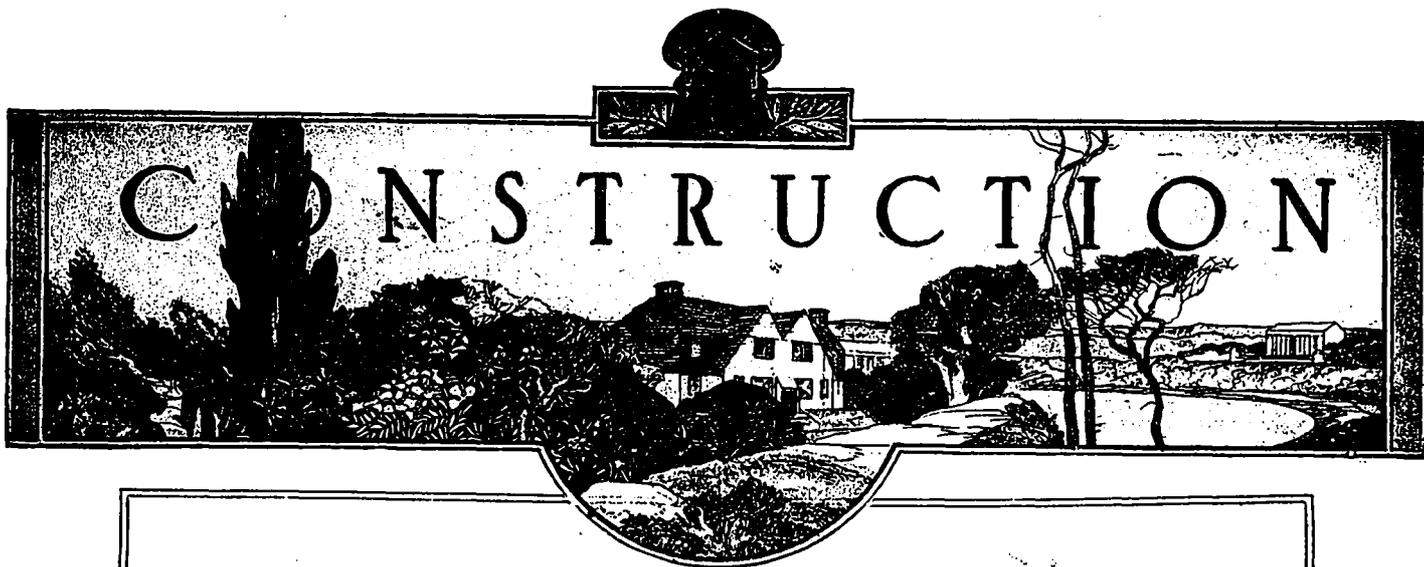


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June, 1920

Volume XIII., No. 6

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H. GAGNIER, Limited, Publishers

GRAPHIC ARTS BLDG., TORONTO, CANADA

BRANCH OFFICES

MONTREAL

NEW YORK



HENRY SPROATT, R.C.A.
DESIGNER OF HART HOUSE,

Who has been given the Honorary Degree of Doctor of Laws by the University of Toronto.

Hart House Designer

An appreciation by F. S. Baker, F.R.I.B.A.

Those who have resided in Toronto, or vicinity, during the last thirty years will join the writer—if they are interested in the development of art in Canada—in a brief tribute to the works of that famous and distinguished, and still young, architect and artist, Henry Sproatt, LL.D., whose photograph appears with this attempt of an old friend and colleague to express his admiration and appreciation of his great achievements in architecture.

The son of a great Canadian engineer, whom this country will never forget, he naturally turned to architecture upon leaving Varsity. Hard, steady work as a student at his drawing board in the offices of his early masters brought him to the broad road to success, along which his career has ever been onward and upward, until with his equally eminent partner, Ernest R. Rolph, he is ready to retire with great content. This is merely the writer's idea, no doubt Dr. Sproatt and his accomplished partner have other views and will be prevailed upon by many future clients to add to his achievements. The works which he has already accomplished speak for themselves. One by one they have been published, drawings and films, until that most recent and perhaps most important and most beautiful of all—Hart House—has just appeared in great detail in *CONSTRUCTION*.

The writer, if he may be permitted the space, feels that he should not leave this subject without reference to the great usefulness of good architecture in the development of a young country like Canada, where materialism necessarily prevails and will for some time, no doubt. The beautiful works of Dr. Sproatt, especially, perhaps, those Collegiate Gothic structures now famous for their beauty, will direct much thought and action on the part of those contemplating building in higher planes of art.

Henry Sproatt and His Work

An appreciation by Lt.-Col. W. M. Moorehouse, D.S.O.

The clever type of architectural design may often exercise on the community an influence which is not of the best. It may create a fashion to be seized upon by a host of imitators whose work will be but the mask of the original without its animating fire. The world is full of just such architectural corpses. This condemnation, however, cannot be applied to the architecture of Henry Sproatt, R.C.A., on whom the University of Toronto has just conferred the honorary LL.D. degree. With a thorough knowledge of what has been done in the past, he is not tied to tradition, for tradition's sake. With a complete equipment of architectural technique, he is never carried away by false ideas of originality in an art which, with its many limitations, must be evolutionary.

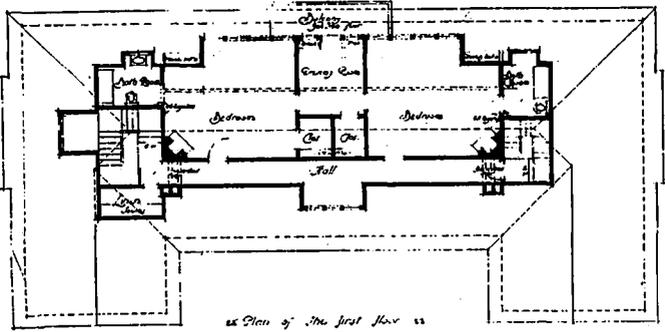
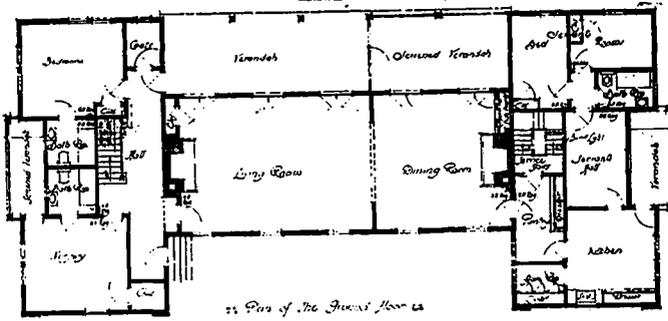
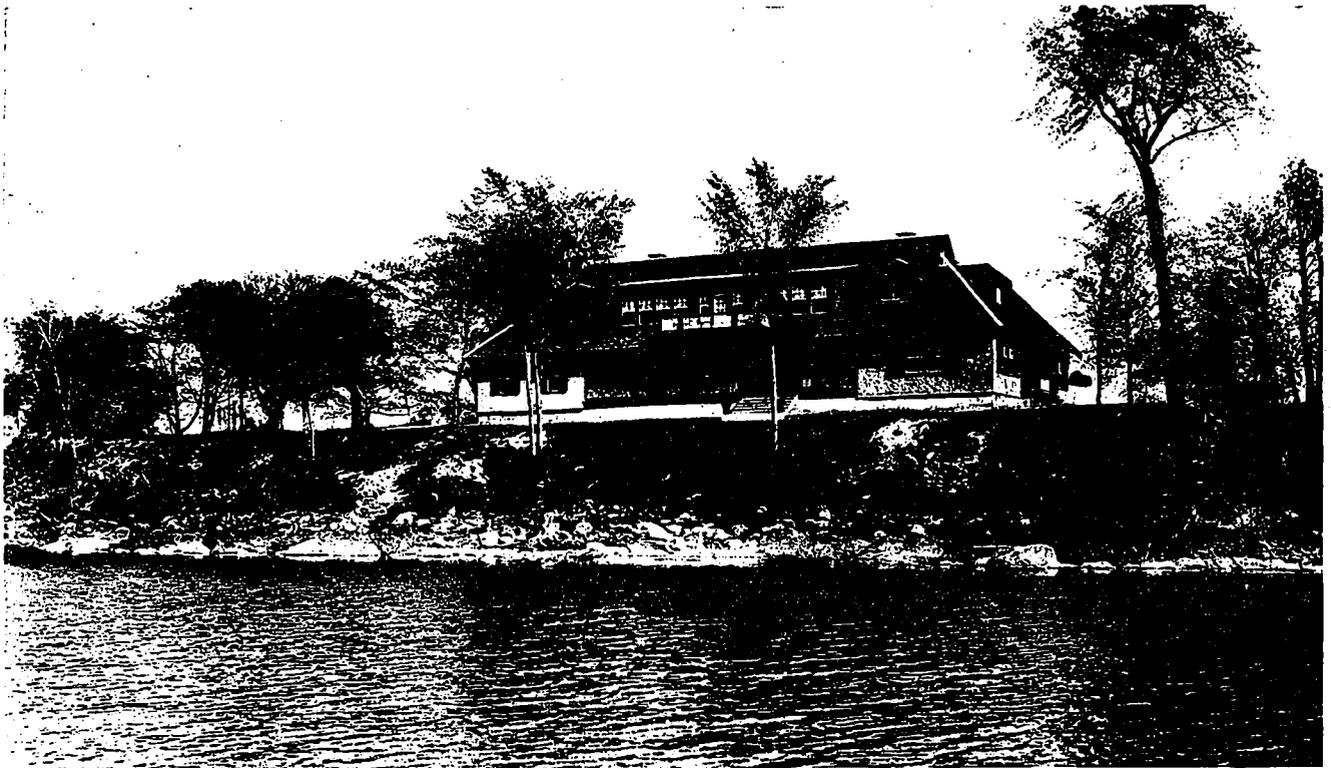
Possessing a keen sense of construction, he has always adapted his knowledge to existing conditions. His is the evolutionary type of design and not the passing whim of fashion that the future mind will condemn. That is why the work of Henry Sproatt is good and will live. It is difficult to state in words just what constitutes the charm of his work. It leaps into the mind of the trained observer, and grows in the mind of the untrained. The secret must lie in the simplicity and genuineness of his methods in dealing with a problem. His structures are not built piecemeal with certain features studied and elaborated as the work proceeds in such a manner as to detract from the harmony of the whole. His plan develops on simple, logical lines, and with its development the proportions and mass are visualized. His idea in the abstract is never dominated by detail as the building assumes concrete form. Almost always one sees the finished building in his preliminary sketches, and these are not like the flattering portrait that leads to disappointment in the original.

Until 1904 his work was mainly in the classic styles of architecture, in which he shows the same refinement and restraint that characterize his present design. It was the Metropolitan parsonage that definitely determined the Gothic trend of his work. In this style he has shown himself big enough to look for the weak points in what he has done, and the result has been a steady development—Victoria College Library, Burwash Hall, Hart House—each telling its story of patient study and growing facility. Many outside interests are involved in the study of architecture, and in these Henry Sproatt has developed unusual versatility. He is the true collector in whose estimation of a piece, its market value plays little part. His home and office are full of objects of high artistic merit, paintings, china, silver, each piece with its individual charm and interest.

This article is not in any sense biographical and is not therefore the place for remarks of a personal or anecdotal nature. Any such remarks would presuppose the idea that the subject were not present to defend himself.

In pointing to the past work of Henry Sproatt the writer wishes to indicate the promise of the future. Such a man's work is his life, and whether recognition comes or not, the reward is always his—

Who toils to leave as his bequest
An added beauty to the earth.



Scale 1/8" = 1'-0" for 1" on Job



SUMMER RESIDENCE OF N. SCARTH STEVENSON. POINT CAVAGNOL, COMO, P.Q.
PHILLIP J. TURNER, ARCHITECT.

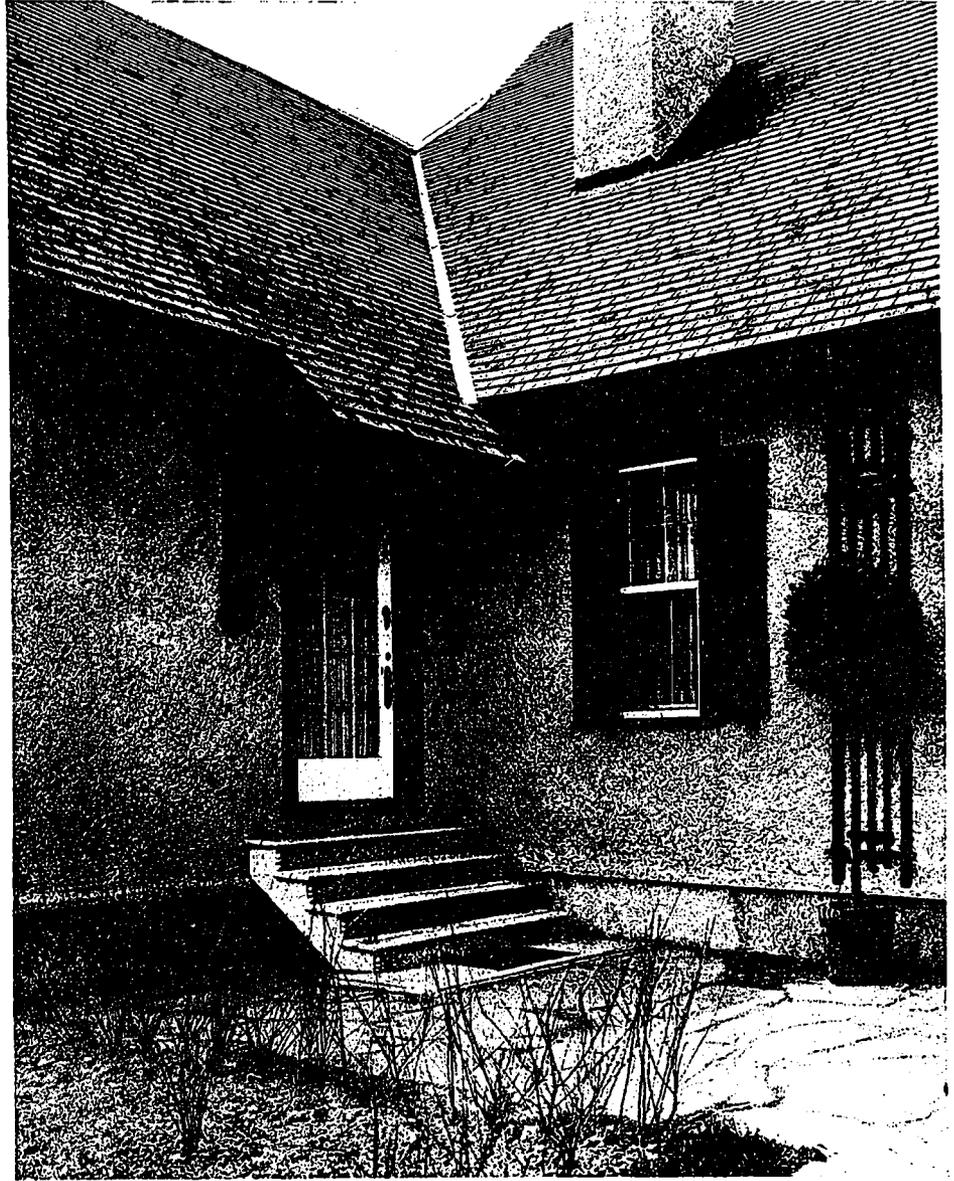
Recent Examples of Domestic Work

IT would seem that as regards our domestic architecture we are in the midst of "the best of times and the worst of times." The best of times in that the principles of town planning and housing which affects the growth of our towns and cities in their bigger aspect, are more generally understood, and the worst of times perhaps because instead of these principles being more broadly recognized and put into practice, there is a tendency in certain municipalities to lift existing restrictions to an extent owing to inadequate accommodations and the present cost of materials.

However, notwithstanding this condition which constitutes an encouraging hope on one hand and unfortunate possibilities on the other, there is at least as far as the better residential work is concerned, much evidence of substantial progress. The trend, if anything, is toward truer forms and a more honest and sauer use of materials. We perhaps best note this progress by comparing present developments with the character of work done in the past when the carpenter-designers perpetrated his jig-saw fancies, and to the less remote time when even under better auspices, false timber work, box-beams and the like, sprang from the designer's bag of tricks. The latter was in many ways an illogical period to which the present stand out at least in the achievement of aesthetic results by more legitimate methods.

Not that this is to be construed as implying that all is well with our residential work. The reference to the progress made is intended to relate to the work which emanates from the architectural offices. A contrast, and admittedly a highly unsatisfactory one, stands out in the product of the speculative builders, whose houses duplicating one another in extended

rows, are abundantly in evidence outside of the more restricted residential sections. With these operators the simple reversal of a plan suffices to establish the required variance or individuality which distinguishes one dwelling from another. Thus, if the bay projection is on the



ENTRANCE, SUMMER RESIDENCE OF N. SCARTH STEVENSON, POINT CAVAGNOL, COMO, P.Q.

