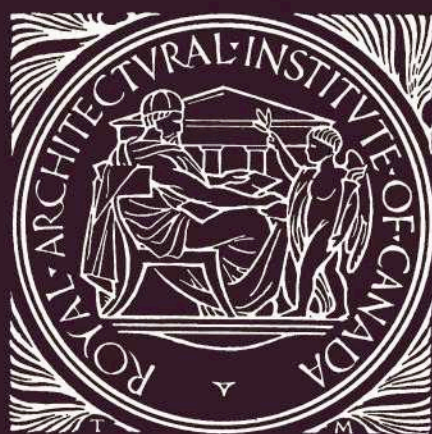


THE
JOURNAL
ROYAL ARCHITECTURAL
INSTITUTE OF CANADA



Vol. XI, Nos. 7 and 8 JULY-AUGUST, 1934 TORONTO

BEFORE COLD WEATHER COMES



*Remember to
Check the
Heating Plant*

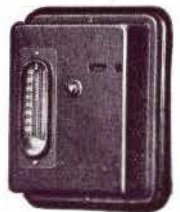
TO THOSE CHARGED with the task of getting buildings ready for another winter of operation, cleaning and repainting are evident and conspicuous considerations. Too often, the heating and ventilating plants escape early attention.

WHEN COLD WEATHER comes, heating and ventilating systems must be ready to function, at a few hours notice. That is the time when the benefits of "August forethought" are realized.

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OF CANADA LTD.

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JOHNSON
HEAT CONTROL



ROYAL YORK HOTEL, TORONTO



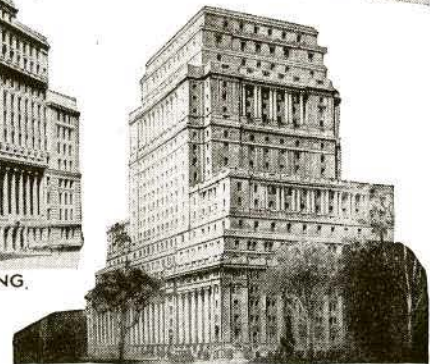
PRICE BROS. BUILDING,
QUEBEC



CANADIAN NATIONAL HOTEL,
VANCOUVER



CANADA LIFE BUILDING,
TORONTO



SUN LIFE BUILDING,
MONTREAL

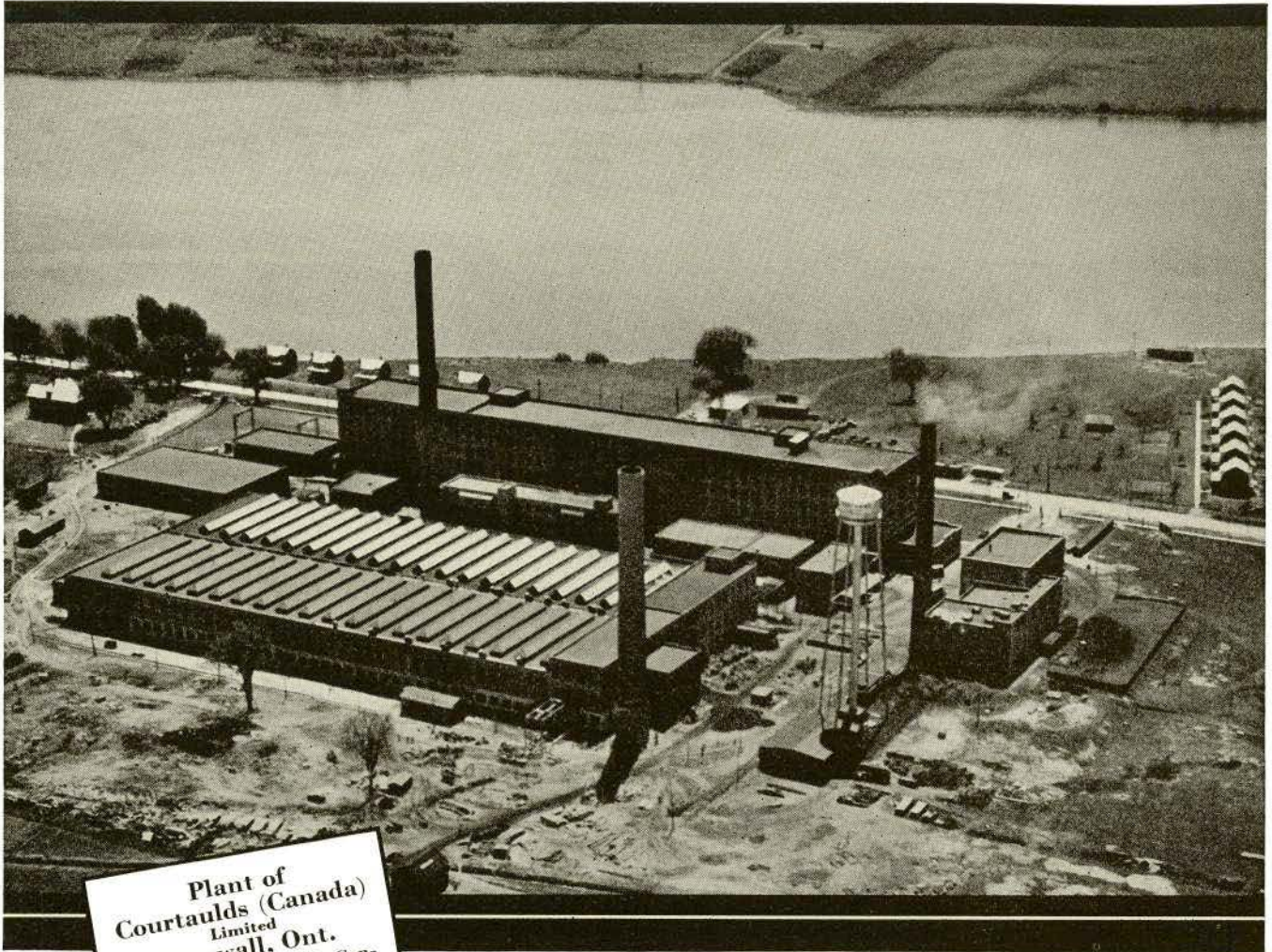
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THE JOURNAL

ROYAL ARCHITECTURAL INSTITUTE OF CANADA

Serial Nos. 107 and 108

TORONTO, JULY-AUGUST, 1934

Vol. XI, Nos. 7 and 8

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GROOT CONSTANTIA. FRONT GABLE

(See article on Eighteenth Century Architecture in South Africa, Page 121)

PROPOSED LOW-COST HOUSING DEVELOPMENT FOR THE CITY OF WINNIPEG

DURING the past year the Department of Health of the City of Winnipeg has been making a survey of certain districts in the city to discover the living conditions obtaining among the lower income groups of people. Overcrowding and the occupation of insanitary quarters were found to be so prevalent, and constituting such a menace to public health and morals, that the city council voted to spend \$1,500,000.00 on housing, provided the Federal Government could be interested in the project as an unemployment relief measure.

The five architects who developed the scheme herein described felt from the first that any solution which would be at all successful must be based on certain premises.

First, that the project must be self-liquidating.

Second, that the rents should be such as could be afforded by the people which the city surveys showed to be in need of housing, i.e., the lower income group. It was decided to provide for families whose incomes range from approximately \$80.00 to \$150.00 per month. Allowing 25% of the income for housing, including heat, and hot and cold water, this gave a range of rentals of about \$20.00 to \$35.00 per month.

Third, that the development should be laid out in such a way as to provide large enclosed areas in which children could play, eliminating the traffic hazards of playing on the streets, as well as giving recreation areas for adults.

Fourth, that each apartment, as well as each house, should have the maximum of light and air and cross ventilation. This automatically eliminated the corridor type apartment building.

Fifth, that the construction should be such as to be easily kept clean, low in maintenance costs and fire hazard, and durable to permit the longest possible period of amortization in order to keep the rental scale low.

The site chosen embraces two complete city blocks $1\frac{1}{2}$ miles from the downtown shopping district. It has the practical advantage of being over 90% owned by the City, and is almost entirely vacant. It is near one of Winnipeg's industrial areas where many of the prospective tenants might be expected to work, and altogether is as nearly ideal as is possible to obtain without the expense and litigation involved in attacking the privately held blighted areas.

The plan of the development ignores the present survey within the boundaries of the site. The

street which forms the main axis of the scheme is closed to motor traffic and laid out with trees, grass, and walks. Piercing the property laterally from each side are short cul-de-sac drives about 200 feet apart. In this way all the buildings in the development are accessible to vehicles without the disadvantage of any traffic through the site.

The three storey apartment buildings are placed on the perimeter of the site, forming an enclosing wall for the whole, with the two storey row-type houses grouped around the service drives.

