Scientia Canadensis
Canadian Journal of the History of Science, Technology and Medicine
Revue canadienne d'histoire des sciences, des techniques et de la médecine

Simple Technology in the Regulation of a Frontier Industry

Beth Doucet et Bessel VandenHazel

Volume 12, numéro 1 (34), printemps–été–spring–summer 1988

URI : https://id.erudit.org/iderudit/800265ar
DOI : https://doi.org/10.7202/800265ar

Aller au sommaire du numéro

Éditeur(s)

CSTHA/AHSTC

ISSN

0829-2507 (imprimé)
1918-7750 (numérique)

Découvrir la revue

Citer cette note

Doucet, B. & VandenHazel, B. (1988). Simple Technology in the Regulation of a Frontier Industry. *Scientia Canadensis*, *12*(1), 53–60. https://doi.org/10.7202/800265ar

SIMPLE TECHNOLOGY IN THE REGULATION OF A FRONTIER INDUSTRY

Beth Doucet and Bessel VandenHazel[1]

On 7 November 1893, the steam paddlewheeler *John Fraser* set out from the town of Callander for the northwest end of Lake Nipissing and the sawmills of Cache Bay, towing a barge burdened with supplies for the Davidson and Hay lumber camps. John Davidson and John Hay, the owners of the steamer, operated a Toronto wholesale grocery firm but had expanded their investment by buying out a logging operation on Lake Nipissing.

During the nineteenth century, logging and wood export formed an important part of Canada's commerce,[2] and the introduction of steam technology into industry allowed for the development of efficient steam-driven sawmills, paddleboats and trains. The market for construction materials both at home and abroad prompted enterprising men such as John Davidson, John Hay and Alexander Fraser to start up lumber companies which provided not only valuable timber but also employment for many of the pioneers that arrived in the area with the railway in 1882.

The northern forests were full of mature timber and riddled with bodies of water; the lumbermen could cut wood anywhere near a stream, such as the French or Sturgeon rivers, and be assured of its easy transportation by water. The Lake Nipissing region was ideal for logging, and the lumbermen took advantage of its resources, bringing industry and commerce to the area as the forests fell before the sawyers.[3]

Despite its otherwise perfect suitability for logging, the lumbermen had to deal with the small size of Lake Nipissing's feeder streams. It was easiest for the loggers to float their cuttings downstream in the spring when even the smaller rivers would be swollen by thawing ice and melting snow. There was a buildup of logs to be run down the river in the spring be-

---

1 Nipissing University College, North Bay, Ontario.

2 General studies include: A.R.M. Lower, *The North American Assault on the Canadian Forest. A History of the Lumber Trade between Canada and the United States* (Toronto, 1938) and John W. Hughson, *Hurling Down the Pine* (Old Chelsea, Que., 1964). Other aspects of lumbering are covered in John Springer, *Forest Life and Forest Trees* (New York, 1851) and Donald MacKay, *The Lumberjacks* (Toronto, 1978).

3 See Bessel J. VandenHazel, *From Dugout to Diesel: Transportation on Lake Nipissing* (Cobalt, 1986).

cause during the winter, of course, the waterways froze and it was impractical to transport the logs by any other method. The timber that was cut over the winter was stacked on the ice of a lake or stream where it would fall into the water to be carried away as soon as the ice melted. The logs set afloat by the different companies logging on the same river would become mixed together, and the workers downstream would not know which logs to claim for their employers. A method of marking the logs became necessary in order to separate one company's logs from those of the competitor.[4]

Timber identification marks were originally applied by axe and were therefore known as 'axe' marks but were also referred to as 'brush' marks. Axe marks were limited to the range of characters that could be made with such a crude tool.[5] Initials were square, complemented by simple but definite shapes which were described as 'notches,' 'hacks' or 'slashes'. Axe marks were applied to the side of the log near its end rather than directly to the flat, cut end and had to be deeply hewn so as to cut through the bark and into the wood. This ensured that the mark would still be visible even if the bark fell off the log.