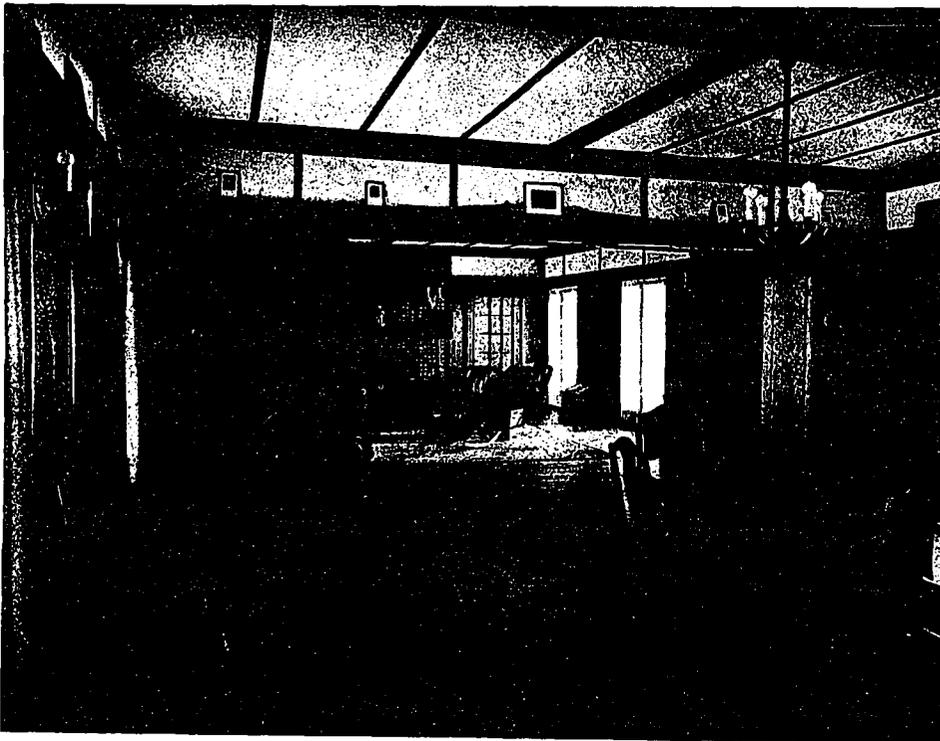
right and the verandah on the left in one structure, the opposite is in order with the house which adjoins, and thus in many cases whole residential blocks are built up. Moreover, it is the speculative builder more than anyone else who is responsible for the many exotic examples of domestic work in our midst. The California bungalow in itself is delightful in its western environment, but it is of doubtful quality when it is adopted without modification in



VIEW FROM LAKE: HOUSE OF N. SCARTH STEVENSON, POINT CAVAGNOL, COMO, P.Q.

more remote surroundings. Viewed from almost any angle, either architecturally or constructively, these speculative houses are sadly

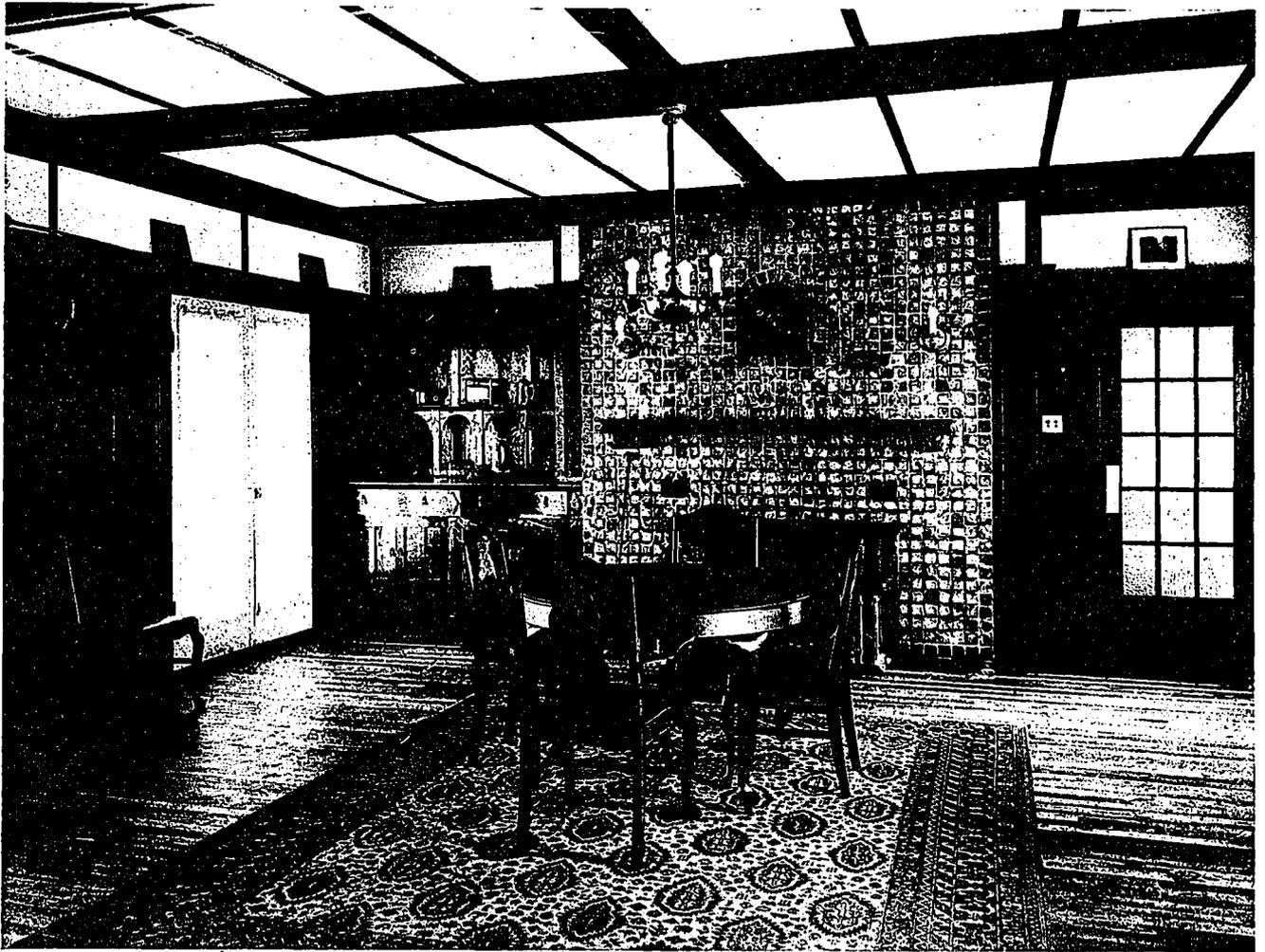
out of perspective with the more thoughtfully considered homes. Nothing could possibly more fully point to the necessity of some legal-



INTERIOR LOOKING TOWARDS LIVING ROOM.

ized form of qualification for the men who are entrusted with the designing and erection of our buildings than this class of work. Indeed at no previous time has the need existed as it does to-day for the careful consideration of all that pertains to our domestic development. Houses are urgently in demand, but even in view of this, especially as they are one of the most necessary and visible assets of a community, there is no reason why even in low cost work, good design and careful workmanship should be sacrificed to the exigency of the moment.

Briefly, the greatest

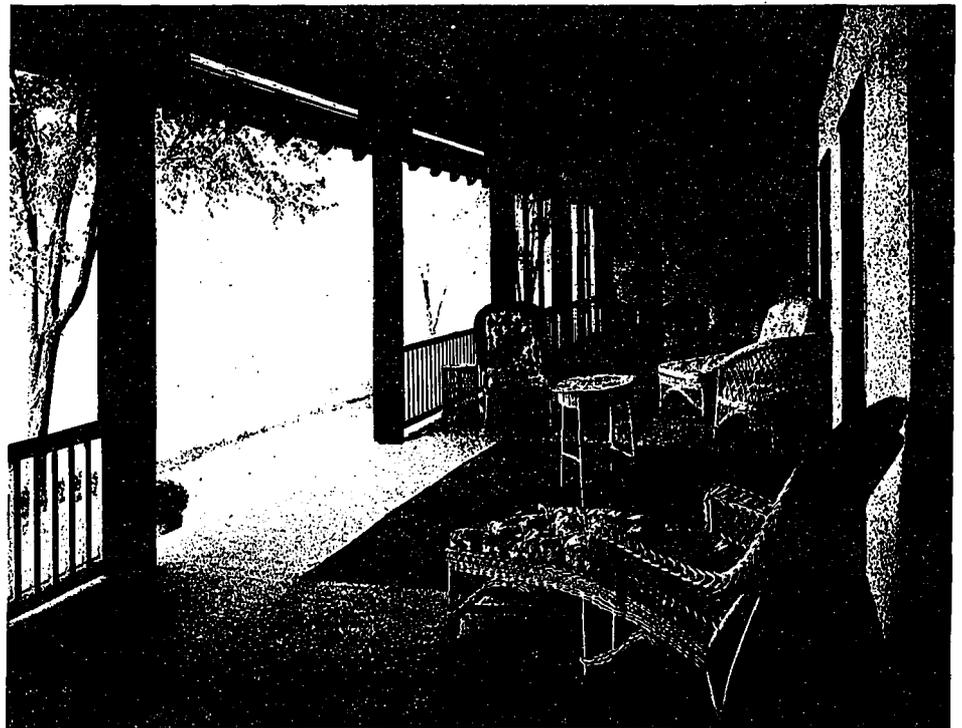


DINING ROOM: HOUSE OF N. SCARTH STEVENSON, POINT CAVAGNOL, P.Q.

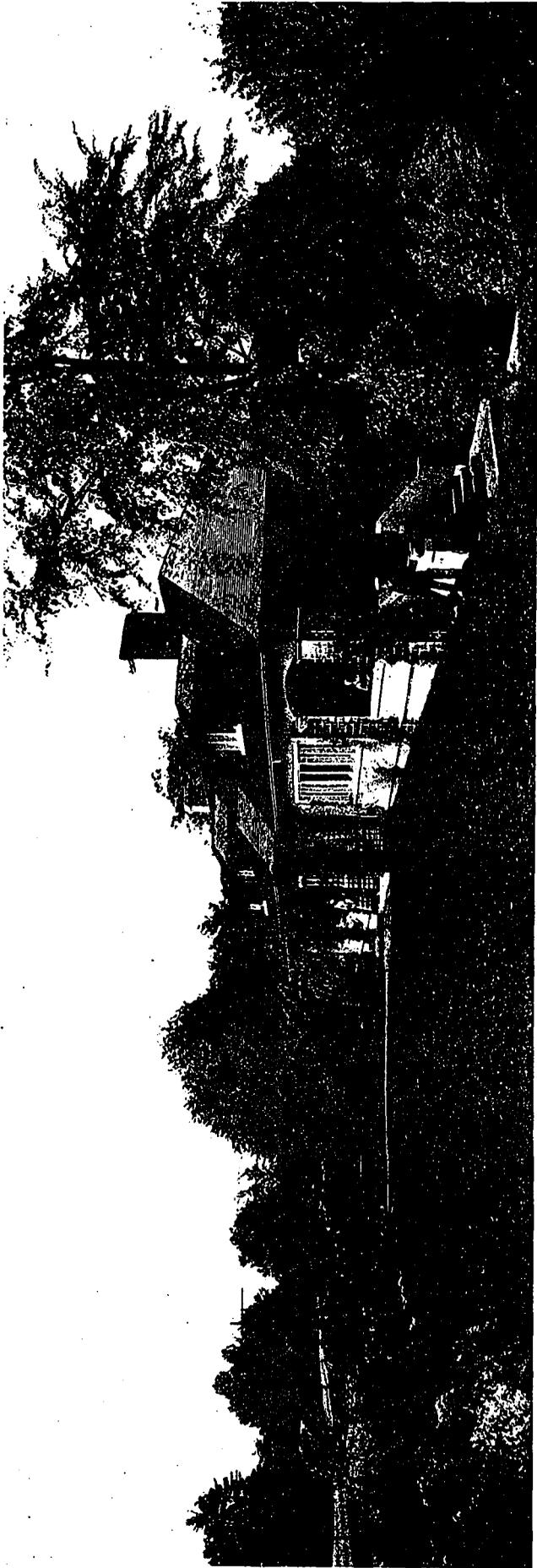
hope of the present lies in the work which the architects themselves are doing. Through their efforts the public is gradually being educated

to appreciate the more acceptable forms of architectural expression, and people of average means are coming to demand something more conducive to their domestic and social betterment. One of the encouraging indications to be noted is in certain residential districts that land holding companies are developing along lines which proved eminently successful in England prior to the war. Several of these projects are now being carried out with most satisfactory results by progressive real estate owners, but wisely the promoters have placed the laying out of the grounds and the de-

signing of the buildings entirely in the hands of competent designers and landscape architects. While as yet none of these projects have been

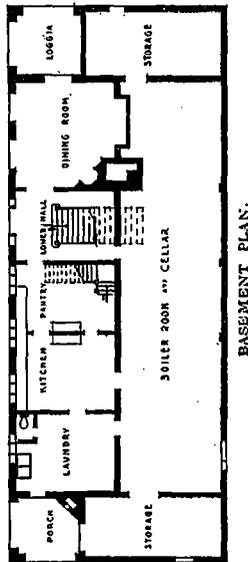


GALLERY AND SCREENED DINING ROOM ENCLOSURE

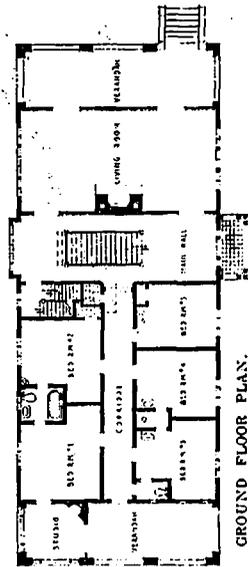


COUNTY RESIDENCE OF M. LANGMUIR, FORT CREDIT, ONT.

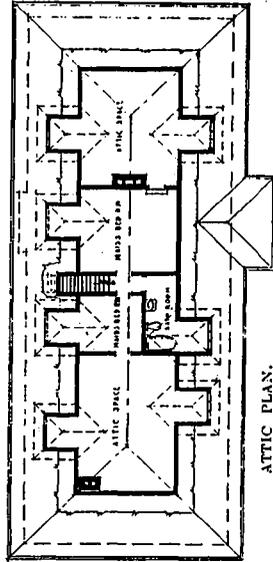
MOLESWORTH, WEST & SECOND, ARCHITECTS.



BASEMENT PLAN.



GROUND FLOOR PLAN.



ATTIC PLAN.

completed sufficiently to judge the final total results, enough has been accomplished to demonstrate the advantages of the scheme and to more than justify the restrictions which the promoters have imposed. The houses so far erected have been built with a proper regard to open spaces, vistas, trees and shrubbery. The natural advantages are preserved as much as possible, and where required necessary planting is done to add to the attractiveness of the setting. In practically every case the prospective owner has the option of selecting a designer other than the one the promoters employ, but in all respects the plan must conform to the regulations laid down, and meet with the approval of the architect in charge. This is done to avoid the danger of poorly planned and unsightly structures, so that the general scheme may be devoid of any incongruity, by bringing all buildings within proper architectural limitations.

Altogether, apart from the certain conditions earlier mentioned, there are many signs and material manifestations in the character of recent domestic buildings which are both assuring and promising. Various influences are at work to bring about a more perfect adjustment and to encourage still further progress in this respect. That one of these is the unprecedented commercial and industrial development of the country cannot be denied. Gradually the encroachment of modern business houses and manufacturing plants is bringing about the demolition of a large number of commonplace dwellings in the more central

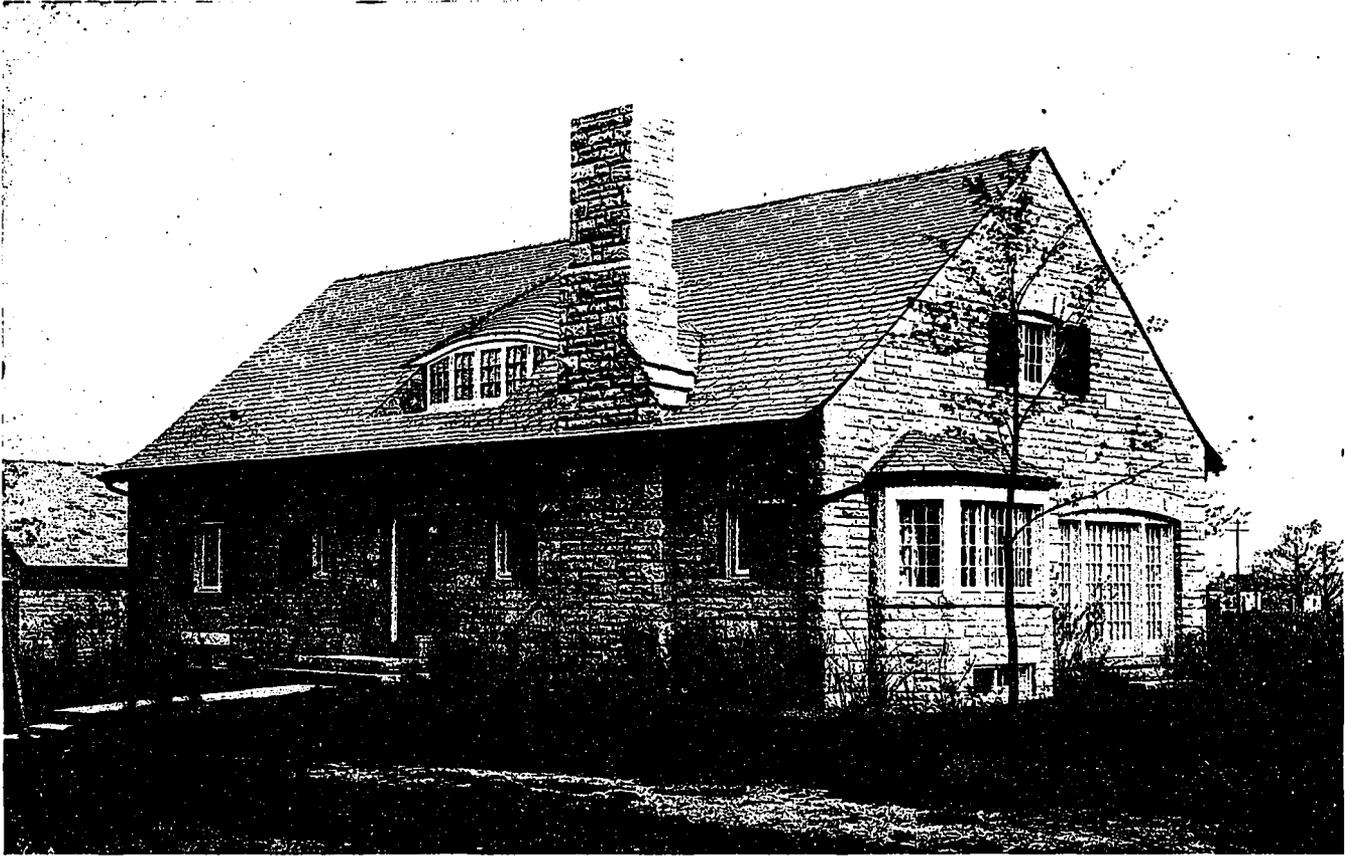


REAR ELEVATION.

