

## Economy in Concrete Design

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equal to one bay only, is the usual practice. In this way the cost per lineal foot of building, as well as the cost per square foot of floor space, may be calculated. Comparisons of costs made in this manner are genuine proofs to the designer that he is giving the design proper study for economy, and will result in a conservation of building materials, save good dollars for the owner, and establish for the engineer the reputation of being a designer of economical concrete buildings.

## CONTRACTORS and SUB-CONTRACTORS

As Supplied by the Architects of Buildings  
Featured in This Issue.

### GENERAL OFFICES, CANADIAN WESTINGHOUSE COMPANY, HAMILTON, ONT.

Brick, Milton Pressed Company.  
Boilers, Goldie & McCulloch Company.  
Casement Windows, Patterson, Tilley & Company.  
Casement Windows, Williams Pivot Sash Company.  
Clocks, Stromberg-Carlson Telephone Manufacturing Company.  
Concrete, Pigott-Healy Construction Company.  
Electrical wiring, Harry Alexander.  
Electric fixtures, McDonald & Willson.  
Electric fixtures, Jefferson Glass Company.  
Electric fixtures, Cassidy & Company.  
Electric wiring and apparatus, Detroit Fuse Company.  
Elevators, Otis-Fensom Company.  
Fire extinguishers, Dunlop Tire & Rubber Goods Company.  
Floors (cork), T. Eaton Company.  
Floors (Terrazzo), Italian Mosaic & Marble Company.  
Furniture, Doten-Duntin Desk Company.  
Hardware, Belleville Hardware Company.  
General contractors, Pigott-Healy Construction Company.  
Heat regulating system, Darling Brothers.  
Grilles, Tuttle & Bailey.  
Interior fittings, Burton & Baldwin Manufacturing Company.  
Hollow tile, National Fireproofing Company.  
Interior fittings, Hancock & Company.  
Interior fittings, Hamilton Mirror Plate Glass Company.  
Interior decorating, Thornton-Smith Company.  
Metal files and cabinets, Office Specialty Company.  
Marble, Hoidge Marble Company.  
Ornamental plaster, W. J. Hynes, Limited.  
Painting, Fred G. Roberts & Company.  
Plastering, Hannaford Brothers.  
Plumbing, Adam Clark.  
Plumbing fixtures, Cluff Brothers.  
Plumbing fixtures, Standard Sanitary Company.  
Radiators, Adam Clark.  
Roofing, F. W. Bird & Son.  
Reinforcing steel, Burlington Steel Company.  
Sheet metal, Thos. Irwin.  
Stone, Ritchie & Son.  
Structural steel, Hamilton Bridge Works.  
Structural steel, McGregor & McIntyre.  
Switchboards, H. Krautz.  
Vacuum cleaning system, Spencer Turbine Vacuum Cleaner Company.  
Vaults, Goldie & McCulloch Company.  
Ventilating system, Canadian Sirocco Company.

### PUBLIC UTILITIES BUILDING, LONDON, ONT.

Boilers, Gurney Foundry Company.  
Brick, Interprovincial Brick Company.  
Bronze and steel doors, McFarlane-Douglas Company.  
Concrete engineers, Mouchel & Partners. (Hennebique System).  
Concrete work, John Fetherbough.  
Electric fixtures, McDonald & Willson.  
Holsts, Herbert Morris Crane & Holst Company.  
Fire doors, McFarlane-Douglas Company.  
Fire extinguishers, Fyr Fyter Company.  
Flooring, Armstrong Cork and Insulation Company.  
Flooring (Linotile) Armstrong Cork & Insulation Company.  
Flooring (Terrazzo) Italian Mosaic & Marble Company.  
Flooring (Marble Ashlar) Hoidge Marble Company.  
Furniture, J. B. Hay.  
Furniture, A. A. Langford.  
Glass, Hobbs Manufacturing Company.  
Hardware, Yale & Towne Company.  
Hardware jobber, Purdon Hardware Company.  
Interior fittings, London Art Woodwork Company.  
Interior fittings, McCracken Showcase Company.  
Inter-phone system, Bell Telephone Company.  
Marble, Hoidge Marble Company.  
Marble, Vermont Marble Company.  
Ornamental iron, Dennis Wire & Iron Works Company.  
Paints (waterproof), Patterson Manufacturing Company.  
Plumbing fixtures, Mott Company.  
Plaster work, George S. Gould.  
Pumps, Canadian Fairbanks-Morse Company.

Reinforcing steel, Baines & Peckover.  
Radiators, Gurney Foundry Company.  
Roofing, Barrett Manufacturing Company.  
Stone, A. & E. Hobbs.  
Steel vault fitting, Steel Equipment Company.  
Tile, Italian Mosaic & Marble Company.  
Vault doors, Goldie & McCulloch Company.  
Vault doors, J. & J. Taylor, Limited.  
Ventilating fans, Canadian Sirocco Company.  
Ventilating ducts, Stevely & Son.

### THE STROMBERG AUTOMATIC ELECTRIC TIME SYSTEMS

War conditions have demonstrated and emphasized more than ever before the necessity of "Being Prepared," and the element of time is a big factor, in that preparation, as time waits for no man.

In this issue are shown cuts and a description of the modern office building of the Canadian Westinghouse Company. This concern has installed Stromberg Automatic Electric Time Systems. The advantages of this system enable the owner to check, account for, and balance the intangible commodity time with as great a degree of accuracy as the balancing of a set of books. This system in other words is the Accountant of Time.

The Master Clock, which insures perfect synchronization of time throughout their entire plant is entirely automatic in operation—self winding and electrically operated. One Master Clock controls any desired number of secondary clocks and time devices.

The Cost-Keeping Recorders print time in hours and decimal fractions of an hour, or in hours and minutes, as preferred, and automatically locate cards.

The Secondary Clocks indicate time in various places throughout the organization and contain no clock mechanism or delicate parts, being electrically operated.

Employees In-and-out Time Recorders furnish an exact, non-tamperable record of time of arrival and departure of each employee. The number of employees these machines care for is limitless.

The equipment also includes a Program Instrument for automatically blowing whistles, ringing bells, etc., at specified periods for work signals. Also an Office Time Stamp, for stamping time and date of receipt of letters, telegrams and documents of all kinds. The use of this machine definitely locates responsibility. The devices are electrically operated. Their motive power comes from electro magnets. There is no wear in an electro magnet. Consequently the apparatus is not subject to any fluctuation. It performs its work day in and day out with as great a degree of accuracy as the day it was first installed.

The various recorders installed throughout the plant are all controlled by the Master Clock, which is placed in one of the executive offices. The time on any instrument cannot vary a fraction of a second. All instruments at all times register exactly the same time as the Master Clock.

Clock mechanism, springs and weights do not enter into the motive power of any Stromberg Device. Electro-magnets furnish the motive power. The system was installed by Signals Systems Ltd., Toronto, who are the representatives for Canada of the Stromberg Electric Co., of Chicago, makers of the equipment.

## Hydro Electric Office Building London

All Steel Doors and Steel Trim, including Base, Chair Rail and Picture Moulding, also Bronze Entrance Doors, were manufactured and erected by

## McFarlane-Douglas

CO., LIMITED

OTTAWA, CANADA