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## THE MANUFACTURES OF MONTREAL

It has been already pointed out in that portion of this pamphlet in which the commerce of Montreal is treated of, that a manufacturing should also be a commercial city, or have easy access to a seaport. As we have seen, Montreal possesses this advantage for manufacturing in an eminent degree. She possesses also within the city and in its immediate vicinity unlimited water power. Besides that furnished by the Lachine canal, the Lachine rapids offer numerous mill sites of which no use has as yet been made. It has been proposed also, though objections have been raised to the scheme, to make use of the waste water flowing from the great Aqueduct of the new water works for manufacturing purposes. A large number of factories might be furnished with motive power from this source. Another advantage Montreal possesses, is found in the density of the population of the surrounding districts. In many places the land has been subdivided until the holdings of each man are too small for profitable agriculture, and the people, deeply attached to the soil, are unwilling to leave the older settlements in the

valleys of the St. Lawrence and Richelieu so long as they can obtain subsistence there. Some, indeed, have wandered off to the prairie lands of the West and to the Eastern townships; and some have sought and obtained employment in the factories of New England, whence we may hope to see them come back to our own factories already trained to this new industry. No where are there found people better adapted for factory hands, more intelligent, docile, and giving less trouble to their employers, than in Lower Canada. Twenty or twenty-five years ago this population was most prosperous in agricultural pursuits; large crops of wheat were grown here. and a considerable surplus exported. The fly came, the wheat crops ceased, and the surplus for export of the coarser grains which have since been grown, has proved less remunerative. These coarse grains, roots, and all those other crops which find a most profitable market in large cities are grown here in great abundance. The supplies of all these necessaries for a manufacturing population can be drawn from the immediate vicinity of the city. The island of Montreal now exports, from year to year, considerable quantities of them to other parts of the Province. Owing to the causes above alluded to, agricultural wages are not so high here as in those portions of the Province where wheat is more largely grown, and hands can be obtained to work in the factories at more reasonable rates than there. All these causes concurring make this the best site for a manufacturing city in Canada. perhaps the best on this Continent. Materials required from abroad can be brought here without transhipment. Numerous beds of iron ore exist within easy distance for carriage hither by water. The Hull mines on the Ottawa. not far from the City of Ottawa, are now worked, and the iron from the St. Maurice mines near Three Rivers has long been manufactured. Both irons are of the most excellent description. Here we have abundant water-power, and cheap and abundant labor. The same appliances and facilities also which have been elsewhere described for the distribution of imported goods to consumers in the West, will be of as great assistance to our manufacturers, some of whom already feel the benefit of the opening of the Grand Trunk Railway in the increase of Western orders. The sole difficulties with which they have to contend are a restricted market, and the competition of the larger, wealthier, and longer established factories in other countries. The mode of removing these difficulties has of late occupied a good deal of public attention: but as the Committee deem it to be within the scope of the duties assigned to them to state facts only, not to suggest remedies, they do not enter upon any consideration of this subject.

There is this in favor of Montreal manufactures, that they have been established and grown up to their present position without the aid of high

<sup>1.</sup> Cotton, too, can be brought here from the more northern cotton growing States more cheaply and safely by our system of inland navigation than by the coasting route, or by rail to Boston, for the New England Factories. We have already cited an instance of cotton brought from Tennessee by this route for New York.

protective duties. The tariff has never been made highly protective, though a moderate incidental protection has been afforded them by discriminating between the raw materials for manufactures, and the manufactures themselves, admitting the former nearly or altogether free of duty, and laying a moderate duty on the latter. There can be no doubt, therefore, that they are established upon a sound basis, and are of a healthy growth.

The Committee had intended to lay before the visitors to Montreal, on the occasion of the Railway Celebration, a full account of its Manufactures. It has been found impossible, however, within the time given them for the purpose, to make their account complete. They are unwilling, nevertheless, to pass them by altogether unnoticed, and therefore subjoin some description of the extent and operations of several of the more important. The information furnished them refers principally to the Factories at the Canal. Information has been received from only a few of the numerous, and, in many instances, extensive Factories in town, and that received has been generally of a very meagre description. It has been found, therefore, quite impossible to make up aggregates, as the Committee had desired, shewing at one glance the total amount of capital invested and of manufactures produced per annum. Enough, however, is set forth below to shew that Montreal may fairly lay claim to the character of a manufacturing as well as of a commercial city.

For several years the surplus waters of the Lachine Canal were allowed to run to waste, no advantage being taken of the facilities for manufacture afforded by the power there created. In 1843, while the St. Lawrence Canals were in course of construction, and the Lachine Canal being enlarged, Mr. Ira Gould first visited Montreal. He had an interview with Mr. Barrett. then Engineer in charge, respecting the water-powers to be created, and from that interview arose the plan of applying them to manufacturing purposes. In November, 1846, the Commissioners of Public Works, (the Hon, W.B. Robinson, then being Chief Commissioner,) offered a number of mill sites on the canal and river bank, inside the upper basin, for lease at public competition. The rent obtained was \$400 per annum, for each lot, and water for four runs of stones. Mr. Gould, among others, took a lot, and built there a flouring establishment. Hitherto, all the grain ground in the city had been ground by wind or steam mills, one of the former clumsy contrivances having been in use as late as 1845 or 1846. The factories now established on that site are two flouring establishments, with 16 runs of stones, three spike and nail factories, two foundries, with extensive engine and boiler works, one establishment for making saws, two saw mills, and one paint, oil and drug mill. Subsequently, the water power at the lock next above this basin, known as the St. Gabriel Lock, was leased. The whole of it was originally taken by two individuals, and has been sub-leased by them to others, to the extent of water for 100 runs of stones. Among the works here, are, foundries, engine and boiler works, a ship yeard and marine works, saw mills, sash, blind and door factories, stave and barrel works, a flour

