

THE
JOURNAL
ROYAL ARCHITECTURAL
INSTITUTE OF CANADA



Vol. XIII, No. 7

JULY, 1936

TORONTO



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12. 287 Russell Hill Road: C. M. Willmott, architect; D. M. Robertson, builder.

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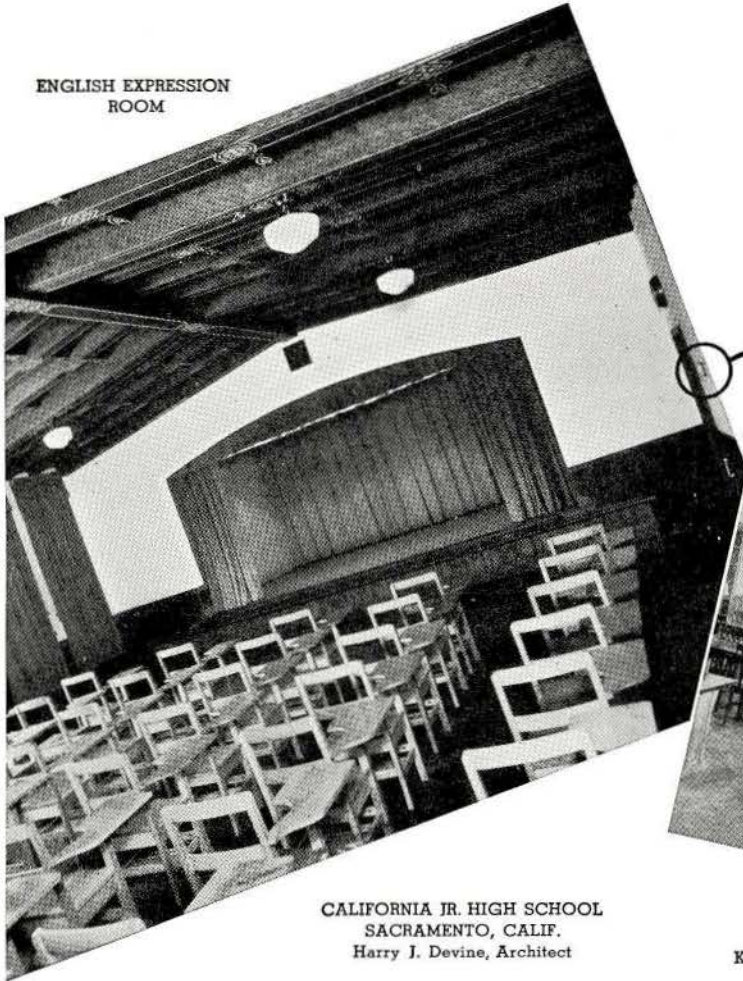
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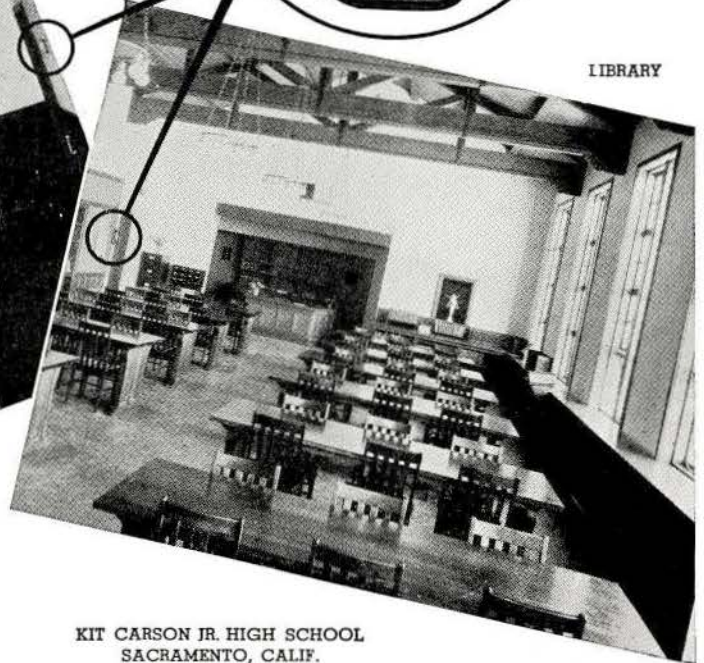
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FOUNDED 19th AUGUST, 1907

INCORPORATED BY THE DOMINION PARLIAMENT 16th JUNE, 1908, 1st APRIL, 1912, AND 14th JUNE, 1929

ALLIED WITH THE "ROYAL INSTITUTE OF BRITISH ARCHITECTS"

FEDERATION OF THE ALBERTA ASSOCIATION OF ARCHITECTS; THE ARCHITECTURAL INSTITUTE OF BRITISH COLUMBIA; THE MANITOBA ASSOCIATION OF ARCHITECTS; THE NOVA SCOTIA ASSOCIATION OF ARCHITECTS; THE ARCHITECTS ASSOCIATION OF NEW BRUNSWICK; THE ONTARIO ASSOCIATION OF ARCHITECTS; THE PROVINCE OF QUEBEC ASSOCIATION OF ARCHITECTS; THE SASKATCHEWAN ASSOCIATION OF ARCHITECTS

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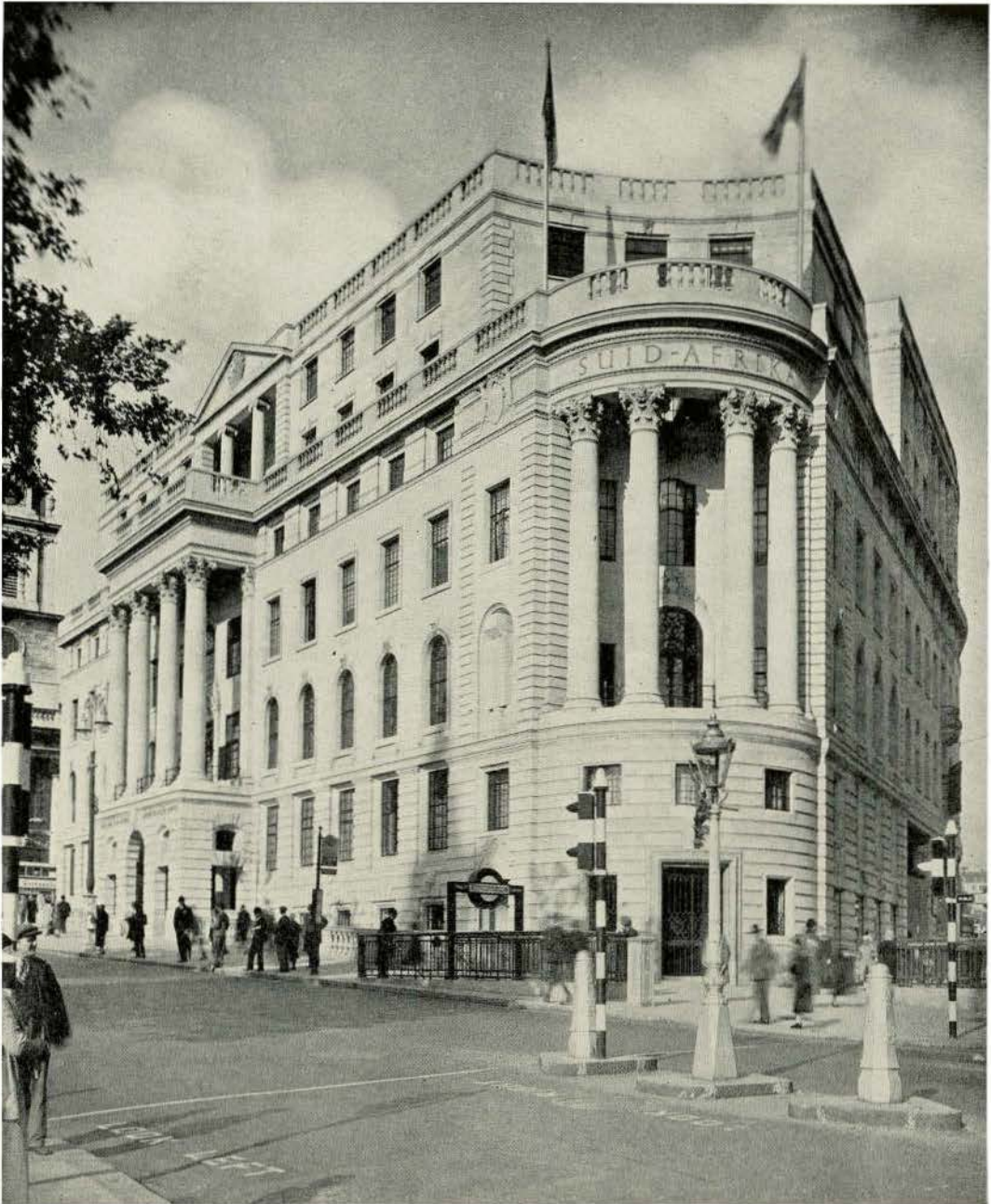
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**Deceased*



This is No. 4 of a series of advertisements to bring to the attention of Canadian architects outstanding examples in cut stone as used in British and foreign architecture.

Over the entrance is a gilded bronze figure of the South African "Springbok." The sculptor was Charles Wheeler, A.R.A.

SOUTH AFRICA HOUSE, LONDON, ENGLAND

Architect, Sir Herbert Baker

Yet another important monument to the already formidable list of buildings carried out in cut stone, is South Africa House, London, England. The building overlooks Trafalgar Square and is planned to harmonize with two important structures already existing, the National Gallery and St. Martins-in-the-fields.

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THE JOURNAL

ROYAL ARCHITECTURAL INSTITUTE OF CANADA

Serial No. 131

TORONTO, JULY, 1936

Vol. XIII, No. 7

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PUBLISHED EVERY MONTH FOR THE
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AWARDS IN THE T. EATON COMPANY ARCHITECTURAL COMPETITION FOR HOUSE DESIGNS

WITH the object of awakening interest in good architecture, particularly in the building of small and medium sized houses, the T. Eaton Company, Limited, on April 18th, 1936 announced an architectural competition for designs for small and medium sized houses, open to all registered architects in Canada and graduates of the six recognized Canadian schools of architecture.

The conditions for the competition were prepared by a committee of architects consisting of Messrs. John M. Lyle, F.R.A.I.C., Mackenzie Waters M.R.A.I.C., and Bruce H. Wright, M.R.A.I.C. The conditions were as follows:

SMALL HOUSE

Problem "A": The lot on which the house is to be built is an inside one and is assumed to be level, with a frontage of 50' and a depth of 150'.

The problem is to design a house which shall not contain more than 25,000 cubic feet, including a one car garage, covered porches or other appendages. It is estimated that a house of this type could be built in Toronto for approximately \$7,500.

Minimum Requirements: Living room, dining room or combined living and dining room, kitchen, four bedrooms, one bathroom, recreation room. One car garage attached to the house.

Minimum ceiling heights—Basement 7' to bottom of joists
1st floor 8' 6" in the clear
Other floors 8' in the clear

MEDIUM SIZED HOUSE

Problem "B": The lot on which the house is to be built is an inside one and is assumed to be level with a frontage of 75' and a depth of 150'.

The problem is to design a house which shall not contain more than 40,000 cubic feet, including garage accommodation for two cars, covered porches or other appendages. It is estimated that a house of this type can be built in Toronto for approximately \$12,000.

Minimum Requirements: Dining room, living room, kitchen, pantry, and washroom, four bedrooms, two bathrooms, one maid's room, one maid's bathroom, recreation room, provision for garage accommodation for two cars attached to the house.

Minimum ceiling heights—Basement 8' to bottom of joists
Main Floor 9' in the clear
Other floors 8' in the clear

Competitors were advised that the following method was to be used in computing the cubage: "The cubage is to be the cubic space enclosed within the outer surfaces of outside or enclosing walls and from 6" below the lowest floor to the top of the parapet, or in the case of sloping roofs, to a point midway between the upper ceiling level and the highest point of the roof. In unexcavated portions the cube should be taken from a level 2' 0" below the grade."

Competitors were restricted to one design in each class, and were required to send in their

drawings without any mark or identification thereon, or on the wrapper enclosing the drawings.

The prizes offered were as follows:

Class "A"—2 awards of \$1,000 each

Class "A"—5 awards of \$ 100 each

Class "B"—2 awards of \$1,000 each

Class "B"—5 awards of \$ 100 each

In addition to the above a Grand Prize of \$500 was be awarded to the design which, in the opinion of the jury, is the outstanding one of the competition.

The competition closed on June 15th, 1936, and the designs submitted were judged in Toronto by a jury consisting of the three architects who prepared the conditions. After the designs were carefully examined and checked for cubage, the jury made the following awards:

Grand Prize:

W. F. Williams, Nelson, B.C.

MEDIUM HOUSE

First Awards:

W. F. Williams, Nelson, B.C.

Harold J. Savage, Toronto.

