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Cover Page Footnote

The author would like to thank Gérard Gusset for his recollections of the excavation of the gates and John Light for his helpful comments on blacksmithing. E. Ann Smith deserves special thanks for her comments regarding the manuscript.

THE BRITISH GATE OF FORT BEAUSÉJOUR: AN ARCHAEOLOGICAL RECONSTRUCTION

Bruce A. Morton

Fifteen years after its initial excavation, the reanalysis of field notes, the final report, and the artifact collection, in addition to communication with the site's original excavator, has resulted in a detailed reconstruction of the main gate at Fort Beauséjour, New Brunswick, Canada. Interpretations generated by this recent reconsideration contribute significantly to what is at present only a scant body of data concerning North American fort gates of the mid-18th century.

Located at the head of the Cumberland Basin at Aulac, New Brunswick, Canada (FIG. 1), Fort Beauséjour, a pentagonal earthwork, was constructed by the French in 1750 to protect their claims in Acadia. Over the next four and one-half years, they continued to strengthen the fortifications in readiness for the inevitable clash.

When hostilities between France and England again developed, the fort was attacked by the British, and on June 16, 1755, after a brief two-week siege, it fell to troops under the command of Brigadier Robert Moncton. Although the British renamed it Fort Cumberland, the fort is most frequently referred to today as Fort Beauséjour in honor of its French founders.

One of the tasks the British undertook upon capturing the fort was relocating and constructing new main gates. Specific information on fort gates of the mid-18th century and later in North America is minimal (Nadon 1965; Lee 1973; Young 1979). None of the sources the author researched indicated anything other than passing reference to gates or entrances. The recovered hardware from Fort Beauséjour, however, provides us with an almost complete assemblage that gives valuable insight into how the main gates of a fort of this period were constructed. To be sure, the archaeological

remains do not answer all questions completely, but they do provide enough information to effect a logical reconstruction. In the absence of other hardware assemblages that are as complete, the following artifact discussion and reconstruction should be of value to archaeologists involved in excavation of similar sites.

At the time of the 1755 siege, the main entrance to Fort Beauséjour was located on the northeast curtain between two bastions that the British later named Prince Edward and Prince Henry (FIG. 2). The north side of the fort faced high ground and, as a result, received the main thrust of the British bombardment. The French were forced to barricade their own main gate in an effort to strengthen the north curtain wall. The strategically-weak location and the barricade undoubtedly convinced the British to site their own gate to the southeast where it overlooked falling, open ground.

Within days of taking Fort Beauséjour, the British filled and leveled the attack trenches dug during the siege, permanently reinforced the curtain wall in the area of the French entranceway, and relocated the main entrance to the south side between the Prince William and Prince Frederick Bastions (FIG. 2).

The main entrances to forts have always been vulnerable. As a consequence, much thought went into their design and construction. Main gates had to be massive to allow relatively easy passage of not only troops but also vehicular traffic; they also had to open and close quickly and with ease. Sturdiness, in order to withstand assaults by enemy forces, was another essential requirement. Such gates needed well-made hardware of an abnormally large size.

Entrances were well guarded. The Orderly Book of Fort Cumberland for May 18, 1759 (Nadon 1966: 43), states that "under normal conditions the fort was guarded by 15 men during the day and 29 during the night." The breakdown by posting was as follows:



Figure 1. The location of Fort Beauséjour National Historic Park. (Drawing by C. Piper.)

	Day	Night
Main Gate	8	8
Covered Way	4	4
Bake House	2	2
Hospital	1	2
Spur	0	9
Beer House	0	2
Hay Yard	0	2

The eight-man guard was posted at the gate at all times; in times of alarm, 40 additional men were sent to guard the bastions on either side of the entrance.

In the late summer of 1968, Parks Canada archaeologists, under the direction of Gérard Gusset, excavated the British entranceway to the fort as part of a large-scale, multi-year project (Gusset 1969). Excavations revealed that two walls of the entranceway, each 4.2 ft thick, cut a 32 × 9.8 ft passage through the curtain wall. They were constructed of rubble fill between carefully laid inner and outer faces. Archaeological evidence shows the outer face to be of coursed ashlar. Outside the fort, on either side of the entranceway proper, two buttresses, located 13.7 ft apart and perpendicular to the curtain wall, strengthened the curtain wall and defined the approach to

the entrance. Approximately one-third of the way through the curtain wall, each entranceway wall was provided with a one-ft recess into which the massive gate leaf swung when it was opened. The distance from entrance wall to entrance wall within the recessed area was 11.0 ft so the entranceway would not be constricted when the gates were open. Beyond the recesses, toward the interior of the fort, the entranceway walls narrowed to 10.0 ft apart. The entire entranceway was paved with a mixture of cobblestones and brick fragments that provided a relatively level, well-drained surface.

