

## Dominion Astrophysical Observatory

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many other of the largest telescopes of the United States.

The building in which the telescope is housed is circular, sixty-six feet in diameter, surmounted by a revolving dome. It is built entirely of steel, and has a double steel covering, with provision for circulation of air between the walls from the ground up to louvres at the top of the dome. This is to prevent the building from getting overheated during the day and to enable it to quickly take the temperature of the air, both essential conditions for the satisfactory working of such a large instrument. The dome, as well as the telescope, though not the largest, is the most complete in all mechanical details of any before built. It is of hemispherical shape, provided with a double shutter to be opened during observing, sixteen feet wide and extending beyond the top. A movable platform raised and lowered by an electric motor, across the shutter opening enables the observer to conveniently reach the top of the tube when the principal focus or Newtonian focus methods are being used. Movable canvas curtains electrically operated move up from the bottom and down from the top so as to limit the length of the opening to prevent the wind shaking the telescope tube. The whole dome is revolved by a motor operated by a switch on the same boards from which the telescope is set. Indeed everything that could be thought of to facilitate the work of the telescope has been placed in dome and mounting, and use has demonstrated the completeness and perfection of the whole equipment.

The equipping of this observatory in such a splendid manner places Canada in the forefront among the nations in astronomical research, as no other country has in its national observatory a telescope of half the size of this splendid instrument. The work accomplished with this installation in its splendid location will undoubtedly materially help towards the solution of the problems of the constitution of the universe, and will make Canada and Victoria well known in the scientific world.

### LONDON TECHNICAL SCHOOL CLOCK SYSTEM.

The clock system installed in the new Technical School, at London, Ont., is the most modern installation of electric clocks and automatic bell ringing systems in Canada. The



Type of Master Clock used in connection with Time Regulating System in London (Ont.) Technical and Art School.

entire system is a Canadian product, manufactured by the International Business Machines Co. of Toronto.

It consists of a self-winding master clock, forty secondary clocks, bell ringing programme, switch-board and distribution panel, storage battery, etc. The system is entirely operated by the master clock automatically; it winds itself every minute, which gives a uniform power all the time, every minute it transmits a weak impulse to the switch-board which in turn distributes a stronger electrical impulse to the secondary clocks located in the different class rooms. The master clock is of the dead beat Graham escapement type, with a compensation

pendulum composed of a nicked steel pendulum rod and two cut glass jars full of mercury, which will keep time within two seconds per month irrespective of a sudden change of temperature. This degree of precision transmits a degree of accuracy to all the units connected to the system.

### CIRCULAR HOUSING PLAN

"Construction" desires to give credit to the "Canadian Engineer" for the main features of the text appearing in Mr. G. J. Lamb's article published in the September issue under the above title. The subject, which is a most interesting one, and has caused considerable discussion, deals with a housing scheme claiming special economic and engineering advantages, whereby a number of houses are grouped in a circular plan which can be adapted to rectangular city blocks.

## CONTRACTORS and SUB-CONTRACTORS

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Blackboards, Walter Scott.  
Boilers, E. Leonard & Son.  
Brick Contractors, John Putherbough.  
Brick Exterior, Don Valley Brick Co.  
Brick Interior, Inter-Provincial Brick Co.  
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Carpenter, Samuel Willis.  
Clocks, International Business Machines Company, Ltd.  
Doors, William Geary & Son.  
Electrical Contractors, Benson & Wilcox.  
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Fire Doors, A. B. Ormsby & Co.  
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Glass, Hobbs Mfg. Co.  
Hardware, Springer Lock Co.  
Heat Regulating, System, C. A. Dunham Co.  
Kitchen Equipment, McClary Mfg. Co.  
Laboratory Equipment, London Art Woodwork Co.  
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Woodworking Machinery, Cowan Mfg. Co.  
Desks, George M. Hendry Co. Canadian Office and School Furniture Co.  
Electric Fixture, McDonald & Willson.  
Steel Sash, Trussed Concrete Steel Co.  
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