The marks had to be placed on at least two sides of the log so that they were visible no matter which side showed while the log was floating in the water. This original method of marking by axe had its drawbacks. The marks were difficult to make and could easily be changed by other lumbermen who wanted to steal logs. The process of hacking the mark into the log was also very time consuming and exhausting.

Later, lumbermen began using awls and knives to mark the logs, and these were known as 'scratch' or 'scribe' marks. They were applied to the sides of the log, and the only difference between the marks made by awls and those made by axe was the incorporation of curved lines which could be made by knife but not by axe. The letters were often made in cursive, and a wider variety of shapes and designs became possible. The method was, however, just as time consuming and complicated as that of marking by axe, and the marks themselves were as easily changed.

During the eighteenth century, loggers in the United States developed a new method of marking the logs. Large iron sledgehammers were forged or cast with the company's mark embossed on them – a mirror image of the mark to appear on the log. These hammers were called 'hand mallets' or 'stamping dies' by the men who used them. The iron head of the hammer would measure four to five inches (about 10–13 cm) by two to three

4 A contemporary listing of timber marks is J. Barnwall Jackson, *The Lumberman's Timber Mark Guide* (Montreal, 1874).

5 See Eric Sloane, *A Museum of Early American Tools* (New York, 1973).

inches (about 5–8 cm), weigh twelve pounds (5 kg) and be mounted on a long wooden handle. The marks were stamped on the flat, cut ends of logs. Since no skill was required on the part of the lumberman except a good swing, the marks could take on any design that the metalworker could forge. The marks were usually compact and like logos or monograms. The stamping hammer was quick and easy to use, and the mark it made was impossible to alter inconspicuously.

Another easy way to mark logs was to use paint. Paint marks usually consisted of a pattern of dots, lines, geometric shapes and some rather ambiguous characters which were defined as splotches or smears. The colour of the mark was a distinctive feature of it and helped the mark to show up well from the water or at a distance, making sorting and counting very easy for the river drivers. Paint marks were originally applied directly to the cut end of the log, either freehand with a brush or by stencil, but later the paint was applied to the head of a stamping hammer so that the stamped mark appeared in colour on the log.

Timber marks played a role in many important aspects of lumbering. They were proof of company ownership and they were useful to the log sorters. The marks were also essential in the calculation of taxes and fees that a company paid. There were co-operatives of workers formed by members of different lumber camps who were responsible for driving the logs downriver, towing and sorting them. These river drivers counted the number of each type of timber mark on the logs that they drove and charged the companies accordingly. The men who operated timber slides would do the same. Slides were first used by companies to transport logs over rapids or waterfalls, as these obstacles were destructive to the logs.

Although rafts were not used in the logging on Lake Nipissing, there were timber slides at various difficult places such as Duchesnay Creek and Sturgeon Falls where the slide carried free- floating logs over the rapids and falls. Later, people who were not employed by a lumber company would build, maintain and operate timber slides for their own profit. Tolls for the slides were calculated by counting timber marks. Government taxes were levied according to a count of marked logs. Government inspectors assigned to inspecting and grading the size and quality of timber kept records classified according to timber marks.

The salvage of logs also depended upon timber markings. Often, logs being driven down the river would become lodged on the banks as the spring floods subsided and logs would be lost on Lake Nipissing. 'River sweepers' were shantymen hired by the lumber company to collect logs bearing the marks of the company, whether the strays lay on a riverbank, had washed up in a cove or been claimed by someone else. As long as the

wood bore a recognizable timber mark, the sweepers had a right to claim it. The 'sweepers' lived on the lake in houseboats towed by small tugs.

The federal Department of Agriculture was responsible for registering the marks for the lumber companies. To prevent confusion, the ministry would compare the marks and reject those that were too much alike. If a company chose a mark that bore too much similarity to a mark that was already registered, that company had to choose another and remark all its logs at its own expense.

