St Helena: South Atlantic Fortress

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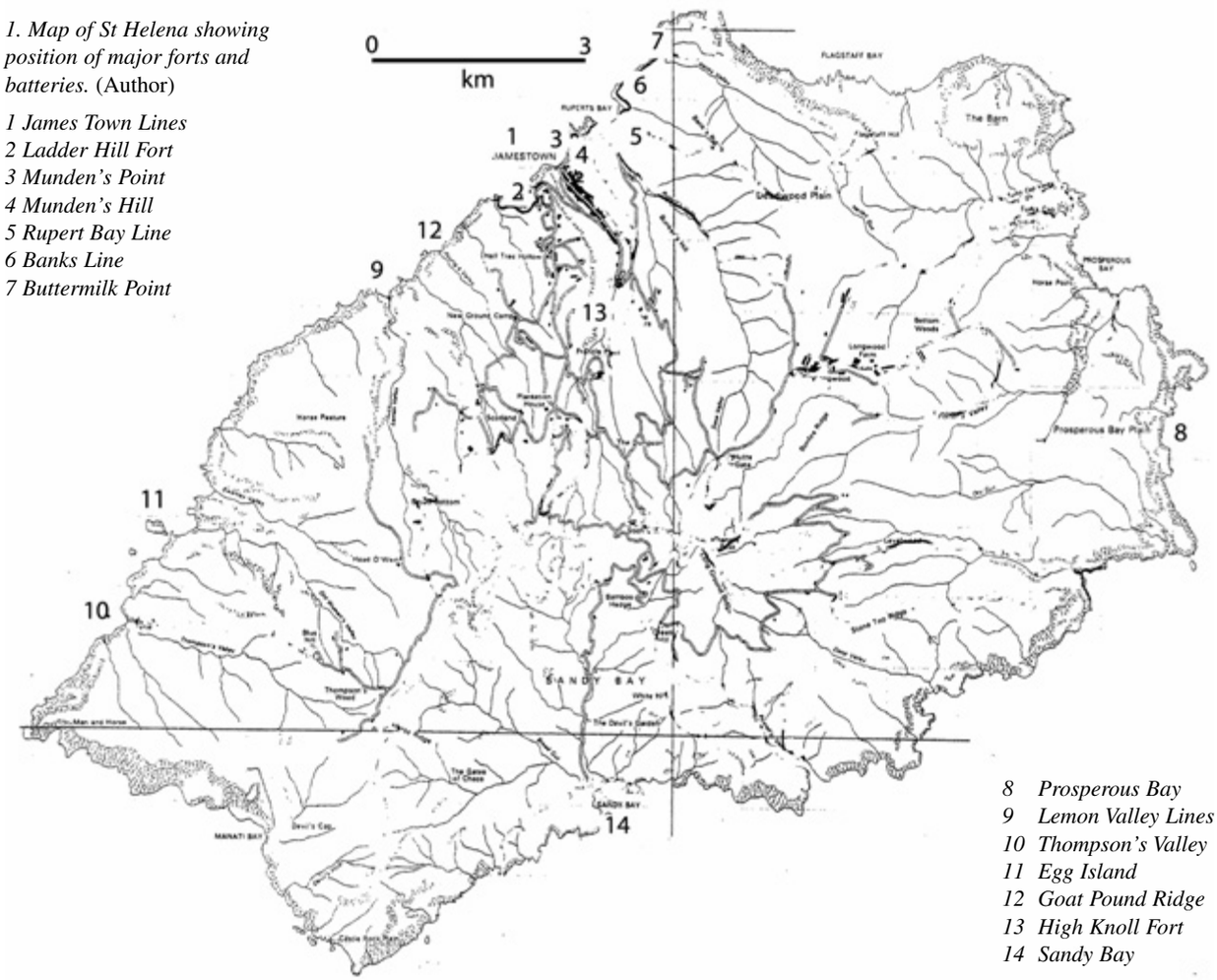
[Colour plates relating to this article are in the plate section on pages 123 to 131 and on the back cover.]

Introduction

St Helena is a small volcanic island with an area of 47 square miles [122 sq km] lying 1200 miles [c1930km] from the nearest land and 1500 miles [2400km] north-west of Cape Town. The island is mountainous and almost completely surrounded by precipitous cliffs with only a few practicable landing places. Behind the sheer and barren cliffs the island, although mountainous, is green and fertile. The highest point on the island is Diana's Peak, some 2600 ft [c790m] high. It was this abundance of vegetation, plentiful fresh water and a single, comparatively safe, anchorage that attracted the island to passing ships. The island was discovered in 1503 by the Portuguese navigator Joao da Nova who arrived on the island on the birthday of Saint Helena, mother of the Emperor Constantine.

Although St Helena had been known to the Portuguese since its discovery in 1503 the first English interest came in 1588 when an English sea captain, Thomas Cavendish, landed on the island. Between 1588 and 1659 English, Portuguese, Spanish and Dutch ships all visited St Helena without making any attempt formally to claim the island. However, the Anglo-Dutch wars of the mid-17th century



1. Map of St Helena showing position of major forts and batteries. (Author)

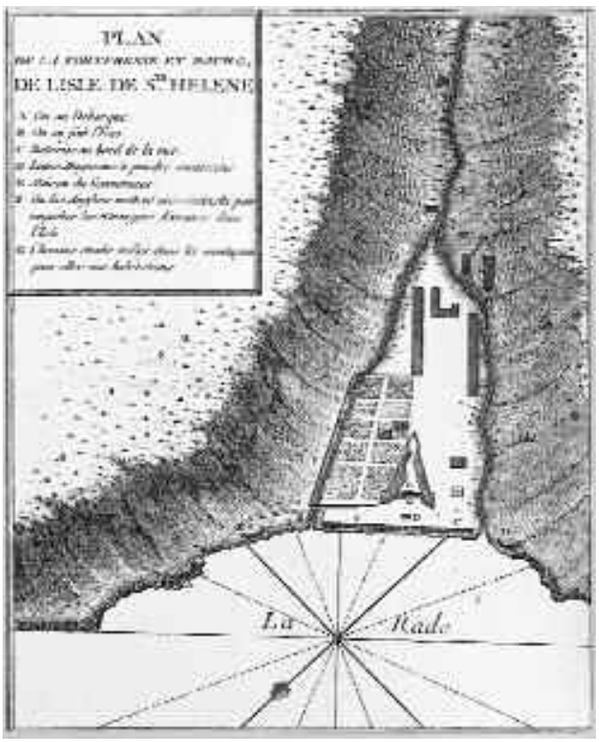
1 James Town Lines
2 Ladder Hill Fort
3 Munden's Point
4 Munden's Hill
5 Rupert Bay Line
6 Banks Line
7 Buttermilk Point

8 Prosperous Bay
9 Lemon Valley Lines
10 Thompson's Valley
11 Egg Island
12 Goat Pound Ridge
13 High Knoll Fort
14 Sandy Bay

forced the English East India Company to claim the island in order to provide the Company's ships with a re-supply base since the Dutch occupation of the Cape of Good Hope prevented English ships obtaining supplies there.

The Dutch briefly occupied St Helena in 1672–3 but were ejected by an English force under the command of Sir Richard Munden. It was after this attack by the Dutch that the Court of Directors of the Honourable East India Company (HEIC) decided that the island must be fortified if it was to be retained by the Company and so, in 1673, the HEIC developed the island into a major fortress.