Of the original entranceway walls, only the bottom seven courses remained intact, rising slightly over six ft in height. A photograph of the interior of a curtain wall at Fort Beauséjour, taken in the early 20th century, clearly shows at least 15 regular courses of stone (Nadon 1966: Sec. H, facing p. 4). Assuming that these courses averaged 0.9 ft high including mortar, as did those excavated, the entranceway walls would have been 13.5 ft and indeed could have been higher.

Most fortifications of the period and those of later years were constructed with a lintel of some sort over the gateway. Mention is

FORT BEAUSÉJOUR

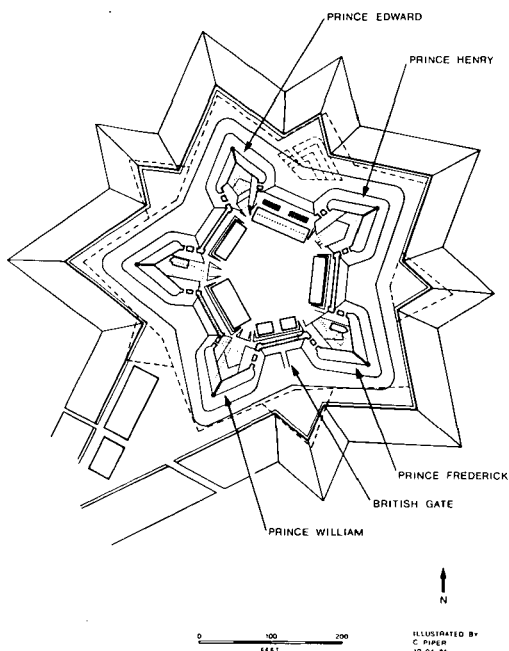


Figure 2. Fort Beauséjour after 1755. The British gate was built between the Prince William and Prince Frederick bastions. The outlines of the 1751 French fort and some structures are indicated by dotted lines. (Drawing by C. Piper.)

made of a structure over the main French entrance (Nadon 1968: 38), but there appears to be no reference for any such similar construction in conjunction with the British occupation. Furthermore, no archaeological evidence suggests anything like a projecting gallery or parapet above the gates. For these reasons, no lintel has been included in the reconstruction drawing (FIGS. 4, 5).

Excavation also revealed remnants of wood from one of the two gates and massive hardware *in situ*, including a substantial number of wrought nails, several hinges, and sliding bolts with guides (FIG. 3). All of this hardware was uncovered within the entranceway.

Artifacts related to the gates and their construction consisted of 318 hand-wrought nails, three double strap hinges (FIG. 6a, c-d), one T-strap hinge (FIG. 6b), two handled sliding bolts with guides (FIG. 7a-b), one sliding

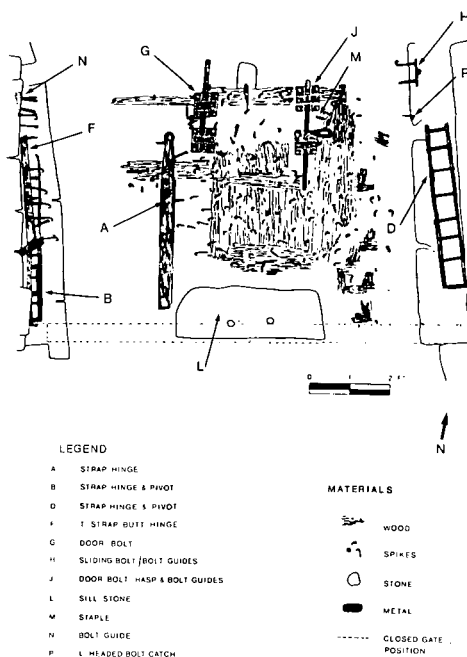
FORT BEAUSÉJOUR N.B.
BRITISH ENTRANCE GATE

Figure 3. Plan view showing the location and distribution of gate hardware in the British entranceway. (Drawing by S. Epps.)

bolt with hasp and staple (FIG. 7c-d), one sliding bolt guide (FIG. 7e), and one L-headed nail (FIG. 8), which served as a vertical bolt catch. The relationship of these pieces to each other can be seen in Figure 3. All items are much larger than those normally associated with an average-sized gate or door.

