



TIME OFFICE. DRAUGHTING ROOM.
OFFICE BUILDING OF JOHN BERTRAM & SON COMPANY, DUNDAS, ONT.

house, which are heavily taxed by present operations.

The recently constructed buildings are all south of the old portion of the plant. The new lathe shop and the permanent storage building each cover a ground area of 320 x 60 feet, and are built of steel and brick, with concrete floors having three-inch wood blocks laid in pitch. These blocks were laid with no filler between them owing to the trouble which swelling pitch often gives in warm weather. The spaces, or interstices, have been simply allowed to fill up with fine shop turnings and oil, and make a floor with a firm, smooth surface.

The roof of the lathe shop is of the saw-tooth type, while that of the storage building is of

three-inch hollow tile, carried on a steel truss and flushed with 2-1 concrete, having a mesh reinforcement which was supplied in 6 ft. rolls. On the south side of the storage building are two galleries 24 ft. wide, running practically the full length of the structure. The floors of these galleries are of one-inch maple, laid on 2 x 4's, nailed together on edge and supported by a 20-inch steel I-beam framework. This storage is used for the storing of finished machines and machine parts, and also as a general stock and shipping-room. It has a 30-ton weighing scale and a 25-ton crane. The upper gallery is recessed at the centre to allow space for crane operations, so that any article of machinery can be laid on the first gallery floor and run either way. In addition to this, the wood railing of the upper gallery is removable for its entire length, which allows the crane to serve this floor at any point.

This storage building has excellent facilities for lighting and natural ventilation, which is, indeed, a noticeable feature of the plant throughout. In this structure, however, the entire south wall, as well as the space rising above the lathe shop, consists of a continuous system of metal sash and wired glass. One can perhaps best realize the expanse of this glass area by taking into account the fact that, in addition to its extreme



AUTOMATIC TELEPHONE SYSTEM.