Honourable Mentions:

William Ralston, Toronto

Robert R. Moffat, Toronto.

Ralph Kinsman & Abe Wilson, Toronto.

Gordon Hughes, Ottawa.

Ernest I. Barott, Montreal.

SMALL HOUSE

First Awards:

Wilkes & Fisher, Toronto.

Kent Barker, Toronto.

Honourable Mentions:

W. F. Williams, Nelson, B.C.

William Mollard, Toronto.

Wilfred Whaley, Toronto.

S. K. Sinclair, Toronto.

Henry F. Stevenson, Toronto.

REPORT OF THE JURY OF AWARD

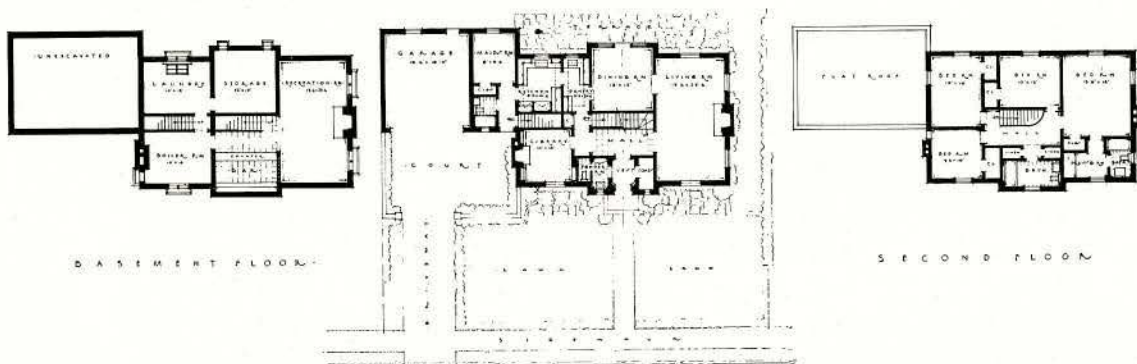
The jury of award in the architectural competition sponsored by the T. Eaton Co. Limited, herewith submits their report.

149 drawings were submitted—43 of these were designs for the medium sized house and 106 were for the small house. Architects from all over Canada entered the competition.

In many instances there was a great similarity in the types of plan submitted, the elevations on the whole being more varied in character. This similarity in plan may be partially accounted for in the restricted areas demanded by the program for houses of this cost. It is evident also that many of the competitors had seriously studied the

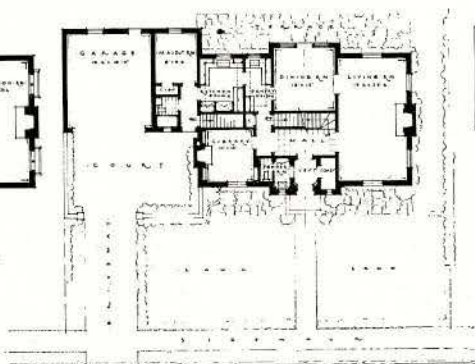


P E R S P E C T I V E V I E W

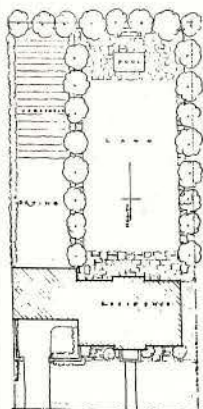


B A S E M E N T F L O O R

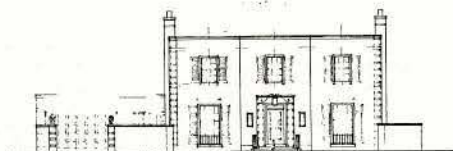
S E C O N D F L O O R



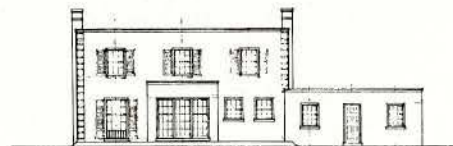
G R O U N D F L O O R



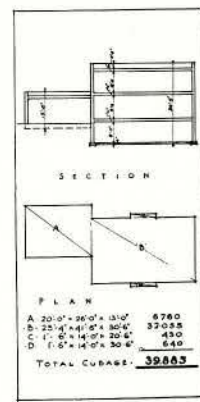
B L O C K P L A N
SCALE 1/2" = 10'



N O R T H E L E V A T I O N



S O U T H E L E V A T I O N



S E C T I O N

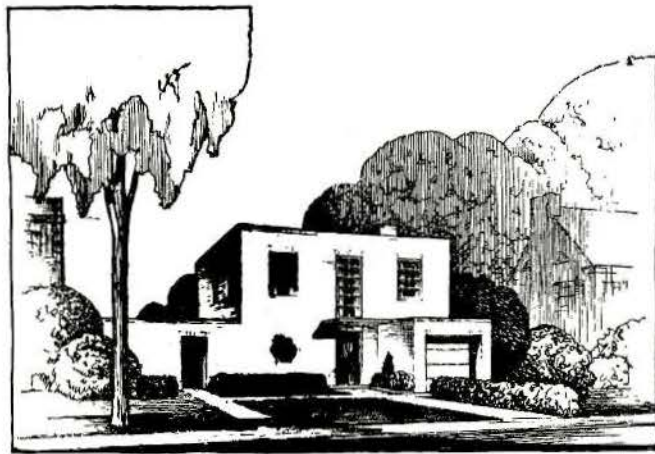
PLAN

A	20'0" x 26'0" x 13'0"	6780
B	25'0" x 41'0" x 30'0"	37055
C	1'0" x 14'0" x 20'0"	450
D	1'0" x 14'0" x 30'0"	630
TOTAL CUBAGE:		39865

C U B A G E D I A G R A M
SCALE 1/2" = 10'

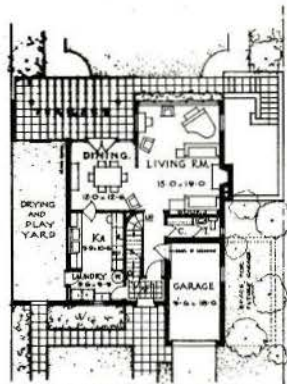
FIRST AWARD—MEDIUM HOUSE CLASS

Harold J. Savage, M.R.A.I.C., Toronto



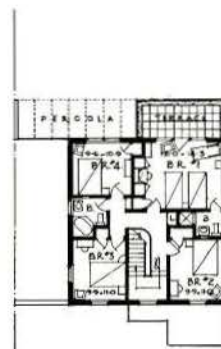
BASEMENT PLAN

AREA: 164.40 sq. ft. = 338
 PER 164.40 sq. ft. = 18.8
 PER 164.40 sq. ft. = 53.342
 CUBE: 542.00 cu. ft. = 2807 CUB. FT.
 UNEX. AREA: 108.00 sq. ft. = 21.6
 CUBE: 326.40 cu. ft. = 1315 CUB. FT.



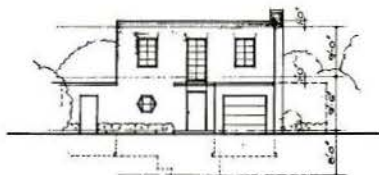
GROUND FLOOR PLAN

AREA: 68.30 sq. ft. = 870
 PER 68.30 sq. ft. = 11.8
 PER 68.30 sq. ft. = 82.41088
 CUBE: 1088.00 cu. ft. = 10142
 PER 68.30 sq. ft. = 10063 CUB. FT.

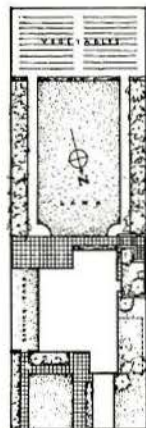


SECOND FLOOR PLAN

AREA: 29.30 sq. ft. = 870
 CUBE: 870.00 cu. ft. = 2700 CUB. FT.
 BASEMENT (BRAND) 4607
 BASEMENT (UNEX.) 1315
 SECOND FLOOR 10063
 SECOND FLOOR 8700
 GARDEN (18-30) 223
 TOTAL CUBE = 24910 CUB. FT.



