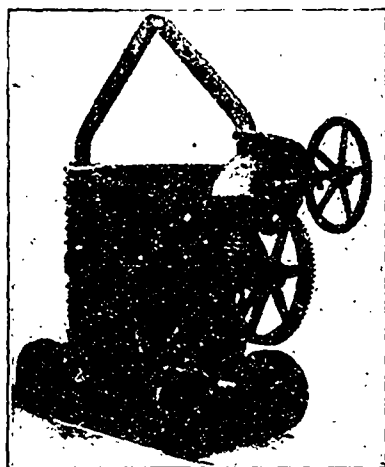


The brass foundry, located at one corner of the main building, is provided with four crucible furnaces and a special form of reverberatory furnace designed principally for the melting of babbit or similar soft metals. An overhead traveler with interlocking transfers on the side floors serves the moulding area of the room. Blast for the furnaces is furnished by a No. 3 Sturtevant "Monogram" Blower and the entire machinery, consisting of a sprue cutter, a magnetic separator, a tumbling barrel and emery wheels is driven by a 5 h.p. Sturtevant Motor attached to the wall. The entire floor is of concrete in which is imbedded a section of the industrial railway communicating with the balance of the foundry.

In the middle of the end of the foundry is the core room. The ovens are six in number, three being seven feet in diameter, of the reel type and three being respectively four, five and seven feet in width by eight feet ten inches in length, provided with cars. An overhead travelling crane serves these latter ovens and provides for the transfer of heavy cores



TWO TON TRANSFER LADLE TRUCK.

to the industrial railway which passes through this room. A portion of the room is partitioned off and serves for the women core makers employed in this department. The floor is of concrete. The tops of the ovens are utilized for storage of cores upon a special rack of steel construction. A Blake wire-straightener, driven by a 5 h.p. Sturtevant motor, together with a Hanna pneumatic shaker are the principal machines in this room.

At the other end of the foundry is the cleaning room, through which run the longitudinal tracks from each main aisle of the foundry. A five ton three-motor electric crane equipped with Sturtevant motors serves the principal portion of the floor in this room. The tumbling barrels, six in number, are completely enclosed in housings of steel plate. These together with a Sly ciuder mill and several emery wheels are driven by a 30 h.p. Sturtevant motor. A temporary air compressor located in one corner and driven by a Sturtevant motor, supplies air at 100 pounds pressure to chippers, shakers, hoists, etc., employed in connection with this work. The lighting and

ventilation of this room are noticeably good.

Adjacent to the cleaning room is the pickle room; the floors are both of concrete. The pickle beds are of teeter board construction so designed that the acid may be drained back into the vats and the board subsequently teetered over for washing into the trench upon the other side of the room. The floor slopes so as to give perfect drainage. A pneumatic travelling crane serves this room.

One of the noticeable features in the equipment of this plant is to be found in the sanitary arrangements. Most generous provision has been made in the case of the foundry, which has a large locker and wash room. Expanded metal lockers to the number of 225 are already in position. Enamelled iron sinks, six in number, are served with tempered water and are generously patronized by the employees. A series of slate partitioned shower baths has proved to be very acceptable during the past summer. The floor of this room is of tar concrete; the upper walls and ceilings which are white and fresh are in pleasing contrast to the steel work and base of the walls which are finished in dark green. Within the same room is installed the time recording system so placed that a double line of men pass the board, one upon either side, as they go and come from the room. The foundry foreman has not been forgotten in the matter of convenience and he with his assistants is provided with an attractive office, well lighted and susceptible of thorough ventilation from out of doors.

Naturally the entire plant is heated and ventilated by the Sturtevant System. In the case of the pattern building the apparatus, consisting of an engine-driven fan and steel pipe heater, is placed close to the division wall, delivers the heated air into a vertical flue and thence to the various rooms. The air for this apparatus is taken directly from out of doors. As a result, there is a peculiar freedom from dust in the pattern storage rooms, which could not be avoided were any of the air drawn back from the pattern shop. The foundry apparatus is located overhead in the end of one of the cranesways and arranged to take fresh air from out of doors or return the air from the building and reheat it. This apparatus consists of a three-quarter housed steel-plate fan discharging in two directions into galvanized iron pipes. The fan is driven by a direct-connected horizontal engine. The heating apparatus for each building is designed to operate with exhaust steam. The entire heating system in each building is under thermostatic control, by which means an even temperature is maintained throughout all the rooms.

Distribution of air is made through a system of overhead galvanized iron piping, discharging downward to the floor, thereby distributing the air in even volume and economizing in the amount of heat required. The foundry apparatus is of material service upon summer days particularly during the "heat," when it is employed to force cool air into the building.

A complete underground tunnel system

is provided for distribution of steam and return of the water of condensation, distribution of electricity, compressed air, oil, etc., from the power house to the various buildings. The tunnel measures five feet wide and six and a-half feet in



ONE TON ELECTRIC HOIST.

height, and thereby offers ready access to its contents. In the pattern building and foundry the pipes are laid in concrete trenches covered by iron plates, which present equal facility for reaching the pipes and wires.

ONTARIO PUBLIC WORKS.

Work has been commenced by the Department of Public Works at Muskrat Lake, a short distance below Pembroke. This work has been rendered necessary to lower the water in Muskrat Lake and relieve the low-lying lands, which are flooded periodically by freshets.

A swing bridge is being erected over the Magnetawan River at Parry Sound. The bridge will be situated about seven miles from Burk's Falls, and will cost about \$3,000.

Work has been commenced on the new bridge over the Winnipeg River at Rat Portage.

Another new swing bridge is being erected over Lindsay Street, in the town of Lindsay.

The substructure and piers for a new bridge over the Seguin River in Parry Sound has also been commenced, and the Ontario Government will erect a new steel superstructure.

The Cranbrook Sash & Door Co., Cranbrook, B.C., have been incorporated with a capital of \$40,000, to acquire the business of the Cranbrook Sash & Door Co., and to manufacture lumber, sashes, doors, etc.