A company whose mark was original was granted a certificate intended to 'provide proof of ownership in case of dispute.'[6]

The certificate gave the lumberman the right to use the mark on his logs and prohibited his competitors from using it. Anyone caught using a mark which had been registered by someone else was required to pay from $20 to $100 to the company whose mark he had stolen. Applicants for registry were charged $3.50 to cover the various processes of registration, including the printing of a certificate and the preparation of drawings of the mark. Many companies would register more than one mark. The type of mark on the log indicated to the owner which lumber camp had cut the log, the age of the tree or any other type of information that he might want to know.

The Alex B. Gordon Company, for example, registered several. In 1906, it bought out a Mattawa-based lumber company and registered a mark which combined the letters N and P (see figure 2, #10). In 1917, it registered 'a hexagonal metal hammer with the letter X in the centre.' (#1) In 1918, it introduced a pattern of five green dots and in 1924 its North Bay branch registered a pattern of four white dots. These marks were all registered by the same lumberman but under slightly different titles, such as 'A.B. Gordon,' 'Alex B. Gordon' and 'A.B. Gordon & Co. Ltd.', the latter being the name of the North Bay branch. The different marks and different names probably denoted various affiliations with other small companies throughout Ontario. Later to become a senator, North Bay's George Gordon once owned a sawmill in Cache Bay. Senator Gordon's company first used four spots of white paint on the end of the log but later also registered four spots of red paint and four of yellow.

The Canadian Timber Company that eventually bought out the A.B. Gordon company did not register a new timber mark but, instead, re-registered the mark of the previous owner in its own name. When the Canadian Timber Company incorporated the Gordon company in 1927,