FRONT ELEVATION



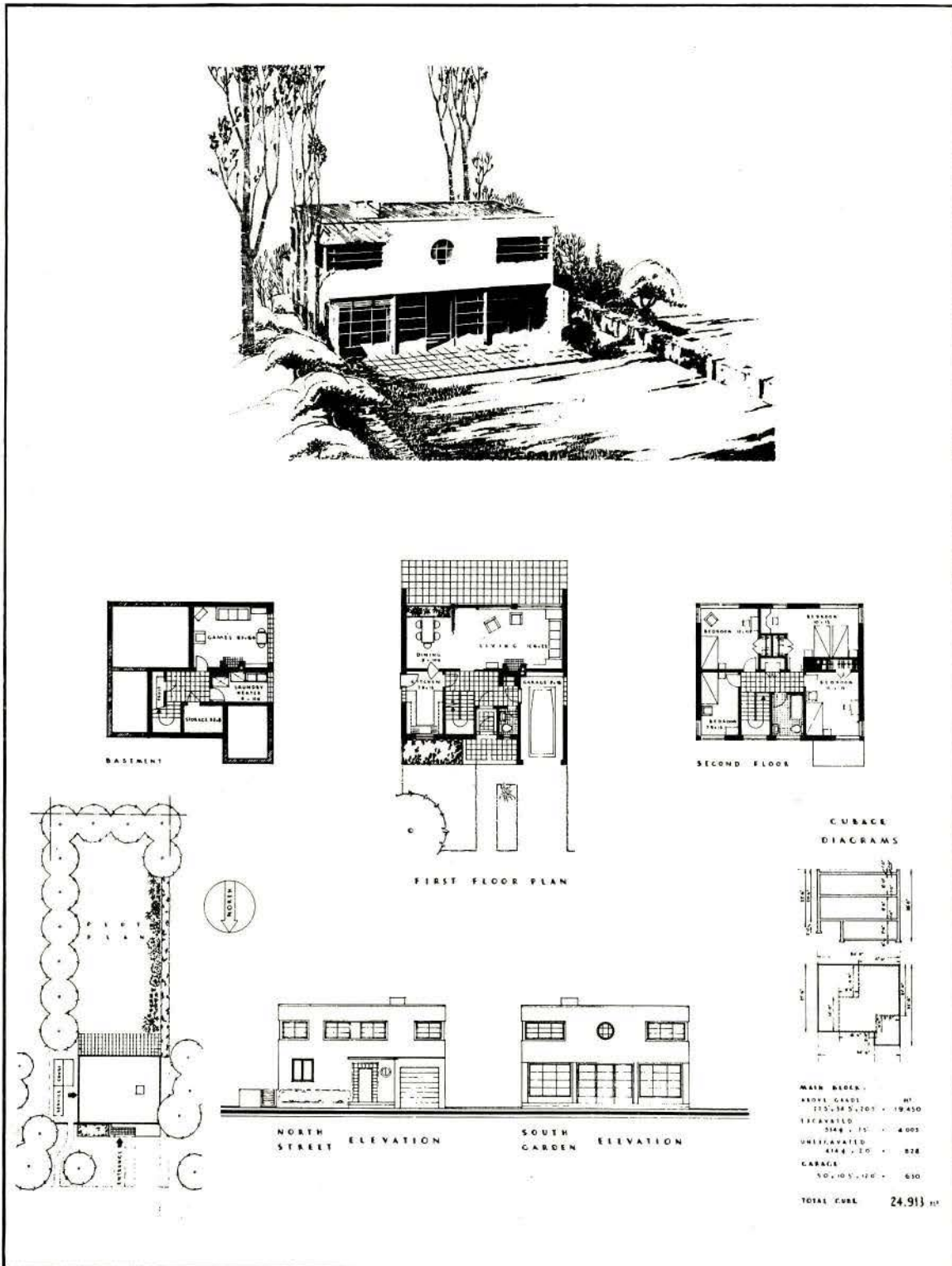
PLOT PLAN



GARDEN ELEVATION

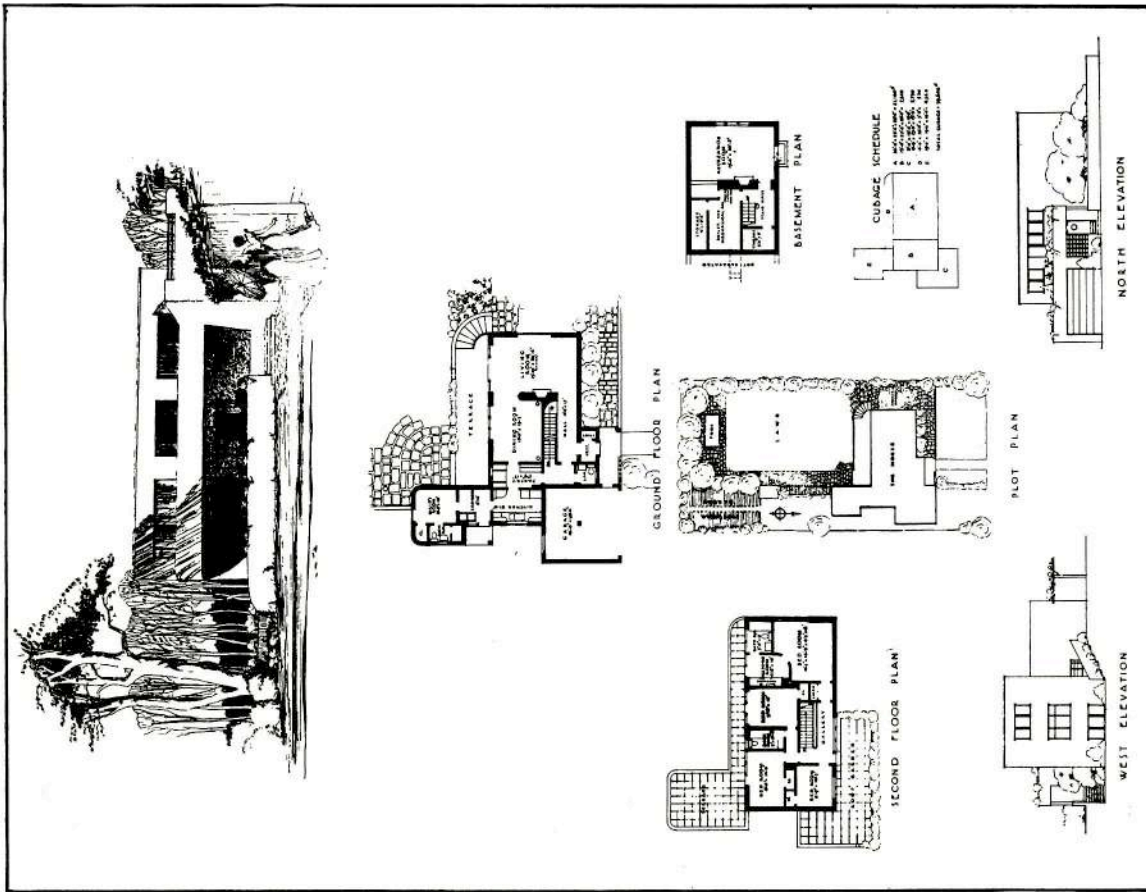
FIRST AWARD—SMALL HOUSE CLASS

Wilkes and Fisher, M.M.R.A.I.C., Toronto

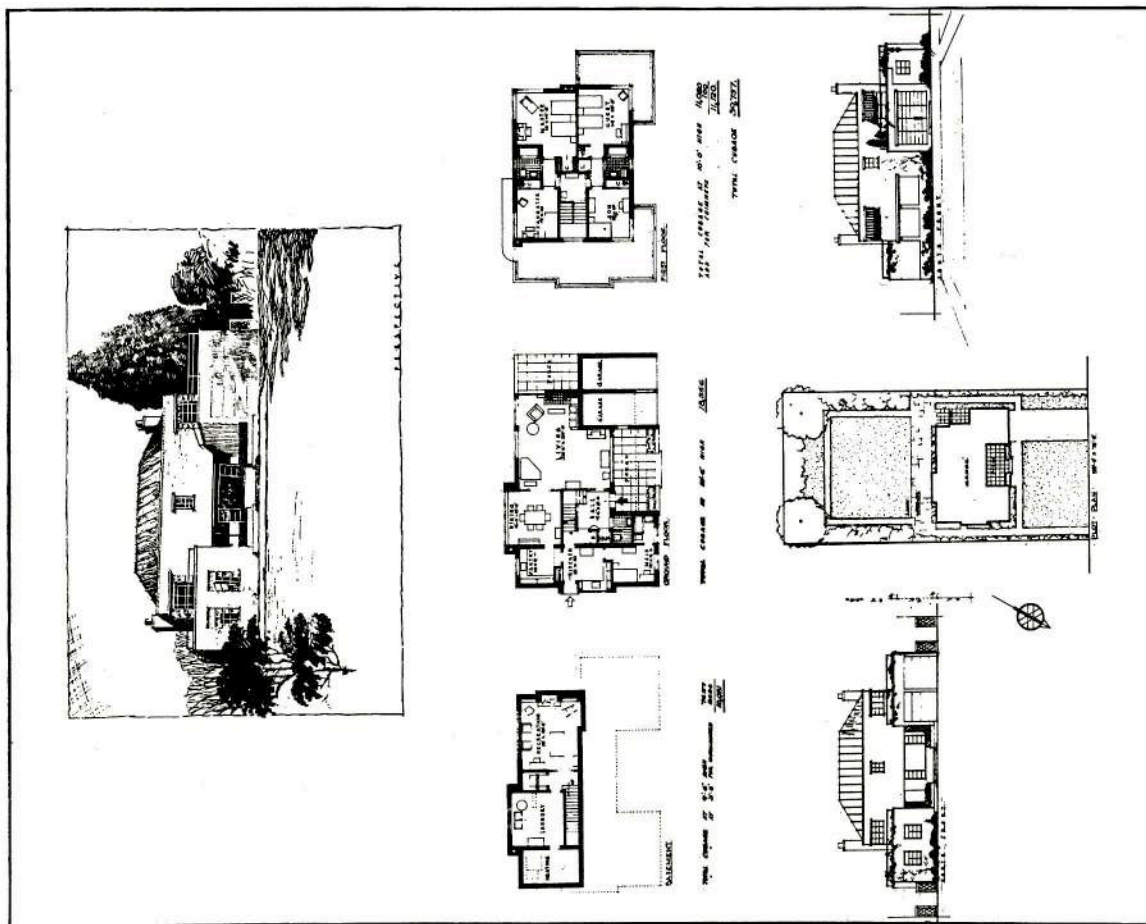


FIRST AWARD—SMALL HOUSE CLASS

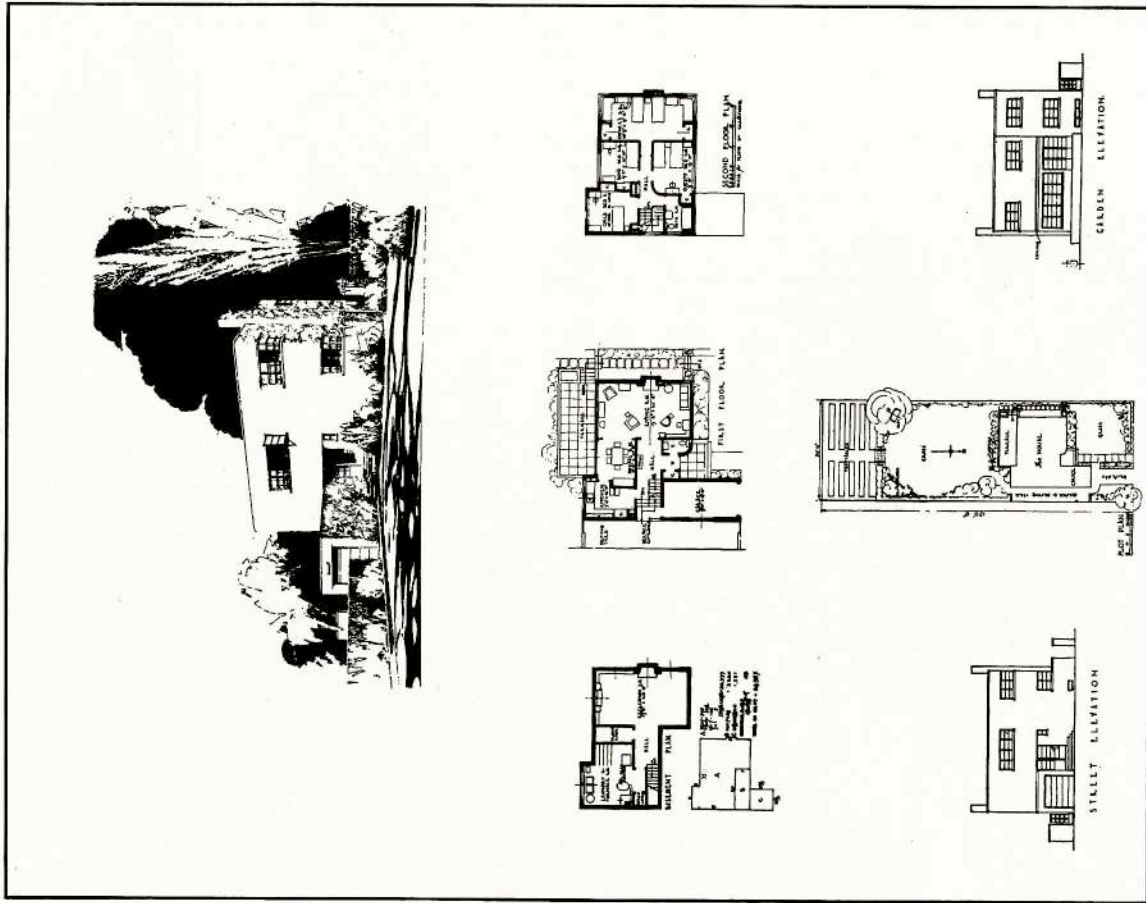
Kent Barker, Toronto



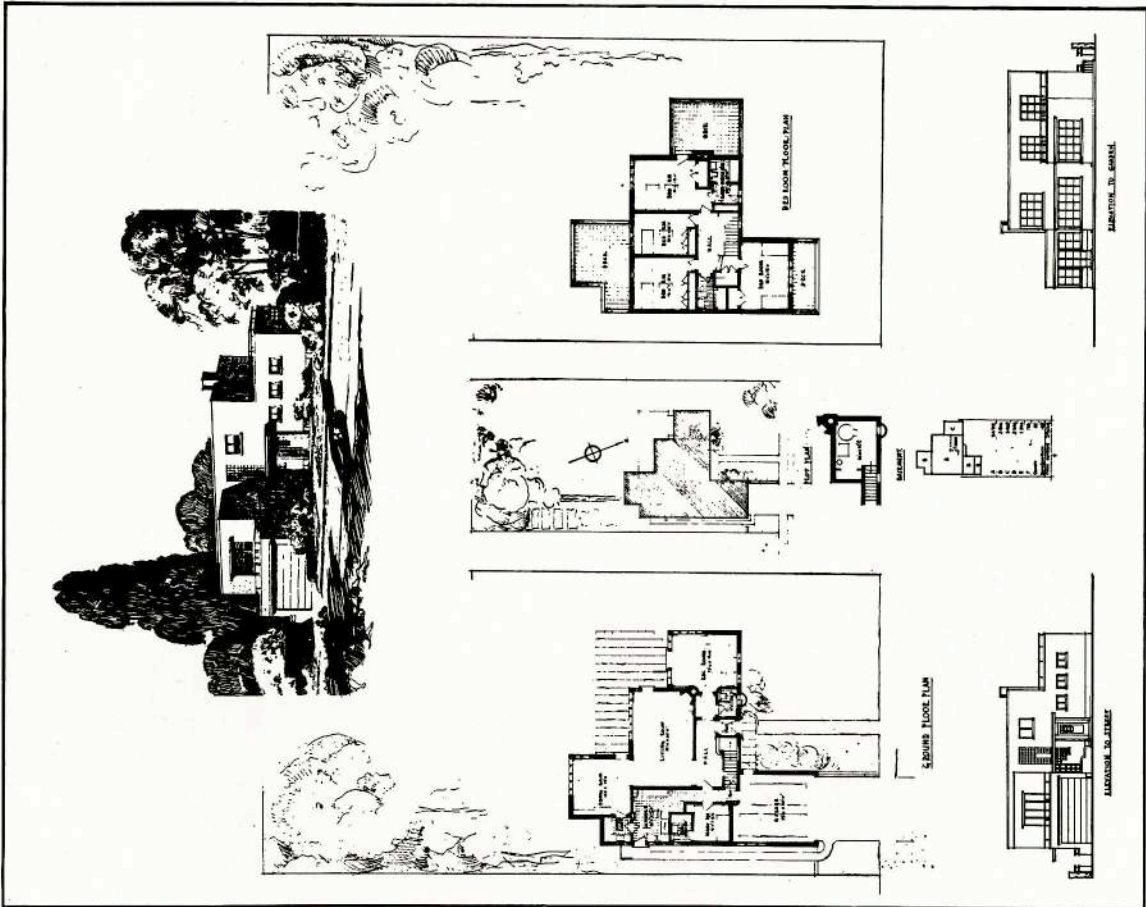
HONOURABLE MENTION—MEDIUM HOUSE CLASS
Robert R. Moffat, M.R.A.I.C., Toronto