The first fortification to be built was the castle at the small settlement of James Town which was the only sheltered anchorage on the island. James Town was situated in a sheltered valley, one of a number that ran down to the sea in the north-west corner of the island. The other valleys were Rupert's Valley and Banks' Valley to the north of James Town and Breakneck Valley, Friar's Valley and Lemon Valley to the south of the settlement. The castle was essentially a triangular fort with three bastions, two facing the sea and the third, on the landward side, at the apex of the triangle. The castle mounted 18 guns and these are described in the St Helena records as being 'one demi cannon, five whole culverins, five demi-culverins and six sacers'.



2. Plan of Fortress and Town of St Helena. J N Bellini, 1764.

The flanks of the castle were each secured by a redoubt for two guns and by a wall extending to the vertical cliffs on each side of the valley. These defences were further strengthened by the construction of a battery on Munden's Point, the northern arm of the James Town bay. In addition, two guns were mounted in a battery known as Bankes' Platform on Sugarloaf Point, and also known as King William's Fort. Inland a two-gun battery was placed on the ridge overlooking James Town and at Prosperous Bay on the north-east of the island a guardroom was built to be used as a look-out post. In 1678 the HEIC records also showed that there was a battery of five guns sited just a short distance from the landing place at Lemon Valley south of James Town. This battery was first known as Sprague's Platform but the name was then changed to Berkley's (or Bearkley's) Platform.

18th-century fortifications

James Town Lines

In 1708 Governor Roberts had the current castle built in the rear of the old James Fort together with a massive curtain wall that acted as a retaining wall for the castle and a second line of defence behind the original wall. This wall was completed in 1714 and by 1734 the defences of James Town were reported to comprise two substantial curtain walls and two half-bastions, the latter probably being on the sites of the original flank batteries. James Valley was now defended by a fully fortified 'Line' with access provided at the eastern end across a drawbridge. In 1727 it was stated that there were 79 guns of assorted calibres mounted in the James Town lines with a further 14 mounted in Munden's battery, sited 80 ft [c24m] above the

3. James Town Lines 1862, showing the centre bastion and ditch. John Lilley. (Royal Geographic Society)

sea. In 1767 a Captain Mitchel pointed out the severe disadvantage of having a perpendicular rock face at the rear of the guns and proposed moving the battery to the top of the hill. The siting of a battery on the top of Munden's Hill did not occur, however, until later in the century.

By the end of the 18th century a dry ditch had been dug on the seaward side of the line running the complete length of the line. The ditch was completed in 1787 and by that date a total of 32 modern guns were mounted on the line.

Banks' Lines

Between James Town and Sugar Loaf Point, about three miles [c4.8km] to the north there were two more narrow valleys where the HEIC felt an enemy could land. Closest to Sugar Loaf Point was Banks' Valley Bay and it was decided to fortify the entrance to the valley on the seaward side by building a line of fortifications to support the old two-gun battery on Banks' Platform, known originally as King William's Fort. The importance of Sugar Loaf Point lay in the fact that any ship approaching James Town was forced by the south east trade winds to keep close inshore

4. Banks' Bay Lines 1862. John Lilley. (RGS)

5. A further view of James Town Lines in 1862. John Lilley. (Royal Geographical Society)

6. Half Moon Battery, Banks' Bay, with road to Buttermilk Point in the background 1863. John Lilley. (Author's collection)

as they passed Banks' Bay.

As we have seen, as early as 1678 there were a number of guns defending Banks' Bay, some reports give the number as three, others as five and by 1727 this number had been increased to seven and a defensive line across the mouth of the valley was in the course of construction. These guns were very necessary as they acted as an examination battery enforcing the governor's orders that all ships approaching James Town must identify themselves on reaching Banks' Bay.

Bank's Lines comprised a curtain wall 8 ft [2.4m] thick closing off the sea end of the valley. Built of rubble stone it had stone platforms and embrasures for the seven guns. Because a small stream ran down the valley a tunnel was built in the wall to allow the water through and this was defended by a portcullis. Behind the gun platform there was a single-storey barrack building providing accommodation for the garrison and in the rear of the barracks there was a small cookhouse. The rear of the battery was enclosed with a wall and a track, described on a 19th-century plan of the lines as 'Military Road', led up the valley to James Town.

On the right flank of Banks' Line and overlooking the line there was another battery position known as the 'William and Mary Battery', probably the old King William Fort, and subsequently called Half Moon Battery or Upper Lines. This battery mounted 11 guns firing *en barbette* and mounted on stone platforms.

The importance of Banks' Point and Sugar Loaf Point was further emphasized by the construction of additional batteries in the 1770s along the line of the cliff face from Half Moon Battery north to Crown Point. A road was built into the cliff face and four batteries were built at Middle Point, Repulse Point, Crown Point and Buttermilk Point. These were small gun positions each mounting one or two guns and they were sited so that there was a continuous line of guns stretching from Crown Point to Banks' Valley Bay. The Buttermilk Point battery was frequently referred to as the Lower Crown Point battery and immediately below this battery there was a gun position for a single gun approached by a covered staircase built into the rock face. This position was sometimes referred to as Pirie's Battery.

Most of the guns were 18-pdr SBML guns and magazines to store powder and shot were excavated in the cliff face behind Half Moon Battery and between Middle Point Battery and Repulse Point Battery. The siting of the magazines within the cliff face is a feature of the St Helena fortifications and the thick rock provided excellent protection from enemy gunfire. Each magazine comprised a short entrance passage with two rooms opening from it each about 6 ft [1.8m] x 6 ft x 8 ft [2.4m] in size. Other examples of rock magazines are to be found at Sandy Bay on the east coast and on the path leading to another Half Moon Battery at Lemon Valley Bay.

Rupert's Bay

Between James Bay and Banks' Valley Bay lies the larger Rupert's Bay, named after Prince Rupert, brother of King Charles I, who is alleged to have anchored there once on his return from a voyage to India. Strategically not as important as Banks' Valley Bay it did, however, provide a tactical landing place and any enemy invasion force, after landing, could move up the valley and then approach James Town from the rear. Rupert's Bay had, therefore, to be defended and so a fortified line was built to close off the entrance to the valley from the sea. As early as 1678 eight guns had been placed at Rupert's Bay but work on the line was not completed until 1707. In 1727 a report noted that 'Rupert's was defended by nine guns some of which were small 4-pdrs'.[1]

Work on the Rupert's Valley line was contemporaneous with the construction of Banks' Line but, because of the size of the mouth of the valley, the line was considerably longer, nearly 550 yds [c500m] in overall length. There were, eventually, stone platforms for 14 guns and living quarters for soldiers in barrack accommodation a little way up the valley. The wall of the line was 5 ft [1.5m] thick and, in places, 20 ft [c6.1m] high. As with the line across Banks' Valley there was a tunnel through the wall to enable the water flowing down the valley to escape to

the sea. In fact, the tunnel proved to be inadequate for its role for in 1787 Rupert's Line was reported as being wrecked by a flood and the line was described as being in such a state of ruin that repair would be equal to building a new fortification![2]