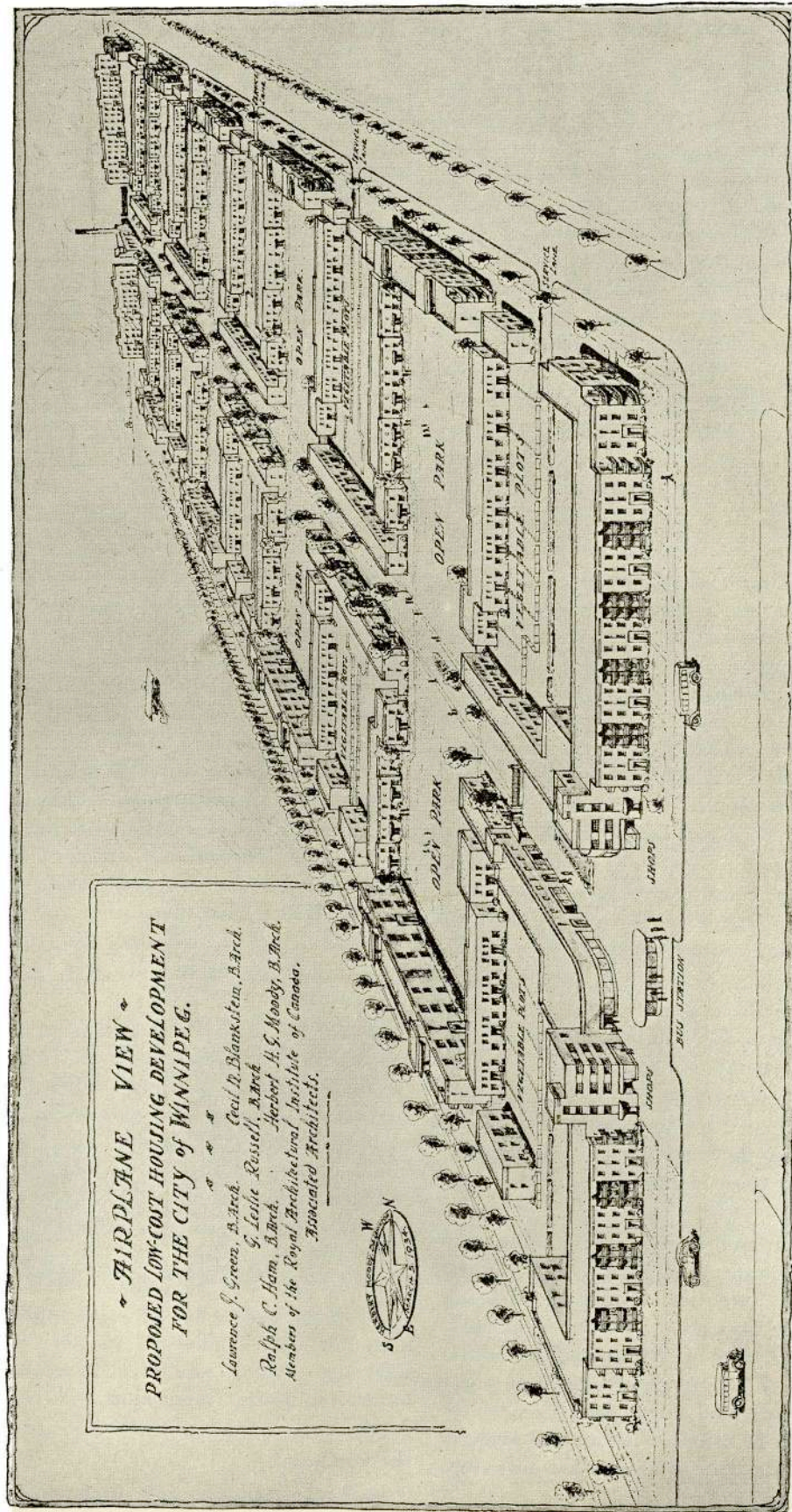
The one bedroom apartments are located in the buildings facing the main street, (in the foreground of the perspective). The two bedroom apartments are in the buildings closing the ends of the open parks, with their main facades facing down the parks and their rear elevations to the streets. The row-type houses are grouped around the service drives, facing the parks, and each house has a vegetable garden in the rear and a garden plot in front. The duplex houses are entered from smaller sub-courts of the large parks, and serve to screen the garden plots behind the houses from the streets.

A shopping area is provided at the main entrance to the development, as well as a limited amount of office space for doctors, dentists, the site manager etc., and in connection with these buildings are such public services as a community hall and day-nursery located over the stores. Revenue from the stores is sufficient to carry the community hall and day-nursery as free services to the residents of the community.

All the buildings are heated from a power house located at the opposite end of the site from the shopping district. A forced hot-water system of heating was chosen for its economy and the ease with which an even temperature may be maintained in the buildings by varying the temperature of the water as the outside temperature varies.

The construction of the buildings is of the best fire-resisting type, with solid brick walls, reinforced concrete floor and roof slabs, reinforced concrete stairs in the houses as well as the apartment buildings, adequate insulation, plaster on metal lath, steel door-frames and steel casement sash, and hardwood floors. Radiation will be of the convector type hung on the walls, generally under the windows.

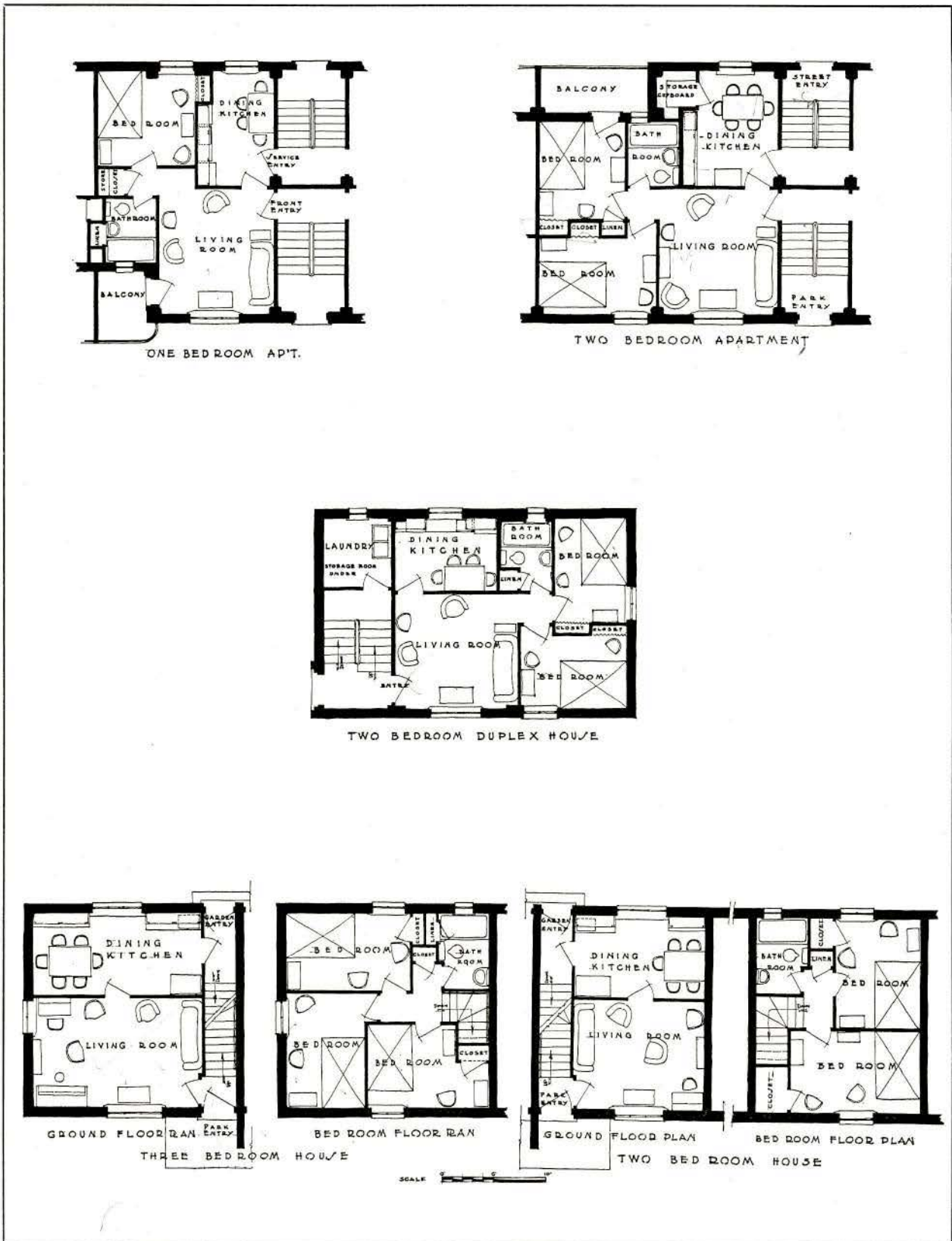
It is interesting to note that while the site was originally surveyed for 155 individual houses and the present scheme provides for 588 families



AIRPLANE VIEW
PROPOSED LOW-COST HOUSING DEVELOPMENT
FOR THE CITY OF WINNIPEG.

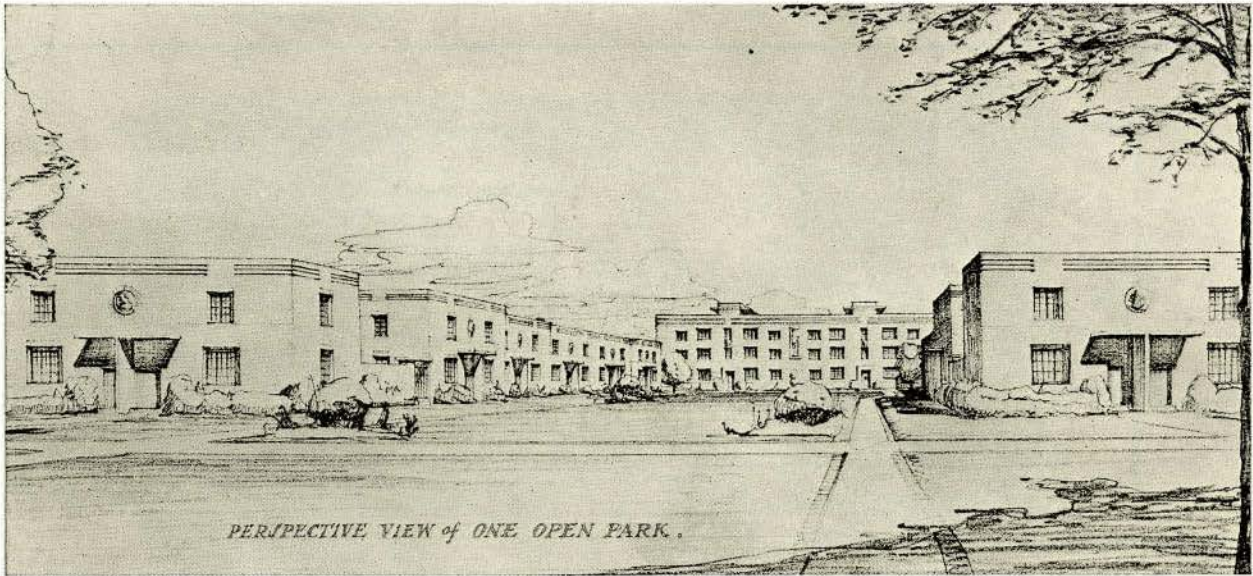
Lawrence J. Green, A.Arch. Cecil D. Blankstein, A.Arch.
G. Leslie Russell, A.Arch. Herbert H. S. Moody, B.Arch.
Ralph C. Ham, A.Arch. Members of the Royal Architectural Institute of Canada.
Associated Architects.

