JOURNAL

ROYAL ARCHITECTURAL
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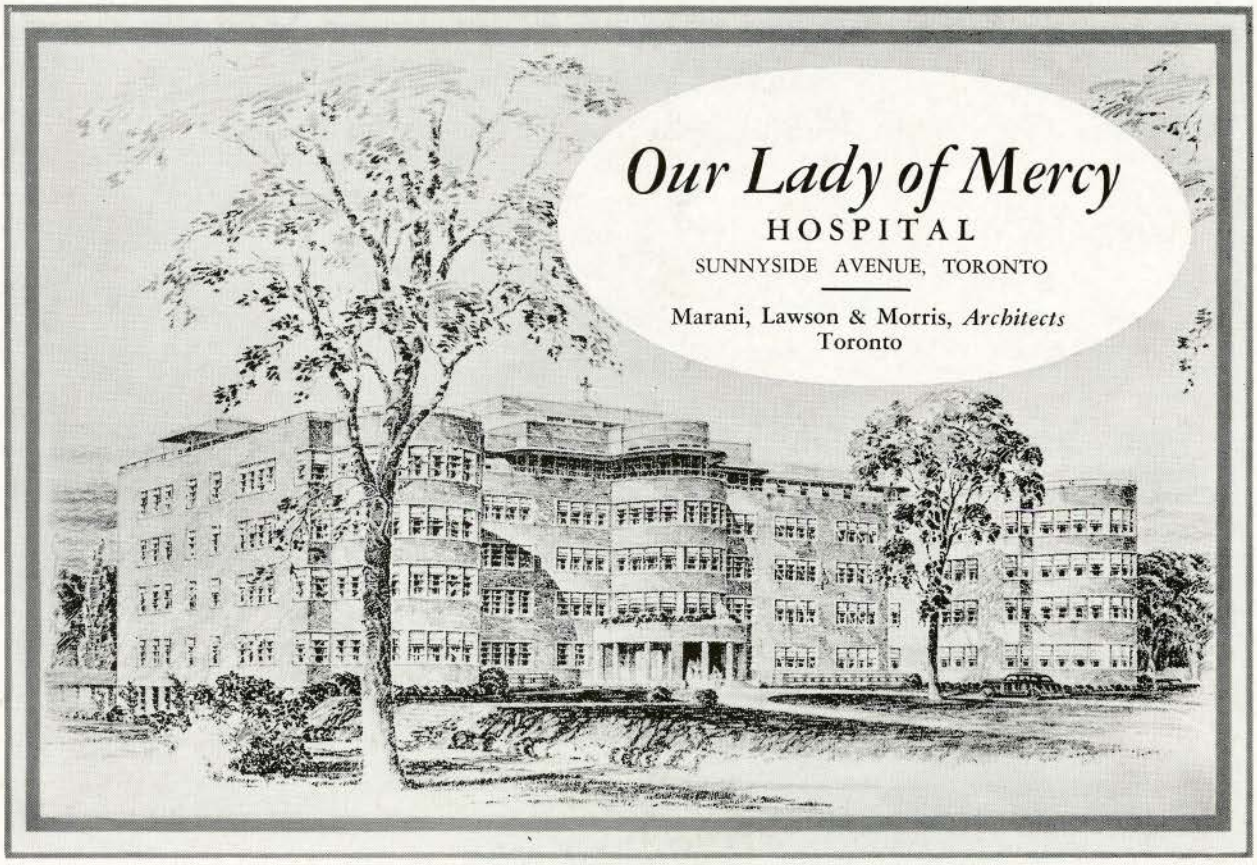

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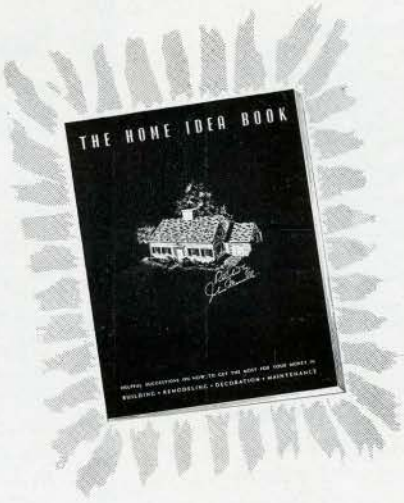