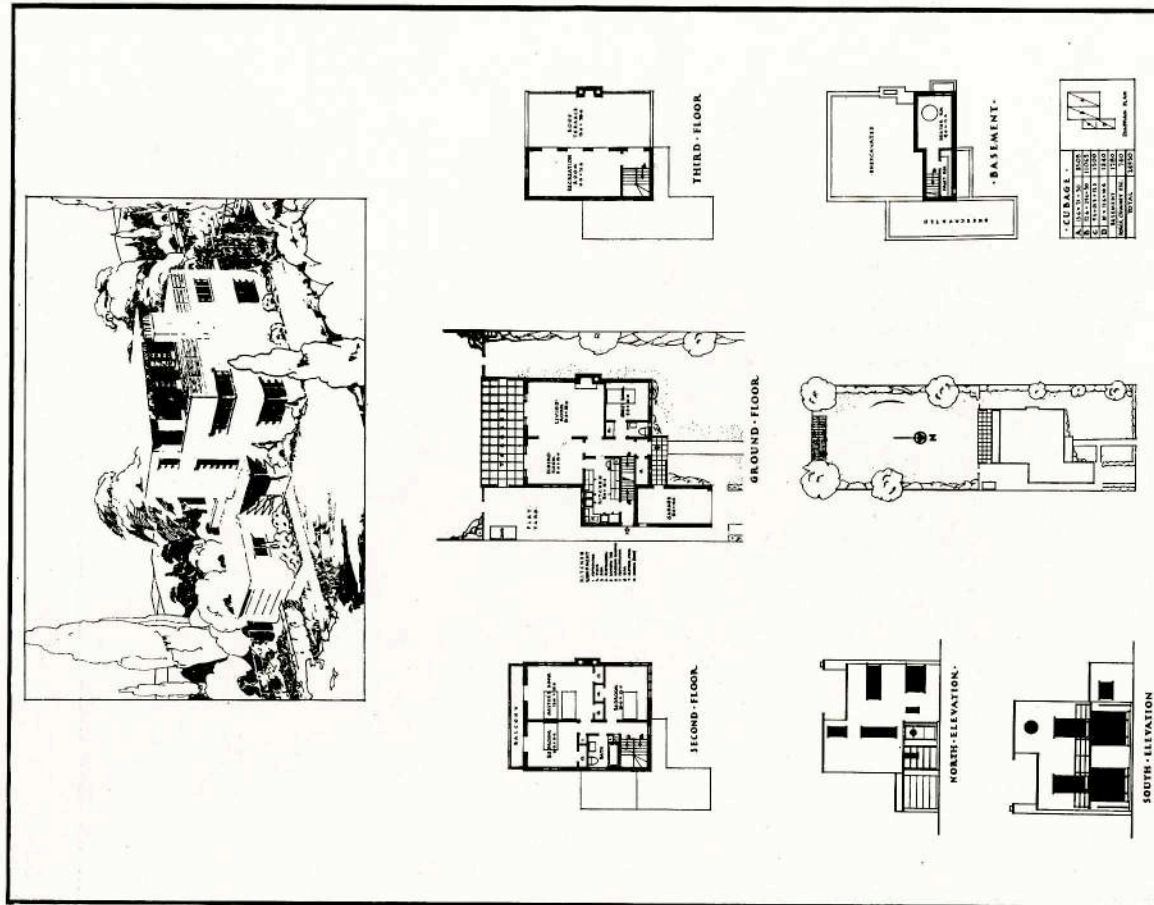
HONOURABLE MENTION—MEDIUM HOUSE CLASS
William Ralston, M.R.A.I.C., Toronto



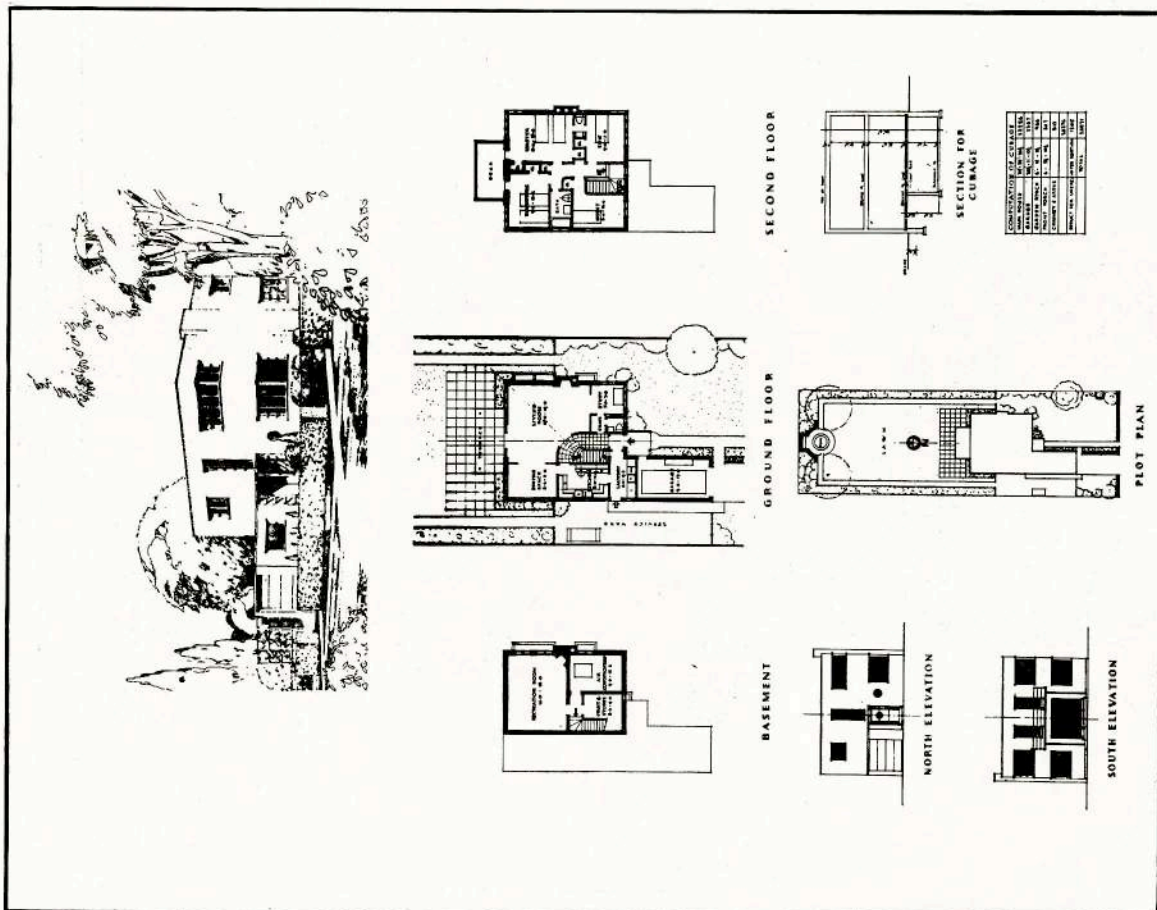
HONOURABLE MENTION—SMALL HOUSE CLASS
W. F. Williams, M.R.A.I.C., Nelson, B.C.



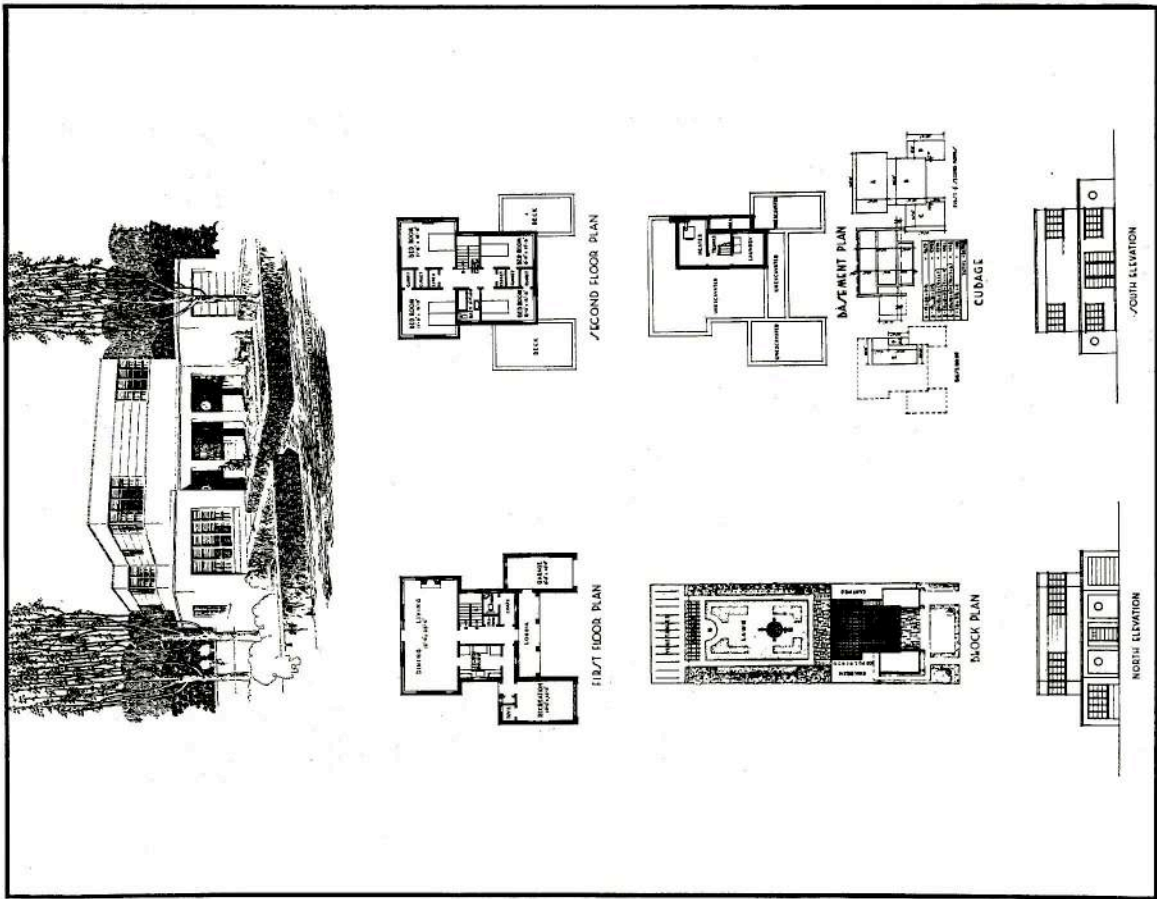
HONOURABLE MENTION—MEDIUM HOUSE CLASS
Ernest I. Baroff, F.R.A.I.C., Montreal



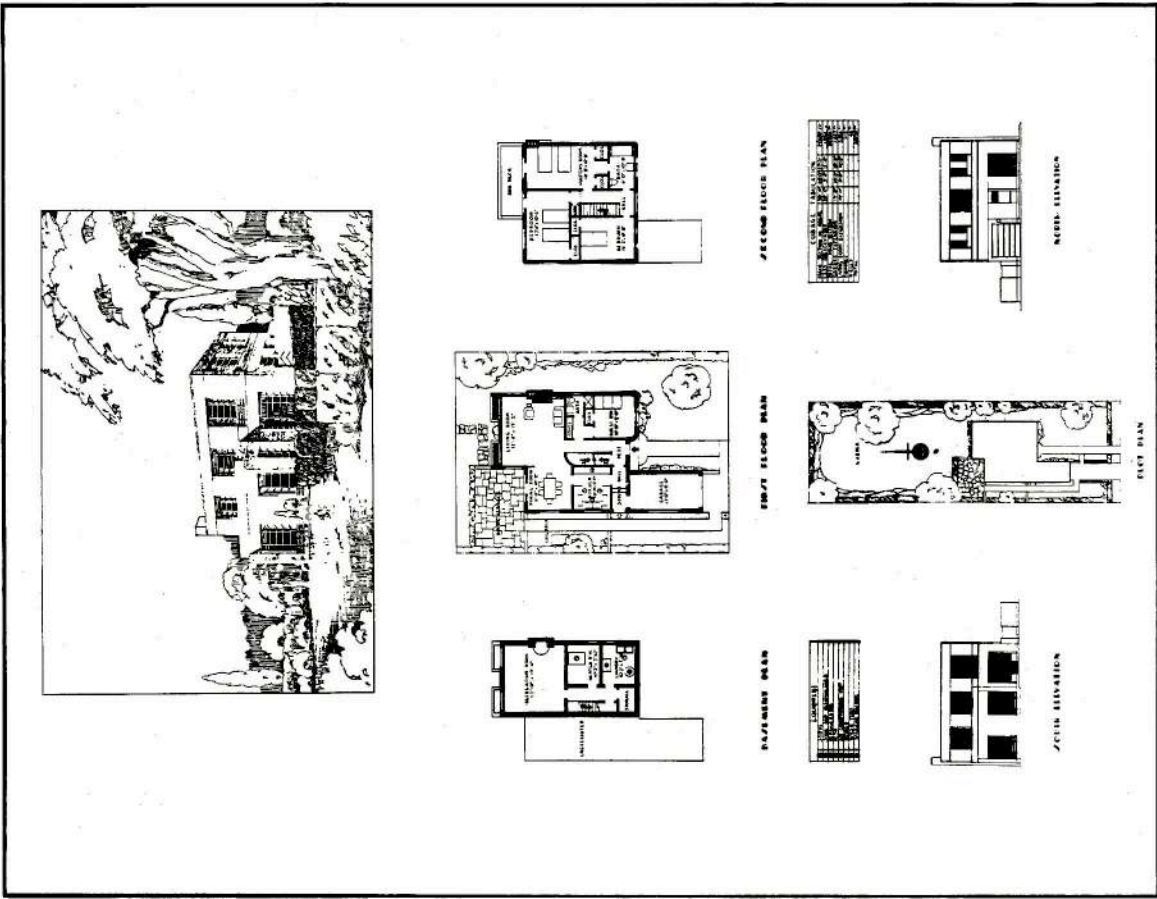
HONOURABLE MENTION—SMALL HOUSE CLASS
Wilfred Whaley, Toronto