mill, and oatmeal and corn mill, cotton mills, and edged tool factory, India rubber factory, a factory of woollens, a large rope and cordage factory, with other smaller establishments. These works, with those on the lower basin, are using a power daily equal to that of 3500 horses, all of these establishments having sprung into existence since 1847. They furnish employment for more than 2000 men, independently of the commercial men engaged in furnishing materials from abroad. Taking the usual average of a family at five, subsistence would thus seem to be afforded to 10,000 persons by these factories, and there is no doubt that the population of that end of the town has been increased to even a greater extent since their establishment. Few instances of more rapid development can be found, we fancy, even among the rapidly growing manufacturing cities of the neighboring Union.

But the growth of our manufacturing suburb has not stopped there. Pushing still further on, to Côte St. Paul, just outside the city limits, where they escape city taxation, some new establishments have been planted during the last and the present season. A property there having a frontage of 3400 feet upon the Lachine Canal, and containing altogether about 110 arpents of land and extensive water power, was purchased about four years ago, by Mr. Parkyn, Engineer, of this city, with a view of connecting, with manufacturing operations, a dry and wet dock for repairing and building vessels. Finding it impossible, in consequence of the interference of the line of canal of the new Water Works, to carry out the plan of docks originally intended, he has been, compelled for a time to abandon it, but has continued his manufacturing operations with a most praise-worthy zeal, and has now executed a splendid head race of about 2000 feet in length and 44 feet wide, at a cost of £2000. He has also erected the following works now in operation: —

A Grist Mill with	4 un of stones,	cost £2000
Axe Factory,	$\mathbf{cost}$	1500
Saw Mills,	"	3000
Three Dwelling H	ouses. "	600

The discharge to this power is about 12,000 inches, with 9 feet 4 inches fall, and it is capable of driving four times the present machinery. About 100 men and 8 horses are employed on these works, and there is paid out in wages about a thousand dollars per week.

The Grist Mill is capable of grinding 500 bushels per day.

The Axe Factory is leased by J.J. Higgins, and turns out about 3000 dozen per annum, and is capable of extending to 5000 dozen. The Shovel Factory is leased by J.J. Higgins also, and is capable of producing 25 dozens per day.

The Nail Factory is leased by P. & J. Dunn, and manufactures about 750 tons per annum, and could be increased to 1200 tons per annum.

The Saw Mill is leased by Alex. Cowan, and when fully completed, can produce a million feet per month.

The shovels, axes and tools manufactured at these works are very superior, and at the late Paris Exhibition they drew Prize Medals.

The Nail Machines turn out excellent work; the nails obtained honorable mention at the late Paris Exhibition.

## THE FACTORIES AT THE ST. GABRIEL LOCK

India Rubber.—One of the first factories established at the St. Gabriel Locks was that of the Montreal India Rubber Company, in the beginning of 1854. They occupy a building there 180 feet long by 40 wide. with an addition 40 feet square; the main building having four stories beside the basement, the addition only two stories; all erected at a cost of £9402 besides land. They use 40 horse power of water to propel their machinery, which cost £7616. They are manufacturing 1000 pairs of rubber shoes per day now, and could double their production. They employ 110 hands, to whom they pay £600 monthly. These manufactures are sold to all parts of Canada, and some we believe have been exported to Europe.

At the other end of the City is the Canada Rubber Factory, of which Messrs. Brown, Hibbard, Bourn & Co., are proprietors. They manufacture not only shoes and boots, but car spings, hose, belting and packing. It was established in 1853. The establishment consists of.

One building	175	feet long,	40	feet wide,	3	stories high,
"	145	"	30	"	2	"
"	70	"	30		2	"
"	40	"	30	"	1	" all brick, and
One stone building	50	"	40	"	2	"

The machinery is propelled by a low pressure beam steam engine, 18 inch cylinder. They manufacture at present 1500 pairs of shoes and boots, about 1500 feet of belting and hose, 1000 lbs. of car springs and steam engine packing per diem, all of which could be doubled with the present facilities. They employ 158 persons, to whom they pay about £1000 monthly. The cost of land and buildings was about £13,880, and of the machinery £8000.

Sugar Refinery.—The largest Factory of Montreal is the Sugar Refinery, set in operation in January last year by Mr. Redpath. Its large pile and tall chimney are visible a long way off from the City. The principal building is of stone and brick, seven stories high, the whole of the floors comprising an area of 11,766 square yards. Besides this there are two brick warehouses attached, affording storage for 8000 brls. of refined sugar and 2500 hhds. raw sugar. There is also attached a range of brick buildings, 236 feet in length and two stories high, containing the gas house, the bone house, blacksmith's, carpenter's, machinist's and cooper's shops and stable, cost £45,000. The machinery is propelled by a steam engine of 50 horse-power, the boilers being equal to 150 horse-power. 100 men are employed upon the premises, but a good deal of work is done elsewhere. The wages

amount to £8000 per annum, the total expenses of the establishment being £2200 per month. The present product is about 3000 barrels of refined sugar per month, and the production could easily be doubled if the demand required it. It is all sold in Canada. This Factory is the first and as yet the only one of the kind in the Province.