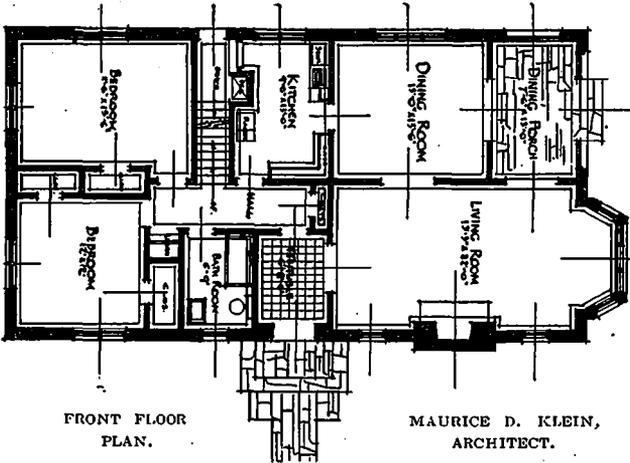


STONE PAVED TERRACE.

COUNTRY RESIDENCE OF M. LANGMUIR, PORT CREDIT, ONT.
MOLESWORTH, WEST & SECORD, ARCHITECTS.



FRONT ELEVATION: RESIDENCE OF H. B. TABER, "CEDARVALE," TORONTO



FRONT FLOOR PLAN.

MAURICE D. KLEIN, ARCHITECT.

districts of our towns and cities. This in itself is giving a strong impetus to the upbuilding of the outlying residential parts and suburbs, besides bringing into our architectural growth the first initial evidences of industrial and private housing developments worthy of note.

The accompanying photographic views illustrate several moderate cost houses of diversified character, which are briefly described herewith, and indicate in a limited way the class of work which is being done.

SUMMER RESIDENCE, POINT CAVAGNOL, COMO, P.Q.

Situated among beautiful and historic surroundings this house has been built on the south shore of the Lake of Two Mountains at Point Cavagnol, two miles from Como and about four miles from Vaudreuil.

From the large gallery, twenty-five feet above water level, a magnificent view of the lake and mountains is obtained, whilst opposite is the village of Oka, famous as the site of the well-known Trappist monastery.

The building is laid out with the living room and dining room occupying the whole of the centre of the block. They have a total length of fifty feet and width of twenty feet. On the south side is a gallery approached by five pairs of French case-ment doors. The portion at the east



LIVING ROOM.



REAR ELEVATION: RESIDENCE OF H. B. TABER, "CEDERVALE," TORONTO.

end is screened so that it can be used as an outdoor Dining Room in fine weather.

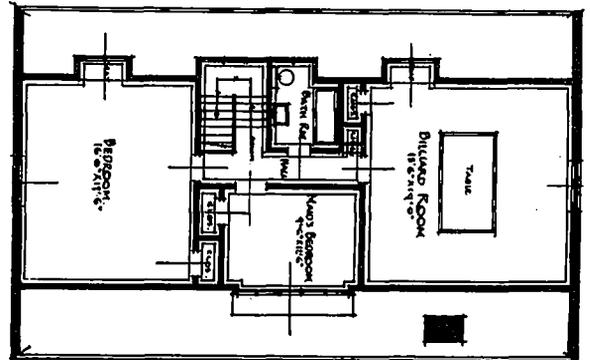
These rooms are panelled to a height of seven feet in chestnut, and have large open fireplaces at each end carried up the whole height of the rooms and faced with hand-made Grueby tiles, in the centre of which are set old cast iron plaques representing the arms of France and Prometheus and the eagle.

The east wing of the house if given up to the kitchen quarters, pantry, two servants' bedrooms and bathroom; and in the basement a hot-air furnace, water system and pressure tank.

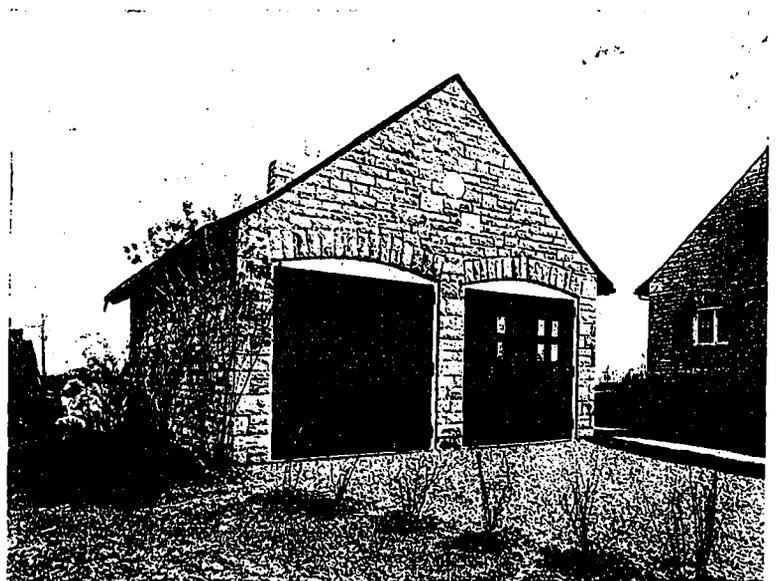
At the west of the house is placed the main entrance with a nursery suite and separate small gallery, guest's bedroom, and extra furnace in cellar.

The upper floor is placed entirely in the roof space thus presenting the desired appearance of a one-storey bungalow. It contains the two best bedrooms of the house, each 19 ft. 6 in. x 17 ft. 6 in., with open fireplaces and wide windows commanding the view of the lake. Each of these rooms is provided with its own bathroom, and a dressing room occupies the centre from which access is obtained to a balcony. These rooms are also fitted with specially built-in wardrobes and cupboards.

The interior of the house is lined with British Columbia fir with the exception of the dining room and liv-



SECOND FLOOR PLAN.

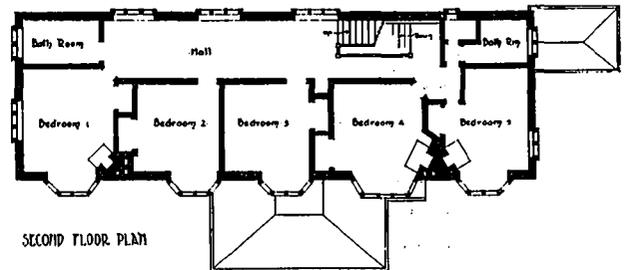
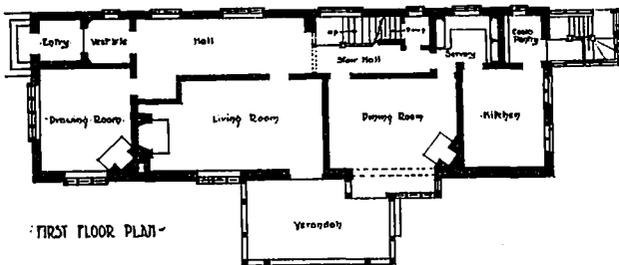


GARAGE.



RESIDENCE OF MRS. T. G. BROUGH, TORONTO.

EDEN SMITH & SONS, ARCHITECTS.



ing room which are panelled with chestnut, with wall board and panelled friezes and ceilings. The floors throughout are of birch.

The outside of the building is covered with a rough cast in cement finished a light primrose color, and the roof is covered with shingles treated with a chestnut stain.

Interest is given to the simplicity of the entrance front by the introduction of trellis work standards between the windows and shutters to the windows which have specially made wrought hinges and "S" catches of antique design.

LANGMUIR RESIDENCE, PORT CREDIT, ONT.

In the Langmuir residence at Port Credit, Ont., the firm of Molesworth, West & Secord have taken full advantage of the possibilities of

the site and have produced a scheme which to say the least is striking. It is a charming small country place with beautiful lawns and planting, overlooking the links of the Mississquoi Golf Club and having a far reaching view of the valley through which the Credit River wends its way. From the roadway it has the appearance of a one-storey structure, the dining-room and kitchen being located at a lower level where steps lead down to a stone paved path in a terraced garden. The design is in every way to be commended and harmoniously lends itself to the character of the surroundings.

RESIDENCES OF SIDNEY SMITH AND THOMAS MIX.

Two other examples by the same architects show solutions of the moderate cost house prob-

lem. The Sidney Smith house on the north side of Douglas Drive in North Rosedale, Toronto, is a simple design in brick. The feature of the plan is the combination pantry, rear entrance and rear stair. This is very economical of space and has the advantage of a kitchen with only one door to break the wall surface and cooking space, in addition to preventing kitchen odors ascending.

The house of Thomas Mix on Dimnick Crescent, Toronto, is an example in an entirely different style. The stucco is on hollow tile and the foundations are of brick. An interesting feature of the plan is the kitchen fashioned after the apartment house kitchenette, and the breakfast room, trimmed in white and blue, which on occasion can be used as a pantry or when help is plentiful provides a sitting room for the maid.

HOUSE OF H. B. TABER,
"CEDARVALE," TORONTO.

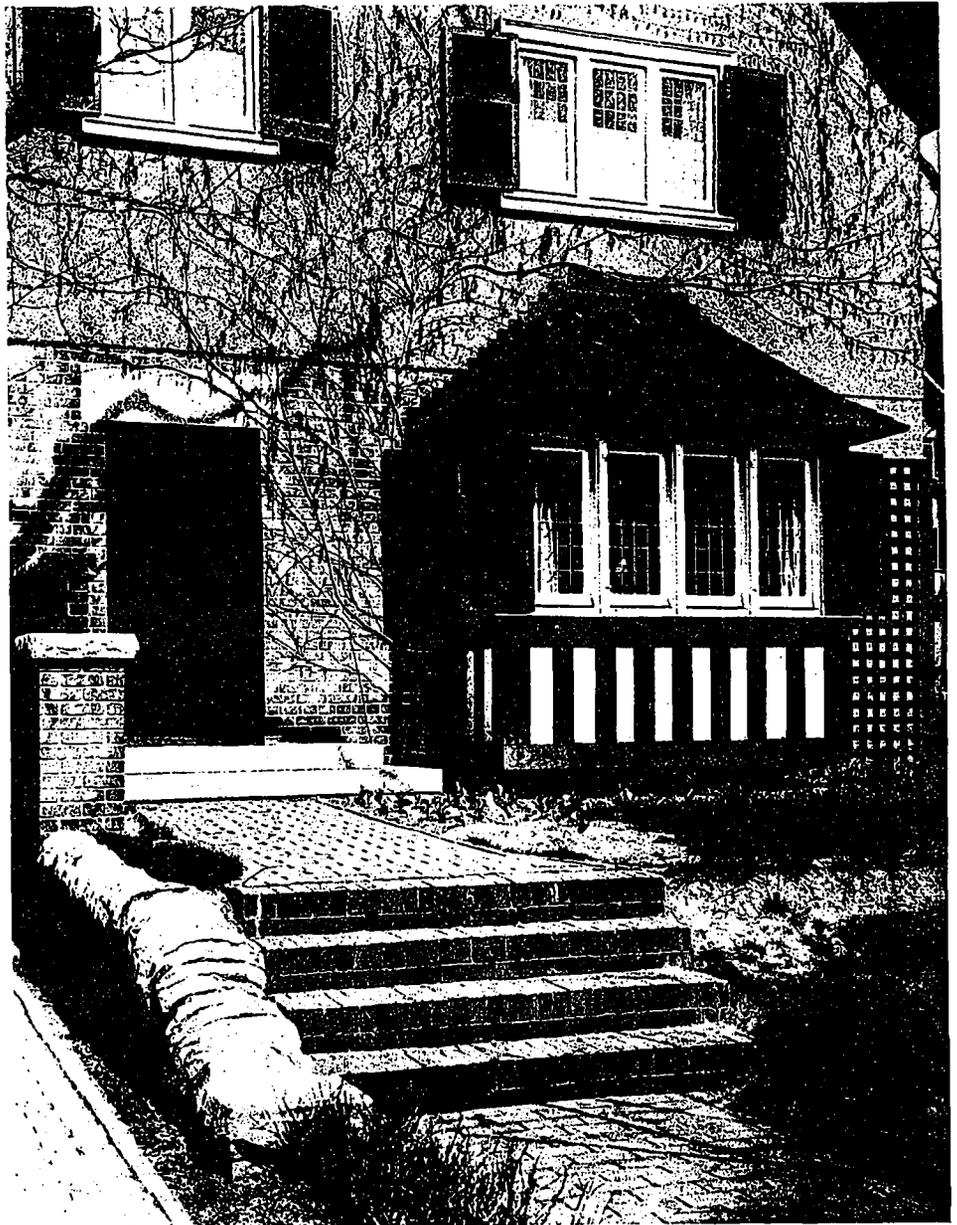
This house is located on a corner lot having 55 ft. on Raglan Avenue and 135 ft. on Hillbrow Avenue, in one of the newer residential developments where all plans must be submitted to a supervising architect for approval.

The plan consists of a large tiled vestibule, 6 ft. x 8 ft. 6 in., with French doors to the living room and a door to the rear hall which gives access to the staircase, bathroom, kitchen and two large bedrooms both having large closet space and cross ventilation. The dining room and the dining porch open off the living room through French doors. The dining porch is enclosed in glass and has a stone floor, and leads to a turf terrace. The French doors are treated like sash and painted white. The dining room panelling is in gumwood, 6 ft. high, and the living room has a 2 ft. 6 in. dado, treated above in stucco, and a stone fireplace of Tudor design.

On the second floor is a billiard room, 18 ft. 6 in. x 19 ft., a large bedroom 16 x 18 ft., bath-

room and maid's bedroom. The entire woodwork is gumwood, walnut finish, and both bathrooms have tiled floors and Keen's cement dado.

The character of the design is entirely English. The stonework is laid in coursed random rubble, with wide joints. The windows are casements and have stained batten shutters with iron strap hinges. A half round gutter on gutter supports is the cornice treatment. The roof is of Tudor slate variegated in size and colors, and

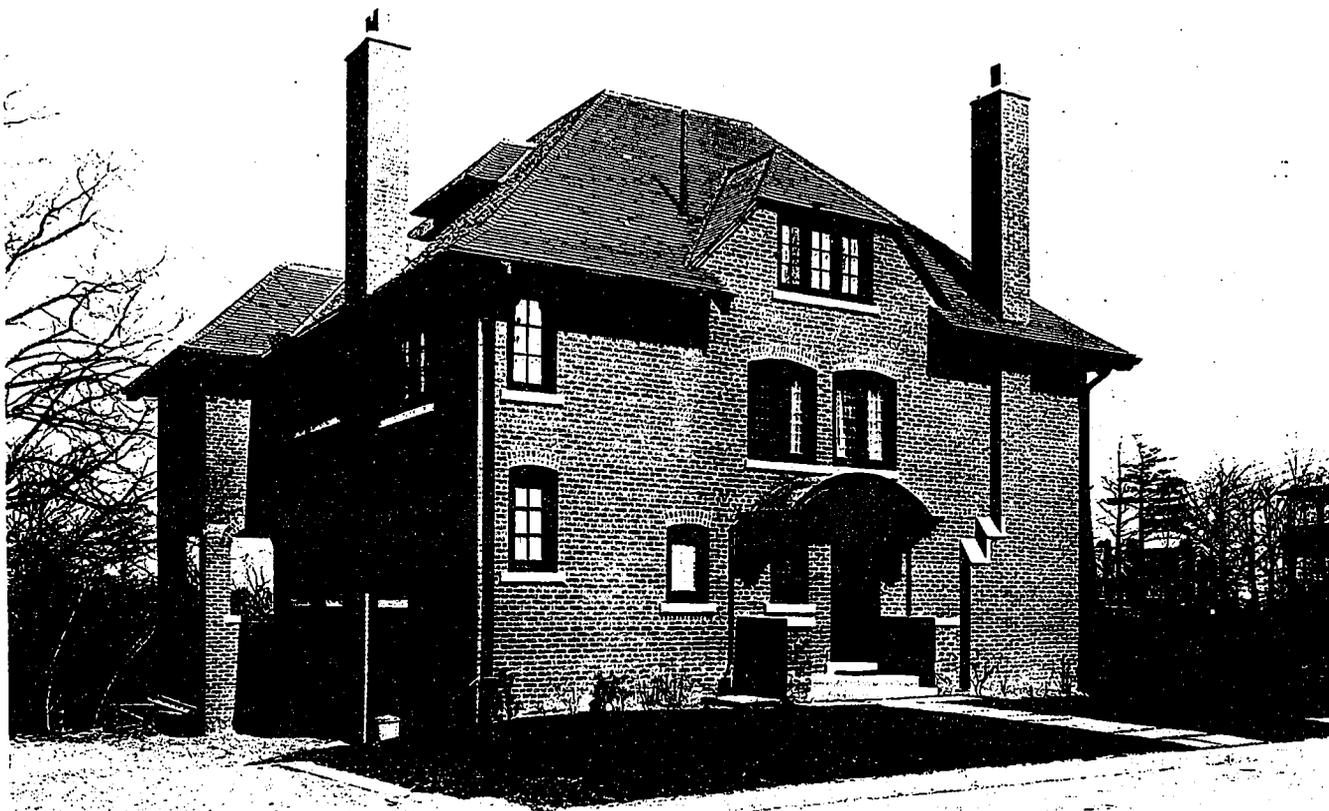


DETAIL OF ENTRANCE: RESIDENCE OF MRS. T. G. BROUGH, TORONTO.

a 4 in. stone facing backed with 8 in. tile form the wall construction. The chimney is a noteworthy feature and all elevations are interesting.