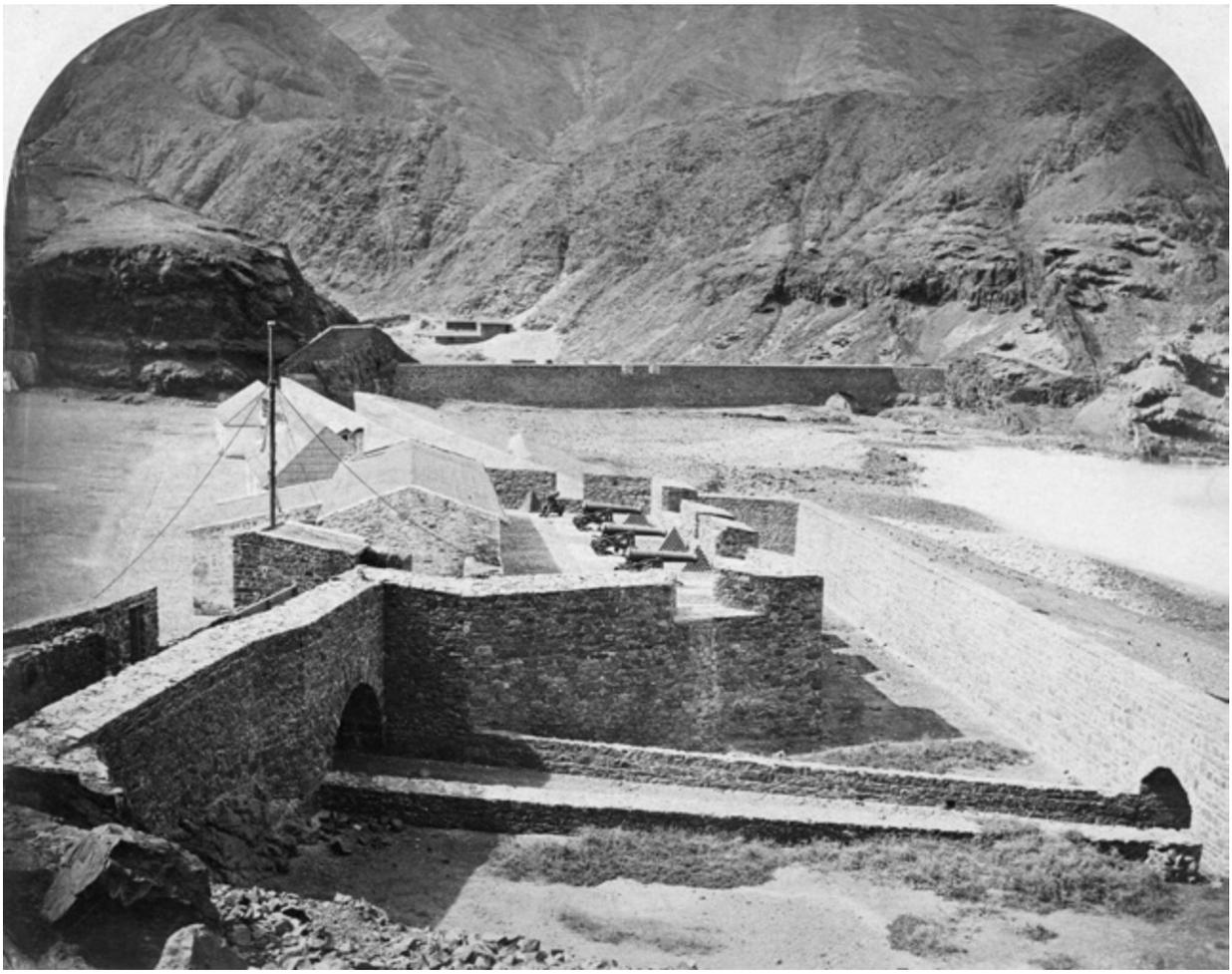
Chubb's Rock Batteries

Three single-gun batteries were established on Chubb's Rock, a rocky headland between Munden's Point and Rupert's Bay. These batteries were known as Upper Chubb's Rock, Middle Chubb's Rock and Lower Chubb's Rock. Originally the batteries were armed with old guns and they were vulnerable to damage by the sea. On 12 November 1737 the seas were so high that a gun from one of the batteries was washed off Lower Chubb's Rock. The gun was described as a demi-culverin of 43 cwt [406kg].[3] This was a gun with a calibre of 4.5 in [114mm] and fired a round shot weighing 9 lbs [4.1kg]. Although the *Records* are not clear on the armament of these batteries it would seem that three 9-pdr SB guns were mounted there until the later years of the 18th century when they were probably replaced by three 12-pdr guns.

Sandy Bay Lines

On the southern side of the island there was one possible landing place where an enemy force could land and this was the small cove known as Sandy Bay from the fact that the valley opened out onto a wide gravel beach. Although partially protected by a spit of land known as Horse's Head and by a hill called Crown Point opposite it, Sandy Bay was a dangerous place to approach as it was exposed to the prevailing south-easterly wind.

A small temporary battery for two guns had been authorised for the defence of the bay in 1695 but the main line of fortification was not built until the middle of the 18th century.[4] Once again the decision was taken to wall



7. Sandy Bay Lines 1863 showing ditch and glacis. John Lilley. (RGS)

off the beach but at Sandy Bay this involved the construction of two separate walls because two valleys, Sandy Bay Valley and Broad Gut, debouch onto the same beach separated by a promontory known as Beach Hill.

The walls at Sandy Bay were second only to the Rupert's Bay lines in length being over 400 yds [c365m] long. The main section of the wall on the western side was a properly constructed fortification with glacis, ditch and wall. There was a small bastion for guns firing through embrasures and on the right of the bastion there was a tunnel to permit flood water through to the sea. The two sections of wall were linked by connecting steps around Beach Hill and these were protected by a wall on each side.

Since the Sandy Bay line was a considerable distance from James Town the troops manning the line were required to live at Sandy Bay. This garrison was accommodated in two single-storey buildings built along the inner side of the western curtain wall and in additional buildings to the rear of the line. A cookhouse building was also provided, also built against the inner side of the western wall and a magazine was cut into the western side of Beach Hill. There was also a substantial parade ground behind the wall. These buildings and the wall were much damaged by a flood in 1781 but were subsequently repaired.

The eastern wall across Broad Gut was not protected by a ditch or glacis, but again there was a tunnel, protected by a portcullis, to allow stream water through to the sea. There was no bastion but simply a small gun platform for two guns, firing through embrasures, in the centre of the wall. In the 18th century these were long guns, probably 6-pdrs or 9-pdrs but subsequently, probably early in the 19th century, two 24-pdr carronades were mounted on the platform. The substitution of carronades for the earlier long guns may have resulted from the fact carronades were better suited to this particular position. This was because the angle of the eastern curtain wall prevented these two guns from firing at approaching ships and only permitted enfilade fire along the main beach. In 1863 a photograph by John Lilley showed that the lines and buildings were well maintained but six years later, in 1869, a second photograph taken by a Colonel Swinton showed the lines abandoned and the buildings derelict.

Because Sandy Bay was as far from James Town as it was possible to be on the island and because there was a track leading directly up to Diana's Peak, the highest point on the island, the HEIC directed that the bay should be strongly fortified. Behind the walls defending the beach two other gun positions were constructed with a platform for a single gun on Beach Hill, the promontory in the middle of the beach, and a second position, also for a single gun, on the heights of Crown Point on the eastern side of the bay. In addition, a three-gun battery was built on Horse's Head, the western headland of the bay that provided shelter for a landing place on the rocks between the headland and the beach. Using the rocky outcrops of the headland as natural protection three stone gun platforms were built together with a small stone magazine and a guard house. The battery was armed with four guns, three 24-pdr carronades and one 18-pdr carronade. These guns were probably selected because of the confined nature of the site and because of the short range over which ships entering the bay would be engaged by the guns of the battery.

Depth was provided to the defence of the beach by another battery approximately 2500 yds [c2290m] inland covering the track leading from the beach. This battery, at a spot called Lemon Grove, was originally for four guns on stone platforms and was also provided with a small stone magazine.

