

Rapport de recherche

Winter Comfort and the Use of Storm Sashes in Nineteenth Century Halifax: the Military Experience

CAMERON PULSIFER

From a material culture viewpoint the numerous ways in which the British military adapted to the severity of the Canadian winter make one of the most interesting themes in the story of its long presence in this country. To preserve comfort, and indeed, in certain respects, life itself, the British military was forced to make many adaptations to its uniform, its equipment, and its living quarters, which were unique to its service in this northern land, for in no other part of the empire were the winters as cold or as long. The records of the British military's service here contain a rich store of materials upon which a fascinating case study of climatic and cultural adaptation could be based. A major component of this theme of adaptation was, of course, the methods used for heating barracks, of which storm sash use was a small but by no means insignificant aspect. The following discussion of when and under what conditions military authorities in Halifax approved the use of these fixtures will, it is hoped, give us some insight into the kinds of considerations which influenced them in responding to the problems of winter comfort in military quarters, and also provide a glimpse into the conditions of winter living in this east coast garrison.

In Quebec City it would seem that storm sashes were mounted as a matter of course. At least they were provided for in the original estimates for the construction of two different barracks there, one in 1852, and the other in 1868.¹ And in contrasting the situation there with that in Halifax, the commander-in-chief in Nova Scotia, Sir Jeremiah Dickson, wrote in June 1845 that, "The Barracks in Canada are provided with double sashes and passage stoves which is not the case in this province."² Probably this was to some extent due to the more moderate average mean winter temperatures which prevailed in Halifax. However, while *average* temperatures doubtless were more moderate in the east coast city, still,

compared to what most soldiers in the command were used to, the weather there was very cold and blustery, and subject to long stretches which were as freezing as any in the Canadas. Nonetheless, until the middle of the nineteenth century storm sashes on military buildings in Halifax were probably rare, if not unknown. Only with the increased attention that was paid to matters of health and sanitation in barracks that followed the disasters of the Crimean War did military authorities become more favourably disposed to installing them. But still this was done very much on an ad hoc, or case by case basis, and usually only after a case of almost dire necessity had been proved beforehand. Probably it was not until the 1870s that they began to be installed in any numbers.

A letter dated 12 January 1859 from the Commanding Royal Engineer, Lieutenant Colonel Richard Nelson, to his superior in London, the Inspector General of Fortifications, provides an overview of storm sash use on the residences of some of the senior military officers in the Halifax garrison at that time. Nelson had written the previous November to request approval for an expenditure of £11.6.3, "For a new stove and three double (or winter) windows," for his official residence in Royal Engineer Square, which was located just to the east of Royal Artillery Park off Sackville Street. "Both these services have the same object," he explained, "vizt. to render the large dining room (24 feet long 18 feet wide and 11 feet 6 inches high) tenable during the winter which presently it is not with its northerly aspect, small fire place and large single sashes..."³

Thoughts of Lieutenant Colonel Nelson and his guests shivering at the dinner table did not immediately move the Inspector General to take pity, however. Instead, he required Nelson to "report on the extent to which other residences corresponding to that of the

Commanding Royal Engineer are provided at the public expense with double (or winter) windows." In his reply Nelson noted that Major General Commanding, the Deputy Military Storekeeper, the Barrack Master, the Commanding Officer Royal Artillery and the Commanding Royal Engineer all lived in public quarters in town, and the officer commanding the infantry regiment occupying the Citadel (the 63rd Foot) resided in the officers' quarters at the fort. Of these, he wrote:

...the house of the major general commanding [Belle Vue—at the southeast corner of Queen Street and Spring Garden Road] is detached and completely furnished with these windows.

The Commanding Officer Royal Artillery has none—his quarters [in the centre of Royal Artillery Park] are not detached.

The Deputy Military Storekeeper [at the northeast corner of Water Street from the Ordnance Yard] is sheltered on all sides; but he has only just taken possession, and it remains yet to be seen whether he can do without.

The Barrack Master's Quarters [at the northeast corner of Gottingen and Cogswell Streets—demolished in 1867 to make way for a new military hospital] are detached and much exposed, contrary to the opinion of my predecessor and the Major General commanding I consider that this house ought assuredly to be thoroughly fitted as the neighbouring hospital also a detached building. [This hospital, located across

Cogswell on the Citadel's north glacis, was built in 1806, and destroyed by a fire in 1866.]