Three of the four double strap hinges used to hang the two main gates were recovered; the exception was the upper hinge shown in Figures 4c and 5c. The only T-strap hinge recovered was the one illustrated in Figures 5f and 6b. The sliding bolt and catches illustrated in Figure 5k were never found and may not have existed in that form. The means of securing the sally port within the gate leaf may in fact have been entirely different. In the absence of evidence to the contrary, however, this author has chosen to illustrate a locking device similar to the recovered gate bolts.

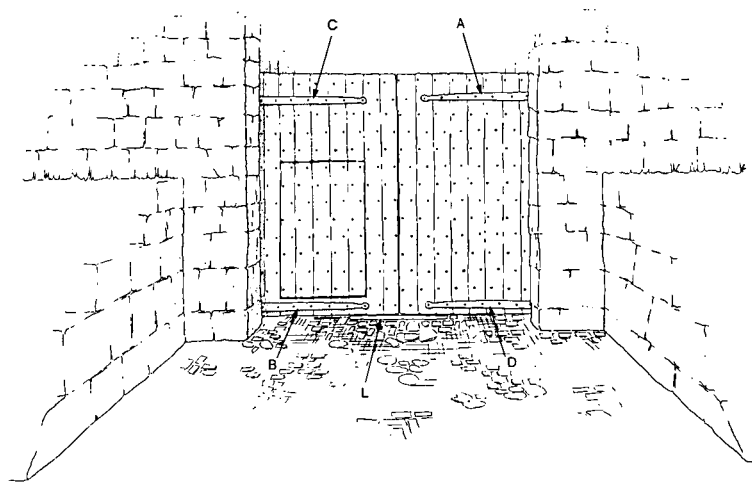


Figure 4. View of the British gates from the exterior of the fort—as they probably appeared after 1755. Not to scale. (Drawing by J.C. Farley and C. Piper.)

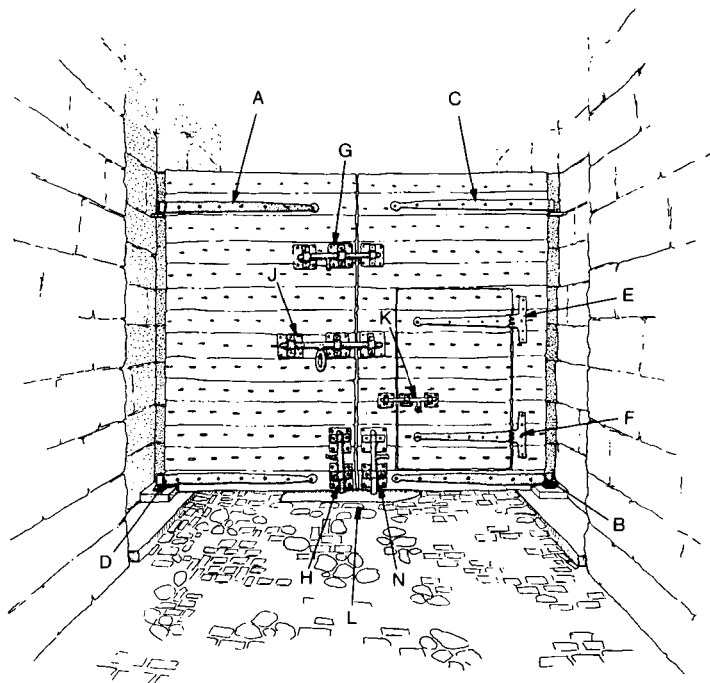


Figure 5. View of the British gates from the interior of the fort—as they probably appeared after 1755. Note the recesses where the open gates would rest. Not to scale. (Drawing by J.C. Farley and C. Piper.)

The three double strap hinges were made in the same fashion, the lower, and presumably the upper, hinges being mirror images of each other. A wrought-iron bar has been hand-forged into a rectangular strap, then bent to form a squared “U” with one leg

considerably shorter than the other. The longer leg has been tapered and thinned and has a rounded end. On each of the two bottom hinges, a circular pin has been forge-welded to the long leg of the squared “U” where it makes its right-angle turn. The

circular pin forms the pintle of the bottom hinge and fits into a square, wrought-iron block. The iron blocks have rusted to the pintles of both lower hinges (FIG. 6c-d). The short leg of the hinge was tack-welded to a rectangular, thinned, tapering strap with a rounded end. Holes punched through both straps of the hinge hold rivets that would have passed completely through the door planking. The manner in which the three double strap hinges were manufactured suggests that the smith who made them was working with six-ft lengths of bar stock measuring $2\frac{1}{2}$ in wide and $\frac{5}{8}$ in thick (Light 1985: personal communication).