COTTON.—In 1853, Mr. F.W. Harris established a Factory of Cotton Cloth at the St. Gabriel Locks, and in 1855 added a batting and wadding mill. The first has an area of 50 by 70 feet, and 3 stories high, built at a cost of £1500. The machinery is of the best description, with the latest improvements for manufacturing cloths out of cotton as it comes from the plantation. It includes willows, pickers, carding and drawing machines, 1500 spindles, and 46 looms. Cost of machinery £6500. This factory is principally employed in the manufacture of seamless bags and denims. About 70 hands are employed here, nearly all women and children, whose wages amount to about £2000 per annum. The bags are very strong and serviceable, peculiarly fitted for heavy grains, &c. Mr. Chandler, Commissioner Street, is town agent for these bags. Of the denims and ticks, about 300 yards per diem are manufactured. Three times that quantity could be made in the factory. The denims are of the same weight and quality as the well known Amoskeag denims, finished without starch or other stiffening. The ticks are of the same quality, and have been sold here a penny per yard less than the same goods cost in Boston or New York. The batting and wadding factory is 100 feet long by 24 in width, and cost £3000. In it are used 13 carding, besides other machines. They can turn off here 6000 yards of wadding, and 1200 lbs, of batting per diem, which is rather more than the home market will take now. Mr. Dougall, St. Paul Street, is agent for these goods.

Mr. George W. Weaver, Wollen Cloth Manufacturer. — Was established in 1852, holds a brick building two stories high, and manufactures all for home consumption. Mr. Weaver's machinery, which is nearly complete, will manufacture 60,000 yards per annum.

Ropes and Cordage, &c.—In 1825, Mr. Converse established a rope walk at the eastern end of the City. Since the opening of the Factories at St. Gabriel Locks he has added a large establishment there. The old establishment upon Parthenais Street comprised a stone building of 40 by 60 feet, four stories high, and a wooden building, 20 by 1200 feet, of one story, with a steam engine of 20 horse-power; cost with the land £2500. This Factory is for the present idle. The new establishment at the St. Gabriel Locks consists of a head building of 60 by 84 feet, four stories high besides basement. The covered walk is 24 by 1200 feet. Mr. Converse also manufactures gypsum for agricultural purposes and calcined plaster. The machinery is propelled by three water wheels, consuming 1200 cubic inches of water, with a nine feet fall and about 80 horse power. Building machinery and land cost £7500. 14 men, 10 girls and 18 boys are employed here, receiving as wages £35 per month. The products of the Factory are valued

at about £20,000 per annum, and they might be quintupled with trifling additional investment. The goods are all sold in Canada. The very best machinery is employed, and the manufactures, where they are known, compete favorably with any other.

Mr. C.T. Palsgrave's Type Foundry.—This establishment, which commenced in 1835, has 12 type-cutting machines, gives employment to 36 hands, and does a large business chiefly for the Canadian market. Mr. C.T. Palsgrave obtained a Prize Medal at the Great London Exhibition of 1851. He sells his type throughout the Province.

Mr. A. CANTIN, (MONTREAL MARINE WORKS), SHIP AND STEAM BOAT BUILDER, ENGINEER, &c.— This firm was established in 1846, and employs, at present, from 200 to 250 hands, at monthly wages of £1050. The works, which are situated, a small part within the City and the remainder in the County of Montreal, cover a space of about 14 acres, with a frontage to the canal of about 800 feet, and contain two excellent basins. A continuous row of buildings occupies nearly the whole 800 feet of the opposite street front of the premises. The buildings are all substantially built of stone and brick, viz: — shipyard with draughting and modelling rooms, moulding loft, saw mills, &c, &c.; and the ground cost £2000. The machinery used in the saw mills, which contain upright and circular saws, is propelled by water power, equal to eighty horses. There is used here a Marine Railway, wrought by a direct acting high-pressure engine of 15 horse power, by which vessels of the largest class can be hauled out and repaired under water mark. In the Engineering Department there is another condensing beam engine, of 20 horse power, for driving the machinery, consisting of lathes, planes, and a great variety of other machines. The Canal is here 700 feet wide, and affords great facilities for vessels entering the basin, or for being placed on the Railway, as well as for the launching of new ones. Since the establishment of these works in 1846, more than 70 vessels have been built; and there were seven steamers built and engined last year, besides smaller vessels of different kinds. For the development of the superior water communication of Canada, Mr. Cantin thinks the screw-propeller the best. This has been successfully proved in the case of two steamers now employed between Montreal and Chicago. Mr. Cantin's works, (as may be seen from the foregoing statements,) are admirably fitted for carrying on a most extensive business. Mr. Cantin's manufactures are wholly for use in Canada, Canadian built vessels not being admitted to register in the States, though those built in the States may be registered here.

Mr. John Ostell's Factory of Doors, Windows, and all kinds of Joiners Finishings,—Was established in 1852, holds several buildings, and about five acres of land, which cost £10,000; uses machinery of all kinds for wood-cuttin, &c.; employs 75 hands, who receive annually £6000 This Firm has a capital of about £20,000, and manufactures goods to the amount of about £18,750 yearly, one-half of which productions are for

Lower Canada, the rest sent chiefly to the Upper Province, and a small quantity exported to the States, Australia, and Great Britain<sup>2</sup>.