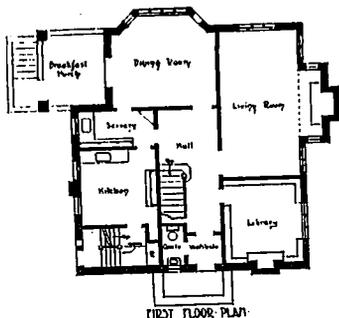
RESIDENCE OF MRS. T. G. BROUGH, TORONTO.

The lower storey of this house is of red stock brick, and the upper storey stucco on brick. The interior woodwork is stained brown. The house



RESIDENCE OF A. A. BOWMAN, TORONTO.

EDEN SMITH & SONS, ARCHITECTS.



is designed to get as much sunlight as possible and with this end in view every room is placed on the south side, with only corridors, bathrooms, etc., on the north side. One feature

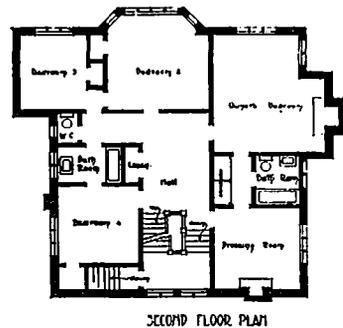
of the plan is the partition between the living room and hall can be removed, giving a large floor area for entertaining. The door and chimney pieces which contribute to give the exterior an interesting character are worthy of note.

HOUSES ON WARREN AND WALMER ROADS, TORONTO.

The Thompson residence on Warren Road is of red stock brick with Indiana stone trim. The ground floor is finished in brown stained oak, the hall is panelled, and the sunroom finished in white enamel. The upper floors trim is also in white enamel, and the bathrooms tiled. This was the first house in Toronto to be finished throughout with plaster board and gypsum

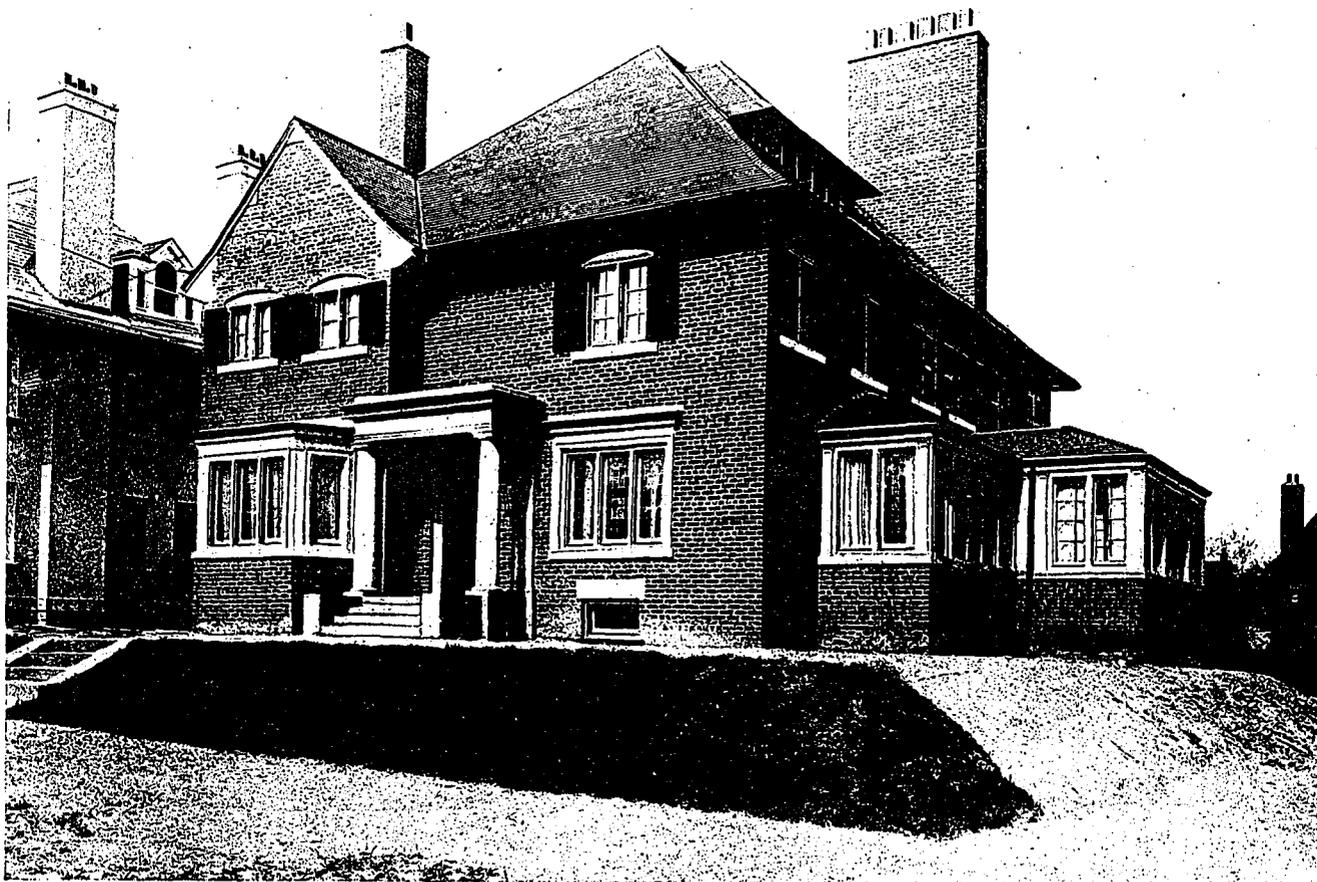
plaster.

Gypsum plaster on plaster board is also used on the interior of the Bowman house. This has been left with the natural grey finish. In this case the exterior is red stock brick with a grey joint. The living rooms are stained and the bedrooms enamelled with stained doors. The house is situated at the end of Walmer Road with a fine view to the north-east across the ravine.



The other two houses illustrated are presented without plan. The photographic views in themselves, however, are interesting, as instances showing results achieved by the use of stucco in recent work.

In the Peterborough (Ont.) house, which is very simple in lines, the basic walls are of hollow tile, while in the John M. Bowman residence, which is a comfortable house in the farming district on the Metropolitan Radial, just north of Toronto, the stucco is on brick backing.



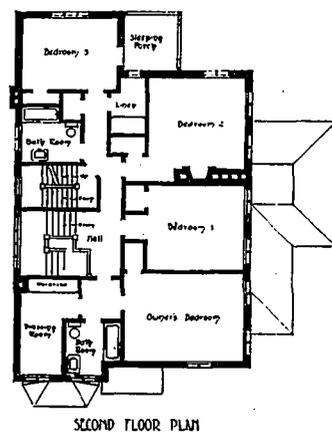
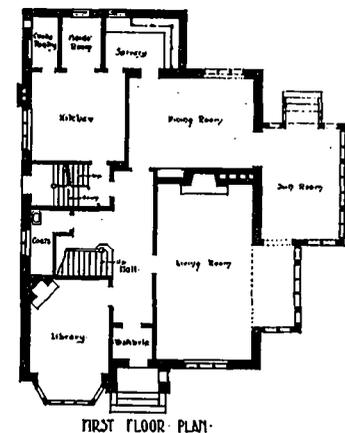
RESIDENCE OF F. C. THOMPSON, TORONTO.

EDEN SMITH & SONS, ARCHITECTS.

The Question of High Building in London

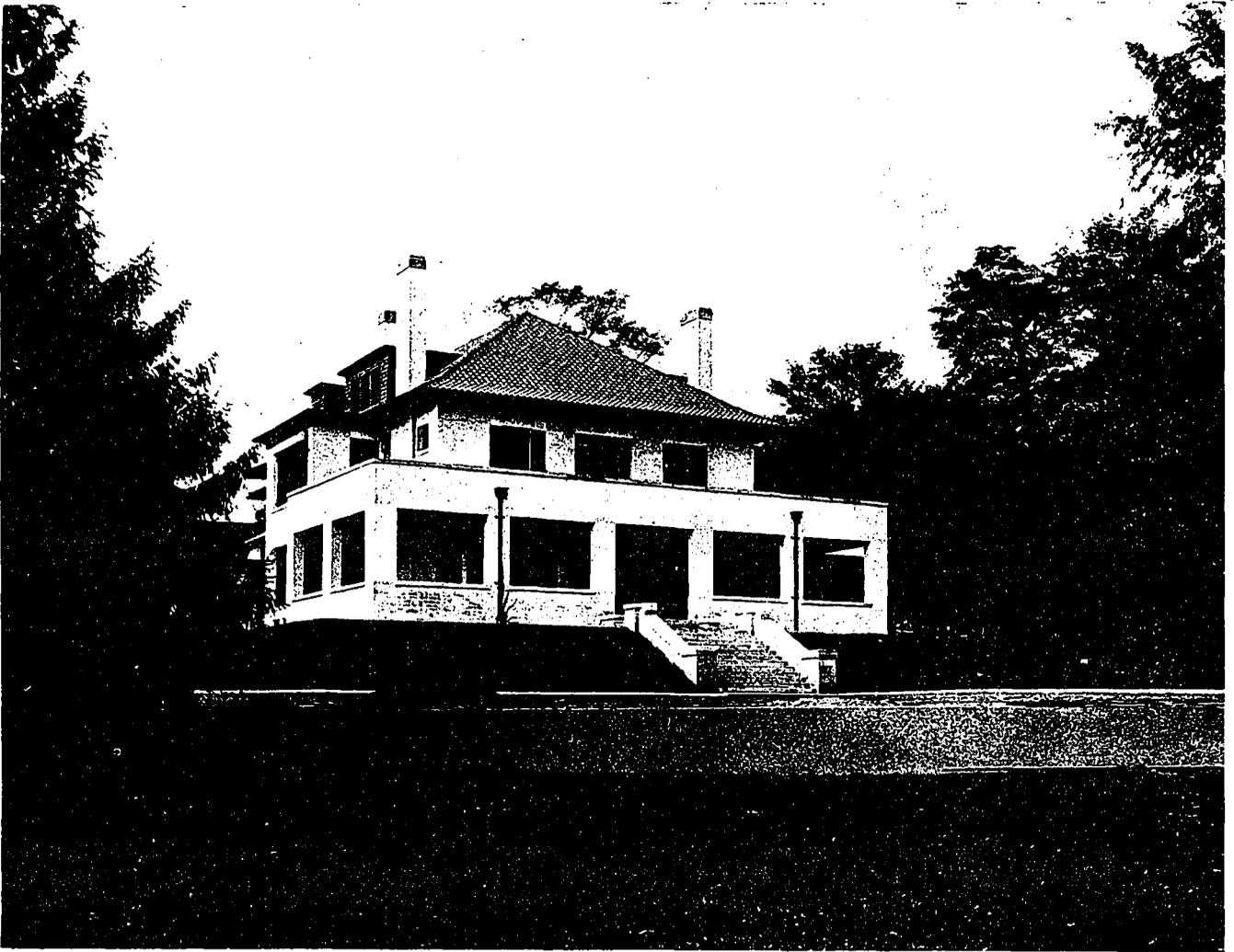
The question of high buildings is at the present time a live subject in London, England, and is drawing forth much comment from various quarters. The BUILDER in a recent issue quotes Mr. Andrew Taylor, late Chairman of

it. There was no more beautiful sight than a view of the City of London from the river near Westminster. There was a certain symmetry and proportion of the building, punctuated and dotted with towers and spire, and dominated by the great swelling dome of St. Paul's, which formed a very beautiful picture, but which would be spoilt by the introduction of towers two hundred feet high.



the Improvements Committee of the London County Council, as being frankly opposed to the erection of tall buildings which he declares would not add to the beauty of London. In the opinion of Mr. Taylor, it was the duty of every Londoner to consider the problem carefully. As regards the artistic side of the question, he had been impressed by some of the spires in New York, which, flanked by tall buildings, were completely destroyed from the artistic point of view. The spire of a church in Madison Square was dominated by a building which adjoined it and rose to a height of two hundred feet above

Another opinion quoted by our contemporary is that of Mr. Solomon J. Solomon, R.A., who felt that it would be a great pity to rob London of its small share of sunlight. To raise the general level of the skyline by the indiscriminate erection of buildings of more than twelve stories would have a depressing effect. However, there were places where a well chosen high building would add to the architectural effect which was



RESIDENCE AT PETERBOROUGH, ONT.
C. H. ACTON BOND, ARCHITECT.



STAIRCASE.

given here and there by cathedrals. Such building would necessarily have to be on the south side of parks or the river, so that the shadow would not fall on the surrounding buildings. If moderately high houses were erected on the south side of the Thames, it would, perhaps, encourage the inhabitants to use the river as a highway, and thus to some extent relieve the transport problem.

On the same subject Professor Beresford Pite states that the statistics of disease in districts where buildings were high were alarming when compared with districts where buildings were low. What was wanted was an alleviation in the height of commercial buildings, and in no other way should the height of buildings in London be altered, in the interest of architecture or anything else.

Conditions in Western Cities Show Improvement

Reports from Western cities indicate an increasing volume of building work. Im-

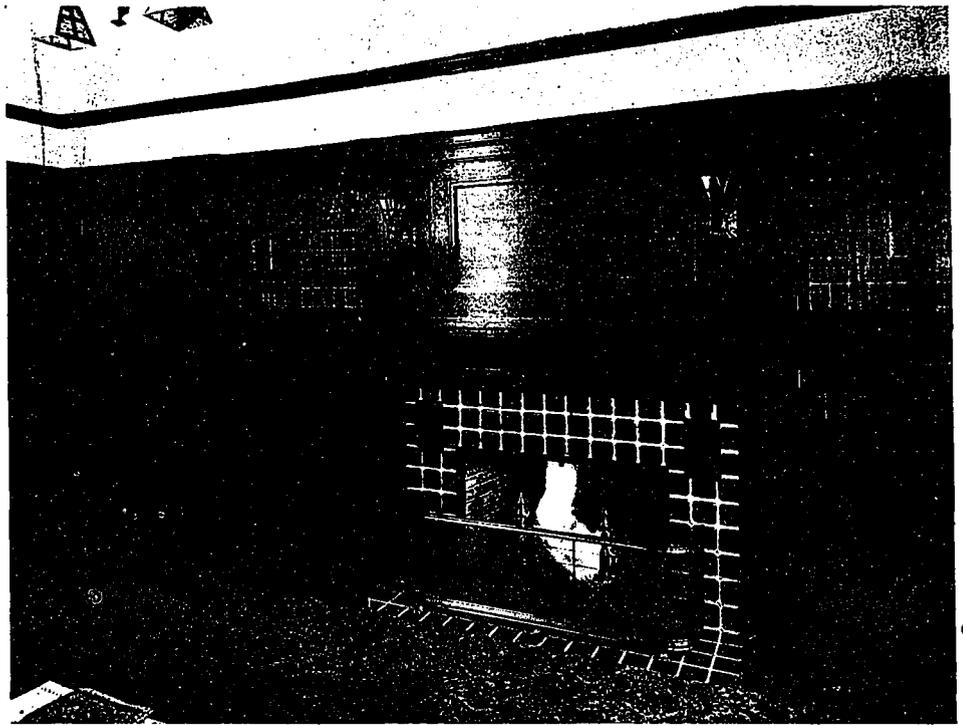
portant developments at Edmonton include the new Marshall Wells warehouse of which the ground floor slab is now being poured. This is an eight-storey building, two hundred by one hundred feet, of reinforced concrete for which Carter, Hall & Aldinger, Winnipeg, have the general contract.