6 Diane Aldred, *Registered Timber Marks of Eastern Canada from 1870 to 1984* (Ottawa, 1985).

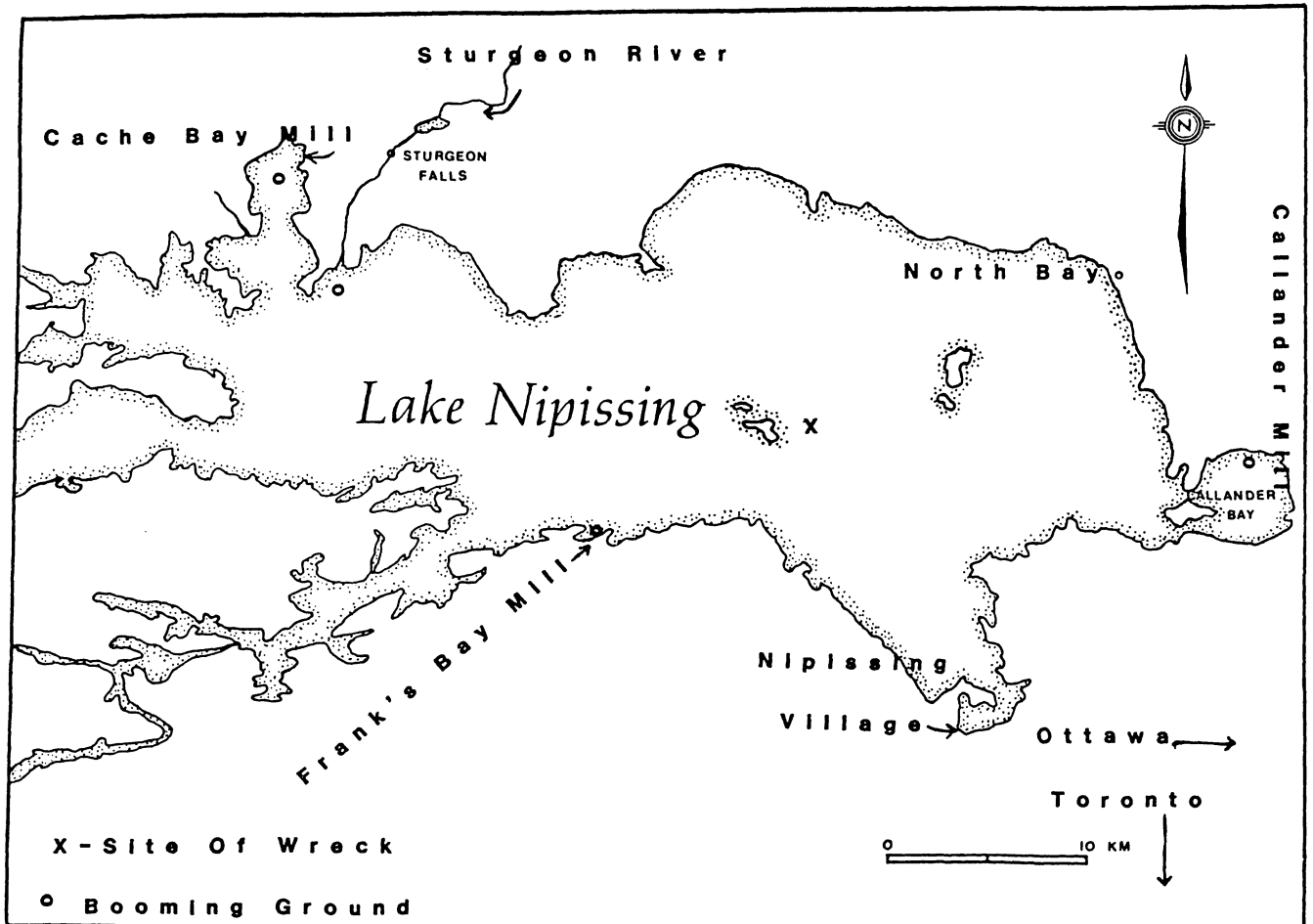
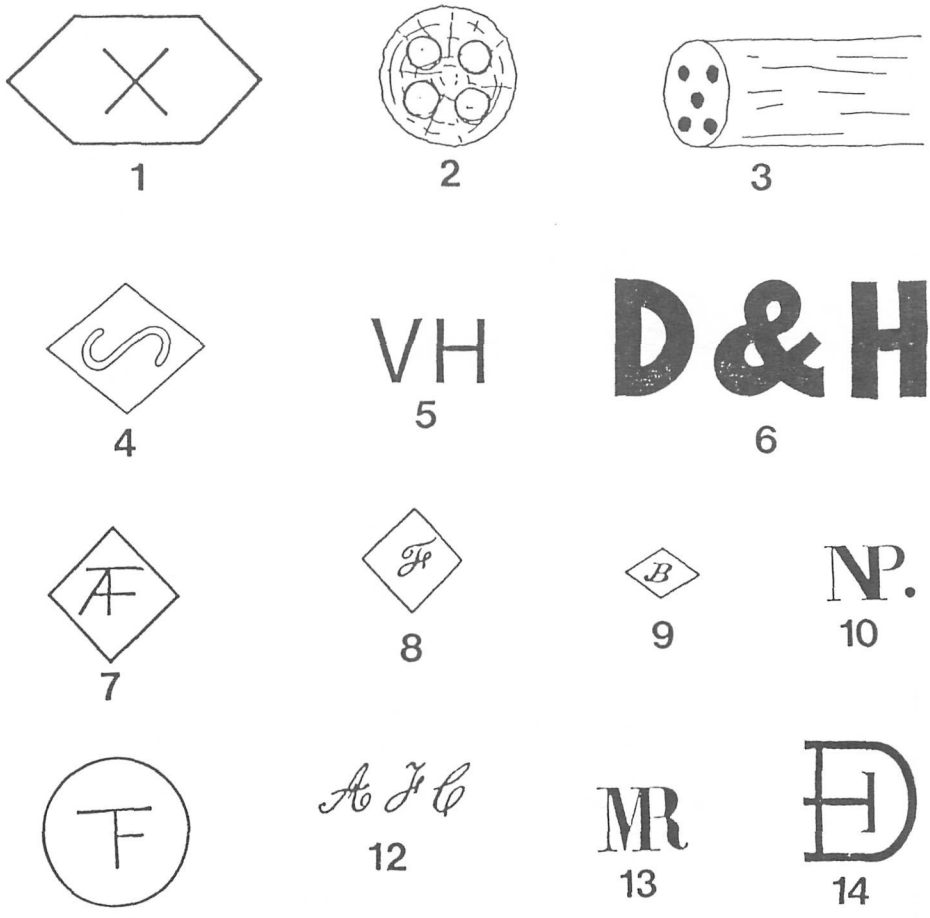