Manufacturers of Wood.—In 1854, Mr. James Shearer established at the St. Gabriel Locks, a Factory where are made Doors, Sashes, Blinds, Mouldings, Architraves, &c, making machinery do very much of the work for the finishing of houses, steamboats, &c, which was previously done by hand. This Factory is 62 feet by 49, employing a large quantity of ingenious machinery, propelled by water, with power equal to 30 horses, and capable of being doubled. From 50 to 55 hands have been employed here constantly since the Factory was established. This establishment is capable of manufacturing daily 100 doors, 50 sashes, and 25 blinds, besides mouldings, architraves, and other finishings; or of preparing, in one month, the entire inner work of a first class passenger boat, with upper saloon, state-rooms, ladies' cabin, and lower cabin with berths.

Mr. William Allen, Chair Factory, St. Gabriel Locks, —Was established in 1852; occupies, at present, a two-story brick building, and employs 25 men, at 6s. per day. Mr. Allen's manufactures are chiefly for home consumption. His machinery, when completed, will be capable of turning out 500 chairs in the day, and the chairs he manufactures are fast superseding those of American manufacture.

Mr. McGauren,—Has a Saw Mill at St. Gabriel Locks, 90 feet by 50, with a large circular saw, and four small ones, propelled by water.

Mr. WILSIE MANNING, BARREL FACTORY.—Was established in 1854, holds a one-story brick building, uses water-power machinery, which is very complete, employs 30 men, at 6s. 3d. per day each, and produces in the year 40,000 flour barrels, and 20,000 nail kegs, all for home consumption.

Axes, Edge Tools, &c.—In 1850, Mr. R. Scott established his Factory of Axes, Edged Tools, Augers, and light forgings, at the St. Gabriel Locks. Mr. Scott's buildings are three in number, one of 116 by 24 feet, one of 72 by 30 feet, and the third 56 by 40 feet, costing over £6000. A large quantity of machinery is employed, including five trip hammers, a forge hammer, grinding and polishing machines, self-acting and other lathes boring machines, &c., &c., propelled by water, about 100 horse-power, from five horizontal wheels. It is capable of profitable extension. When at full work it employs 70 men and 6 boys, who are paid from 3s. 4d. to 14s. per day. From 100 to 120 dozen a day can be manufactured at these works. They have heretofore been principally disposed of in this City and Quebec, but

<sup>2.</sup> For two or three years previous to the passing of the Reciprocity Measures the manufactures of wood here were very extensive and flourishing, and large quantities were exported. Mr. Ostell informs us that he shipped the products of his Factory in quantities to New York, New Orleans, and other places in the United States. Messrs. Grant & Hall were also exporters of large quantities of manufactured lumber to the States. Then the duty was levied on both unmanufactured and manufactured lumber; now the unmanufactured being admitted into the States free, and the duty being still levied on the manufactured, the United States manufacturer is protected to the almost entire exclusion of the Canadian from that market.

the demand from Canada West is increasing, and as these goods are saleable in bond at New York and Boston, it is believed that a trade in them might be established with those cities and even in Europe. Some of the goods manufactured here took a First Prize at the Paris Exhibition<sup>3</sup>.

Messrs. Redmonds & Co., General Foundry, 11 Gabriel Locks, — Were established in 1854, in the present site, which is a large two-story brick building. The machinery used by Messrs. Redmonds & Co. is waterpower, and they employ 30 men, at an average of 6s. 3d. per day, and send out 300 tons eastings in the year.

WM. Burry & Co., St. Gabriel Locks, Foundry, &c.,—Was established in 1885; hold two-story brick buildings, use water-power machinery, employ 70 hands at 7s. 6d. per day. About four-fifths of the manufactures of this Firm are annually exported. Messrs. Burry & Co. are about to enlarge their establishment so as to supply the increasing demands of their purchasers, which speaks well for the business.

MESSRS. A.W. OGILVIE & Co.—Have a Custom Grist Mill here, established in 1852, in which they manufacture not only flour, but pot and pearl barley, split peas, cracked wheat, Graham flour, Indian meal and farine entière. The building is of stone, three stories high, 70 feet by 36. It contains 5 pairs or runs of stones, 2 barley mills, and a pea splitting machine; cost about £2000, all driven by water, with 6 iron water wheels, having capacity for grinding 500 brls. wheat and 300 brls. coarse grain per day, and of preparing 150 brls. of barley, and splitting 150 brls peas. About 20,000 qtls, farine entière, 8000 to 10,000 qtls. Indian Meal, 3500 to 4000 gtls. pot and pearl barley, and 1200 to 1500 gtls. split peas are produced annually, the farine entière and Indian meal being sold generally for home consumption, and of the barley and peas about one-third in Canada and two-thirds for the United States market heretofore. In June last, however, the United States Customs authorities refused longer to admit this barley under the Reciprocity Treaty, classed as breadstuffs, but have levied a duty of 25 per cent upon it as a manufactured article.

#### FACTORIES ON THE CANAL BASIN

City Flour Mills.—Mr. Gould built his Flouring Mill here in 1847. The Mill proper is 165 feet by 50, and five stories high. The storehouses attached, equal in capacity, a building of 240 feet by 60, and five stories high. They all cost £37,500 or \$150,000. Twelve pairs of stones are employ-

<sup>3.</sup> In furnishing us with these particulars, Mr. Scott also called attention to the fact that the material principally used here, and at a disadvantage, is English refined iron. He believes that no more profitable manufacture could be entered upon here than one of scrap and bloom iron. Ore and fuel are both more plentiful here than in New York and other States of the Union where this manufacture is carried on to a large extend, our ores being exported for their use. Most of the Engine and Railroad uses employed here are imported from the States. It would be well for our capitalists also to ascertain how far Mr. Bessemer's recent invention may be turned to account in smelting our own ores.

ed, grinding 3500 to 4000 bushels of wheat, producing 700 to 800 barrels of flour each day. Including those engaged in preparing material and making barrels, this establishment employs 200 men, thus furnishing support to about 1000 persons. The amount paid yearly for labor alone is £7500 or \$30,000. The capital constantly employed is about £50,000 or \$200,000. The stock used yearly is valued at £187,500 or \$750,000. The value of the manufactures produced, about £200,000 or \$800,000. Very little of the flour is sold for home consumption, possibly one-eighth of the production; the greater part is exported to England, the Lower Provinces, and the United States. The coarse stuffs are principally disposed of in the City.

