second item of interest is a statement made before Parliament in 1830 by Sir Henry Hardinge, who had been Clerk of the Ordnance from 1823 to 1827. Speaking of the deliberate policy of the Government of not interfering with the private gun trade he stated:

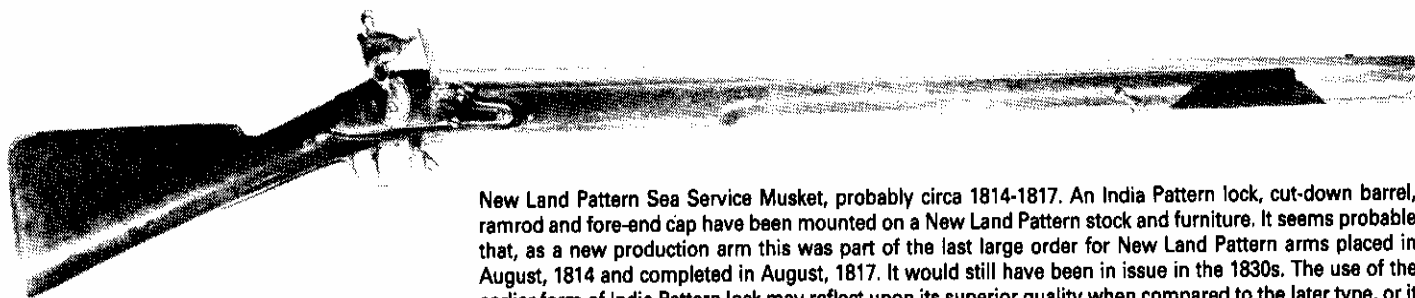
"... for the Ordnance (speaking at least of the time when I was in that department) could sell annually in the market 8,000 or 10,000 muskets, which had been partly used. We do not take this course, lest we should interfere with the trade of Birmingham; sooner than do which, we incur a positive annual loss. These muskets, instead of being disposed of in the manner they might be, if thrown into the market, are altered, by shortening the barrels, repairing the locks, and are then transferred for naval service. We could not, of course, send these articles to be repaired or altered, backward and forward, to Birmingham."

We have here, then, a clear statement that, during the period in question, muskets which would otherwise have been sold out of Store were instead modified to make Sea Service muskets, and the work done not in the trade but by the Government, presumably at Enfield as the 1829 Return suggests. But it is equally clear that there was no demand for 8,000 to 10,000 Sea Service Muskets annually, and the fate of those left over when naval demands had been met remains a mystery. We know that the Ordnance held annual sales of stores which did include gun parts; but if Hardinge's evidence is to be accepted they did not, at this time, sell complete arms. This aspect of the manufacture of military arms lies outside of the present topic.

Bearing the above material in mind, we turn now to a strange creature which fits, somewhere, into the hodge-podge of altered muskets which were "transferred for naval service." Fig. 7 shows a musket whose stock has been painted at the same time as that shown in Fig. 3c (Part 1), which embellishment gives it its only real claim to inclusion in this discussion. There is also a list published by Timmins in 1866 as part of the article by J. D. Goodman on the



Sea Service Musket made from a pre-1809 India Pattern Musket. The barrel has been shortened to 36½ inches and a rod-retaining spring riveted inside the tailpipe. A New Land Pattern fore-end cap has been fitted. The barrel has the black Sea Service finish. This musket could have been made any time from 1810 to 1835, but is most likely to have been made during the 1820s. Crown copyright, courtesy of The Dept. of the Environment, Tower of London collection.



