

## CHAPTER FOUR:

### The Cotton Mill

*Numerous rumors have been afloat for some time past respecting the intentions of Alex. Gibson, to put in operation at Marysville a cotton mill or some other industry that would furnish employment to a large number of people. By the investment of some of his wealth in factories, Marysville will in a few years grow to be a large and prosperous town or city.*

- Fredericton Reporter, January 19, 1881.

**B**ANKING \$800,000 FROM the sale of the New Brunswick Railway, Gibson was now faced with the pleasant prospect of what to do with all this cash. Around this time he was invited to join a syndicate headed up by Sir William Howland to build the trans-Canada railway to British Columbia. This idea went nowhere, and in January, 1881, the *Freeman* reported that Gibson had offered to take half a million in stock in the newly formed Canadian Pacific Railway Company. This offer also was never finalized. Then the idea for a cotton mill for Marysville came to mind. Murray Young makes the intriguing suggestion the idea for the mill was not just a hard business investment, but at least partly an act of philanthropy resulting from a spiritual crisis in which Liberal leader Edward Blake encouraged him to do some extraordinary work for the people of his town.

Blake's role in this story is told in an anonymous typescript. Strolling in Gibson's garden one morning, he found his host sitting on a bench with his head in his hands, crying. "Sandy," said Blake, "your load of sorrow is hard to bear and you have my deepest sympathy, but are you the only one in tears in this busy town of Marysville? How many homes are there here where there is sorrow and want, in how many homes is the flour barril [sic] empty, why are so many children going about without shoes? Is it because their mother is a widow? Take my advice, go down to the store and from your abundance help those in need. For as you minister to the wants of those people your burden will be lessened and gradually disappear. It was the Master's way." According to this account, Gibson later told his friend Bert Lint that "when the world looks blue and you are troubled you do what the late Honorable Edward Blake told me to do."

There are some facts to back up this tale. Edward Blake did visit the Maritimes in July 1881 and may well have been Gibson's guest while in Fredericton. And there had indeed been a load of sorrow in the Gibson house at that time. Gibson's parents, probably because of ill health, had moved from Oak Bay to Marysville in 1878, and Gibson's father had died shortly after in July 1880, aged 86. Following hard on this event was the death of Gibson's eldest son John T. in October at the young age of 35. According to legend, relations between the two had not been the most congenial. Stories tell of shouting matches on the office steps, the son's drinking habit, anathema to a man like Gibson; his insistence, apparently against Gibson's own opinion, that the company should diversify into pulp and paper, coupled with the suggestion that perhaps it was time for the old man to retire. It is easy to believe that his son's untimely death left Gibson with a store of guilt, and this would have been aggravated with the death of John's two children, Florence and Frederick, aged four and two, early in the next year. And then Gibson's mother, with whom he seems to have been very close, died in February 28, 1881.

While the encounter with Blake may have given Gibson a particular impetus to act, the idea for a large local industry seems however to have predated it. In January 1881 it was reported that Gibson had just returned from a trip through Massachusetts for the purpose of inspecting that State's paper mills. As a result, affirmed the *Toronto Globe*, "In the spring Mr. Alexander Gibson will erect large paper mills at the village of Marysville, on the river Nashwaak, a tributary of the St. John river emptying into that stream opposite the city of Fredericton. He will employ a considerable number of workmen in the manufacture of the finer kinds of writing and printing papers."

Eighteen months after Blake's visit, in December 1882, Gibson filed a Memorandum of Association in the *Royal Gazette* for the Marysville Paper Company but by the spring of 1883 cotton had replaced paper as his manufactory of choice. Under Macdonald's protectionist National Policy, there were now good business incentives to open a cotton mill. Macdonald had been re-elected in 1878 with broad support from industrial concerns in Quebec and Ontario who felt with him that the future of the country lay not in the staples trade, the hewing of wood and drawing of water, as it were, the traditional industries of lumber and fishing, but in manufacturing. In Quebec, there was strong lobby pressure from cotton and textile manufacturers such as Andrew Gault, whose factories at Cornwall, Valleyfield and Hochelaga had done very well in the 1870s and bid fair to make Gault the cotton king of Canada. Under new tariff barriers foundries, sugar refineries and cotton mills began to spring up in what historian Michael Bliss has described as "a distorted, hothouse growth in manufacturing." "It seemed easy," writes Bliss,

“to get up a company, negotiate a deal for a municipal bonus, import machinery and managers from the United States, and start marking money.”

Cotton manufacture was offered special protection under the National Policy. Cotton-related tariffs in 1879 rose to an average of 17.5 percent, and would reach 29.6 percent by 1890. There were selective tariffs as well: 35 percent on cotton clothing and 49.5 on cotton shirts.

At the other end, raw cotton and most cotton yarns were admitted duty-free, while the tariff on machinery not manufactured in Canada was reduced. As a result, imports dropped as Canadian cotton mills sprang up to fill the void, and the woollen industry was displaced as the primary textile industry in the country.

Between 1878 and 1883 invested capital in the cotton sector increased from 2 to 8 million, and production from 38 million yards of cloth to 115 million. By 1885 seventeen cotton mills had gone up: five in Quebec, which with its already established mills gave it the lion's share of 45 percent; six in Ontario, four in New Brunswick and three in Nova Scotia. The cotton mill at Marysville was exactly contemporaneous with the building of three other New Brunswick mills. The St. Croix Mill at Milltown laid its cornerstone in June, 1881 and by the time Gibson began excavations had already opened for business. Gibson visited this mill in February, 1882, while it was still under construction, and reputedly turned down an offer to invest in the business - evidence, perhaps, that he had plans for a mill of his own. The Moncton Cotton Mill opened in 1882. In Saint John, businessman William Parks, who had built a cotton mill called the New Brunswick Mill as early as 1861 during the cotton crisis created by the Civil War, opened a second mill nearby, called the Saint John Mill, in 1883.