PROPOSED LOW-COST HOUSING DEVELOPMENT FOR THE CITY OF WINNIPEG



TYPICAL FLOOR PLANS
 PROPOSED LOW-COST HOUSING DEVELOPMENT, WINNIPEG

Lawrence J. Green Cecil N. Blankstein G. Leslie Russell
 Ralph C. Ham Herbert H. G. Moody
 Associated Architects



VIEW SHOWING ONE OF THE OPEN PARKS

including houses and apartments, there is ample open space and many advantages not obtained under the old system of survey. Out of an entire site area of $16\frac{3}{4}$ acres there are $7\frac{1}{2}$ acres of open parks entirely protected from street traffic. Only 22% of the site is occupied by buildings. The rows of houses are 110 feet apart face to face across the parks and the apartment buildings enclosing the ends of the parks are 600 feet face to face. Thus, while the concentration has been raised considerably, (to 35.1 families per acre), giving economy of construction, land, and heating costs, the authors of the scheme feel that there is no undue crowding, and that every apartment and house in the development would be a healthful and pleasant place in which to live.

In preparing the scheme for presentation to the civic and dominion governments it was felt very necessary to include a financial statement among the documents to be submitted. Naturally, it was expected that there would be a great deal of opposition to the scheme from the real-estate and speculative building interests, and to offset any attempts to criticize the project as "very pretty—but wholly impractical," a complete financial set-up was worked out.

Construction costs were arrived at by careful estimate from specially prepared working drawings in conjunction with reliable contractors. Costs of landscaping, roads, walks, garden walls and fences were included and the entire costs set up to be amortized at 5% over a period of 35 years. 5% interest is allowed on the full value of the land.

Other charges against the scheme include interest on construction funds, fire insurance, full city taxes, maintenance and vacancy factors, and management and collection fees.

Every type of building was separately shown with its share of all these factors pro-rated against it on its own financial sheet. Separate financial sheets were made for the heating plant and landscaping costs, and these amounts were divided over each unit in proportion to its size and location. Finally, summation sheets showing total costs and total revenues completed the financial set-up.

In this way the rent of each unit was determined. In other words, the rents paid in by the residents carry the cost of the entire project, pay interest at 5%, and will pay for the construction costs in 35 years.

TABLE SHOWING MONTHLY RENTALS BASED ON THE FINANCIAL SET-UP

ONE BEDROOM APARTMENTS	
Basement.....	\$20.75
Others.....	23.75
TWO BEDROOM APARTMENTS	
Basement.....	23.75
Others.....	27.75
DUPLEX HOUSE APARTMENTS.....	
	26.50
TWO BEDROOM HOUSES.....	
	30.50
THREE BEDROOM HOUSES.....	
	35.00

NOTE. The above rents include heat, water, and domestic hot water in every case.

The entire undertaking contemplates an expenditure of \$1,750,000.00 including the cost of the land. As an unemployment relief measure it is one of the best for several reasons: it is self-liquidating, it will employ approximately 2500 men for six months full working time and at fair wage schedule, it will spread the work over the greatest diversified field, and finally, it will provide something that is very badly needed by the City of Winnipeg, as is definitely shown by its own department of health reports.

THE PUBLIC WORKS PROGRAMME

The Public Works Construction Act, which received its final reading in the House of Commons on June 30th, 1934, provides for the construction and improvement of certain public works and

undertakings throughout the Dominion at a total cost of \$40,000,000. Of this amount, over \$23,000,000 has been set aside for the following building projects:

ONTARIO:

BLACKWELL—Onion Warehouse.....	\$ 14,250
BURKS FALLS—Public Building.....	25,000
COBALT—Public Building.....	53,000
COCHRANE—Public Building.....	55,000
DUNDAS—Reconstruction of Armoury destroyed by fire.....	45,000
FORT WILLIAM—Public Building....	425,000
GALT—New Public Building.....	161,000
GEORGETOWN—Public Building.....	50,500
GUELPH—New Public Building.....	250,000
GUELPH—Public Building—Installation of Elevator.....	15,000
HAMILTON—Public Building.....	1,750,000
KINGSTON—Royal Military College..	350,000
LONDON—Public Building.....	1,500,000
NEW TORONTO—Public Building....	85,000
OTTAWA—Postal Terminal Building.	420,000
OTTAWA—Central Experimental Farm	200,000
OTTAWA—Record Storage Building..	400,000
OTTAWA—Royal Canadian Mounted Police Building.....	1,200,000
OTTAWA—Royal Canadian Mint, new refineries.....	200,000
OTTAWA—New Photographic Building at R.C.A.F. Station.....	37,700
SARNIA—Warehouse on Wharf.....	21,000
THOROLD—Public Building.....	25,000
TORONTO—Customs Building addition	600,000
TORONTO—New Postal Station "D".	100,000
WALLACEBURG—Public Building....	42,500
WESTON—Public Building.....	45,000
WINDSOR—Elevator.....	600,000
	<hr/>
	\$ 8,669,950

QUEBEC:

BEAUPORT—Public Building.....	\$ 20,000
BERTHIERVILLE—Public Building...	48,500
BROWNSBURG—Public Building.....	25,000
CANTIC—Building for Immigration and Customs Purposes.....	31,500
FARNHAM—Public Building.....	58,000
LACOLLE—Building for Immigration and Customs Purposes.....	35,500
MONTREAL—Armoury for 17th Duke of York's Royal Canadian Hussars	200,000
MONTREAL—Public Building addition	2,000,000
MONTREAL—Notre Dame de Grace Postal Station.....	136,000
MONTREAL—Postal Terminal Building.....	1,800,000
QUEBEC—New fireproof transit sheds to replace old sheds Nos. 24 and 25 on Pier No. 1.....	463,000
QUEBEC—Observatory.....	15,000

QUEBEC—Operating House for the port of Quebec radio telegraph station.....	\$ 12,000
ROUYN—Public Building.....	63,000
ST. JOSEPH D'ALMA—Public Building	30,000
THREE RIVERS—New transit sheds on new wharves.....	128,000
VALOIS—Public Building.....	25,000
	<hr/>
	\$ 5,090,500

MANITOBA:

BOISSEVAIN—Public Building.....	\$ 20,000
ELMWOOD—Public Building.....	45,000
HAMIOTA—Public Building.....	15,000
NORWOOD GROVE—Public Building.	27,000
WINNIPEG—New Public Building...	1,500,000
WINNIPEG—Post Office addition....	250,000
WINNIPEG—Extension Deer Lodge Hospital.....	150,000
	<hr/>
	2,007,000

ALBERTA:

BANFF—Post Office and Administration Building.....	\$ 150,000
CALGARY—Barracks for Permanent Force.....	1,200,000
EDMONTON—Royal Canadian Mounted Police Barracks.....	200,000
	<hr/>
	1,550,000

BRITISH COLUMBIA:

HUNTINGDON—Building for Immigration and Customs Purposes.....	\$ 3,500
PACIFIC HIGHWAY—Building for Customs and Immigration Purposes....	30,000
VANCOUVER—Public Building.....	1,000,000
VANCOUVER—Armoury for Seaforth Highlanders.....	240,000
VICTORIA—Public Building and Warehouse for Marine Department....	100,000
VICTORIA—Little Saanich Observatory—Improvements.....	36,000
	<hr/>
	1,409,500

NOVA SCOTIA:

AMHERST—New Public Building....	\$ 150,000
DARTMOUTH—Reconstruction of R.C.A.F. Station.....	15,000
HALIFAX—New Public Building....	500,000
HALIFAX (CAMPERDOWN)—Operating house for the port of Halifax radio direction finding station.....	12,000
HALIFAX—New sheds, Pier "B"....	32,000
HALIFAX—Construction of buildings for fish processing plants adjacent to cold storage plant.....	354,000
KENTVILLE—Building for Division of Horticulture.....	25,000
SYDNEY—Warehouse extension....	11,500
	<hr/>
	1,099,500

NEW BRUNSWICK:

CENTREVILLE—Customs Building on boundary.....	\$ 5,000	
DALHOUSIE—Post Office.....	47,000	
FREDERICTON EXPERIMENTAL FARM—New Dormitory.....	58,000	
GAGETOWN—Public Building.....	10,000	
MCADAM—Public Building.....	29,000	
MONCTON—Public Building.....	620,000	
ST. STEPHEN—Building for Customs and Immigration Purposes.....	75,000	
		\$ 844,000

SASKATCHEWAN:

REGINA—New Public Building.....	\$ 400,000	
		400,000

GENERAL:

INDIAN AFFAIRS DEPARTMENT—For the construction and reconstruction of Indian residential and day schools and hospitals.....	\$ 500,000	
PUBLIC BUILDINGS GENERAL—Including improvements and alterations.....	2,000,000	
		2,500,000
TOTAL.....		\$23,570,450

The object of the works programme, according to the official announcement, is to accelerate recovery to more normal economic conditions, increase employment, and reduce expenditures for relief purposes.

