

COLLINGWOOD MEAT CURING ESTABLISHMENT.

IT may not be generally known that one of the largest meat curing and packing industries in the Dominion is located in the town of Collingwood, but such is the case, and in this paper I will endeavor to convey to your readers, as briefly as possible, some idea of the building, its fittings, and the purposes for which it is intended.

The building, or rather buildings, stand near the shore of Georgian Bay, a little west of Collingwood harbor, the foundations going down to the limestone rock, which at this point, is only a few feet from the surface. The main building is 200 feet long by 80 feet wide, two stories high, of 12 feet each, with spacious attic, and a cellar seven feet clear, under the whole building. On the north side—the building being longitudinally nearly east and west—there is an addition 12 x 48 feet, three stories high, divided with brick walls into three smoke chambers, and a two ton hoist. The smoke chambers contain gridiron shelving, whereon to place bacon, ham or beef, that is to be subjected to the smoking process. Smoldering fires will be kept below, on a level with the cellar floor and the smoke will ascend to the top of chambers and escape through louvres in the roof. On the north-east angle, slightly detached, stand the engine house, boiler room, cold generating rooms and chimney shaft. These buildings cover a space about 32 feet by 50 feet with walls as high as the main building.

The chimney shaft is 88 feet high, including footings, and is seven feet square at the base, tapering to 3 feet 6 inches at the top, with a two foot by two foot flue at both top and bottom.

The whole of the outer walls, and two dividing partition walls, are of hard burned pale red bricks, and are two feet in thickness, with a hollow space of four inches between the inner and outer walls; the two thicknesses being tied together every fifth course with connecting links. The hollow space is well parged on both walls and every joint in the brickwork is well flushed up with properly prepared mortar.

As the roof is a particularly heavy one there are strengthening buttresses under the seats of principal rafters; the buttresses being solid brickwork from foundation up. The cellar story is of random coursed quarried stone, and is three feet thick, with air space in centre, which is well parged with cement mortar.

The footings are formed of immense blocks of granite four feet wide and one foot thick and of various lengths, laid down in the best Portland cement. Piers for the support of floors, machinery, tanks and roof, are scattered over the cellar and are formed of white oak resting on massive stone plinths. The cellar floor is a marvel of perfection, and is as smooth as a skating rink; it is composed of a layer of five inches of broken stones, a layer of three inches of slag, which is intended to act as a non-conductor, well tamped down, then a layer of grout or concrete, and finished off with a thick layer of Dyckerhoff portland cement used in proportion of two of sand and one of cement—the whole being trowelled off until it is as smooth as glass.

The main floor is divided into twelve compartments, five of which are for storage, two for cooling, one for shipping, one for cutting up, another for killing and dressing, with a small room attached, 14 x 28, for preparing tripe. Another room is devoted to the manufacture and packing of lard. On this floor is a large room where the blood, offal and viscera are transformed into transmutable fertilizers, and for this purpose an ingenious set of apparatus is set up and worked by steam. A mammoth press for expressing lard from the fatty substances is also in this room. The facilities in the killing room are such that 1000 hogs can be disposed of in twelve hours under pressure. Overhead tracks, of which there are some 3500 feet, convey the carcass to any required spot in the building where it is dealt with by the cleaner, cutter, &c. It is then placed in the cooling or chilling room until it is wanted for curing or for shipment.

The second floor contains six cold storage rooms, 15 x 65 feet each, all having five tiers of overhead tracks and capable of holding over 175 hogs each. All these cold storage rooms are kept at a temperature a little above freezing point by the ammonia system of cooling. Twenty-eight thousand feet of two inch pipe is used in these cold storage rooms, and the whole system is worked by a 100 H.P. Wheelock engine, which, together with the cooling machine, is capable of making 35 tons of ice daily. The whole cooling system in the building is the work of the Wolfe Ice Machine Mfg Co. Chicago, so also is the engine of 50 H.P. used for supplementary purposes, lighting, pumping, chopping meat, running presses, hoists, etc. The building is lighted throughout with an incandescent system put in by the Canadian General Electric Co. Shafting, pulleys, lard tanks and minor machines were furnished by the Goldie & McCulloch Co., of Galt, Ont., and the pumps, which are of the Blake pattern, are from the shops of the Northey Mfg. Co., Toronto. On the second floor is the singeing machine, where hogs intended for export have all the bristles singed off them in less than half a minute. On this floor is also a scalding vat, wherein the dead hogs are dumped, the water being made and kept hot by superheated steam. There is a large cutting and salting room, 50 x 50 feet, also on this floor, and a sausage room 26 x 40, where sausages of every style are manufactured ready for export.