HONOURABLE MENTION—SMALL HOUSE CLASS
William Mollard, M.R.A.I.C., Toronto



HONOURABLE MENTION—SMALL HOUSE CLASS
S. K. Sinclair, M.R.A.I.C., Toronto



HONOURABLE MENTION—SMALL HOUSE CLASS
Henry F. Stevenson, Toronto

projects submitted in the numerous competitions for small houses which lately have been held in the United States and Canada. An interesting fact showing a trend of architectural taste in Canada is the large preponderance of designs in the modern manner. There were very few competitors who adopted the traditional styles. This is particularly noteworthy, as the program of requirements left the competitors free to adopt any style they wished.

We are of the opinion that many of the competitors designing in the modern manner did not fully realize the importance of mass, wall surfaces and fenestration in the elevations.

Probably the most difficult problem that the designers had to solve in both houses, was the disposition of the garage in the small house and the double garage in the medium sized house. We feel that the great majority of the solutions of this problem were unsatisfactory. The jury are strongly of the opinion that the garages should, if possible, be incorporated in the main body of the house or masqued at the side. In many of the plans this was not possible, though in some cases the garage was partially incorporated in the main structure of the building. The garage was often completely free-standing from the main body of the house, the designers failing to realize that a street with garages of this type is open to serious criticism from the point of view of street architecture.

In the majority of instances the recreation room was placed in the basement. There were a few who placed this room on the main floor and in one instance the recreation room was placed above the bedroom floor. We feel that this latter solution offers interesting possibilities, both architecturally and from the point of view of modern living.

Many of the competitors placed the important rooms facing the garden with the secondary rooms and staircases at the front or sides. The jury feel that this orientation is the most advantageous as it gives privacy and takes advantage of the southern exposure.

A few of the competitors placed the laundry on the ground floor adjacent to the kitchen. In small houses where labour saving in the working parts of the house is vitally important to the housewife, this position has distinct advantages over the basement type of laundry.

The jury were influenced to some extent in making their decisions by the types of construction adopted. While modern methods of construction permit of the greatest freedom in design, structural extravagance is not commensurate with the cost of the houses set out in the program.

The jury are at a loss to understand why so few of the competitors submitted drawings for the medium sized house, as the work entailed in making drawings for the larger house was practically the same as that for the smaller house, yet greater scope for the designer was possible.

JURY'S COMMENTS ON WINNING DESIGNS

Class "B"—medium house—award \$1,000 and grand prize \$500. W. F. Williams, Nelson, B.C.

Plan modern; rooms well disposed; garage well incorporated with main body of house; kitchen small, offset by large pantry, this kitchen wing could be extended to advantage; visibility from entrance doorway through to garden a good feature; garage on small side; fireplace in living room open to criticism, could be placed on axis of dining room to advantage; owner's bedroom has two closets—a desirable feature; terrace on upper level over maids' room well placed; recreation room in basement with convenient access to exterior; southern exposure on the garden side of living room and dining room desirable.

Elevations modern; well massed; fenestration good; the marriage of garage roof line carried across the front entrance excellent. Perspective and presentation excellent.

Class "B"—medium house—award \$1,000. Harold J. Savage, Toronto.

Plan traditional; garage well massed; arrangement of service area good; dining room too small.

Elevations free Georgian in character; scale and fenestration excellent; could be built either in brick or stucco. Presentation—fair.

Class "A"—small house—award \$1,000. Wilkes & Fisher, Toronto.

Plan modern; location of living room and dining room good; fireplace well handled; laundry off kitchen desirable feature; garage well incorporated in main structure of house; upper terrace on garden side good; visibility from front entrance through to garden good.

Elevations modern; north east corner of main wall of house could be carried down to the ground with a minor break to advantage; could be built in either brick or stucco. Presentation good.

Class "A"—small house—award \$1000. Kent Barker, Toronto.

Plan modern and compact; garage well incorporated in the main body of house; living room and dining room on garden side, well handled. It might be advisable in our climate to reduce the area of glass on the southern exposure.

Elevations and fenestrations well handled; wall spacing effective. Presentation excellent.

An interesting feature of the competition was the announcement by the promoters of their intention to make small scale models of the selected designs and to hold an exhibition of the selected designs at which the public would be invited to vote as to their preference.

BUILDING SOCIETIES IN GREAT BRITAIN

Editor's note: It is of interest to learn that both the R.A.I.C., and the National Construction Council have gone on record with the Government as favouring the establishment of building societies in Canada.

The following is a brief summary descriptive of:

- a. Building societies in Great Britain.
- b. How they function.
- c. Why they are successful.
- d. How they were the means of solving the housing problem there.

Definition: A building society is an organization through which its members combine to save money by the purchase of its shares on an installment plan, and which lends money to its members on first mortgage on selected *house* and *shop* property, preferably owner occupied, over a term of years, repayable by installments at a reasonable rate of interest.

History: The building society in England dates back to the year 1836. It was instituted by small autonomous local groups who co-operated in saving their funds and lending them to those who required loans on the security of their houses. This facilitated their purchase of existing houses and the construction of new houses.

Growth in Wealth and Numbers: In Great Britain these societies have grown to become national organizations, controlling sums of the magnitude possessed only by the larger financial and industrial organizations. They are now 110 in number and have branches or agencies throughout the country.

In Great Britain 2% of the national wealth is owned by building societies, some of the larger individual societies have assets amounting to over £100,000,000 or approximately \$500,000,000. They hold one-half of all the mortgages on properties over £300,000,000 or approximately \$1,500,000,000. This extraordinary growth has not only been brought about by the increase in holdings of the building society member but by the enormous increase in the number of members as the following table shows:

	No. of Members including Borrowers	Share Capital and Deposits (in Dollars)
1913	617,423	\$ 307,675
1928	1,130,066	1,246,350
1932	2,560,961	2,238,170

Assuming the population at 43,000,000, and an average of five to the family, we find that almost one-third of these in 1932 are members of a building society.

Dearth of Homes Problem: Following the Great War there was a shortage of housing accommodation throughout the civilized world. It was a problem

everywhere and it was and still is a problem in Canada.

Each country in its own way set about the building of dwellings, but Great Britain was the only one to make real headway in solving the difficulty, although less financial assistance was offered by its Government than elsewhere. The problem was really solved by the facilities actively made available by the building societies, hence their enormous growth and wonderful stability.

The *Montreal Star* of January 28th, 1936, in a dispatch from Ottawa taken from the monthly bulletin of the League of Nations Society, dealing with the world-wide problem of housing shortage says in part:

"Great Britain with native initiative and persistence again leads the world in this respect. At the date of the Armistice (Nov. 11, 1918) there were slightly less than 8,000,000 houses in existence in England and Wales, and the expansion since that time is shown by the fact that by September 30th last (1935) 2,804,888 new houses had been built, 830,509 of these being provided by local authorities, and 1,974,379 by *private enterprise*."

The *private enterprise* referred to is practically 100% building society activities.

These building society resources are composed entirely of the savings of the middle and industrial classes. One building society alone having over 530,000 shareholders, and the type of people who subscribe to building societies in Great Britain are shop-keepers, clerks, teachers, small professional men, etc.

This source of wealth is known as the "unorganized market" for capital, with which building societies have a direct contact with the investor who knows how his savings are being used.

The growth in *assets* of the average building society member in Great Britain is as follows:

1890	\$ 395 per member
1910	610 per member
1930	1280 per member

Mortgage Period: Mortgage advances in some cases are for as long as from 15 to 20 years, although the average loan actually works out at from 5 to 8 years.

The average balance of debt per mortgage in 1932 in all building societies in Britain was \$2,235, the average rate of interest charged is 4½% to 5%.

Depression Experiences: In depression periods the borrowing falls off more than the purchase of shares, and it is considered good policy that when money becomes cheap, to reduce the rate to borrowers as a whole, irrespective of the rate fixed in the mortgage at the time of borrowing.

Primary Purposes: The primary purpose is declared to be not so much in profit making as the striving to improve the mutual benefits with their constantly increasing members.

The records of the past 20 years of the 110 building societies in England show that regular dividends averaging 4.3% have been paid while reserves have as regularly been built up.

Building societies do not build houses or engage in speculative investments, they stand between the borrower and the lender.

Their cost of administration is very low, averaging .72% on their capital, or less than 1%. Building societies possessing average reserves (7.2%) are in a position to carry on business actively if the average rate at which they lend is one percent (1%) above the average rate at which they borrow.

Classes of Share Capital: A building society usually has three classes of share capital.

1. *Paid-up* or permanent shares non-redeemable entitled to dividends as declared from time to time, and transferable under a certain control of the board which aims at the avoidance of fluctuations in price.

2. *Subscriber* shares are subscribed for by members on an installment plan, are redeemable at par at the request of the subscriber at any time on giving one month's notice, and bear interest at rates fixed from time to time by the board of directors.

3. *Borrowers* shares are subscribed for by mortgage borrowers on an installment plan, and bear interest at rates fixed from time to time by the board of directors, and redeemable at par so soon as the amount of the mortgage is represented thereby in capital and dividend accruals.

Shares do not rise or decline in price since they can always be purchased or sold through the building society at which they are issued i.e. par. In some cases and under certain conditions, the *paid-up* or permanent shares reach a small premium both in purchase or sale.

The general experience of building societies over a period of years is that they have more money offered to them by way of share subscriptions than they can lend on mortgage, consequently, instead of offering a commission on the sale of their shares, they offer a commission (in some cases up to 1%) for the procuring of mortgage business.

Their surplus funds are invested in Government securities.

Reasons for Public Appreciation:

1. Real property at home as basis for its security.
2. Conservative appraisal of value and possible development.
3. Adequate margin of safety.
4. Higher income than any other security of equal merit.
5. No fluctuation in price.
6. Easy withdrawal.
7. A security which can be borrowed upon.
8. A security which will run for a long time.
9. A security which requires little attention.
10. Acceptable denominations.
11. Simple procedure.
12. The basis of investment has been made easier by them.
13. A liquid asset secured against selected mortgages.

Shareholders as Investors: Many invest without any idea of mortgage facilities, but because of security, liquidity, and higher yield than bank or other deposits, or in certain cases of Government securities.

As against ordinary saving, the building society does direct business with the saver without fees or tax, and the saver appreciates the simplicity of the transaction.

While there always have been periods where losses in investments are taken by the public, building societies in England have given no such experiences.

Unique Services of Building Societies: Building societies give services which other organizations are unable to give.

1. They encourage saving by offering a safe investment on an installment plan, one which does not fluctuate in value and yields steady revenue.

2. They encourage the wage earner to own his own home:

(a) By aiding him to save up the difference required between the purchase price of the house and the sum that can be borrowed on mortgage, i.e. the initial payment.

(b) By providing the amount of the mortgage at a fair rate of interest.

(c) By making the mortgage repayable by easy installments over a period of years.

(d) By seeing to it that the titles to the property to be purchased are in order.

3. He is guarded against making a poor purchase by the independent valuation procured by the building society at the outset.

4. He is guided in the building of his new home by the expert inspection of the proposed site, the plans and specifications, and the adjudication of

tenders for construction, as well as the expert inspection provided during construction.