The bill provides that all work estimated to cost five thousand dollars or more must be let by tender, and also authorizes the Minister of Public Works to employ such architects and engineers in private practice as may be required.

The National Construction Council, while gratified with the results of their efforts, has strongly recommended to the Prime Minister that as much publicity as possible be given to each of the projects included in the programme, as such publicity will tend to stimulate private construction.

Following the announcement of the public works programme, the president of the Royal Architectural Institute of Canada interviewed the Minister of Public Works at Ottawa and strongly urged the employment of architects in private practice wherever possible. It was pointed out by the president of the Institute that there were approximately

one thousand registered architects in Canada, and that previous to the depression they employed about five thousand draftsmen. He called the attention of the Minister of Public Works to the fact that no other profession had been so seriously affected as that of architecture, and that while the demand for the participation of private practising architects in the public works programme was based on a principle of justice, he urged that the position of the architect as a taxpayer be also taken into consideration. At the close of the interview, the Minister of Public Works assured the president of the Institute of his desire to recognize the rights of private architects to benefit by the construction programme, and that he intended to render every possible reasonable assistance to the architectural profession.

It is gratifying to the Institute to note that up to the time of going to press approximately thirty architects in private practice have been retained by the government in connection with the various projects included in the programme.

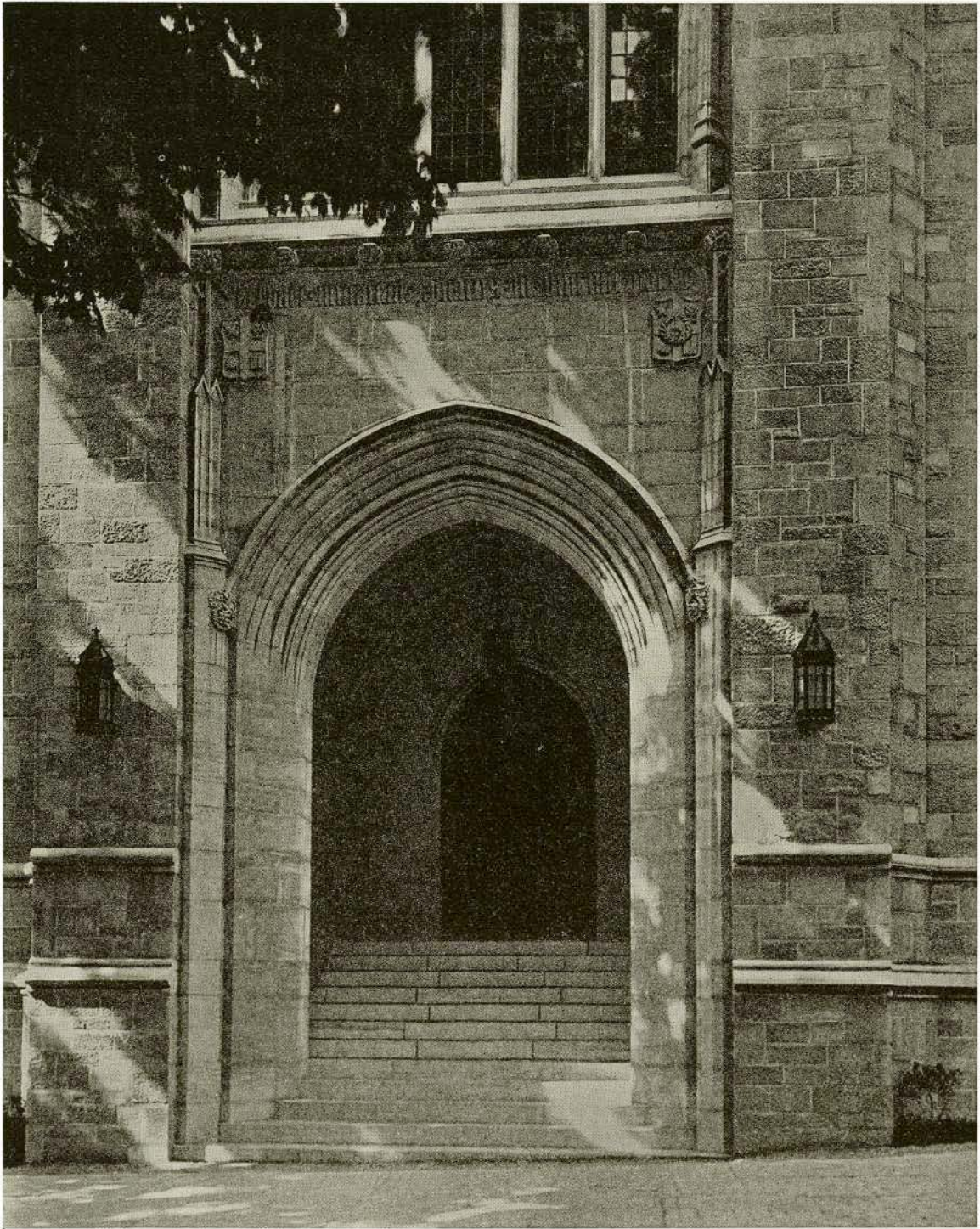
DIVINITY HALL, MCGILL UNIVERSITY, MONTREAL

H. L. FETHERSTONHAUGH, ARCHITECT

Divinity Hall was built under the joint direction of several of the Theological Colleges affiliated to McGill University. It is situated between University Street and the college grounds on a rather narrow lot. In it are given the courses which the theological students follow irrespective of denomination. In addition to class rooms, seminars, etc., it contains an assembly hall, library and chapel, and has become an important centre in the life of the University. The exterior of the building is Montreal limestone of various textures.

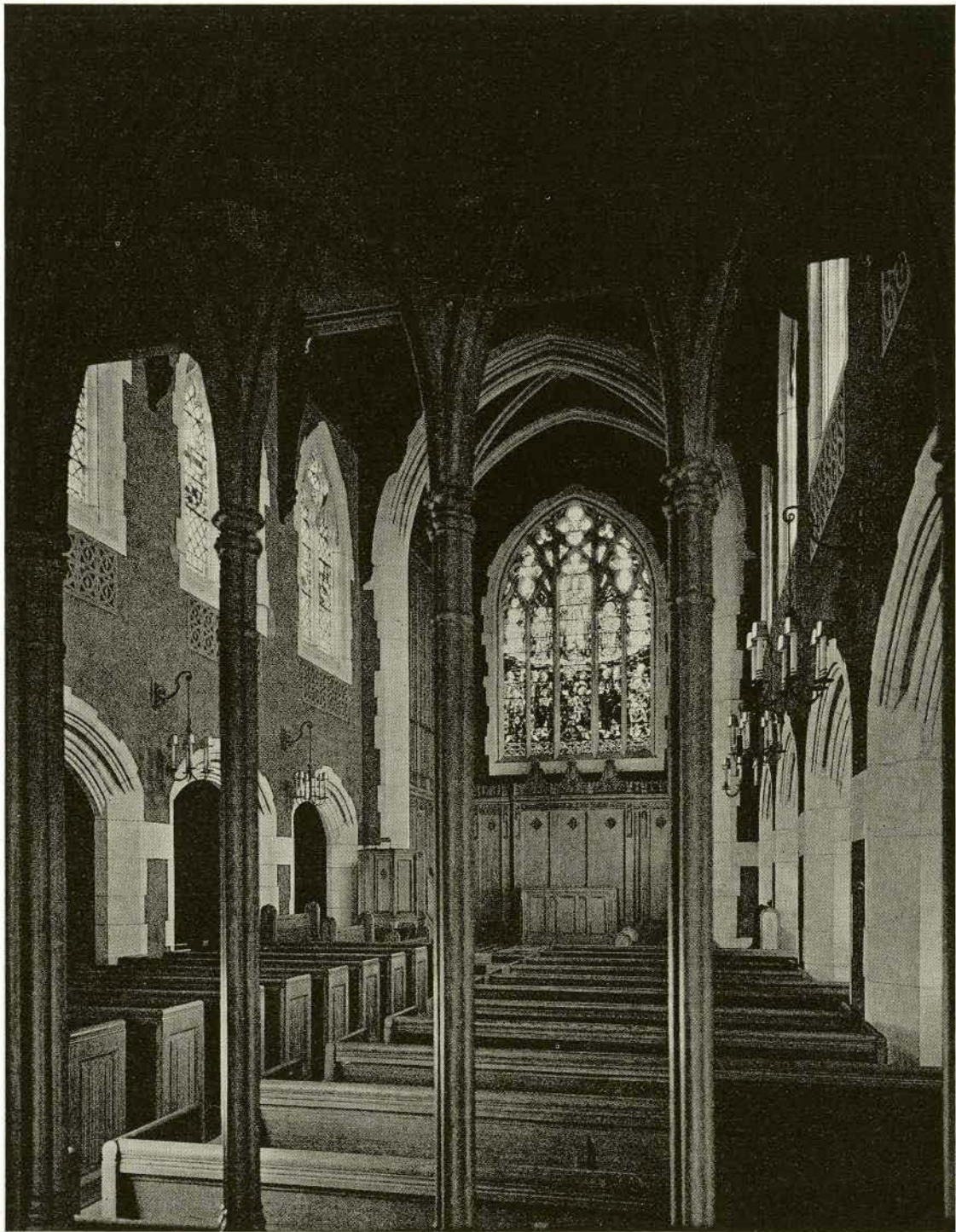
The most interesting feature of the building is the chapel where daily morning services are held

for the students. It has eighty seatings with an addition of forty in the gallery. The entrance to the chapel is under the gallery and the ceiling is treated with groined wood vaulting. The floors in the chapel are of stone slabs, while those in the chancel are of coloured marble and terrazzo. The walls are of acoustic plaster, stained a warm russet colour, and the woodwork is straight grained white oak, waxed. Between the chapel and the narthex is a screen of carved wood tracery. The leaded windows contain the crests of British and Canadian universities.