The gates were made of two layers of planks—the planks in one layer running at right angles to the planks in the other layer—held together with wrought nails driven through the wood and clinched on the inside surface of the gate. It is estimated that each gate was five ft wide and at least eight ft high. The widest distance between the parallel straps of each of the three gate hinges is found to have been $5\frac{1}{2}$ in. As there is no deformation of the hinges and no significant deterioration resulting from oxidation, it is reasonably certain that the gates were $5\frac{1}{2}$ in thick. The clinched nails verify this measurement.

The upper pair of hinges, of which only one remains (FIGS. 4a, 5a, 6a), pivoted on pintles that would have been mortised into the entranceway stonework. How the two lower hinge blocks were anchored is not known, but a logical method is depicted in Figure 5. The iron socket blocks of hinges b and d could have been let and leaded into squared stones which, in turn, could have been mortared to the stone sills on either side of the entranceway. By letting the socket block into squared stones and then notching the bottom planks of the gate leaves so that they could swing unhindered past the stone blocks, the lower hinges could have been attached higher on the gate than would otherwise have been possible. The result would be a more structurally sound gate.

When the gates of Fort Beauséjour were

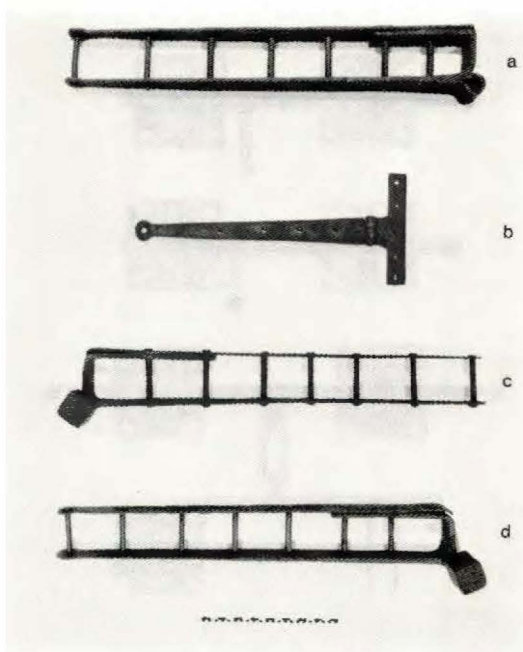


Figure 6. Gate and construction-related artifacts: a, right upper hinges (see FIG. 4a), $48\frac{1}{2}$ in inside length, $4\frac{3}{4}$ in to $5\frac{1}{4}$ in wide between straps; b, T-strap hinge used on the sally port door, top of the "T" is 14 in long, strap is 29 in long; c, lower left-hand hinge, (see FIG. 4b), 48 in inside length, $4\frac{3}{4}$ in to $5\frac{1}{4}$ in wide between straps; d, lower right-hand hinge, (see FIG. 4d), 47 in inside length, 5 in to $5\frac{1}{2}$ in wide between straps. (Photo by R. Chan.)

closed, they were held shut by four massive sliding bolts on the inside (FIGS. 5g, h, j, n; 7). Two identical sliding bolts with handles (FIGS. 5h, 7a) were mounted vertically near the bottom of each gate; the bolts fitted into holes in a flat paving stone adapted specifically for that purpose (FIGS. 3i, 4i, 5i). When raised, these bolts were held up by L-headed nails driven into the door (FIG. 8), serving as bolt catches. All that remains of the right hand vertical bolt in Figure 3 is the lower guide (N). To further secure and strengthen the main gates, a sliding bolt with a hasp and staple (FIGS. 5j, 7c-d) was mounted horizontally on the left gate. A second sliding bolt, with a handle (FIGS. 5g, 7b), was mounted horizontally above the locking bolt on the left hand door at an estimated height