Another Winnipeg contractor, J. McDermott, has the contract for a concrete addition to the warehouse of Revillion Freres, which will add six more floors to the present three stories and increase the general dimensions to one hundred and fifty by two hundred feet., making it one of the largest warehouses in Canada.

In addition to this, work is under way for the new Medical Building at the Alberta University, the foundation of which is now being put in by Jameson & McKenzie, the contractors. Professor C. S. Burgess, in charge of the Department of Architecture at the University, is the supervising architect, and Professor Robb is designing the mechanical features.

Magoon & MacDonald have also completed plans for a store building, fifty-six by eighty feet, for Mrs. J. Hetu, on Jasper Avenue.

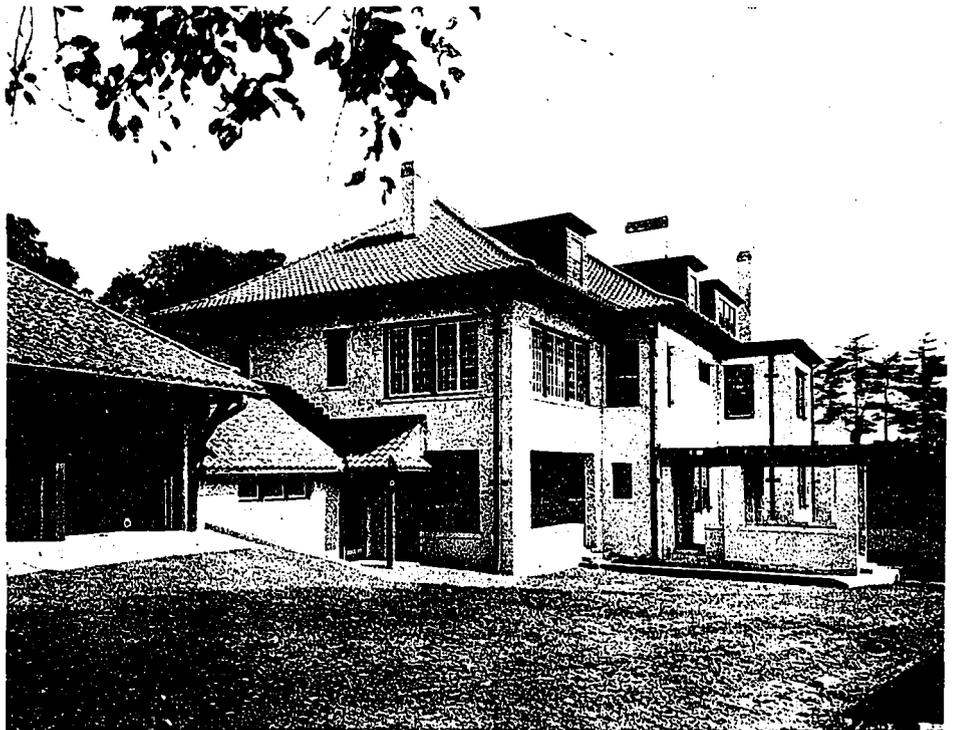
Another big undertaking is a five-storey factory, one hundred by one hundred feet, and costing \$250,000, for which a contract has been let to Harold MacDonald by the Northwest Biscuit Company. Besides this, the city is contemplating the erection of an \$18,000 addition to the old fire hall and police station on Fraser Avenue; and the All Saints congregation is intending to build a new church to replace the steeple destroyed by fire. There is also a considerable number of residences being built in the new Glenora section, while excavations have been completed for a new nurses'



LIBRARY FIREPLACE.

home costing \$90,000 in connection with the General Hospital.

In the Province of Saskatchewan it is estimated that the expenditure for construction work this year will amount to at least twenty million dollars, of which the city of Regina will account for over \$5,000,000. As regards the Province as a whole, estimated work includes a considerable number of residential projects and the erection of at least two hundred schools.



SIDE ELEVATION: HOUSE AT PETERBOROUGH, ONT.

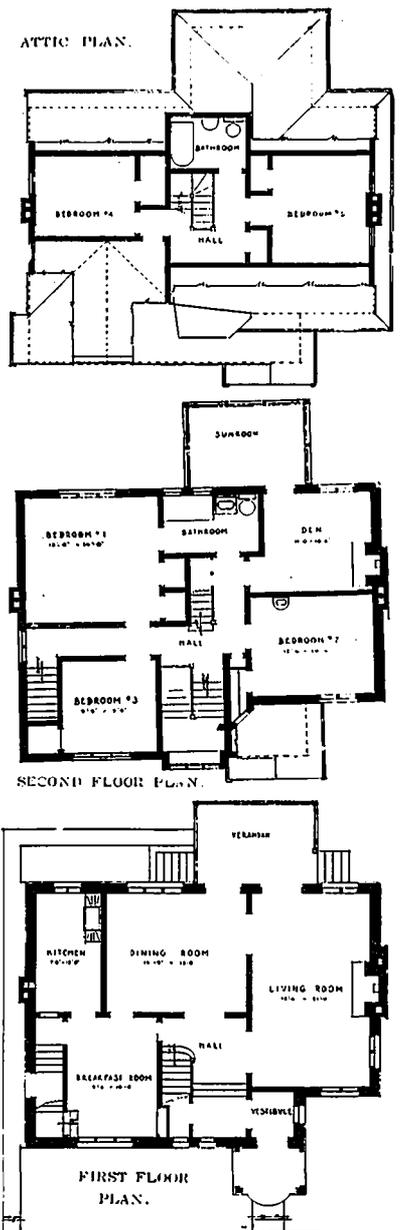


HOUSE OF THOMAS MIX, TORONTO.
MOLESWORTH, WEST & SECORD, ARCHITECTS.

The largest items on the program, however, will be made up of the business blocks, warehouses and Government contracts. Among the last named are the asylum at Weyburn, the Canada Lignite Board plant at Bienfait, Government roads and bridges, courthouses, and the Prince Albert jail. Besides these, at least twenty-five branch banks will be erected this year at various points in the Province.

Stratford to Erect War Memorial

Authority has been given to the Chamber of Commerce of Stratford, Ont., to proceed at once with the erection of a soldiers' war memorial to cost \$25,000. The memorial, a massive one of bronze and granite, bearing the names of over three hundred of the city's honored dead, will represent the work of Mr. Walter Allward, the well known Toronto sculptor. A campaign organized at a recent public meeting which unanimously endorsed the project, is now being conducted to raise the necessary funds.



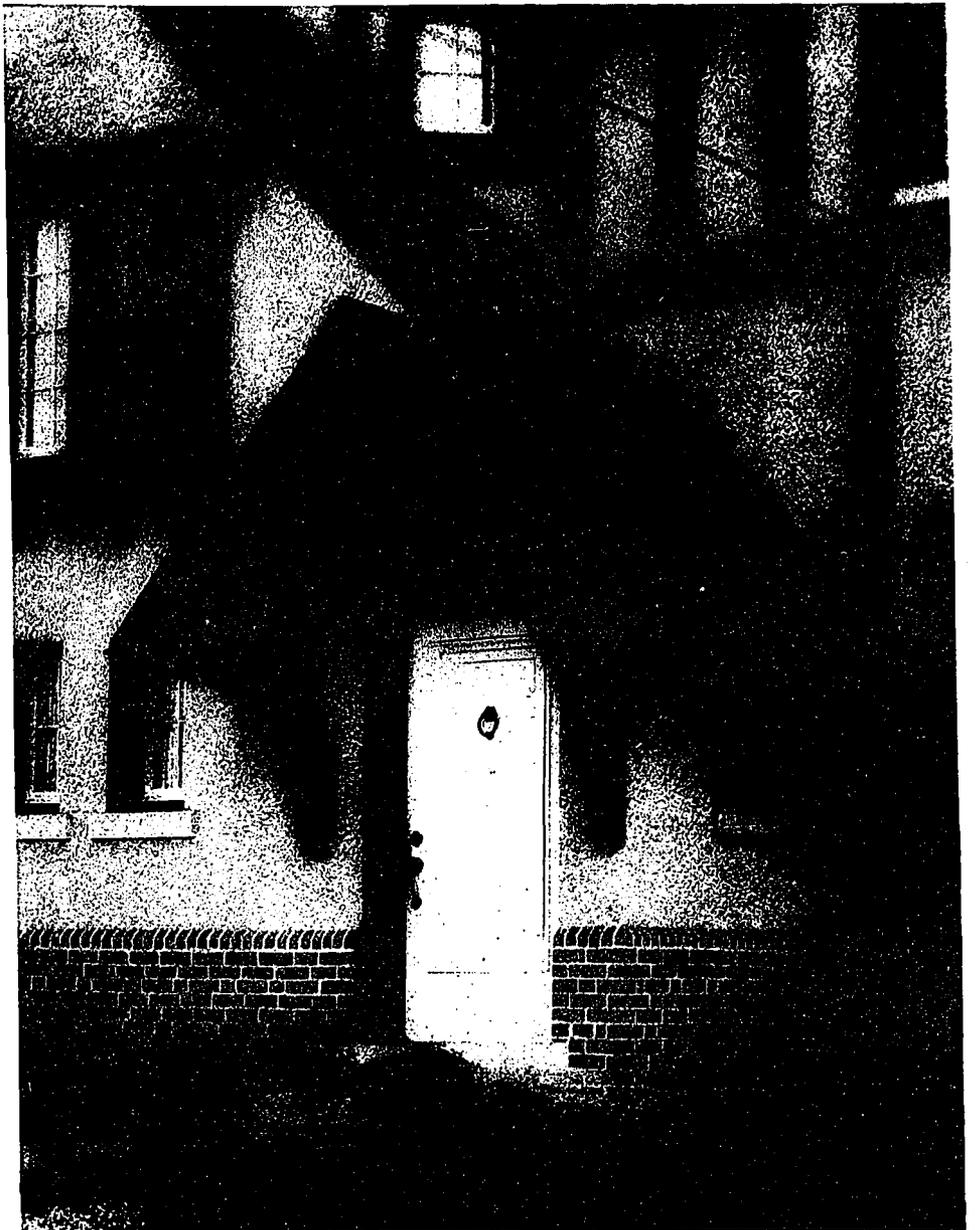
An Experimental Forest

Canadians have now been familiar for a long time with the words "experimental farm," and while the heading of this paragraph may seem a little new, a moment's reflection will show that the good work which our experimental farms have done for agriculture our experimental forests are likely to do for forestry and lumbering. The people of this country now realize that a large proportion of Canada is admirably suited to the growing of timber, but is not suited to the growing of ordinary field crops. Rough, hilly land, sandy plains and ridges, and ridges strewn with boulders are types of soils better suited to growing trees than to growing anything else. At the same time the increasing price of lumber all over the world proves to Canadians that the forests growing on these non-arable lands will continue to form one of Canada's greatest resources. In the

Upper Ottawa country and in many other parts of Canada there are districts from which a crop of timber has been taken by the lumbermen, but which have not been occupied since that time by settlers. These districts are now being covered again with a new growth of timber, but in many cases it is not as good timber as that taken off thirty or forty years ago. It is here that the knowledge and skill of the forest engineer comes in. He can by weeding out the inferior trees give the better species like pine and spruce a chance to develop and to cover the country. Details of such work have been reduced to a system in Europe, as many Canadians learned when they served in the trenches in France, but experience in regard to European forests cannot be taken as a guide in a country like Canada, where many conditions are different. To study this problem of how to reproduce good forests as quickly as possible on cut-over or burned-over lands, the Dominion Government, at the request of the Honorary Advisory Council for Scientific and Industrial Research, instructed the Forestry Branch of the Department of the Interior to establish an experimental forest on part of the military reservation at Petawawa. The tract is an ideal one, as it presents conditions as they appear over a large part of Ontario and Quebec. Three working seasons have now been spent on the experimental forest at Petawawa and already much information has been gained as to the rapidity of tree growth. With these studies continued and extended, Canadians will in years to come know as much about their forests and how to handle them as the French know about theirs.

Research in Corrosion

At the recent congress of the British Institution of Metals, a valuable report was read on

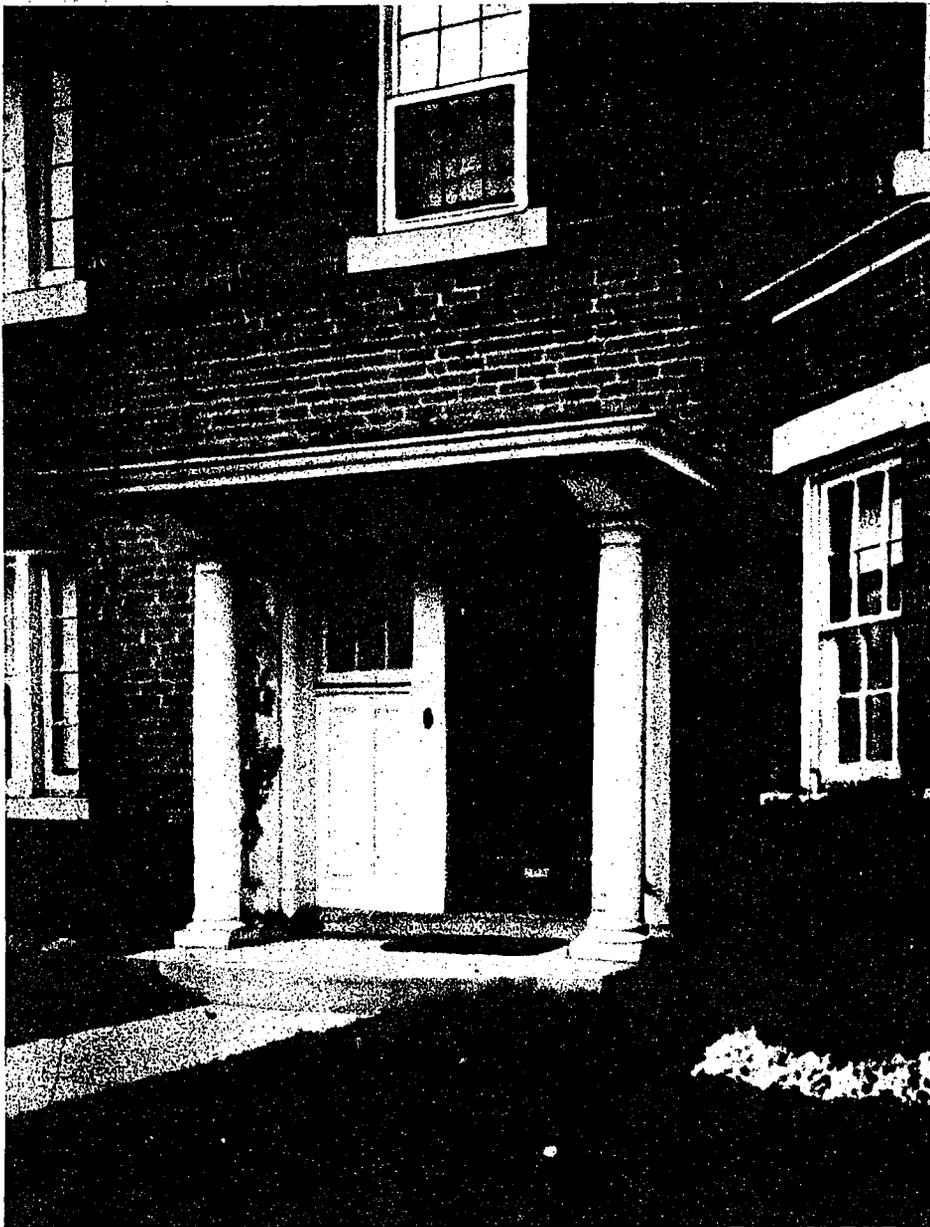


DETAIL OF ENTRANCE.

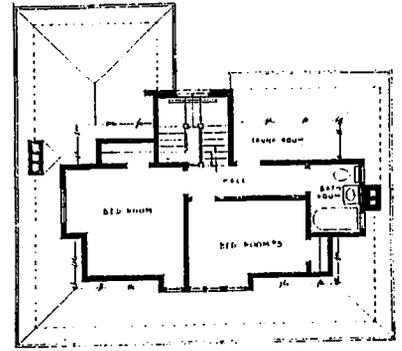
the corrosion of condenser tubes, a subject in which so many engineers are keenly interested. This report was the fifth of a series, recording researches undertaken by a special committee of the Institute. Experiments have been made with alloys of copper and zinc, and many suggestions made for avoiding or reducing corrosion. In the British navy trials are being made with oxidized tubes, and a British company has been formed to exploit an electrolytic process which deposits and maintains a protective layer of lime on the surface of the tube.

New British Garden City Scheme

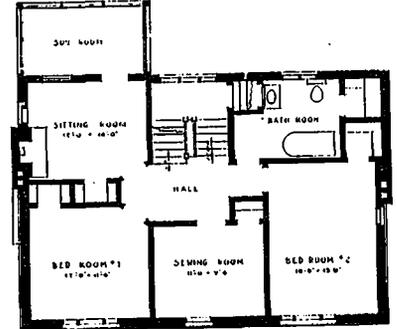
An entirely new scheme for a British garden city is comprised in the program of a recently formed joint-stock company. The scheme, according to a report from the American Consul-



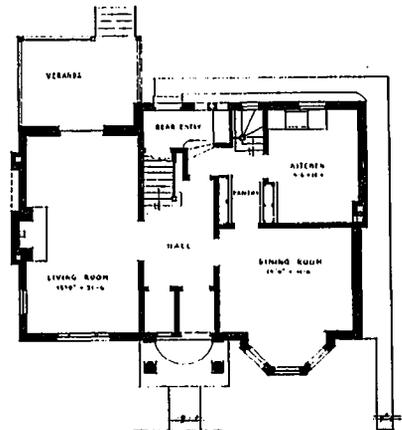
DETAIL OF ENTRANCE.