MAIN ENTRANCE
DIVINITY HALL, MCGILL UNIVERSITY, MONTREAL

H. L. Fetherstonough, M.R.A.I.C., Architect



THE CHAPEL
DIVINITY HALL, MCGILL UNIVERSITY, MONTREAL
H. L. Fetherstonagh M.R.A.I.C., Architect

ARCHITECTURAL ECONOMICS IN THE ARCHITECT'S ORGANIZATION

BY ROBERT H. MACDONALD, F.R.A.I.C., F.R.I.B.A.

THE practice of architecture is an occupation probably as varied in its nature and in its many aspects as any other of the professions; it is consequently difficult within the scope of a single article to do more than make brief reference to certain principles and methods of common value, whether an architect practises as an individual or in a partnership, whether on a small scale or on a large scale as regards volume and variety. "Unless endowed with varied talents as are rarely found in one man, he associates with himself others differently gifted and while architecture as a fine art is an individual effort, architecture as a profession is generally a co-operative undertaking."

In the selection of an architect it may be assumed that the client is satisfied that the former has ability to design and build, he may also have inquired as to the architect's reputation in the handling of work with particular regard to *time* and *cost*, for there is a very intimate and vital relationship between these two factors.

In the commercial field, such terms as *efficiency* and *service* in ordinary parlance have become almost an offense. This may be because they suggest "up-to-the-minute" and "cut and dried" methods of doing business and such terms are not supposed to apply to the practice of architecture, but there is a sense in which efficiency is applicable and appropriate, and can be best attained by the use of system, standards and fairly tight regulation in the handling of work in an architect's office, to the benefit and profit of the client and architect, and thus by organization, system, method or any name by which efficiency in an office is designated, is not only worth while, but becomes an absolute necessity.

A client takes a serious step when he decides to build, and with respect to the expenditure of his money, he may think he has control of the situation, but to a large extent he is helpless as to the way in which it is spent. If a man of business, he is quick to sense careless methods of administration on the part of the architect, his assistant or superintendent, and in these days when more is expected of an architect in this regard than formerly, his reputation and future prospects may be quite seriously affected by slackness or other shortcoming in this respect.

"The architect owes his client a competent management of business affairs, whether large or small, for a loss to the owner of a small building may be just as grievous as a loss to the owner of a large building. Good management is vital, for,

granting the work to have been skilfully designed and wisely specified, its swift and proper execution depends in no small part on the architect's ability as an administrator. The effectiveness with which he (or someone) conducts the routine of extras and omissions, of applications for payment, of issuance of certificates, facilitates the complex processes of building just as a lax administration clogs them. Expert management of innumerable details conduces not merely to getting the utmost for the client's money, but leads to the avoidance of those misunderstandings between client, architect and contractor that so often embitters relations, which under skilful guidance, might be those of confidence and mutual respect."

A satisfactory relationship between client and architect must be first established on a basis of mutual regard and confidence, and this can be most surely maintained by frequent contact, thereby informing the client frankly and continuously of the various steps and details as they develop during the progress of the work and until its final completion. In this connection it is important that the client should be satisfied that the architect is fully sensitive to the trust imposed by his selection and that he will render an adequate personal service.

It is also desirable that a client should at the beginning be accurately informed as to the nature and implications of architectural services, the various steps, from preliminary instructions on through studies, working drawings, etc., etc., and these are quite well defined, set forth and form part of the suggested form of agreement of the R.A.I.C., under the heading of "the conditions of agreement between architect and client."

ADMINISTRATION

The administrative functions within an architect's organization are best handled by the architect himself and these generally consist of:

The interviewing of clients, the recording of such discussions by memorandum, noting personnel, dates, decisions, etc., the handling of correspondence, office accounting, execution of agreements, studies and general design, preliminary drafts of specifications, selection and approval of lists of bidders, both of contractors and sub-contractors, selection and approval of building materials, orders for extra work and work omitted, certificates for payment and interpretation of contract documents.

DRAUGHTING

The draughting room, when there is a staff, should be under the supervision of a head draughts-

man, not only qualified as such, but also in all the practical details of construction, and possessed of a very considerable appreciation of job conditions and job needs. The preparation of working drawings and specifications are best carried out simultaneously, and before they are entirely finished and made ready for issue, there may be advantage and benefit in having them both reviewed and checked by the superintendent of works, who by reason of his occupation and contact with actual working conditions, is qualified to make suggestions which may be of material value from the standpoint of practical building and of cost.

In the preparation of drawings and details, there can be considerable and unnecessary waste of money in methods of construction, this is usually indicated by an unwise choice of materials, in errors that lead to difficult and impossible conditions on the building itself, even to the undoing and replacement of material with consequent loss of both time and money. Incompetency or carelessness on the part of draughtsmen and any lack of a spirit of helpful co-ordination and harmony between members of a draughting room staff have a like effect.

Time is a most important factor in all building operations, and at no time can an architect or any member of his staff afford to procrastinate in the matter of time in the obtaining of information, the securing of decisions, expediting the preparation and issue of drawings and by assisting in every manner possible both in the office and on the work of construction, the operations of the contractor. While the contractor must be responsible for his own delays, the architect and his assistants must also realize that the needs of the job are very important and are factors of cost and economy once a contract is awarded and work begun.

Much time is lost by uncertainty and indecision on the part of an architect in his instruction to draughtsmen, and the same applies to the draughtsman lacking in experience and initiative.

Preparation of a "schedule of drawings and details required" (other than the contract drawings) is quite important at the signing of the contract. In this the contractor can be helpful to both the architect and himself by indicating the order and approximately the dates when they will be required so as to make possible the execution of work and completion according to agreement.

The efficiency and interest of draughtsmen can be raised and held at a high level if they are permitted and avail themselves of the opportunity to see their work under actual construction. "They learn much from such inspection and gain a sense of the reality of their work and of the relation of the drawing to the forms arising from it."

In the matter of detailing, there always has, and perhaps always will be, a repugnance to the idea of

standards in an architect's office, but in many items, and especially in the design of such buildings as schools, office buildings, warehouses, factories and even in residences of the cheaper type, there are certain details (other than for trim and finish) for which a very comprehensive set of office standards can be compiled and used in repetition, improving them by change and correction from time to time, as actual working conditions may suggest. This has been found an advantage as regards the architect's cost, and to the contractor also, if they are bound in as pages to a specification or otherwise, at the time of estimating and prior to the submission of bids.

THE CONTRACTOR

The relation of a contractor (with reference to our subject) is of the greatest importance to both owner and architect, and it is needless to enumerate the faults and failings of all the parties which in this respect, lead to difficulty, delay and resulting cost.

It may be of interest and profit to quote from the A.I.A. handbook on this subject:

"Under a system of competitive bidding, each contractor is invited to submit a proposal for a definite sum. The method is so simple that at first sight it has every advantage. The owner has before him proposals, the desirability of which would seem to be in inverse ratio to their amount. Now this might be so if all the bidders were of equal responsibility and competency, but unfortunately for the method, they rarely are. The best builder of a given locality may be pitted against the worst, so that the criterion of mere price ceases to have real value. Indeed, it generally has a false value, since the lowest figure is apt to outweigh the less obvious advantages afforded by a more competent bidder.

"As each contractor's aim in competitive bidding is to secure the work for himself, and as there is ordinarily no chance of this unless his bid is the lowest, he naturally applies his whole mind to keeping the price down. Now this may be legitimate enough as applied to the work that he is to do with his own force, but if he is to be a general contractor he has ordinarily to employ a score or more of sub-contractors. His proposal depends far more on the bids that he gets from them than on the value he puts on his own work. To get the lowest sub-bids he must invite a host of sub-contractors to bid to him, and unless he is a man of strong character, he does not inquire too closely as to the honesty or competency of the lowest bidders, for if he does, the work will go to someone who has not done so.

"Now, unless the greatest care has been taken to include in the invitation none but bidders of the highest character, the lowest bid is likely to come from a contractor who has made it by adding to the cost of his own work all the lowest sub-bids he

could get and then perhaps knocking off something in the hope that a lucky chance will leave him a profit. If he gets the contract, he does not close with the men whose bids have enabled him to win the work, perhaps a poor enough lot, but he employs every art further to depress their bids or he seeks out other sub-contractors at still lower figures. It needs little imagination to picture the result of such a course on the quality of the work; and the course is not an unusual one. Such contractors are mere brokers of other men's services. Their interest is not in the integrity of the work. They do not long keep up even an appearance of directing it, for as soon as trouble comes, they throw onto the architect the burden of the fight with incompetent sub-contractors. Such results of competitive bidding are as repugnant to honest and capable builders as to architects.

"Unfortunately in some cases the owner does not recognize the importance of a well chosen list. He yields to the importunities of contractors indifferently qualified and promises them a chance to bid, and in the end he generally awards the contract to one of them, under the futile notion that the architect can by supervision force such a contractor to build properly."