Lemon Valley Lines

To the west of James Town the steep cliffs would seem to preclude any attempt at landing from the sea but there were a number of narrow valleys, Breakneck Valley, Young's Valley, Friar's Valley and Lemon Valley which were possible, though difficult, approaches. Two of these valleys, Young's and Friar's Valleys, were so narrow that it was decided that gun platforms on either side of Goat Pound Ridge, the spur between the two valleys, would be sufficient to prevent any enemy using these approaches. Breakneck Valley was the closest to James Town and any ships approaching would be observed and fired on from guns at James Town or on Ladder Hill so it was considered sufficient simply to provide a wall at the beach end of the valley.

However, Lemon Valley was a different matter as it was a spectacular, deep valley, broader than the others and, although it was a steep climb to the high ground, it was a possible landing place and invasion approach that had to be defended. This was where the Dutch first landed in 1672. Initially, the valley was defended by siting five guns to cover the bay together with a magazine and a

guardhouse. These defences were originally known as 'Sprague's Platform but on a map of 1764 it appears that the name had changed to 'Berkley's Platform' by which time the number of guns had been reduced to four, two on each side of the valley. Subsequently this became known as Lemon Valley Fort.

The early defences of Lemon Valley were subject to damage from flooding and by 1717, in a letter to the Directors of the HEIC, they were described as 'now decayed and ruinated (sic) the Platform broke down these six years'.[5] Despite this it was not until the middle of the 18th century that steps were taken to improve the Lemon Valley defences. A fortified line 200 yds [183m] long was then built between the steep cliffs on each side of the valley, completely closing it off. The wall was 20 ft [6.1m] high and 8 ft [2.4m] thick along the indented centre section that formed the terreplein of the battery. Here six guns were mounted on stone platforms firing through embrasures. The two flank sections of the line were at an angle to the centre section and were narrower in width being only 3 ft [0.91m] thick. Again there was a tunnel through the wall with a portcullis to allow flood water to exit from the valley behind the wall and in this case the tunnel was located under the centre of the gun platform.

A report of 1777 by a Major James Rennell described the wall as being of better construction than any of the others. Behind the gun platform there was a single-storey barrack building and two or three smaller buildings, probably cookhouse and magazine. Major Rennell also recommended additional gun positions to defend the valley and these were subsequently built including another 'Half Moon Battery' sited on the lower part of the cliff on the left flank of the line. A narrow path was hewn out of the cliff to provide access to the new battery and a magazine was built into the cliff face half way along the path. The Lemon Valley Half Moon battery was armed with four guns.

Lemon Valley Bay was also protected by three gun positions on Goat Pound Ridge a steep sided ridge to the north of the bay. Three platforms were situated, one on the north side of the ridge, a second on the eastern side and the third on the western side. These were simple rubble stone platforms built into the steep sides of the ridge with a total of five guns, two on both the north and west platforms and one on the east. There was also a small guard house and a magazine on the east side. An interesting aspect of the carriages of the guns in these positions, and others mounted on Ladder Hill and at Powell's Valley, was that their carriages were modified to permit the guns to fire at considerable angles of depression up to 45°. Similar depression carriages were provided for guns mounted high on the Rock of Gibraltar.

Thompson's Valley

The only other valley to be fortified in the 18th century was Thompson's Valley in the southwest of the island. Here a long deep valley led up from a small bay to Thompson's Wood on the central ridge line, so providing access to the centre of the island. Once again the valley was defended by walling it off at the seaward end but here an additional form of defence was provided by the construction of a square musketry tower, sometimes referred to, incorrectly, as a Martello tower. The tower was built on an outcrop of rock approximately 100 ft [30.4m] above the bay. The base of the tower was 19 ft by 22 ft [5.8 by 6.7m] square and about 30 ft [9.1m] in height. It was entered at first floor level and had a single row of musketry loopholes also at first floor level. Below the tower there was an open gun platform for a single gun.

Thompson's Bay was defended by two other gun positions, East Battery and West Battery, each sited on the flanks of the bay to provide crossfire in conjunction with the gun under the tower. Both were positions for two guns and there was a small guardhouse behind the West Battery. The East Battery had positions for two guns mounted on wooden platforms but the two guns at West Battery were mounted on stone platforms.

Half way up the west side of the valley there was a gun position for one gun. It was similar in size to East and West batteries and was known as Eagle's Eyrie. Access to the battery was difficult and it is likely that it was abandoned by the end of the Napoleonic War. The one gun mounted there was a carronade, either an 18-pdr or a 12-pdr. The choice of this weapon for the battery was probably due to the fact that carronades were much lighter than long guns and easier to move into positions that were difficult of access.

The East Coast Defences

Prosperous Bay and Turk's Cap Bay, both on the north east side of the island, were also considered vulnerable points where a landing was possible. Indeed, it was at Prosperous Bay that the English landed in 1673 to retake the island from the Dutch after the latter's brief

occupation of the island.

Prosperous Bay is a wide bay overlooked by steep cliffs with two possible landing places separated by the height of Horse Point. The northern valley is overlooked by Turk's Cap and behind it there is a ridge with precipitous sides while to the south the other landing place is backed by the cliffs of Horse Point.

No attempt was made to build walls to secure these valleys, instead a number of batteries and a tower were built with the aim of preventing any enemy landing force making their way inland up either valley. At the northern end of Prosperous Bay two batteries were built on the ridge behind Turk's Cap Bay. Cox's Battery, a battery for two guns, was built on the edge of the cliff overlooking Turk's Cap and was supported by a similar battery, Gregory's Battery, about 650 yds [c595m] behind Cox's Battery. Both batteries were simple gun platforms without protection standing at a height of approximately 750 ft [c230m] above the bay and from this position were able to dominate both the northern valley and Turk's Cap Valley on the other side of the ridge. In 1863 there were two guns mounted on the platform as can be seen from another of John Lilley's photographs.

On the northern side of Turk's Cap Bay there was a further battery built about 1734. The eight guns, probably iron 6-pdr 20 cwt guns since what are thought to be the original guns can still be seen close to the battery site, were sited behind an earth embankment firing through embrasures rather than just mounted on an open gun platform. In the rear of the battery there was a magazine and a guardhouse. This battery may well have been built on the site of an older battery since it is sometimes known as 'Portuguese Battery' or 'Dutch battery'. The *St Helena Records* for the 24 July 1734 state: 'The Battery for eight guns; Guard House and Powder Room are near finished at Turk's Cap Valley. If attacked it must be by boats for being directly to windward no ship durst venture near enough to throw their shot on shore for besides the danger of a lee shore there is a hedge of Rocks about half a mile off hardly 15 ft [c4.8m] under water and the ground all over this Bay is very foul'.[6] The battery was, apparently, erected at the charge of the planters but by the beginning of the 19th century it appears to have been abandoned

The southern landing place, where the English had landed in 1673, was defended by three batteries and two towers. At beach level there was battery for two guns, marked on some maps as Jefferies' Battery. Beside it was a square musketry tower large enough to contain 20–30 men. Although this tower, and others on the island, were later referred to in documents of the time as Martello towers they were, in fact, simple musketry towers with no provision for a gun to be mounted on top. About 100 ft [c30m] above the beach there was a second, smaller, tower with only one row of loopholes and close to it a gun platform for a single gun, thought to have been a 9-pdr.