The full capacity of the building for killing, curing and preparing for export is about 5,000 hogs and 2,500 bullocks per week, and to manipulate this vast amount of material through-

out its whole preparation will require an army of employees in and about the works, besides a large staff of buyers and agents. A thorough system of water-service, for fire and general purposes is provided on the spot, the water being taken from the lake.

In an article of this kind it is impossible to describe more than a few of the salient points connected with this enterprise, but I am persuaded the foregoing will give a fair average idea of the works.

The owners are Messrs. Thos. and J. Long, Frank and H. Telfer C. Stephens & Co., and G. Brown & Bro., to the latter of whom I am indebted for some of the figures given.

The Wilson Bros., of this town, designed and superintended the work, and the stone, brick and cement work, was executed under the supervision of Mr. Robert Burdett. At this writing the whole work is about completed, and killing will be commenced in a few days. A number of outside improvements are still going on, and will continue for some time yet. There has already been expended on these works about \$80,000.

FRED. T. HODGSON

Collingwood, Ont.

LEGAL DECISIONS.

THE CITIZENS MILLING CO. VS. DEFOE.—A case of some interest to architects and builders, was decided by Mr. Justice Robertson and a jury about three weeks ago against the defendant. The merits of the case were about as follows: The defendant purchased a property on Adelaide street west which had been used as a billiard table manufactory. The building was of the ordinary type of such structures, built about twelve years ago. Dimensions about 114 feet long by 30 feet wide and four storeys high, including basement; good ordinary walls, centre beam running lengthways from end to end, 10" x 12" in basement and ground floor, 12" x 8" for the remainder, 12" round cedar posts in basement, six in number, dividing beam into seven bays of about sixteen feet each. The pillars on ground floor were some of iron and some of wood, iron circular 6" diameter, wooden ones 12" circular. All the columns were capped with solid pine corbels 10" x 6", 4 feet long. The character of the remainder does not come into account. When the premises came into Mr. Defoe's hands in about 1891 he arranged it for a storage warehouse, putting in a power elevator, etc. The basement was used for heavy bulky articles, the ground floor for furniture, etc. The first and second floors were used by the Milling Co., mainly for the storage of flour in bags, and piled on the first floor seven bags high leaving narrow passages between the piles. Early in February of 1892 a portion of the floor carrying the heaviest load collapsed, the main beam broke and the greater portion of the contents of the various stories were precipitated into the cellar. On examination it was found that the main beam of the first floor where the greatest load was concentrated had become rotted, and the rot was traced to the action of steam from a steaming box which had been in use for years in the billiard factory previously there, but which presented no external indication of the weakness before the break. The jury decided that the safe load was exceeded and the verdict was against the defendant.

ILLUSTRATIONS.

PROPOSED RESIDENCE FOR MR. HUGH GRAHAM, CORNER OF SHERBROOKE AND STANLEY STREETS, MONTREAL, QUE.—A. F. DUNLOP AND J. C. A. HERIOT, ARCHITECTS, MONTREAL.

PROPOSED HOUSE TO BE ERRECTED AT KAMLOOPS, B. C., FOR MR. J. OGDEN GRAHAME.

FREE LIBRARY BUILDING, LONDON, ONT.—HERBERT MATTHEWS, ARCHITECT.

The free library building at London, Ont., is now being built under the supervision of Mr. Herbert Matthews. The materials used are as follows: Credit Valley stone facing for basement; Milton red pressed brick for superstructure; Scotch red sandstone—cut stone; Berea stone steps, &c.; windows glazed with French plate glass; roof covered with red slate. The interior will be fitted up in the most modern manner, and it is expected that the library and museum in connection with it in their general arrangements and appointments will be a success.

PERSONAL.

Mr. J. W. Taylor, manager of the Toronto Radiator Mfg. Co., is passing through a severe illness.

We are pleased to learn that Mr. Eustace G. Bird, of Barrie, formerly of Toronto, has received the degree of A. R. I. B. A., having passed the examinations last March of the Royal Institute in London, and being elected an Associate last month.

A partnership has been formed between Mr. Eden Smith, of Toronto, and Mr. Eustace G. Bird, of Barrie, as architects, with offices at Toronto and Barrie. Mr. Bird has lately returned from England, where he was with the well-known architect, Mr. Colcutt, of London. Mr. Smith is well and favorably known.

Mr. Edmund Burke, architect, Toronto, has admitted to partnership Mr. J. C. B. Horwood. Mr. Horwood served the earlier years of his studentship in the office of Messrs. Langley & Burke, Toronto. He has since had the opportunity of gaining valuable experience in the offices of leading architects in New York city, and has recently spent some time in England and on the continent. Mr. Horwood will be a decided acquisition to the ranks of the profession in Toronto, and the partnership into which he has entered with Mr. Burke should prove to be mutually advantageous.