Mr. James McDougall has a large Flouring Mill adjoining, of which we have received no account. Both have elevators attached.

FOUNDRY.—Mr. E.E. Gilbert's "Beaver Foundry" was established in 1849. Steam engines are manufactured here. The buildings are of brick and wood, covering an area of 12,750 square feet, and the yards and ground adjoining, about 7 acres. The buildings, machinery, land, &c., cost £13,450 or \$53,800. From 60 to 80 men and boys are employed here, receiving weekly wages amounting to about £100 per week. During the six months ending 1st October last, £7300 or \$29,200 were turned out of this establishment, all for Canadian use. Double the quantity could have been turned out.

THE ST. LAWRENCE ENGINE WORKS.—Messrs. Bartley & Dunbar. Proprietors, were established in 1850. They consist of: — 1st, a Smiths' Shop, 65 by 50 feet, with 9 fires, with finishing and shearing machines, and a trip hammer, with which shafting 4 by 10 inches can be forged. 2nd, a Boiler Shop, 80 feet by 60, with 5 fires and a large quantity of machinery. Among the machinery is a punching machine, worked with a rack, whose work is mathematically correct, saving the tedious and expensive process of rimming holes to admit the rivet; and large rollers which will bend boiler plate lengthwise 9½ feet long, without hammering; and a hydraulic pump for testing boilers. The machinery here is driven by a 30 horse-power water-wheel. 3rd, Foundry, 70 by 60 feet, with facilities for making the heaviest castings required in this country. 4th, the Pattern Shop. 50 feet by 40, with accommodation for 10 or 12 pattern-makers, 5th, the Finishing Shop, 105 feet long by 50 feet wide, and three stories high, containing a large quantity of machinery of various sorts, of the best description, with the latest improvements, driven by a 25 horse-power water-wheel, and a 20 horse-power steam engine, when the water is drawn off the canal for repairs. The number of men and apprentices employed here is 160, receiving wages amounting to £190 or £200 per week, — they have gone as high as £325 per week. The work produced per annum is valued at £40,000, with capacity for extension to £70,000 or £80,000. The work done here, heretofore, has been for Lower Canada, with the exception of the iron steamer "Kingston," now plying between Toronto and Kingston. They are now executing an order for boilers for a powerful ferry steamer, which is being

built by the Great Western Railway Company, for the Detroit River. They possess peculiar facilities, with a boat shed, &c., on the bank of the canal for the construction of iron boats, and fitting the boilers and engines into steamers. They have now under contract three iron vessels, for the Trinity Board of Montreal. They execute all sorts of boiler and engine work, heavy blacksmithing, iron and brass castings, and mill-work.

MESSRS. CAMPBELL & Jones, Canal Basin,—Established, in 1855, a manufactory of saws at the Canal Basin. They use machinery propelled by water of forty horse power. They produce about \$15,000 worth annually, of which they sell to places out of Montreal about \$8500. They have the necessary appliances to supply the whole Canadian market. This is, we believe, the first and only establishment of this kind in Lower Canada. Although very recently established the business is rapidly increasing.

Lymans, Savage & Co., Linseed Oil, Paint, Drug and Spice Mills,—Established in 1852. The building is 60 by 40 feet, built at a cost of £10,000, propelled by hydraulic power equal to four runs of stones. They employ from 30 to 35 men, paying about £50 wages weekly, with a capital of about £15,000. They manufacture 30,000 gallons of linseed oil, 500 tons linseed cake, 100 tons putty, and 25 tons paint, grinding 20 tons drugs and spices, amounting in value to £30,000. 450 tons of linseed cake are exported to England, four-fifths of the remainder sent to places in Canada out of Montreal.

SAW MILLS, &c.—There are several saw and planing mills in the City, but only a few returns have been received from their proprietors. Messrs Grant, Hall & Co. built one at the Canal Basin in 1851, in which are ememployed 3 circular saws, 2 planing machines, and a barrel machine, propelled by a water-wheel, with 80 horse-power; 70 persons are employed by it. They can plane and dress 1,000,000 pieces, say, of flooring, and saw 10,000,000 feet of lumber per annum. It is all sold for home consumption, a 30 per cent duty shutting out dressed lumber from the United States market.

Mr. T.D. Bigelow's City Nail and Spike Works,—Were established over 60 years ago, with one or two machines; in 1839 he had 5 machines, propelled by horse power, and employing 20 men. After the water power at the canal basin was opened up to the public use, Mr. Bigelow removed there. He now uses 54 nail machines, 4 spike ditto, 1 shoe sprig and 1 tack ditto, with shears, grind-stones, &c., propelled by water. About 50 men and 10 boys are generally employed here, earning 15s., 30s., and some 90s., per week. The works are now turning out from 1200 to 1500 tons of nails per annum, and can, if pushed to their full capacity, turn out 2000 tons of nails and 500 tons of spikes.