A description of the defences of Prosperous Bay in 1850 was probably an accurate description of the batteries and towers 60 years earlier. The report stated:

> Prosperous bay is defended by a stone tower to the south west loopholed for musketry on the west edge of a rugged watercourse and within effective range. A spur projects into the valley to the north-west of the tower with a tower and battery on the east end overlooking the sea and 150 ft [c48m] above. Its fire sweeps the coast to the north and east and would render the tower untenable if captured. The inland communication with the battery is by a winding track up a steep slope as far as 600 ft [c183m] above the sea defended by a gun and guardhouse and very difficult of access.[7]

The first of these towers was actually sited on the beach close to the sea and unlike the tower on the spur it had loopholes at the top of the tower and on the first floor and was considerably larger than the spur tower.

The gun and guardhouse defending the track was a small battery known as Holdfast Tom and it stood 600 yds [c550m] behind the beach 1056 ft [322m] above it on the north side of the southern, or main, valley. The battery name relates to an incident when the English landed in Prosperous Bay in 1673 to retake the island from the Dutch. Then a slave named Tom scaled the cliffs above Prosperous Bay with a rope that was then used to assist the English troops to ascend. With its extensive field of fire for its four guns it dominated any attempt to leave the beach and move up the valley.

Inland fortifications

Away from the coast a number of alarm guns were sited on prominent peaks to warn the James Town garrison of any invasion but none of these were defensive batteries as such. Single guns were mounted at Prosperous Bay signal station on the edge of Prosperous Bay Plain, at Alarm

House, Long Range Ridge, Bunker's Hill and Cuckhold's Point. The firing of the guns was to warn James Town when ships were sited. The guns at Prosperous Bay would be fired twice when a ship was sighted and three times or more if more than one ship was seen. These guns would be repeated by the other guns, particularly the gun at Alarm House.

One of the earliest inland batteries was Two-Gun Battery dating from 1727 and sited on the ridge to the north of James Town. From this position the two 12-pdr SB guns could dominate upper James Valley. Later in the century the name of this battery was changed to Sampson's Battery and a second platform for two guns was constructed 150 yds [137m] to the north of Sampson's. This second battery was named Saddle Battery and was situated so that it's guns could cover Rupert Valley.

The two main inland fortifications built at the end of the century were Ladder Hill Fort and High Knoll Fort. Work to build a battery on Ladder Hill appears to have started in the early 1780s after the carriage road from James Town to the top of the hill had been completed. When a portion of the garrison mutinied in1783 they tried to occupy Ladder Hill where, as an account of the mutiny relates there was a post where there were 'field pieces, mortars and various ammunition'.[8] In 1797 additional efforts were made to improve the defences of Ladder Hill and Governor Brooke relates that Ladder Hill had been strengthened by an additional tower mounting two 12-pdr SB guns to aid in covering the rear of the works and by a battery of two 18-pdr SB guns on a point over the sea.[9] A barrier gate had also been built with works to flank it on the road leading from the town to the hill.[10] In addition to the tower Governor Brooke proposed that Ladder Hill should be fortified on the landward side by a line capable of sustaining a siege (in case of an enemy carrying any of the sea defences) so as to form an inland post.

It would seem that the tower built by Governor Brooke was the Round Tower that still stands today, albeit somewhat modified from its original 1797 design. The Round Tower is actually a forerunner of the famous Martello towers built around the south and east coasts of England some eight years later. Built of rubble masonry it stood 15 ft [c4.6m] high, had a diameter of 35 ft [c10.6m] and walls 4 ft [1.22m] thick. The tower was similar in many respects to the Simon's Town tower near Cape Town and this may not be a coincidence as troops of the St Helena Regiment were part of the expedition sent in 1795 to capture the Cape of Good Hope from the Dutch. The tower was armed with two 12-pdr SB guns and was designed to defend the approaches to Ladder Hill Fort from the rear.

The Round Tower, as we have seen, was referred to as 'an additional tower' sited in the rear of Ladder Hill. This leads us to the question where was the original tower? It is possible that this tower was in fact High Knoll Fort some two miles [c3.2km] south of James Town. A stone tower was built on the High Knoll feature at a height of 1900 ft [c580m] around about 1798. There was at least one gun on the tower and a battery for two 18-pdr SB guns close to the base of the tower. A print depicting the tower and a small barrack house was published in London in 1821 but there is no guarantee of the accuracy of this depiction.

A further tower, a D-shaped musketry tower known as Coleman's Tower was built of rough masonry at the head of Young's Valley and south west of High Knoll Fort. Little is known about the design or construction of this tower though it may have supported two gun platforms at New Ground Camp. These two gun positions were shown on a map of 1811 but appear to have been abandoned in the early 19th century.

One other battery was sited away from the coast and that was the battery at High Point which overlooked the head of Sarah's Valley and the upper reaches of Lemon Valley. This was probably a single-gun battery mounting a 12-pdr SB gun and it is likely that it was abandoned after the death of Napoleon in 1822.

19th-century fortifications

The early years of the 19th century saw most of the island's fortifications maintained though there was little likelihood of an attack by a French force. The only new batteries to be built were three single-gun batteries on the south coast that protected Powell's Valley and the bay 3000 yds [c2750m] west of Sandy Bay. Cock's map of 1804 shows only two batteries but four years later, in 1808, Barne's map shows a third battery. The armament of the three batteries were one 12-pdr SB gun, one 9-pdr SB gun and one 12-pdr carronade all mounted on wooden platforms and each battery had a small guard house and a magazine. Two of the batteries were sited on the east side of the valley and at a height of 1000 ft [c305m] and the role of these batteries was to close what Governor Patton

described as the back door to the island by ensuring that no advance into the island could be made up Powell's Valley.

The arrival of Napoleon in 1815 to start his exile on the island brought about the final flurry of fortification mounting smooth-bore guns. By now the whole of the island was well fortified with all potential landing places and valleys leading from them defended by gun batteries. The garrison, which had consisted of a battalion of infantry (the St Helena Regiment) and three companies of the St Helena Artillery, all HEIC troops, was reinforced by the arrival of the 2nd/53rd Regiment and the 2nd/66th Regiment bringing the total of troops on the island to 2784 officers and men with 500 cannon in the batteries. At sea the Royal Navy assigned three large frigates to patrol the immediate vicinity of the island.

It was Admiral Cockburn who brought Napoleon to the island and he remained there until the arrival of the new governor Sir Hudson Lowe in April 1816 and it was he who decided to reinforce the defences of Old Woman's Valley by building a battery on Egg Island. This island is a pinnacle of rock 250 ft [76m] high just off the coast opposite the entrance to Old Woman's Valley. Admiral Cockburn considered the existing wall at the mouth of Old Woman's Valley to be insufficiently strong to defend it and he ordered a battery for three guns to be built on Egg Island. The main battery gun position was circular in shape and mounted three 24-pdr SB guns on stone platforms. There was also a 10-inch [254mm] mortar on a wooden platform and a single 24-pdr carronade, the latter mounted above the landing place for its defence. Adjacent to the main gun position there was a building to accommodate the gunners, a powder magazine and a shot furnace.

The years from 1825 to 1860 saw a decline in the strategic importance of St Helena. The death of Napoleon in 1821 saw the withdrawal of the British troops leaving only the original garrison of HEIC troops. A further change in the circumstances of the island resulted from handover of the island by the HEIC to the British government in April 1834 and its new status as a Crown Colony. The most immediate result of this change was the disbandment of the HEIC units, the St Helena Regiment and the St Helena Artillery. In their place came the 91st Regiment from Britain and a detachment of Royal Artillery to man the batteries. In 1842 a new St Helena Regiment comprising five companies was formed in Britain and was sent to the island to become the garrison until the disbandment of the regiment in 1865.