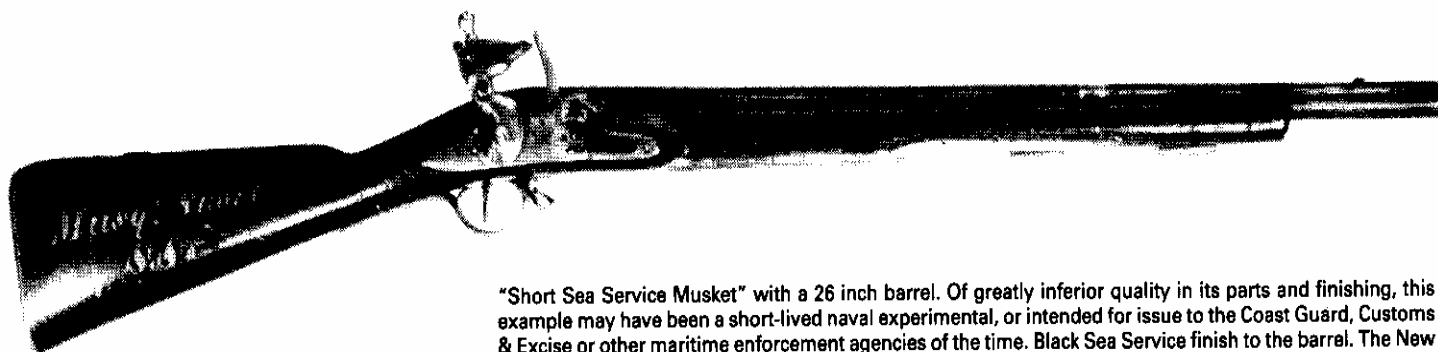
New Land Pattern Sea Service Musket, probably circa 1814-1817. An India Pattern lock, cut-down barrel, ramrod and fore-end cap have been mounted on a New Land Pattern stock and furniture. It seems probable that, as a new production arm this was part of the last large order for New Land Pattern arms placed in August, 1814 and completed in August, 1817. It would still have been in issue in the 1830s. The use of the earlier form of India Pattern lock may reflect upon its superior quality when compared to the later type, or it may merely be coincidence. This is an exceptionally well made and finished arm. Crown copyright, courtesy of The Dept. of the Environment, Tower of London collection.

history and development of the Birmingham gun trade, which gives a Short Sea Service Musket, black, with a 26 in. barrel. The musket shown has a 26 in. barrel. The stock and furniture are of New Land Pattern, although the butt is thinner and the buttplate has been rather crudely trimmed to fit, and the two ramrod pipes (the upper one of which has the rod-retaining spring inside it) are of 18th Century pattern. The upper sling swivel passed through the fore-end between the two pipes. The lock is a post-1809 India Pattern, and the barrel has a black Sea Service finish. No tailpipe or fore-end cap were fitted. Timmins (Goodman) gives a pre-1820 date for this type of musket, but he could well have seen this particular example in the Tower and drawn his conclusions. While bearing a superficial resemblance to the musket in Fig. 6, the overall finish is much inferior. Muskets with such a short barrel did not come into favour with the Navy until the percussion era, and even then they were 30 in. in length. It may be that the 30 in. length was accepted as a compromise between the Long and Short Sea Service Muskets to simplify and economise on production, but there is virtually no other evidence that the Short Sea Service Musket went into anything like extended issue. My own belief is that this musket, along with others made up of oddments of older styles and with very short barrels, were intended for use by the Coast Guard, Customs and Excise, and other maritime government enforcement agencies of the period. Again, it may have been an experimental type set up in the late 1820s, and

superseded or suspended when serious consideration of the new ignition system was taken up, to be entirely replaced by the intermediate length percussion Sea Service Musket.

In assessing the origins of any of these cut-down muskets and attempting to assign a Sea Service background to them, it is important to recall the words of Sir Henry Hardinge in 1830, as well as in the 1829 Enfield Return: these Sea Service arms were fabricated from **already completed arms** which were repaired and shortened, and overall re-finished where necessary. Their component parts would have conformed to those shown in the illustrations, and the style would follow those of previous examples as closely as possible bearing in mind the nature of repair work. Made-up arms combining components of several different patterns extending over thirty or more years, and perhaps lacking Government ownership marks, should always be viewed with the utmost scepticism if it is suggested that they are of official provenance. Even the musket in Fig. 7 does not stoop to this level, nor is there any evidence that arms accepted for Naval service were ever of this conglomerate nature — outside the bounds described.

Indeed, it is the outstanding characteristic of the post-1815 years that, for the first time, the Sea Service arms deviate at all from a clearly defined and executed pattern, and these deviations are clearly shown in the way in which the two patterns of parts are combined, and are fully rationalised by the economic background.



"Short Sea Service Musket" with a 26 inch barrel. Of greatly inferior quality in its parts and finishing, this example may have been a short-lived naval experimental, or intended for issue to the Coast Guard, Customs & Excise or other maritime enforcement agencies of the time. Black Sea Service finish to the barrel. The New Land Pattern furniture includes a buttplate which has been trimmed at the sides to fit a narrow butt. Crown copyright, courtesy of The Dept. of the Environment, Tower of London collection.