ATTIC PLAN.



SECOND FLOOR PLAN.



FIRST FLOOR PLAN.

ate at London, covers the erection of houses where every modern improvement and convenience will be included, the servant problem solved, shopping made easy, and all profiteering banned. The actual ultimate annual rental, under the proposed plan, will amount to about £3 (say \$15) per annum.

In reality the rent of a house will be £75 (\$365); but against this will be offset the estimated profit of 9 per cent. due the tenant on his payment of a capital premium of £800 (\$3,893), amounting to £72 (\$350), thus leaving a balance for rent of only £3. It is stated that, by employing direct labor, the cost of each house will be reduced from £2,000 (\$9,733) to £1,500 (\$7,300). Advantages to be provided will include electric cooking, heating, lighting, and vacuum cleaning, telephone installation, central restaurant and participation in profits, and a department store, the profits of which are to be

returned under a profit distribution scheme. Apart from the fees payable to the directors of the company, all subsequent profits come under the profit-distribution scheme for the tenants.

Respecting the servant difficulty, the company proposes to employ as many as may be desirable. These servants will have stated hours, freedom after hours, and good wages; and they may be hired by the tenants by the hour, part-day, or for several days weekly.

Keep the Sacks at Work

The following is a fundamentally sound piece of advice of interest to cement contractors and users, which the Portland Cement Association of the United States has recently given out to the technical press for publication:

One empty sack at the cement mill is worth any number of them lying idle in dealers' or



HOUSE OF SIDNEY SMITH, TORONTO.

MOLESWORTH, WEST & SECORD, ARCHITECTS.

users' hands all over the country in so far as shipment of cement is concerned. Like many other kinds of cotton goods cement sacks are scarce. If every idle cement sack in the country were returned to the plant which sent it out, there would be considerable relief of the present shortage both of cement and sacks.

Besides, cement sacks cost you money—money which is not working for you as long as you keep the sacks in your possession and thus make it impossible for the manufacturer to buy them back.

This condition is simply another one of those seemingly trifling items of neglect, that in its own way is contributing to keeping the wheels of industry from moving as regularly and as smoothly as we all would like.

If a cement plant ships 1,000,000 barrels of cement a year in sacks, 4,000,000 sacks are necessary to take care of this shipment. Under actual conditions when shipments are made every day, the cement plant at the end of a year would find itself short of a very large number of sacks because dealers or cement users have not returned all they received. The following year it would, therefore, be necessary to supplement the stock of sacks by purchasing new ones. Sooner or later some sacks are certain to be lost through neglect or because put to improper use and thereby permanently kept from being again used as cement containers. No one knows exactly what becomes of them, but if lost while in

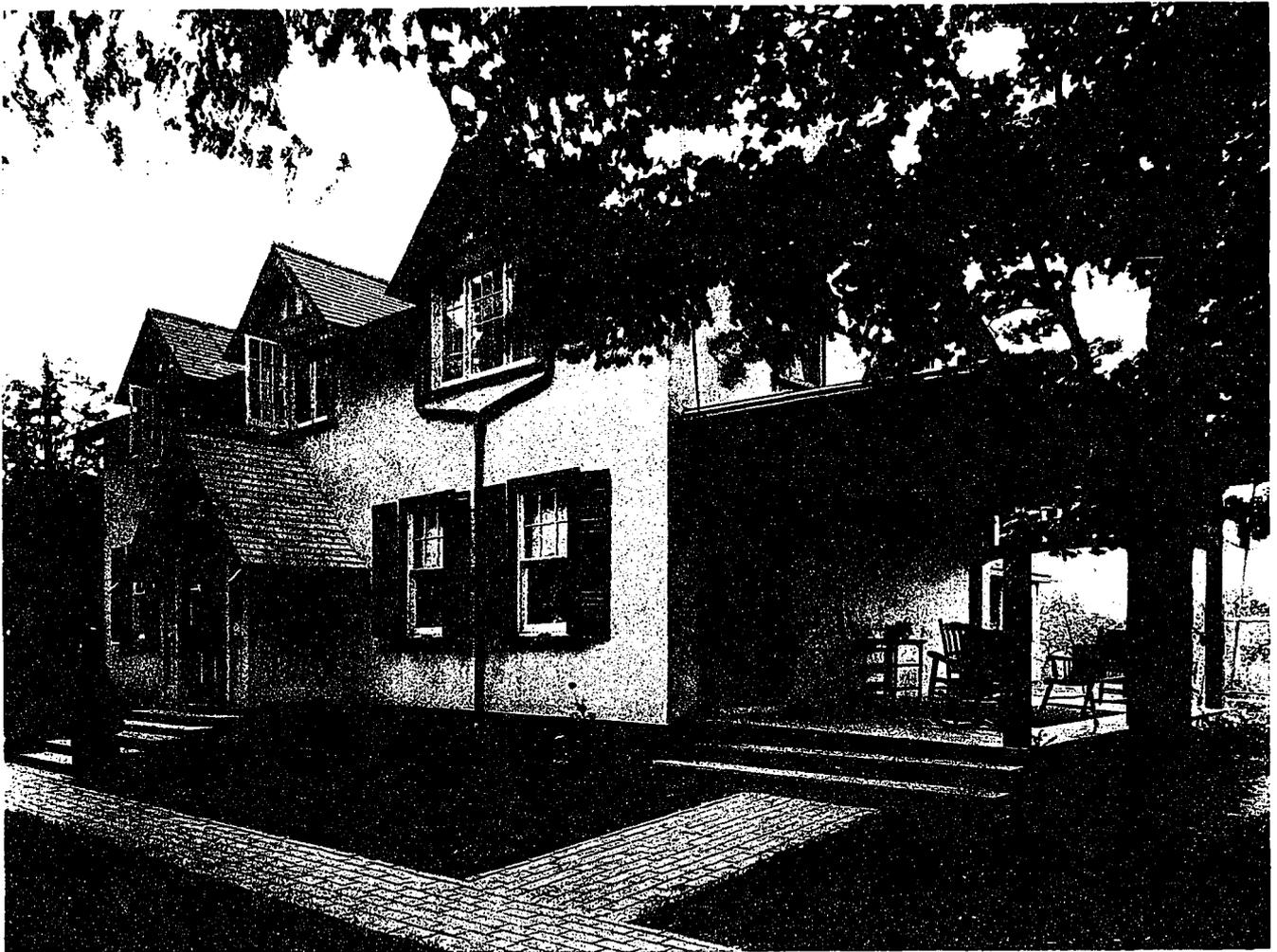
your possession, it means money lost to you.

Many building and highway contractors have shown commendable enterprise in purchasing and storing during the past winter large quantities of cement in anticipation of immediate need when the construction season opens. Naturally this has temporarily prevented the circulation of many cloth sacks. Nevertheless there are enough empty sacks in users' and dealers' possession throughout the country, which, if returned to the cement mills, would make the number held out of circulation through storage of cement relatively insignificant.

Cement sacks represent an outlay of money by you until you have returned them for credit, and if they are not returned promptly, that the cement manufacturer must provide for new containers to take care of his business with you. This represents an unnecessary waste because far more containers must be manufactured and used than would actually be necessary if every cement sack was kept at work.

R.I.B.A. EXAMINATION.

An examination of candidates seeking associate membership in the Royal Institute of British Architects will be held in Toronto next December. Those desiring further information should communicate with F. S. Baker, honorary secretary for Canada, Bank of Hamilton Building, Toronto.



COUNTRY HOUSE OF JOHN M. BOWMAN, ON THE METROPOLITAN RADIAL BETWEEN NORTH TORONTO AND BOND LAKE.
J. W. SIDDALL, ARCHITECT.



DETAIL OF ENTRANCE.

Houses

(For Aline)

WHEN you shall die and to the sky
Serenely, delicately go,
Saint Peter, when he sees you there,
Will clash his keys and say:
"Now talk to her, Sir Christopher!
And hurry, Michelangelo!
She wants to play at building,
And you've got to help her play!"

Every architect will help erect
A palace on a lawn of cloud,
With rainbow beams and a sunset roof,
And a level star-tiled floor;
And at your will you may use the skill
Of this gay angelic crowd,
When a house is made you will throw it down,
And they'll build you twenty more.

For Christopher Wren and these other men
Who used to build on earth,
Will love to go to work again
If they may work for you.
"This porch," you'll say, "should go this way!"
And they'll work for all they're worth,
And they'll come to your palace every morning,
And ask you what to do.

And when night comes down on Heaven-town
(If there should be night up there)
You will choose the house you like the best
Of all that you can see:
And its walls will glow as you drowsily go
To the bed up the golden stair,
And I hope you'll be gentle enough to keep
A room in your house for me.

—Joyce Kilmer.

Winning Design, Edmonton Y.W.C.A.

A permanent investment has been the watchword of the executive entrusted with the initiation of the project for the new Young Women's Christian Association at Edmonton. It has been felt that the present location amply warranted a building that would meet the needs of the city for the future as central headquarters as well as the present requirements. This implies that the plan must be capable of con-

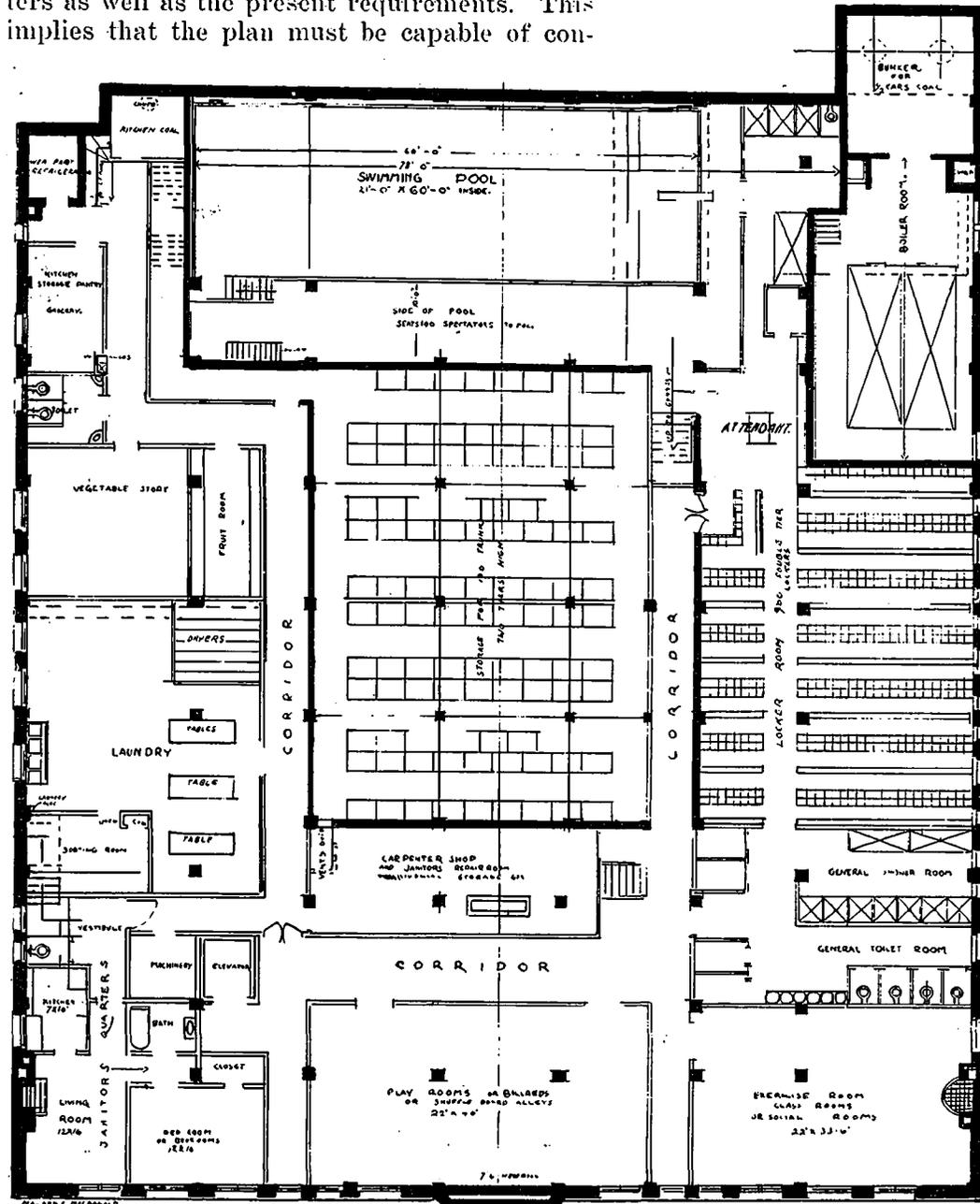
struction fifteen feet wide will be maintained across the full front of the property.

The work on the main floor divides itself into five main activities:

- 1st. The work of the executive.
- 2nd. Receptions and meetings.
- 3rd. Reading activities.

- 4th. Dining accommodation.
- 5th. Athletic.

The main entrance has been placed in the centre of the building, and opens directly into the main lobby, which is twenty-two feet by seventy-two feet long, and immediately in front of the entrance is a large fireplace, which will form the centre of social gatherings and lends a cheerful and attractive aspect to the place. Immediately north of the entrance, along the front, it is planned to concentrate the reading department. This will consist of a large library, twenty feet by twenty-two feet, with a fireplace, which on occasion can be used as a board room, and which will be kept entirely free from newspapers and other loose reading matter. Immediately adjoining this will be located the magazine room and a large news-



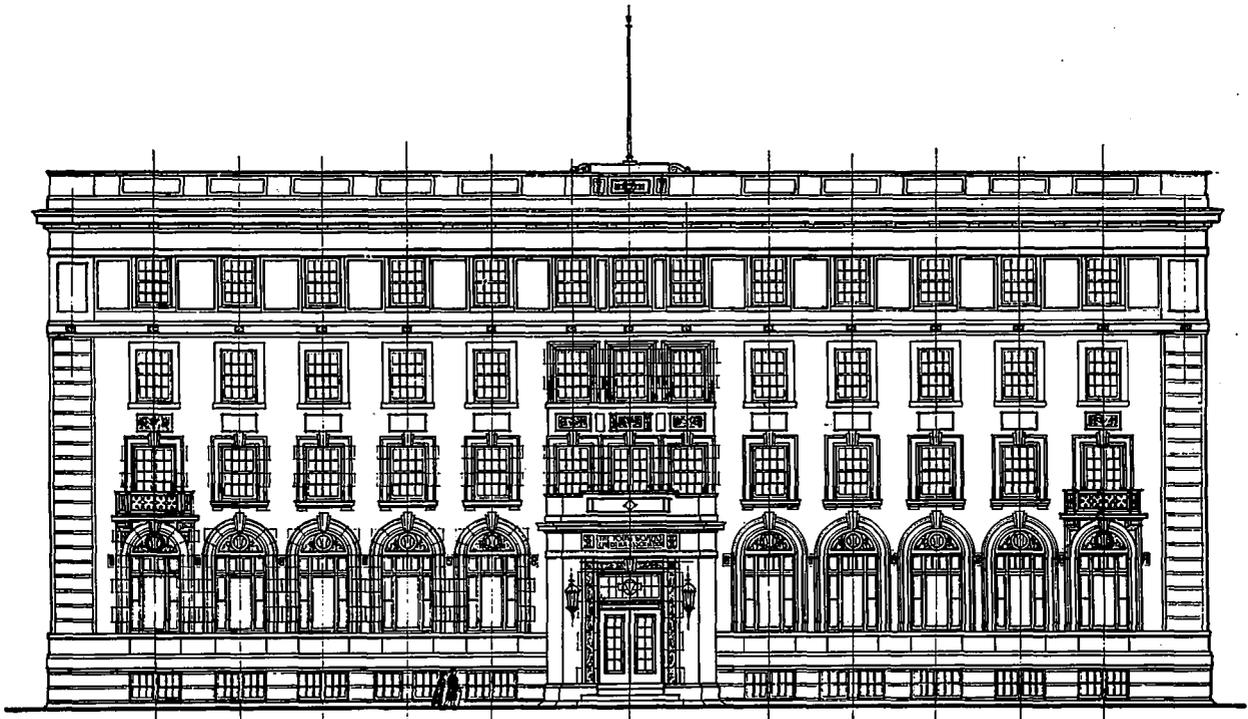
BASEMENT PLAN, NEW Y.W.C.A. BUILDING, EDMONTON, ALBERTA.

siderable expansion, and these requirements have been met to the fullest possible extent in the accepted plans prepared.

