

Quebec, Que.—Architect Pierre Tevesque, 115 St. John street, Quebec, is preparing plans for a church for the trustees of St. Benjamin, to cost \$15,000.

St. Catharines, Ont.—The Niagara Street Methodist Congregation contemplates the erection of a church to cost \$25,000.

Quebec, Que.—Table & Roberge, Ste.-Marie, Beauce, Quebec, have been awarded the general contract for the erection of a church for the Trustees of St. Damase, Mataue County, Quebec, to cost \$41,350; Pierre Tevesque, 115 St. John street, Quebec, is the architect.

Toronto, Ont.—The Board of Education, 263 College street, contemplates an addition of four rooms to Parkdale Collegiate. The Board of Education, 263 College street, contemplates an addition to Jarvis Street Collegiate.

Architects, engineers and contractors are invited to contribute information on construction work, whether it be proposed or in progress, and such information will be published in these columns.

CONTRACTORS and SUB-CONTRACTORS

As Supplied by The Architects of Buildings

Featured in This Issue

Building, Garage, Automobile and Supply Co., Ltd., Toronto, Ont.
 Brick, Fancy, Milton Brick Co., Ltd., Toronto, Ont.; Plain, Don Valley Brick Co., Ltd., Toronto, Ont.
 Boilers, Gurney Foundry Co., Ltd., Toronto, Ont.
 Casements and Window Construction, Henry Hope & Sons, Ltd., Toronto, Ont.
 Cement, A. Rogers, Ltd., Toronto, Ont.
 Concrete Work, Crescent Concrete Co., Toronto, Ont.
 Crane, Herbert Morris, Crane and Hoist Co., Ltd., Toronto, Ont.
 Electric Fixtures, McDonald & Willson, Ltd., Toronto, Ont.
 Electric Wiring and Apparatus, Bennett & Wright, Ltd., Toronto, Ont.
 Elevators, Otis-Fensom Co., Ltd., Toronto, Ont.
 Expanded Metal, Baines & Peckover, Toronto, Ont.
 Fire Doors, A. B. Ormsby Co., Ltd.
 Flooring, Terazzo Floor by Italian Mosaic and Marble Co., Ltd., Toronto.
 Glass, Metropolitan Glass Co., Ltd., Toronto, Ont.
 Hardware, Springer Hardware Co., Ltd., Belleville, Ont.
 Hollow Tile, Sun Brick Co., Ltd., Toronto, Ont.
 Oil Burner, Fess System of Canada, Ltd., Toronto, Ont.
 Plumbing, Keiths, Ltd., Toronto, Ont.
 Plaster Work, E. J. Curry, Toronto, Ont.
 Power Machinery and Pump, National Equipment Co., Ltd., Toronto, Ont.
 Reinforcing Steel, Baines & Peckover, Toronto, Ont.
 Structural Iron Steel, McGregor & McIntyre, Ltd., Toronto, Ont.
 Vault Doors, J. & J. Taylor, Ltd., Toronto, Ont.
 Water Heater, Ruud Automatic Gas Heater Co., Toronto, Ont.
 Water Tank, Ontario Wind Engine and Pump Co., Ltd., Toronto, Ont.

HUGE ORDER FOR STEEL.

An order has been placed by the architects who are erecting the new mammoth department store at the corner of Yonge and College streets for 13,000 tons of steel. This is for the framework of the immense structure. The manufacturers have received imperative instructions to start delivery at the earliest possible date. The city architect of Toronto recently issued the permit for the first section of the new building, and the plans for the other sections are under examination.

CATALOGUES and BOOKLETS

Garage Door Equipment, published by the Richards-Wilcox Canadian Co., Ltd., London, Ont., is a complete booklet that deals particularly with this important subject. By the use of drawing and illustrations their various products are described. Solutions for the various problems which arise when hanging the garage door are offered. Door schemes for the smallest as well as the largest garage are presented in this catalogue, and described and illustrated elsewhere in this issue. This company maintains a special department, which is prepared to co-operate with the architect in solving any problem that may arise, and blue prints in detail are supplied upon request.

Structural Timber Handbook on Pacific Coast Woods.—The purpose of this book is to present information relative to structural timber, which will be useful to architects, engineers and contractors. Particular attention has been given to Pacific Coast species. A brief description is given of the four principal species of wood found. An effort has been made to present data showing the strength and durability of these woods. Tables show safe total loads on columns of various sizes, and other tables give the maximum spans for mill and laminated floors, board measure for dimensions and lengths, and board measure and weight for unit lengths of Douglas fir dimension timber. A considerable amount of data is presented on the croosoting or Douglas fir lumber in various forms.

Data and figures are given on timber frame-brick mill building, showing costs, insurance rates, and details of construction. Copies of this book may be had by addressing The West Coast Lumberman's Association, 1016 White Building, Seattle, Wash.

Chemistry and Agriculture.—In the annual report of the Division of Chemistry, Dominion Experimental Farm, for the year ending March 31, 1916, prepared by Frank T. Shutt, M.A., D.Sc., Dominion Chemist, and recently issued by the Dominion Department of Agriculture, considerable attention is devoted to the study of the subject of "Sugar Beets for Factory Purposes."