It is decidedly and without question in the interest of the work and all connected with it if a list of only competent contractors are invited to submit bids, and in addition, that they should be given a list of sub-contractors approved and acceptable to the architect, it being understood that any one sub-contractor in each of the several trades sub-divisions will be named by the contractor, submitted together with and as a part of his bid. It is the writer's opinion that a contractor who has been placed upon a selected list, should not be suspected of unfair or dishonourable practice in the selection of his sub-contractors, and any arrangement by which sub-contractors are obliged to send copy of their bids to the architects simultaneously with their bid to the contractor to prevent irregularity, is a reflection upon the honour and good faith of a contractor already approved and accepted.

The ideal arrangement on large work in the writer's opinion (assuming that the client insists upon competition) is to limit the bidding to firms, any one of whom can be entrusted with a contract on a basis of cost, plus a fixed fee, with a guaranteed limit, and savings, if any, all to the owner. Such an arrangement involves the utmost confidence in the architect and contractor by the owner, for they are thrown into a relationship where the owner's benefit is, or should without question, be the main interest, and both the architect's and the contractor's effort should result more in the direction of an enhanced reputation than in enhanced financial gain. Of course, indirectly and ultimately,

an enhanced reputation should result in enhanced financial returns.

There is an opinion, fairly general, that an architect should be versed in certain phases of law. There can be no objection to this if he should study the subject with a view to avoiding the pit-falls which result from faults, failings and incompetency in the practice of the profession. But why study law, when the occasions for appeal to law can be avoided by the execution of accurate and complete plans, specifications and details? By proper records of instructions received and given, and by complete daily records (with photographs if necessary) of work in progress? Only by such and other suitable methods can the client, architect and contractor with all associated with them, be adequately protected against possible litigation and consequent expense.

An architect may have all the qualifications and training necessary to a successful career, but if he lacks diligence and decision, clarity and accuracy in drawings, correspondence, etc., and a persistent effort in following all the details of work for which he has accepted responsibility, either personally, or through equally competent assistants and representatives, there may lie entanglement, embarrassment and expensive litigation to be faced in the not far distant future.

SUPERVISION

An architect is expected to exercise reasonable care and skill in the exercise of his duties and obligations under such agreement as may and should exist between his client and himself. In so doing, it should be remembered that there is a difference between supervision and superintendence; at all times he must exercise the former, but if the work is of such a nature and extent as to require continuous supervision, then it becomes necessary to secure and place thereon a competent clerk of works. Whether the architect superintends or it is done by a clerk of works, there is no place where the human element with all its varying characteristics and temperaments can be more difficult than on a building operation, and especially where lack of organization, of thorough understanding and authority, and the source of information and instruction, will lead to loss of time, money and reputation.

The best kind of supervision and superintendence is that of cordial and helpful assistance and co-operation where the competency of the contractor is known to exist; of course, if the latter is absent, it is hard to suggest what course an architect should take under the circumstances, for the damage was already done when the wrong contractor was engaged.

When a respectful and harmonious relationship is well maintained between an architect and the contractor, their standards of quality and materials

being practically identical, then such a situation is soon recognized by the rank and file of sub-contractors and the men employed, much to the benefit of the client and certainly to the peace of mind and general satisfaction of the architect. The signing of a contract for the erection of a building does not imply dishonesty, defective workmanship and discord. It should be a confirmation of the very reverse, but unfortunately the attitude of some contractors and architects is such that unpleasant situations cannot be avoided and

they must be met, overcome and brought under control in the interest of the client.

In the foregoing the endeavour has been to cover subjects vital to the client and to the architect in matters of cost and satisfactory building results, but details relating to professional practice as distinguished from "architectural economics" have been but slightly and indirectly referred to, for these are more particularly covered in the regular courses of the Colleges and under the examinations set by the several provincial associations.

CIRCUMSPICE

Our last paragraph in the June issue was thrown out as a bait. Safe in the mantle of "Circumspice" we attended meetings and luncheons and heard the comments of our fellow men. As a result we have divided the profession in Canada into three classes:

- (a) Those who think;
- (b) Those who don't think;
- (c) The commercially minded.

In any profession those who think represent the upper stratum. They may not be successful as the world judges success, but their reward is in heaven in the judgment of posterity. Those who don't think are in the majority and may be divided into several classes. They are like the schoolboy learning to tie a bow tie. At first it seems incredibly difficult, but with practice the operation becomes automatic. Up to this point the education of the members of this class has been the same. After that they may accept their orders and their sash windows, or their bosses and crockets as God-sent instruments like the brushes of a chimney sweep, and settle down to a life of mental ease, or their education will continue, and end only with death or retirement. Such a continuation of education may bring a man into our first class, but more often than not he will go on hypnotized by the manner in which he started and improving his style only within the narrow confines of his orders or crockets. The enthusiasm with which our great architects have pounced on the Petit Trianon, Compton Wynyates, all the detail of Hampton Court Palace, and the very mouldings of Wren is ample proof of the sterility of our age.

Occasionally one sees a Gothic architect turning for a time to Classic though in our time it is rare to see the reverse. Such a change in taste cannot be attributed to deep thought any more than the iris grower changing his affection to tulips. The results in architecture have in most cases been either tragic or comic.

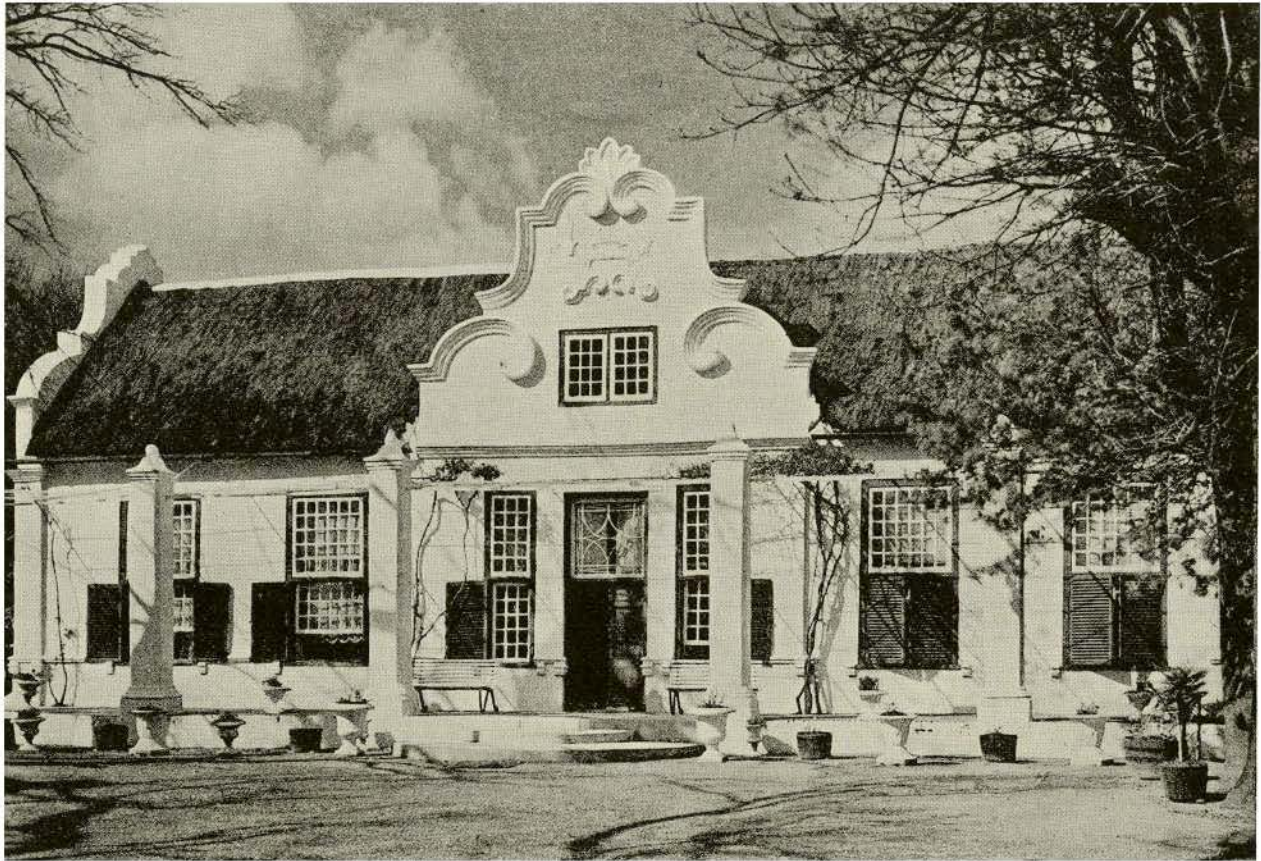
And while the British journals are crying "From the orders of architecture and the modules, good

Lord deliver us," we are still designing monstrous triglyphs and fake half timbering. We rejoice that the very workmen are happy "Working in the manner of their grandfathers!" And when the happy workman has done his job one can see the happy architect and his client searching the junk heaps for the appropriate spinet writing table to grace his period room.

It is a melancholy commentary on architecture in 1934, and one that might well bring us to take stock of our position, for we are all pretty much in the same boat. It is partly due to the timidity of our clients. In Canada no one builds without first considering the saleability of his house. He considers, therefore, not the few who like himself enjoy space and light and all that goes with modern architecture as it is practised abroad, but the many who like show in the form of cheap iron and gumwood panelling; who, with no background of taste, choose to surround themselves with oak and mediaeval stained glass or the naïvete of provincial French cottages. So long as we cannot rise above our clients who, in turn, must pander to the taste of the mob, we shall never have great architecture in Canada. And then, of course, there is the happy realtor who just dotes on chivalry and the "storied past." So long as it is in the manner of the past, he loves it, and the more remote the better. We would suggest that in the next honours list the Prime Minister recommend to His Majesty that every realtor in the country be made a Knight of St. John of Jerusalem. We understand that that ancient order of chivalry, which has recently been conferred on His Excellency The Governor General, carries with it the obligation to pay \$500.00 a year to the Order. That, we trust, would put an effective curb on their Jerrybethan activities.