There are besides, at the canal basin, another Foundry and Engine Works of considerable extent, of which Messrs. Milne & Milln are the proprietors; Mr. Berry's Sewing Machine Factory; an extensive Nail-Cutting Works, and the Messrs. Tait's Dry Dock and Ship Yard, of which returns have not been sent in.

#### FACTORIES IN THE CITY

Messrs. Wm. Smyth & Co., Wholesale Boot and Shoe Manufacturers,—Began business in Montreal in 1843, keep 8 sewing besides other machines, and employ 80 hands, male and female, on whom £75 per week are expended. Messrs. W. Smyth & Co. received an award of medals both for superiority of work and cheapness, at the Paris Industrial Exhibition, and have likewise been favorably noticed since at Exhibitions both in Canada and the States.

MESSRS. Brown & CHILDS,—Established in Montreal a very large establishment for the manufacture of boots and shoes, into which they have from time to time introduced the latest inventions and improvements of machines for shaping, sewing, &c. They employ 800 persons, and turn out about 1000 pairs of boots and shoes daily, a large portion of which are sold to places out of Montreal.

MESSRS. W. HYATT & Co., MONTREAL MARBLE WORKS,—Hold large premises in Craig Street, have a capital of about £1500, produce manufactures to the amount of £3000 or £4000 yearly, mostly for home consumption. This business, though of late growth, has, in Messrs. Hyat & Co.'s case, been making considerable advances for the last few years.

Mr. Charles Garth, Coppersmith, &c.—Business established in 1838; holds a brick house, which, with lands attached, he values at about £4000; has numerous engines, boilers, &c; keeps an annual average of 40 men and 12 boys, who get from £85 to £100 weekly; manufactures goods to the amount of from £15,000 to £30,000, two-thirds of which are for home consumption. Mr. Garth believes that this branch of trade may shortly, with the advantage arising from the opening of the Grand Trunk Railway, increase to ten-fold its present importance.

Messrs. J. & W. Hilton, Cabinet Makers, &c.,—Commenced in 1845, have a capital of £15,000, hold a brick house, value £3000, have numerous engines, and employ on an average 82 hands, to whom they pay all £116 weekly. Their yearly manufactures amount to from £20,000 to £30,000 of which about two-fifths are exported. This branch of trade dates its rise in Montreal from 18204.

Messes. R. & A. Miller, Publishers and Bookbinders,—Were established in 1843, use various machines for cutting, &c.; employ 20 hands, at £60 per month. School Books, &c., amount to 120,0000 copies per annum. Binding and ruling alone give a sum of £2400. Most of the books got up by this Firm are sent to Upper Canada. Business steadily increasing.

Mr. Hew Ramsay has also a large establishment of this sort. Particulars not furnished.

The Committee subjoin a list of eleven other bookbinding establishments, employing altogether about 75 men, viz: — Weir & Dunn, J. Pars-

<sup>4.</sup> Other establishments of this sort, of whose existence the Committee are aware, not noticed, information not being furnished.

low, C. Bryson, R. Oraham, E.C. Tuttle, F.C. & A. Dredge, W. McIntosh, Beauchemin & Payette, J.B. Rolland, Chapleau and Lamothe.

Messes. Green & Son, Furriers, &c. — Were established in 1832; hold a house valued at £4000, employ 12 men and 115 females, at wages of £200 monthly. Messes. Green & Son have a capital of £15000, and of their manufactured goods one-fifteenth are for home consumption. They think that by having raw skin and furs from all countries free, and a judicious duty on manufactured articles, this trade might be extended to six time its present importance.

Messrs. McDowell & Atkinson, Wholesale Furriers, &c., 92 McGill Street,—Established in 1842, employ 20 men and 75 females, to whom they pay 233 dollars per week. Their capital exceeds £4000, and of their manufactures to the amount of £70,000 per annum, one-fourth is for home consumption. Messrs. McDowell & Atkinson have lately established a Factory for Buckskin Mits and Gloves, and will thereby be able to make those articles very cheap. They also make 3000 silk and from 4000 to 5000 fur bats in the year.

John Henderson & Co., late Henderson Brothers & Co., of Quebec,—Established in Montreal a branch of their business in the year 1844, and have been steadily increasing their business year after year; they now have one of the finest establishments in America, in their line, and are daily manufacturing some of the choicest Furs produced on this Continent, which always meet with ready sale. They employ upwards of fifty hands, and have a large capital profitably invested, and look forward with cheering prospects to the future.

Messrs. Moss & Brothers, Clothiers, &c.,—Were established in 1836, have a capital of £60,000, hold large premises, five stories high, give employment to 800 men and women, at £450 monthly, and of goods manufactured annually to the sum of £90,000 they send abroad about eleven twelfths. Messrs. Moss & Brothers have all their work hand-wrought, and export American wares to Australia to the annual amount of £40,000.

Messrs. McMillan & Carson, Clothiers,—Commenced in May, 1854, have a capital of £2000, employ 43 hands, at £50 a week, and of goods manufactured to the sum of £10,000, £4000 worth are exported.

Mr. J.W. Crerar, Confectioner,—Was established in 1833; has a capital of £2000, holds a factory at a rental of £250, employs 7 males, at £450 a year. Quantity of goods sold for home amounts to £8250, for abroad £2750.

Messrs John Aitken & Co., Shirt Makers, &c.,—Were established in 1851, have a capital of £3000, employ 300 women, manufacture goods to the amount of from £9000 to £10,000 annually, of which one-half is for home consumption.