Figure 1 — Sketch plan of Lake Nipissing



1 A.B. Gordon
2 A.B. Gordon & Co. Ltd.
3 Alex B. Gordon
4 John B. Smith and Sons
5 Victoria Harbour Lumber Co. Ltd.
6 Davidson, Hay and Co.
7 The Strong Lumber Co. Ltd.
8 Alexander Fraser
9 J.R. Booth Limited
10 Canadian Timber Co., Ltd.
11 Cache Bay Lumber Co. Ltd.
12 Alexander Fraser
13 Martin L. Russell
14 Thos. Darling & Sons

Figure 2

all of the timber marks formerly used by the Gordon company were adopted by its new owners.

Alexander Fraser, original owner of the *John Fraser*, also had several different timber marks, each of which had specific applications. One, for example, signified Alexander Fraser and his brother John Fraser's (namesake of the tugboat) timber mark for the McGillivray Lake (#8), whereas another signified his independent Coulonge timber mark (#12).

John B. Smith and Sons of South Bay (now Callander), Victoria Harbour Lumber and Davidson and Hay, both of Cache Bay, J.R. Booth and Thomas Darling and Sons of Wisiwasa and the Russell pulpmill of the Sturgeon River all used marks which were based on the

initials of the company. The Strong Lumber Company of Cache Bay

used the combination of 'T.A.F.T.' as its mark for reasons that are obviously less apparent, perhaps forgotten. The Cache Bay Lumber Company, which may or may not have operated on Lake Nipissing's Cache Bay, used the letters 'T.F.' in its mark; these were possibly the initials of its owner. Also in Callander Bay was the sawmill of J.T. Payette. Payette was a businessman in Penetanguishene, Ontario who, like Davidson and Hay, bought northern timber rights as a profitable sideline investment to his foundry and machinery enterprise.

The most advanced operation on Lake Nipissing, however, was that of J.R. Booth. Booth operated two tugboats out of Callander Bay. A jackladder on the Wasi River raised his logs past the Wasi Falls, and a private railway carried his logs from there to Lake Nosbonsing from where they were floated to the Ottawa River and the hydro-powered sawmills at Ottawa. Although Booth was not the first lumberman to log on Lake Nipissing, he was the first to use horses in his operation. The sophistication of the Booth Company paid off: it produced more than twice as much wood as the next best of his competitors in the Ottawa Valley.

The Toronto-based grocery company of Davidson and Hay, which acquired the Alexander Fraser Company in 1892, registered a timber mark consisting of the capital letters D and H joined by the character '&'. The mark was not only used on logs but also found on a wrought iron pike point salvaged from the wreck of the *John Fraser*. The *John Fraser* carried instruments such as pikes, peaveys and canthooks both for use while towing logs and as supplies for the logging camps. These tools were used, respectively, for sorting floating logs, turning floating logs and turning logs that lay on solid ground. Although the scow that she was pulling carried most of the supplies for the lumber camp, the *John Fraser* took many logging implements with her to the bottom of Lake Nipissing.

The large-scale logging undertaken in the forests bordering Lake Nipissing and its tributary rivers could have led to property disputes among lumbermen. In 1868 an act was passed in federal Parliament concerning trade marks in industry. Two years later, a new act was proposed which extended the use of trade marks to lumbering. This act specified that 'all floated wood in Quebec and Ontario be marked and that all marks be adopted and registered within one month of [the company] having commenced operations.' This legislation not only facilitated the sorting of logs and allowed the companies to claim their property but also provided an efficient system of taxation, keeping order and discipline in the very complicated lumber industry.