We have seen some strange sights in this twentieth century and will doubtless live to see many more. We have seen Messrs. Sproatt and Rolph hang the massy timbers of Hart House Great Hall

(Continued on page 124)



"MORGENSTER," SOMERSET WEST

BOOKS REVIEWED

EIGHTEENTH CENTURY ARCHITECTURE IN SOUTH AFRICA*

BY PHILIP J. TURNER, F.R.A.I.C., F.R.I.B.A.

In the choice of material selected, and in the presentation of it by photographs and measured drawings, the author, who is the head of the school of architecture at the Witwatersrand University, has produced an admirable volume.

The charm of this phase of colonial architecture follows its European prototype from Holland, and it is interesting to find how cleverly it has been adapted to local requirements of climate, the scarcity of materials, and social, political and geological conditions.

Despite the limitations imposed on the builders of those days, a style was evolved, the quality and charm of which is beyond question. To see these buildings in their natural settings, baked in glorious sunshine, one can realize that something more than technical knowledge was necessary to bring about the harmony in nature, and the sense of repose that characterizes this work.

Mr. Pearse states that many of the old buildings of the Cape are being demolished or altered out of recognition, and that this was the principal reason for the publication of his book which is the first of a series. The book is illustrated with about 113 full size plates and excellent measured drawings, which are in great part the work of the architectural students of Witwatersrand University, who accompanied the author on a tour of the Cape and surveyed the buildings with him.

*By Professor G. E. Pearse, A.R.I.B.A.—Published by B. T. Batsford Limited, London—Price \$15.00.

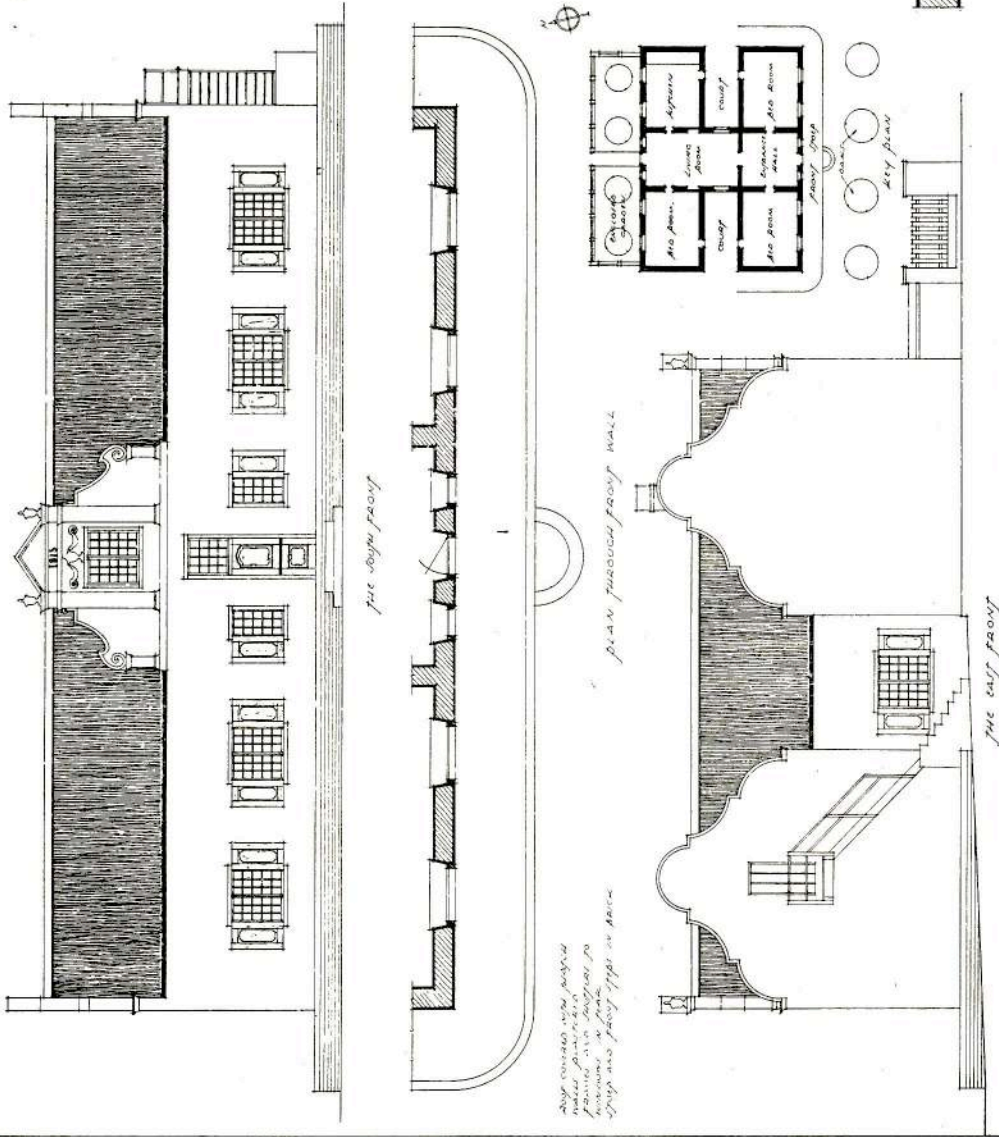
Besides the illustrations which form the bulk of the book a short historical article is given by way of introduction, and this is followed by others on town houses, country houses, materials, craftsmanship, stone, brick, paving, timber, doors, window gables, stairs, fireplaces and metalwork, with sketches in the letterpress.

The buildings illustrated were all erected during the period of 1652-1814, but with the exception of the castle, 1666, the majority were built in the second half of the 18th century, and the beginning of the 19th century. The architect, Louis Michel Thibault, 1750-1815, a pupil of the famous French architect, Gabriel, seems to have done most of the best work of the period, and he was ably assisted by Auston Aurieth, the sculptor, who established a school for drawing at the Cape.

The gable, the great sash windows with small panes and large bars, and rich entrance doors with high fanlights familiar to Holland, appear also at the Cape, but the houses are generally not so tall, though what they lose in height is, as a rule, made up in breadth. The Dutch people at the Cape had an innate love for hospitality, and this, combined with the fact that great distances had to be traversed by their visitors and friends, induced them to build large reception rooms and kitchens in their homes.

LA PROvence — FRENCH HOEK

QUARTER INCH AND HALF INCH SCALE DRAWINGS



LA PROVENCE, FRENCH HOEK. PLAN AND FACADE

Internally these houses reflect the simple and attractive interiors of the houses of Holland so well depicted in the paintings of the "Little Masters of the 17th Century."

In the economy of treatment and use of modest and local building materials, the broad roofs and the general simplicity shown in the buildings, one is reminded of our own old Quebec houses which may be considered to be a counterpart of those at the Cape of Good Hope.

It is to be hoped that in the very near future Professor Traquair, who has for many years been collecting a valuable collection of photographs and drawings of the 18th century

architecture in French Canada, will produce a companion volume, similar in form and size, to that of Mr. Pearse's. Such records are invaluable, and should be made in every Dominion and Colony before these early buildings are allowed to disappear.

While this volume contains a wonderful and varied collection of subjects, it is hoped that at some future date Professor Pearse may be able to continue his present good work, by publishing another volume dealing with other buildings not so well known in the more remote parts of the colony.

DEPARTMENT OF ART, SCIENCE AND RESEARCH

CONDUCTED BY B. EVAN PARRY, F.R.A.I.C.

CANADIAN EXPORT TIMBERS—Their properties and uses. Issued by the Department of Trade and Commerce, Commercial Intelligence Service, Ottawa.

The value of this government brochure lies in the information contained therein covering the forest areas of the Dominion, and more particularly the Canadian tree species, which are divided into three classes, namely: (1) Those of export as well as domestic importance; (2) Those of importance only for the domestic market or for shipment to the United States; and (3) Those of no commercial importance. Perhaps the use to which this information may be applied is in the information covering standard sizes and uses, with very good descriptions of the character of the various woods. Emphasis is laid upon seasoning and methods to be followed, as also the value of certain woods under varying climates. Members of the profession would do well to have this publication in their files.

* * * *

BUILDING SCIENCE ABSTRACTS—Vol. VI (New Series). No. 12—December, 1933. Published by His Majesty's Stationery Office, London, England—1s. 6d.

The following is a brief review of some of the abstracts contained in this publication:

No. 2019 deals with the question as to whether skin formation on building stone is harmful. It would appear that the advisability of removing the skin formed on stone has been questioned, and that the author in considering this question distinguishes between surface crusts and internal or diffusion crusts formed beneath the surface, and shows that skins formed by the movement and deposition of soluble salts become harmful in course of time, although in certain very durable types of stone the process is very slow.

No. 2043 covers strength, water absorption and weather resistance of building bricks produced in the United States. This abstract includes a survey which has been carried out by the Common Brick Manufacturers' Association of America in co-operation with the U.S. Bureau of Standards.

No. 2044 should prove of value inasmuch as it deals with the permeability to air and to water of building bricks. Particular note is made of the measurements of the permeability to water which provide data of special value in measuring the rate of moisture absorption. Incidental to this question abstract No. 2045 is of value inasmuch as it covers the results obtained in compressive and bending strength tests of bricks, having for its object the determining whether a definite relationship obtains between the two values.

No. 2047 deals with efflorescence, wherein it is shown that sodium and magnesium sulphate cause corrosion and flaking, but further investigation of the problem is urged.

Nos. 2238-40 cover the heat transmission of glass.