Mr. E.S. NORMANDEAU, CARRIAGE MAKER,—Was established in

<sup>5.</sup> Other establishments of this sort, of whose existence the Committee are aware, not noticed, information not being furnished.

1851, has capital of £500, gives employment to 8 men, at £10 weekly, manufactures about 100 vehicles at from £5 to £60 each, all for home consumption.

MR. MARTIN GRAVELLE, CARRIAGE MAKERS,—Was established in 1841, has a capital of £3000, rents premises at £50 per annum, employs 10 men, at from 30s. to 42s. 6d. a week, makes carriages to the value of £3000 yearly, all for the Canadian trade. Mr. Gravelle says that the improvements in his line are constant and marked, owing to the great competition, which also renders the profits very low.

Mr. Michael O'Meara, Carriage Maker,—Established in 1820, produces manufactures to the amount of from £10,000 to £15,000, nearly all for home consumption. Mr. O'Meara thinks that this business in Montreal is of a purely local nature.

Mr. Joseph Tees, American Carriage and Sleigh Maker,—Employs 12 men, at £20 per week, manufactures goods to the amount of £2750 per annum, half of which is for home consumption. Mr. Tees received the First Prize for a light pleasure carriage, built on a new system, at the Provincial Exhibitions lately held at Kingston and Three Rivers. Mr. Tees thinks that this trade is increasing in Montreal, and that carriages can be made here to compete in quality and cheapness with any on the Continent.

Manufactures of Tobacco.—Previously to the Reciprocity Act and Treaty, Leaf Tobacco of the growth of Canada West was sent here annually for sale. Since the free admission of United States, this has no longer been the case, the cultivation having been partially abandoned. A little tobacco is grown also in Lower Canada, but the climate does not permit it to ripen properly here.

The imports of unmanufactured tobacco from the United States in 1855 amounted to 719,000 lbs., of which 263,000 was brought to Montreal. There are twelve establishments here engaged in the manufacture of Tobacco, Segars and Snuff. The total import into Canada of segars last year was 5311 mille, of which only 1660 milles were brought to Montreal. About four millions are said to be manufactured here, giving employment to 100 persons. Six of the above establishments are principally engaged in the manufacture of snuff, of which five use steam power. The importation into the Province last year was 37,875 lbs., of which Montreal imported only 1614 lbs., there being manufactured in this City at least 250,000 lbs. Messrs. Joseph & Co., and Levey & Co., are the only persons who furnished the Committee with returns, the latter stating his manufactures at 25,000 lbs. snuff, 250 milles segars, and 160 cwts. of various kinds of tobacco, sold about half in Lower and half in Upper Canada.

THE EAGLE FOUNDRY, in Griffintown, of which Mr. Geo. Brush is the present proprietor, was established in 1823, and here and at the St. Mary's Foundry (the latter having been closed since the opening of the canal

<sup>6.</sup> Other establishments of this sorts, of whose existence the Committee are aware, not noticed, information not being furnished.

factories) were for many years manufactured all or nearly all the engines used in the steamers upon the St. Lawrence and elsewhere in Canada. The Eagle Foundry, notwithstanding the competition of its new rivals, is still at work, having a complete set of shops and machinery for the construction of Engines, Boilers, &c, in which are employed about 100 men.

Mr. W. Rodden has an extensive Foundry in the City also, of which the Committee have been unable to give an account. Of Mr. C.P. Ladd's Foundry also, where, as in the first named Factory, large quantities of stoves are manufactured, the Committee have received no account.

Mr. C.S. Rodier, Jr., Threshing Machine Maker, —Was established in 1851, holds a large wooden building, uses steam, employs 36 men, at 6s. 3d. a day, and makes yearly 250 machines, all for Canada.

Mr. John Smith, Manufacturer of Threshing Machines, &c.,—Was established in 1853, holds two-story brick shop, which, with some adjoining houses, &c., cost 4000 dollars, uses water power, employs 35 men, at 200 dollars a week, has a capital of 30,000 dollars, manufactures yearly goods to the amount of 30,000 dollars, for both Province.

Messes. B.P. Paige & Co., Patent Threshing Machine Factory,—Established in 1848, occupies four main buildings of about 100 feet by 50 each, besides out-buildings. They are filled with machinery of the best description, propelled by a 50 horse-power steam engine. The cost of the establishment was £12,500; 175 men and boys are employed there, at wages of £600 per month. About £37,000 capital has been embarked, £25,000 worth of products turned out annually; half sold here and half exported. There is an increased demand both for home consumption and export, and the business is steadily increasing.

WM. JOHNSON & Co., THRESHING MACHINE AND AGRICULTURAL IMPLEMENT FACTORY,—200 by 150 feet, cost £1500; machinery propelled by a 20 horse-power engine; from 60 to 100 men employed, to whom is paid about £300 per month; £8000 of manufactures turned out last year, and the Factory could manufacture as much more. The machines are copied from Pitt's Patent, first imported here in 1842.

Mr. Wragg's Nail Factory, William Street,—Occupies a two-story brick building, uses steam power, has 25 nail-cutting machines, keeps 30 men, at 6s. 3d. a day, and makes annually 900 tons of nails.

Mr. Wm. Burry, Millstone Factory, 324 St. Joseph Street,—Was established in 1840, employs about 10 hands, at an average of 10s. a day, manufactures yearly about 50 pairs of millstones, of which 5 per cent, are sold for home consumption. Mr. Burry intends importing his stock direct from France next year, and promises to furnish the goods connected with this business as cheaply as any in Canada.