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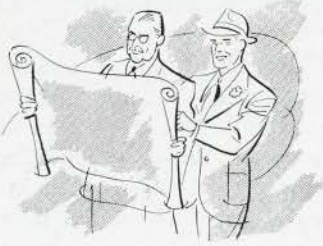

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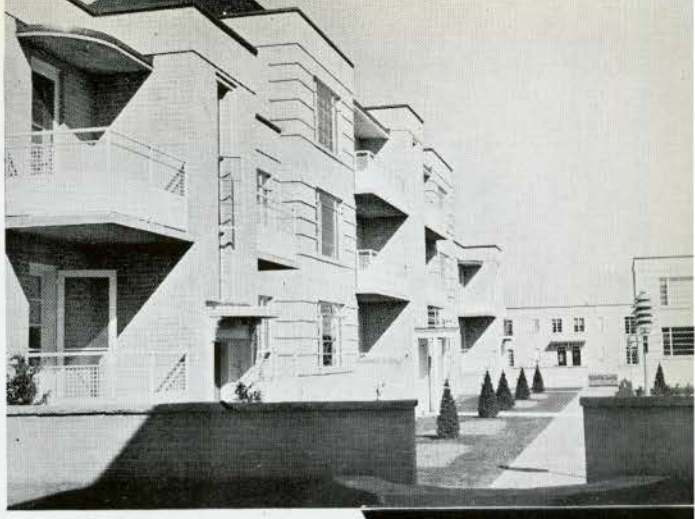

Forsey Page, F.R.A.I.C. Harland Steele, B.Arch., M.R.A.I.C. G. L. Wallace, B.A.Sc. Consulting Engineer

Forsey Page & Steele
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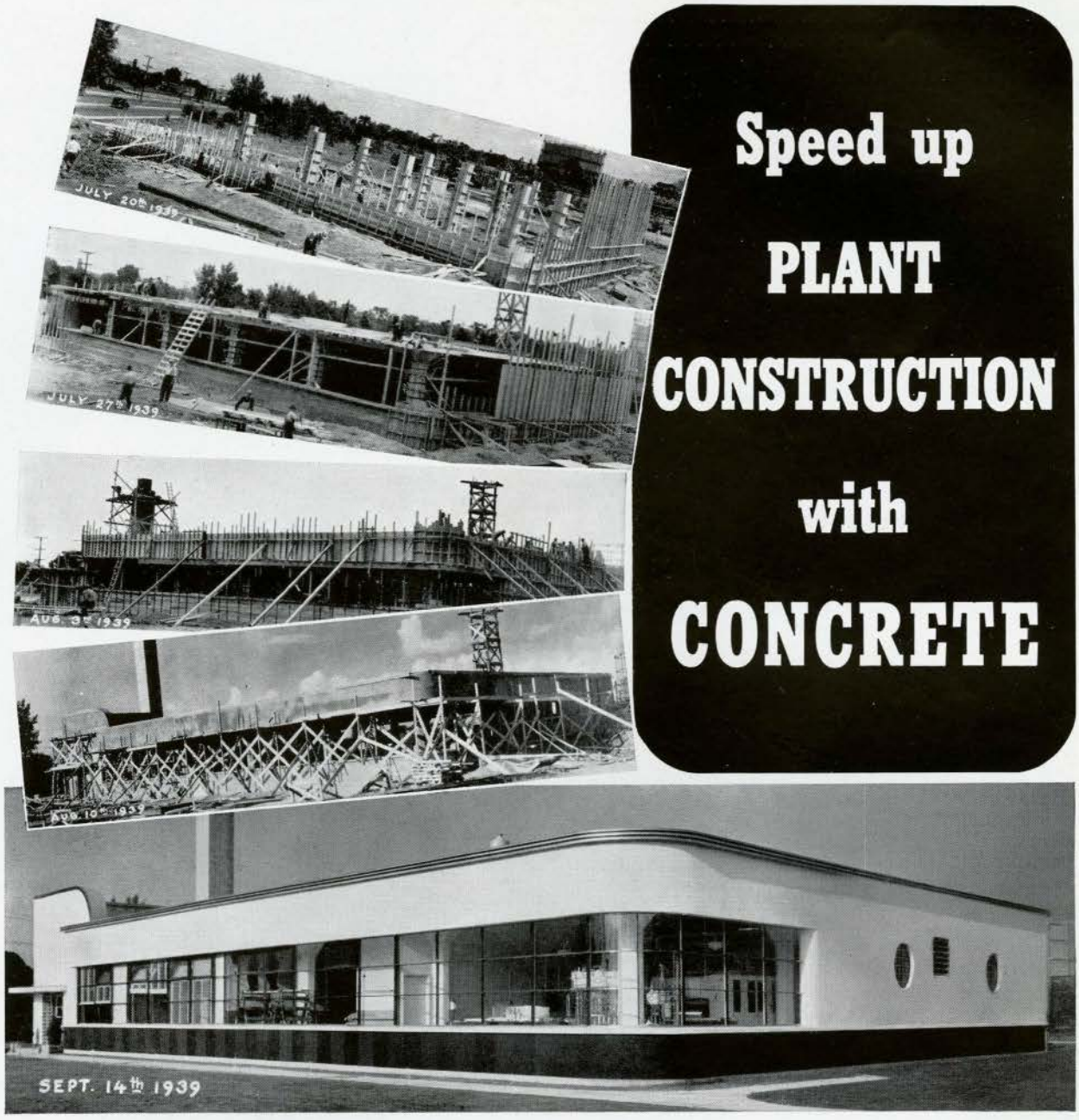