No. 2063 deals with the expansion of lime and its importance in building practice, and results obtained in determinations of the yield of hydrated lime.

No. 2071 presents a discussion of the nature and properties of mortar and concrete, based mainly on work carried out at the Technical Research Department of the City of Berlin, Germany. Tabulated data on the properties of variously proportioned concretes are appended thereto.

No. 2074 gives the results of tests of three series of concrete mixes, containing identical materials to determine difference in the value of plastic and fluid concrete.

No. 2075 is a study of surface treatments as a means of reducing concrete permeability.

No. 2100 reviews the observations of the action of climatic conditions on cement mortar. Information obtained indicates that the action of frost after saturation, as by the melting of snow, is a very important factor in the weathering of mortar and concrete in parts of buildings near ground level. Low air temperatures are in themselves of little effect provided that the concrete is of good quality.

No. 2237 should prove valuable inasmuch as it deals with aluminium foil heat insulation.

No. 2130-2 describes the biology and diagnosis of house fungi; in two sections: (1) the rotting process as a source of self-wetting for timber; and (2) diagnosis of house fungi in their sterile stage.

No. 2133 covers a German investigation as to how should timber structures be protected against the action of wood borers.

No. 2136 opens up a possibility by the suggested use of porous rubber for panels for acoustic purposes.

No. 2137 is a description of a remarkable new building material which is a bituminous wall covering composed of bitumen and sand, earth or saw dust processed by a new method into a plastic state. It is applied by trowelling and sets hard on exposure. It is said to be weather-resistant, fire and vermin proof, and to have good insulating qualities.

No. 2164: This abstract covers some shear phenomena in a loaded soil mass, and is of particular interest to the profession.

No. 2203-4 describe a new system of small house concrete construction and is illustrated.

CIRCUMSPICE

(Continued from page 120)

to a steel truss; we have seen Mr. Lyle exhume the totem pole from the decent obscurity of British Columbia and exhalt it as the flanking pillar of a suburban library; we have witnessed the rise of financial institutions with all the arrogance of the orders and their trappings, and the growth of housing developments which we know to be incipient slums. It may be, however, that out of all this atavism and sentimentality, we are producing something, and as Lord Birkenhead, when a learned judge asked him if he knew what he was on the Bench for, said: "It is not for me, my lord, to fathom the inscrutable workings of Providence."

And now a last word for the nineteenth century. We hold no brief for the Romanesque, as Mr. Evan Parry would say "*per se*," but the elder members of our profession made a religion of their architecture and were prepared to fight for its principles in the press and on the platform. Above all, they and

their architecture had guts. Architecture for them was a gay adventure, while ours is an over-conducted Cook's Tour. We can see ourself following to the end of the earth a Richardson who preached rock-faced walls, five feet thick. We prefer him infinitely to those other prophets who bow the knee to $\frac{7}{8}$ " half timbers and $\frac{1}{2}$ " breaks in masonry. Nineteenth century architecture may have been vulgar, but it was a positive architecture while ours is negative. We are as hemmed in by taboos and fetishes as any Hottentot. There is the fetish of the order and the appropriate taboo for any who lightly break that sacred relationship of diameter to column—the fetish of the Georgian pane and its equally sensitive muntin. At the moment the intelligentsia, having exhausted all the possibilities of the Georgian House, are painting the front door scarlet. We are at last in competition with the Dominion Stores and after that—the deluge.

NOTES

Dyce Saunders and Jack Ryrie, architects of Toronto, announce the formation of the architectural firm of Saunders and Ryrie, and will carry on practice at 6 Hayden Street, Toronto.

* * * *

Irene Vautrin, M.L.A., a member of the executive committee of the R.A.I.C., who was recently appointed a member without portfolio in the Quebec Cabinet, has now been appointed Minister of Colonization for the Province of Quebec.

* * * *

Ian T. Archibald, B.A.R.C.H., M.R.A.I.C., Hugh P. Illsley, M.R.A.I.C., A.R.I.B.A., and John A. Currie, M.R.A.I.C., will continue the practice of the late John S. Archibald, under the firm name of John S. Archibald Associates, at 1440 St. Catherine Street West, Montreal. Ian T. Archibald is the eldest son of the late John S. Archibald, and Messrs. Illsley and Currie have been associated with the late Mr. Archibald for the past twelve years.

* * * *

Milton Eliasoph, M.R.A.I.C., and H. E. Greenspoon, M.R.A.I.C., announce the formation of a partnership to carry on the practice of architecture under the firm name of Eliasoph and Greenspoon, at 1410 Stanley Street, Montreal.

* * * *

Upon his retirement as head of the School of Architecture, University of Toronto, Professor C. H. C. Wright received a message of appreciation from the Royal Institute of British Architects for the valuable service he had rendered in the cause of architectural education.

* * * *

In a radio broadcast over Station CKAC, Montreal, on July 9th, 1934, under the auspices of the Native Sons of Canada, Paul M. Lemieux, M.R.A.I.C., advocated a national architecture for Canada. In his address, Mr. Lemieux pointed out that although there were two distinct races dividing the country, they were united in working for its national welfare, and there was therefore no reason why the two races could not develop a national style in architecture.

Sir Giles Gilbert Scott was re-elected president of the Royal Institute of British Architects at the annual meeting of that body held on June 18th, 1934.

* * * *

The Hugh McLennan Travelling Scholarship in Architecture at McGill University has been awarded to George Everett Wilson. Mr. Wilson left for Europe on June 9th and expects to spend some time in England, Scotland, France, Germany and Holland. Mr. Wilson was also successful in winning the Lieutenant Governor's Silver Medal for Professional Practice and the Louis Robertson Prize in Architectural Design.

* * * *

At a general meeting of the "Comité Permanent International des Architectes" held at Paris, France, on June 2nd, 1934, Mr. Henri S. Labelle, honorary secretary of the Province of Quebec Association of Architects, was unanimously elected a member of this international organization, as successor to the late John S. Archibald. Mr. Labelle will be the secretary of the Canadian section of the International Permanent Committee of Architects. The other Canadian member of this committee is Mr. Alcide Chaussé, honorary secretary of the Royal Architectural Institute of Canada, who is a director of the committee and president of its Canadian section.

* * * *

Among those who received a knighthood in the recent King's Birthday Honours List was Ian MacAlister, secretary of the Royal Institute of British Architects. Sir Ian is to be congratulated upon receiving this honour, following as it does over twenty-five years of service to the R.I.B.A. The knighthood conferred upon Ian MacAlister is not only considered to be a tribute to his personal qualities and the services he has rendered to architecture, but also an official and public recognition of the importance of the R.I.B.A. It is especially significant in that this honour has been conferred on the secretary of the R.I.B.A. on the occasion of its hundredth anniversary.



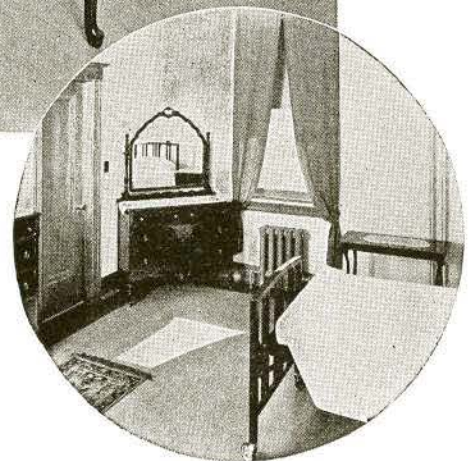
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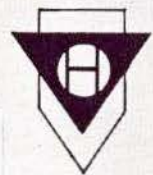
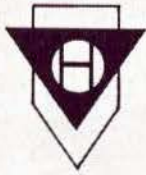
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Interior of modern store of Dionne Market Limited, 2077 St. Catherine Street West, Montreal. The seven display cases of the refrigerator type are trimmed inside and out with Monel Metal. Made by the Provincial Glass Co. Ltd., Montreal. The electric reflector fixtures and lamps of which there are four on each show case were made of Monel Metal by Electrolux Mfg. Co. Ltd., Montreal.

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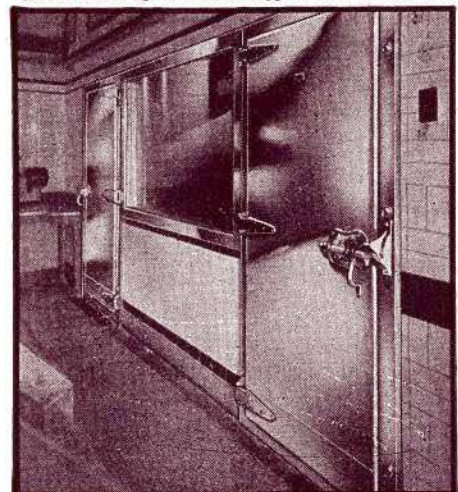
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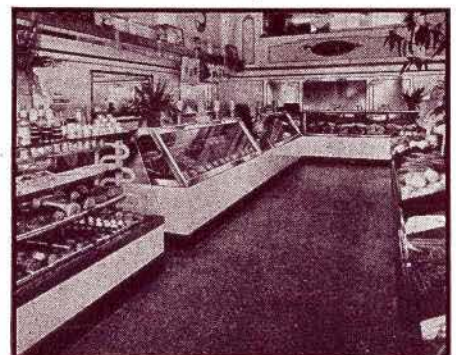
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The two Monel Metal refrigerator doors and window frame in Dionne Market Limited No. 1 store, 5005 Decarie Boulevard, Montreal.



Four refrigerator display cases in the No. 1 store of Dionne Market Limited, Montreal. These display cases are trimmed on the outside with Monel Metal. Manufactured by J. P. O'Shea & Co. Limited, Montreal.