5. He knows at the outset the exact total cost to him of legal, notarial and architects' fees, and all charges in connection with the whole transaction.

6. The interests of the building society and its members are identical and work for their mutual benefit.

7. When the average man sets out to build or buy a home he tackles a matter of considerable moment with little or no knowledge of it, and when he goes to purchase a ready made newly built home he is in grave danger without expert advice.

The building society expertly advises him in all these matters.

R. H. Macdonald, F.R.A.I.C.

DEPARTMENT OF ART, SCIENCE AND RESEARCH

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

BUILDING SCIENCE QUESTIONS AND ANSWERS

LIME-WASH FOR EXTERNAL USE

A builder asked for particulars of the ingredients and proportions of materials for mixing lime-wash for external use on brickwork or rendered walls or on roughcast. His interest was principally in the tallow-bound wash.

REPLY:—

Some years ago a number of "home-made" lime-washes and water-paints were made up at the Building Research Station, and their behaviour when exposed out of doors was observed. The materials tested included lime-washes, with or without whitening, with various binders, such as casein glue or oil. These when painted out on a smooth surface would not withstand more than a few months' exposure, unless they were protected from sunshine or rain. On rough surfaces they lasted longer. When applied to brickwork built of common pressed bricks the surface texture of which varied from a dense, almost glazed, surface in some places to a porous open texture in others, a patchy effect developed after a few weeks or months of exposure.

However, of simple lime washes, two "home-made" mixes have given fairly good results on brick. These were based on a cement-lime mix and on the traditional lime and tallow mix respectively.

The mix containing cement is most conveniently prepared with a dry hydrated lime. Three parts of the lime and one part of Portland cement (by volume) are thoroughly mixed dry. The mixture is added to water with constant stirring so as to produce a thick slurry. It is then applied thickly with a brush. A second coat may be necessary on some surfaces. No attempt should be made to brush it out. Pigments may be added if desired: they should be of the lime-fast type, suitable for use as colours in concrete, and thoroughly mixed in with the dry lime and cement mixture. Considerable care is necessary to avoid a streaky effect. If either the lime or cement is lumpy the dry mix should be passed through a fine sieve before use. When pigments are used a large batch should be prepared and used to cover a complete panel or unit of the surface at once, otherwise a difference between one batch and another may become unpleasantly conspicuous. A preliminary trial is recommended before starting, and there should be careful control of the amount of pigment added.

The lime-tallow mix is rather expensive in tallow, although for less important work the proportions given below may be somewhat reduced. The "hiding power" is not very great, especially when the wash is damp, but the tallow-compounded lime-wash is much less readily affected by rain than most other simple mixtures. It is not suitable for smooth surfaces, nor for wood exposed to weathering. A mixture mentioned in the *Architects' Journal*, 30 May 1928, is made up as follows:

"1 bushel of fresh quicklime is placed in a barrel with 20 lb. fresh beef tallow, slaked with hot water, and covered over with a sackcloth to keep in the steam." It is ready for use when cool. Dry colours may be added if desired.

The best way to introduce the colours into the lime mixes is to add them before slaking the lime, and then to run the slaked product through a fine sieve to remove all lumps and unslaked particles.

EXCERPTS FROM BUILDING SCIENCE ABSTRACTS

Plan Units for Low-rent Housing: Public Works Administration: *American Architect*, 1935, 146 (2630), 19-28. Developed by the technical staff and housing consultants of the Public Works Administration, U.S.A. 37 dimensioned plans are given of typical working-class flats, representing the minimum requirements of American family life. (Vol. VIII, No. 4, April, 1935).

Steelwork in Cinema and Theatre Construction: G. E. Cooper, *Structural Engineer*, 1934, 12 (New Series) (10), 430-5.

Detailed descriptions, illustrated by photographs and dimensioned drawings, are given of the main girders, balcony rakers, cantilevers and other structural steelwork used in the design of a modern cinema and a theatre. (Vol. VIII, No. 1, January, 1935).

The Illumination of Structural Glass: C. S. Woodside: *Illuminating Engineering Society*, 1934, 29 (10), 878-93. Discussion, 893-4.

Structural glass is defined as comprising such forms as glass bricks, mouldings, cornices, columns, capitals and tiles. Developments in the production and use of such materials are discussed with reference to their properties as regards heat insulation, transmissivity and diffusion. Consideration is also given to the illumination of glass-brick structures. (Vol. VIII, No. 1, January, 1935).

Modern Airports: W. J. Jarvis: *Inst. Co. Eng. J.*, 1934, 61 (8), 460-86, Discussion, 486.

In a full discussion of the provision of modern aerodromes, detailed consideration is given to their proper design, geographical location in relation to city and regional planning and meteorological considerations, and sites for seaplane and airship stations. The design and lay-out of landing grounds, and the lighting of aerodromes and air routes are also discussed, and examples of existing aerodromes in U.S.A. and Europe are shown in plan. (Vol. VIII, No. 1, January, 1935.)

DESIGN

A NEW BOOK BY PERCY E. NOBBS, P.P.R.A.I.C.

Editor's note: The following is a brief descriptive summary of the scope of Mr. Percy E. Nobbs' forthcoming book entitled 'DESIGN', a treatise on the 'Discovery of Form' now in the hands of the Oxford University Press, and expected to be issued before the new year. The price of the book in Canada will be \$9.50

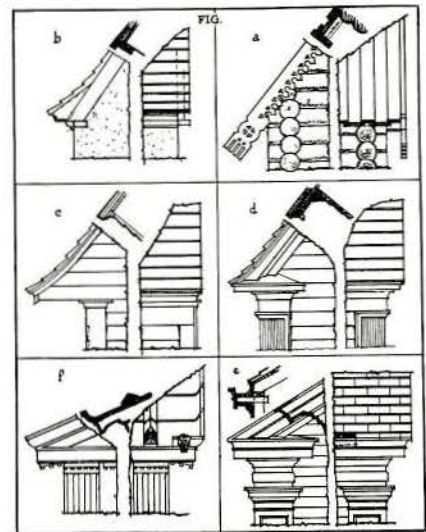
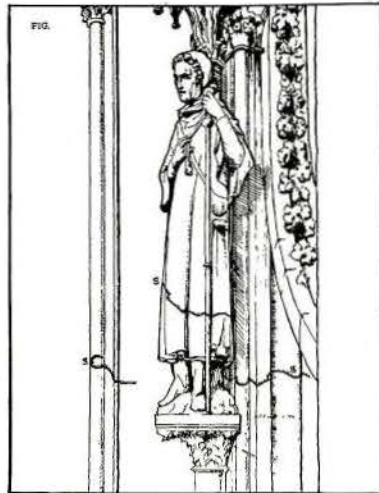
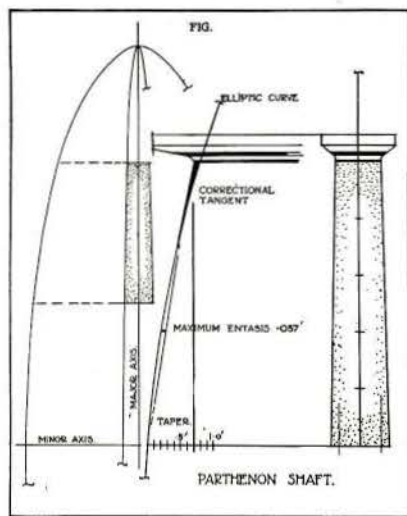
This book is intended as a sidelight for those engaged in study of the Arts, particularly of architecture. The scheme of the book is comprehensive and represents the fruits of long experience as a teacher.

The earlier chapters cover a review of aesthetic phenomena, an explanation of colour vision and an enquiry on form vision. Next the foundations of academic precept on scale, proportion, and corrections for optical illusions are rigorously analysed. A systematic consideration of the activities of the ornamentist follows.

Dissertations on function and material, as the bases for the solution of problems in form, open the way to a series of

chapters on function in the general layout of buildings followed, after some further consideration of materialization, by a discussion of the principles of architecture, graphic art and sculpture. Critical appreciation of form is dealt with by way of a summary.

There will be 177 illustrations, mostly line drawings from the hand of the author, but one is a colour plate and one a half tone. The subjects of the illustrations fall into many categories: diagrams relative to colour and form vision, and such matters as corrections for optical illusion; plans and elevations of buildings and architectural elements; drawings of flowers, beasts, figure sculpture, ships and museum objects of many periods; and a few sketches of ancient buildings.



"THUMBNAIL" REPRODUCTIONS OF SOME OF THE DRAWINGS TO APPEAR IN MR. NOBBS' BOOK

The book is divided into four parts and the chapter headings are as follows:

Part I. THE SCIENCES OF ART.

- Chap. I Introduction.
- Chap. II Theories of Art
- Chap. III Aesthetic Phenomena
- Chap. IV The Nature of Colour Vision
- Chap. V The Appreciation of Colour
- Chap. VI The Nature of Form Vision
- Chap. VII The Realization of Form

Part II. THEORY OF DESIGN.

- Chap. VIII Scale
- Chap. IX Precept in Proportion
- Chap. X Proportion in Design
- Chap. XI Corrections and Refinements
- Chap. XII Subject in Ornament

- Chap. XIII Materialization of Ornament
- Chap. XIV The Placing of Ornament

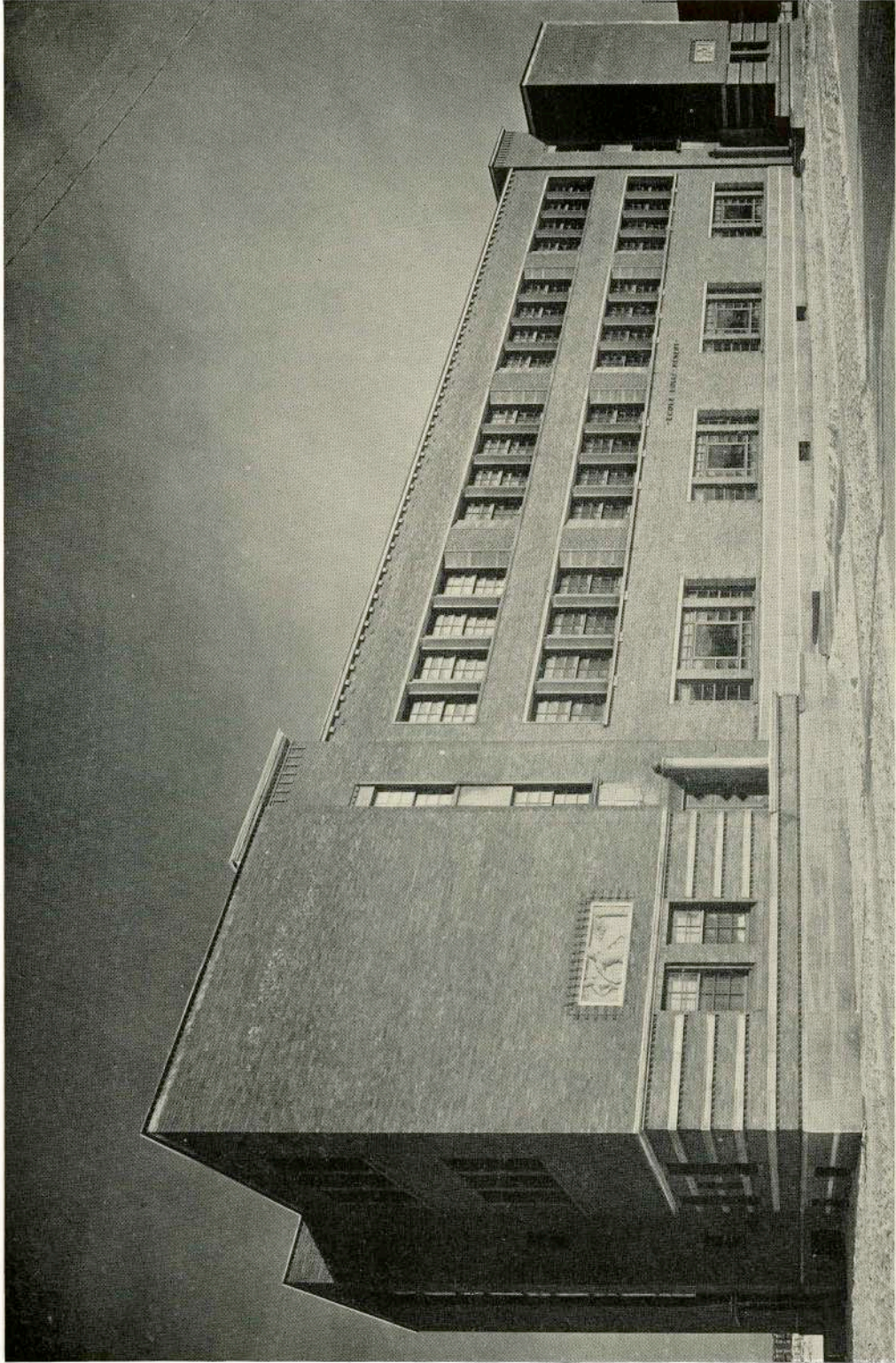
Part III SOLUTION OF PROBLEMS

- Chap. XV Function and Form
- Chap. XVI Material and Form
- Chap. XVII Elements of the Plan
- Chap. XVIII Evolution and Growth
- Chap. XIX Organic Planning
- Chap. XX Group Planning
- Chap. XXI Town Planning

Part IV THE PROCESS OF COMPOSITION

- Chap. XXII Structural and Economic Analysis
- Chap. XXIII Architectural Composition
- Chap. XXIV The Elaboration of Detail
- Chap. XXV The Graphic Arts
- Chap. XXVI Sculpture
- Chap. XXVII The Critical Appreciation of Form
- Chap. XXVIII Conclusion

Copies of Mr. Nobbs' book may be obtained on publication, by forwarding orders to THE JOURNAL office, 74 King St. East, Toronto



ECOLE LOUIS HEBERT, MONTREAL, QUE.
Chas. David, F.R.A.I.C., Architect

ACTIVITIES OF THE INSTITUTE

A meeting of the executive committee of the council of The Royal Architectural Institute of Canada was held in room 306, 74 King Street east, Toronto, on Wednesday, June 17th, 1936, at 10.00 a.m.