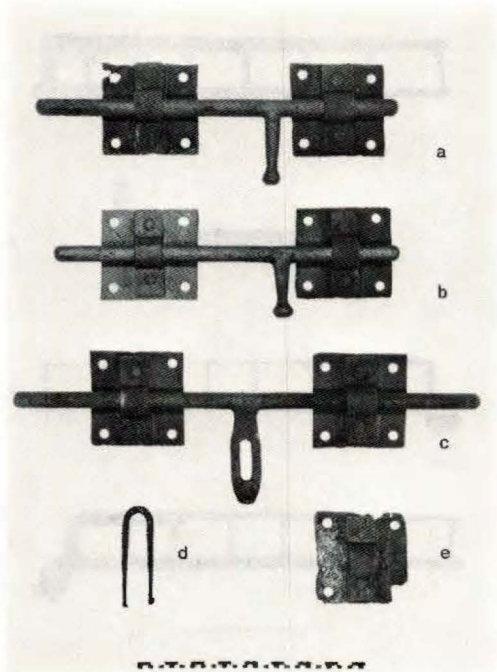


Figure 7. Gate and construction-related artifacts: a, vertical bolt for left hand gate leaf, as viewed from the inside, 26 ½ in long, 1 ¾ in dia.; b, upper horizontal bolt for left hand gate leaf, as viewed from the inside, 25 ½ in long, 1 ¾ in dia.; c, lower horizontal sliding bolt, 34 ½ in long, 1 ¾ in dia.; d, staple for locking bolt (c); e, bottom bolt guide for vertical bolt on right hand gate as viewed from the inside.

of 6.5 ft above ground. All sliding bolts were attached to the gates by wrought nails driven through the wood and clinched.

All of the bolt guides and the bolt keeper were manufactured in the same manner. A section of strap stock was curved to form a guide that was riveted to a roughly square backplate. The backplates were then nailed into place and the nails clinched. Like the double strap hinges, all three sliding bolts were hand-forged and the handles and hasp expertly butt-welded.

The oversized T-strap hinge (FIGS. 5f, 6b) has a five-part joint and a fast pin. The tapered strap and the top of the “T” both have five attachment holes punched through them. This hinge also was attached with clinched wrought nails.

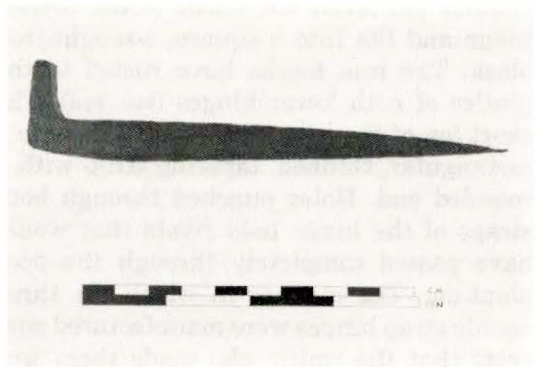


Figure 8. L-headed nail. One of the two used as bolt catches for vertically-mounted sliding bolts.

The locations within the entranceway (FIG. 3e) of the T-strap hinge in relation to the other artifacts led Gusset to postulate the presence of a smaller door, a sally port, within the right hand gate (Gusset 1969: 71), as seen in Figure 5. The archaeological evidence supports the theory. Although only one hinge (FIG. 5f) was found during excavation, it is almost certain to be one of a pair. Figure 5 illustrates how a smaller sally port using T-strap hinges might have been incorporated into the larger right gate leaf. The size of the T-strap hinge found in the excavation and the estimated size of the two main gates suggests that the sally port measured three ft wide and five ft high. A gate of that size would allow the easy passage in and out of the fort while the larger main gates remained closed and barred.

The British force besieging Fort Beauséjour included a corps of engineers who were responsible for the digging and later demolition of attack trenches and for other construction required at the time. Among their number would have been carpenters, masons, and one or more blacksmiths. It is believed that it was those people who were responsible for the fabrication of the gates and entranceway of the newly-captured Fort Beauséjour. While masons labored to face the passage dug through the curtain wall, carpenters no doubt prepared the lumber and built the gates to a predetermined size.

The smiths meanwhile forged the necessary ironwork. There is no evidence, either historical or archaeological, to suggest that the British built their gate using salvaged French hardware.

Fort Beauséjour remained operative for some 78 years after the British captured it in 1755, although its military importance waxed and waned. In 1834 the Board of Ordnance leased the lands and buildings to private individuals. Throughout the period of 1755-1834 the original British gate hardware remained in place, although the general state of repairs of the fort worsened with the passage of time. The missing pieces of gate hardware were very probably left exposed when the general collapse of the entranceway occurred sometime in the second quarter of the 19th century. Perhaps they were salvaged to be reworked by some later, unknown, blacksmith.

Acknowledgments

The author would like to thank Gérard Gusset for his recollections of the excavation of the gates and John Light for his helpful comments on blacksmithing. E. Ann Smith deserves special thanks for her comments regarding the manuscript.

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