One other new battery was constructed in this period. This was Patton's Battery situated on the lower part of Ladder Hill overlooking James Town Lines and the bay. The battery was circular in shape with a rubble stone wall 6 ft [1.8m] high surrounding it and the battery was accessed by means of a path from the road to Ladder Hill. There is something of a mystery as to when exactly this battery was built. Although it was named after Governor Patton, governor of St Helena from 1802 to 1807, the battery is not shown on the 'Return of Ordnance' dated 31 March 1823 held in the St Helena Archives. There is, however, mention of the battery in 1841 when the battery is shown in a list of works of defence at St Helena to be permanently maintained.[11]

On a map of the island dated 29 October 1850 Patton's Battery is noted as being one of the nine main defensive locations on the island still armed and manned and the armament was given as one 18-pdr SB gun, three 24-pdr carronades and one 18-pdr carronade. It is assumed that the carronades were sited in this battery in order to engage with short-range flanking fire any attempted landing using ship's boats. The battery was abandoned in the 1860s.

By 1850 the batteries scheduled to be maintained were reduced to the following:

James Town Lines	24 guns; 1 carronade & 4 mortars
Munden's Battery	13 guns; 3 carronades & 2 mortars
Chubb's Batteries	2 guns & 1 carronade
Banks' Battery	18 guns & 5 carronades
Sandy Bay Lines	5 guns & 8 carronades
Lemon Valley Lines	10 guns
Ladder Hill	16 guns; 8 carronades & 1 mortar
High Knoll Battery	3 guns & 8 carronades
Patton's Battery	1 gun & 5 carronades

The batteries were all in a poor state of repair as the War Office had reduced expenditure to a minimum and in 1862 the St Helena Regiment was converted into the 5th Battalion of the West India Regiment and then disbanded in 1865. The garrison was then reduced to a single infantry company detached from a line battalion stationed at the Cape, an artillery company and a number of Royal Engineers personnel.

There had been some improvement in the armament of the batteries with the delivery of some heavy 68-pdr guns

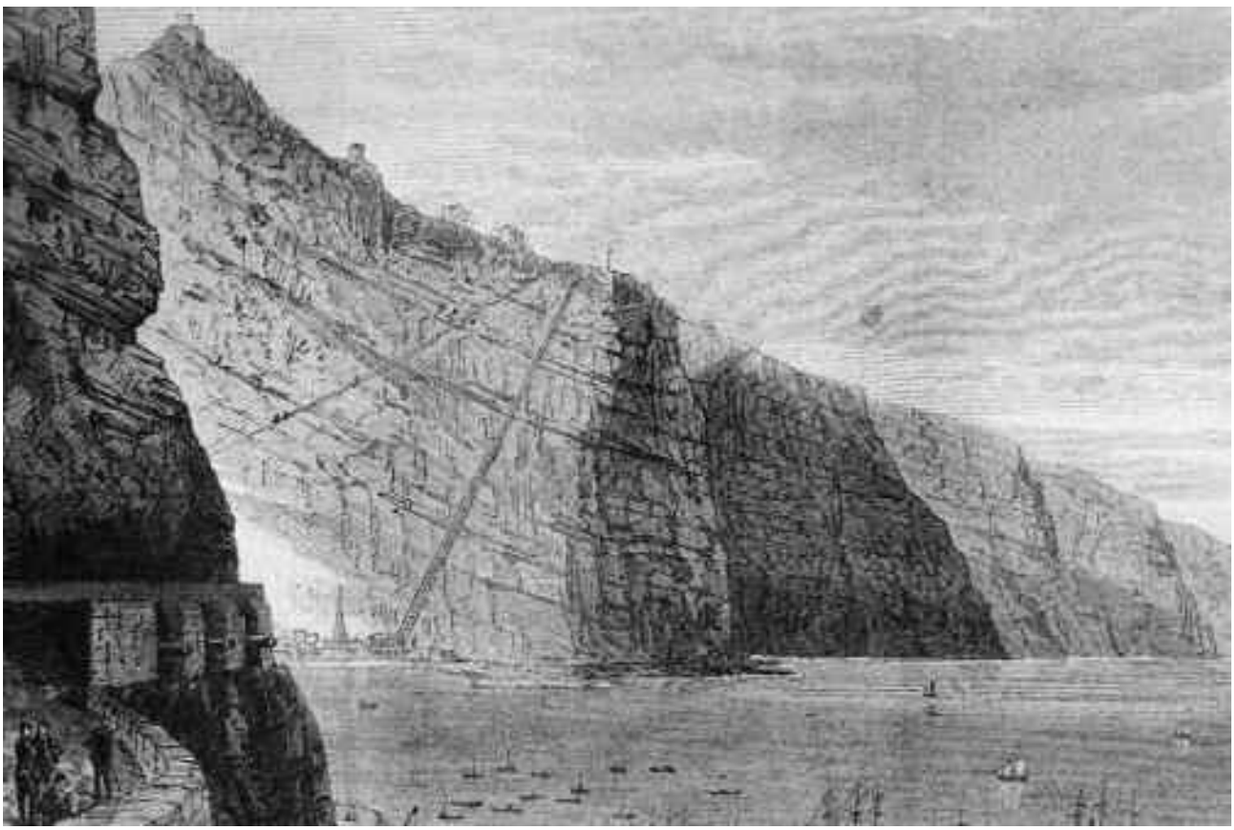
to be mounted on Ladder Hill and in the Rupert's Hill (Munden's Hill) Battery. However, the advent of the new rifled guns entering service with the Royal Artillery in the 1860s brought about a re-assessment of the St Helena defences and the decision was taken to concentrate the defences around James Town.

The War Office reviewed the island's armament and decided to send out four of the new Armstrong 7-inch Rifled Breech-loading (RBL) guns and three 7-inch Rifled Muzzle-loading (RML) guns. Two of the 7-inch RBLs were to be mounted on Ladder Hill and two were to be mounted in the re-modelled Half Moon Battery at Lemon Valley Bay. This battery was considered to be of particular value as its fire would cross with that of the guns of Munden's Point and Ladder Hill. The three 7-inch RML guns were to be mounted in a new casemate protected by iron shutters to be constructed on Munden's Point with a small Depression Range Finder position on the flank of the casemate.

Initial work on the new casemate at Munden's Point started as early as 1863 when a government ordinance warned the people of James Town that 'mining by gunpowder' would be necessary on 22 October of that year at Munden's Battery. In 1868 plans were drawn up for an extension of the casemate to mount an additional two guns. It would seem that these guns were to be the heavier 9-inch 12 ton RML guns but their mounting was postponed by the Colonial Defence Committee in 1872.

Work on the casemate proceeded very slowly and it had still not been completed by 1878. In that year an interesting experiment was carried out in which the Royal Navy gunboat HMS *Boxer* fired a shell from each of its main guns at the old Munden's Battery. The experiment was designed to observe the effect of heavy shells from modern guns, in this case one 7-inch 7 ton RML gun and one 64-pdr RML gun, on fortifications constructed of the local island stone. A black mark was painted on the battery wall and HMS *Boxer* fired two shells at the battery from a range of 400 yds [c370m]. Both shells struck the centre of the black mark 'but the aged battery seemed not a bit the worse for it'.[12] The new casemate was then completed for the 7-inch RML guns.