Present: Messrs. W. L. Somerville, president; H. L. Fetherstonhaugh, honorary treasurer; R. E. McDonnell; Allan George; Mackenzie Waters; A. J. Hazelgrove; Eric W. Haldenby; L. Gordon Bridgman; and I. Markus, secretary.

REPORTS OF STANDING COMMITTEES

Scholarships and Prizes: The secretary informed the meeting that each of the six recognized schools of architecture had selected a student to receive this year's R.A.I.C. medal for outstanding graduates in architecture, and that the medals suitably engraved had been awarded as follows:

Pierre Morency—Ecole des Beaux-Arts of Montreal.

Andre Royer—Ecole des Beaux-Arts of Quebec.

John Stevenson—University of Alberta.

R. J. K. Barker—University of Toronto.

Roy Sellors—University of Manitoba

Jack J. Kugel—McGill University.

The secretary advised the meeting that at the recent Convention of the American Institute of Architects, an announcement had been made of a scholarship fund amounting to \$104,000 which had been established through a legacy of the late Edward Langley, architect of Scranton, Pa. (formerly of Toronto) to be administered by the board of directors of the A.I.A. for the benefit of students in architecture in both the United States and Canada. A letter was read from the American Institute of Architects under date of May 15th advising the institute that their board of directors were making every effort to make this fund available for the purposes intended as soon as possible, and that when arrangements were completed, an announcement would be made.

Professional Usages: The president informed the meeting that the local members of the Professional Usages Committee had recommended:

1. That the R.I.B.A. be requested not to act in disciplinary cases affecting any of their members in Canada before referring the cases in question to the R.A.I.C. who in turn would take up such cases with the respective provincial associations under whose jurisdiction *only* disciplinary action could be taken;
2. That a general code of professional practice be prepared by the Institute based on the existing codes of the provincial associations in order that a more uniform code might be established throughout the Dominion.

After considerable discussion it was decided to submit these recommendations to all members of the professional usages committee for their approval, following which a committee is to be appointed by the president to draw up a general code of professional practice to serve as a guide to the component societies of the Institute.

Art, Science and Research: The meeting was informed that the Institute had received a list of the publications now in the library of the National Research Council containing technical data relating to the construction industry. It was suggested that the Canadian Engineering Standards Association be also requested to furnish the Institute with a list of their publications related to construction which were available to members of the R.A.I.C.

A letter was read from Mr. Philip J. Turner pointing out that of the fifty members of the National Research Council's Committee on Engineering Standards, not one was an architect, and suggesting that the Institute should take steps to rectify this serious omission. The secretary was instructed

to write to the president of the National Research Council, drawing his attention to the lack of architectural representation on the committee on engineering standards and advising him that if the R.A.I.C. could be of service in this direction it would be glad to make an appointment.

Exhibitions and Awards: A suggestion that the R.A.I.C. hold its next exhibition in conjunction with the Toronto Chapter exhibition in February 1937 instead of with the Royal Canadian Academy of Arts in November, 1936, was referred to the committee on exhibitions and awards for their consideration prior to the next executive meeting.

Standard Forms of Contract: The secretary reported that the supply of the standard form of agreement between client and architect was almost exhausted and that tenders had been obtained on the reprinting of this document. As no provision had been made in this year's budget for the reprinting of this form, the matter was left in the hands of the president.

A letter was read from the Canadian Construction Association with reference to the printing of the standard forms of contract in French, in which they informed the Institute that as the majority of the requests received for the French translations of these forms were from Montreal, they would take up with the Montreal Builders' Exchange the matter of sharing the cost of printing the forms in French.

Employment of Private Architects on Public Works: The president informed the meeting that he had interviewed the Hon. P. J. A. Cardin, Minister of Public Works on April 23rd with reference to the correspondence and memorandum submitted to him by the Professional Engineers of Ontario which contained misleading statements relative to the architectural profession, and that he had been requested to write to Mr. Cardin fully following the interview. The president read the letter to the meeting and reported that Mr. Cardin was sympathetic toward the architects' views in the matter.

Mr. Haldenby, chairman of the public relations committee, informed the meeting that he had communicated with several of the members of his committee with reference to the basis of remuneration on which architects were engaged on Federal public buildings. The president also informed the meeting that he had taken up this point with Mr. Cardin during his interview and that the Minister of Public Works had requested a list of particular cases in which architects had carried out their commissions at a financial loss. It was the feeling of the meeting that no definite action be taken in connection with this matter for the present, but that in the meantime the committee on public relations should endeavour to obtain specific information on individual cases.

Housing: Reference was made to Mr. R. H. Macdonald's letter to the Institute regarding the establishment of building societies in Canada. The meeting was informed that Mr. Macdonald had attended the recent Annual Meeting of the National Construction Council of Canada at which he had requested support for a proposal for the establishment of a building society which he intended to submit to the Minister of Finance. The meeting was further informed that following Mr. Macdonald's proposal, the National Construction Council had forwarded a resolution to the Minister of Finance endorsing in principle the establishment of building societies in Canada, and requesting that early action along these lines be considered by the Government.

The attention of the meeting was drawn to a brochure recently issued by the Dominion Government containing reproductions of sixty-five of the designs submitted in the recent dominion housing act small house competition. The secretary was instructed to have a note published in THE JOURNAL advising the members that copies of this brochure

could be obtained from the department of finance at a cost of 25c per copy.

The secretary reported that up to May 31st, 1936, 212 loans had been made under the dominion housing act amounting to \$1,513,916, distributed by provinces as follows:

Ontario	111 loans totalling	\$691,630
Quebec	93 loans totalling	788,726
Nova Scotia	6 loans totalling	26,860
Prince Edward Island	1 loan totalling	4,000
British Columbia	1 loan totalling	2,700

Uniformity and Regulation of Professional Advertising: The president reported that the local members of the committee on professional usages had given the matter of professional advertising some consideration and after obtaining copies of existing regulations covering this subject from the component societies, it was decided to recommend that the R.A.I.C. draft regulations governing professional advertising similar to those adopted by the R.I.B.A., except that the size of architects' signs on buildings under construction should not exceed 500 square inches, and that advertising in the public press be confined to professional cards not larger than one column in width by one and one-half inches in depth. After much discussion it was decided to submit this recommendation to all members of the professional usages committee for their comments, the matter to be given further consideration at the next meeting.

Desire for Greater Uniformity in Provincial Architects Acts: The president reported that the local members of the professional usages committee had discussed the possibility of bringing about greater uniformity in the various provincial architects' acts, but had reached the conclusion that very little could be done in this direction unless there was a general demand on the part of the membership in every province. It was therefore recommended that an article on the desirability of obtaining greater uniformity in provincial regulations governing the practice of architecture be published in THE JOURNAL together with an editor's note asking for comments. The recommendation of the committee was favourably received.

National Construction Council of Canada: The president reported that he had re-appointed Mr. Gordon M. West as the official representative of the R.A.I.C. on the National Construction Council with Mr. James H. Craig as alternate.

The appointments of Mr. West and Mr. Craig were confirmed by the meeting.

The meeting was informed that the Annual Meeting of the National Construction Council had been held on June 11th, 1936, at which Mr. Gordon M. West was re-elected president and I. Markus, general secretary; also that Mr. W. L. Somerville had resigned as an ex-officio member and chairman of the housing committee, and that Col. F. H. Marani had been appointed in his place.

The secretary advised the meeting that Mr. Arthur B. Purvis, president of Canadian Industries Limited, had been appointed chairman of the National Employment Commission, and that the National Construction Council was in very close touch with Mr. Purvis and that an arrangement had been made whereby the Council was to be consulted on all matters relating to construction.

R.I.B.A. Matters: The president reported that Mr. Philip J. Turner had recommended the appointment of Mr. H. S. Goodhart-Rendel, vice-president of the R.I.B.A. to represent the Institute on the Council of the R.I.B.A. in the place of Sir Raymond Unwin who had expressed a desire to be relieved of this appointment. The appointment of Mr. Goodhart-Rendel was approved by the executive committee, subject to his acceptance.

Miscellaneous: The president reported that he had interviewed Mr. Graham F. Towers, Governor of the Bank of Canada, with reference to the Institute's proposal to hold a competition for the new head office building for the Bank of Canada, and that the proposal had not been favourably received.

Mr. Hazelgrove reported that he had discussed with an executive official of the Government the O.A.A. request that all employees of the Dominion Government designated as architects be required to have the legal status of architect in the province of their domicile, and that it had been suggested that the Institute address a letter to the Civil Service commission covering our request. Before communicating with the Civil Service commission, Mr. Hazelgrove was requested to obtain some further information in the matter.

Date and Place of Next Meeting: It was decided to hold the next meeting of the executive committee in Toronto on Wednesday, August 19th, 1936.

Adjournment: The meeting adjourned at 6.00 p.m.

TWENTY-NINE YEARS OF SERVICE*

The Royal Architectural Institute of Canada has just marked the conclusion of its 29th year of existence with a wholly successful general annual meeting in Toronto.

This national professional body has done more than is generally understood outside the industry to codify and perpetuate high standards of construction practice. Its leadership and value are, however, quite well appreciated by construction men everywhere in the country.

The conditions of architectural practice have been improved repeatedly and the prestige of the profession enhanced progressively through its efforts.

The Institute represents the creative branch of a basic industry which is becoming ever more important to national progress and, in that position, is entirely deserving of the respectful attention of the public and of government cabinets which it now shares with the other associations participating in the work of the National Construction Council.

*From an Editorial in the March 4th., 1936 issue of the British Columbia Journal of Commerce.

COMPETITIONS

ONTARIO GOVERNMENT HOUSING COMPETITION

Announcement of an architectural competition for minimum cost house designs was made on July 7th by the Minister of Public Welfare of the Province of Ontario. The competition is restricted to architects in Ontario.

The conditions governing the competition were prepared by the Ontario Association of Architects, and copies may be obtained from the Department of Public Welfare, Parliament Buildings, Toronto, Ontario.

The competition is divided into two classes. Class "A" calls for a house to accommodate a family of five, and Class "B" a family of eight.

All drawings must be delivered by mail to the Hon. David Croll, Minister of Public Welfare and Municipal Affairs, East Block, Parliament Buildings, Toronto, not later than July 27th, 1936, and will be judged by a jury consisting of Messrs. Murray Brown, F.R.A.I.C., President of the Ontario Association of Architects, H. H. Madill, F.R.A.I.C., and E. R. Arthur, M.R.A.I.C.

There will be awarded in each class a first prize of \$250.00, a second prize of \$150.00 and a third prize of \$100.00.

NOTES

Hugh L. Allward, M.R.A.I.C., of Toronto, left on June 22nd to attend the unveiling ceremonies of the Canadian War Memorial at Vimy, France. Mr. Allward expects to return to Toronto about the beginning of August.

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In order to awaken public interest in housing, and in response to requests from many municipalities for a provincial housing programme, the Ontario Government plan to erect two model working men's homes in each of the seven Toronto suburban municipalities. In order to obtain the most suitable designs, a competition is being sponsored by the Ontario Government open to architects resident in the province.

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Philip J. Turner, F.R.A.I.C., of Montreal, delivered an illustrated address on the subject of Modern Library Buildings in England to the Special Libraries Convention held in Montreal on June 17th, 1936.