Just as Gibson would build no ordinary schoolhouse or church, so he would build no ordinary cotton mill. The dimensions of the main building would be 418 feet long by 100 feet wide. By no strange coincidence, this was exactly one foot longer and two feet wider than its St. Croix rival. At four stories in height and with a capacity for 60,000 spindles and 1,000 workers, it would also rival the size of the larger mills in Quebec and Ontario.

The architects were the Boston and New York firm of Lockwood and Green, a long-established and leading company in mill design who were also the architects of the St. Croix mill. The building would be of the most modern and approved design. That meant relatively thin brick walls with large banks of windows to let in the maximum amount of light, strengthened by brick piers let into the walls at regular intervals between windows. Spanning the building from side to side, and connecting pier to pier, were heavy transverse wooden beams. These beams supported the floor, and were themselves supported every 8 to 12 feet by tapering wooden pillars connected to each

other on the floors above and below by base plates and iron pintles. Beams were not bolted to piers but tapered and let into niches so that in the event of a floor buckling or collapsing they would not take down the walls with them. Both beams and pillars were of imported Southern Pine, known to be both strong, elastic and straight, and less liable to warp or curl than any other wood on the market. Wood was preferred to iron in this method of construction because, even if charred to the thickness of an inch, it would retain most of its strength, while iron beams and pillars were known to bend and melt even in low-grade fires.

The floors and the mill in general would be of the new "slow-burning" type of construction. Textile mills, whether woollen or cotton, were notoriously prone to fires. C. J. H. Woodbury, in his *The Fire Protection of Mills* (1882) estimated that 37 percent of all mill fires were caused by friction and combustion of flammable oils, made the more deadly by the presence of large masses of textiles and floating lint. Designers such as Woodbury, and fire insurance companies in general, were moving towards construction which would lessen the likelihood of fires, and make it easier to extinguish them, by eliminating or reducing hollow spaces. In traditional, hollow-floor design, for example, 3 x 12 joists were run lengthwise to the building on 20 inch centers, nailed over with one-inch hardwood boards, and underneath with one-inch tongue and groove pine. The result was a hollow floor with numerous spaces in which fire could propagate but not be reached with water, and in which rats could build nests with flammable materials such as rags.

In the slow-burning type of construction floor joists were eliminated altogether. The floor consisted of a layer of 3- to 4-inch thick spruce deals nailed over with a planks of 1 ¼ inch Southern Pine or some sort of hardwood, resulting in a solid floor approximately six inches thick. In the best construction a waterproof and oil-proof material such as mortar was sandwiched between these two layers, and the underside of the planks was grooved to accept hardwood splines, nailed on one side only, so that shrinkage would not reveal gaps in which fire could take hold. Aside from being more fire-resistant and impervious to rodents, solid floors were less prone to deflect under the weight of heavy machinery, more easily perforated for shafts and belt holes, and less subject to vibration caused by rapidly spinning machinery.

Reduction of hollow spaces extended to roofs, which were flat or nearly flat. Gibson's mill would have an external, central tower, 22 feet square and 120 feet high, a typical feature of the modern textile mill, as it kept the stairwells (vertical flues were anathema in fire-resistant construction) out of the main building, while containing a large water tank (unable to be fitted under the small space of a flat roof) which fed the building's extensive sprinkler system - again, an insurance requirement.

In the interests of fire prevention, the picker room or area in which the raw cotton was separated from basic impurities by picker machines, would be housed in a separate building, in this case 284 feet long by 98 feet wide, connected to the main building by a corridor 18 feet long. According to Woodbury, sparks from stones and nails striking the blades of picker machines were the single-greatest cause of mill fires, and for that reason he recommended blades of phosphor-bronze, less liable to emit sparks, and fire doors of a double thickness of tongue and groove boards laid diagonally and sheathed in tin.

Construction began in earnest in June, 1883. The project was superintended by a Captain Kelsey, an engineer with Lockwood and Green, while B. Mooney and Sons of Saint John had the contract for all excavation, stone-and brickwork, a job employing 200 men alone. The project was unusual in that not only the capitalization but most of the construction materials were provided by Gibson himself. The brickyards, for example, were located on site. They were overseen by John Parkes of Ontario, an international expert in the business, and the clay was dug nearby. This part of the operation alone was of significant proportions, as it was estimated that millions of bricks would be required. By July five steam-powered brick-making machines were in operation, moulding 50,000 bricks a day and firing 30,000 per kiln, the work overall of 100 men. The Southern Pine for the beams and columns was imported, but the heavy deal planks for the flooring and the wood for framing came courtesy of Gibson's own mill. A sash and door factory was also constructed on site.

Like most textile mills, even those located directly on rivers, Gibson's mill would be steam powered, as the mill had to run at a consistent speed throughout the year and could not be subject to the uncertainties of fluctuating river levels. Water would be brought in via an eight-inch main from Campbell Brook, one mile distant, at which a cedar dam was being built.

By fall the basement for the main and picker buildings had been completed, carpenters were setting up the hard pine columns, laying flooring, and the brick walls were rising. Ernest White, son of Elias White whose property Gibson had purchased to make way for the mill, remembered a few anecdotes from this period relating to Mr. Mooney of Saint John. Having been home for a week, Mooney returned to discover that one of the third storey walls was out by 1 ½ inches. He ordered it torn down and done over, wiping out the work of 80 men for seven days. Another time, being master mason as well, Mooney bet that he could lay as many bricks as he could strike (or remove from moulds) in one 8-hour day. He won his bet by striking and laying 1,400 bricks, but was himself laid up for three days afterwards, so sore that his meals had to be brought to him in bed.