Work on the batteries had been sporadic with J C Melliss commenting in his book *Views of St Helena*



8. Munden's Point casemate armed with three 7-inch RML guns c1879. (The Graphic)

Illustrative of its Scenery and History published in 1875 that 'the fortifications are in ruins and neglected, and what new batteries have been undertaken remain in an unfinished state, while the modern guns sent out from Britain lie here and there unmounted and half buried in rock and debris'.[13]

This was, however, a rather exaggerated view of the situation since at this time (1870–4) two major military complexes were under construction on the island. Work had commenced in 1866 on the construction of new accommodation buildings on Ladder Hill and on a high stone wall surrounding them. In 1873 the new barracks on Ladder Hill was completed to provide accommodation for the Royal Artillery and the new barracks incorporated the old Ladder Hill battery. A small shell-filling room with a vaulted stone roof and a separate shell store were built on the parade ground in front of the barrack accommodation verandah. Both of these buildings had floors a few feet below the level of the parade ground. The main gate to the barracks and fort was close to the top of the Inclined Plane, a ladder and goods trolley-way connecting the barracks with James Town immediately below. At the same time the Round Tower, situated in the rear of the barracks and which had been converted into a magazine by the HEIC, was converted to hold shells and cartridges for the new rifled guns.

At the same time work was being carried out to rebuild High Knoll Fort as the main citadel and place of refuge for the garrison and civil population should the island be invaded. The old tower was incorporated into the new fort and the top of the tower was converted into a new gun platform with positions for two guns and a signal station, with magazines below. The fort was 250 yds [229m] long and 66 yds [60m] wide with stores, a cartridge store and troop accommodation in casemates at the southern end. There was a single demi-bastion on the eastern side of the fort and two others on the western side. A shallow ditch was excavated out of the rock along the western wall and the entrance to the fort was through a gateway halfway along the western wall. The ditch was crossed by means of a rolling bridge that could be withdrawn into the fort. Adjoining the gate inside the fort there was a small guardroom. The stone curtain walls varied in height between 30 ft [9.1m] at the northern and southern ends of the fort to 20 ft [6.1m] on the eastern and western sides.

In 1878 the Colonial Defence Committee reviewed the defences of St Helena in a report rather quaintly entitled 'A Report on the Temporary Defences of St Helena'.[14] The report showed that the main armament in place at that time comprised the following:

Ladder Hill Fort	3 x 7-inch RBL guns
	2 x 68-pdr SB guns
Munden's Point Battery	3 x 7-inch 7 ton RML guns
Munden's Hill Battery	3 x 68-pdr SB guns
Lemon Valley Half Moon Battery	2 x 7-inch RBL guns

The three 7-inch RBL guns in Ladder Hill Fort were mounted in the Sea Face Battery and the two 68-pdr SB guns remained in the Half Moon Battery beside the signal mast. There were also three 13-inch mortars that were mounted in a line on stone platforms overlooking James Town in what was known as the Town Face Battery and 11 18-pdr SB guns that formed the saluting battery were mounted between the Sea Face Battery and the Half Moon Battery. In addition to these guns there were a number of other smooth-bore guns and mortars shown as being in place in the James Town Lines. The committee also recommended that the two 9-inch 12 ton RML guns originally approved for Munden's Point and then postponed should be reinstated.

The committee also reported that although the guns in the casemate at Munden's Point were originally to be mounted behind iron shields these shields had not been fitted. The short term solution to the lack of shields suggested by the committee was to be the fitting of a double row of rope mantlets.[15] In addition to the 9-inch RML guns the committee recommended that five 64-pdr RML guns should be mounted on Munden's Hill above the casemate and that the two 7-inch RBL guns at the Half Moon Battery in Lemon Valley Bay should be moved to the tower of High Knoll Fort.

No action was taken to mount the two 9-inch 12 ton RML guns until 1886 when the Defence Committee approved the mounting of two such guns on Munden's Hill in place of the three 68-pdr SB guns that were still in place in that battery. At Ladder Hill Fort the two 7-inch RBL guns were to be replaced by two more 9-inch 12 ton RML guns. The first two 9-inch RMLs had been sent to the island in 1885 and the first emplacement was completed on Ladder Hill in 1887 and the second in 1890. These guns then became the main armament of the St Helena defences between 1888 and 1902 and frequent practice firings were carried out during this period. In 1898 it was proposed to

mount two 6-pdr Quick-firing (QF) guns in the Munden's casemate in place of the 7-inch RBL guns. These latter guns had become obsolete as they were outranged by the heavier guns on Ladder Hill and Munden's Hill and were unable to maintain the rapid rate of fire needed to deal with the new large torpedo boats coming into service with foreign navies. In 1892 there had been a tentative proposal to mount 4.7-inch QF guns in place of the 7-inch RBLs in the casemate but on review the smaller 6-pdrs were considered adequate and, of course, cheaper.

20th-century fortifications

The invention in the 1880s of a successful British breech-loading (BL) mechanism for heavy guns eventually led to the introduction of these guns into the British army and the Royal Navy and, ultimately, to their arrival on St Helena. These new breech-loading guns, together with the smaller quick-firers, were much more effective than the old rifled muzzle-loading guns but they required a new design of battery position. This usually took the form of two concrete gun positions allowing each gun, usually a 6-inch BL gun, to fire *en barbette* over a low concrete apron. Between the two gun positions there was either a large underground magazine serving both guns or two, smaller, individual magazines each comprising a cartridge store, shell store, shifting lobby, RA store and RA shelter.

In 1902 the Defence Committee recommended the installation of the latest 6-inch BL Mark VII guns firing a 100 lb [c45kg] shell to a range of 12,000 yds [10.9km]. The 9-inch RML guns were dismounted and the two on the top of Munden's Hill were left in situ and can still be seen there today. The Round Tower magazine was adapted to hold 6-inch shells.

The 7-inch RML guns were removed from the casemate and were disposed of by simply tipping the guns over the cliff onto the rocks below the point. The casemate was then adapted to mount two 6-pdr QF guns on cone mountings. This was done by blocking up the centre RML embrasure and constructing concrete platforms in the other two embrasures on which the new guns were mounted. Three storage lockers for ready-to-use ammunition were built into the blocked-up central embrasure. An additional position was built close to the barrack block on Munden's Point probably as a practice position as it allowed the gun to fire freely seawards.

The mounting of modern guns to defend James Town improved the effectiveness of the defences enormously. However, without searchlights, or Defence Electric Lights as they were then termed, the guns could only be fired by day. Two 90cm Moveable Beam DELs were authorised for Munden's Point and positions for these lights were built on the rocks below Munden's Point battery, one position immediately above the other and accessed by means of steps and steel ladders. The engine house was built into the rock in a sunken emplacement below the level of the old battery terreplein.

During the Boer War, from 1899 to 1902, Boer prisoners-of-war were held on St Helena and the garrison was increased considerably by the arrival of units required to guard the Boer prisoners, mostly British militia regiments, or elements of them. However, the garrison was duly reduced when the war ended in 1902 and the prisoners were released. In 1906 the War Office took the decision to remove the remaining garrison and when the troops left they took with them the two small 6-pdr QF guns from Munden's Point.

The St Helena defences remained unmanned until 1911 when the Admiralty took over responsibility for the guns and a small maintenance party of Royal Marines comprising one officer (a captain), two sergeants, ten marines and three RN signalmen were sent to the island. The searchlights at Munden's Point were re-installed but the 6-pdr QF guns were not returned to the casemate, which was converted into an oil store for the DEL engines. The Royal Marines maintained a garrison on the island throughout the First World War and up to 1938 when the decision was taken to return the four 6-inch guns to Britain.

This decision was, as it turned out, rather premature. Fortunately the dismounting of the guns was not to happen as there was a delay in sending out the stores necessary to dismantle the guns and they were still in position on 3 September 1939. The War Office immediately dispatched the personnel to form the St Helena Coast Battery RA and the St Helena Fortress Company RE, the latter having the responsibility for manning the DELs.