In the Citadel the Barracks are massive structures with very small windows and do not require window sashes.

These windows are to be found in a very large number of the best houses of the town and in some of the middling classes;—where not supplied there is reason to believe the residents are either not proprietors or are acclimatized old residents.

No buildings require these windows so much as those of wood and which are detached.⁴

Nelson's reference to the military hospital is somewhat confusing. Did he mean that that it was equipped with storm sashes and that the Barrack Masters quarters should be also; or did he mean that it was *not* equipped with storm sashes and that, like the Barrack Master's quarters, it should be so equipped? Unfortunately no precise answer can be given, but in connection with this it is interesting to note that when an addition was proposed for this hospital in July 1862, the Commanding Royal Engineer informed the War Office in London that its windows were "to have double sashes, or probably plate glass 3/8 in. thick would suffice, as it would be cleaner, single windows are much more easily managed than double ones."⁵ This suggests that there was some awareness of a special need for weatherproof windows in hospitals as opposed to other



Fig. 1
Pavilion Married Quarters (southwest corner of Brunswick and Cogswell Streets) circa 1876. This building, for married non-commissioned officers and men, was built in 1867–68. Storm sashes do not seem to have been deemed a requirement. (Crown copyright photograph courtesy Controller of Her Majesty's Stationery Office, Public Record Office, WO 78/2835, London)



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Fig. 2
Halifax Tandem Club assembled outside Wellington Barracks (west side), 1874. Note the absence of storm sashes, and indeed the number of open windows on what presumably would have been a cold winter's day. (Public Archives Nova Scotia, PANS 108-85-2-874-0201)

buildings. Still it should be noted that when in March 1867, after the old hospital had burned and steps were being taken to fit up the nearby Glacis Barracks as a temporary hospital, it was proposed to fit storm sashes only to the windows of the first floor of the west (presumably the most exposed) side.⁶ This suggests that the Glacis Barracks, a men's barracks, had not previously had them.

An instance where storm sashes were not approved, even for officers' quarters, occurred in January 1860. Lieutenant Colonel Ingall, commanding officer of the 62nd Regiment, had complained of the cold in his quarters at the recently opened Wellington Barracks (located in the north end of the city in present day CFB Stadacona) and had evidently suggested storm sashes as a remedy. The Commanding Royal Engineer, Lieutenant Colonel Nelson had reservations on the grounds of cost. "Double windows would doubtless add much to the comfort of these quarters," he wrote, "but then they would be required for every room in the whole range and this for 232 windows would become a serious item."⁷ Despite these reservations a proposal for new warming arrangements in the officers' quarters at Wellington Barracks involving stove piping for the passages outside the rooms and storm sashes on the windows went forward to London. Officials there approved the piping but rejected the double sashes.⁸

It was not until eight years later that any storm sashes were mounted on these barracks. Even then, however, the number approved was only eighty, enough presumably to cover the windows on one (presumably the exposed eastern) side. Interestingly, the tender call in the *Halifax Morning Chronicle* specified that "hand made sashes only will be received."⁹ Probably the remaining windows were not so equipped until 1878 when the Army Medical Department's "Sanitary and Statistical

Reports" took note of the fact that storm sashes had been added to the officers' quarters at the Wellington Barracks.¹⁰

If a building was old, made of wood, and exposed to the weather, applications that it be equipped with storm sashes stood a greater chance of success. Thus in 1862, the commanding officer Royal Artillery in Halifax wrote to his counterpart in the Royal Engineers that

...the officers of the 15th Brigade living in the Royal Artillery Park and Engineers Square represent that in the late severe weather their quarters were most uninhabitable from cold owing to the building's being old and much exposed to the weather. I therefore recommend that double windows be provided in all the officers' quarters to remedy...this evil.¹¹

The Commanding Royal Engineer, Lieutenant Colonel Westmacott, approved, noting that "in severe weather water freezes in these quarters though a large stove is kept burning all day,"¹² and the service was included in the Barrack Annual Estimate for 1863-64.¹³ It must have been approved by London for on 18 June 1863, a tender call appeared in the *Morning Chronicle* for "Providing and fixing (112) one hundred and twelve outside sashes to at the Royal Artillery and Royal Engineers Barracks."¹⁴

Colonel Franklyn's original proposal had not mentioned men's barracks. At this time the men's barracks for the Royal Engineers was South Barracks, which stood just to the east of Royal Artillery Park off Sackville Street, and for the Royal Artillery a two-storeyed porticoed structure, standing just to the east of the Royal Artillery officers' quarters in the middle of Royal Artillery Park, was provided. If these two structures had been included in the above proposal for storm sashes then certainly many more than 112 would have been required. The Royal Artillery and Royal

Engineer officers' quarters, if one included their respective living quarters, messes, and commanding officers' houses, had in all 125 windows.