Mr. Neil Doherty, Manufactory of Tobacco Pipes,—Was established in the year 1850, has now a capital of £1500, employs from 20 to 25 hands, and manufactures yearly from 4500 to 5000 boxes, which are all consumed in the Canadas.

Henderson & Son, Manufacturers of Tobacco Pipes, Colborne Avenue,—Manufacture annually of "Henderson's Tobacco Pipes" 15,000 boxes, with means of extending the quantity to twenty-five thousand, employ 100 hands, and have a capital of six thousand pounds. Established in 1851.

Messrs. John Mathewson & Son, Soap, Candles, and Oil Manufactory, Inspector and College Streets,—Was established in 1821, hold a three-story stone and brick building; have all their work done by steam, and employ 38 men, at £45 per week. A larger quantity of very excellent wares are turned out of this establishment.

There are several other large establishments of a similar nature in the city, but we have no farther returns.

GEORGE PERRY, FIRST PRIZE FIRE ENGINE FACTORY.—This Factory was established in 1848. Efforts have been made to produce the very best work. As a proof of the result it is only needful to mention that an Engine produced in this factory obtained a Prize Medal at the Great Exhibition at London in 1851, and a first-class Medal at Paris in 1855. The effect has been to give this factory orders from all parts of Canada, and from France. England, and the Lower Provinces. Shorthly after the London Exhibition, an engine was ordered from and sent to parties in British Guiana. The prospects of the establishment are good, and the opening up of the Western Canadian market during winter by railway is giving it additional work. parties coming here for engines who might have gone to the States. The number of small engines manufactured here is too large to give in detail. but during the past year Mr. Perry has turned out the following first-class engines, viz:-one for Grand Trunk Railway Works, Point St. Charles; one for Orono, C.W.; one for Liverpool, Nova Scotia; one for Woodstock, New Brunswick. Several others are now in course of construction.

Mr. William Perry has also a Factory of fire engines. Details not furnished.

Mr. R. Dean, Trunk, Bellows and Mail Bag Factory.—He makes 3000 trunks and valises, 100 pairs bellows, 400 to 500 different kinds of mail bags, per annum, worth about £6000. Received first prizes at Provincial Exhibition, and honorable mention at the London Exhibition.

Mr. Charles Linley—Manufactures Circular Patent Double-blast and Long-shape Bellows, Portable Forges, &c., using a steam engine to propel circular and upright saws, &c. He turns out 600 pairs per annum, and might, with his present machinery, double the product. Three-fourths of his manufactures are sold to places out of Montreal.

Messes. E. Atwater & Co.,—Have recently established here a Copal Varnish Factory in which they manufacture about 500 barrels per annum, and are fast driving the imported out of use.

MR. CLARK FITTS, BISCUITS AND CRACKER BAKERY,—Established in 1827; uses two shops with machinery, manufactures 4300 barrels, worth

about £5925, sold principally in Lower Canada and eastern part of Upper Canada.

Mr. Tilton manufactures ship and other biscuit to a considerable amount.

MESSRS. WITHALL & HOOD, SOAP AND CANDLE FACTORY,—Established in 1850, occupies two buildings, 100 feet long and 3 stories high the machinery propelled by steam. Thirty men are employed, and turn out 20,000 boxes soap and 10,000 boxes candles per annum, worth about £36,000, all sold in this market and Quebec.

Paper.—In addition to the manufactures in Montreal itself, it may not be improper to notice some of those factories in the vicinage, for which Montreal is the chief depot and market. Among these is the Paper Manufactory of the Firm of Alex. Buntin & Co., Montreal, and W. Miller & Co., of Beauharnois, who have taken advantage of the water power of the Beauharnois Canal. The manufacture of paper seems to have been attempted in Lower Canada about 40 years ago, but one by one the old works were abandoned and allowed to go to ruin. It was only 15 years ago that this manufacture took a firm footing. The manufacture and business mentioned above was established by Mr. W. Miller in 1834, but the present Factory on the Beauharnois Canal has been put in its present effective state within a few years past. The Factory consists of substantial stone buildings in form of a square, three stories high, front 90 by 50 feet, right wing 120 by 40, left 40 by 30, and rear 90 by 40, erected at a cost, for building and machinery, of £12,000 or \$48,000. The machinery employed consists of one 84 inches wide Fourdrennier Paper Making Machine 5 large iron engines, 2 large revolving boilers for steam boiling the materials, another steam boiler for heating and drying purposes, and a variety of other machinery of the best description, all propelled by water-power, which is here afforded them to an almost unlimited extent. The works are capable of indefinite extension, as the market improves and is extended. 26 men and 45 women are employed here constantly, with occasional assistants, besides the large number engaged in collecting materials. Wages paid, about £400 per month. About 500 tons are annually manufactured here, worth £34,000, the capital permanently invested being about £25,000 or \$100,000. Onethird is sold for Lower Canada consumption, the other two-thirds to Upper Canada. Export is prevented by high duties in Britain, the United States and sister Provinces.

At Sherbrooke, which is brought by the Grand Trunk Railway within very access of Montreal, Mr. W. Brooks established a Paper Mill in 1846, the produce of which is almost altogether sold in Montreal, Mr. J. Dougall being the agent. It consists of three buildings, one of brick and stone, 80 by 50; the others of wood; all erected at a cost of £6000 or \$24,000. It contains six engines and two paper machines, propelled by water-power. The manufactures annually amount to about £10,000 or \$40,000, the capital embarked being of a like amount. It might be doubled.