In this report, Professor Shutt states that this "investigation carried on now a number of years, has conclusively shown that beets of excellent quality for sugar extraction can be grown in many widely distant portions of the Dominion." Among the factors to be considered, in sugar beet growing, are the quality

of the beet, labor, with its availability and cost. Considerable space is also given to results of investigations carried on to ascertain the relative value of field roots. The results of these point out clearly that care must be exercised in selecting the variety, or varieties, of field roots grown. In the analysis of some thirty-six varieties of mangels the richest root contained 13 per cent. dry matter and 5.66 per cent. sugar, while the poorest contained 7.32 per cent. dry matter and 2.36 per cent. sugar. These great and important differences represent real differences in feeding values. The same is true with turnips, analysis, showing that between the richest and poorest of some thirty-three varieties there existed a difference of 5.58 per cent. dry matter, which, assuming that the feeding value is measured by the percentage of dry matter, means that two thousand pounds of the best variety are equivalent to three thousand eight hundred and sixty pounds of the poorest. Further investigations were carried on with regard to fodders and feeding stuffs, and a large number of fertilizing materials were analyzed during the year. The report also contains the result of investigational work with fertilizers conducted by supervisor, B. Leslie Emslie, on the Experimental Stations at Fredericton, N.B., and Kentville, N.S. This report, which contains much valuable information, can be obtained on application to the Publications Branch, Department of Agriculture, Ottawa.

Bulletin No. 107, Intercommunicating Telephone Apparatus.—The unprecedented high cost of line construction and maintenance materials is causing telephone companies to spend more time on intensive development of territory now served with wire facilities than upon expansion into new fields of operation. There is reported an increasingly large demand for intercommunicating telephone equipment, designed for use in factories, business houses and residences, with connections to the telephone company's exchange. The class of service furnished is very attractive to the operating company, as the rates earned are in higher proportion to the capital investment than for regular subscribers' station service. The Stromberg-Carlson Company furnishes instruments, cables and accessories in six, twelve, twenty-two and thirty-two station sizes, and three types of telephones, viz., wall, desk and combination types. Each telephone is fitted with the same standard type apparatus used in regular subscribers' station equipment, except that the signaling between the local stations is of the battery call type employing direct current vibrating ringers. The equipment of each telephone includes a three-position switching key with the required number of buttons for selecting and calling all other stations and the exchange. It is only necessary for the user of the telephone to press a button once to connect with the line wanted and to ring the desired station. The key buttons interlock by means of a tumbler plate and are restored to normal whenever any other button in the same key box is depressed. To answer a call one presses the home station key button and responds in the usual way. The system operates from two sets of dry cells, each set having a voltage of from nine to fifteen volts, depending upon the size of the system. In buildings wired with alternating current, a bell-ringing transformer may be used in place of one set of dry cells for furnishing the ringing current. Full metallic wiring between all stations is carried in waxed core cables made especially for this service. The cables are furnished in two types, with painted braid or lead covering. The cables and apparatus are cross-talk proof, and any number of connections up to the carrying capacity of the system can be established at the same time without interference through cross-talk, cross-ringing, or other inductive effects. Complete instructions are furnished with each system which simplifies the work so that an electrician with no previous telephone experience can easily install the apparatus in proper working order. The complete equipment for systems of this type, as well as that required for systems having no exchange connections for private installations, is illustrated and described in the Stromberg-Carlson Telephone Mfg. Co.'s "Bulletin No. 107," which will be sent free upon application to the Toronto office, 110-12 Church street.

Valves and Steam Specialties, Catalogue No. 25, issued by the Penberthy Injector Company, Limited, Windsor, Ontario. This catalogue describes in detail, the steam specialties and valves manufactured by this company. Particular attention is called to Compositisk valves, which are designed with external thread construction, this method preventing straining of body, stripping of threads, makes the connection non-corrosive, and permits the valve to be easily taken apart. It is claimed these valves are a decided improvement over the ordinary type of composition disc valves. Practical information regarding automatic injectors, lubricators, ejectors, and brass specialties is given in a comprehensive manner, and by the liberal use of cuts and drawings, necessary and useful information is presented.

This company have lately added a gate valve to their list of products. This gate valve is designed along the same lines that characterize their other line of valves, and embodies the same feature, the external thread construction, which refers to the method of fastening the bonnet to the body of the valve. This construction is conceded to be superior to the old method of screwing the bonnet into the inside of the valve, as it is impossible for the threads at this connection to become corroded, and the valve is always accessible, and can be taken apart at any time without the liability of straining it. This feature also prevents the enlargement of the bonnet end of the valve causing loose-fitting threads and permits of a more compact valve body, consequently a stronger one. The disc employed is a solid wedge type which eliminates the trouble found in the split disc design. All gate valves manufactured by this company are registered and approved by all Provinces. Literature of interest to all users of steam goods will be mailed upon request.