In his letter to the Inspector General of 12 January 1859, Lieutenant Colonel Nelson had noted that storm sashes were present "on a very large number of the best homes in the town and in some of the middling class," which suggests that they were mostly absent from the homes of the lower classes. The British military was not at this time disposed to provide its soldiers with comforts superior to those of the class in society from which they came, and the standard of living of the working classes in Halifax were generally superior to that of their counterparts in Britain. Also this era was the heyday of the pthogenic or miasmatic theory of disease which held that one of the major causes of illness was miasmas or "noxious emanations" which were present in foul or stagnant air. One of the consequences of this for men's barracks in the army was that often ventilation took precedence over warmth.¹⁵ Indeed, in June 1880 a special committee was struck to consider the proper relationship of warming to ventilation in army barracks.¹⁶ Interestingly, in 1860 special ventilators were installed in the men's barracks Royal Artillery Park to correct

conditions which were considered "too heated and vitiated to be favourable to health."¹⁷

The first confirmed instance of storm sashes being applied to a men's barracks in Halifax was in 1876 at Wellington Barracks. During the winter of 1874-75, the surgeon of the First Battalion 60th King's Royal Rifles, which was then housed at Wellington Barracks, complained of the temperature of the men's rooms. As described by the Commanding Royal Engineer in March 1875:

The majority of the rooms are about 34.0 ft. x 18.6 ft. x 11.0 ft. having at one end a door and window opening into a closed corridor lighted by windows 6 ft. 6 in. x 3 ft. 6 in. at central intervals of about 8 ft. 6 in. The outer ends of the rooms have two windows opening to the air:—each room is provided with an open grate of an obsolete pattern which with extra fuel is found incapable of warming the rooms sufficiently. The windows of the corridor and rooms are not provided with double sashes.¹⁸

Thus equipped, the average temperatures inside the rooms were 48° Fahrenheit by day and 47° by night with outside temperatures of 22° and 20° respectively.

In response to the surgeon's complaints, the commander-in-chief, Lieutenant General O'Grady Haly, directed that experiments be undertaken to determine the best means of



Fig. 3
Officers Group, First Battalion Leinster Regiment, in winter dress, outside the Officers' Quarters, Wellington Barracks (west side), circa 1900. Note the storm sashes (with open lights), which probably were installed on this side of the building in the late 1870s. (Courtesy National Archives of Canada, PAC 28437)



heating these rooms. Thus in January–February 1875, under the direction of Captain Nesbit W. Wallace of the First Battalion 60th Rifles, four different stoves and a new pattern grate were tested. Besides heating effectiveness they were also tested for economy of fuel consumption. The winners were a type of stove called the “Rocket,” and the new pattern grate, called the “Maguire.” At an average outside temperature of 22° Fahrenheit by day and 20° by night, the former yielded temperatures in the rooms of 56° and 48° respectively; the latter 53° and 47° respectively. Captain Wallace preferred the stove, but the Commanding Royal Engineer, Colonel Lovell, preferred the grate, probably in conjunction with storm sashes. It was true, argued Lovell, that stoves

have a slight advantage over the improved grated in heating power with a rather small allowance of fuel but not to any marked extent and there is very little difference between the final cost of the improved grate and the stove, therefore, in these two respects it is a matter of indifference whether a stove or the improved grated be adopted assuming that the old grates must be replaced.¹⁹

Lovell was inclined to favour the grate for a number of reasons unconnected with its heating power. Stoves required constant cleaning, an expense that could be avoided with grates. Also grates lasted three times longer than stoves, the risk of fire was less, and they provided better ventilation.²⁰

Lovell evidently believed that any deficiencies (should there be any) between the heating capacities of the stove and the grate could be compensated for by the use of storm sashes. As he wrote in March 1875:

An item of £100 has been inserted in the [Barrack Annual Estimate] for 1875–76 for renewing some of the grates in the Wellington Barracks and I would propose to spend this in providing Maguire grates and should they be found insufficient I would then ask for money to provide double sashes.²¹

Evidently this proved to be the case, for the Army Medical Department’s “Sanitary and Statistical Report” of 1876 noted that “double window sashes have been added to half the barrack rooms” (again probably on the most exposed side) at Wellington Barracks.²²

With the increase of temperature between the old and the new heating systems being so

slight, it is difficult to see what was achieved by this exercise. It does illustrate, however, that in 1875 what was considered an acceptable temperature in men’s barracks in Halifax was not by any means excessive.