The building is to be carried out in reinforced concrete and ample provision made for maintaining light and air to all portions of the building. The site on 103rd street extends one hundred and twenty-five feet along this street and one hundred and fifty feet in depth. A terrace

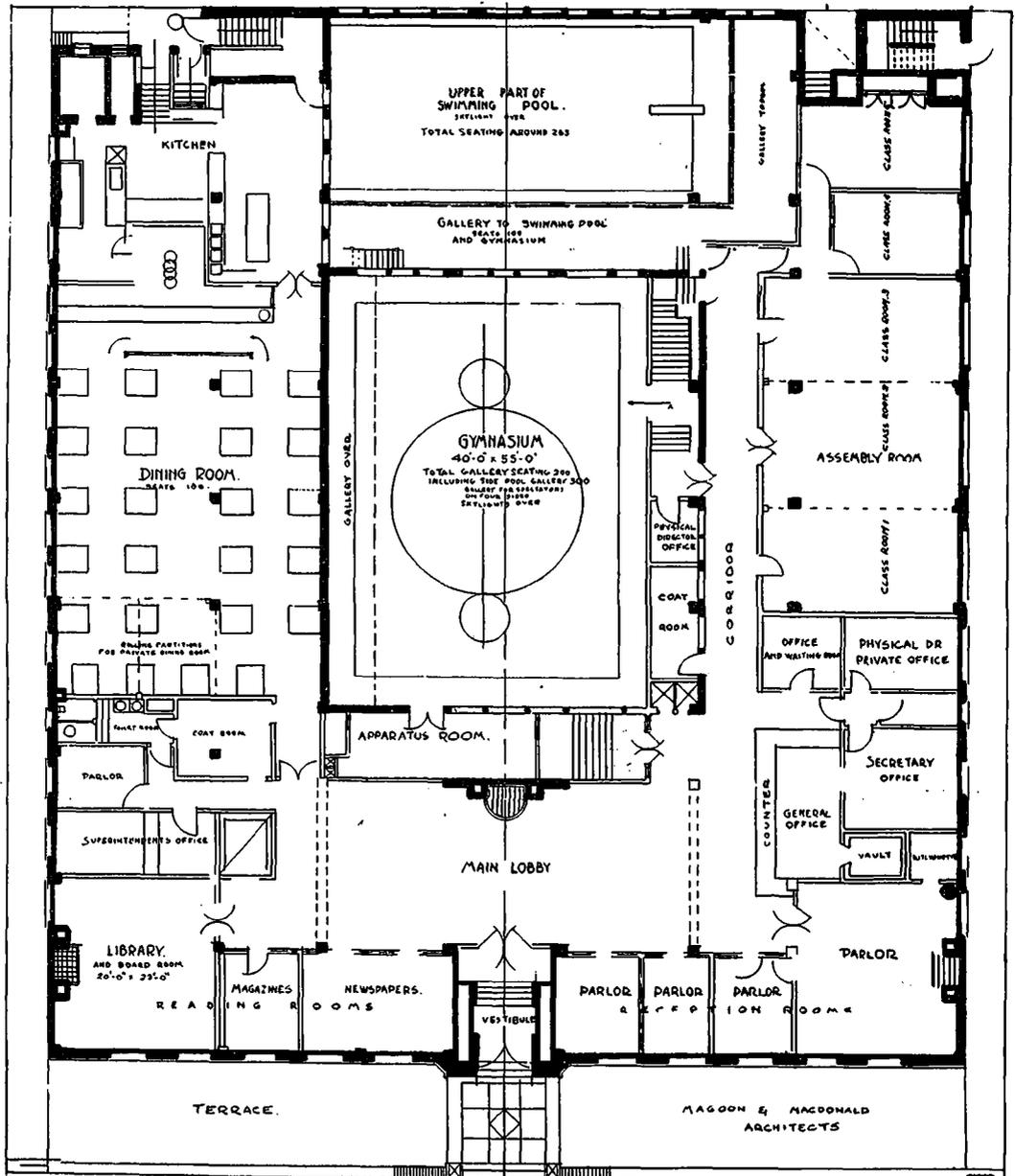
paper room, thirteen feet by twenty feet.

To the south of the entrance the reception rooms, parlors and meeting rooms have been located in two groups. The group extending along the front comprises a parlor, same size as the library, with a fireplace and a kitchenette. This room is capable of seating about ninety people, and will form the nucleus of the various social activities held in the building. Immed-



FRONT ELEVATION.

ACCEPTED
 COMPETITIVE
 DESIGN,
 NEW Y.W.C.A.
 BUILDING,
 EDMONTON,
 ALBERTA.



GROUND FLOOR PLAN.

MAGOON & MACDONALD,
 ARCHITECTS.

MAGOON & MACDONALD
 ARCHITECTS

ately adjoining it are three other smaller parlors, which will also be used as committee rooms.

The building has been designed in the form of a "U," with front wing one hundred and sixteen feet long and two side wings extending one hundred and thirty-five feet to the rear of the property.

In the large court between the wings of the "U," and directly back of the main lobby, the gymnasium is located. This room will be forty by sixty feet with gallery accommodation on the four sides, capable of seating in the neighborhood of three hundred spectators. Directly back of this again is located the swimming pool with a gallery capable of accommodating about two hundred and sixty-five spectators.

The dining room, kitchen, coat room, toilet, parlor and rest room and the superintendent's office and elevator space occupy the north wing. Ample refrigerator space is provided for in the kitchen; the dining room will seat one hundred people, and provision is made for private dining room accommodation.

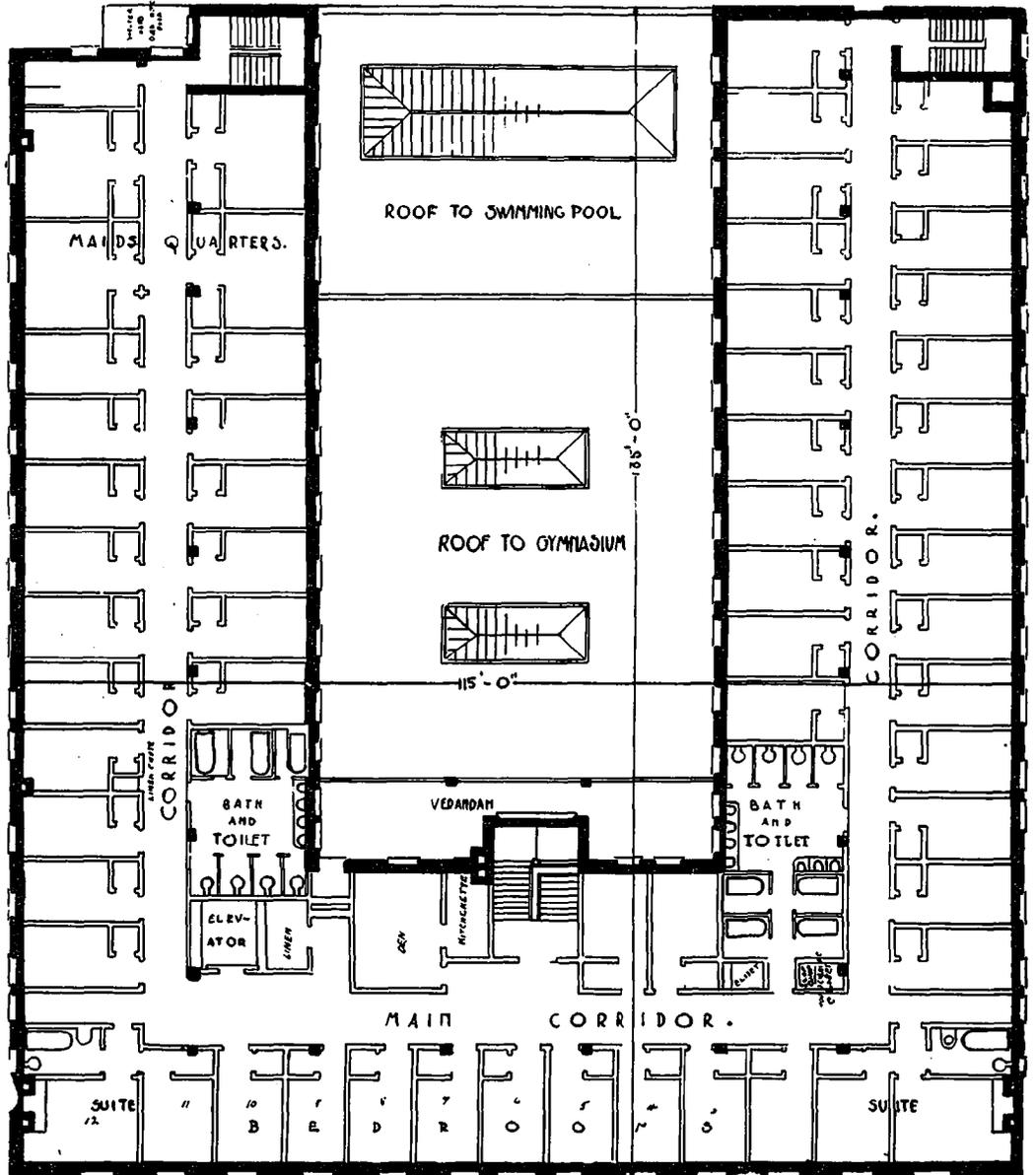
The south wing provides five large class rooms and assembly room, seating two hundred people, and executive offices.

The pivotal point in a building devoted to association work is the location and arrange-

ment of executive offices, so that entire control can be had of all activities taking place in the building. This has been secured by placing the general office and counter at the south end of the main lobby, with a direct view of entrance to the reading rooms and library, parlors, dining room, main stairway and entrance to the class rooms, coat rooms, telephone booths, gym-

nasium, swimming pool and the various spectators' galleries.

Immediately back of the general office and counter the general secretary's office commands a view of the counter and all the activities directly under its control, so that in the absence of the attendant, the general secretary can oversee the work, and be also in close personal touch with the members and visitors to the building. This office is of ample size so that the secretary may meet with her committees without the necessity of and loss of time incidental to ad-



SECOND FLOOR PLAN: NEW Y.W.C.A. BUILDING, EDMONTON, ALBERTA.

journing to the board room or other committee rooms.

Opening off the general office space is a large vault, and connected with the secretary's office is a toilet room and coat room. Immediately adjoining this is the physical director's private office and a waiting room.

This concentrates the work of the secretarial

staff so that the main executives are always in close touch with each other.

Across the corridor and opening directly into the gymnasium is the physical director's examining room and general office. This office has a direct view of the gymnasium and of the stairway to the gymnasium and the basement.

The balance of the ground floor is occupied by a gallery and the upper part of swimming pool.

As the gymnasium is located in the light court of the building, ample ventilation is secured through skylight in the roof and a plentiful supply of fresh air is provided through a row of large windows located in the west wall. The entrance to the gallery of the swimming pool is on the level of the ground floor, and this also is provided with ample skylight ventilation and windows for the admission of fresh air.

BASEMENT.

The basement activities are centred around and under the control of the attendant, who is located at foot of stair from the gymnasium, with a view through a glass partition of the swimming pool, so that she is immediately at hand to render assistance in case of accident to the swimmers. No swimmer can enter the pool without admission by the attendant. The attendant also has a direct view down the locker room and a view of the entrance to the general shower room and general toilet room. It is the intention to instal a locker system which involves the securing from the attendant of a basket and key to the locker, towel, and possibly a bathing suit. The lockers will be the most modern type, in double tier, and providing a maximum locker requirement for seven hundred. The swimming pool is twenty-two feet wide by sixty feet long, lined with tile and with a spring board located at the deepest end, and a shower room opening directly off this. The spectators' space at the side of pool is ten feet wide, with a gallery above the same width. The pumping plant will be located at the end of the pool in direct connection with the boiler room.

The space under the gymnasium is occupied by a large trunk room, divided into two rooms for permanent and transient roomers' trunks, and with a private connection with the rear of the building and the service stair.

The basement corridors have windows located directly at the ends so that they will have ample light, and as the ground floor is kept at sufficient height the maximum light will be secured for all the basement activities.

The front of the basement is occupied by several large exercise and play rooms; the janitor's quarters being placed in the north-east corner, with a separate outside entrance.

In the basement of the kitchen wing, the laundry, drying room, sorting room, various store rooms, pantries and toilets are connected with

the kitchen and conveniently located, as is also the kitchen coal room directly at foot of service stair.

UPPER FLOORS.

The three upper floors are devoted entirely to bedroom accommodation. The main stair leads directly up from the lobby in front of the general office and desk and lands directly in the main corridor to the centre of the front wing. On the landing, halfway up, is located a large mezzanine gallery and tea room, which extends across the end of the gymnasium. This gallery by means of casement windows will open directly into the upper part of the main lobby and will afford a view at the same time of all activities in the gymnasium, and will be a vantage point from which receptions occurring in the main lobby may also be viewed; it is connected with the dining room by means of dumb waiter service.

At head of main stairway on each floor is located a kitchenette and den, so that the roomers may gather here and refresh themselves, if desired. There is also on each floor a large verandah extending across the entire width of the light court. Suites, consisting of a bedroom, parlor and bathroom, for the use of secretaries and visitors are at each corner of the front wing. The general toilet rooms and bathrooms for each floor are located at the two interior angles of the light court, and in direct connection with the service stairway are four large maids' dormitories. The main corridors of the upper floors will also be served with dumb waiter connection from dining room service space.

The building has been designed so that the bedrooms are all single rooms, each with a closet three feet square, and there are in all one hundred and eighty-two bedrooms. An infirmary, consisting of a two-bed ward with toilet accommodation; a nurse's room and kitchenette, well isolated, has been placed on the top floor in close connection with the dumb waiter and service stairway.

The construction will be fireproof with the minimum use of wood, and the main front executed in tapestry brick.

British Tidal Power Scheme

The Ministry of Transport in Great Britain is giving careful attention to the possibility of building a dam across the estuary of the Severn in order to generate electric power from the tidal waters. The Ministry has also formed a strong committee to examine the ambitious schemes for electrification put forward by several British railway companies and to lay down principles which will lead to uniformity in electrical and mechanical matters so that through running will eventually be feasible.

Trimstone and Building Ornaments*

By Adolph Schilling.

FIFTEEN years ago, when I started to make concrete attractive and pleasing to the eye, I accepted as definitely settled concrete's claim for strength and endurance, demonstrated by the engineers in their work of that time and by the examples of ancient concrete work still in existence, some of it dating back two thousand years.

My researches and experiments have been devoted entirely to giving concrete the attractive and artistic qualities which would make it interesting to the architect and decorator as a medium for embellishment and actual construction in their work. If, for this reason, my remarks are of less technical interest to engineers and contractors for monolithic concrete construction, I ask their indulgence, to consider concrete for a few minutes more from the esthetic than solely from the standpoint of utility.

Twenty years of practical experience among the natural stones used in monumental and building work enabled me to realize the conditions that must be met, to give concrete a place alongside of the limestones, marbles, granites and clay products in which the architects had expressed their thoughts almost exclusively.

In the making of concrete, after once thoroughly understanding the qualities of cement as a binder or matrix, one can learn to adopt many mineral and metal resources as readily as we employ the better known sand, gravel and crushed stone for aggregates.

BUILDING TRIM.

After proving to my own satisfaction that cast stone could be made successfully, it required considerable missionary work to convince the architect of its merits and advantages for use in building construction and enrichment of design, so far claimed by terra cotta, natural stones, faience, etc. The many examples of cast stone executed during recent years give ample proof that the confidence of the early pioneers in the possibilities of high-grade concrete products was well founded.

Cut cast stone has been specified by progressive architects for high-grade buildings in many localities. The field has been opened and it now rests with the individual and joint effort of everybody producing concrete units for building purposes to convince the architect, engineer and contractor that standard concrete products are what they want and can get, no matter if it is for the foundation or for the richly ornamented entrance of the work in hand. It must be our purpose to establish co-operation that offers dependable concrete products *to meet the re-*

quirements of the building trade in quality and quantity.

To cover the methods of manufacture in detail would exceed the limit of this report. We have successfully used plaster, glue, wood, sand, cement and steel molds. More general information regarding the use of same will be made available by me to anybody interested.

A kind of mold extensively used in our plant is made of channel irons, in sizes from two inches to eighteen inches wide, and in lengths from four feet to eight feet. If set on level tables or benches, the main part of a mold is provided that offers great flexibility in its use; the channel irons are held together by different length rods at the ends; wood or plaster inserts, plain or molded, determine the width, length and design of the unit to be cast. The work is poured with finished face down and can be solid or hollow, surfaced with special matter on any one side or all four sides, if the volume of the stone makes it more economical to use a core of less valuable aggregates.

Some excellent work has been done modeling directly with cement mortar by artists who have attained their efficiency in this method abroad; the most important work of this kind, to my knowledge, is a group of the Crucifixion of heroic size, at Lym, Mass.

The artist builds up his design with permanent skeleton frame work, similar to modeling in clay. Around this skeleton he forms a rough outline of the design in wire cloth or expanded metal, and on this is placed a scratch coat of cement mortar on which when set he begins to model the final outline of his design. The artist is enabled, by using mixtures of quick and slow setting cement mortars to regulate his medium. In this way he can give the work the same freedom and spirit as if he modeled in clay, producing any texture desired; color effects can be obtained at random by using colored cement of various shades; for instance, a garland of flowers can be modeled in their natural colors. There is no difficulty in producing in cement the well-known Della Robbia effects, the same as is done in faience and colored marble. This method is particularly of interest and value where only one piece of a large ornamental design is to be used, thus avoiding the expense of molds and setting the cast in place. It also prevents unauthorized replicas of original designs, so annoying to the artist when he finds his conception misused.

For treating of surfaces we use electric rubbing wheels to produce a smooth finish, acid for grain texture finish, and any of the tools used in the natural stone trade for cut finishes, according to the effect desired in the cast stone;

* Address delivered before the recent National Conference on Concrete Housing.

any one or all treatments may be used on one piece. We have transportable rubbing and tooling machines to surface the extra heavy casting, and stationary machines for the smaller units. A cutting plant for natural stone is an ideal foundation to start an up-to-date cut cast stone business, even to the use of its rubbing beds and gang saws.