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H. Mayerovitch, M.R.A.I.C., announces the opening of an office for the practice of architecture at 1450 Bleury Street, Montreal, P.Q.

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The committee on housing of the Montreal City Improvement League, under the chairmanship of Percy E. Nobbs, F.R.A.I.C., have just issued a supplement to its previous report on housing conditions in the city of Montreal.

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The Department of Finance at Ottawa have recently issued a brochure containing reproductions of sixty-five of the designs submitted in the recent Dominion Housing Act small house competition. Copies of this brochure may be obtained from the department at a cost of 25c. per copy.

* * * *

Stanley T. J. Fryer, F.R.A.I.C., of Toronto, will leave on July 25rd for London, England, where he has accepted a position with a well-known firm of architects.

* * * *

The following awards have recently been made at the School of Architecture, University of Toronto:

Royal Architectural Institute of Canada Medal for outstanding graduate—R. J. K. Barker.

Architectural Guild Medal—R. J. K. Barker (Silver)
R. A. D. Berwick (Bronze)

Darling and Pearson Prize—R. J. K. Barker

Toronto Brick Company Prize—S. N. Smith (First)
J. F. C. Smith (Second)

Mathers and Haldenby Prize for Measured Drawings—
A. C. Rieder and A. H. Taylor (equal)

Ontario Association of Architects' Scholarship—To be divided equally between E. H. Hymmen and S. T. Meschino.

* * * *

Contracts awarded in Canada during the month of June, 1936, amounted to \$20,803,400 as compared with \$18,521,400 for June, 1935, bringing the total for the six months ending June 30th, 1936, to \$77,708,500, an increase of \$2,211,400 over the same period last year. In the United States building permits issued during the month of June, 1936 totalled \$112,640,106, as compared with \$52,672,794 for June, 1935. The total value of permits issued for the six months ending June 30th, 1936, amounted to \$463,643,585, as compared with \$253,244,099 for the same period last year.

OBITUARY

EDWARD UNDERWOOD, F.R.A.I.C.

Edward Underwood, well-known architect of Edmonton, died on June 9th, 1936, at the age of fifty-eight. Mr. Underwood was honorary secretary of the Alberta Association of Architects at the time of his death, an office he had occupied for the past eighteen years, with the exception of the years 1928 and 1929 when he was elected president of the association. In 1929 he also occupied the office of first vice-president of the Royal Architectural Institute of Canada.

Mr. Underwood was born at Bournemouth, England on March 9th, 1878 and was educated at St. Edmund College, Ware, England. He served his pupillage with Messrs. Boehmer and Gibbs of London, and then practised his profession at Letchworth Garden City, from 1907 to 1910. He came to Edmonton in 1911 and was employed by the architectural firm of Barnes and Gibbs on the provincial government buildings and the University of Alberta. Mr. Underwood engaged in private practice in 1922 in the city of Edmonton where he continued until the time of his death. Among the buildings he designed were St. Joseph's Cathedral, St. Joseph's College, Archbishop's Palace, St. John Juniorate, Northwestern Utilities Office Building, all of Edmonton, St. Mary's Hospital, Camrose, Hospital at Macklin, Sask., and many others.



RAOUL LACROIX, M.R.A.I.C.

Raoul Lacroix, architect of Montreal, died at his summer residence at Rosemere, P.Q., on July 5th, 1936.

Born in Montreal on February 2, 1874, the son of the late A. E. Lacroix, director-general of the Catholic School Commission in this city, he was for some years secretary of the Province of Quebec Association of Architects and chairman of the board of examiners. He was a member of the Royal Architectural Institute of Canada, and one of the original members of the Montreal Provisional Town Planning Commission, created in 1931. He became a member of the Public Buildings Commission of Montreal in 1927.

He was a member of the council of the International Federation for Housing and Town Planning, a member of the National and City Planning Institute of Canada, Canadian Conference on Social Work, Canadian Good Roads Association, American Public Health Association and the National Recreation Association. In 1930 he was chairman of the Conciliation and Investigation Board to settle differences between the C.P.R. and C.N.R. and certain groups of their employees.

Mr. Lacroix designed many buildings for the Federal Government, the city of Montreal, the Montreal Catholic School Commission, and for industrial and commercial clients. His most recent activities included the supervision of the Customs Warehouse as associate supervising architect, and the remodelling of the headquarters of the Montreal Catholic School Commission.



CAJETAN DUFORT

The death of Cajetan Dufort of Montreal, former member of the Province of Quebec Association of Architects, occurred on May 6th, 1936, at the age of 68. Mr. Dufort had retired from active practice a few years ago on account of illness. He is survived by his widow, two daughters, Mrs. Armand Dufresne and Mrs. Bruno Lanctier, and by one son, Leon.

MANUFACTURERS PUBLICATIONS AND ANNOUNCEMENTS

The Armstrong Cork and Insulation Company Limited draws attention to a new type of house that has made its appearance in Canada. This house is new because it follows the most up-to-date construction principles and because it combines these principles with the most modern building materials to produce the "last word" in "insulated building."

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* * * *

Alexander Murray and Company Limited announce the publication of a Donnacona Style Book for the convenience of Architects. This publication, which is in portfolio form contains ten plates of drawings showing details of various decorative Donnacona specialties. A wall chart, reproducing the style plates and illustrating nine typical Donnacona interiors styled with decorative specialties is also available to architects.

* * * *

The purpose of the "General Electric Home" idea which is being sponsored by Canadian General Electric Company is to encourage the building of modern, electrically-equipped, air-

conditioned houses, as well as the modernizing of existing dwellings. The backbone of the plan is an extensive advertising campaign to create a desire in the public mind for new and better homes. The C. G. E. are also placing the services of their specialists in air-conditioning, lighting, kitchen planning, etc., at the disposal of architects who care to avail themselves of these services.

In its General Electric Home programme, Canadian General Electric is not financing the erection of any houses, speculative or otherwise. All equipment is supplied to the builder on the Company's usual terms, the builder benefiting through the association of his project with C. G. E. promotional and sales assistance.

* * * *

Speilman Agencies Registered announce a new edition of "The Handbook of Cement Waterproofing," which should prove of interest to architects. There is a brief scientific explanation of the subject of Cement Waterproofing, but the major part of the book is devoted to useful and practical directions and specifications for waterproof work, and helpful suggestions, both under normal and difficult conditions. There are tables of proportions that experience and tests have proved to be reliable for various types of waterproof work, and recommendations for the materials to be used.

Copies of the Handbook will be sent on request to Speilman Agencies Registered, 420 Lagauchetiere St. West, Montreal, Dominion Agents for Pudlo Cement Waterproofer and Dura-Stone products.



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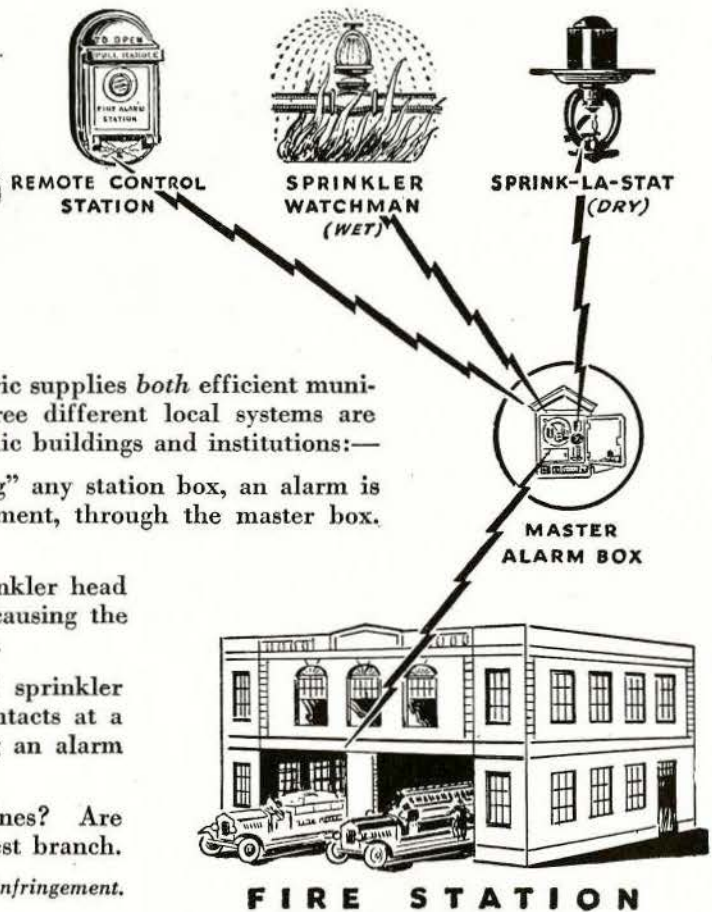
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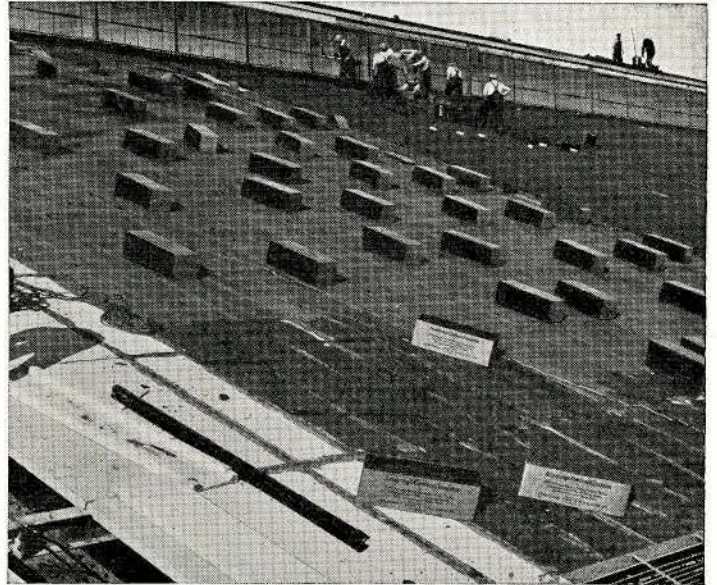
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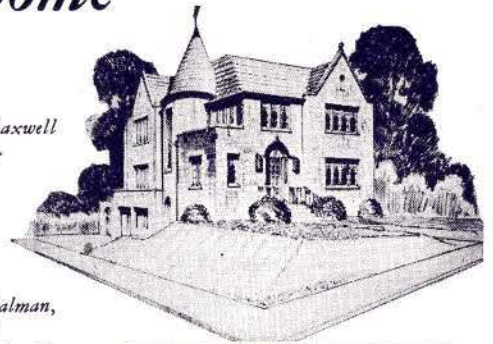
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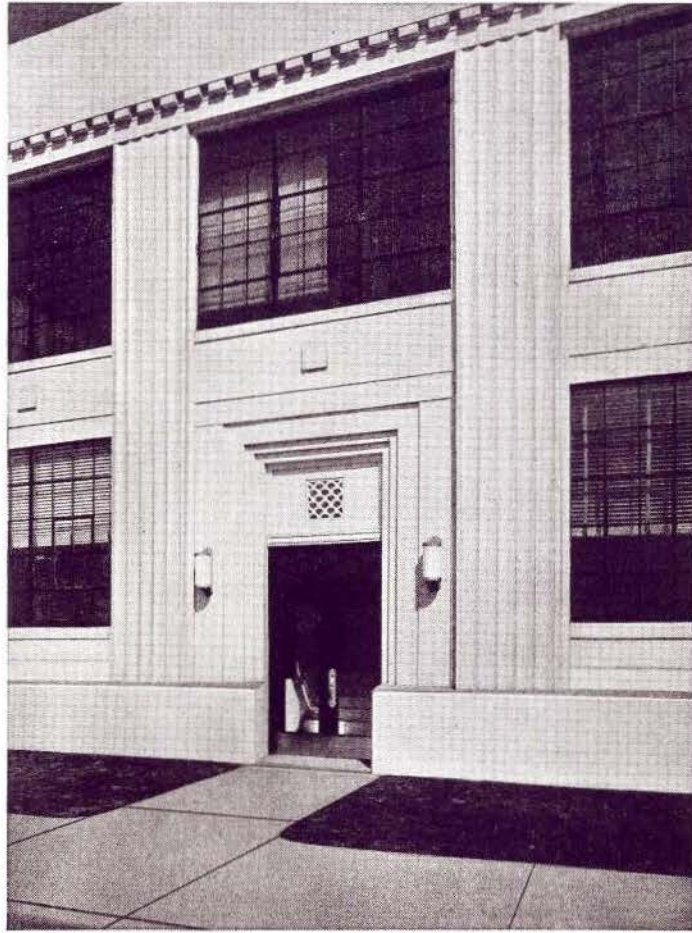
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