The first reference that we have to storm sashes being mounted at the Citadel dates from 1892. The Medical Department’s “Sanitary and Statistical Reports” for that year noted that “storm sashes and double doors [were] provided for some of the barrack rooms at the Citadel.”²³ It was not until 1904, however, that mention was made of their being applied to the Cavalier, the large free-standing barrack structure situated on the fort’s parade.²⁴

What then is one to make of these examples of storm sash use by the British military in Halifax in the nineteenth century? First, it would seem that they were more commonly mounted during the second half of the century than during the first half. Even then, however, they seem to have been introduced slowly, and indeed perhaps until the last two decades of the century the prevailing disposition seems to have been not to mount them rather than to mount them. They were most likely to have been approved for buildings which were old or made of wood, or else especially exposed to the weather. Also, until the last third of the century it would seem that they were approved mostly for officers’ quarters (although even here it was not necessarily automatic), occasionally on offices, but not generally on buildings for ordinary soldiers. This probably had begun to change by 1876 when storm sashes were approved for at least the windows on the most exposed side of the men’s quarters at Wellington Barracks. That they were approved in 1892 for some of the windows at the Citadel, by then exclusively a men’s barracks, and which thirty years earlier had been identified as a massive structure not requiring storm sashes, may indicate that by then they were becoming more universal. In summation then, it would appear that in Halifax, at least until the final years of the nineteenth century, considerations of economy and “red tape,” a preoccupation with efficient ventilation, and possibly an element of class bias were at least as important in determining whether or not the military properly winterized a building as the degree of discomfort experienced by the inhabitants.

NOTES

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3. National Archives of Canada (hereafter NAC), vol. 1439: 275-76, Lt. Col. Nelson to IGF, 15 November 1858.
4. *Ibid.*, 295, Lt. Col. Nelson to IGF, 12 January 1859.
5. *Ibid.*, vol. 1660: 2, Memorandum from the CRE Nova Scotia, War Office, 12 July 1862.
6. *Ibid.*, vol. 1776: 116, "Estimate for Fitting up Glacis Barracks as a temporary hospital," 12 March 1867.
7. *Ibid.*, vol. 1440: 113-14, Lt. Col. Nelson to Lt. Col. Fordyce, 24 January 1860. Underlined in original.
8. *Ibid.*, vol. 1659: 224-25, T. Foster (for IGF) to CRE, Halifax, 22 December 1860.
9. *Halifax Morning Chronicle*, 18 June 1868. Italics in original.
10. Great Britain, *Parliamentary Papers*, 1878, vol. 48: 163, Army Medical Department, "Sanitary and Statistical Accounts," Nova Scotia.
11. PAC RG 8, vol. 1662: 246, Lt. Col. Franklyn CRA to Lt. Col. Westmacott, CRE, 29 December 1862, with note by Maj. Gen. Doyle, 30 December 1862.
12. *Ibid.*
13. *Ibid.*
14. *Halifax Morning Chronicle*, 18 June 1863, 3.
15. Alan Ramsey Skelley, *The Victorian Army at Home*, (Montreal: McGill-Queen's University Press, 1977) 31-32.
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17. R. J. MacDonald, *The Royal Artillery in Halifax, 1860-1875*, (Unpublished Manuscript, 1981: on file at Halifax Defence Complex), 24.
18. NACRG 8, vol. 1779: 824, "Memdm, on warming soldiers' Bk. Rooms at Wellington Barracks," CRE, 6 March 1875.
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20. *Ibid.*
21. *Ibid.*, 825.
22. Great Britain, *Parliamentary Papers*, 1876, vol. 44: 78, Army Medical Department, "Sanitary and Statistical Reports," Nova Scotia.
23. *Ibid.*, 1893-94, vol. 52: 50.
24. *Ibid.*, 1906, vol. 46: 117.