Concrete of proper age can be treated just like any natural stone, using the same tools and machinery to dress its surfaces, or to saw cast blocks of large size into slabs and strips. It is my strong conviction that the success of concrete stone for building purposes rests in a close affiliation of the stone caster and the stone cutter. Only in this way will we be able to give concrete proper texture and the necessary qualities of dimension stone, so essential to the architect and builder for durable and attractive construction.

The addition to every concrete products plant of skilled stone cutters would be a source of profit and also result in better work. The stone cutter is trained to have dimension stone true to size and shape. The average worker in cement or concrete does not appreciate this essential point, but it is all-important with the architect and general contractor. The services of a stone setter will enable the concrete products plant to set its own work, which is very desirable for the best results. We found the brick or natural stone mason did not give composition

stone the required care when setting same, for reasons of trade jealousy, but once this fraternity understood that concrete stone gave extensive employment to stone cutters and setters, their antagonism vanished as they realized their own benefit in the broader use of cast stone. Whenever the opportunity presents itself, I strongly recommend closer affiliation of the composite and natural stone trades. The enormous increase in all building operations of whatever class and the constant effort for betterment in the moderate-priced home, give abundant field for both trades in a more permanent class of work and at more satisfactory profits.

It has taken many years to bring the craft of dressing natural stone to its present efficiency. The progressive concrete products man should study these methods and benefit by the experience of the trade whose product he must equal or better to meet approval by the architect.

To the manufacturer or worker of concrete products I further recommend the adoption of such methods as are employed successfully in other lines of manufacture in treating the surfaces of their product. In many cases instead of applying paint with brush, the article is immersed in the paint. This method can be adapted to acid washing of the concrete products, to remove the surface film and expose the aggregates. Tanks of sufficient size are not a hard matter to construct in the concrete shop, and



Photo courtesy of the Architectural Bronze Department, Canadian Wm. A. Rogers, Limited.

Oiler

Blacksmith

Puddler

CAST BRONZE STATUES FOR THE CANADIAN WAR RECORDS MUSEUM, OTTAWA.

Miss Florence Wyle, Sculptor.

the immersion of concrete products in acid solution will not only prove a great saving of acid and labor, but produce a class of work that cannot be obtained with the scrubbing brush. We use two rectangular tanks four by four by sixteen built of cement slabs, grooved and bolted together, and six circular wood tanks seven feet diameter and from two to four feet deep. Concrete should be from two to three weeks old before treating in acid bath; duration of bath depends on age of the stone, and if rough or fine texture is desired, the time being from one to ten hours. A solution from one to twenty up to one to ten is recommended, and after the article is put in the tank the solution does the rest. This style treatment preserves the edges and details of the design and makes the surface uniform. Any of the hard spots not sufficiently affected by the acid bath can be treated separately after the article has been flushed with clean water. Care must be taken that the aggregates of the surface are nearly uniform in hardness, or the acid will destroy the soft portion before the harder particles have been cleaned of the cement coating. I have had some very fine work spoiled where, to obtain a certain effect, I mixed black marble (a limestone) and crushed granite. The acid bath left only the holes where the black marble had been, while the granite showed a very fine texture and natural color. Judicious handling of this effect can produce desired results in texture, like Travertine stone, etc.

To produce color effects we may use gray or white Portland cements, separate or mixed in certain proportions, adding to this suitable pigments, but in such cases the natural colored aggregates, sand, silica, pebble grits, marble and granite, will give excellent and more uniform results. It requires great skill and care to properly mix cement and color pigments without reducing the strength of the cement and still obtain good color effects.

The importance of mixing the pigment thoroughly with the cement, before adding the aggregates, should be understood before attempting to make concrete in colors successfully on a large scale.

As a very simple method to test the proper amalgamation of the pigment with the cement, take a handful of the dry mixture and press it under a sheet of stiff paper; this will produce an even surface of the material, and when this surface does not show absolute uniformity in color the mixing is incomplete. If small specks of color show under this test, these same specks of unassimilated pigment will appear in the finished concrete. So far a very important factor that can be utilized for coloring concrete or cement has been given little or no attention; while very simple in its primary action, the successful application requires thorough understanding of the principle and medium employed.

This refers to the absorptive qualities of concrete during its stage of curing and seasoning, which offer opportunities for coloring concrete



Photo courtesy of the Architectural Bronze Department, Canadian Wm. A. Rogers, Limited.

NOONTIME IN A CANADIAN MUNITION PLANT

Cast bronze bas relief panel, 6 ft. 6 ins. x 2 ft. 11 ins., representing the work of Miss Frances Loring, a Toronto sculptor, who together with Miss Florence Wyle of that city, is executing a series of statuettes and panels for the Canadian War Records Museum, Ottawa, consisting of industrial subjects depicting activities in the munition works of Canada during the war period.

products by capillary action. By this method the color is deposited into the pores of the surface, amalgamating with the concrete into a permanent unit. The possibilities of this treatment are unlimited if based on knowledge of coloring values and good judgment not to impair the strength requirements of concrete. Coloring solution can be made to penetrate the surface of concrete six inches or more, if the object is immersed while in a very green state, but it is rarely necessary to penetrate more than one-thirty-second to one-eighth of an inch; this thoroughly fills all pores, gives the desired color effects and is less expensive. Every atom of coloring absorbed by the concrete reduces the strength of the solution; and as some of the coloring matter used is quite expensive, good judgment to allow only the necessary absorption of coloring matter is advisable from an economic standpoint. The sulphates of copper and iron are the most suitable to make solutions to color concrete by the capillary method.

Concrete can be so treated after it is a week old. When used in construction and carrying loads it should not be subjected to the coloring bath until the concrete has attained its required strength, as the filling of the pores in the concrete retards the action of hardening. Coloring by absorption is effective on concrete after it comes out of the mold or after being treated with tools. Surfaces that have been colored by absorbing mineral or metallic colors become more weatherproof and the action of the weather on the metallic colors increasing the beauty of coloring by the usual oxidation noticed on bronze and copper. Concrete treated by this method becomes so hard and dense that it will take a polish. I have treated its surfaces in the same manner as marble, granite and metal under polishing or buffing machines.

Wet cast concrete products, such as flower pots, vases and boxes, will hold water after the second day of casting and become so hard that when struck with a hammer they ring like a metal bell; waterproofing compound helps, but is not essential to obtain this result. I consider that the thorough mixing of the proper amount of cement and water with graded aggregates is all-important. Extensive tests made during the past three years with commercial waterproof paints produced excellent results. Common concrete can be made very attractive by one or two coats, and applied in stipple fashion, it will not impair the grain or texture, avoiding the undesirable appearance of brush-painted stone. This method is especially to be recommended for dry or semi-dry tamped concrete work, the porous surface readily absorbs the waterproof liquid and thereby allows the pigment particles to fill the pores.

By using spraying machine the color effect is

obtained most economically. It gives a uniform color or can be varied to give the richness and depth of shading that results from this treatment in experienced hands. It can be applied where immersion is not practicable. I have obtained two and three color effects by painting certain parts of an object before subjecting same to the coloring bath. The parts so colored would not be affected by the color in the bath, the absorptive quality having been neutralized.

The artistic possibilities of such treatment are only limited by the color sense and taste of the craftsman. Using certain non-absorptive aggregates their natural color can be retained, while the absorptive parts, especially the cement mortar will assume the desired color. Precaution must be taken in the use of acid washing before immersion in the color bath as the chemical action of the acids is liable to counteract the color values of the bath. Acid should not be employed after concrete is treated with colors.

Long practice and tests will give the full benefit of this process.

In the matter of surface finishes, considerable headway has been made and most of the methods are well known to the progressive concrete man. Many are so simple and inexpensive that concrete need not remain unattractive to the architect.

Most of our trim stone and ornamental work is wet cast, it is required to stay in the mold from twenty-four to forty-eight hours, and we use a four per cent. solution of calcium chloride for our mixing water; during cold weather our shops are steam heated and kept at a temperature of seventy degrees.

We do not use curing rooms, but for quick hardening use high pressure steam cylinders six feet in diameter and seventy feet long. We have commercially verified the tests made some years ago by the U.S. Bureau of Standards and reported in Technologic Paper No. 5.

While these tests did not exceed eighty pounds pressure, we have hardened concrete with one hundred and fifty pounds steam pressure, obtaining results so that concrete two days old could be tooled under rapidly revolving carborundum wheels, cutting flint aggregates without pulling out or fraying the edges. The mixtures used were from one to ten to one to five. Compression tests showed over four thousand pounds in two days and absorption less than five per cent. The higher the steam pressure the less time it requires to harden. With one hundred and fifty pounds we reduced the time to four hours, besides the two to three hours it requires to bring the pressure up to one hundred and fifty pounds. Concrete so hardened has been subjected to weathering for

(Concluded on page 200.)

CONSTRUCTION

A JOURNAL FOR THE ARCHITECTURAL
ENGINEERING AND CONTRACTING
INTERESTS OF CANADA



H. GAGNIER, LIMITED, PUBLISHERS

Corner Richmond and Sheppard Streets.

TORONTO CANADA

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BRANCH OFFICES:

MONTREAL—171 St. James Street,
E. B. Milling, Representative.

WINNIPEG—336 Qu'Appelle Street,
F. C. Pickvill, Representative.

NEW YORK—505 Fifth Avenue,
H. M. Bradley, Representative.

CORRESPONDENCE.—All correspondence should be addressed to "CONSTRUCTION," Corner Richmond and Sheppard Streets, Toronto, Canada.

SUBSCRIPTIONS.—Canada and Great Britain, \$3.00 per annum. United States, the Continent and all Postal Union countries, \$4.00 per annum, in advance. Single copies, 50c.

ADVERTISEMENTS.—Changes of, or new advertisements must reach the Head Office not later than the twentieth of the month preceding publication to ensure insertion. Mailing date is on the tenth of each month. Advertising rates on application.

CONTRIBUTIONS.—The Editor will be glad to consider contributions dealing with matters of general interest to the readers of this Journal. When payment is desired, this fact should be stated. We are always glad to receive the loan of photographs and plans of interesting Canadian work. The originals will be carefully preserved and returned.

Entered as Second Class Matter in the Post Office at Toronto, Canada.

W. H. HEWITT, Business Manager

Vol. XIII Toronto, June, 1920 No. 6

Battlefield Memorials

The report of the special committee appointed to consider the question of erecting battlefield memorials in France and Belgium to commemorate the gallantry of Canadian troops, indicates that the matter is being dealt with in the right way. There at least seems to be a concurrence of opinion among the committee that the proper procedure is to hold a competition among Canadian architects, sculptors and artists, with professional assessors to draft the conditions and make the award. The recommendation is that an open competition be held, followed by a limited one, in order to select the most suitable designs.

The importance of the project and the great purpose it represents make it necessary that it should be carried out under the very best auspices. Professor Percy E. Nobbs of McGill University, who has been advising the committee and who has made many valuable suggestions, strongly urges this as a condition necessary to the successful development of the

undertaking. His recommendation is based both upon a broad architectural experience and a knowledge gained in overseas service which has familiarized him with the battlefield area and makes him a most competent authority on the subject. Indeed the history of all public undertakings in which architecture is concerned shows that where professional assessors are not appointed and the conditions of competition properly prepared the outcome is disappointing. As the report points out, there will be so many monuments in France that it is important to have a distinctive Canadian type. Whether the project assumes the form of eight separate monuments governed by a ruling type, or comprises seven monuments with one dominating scheme, in order to be really interesting in character they should be distinctive in matters of detail, and therefore represent the work of different architects. The best way to assure this is to bring the work under competent direction and supervision along lines which the report suggests. It is therefore to be hoped that the recommendations made will be endorsed and accepted by the Government, for it would indeed be unfortunate if our efforts in such an enterprise should suffer by comparison, or so worthy an object fail in final results.

The New Tax and the Building Industry

The following ruling has been issued by the Inland Revenue Department, Ottawa, respecting the new budget tax as it affects the building industry:

"Contractors and sub-contractors will have to pay 1 per cent. tax on materials used by them.

"Products of the soil, such as sand, gravel and unprocessed stone, are not taxed. Lime, cement and stone which is quarried, crushed or which passes through any process, come under the tax.

"Building contractors and sub-contractors, though technically manufacturers are regarded for the purposes of the tax as retailers, selling to consumer. The tax is not chargeable on the amount of the contract, either between the sub-contractor and contractor or between the contractor and the owner.

"If a contractor or sub-contractor manufactures material for his work, such as metal cornices, sash and door frames, iron railing, etc., he is required to pay the tax on the cost of manufacture, including labor. He is not required to pay the tax on installation.

"The tax is primarily one upon materials, and is not intended to be a tax upon labor. Labor used in the installation of materials is not taxed, but the tax does apply to labor used in the manufacture of materials."

Elora, Ont., Plant to be Rebuilt

The large plant of the Ontario Gypsum Company, which was recently destroyed by fire at Elora, Ont., is to be rebuilt at once. In the meantime, the company is in a position to make prompt deliveries from its other plants, so that no occasion for delay will occur in the filling of orders.

P. Q. A. A. Moves to New Quarters

The Province of Quebec Association of Architects, with headquarters in Montreal, have moved from 367 Beaver Hall Hill to new association rooms at 519 Union Avenue, where more suitable quarters have been secured. This will also be the address hereafter of Mr. Alcide Chausse, honorary secretary of the Royal Architectural Institute of Canada, in reference to correspondence dealing with that body.

Architect for Regina Theatre

In the April issue we illustrated the Allen Theatre at Regina without mentioning the name of the architect. This was due to an omission on the part of our western representative who in sending in the photographs at the time failed to give particulars. We have since learned that the architect was Mr. A. J. Rowley of Regina, and therefore take this opportunity of crediting him with the design.

Resumes Architectural Practice

Frank Peden, B.Sc., formerly of the architectural firm of Peden and McLaren, Montreal, and who has for several years past been connected with the engineering staff of the Steel Company of Canada in the capacity of architect, has opened an office at 65 McGill College Avenue. He will resume his practice as architect and constructional engineer.

New Hotel for London Ont.

A report from London, Ont., states that President George M. Reid of the Chamber of Commerce, has announced that plans for a new hotel to be built in that city, are progressing most satisfactorily and that a definite statement will be forthcoming shortly. Location, plans and other matters are now under advisement, and arrangements have practically been completed with contractors and outside capitalists who have undertaken to finance the project after Londoners subscribe the first \$200,000.

Trimstone and Building Ornaments

(Continued from page 198.)

several years, proving equal to naturally hardened concrete.

No Portland cement concrete product should be subjected to high pressure steam curing until

it has its initial set. The steam hardening should start preferably the day following the casting.

Tamped concrete should be kept moist until it goes into the cylinder. As the expense of equipment and operating is considerably higher than curing rooms, only units that lend themselves to completely filling the cylinder space, can be hardened economically, like brick, tile or blocks; at present prices it costs about \$20 to harden a volume equal to nine hundred cubic feet or twenty thousand brick. The cost of a cylinder of above size is \$6,000 installed. They should be used in pairs to allow the utilizing of steam blow off, from one cylinder to the other, after the curing is finished.

In conclusion I maintain that with honest concrete we can interest the architect, engineer and builder in its general use and while not assuming to instruct them in their choice of material, we can advocate the most extensive adoption of our products if made on the principles of concrete for quality and permanence.

Crushed marble and granite with Portland cement as a binder produces a reconstructed stone of natural components which can be dressed and finished like natural stone without being an imitation stone or a misuse of concrete. It gives us a staple building material, combining the beauty in color and texture of the natural stones with the strength and economy of concrete.

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HOUSE OF THOS. MIX, TORONTO.

Carpenter, S. Hancock.
Heating, McNaughton & MacKenzie.
Masonry, S. J. Bayley.
Painting, Robert Morse.
Plumbing, McNaughton & MacKenzie.
Tinsmith, W. C. Gurney.

SIDNEY SMITH RESIDENCE, TORONTO.

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Painting and Glazing, Robert Morse.
Plumbing, T. B. Smythe.
Heating, T. B. Smythe.

M. SCARTH STEVENSON'S HOUSE, PT. CAVAGNOL, COMO, P.Q.

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Hardware, James Walker Hardware Company.
Tile, G. R. Locker Company.

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Plastering, R. C. Dancy.
Painting, Cheshire & Hulme.
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Plumbing, John T. Aggett.
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Hardware, Aikenhead Hardware Co.

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Painting, F. G. Roberts & Co.
Sheet Metal, Ball & Baker.
Electric Wiring, Wales Electric Co.
Plumbing, McNaughton & MacKenzie.
Heating, Joseph Harrison.
Tiling, The Italian Mosaic & Marble Co.
Hardware, The Canada Hardware Co.
Wall Board, Ontario Gypsum Co.

HOUSE OF H. A. BOWMAN, TORONTO.

Masonry, W. J. Davidge.
Carpentry, E. E. Woodley.
Plastering, E. J. Curry.
Painting, F. G. Roberts & Co.
Sheet Metal, A. Matthews, Ltd.
Electric Wiring, Wales Electric Co.
Plumbing, Sheppard & Abbott.
Heating, Joseph Harrison.
Hardware, The Canada Hardware Co.
Tiling, The Italian Mosaic & Marble Co.
Wall Board, Ontario Gypsum Co.