Lieutenant Colonel R J Longfield RA was the first OC Troops St Helena and he arrived in January 1940 having taken almost three months from the date of his posting order to arrive on the island. With the evacuation of the British Expeditionary Force from France in June 1940 Britain was in great danger of being invaded by the Germans. Emergency coast defence batteries were established all along the coasts of Britain and Northern

9. Munden's Point upper DEL position in 1940. (Brigadier D Longfield)

10. Gunners of St Helena Coast Defence Battery RA manning one of the Ladder Hill 6-inch guns in 1942. (Michael Wittaker)

11. Ladder Hill Fort in 1940 showing the two 6-inch BL guns before the splinter shields were fitted. (Brigadier D. Longfield)

Ireland and there was an urgent need for heavy guns to arm these new batteries. The War Office considered that two 6-inch BL guns were sufficient to provide a defence of James Town harbour against German surface raiders or U-boats and ordered the return to Britain of the two 6-inch guns on Munden's Hill.

The Ladder Hill battery acted as the examination battery for James Town but saw no action. The only warlike act to affect St Helena was the sinking of RFA *Darkdale* by a U-boat when she was anchored off James Town in 1941. No additional gun positions were built on the island nor were the 6-inch guns provided with concrete overhead cover since there was no possibility of air attack, but in 1942 they were provided with the shield extensions that can be seen on the guns today. In 1939 the two DELs were found to be unserviceable and the 22hp Hornsby Ackroyd oil engines that powered the lights were unreliable. The OC Troops was ordered by the War Office to rebuild the DEL positions and three new Lister 22kw engines were sent out from England and installed in the engine room. The lower of the two original DEL positions was apparently abandoned and a new position was constructed close to the entrance to the casemate on the old Munden's Point battery terreplein. This was a position that had been proposed in 1907 for a new DEL position as it gave better illumination across James Bay towards Lemon Valley Bay but construction of the new position was never approved by the War Office.

In June 1946 the St Helena Coast Battery RA was disbanded and the breech mechanisms of the guns and other spare parts were ordered to be dumped in deep water off James Town and the British personnel of the battery returned to Britain for demobilization. For the first time in 300 years there were no longer any British troops stationed on St Helena.

Annex A: St Helena Armament in 1823 and 1850.

31st March 1823

Battery	*Iron Long Guns*	*Carronades*	*Iron & Brass (Br) Howitzers*	*Mortars*
Lower Crown Point	1 x 18 pdr; 1 x 9 pdr	5 x 24 pdr		
Upper Crown Point	1 x 18 pdr; 4 x 12 pdr; 1 x 3 pdr			
Repulse Point	1 x 18 pdr			
Middle Point	1 x 6 pdr		1 x 8 in (Br)	
Banks Upper Battery	8 x 18 pdr; 1 x 9 pdr; 1 x 4 pdr	2 x 18 pdr	1 x 10 in (Br)	
Banks Lower Battery	7 x 32 pdr; 1 x 4 pdr	3 x 12 pdr		
Rupert's Line	3 x 32 pdr; 1 x 24 pdr; 1 x 9 pdr	2 x 24 pdr; 2 x18 pdr; 2 x12 pdr		2 x 13 in
Bunker's Hill		1 x 24 pdr		
Upper Chubb's Rock	1 x 12 pdr			
Middle Chubb's Rock	1 x 12 pdr	1 x 24 pdr		
Lower Chubb's Rock		2 x 24 pdr		
Rupert's Hill (Munden's Hill)	4 x 12 pdr; 1 x 9 pdr	1 x 24 pdr; 1 x 18 pdr		
Saddle Battery	4 x 12 pdr			
Munden's Point	12 x 24 pdr	3 x 68 pdr		2 x 13 in
James Valley Fort	9 x 32 pdr; 3 x 18 pdr; 6 x 12 pdr; 1 x 9 pdr	3 x24 pdr; 2x18 pdr; 6 x12 pdr		
Ladder Hill	10 x 12 pdr; 2 x 9 pdr; 4 x 6 pdr	1 x 24 pdr; 5 x 12 pdr	1 x 5.5 in; 6 x 24pdr; 5 x12pdr	3 x 13 in (Br)
Breakneck Valley	2 x 6 pdr			
Powell's Valley	1 x 12 pdr; 1 x 9 pdr; 3 x swivels	1 x 12 pdr		
Friar's Ridge		1 x 12 pdr		
High Point	1 x 12 pdr			
Goat Pound Ridge	1 x 12 pdr; 1 x 6 pdr; 1 x swivel	3 x 12 pdr		
High Knoll		8 x 18 pdr		
Horse Pasture Point	2 x 18 pdr			
Egg Island	3 x 24 pdr	1 x 24 pdr		1 x 9.2 (Br)
Thompson's Valley East	1 x swivel	1 x 68 pdr; 1 x 18 pdr		
Thompson's Valley West		2 x 18 pdr		
Gregory's Battery	2 x 9 pdr	1 x 24 pdr; 1 x 12 pdr		
Prosperous Bay Beach	1 x 9 pdr		1 x 8 in (Br)	
Hold Fast Tom		1 x 12 pdr		
Mitchell's Line (Sandy Bay)	3 x 18 pdr	2 x 24 pdr; 2 x 18 pdr		
Horse's Head		3 x 24 pdr; 1 x 18 pdr		
Crown Point	1 x 6 pdr			
Beach Hill	1 x 9 pdr			
Four Gun Battery	1 x 12 pdr			
Lemon Valley Line	6 x 6 pdr	3 x 18 pdr		
Lemon Valley Half Moon	4 x 18 pdr			

29th October 1850

Battery	*Iron Long Guns*	*Carronades*	*Iron & Brass (Br) Howitzers*	*Mortars*
James Town Lines	9 x 32 pdr; 15 x 18 pdr	1 x 12 pdr	1 x 8 in (Br)	3 x 13 in
Munden's Battery	1 x 32 pdr; 12 x 24 pdr	3 x 68 pdr		2 x 13 in
Chubb's Batteries	2 x 12 pdr	1 x 24 pdr		
Banks Battery	7 x 32 pdr; 9 x 18 pdr; 1 x 9 pdr; 1 x 3 pdr	2 x 18 pdr; 3 x 12 pdr		
Sandy Bay	3 x 18 pdr; 1 x 9 pdr; 1 x 6 pdr	5 x 24 pdr; 3 x 18 pdr		
Lemon Valley	4 x 18 pdr; 6 x 6 pdr			
Ladder Hill	1 x 32 pdr; 11 x 12 pdr; 1 x 9 pdr;3 x 6 pdr	5 x 12 pdr	1 x 8 in (Br)	
High Knoll	1 x 6 pdr; 2 x 4 pdr	8 x 18 pdr		
Patton's Battery	1 x 18 pdr	4 x 24 pdr; 1 x 18 pdr		

Notes

1. Jackson 1903, 190.
2. Janisch 1885, 31 March 1787.
3. ibid, 12 November 1737.
4. ibid, 28 November 1695.
5. ibid, 12 January 1717.
6. ibid, 24 July 1734.
7. NA/PRO CO 700 St Helena 8a.
8. Brooke 1808, ch 7.
9. Jackson 1903, 185.
10. ibid, 185–6.
11. NA/PRO WO 55/2827.
12. Jackson 1903, 189.
13. Melliss 1975, 44.
14. NA/PRO WO 396/1.
15. ibid.

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