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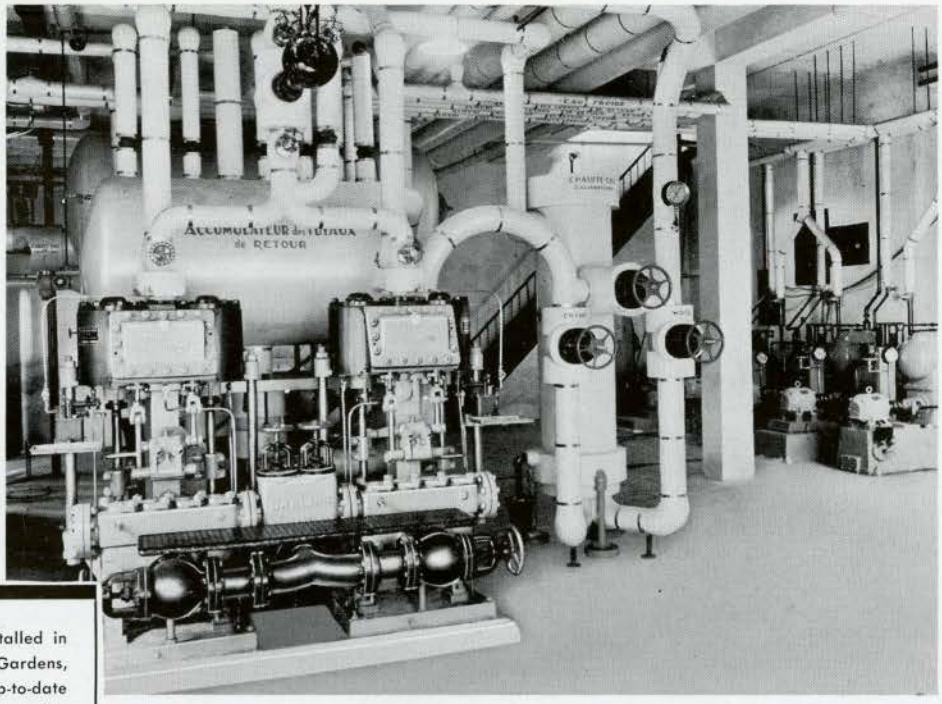

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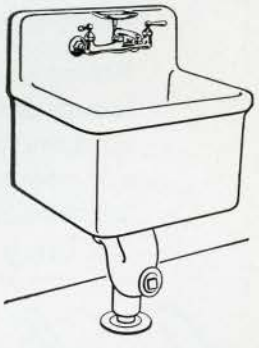

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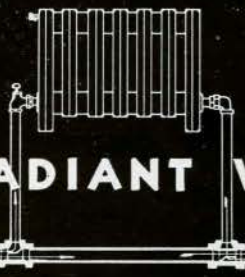

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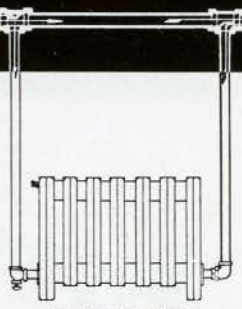

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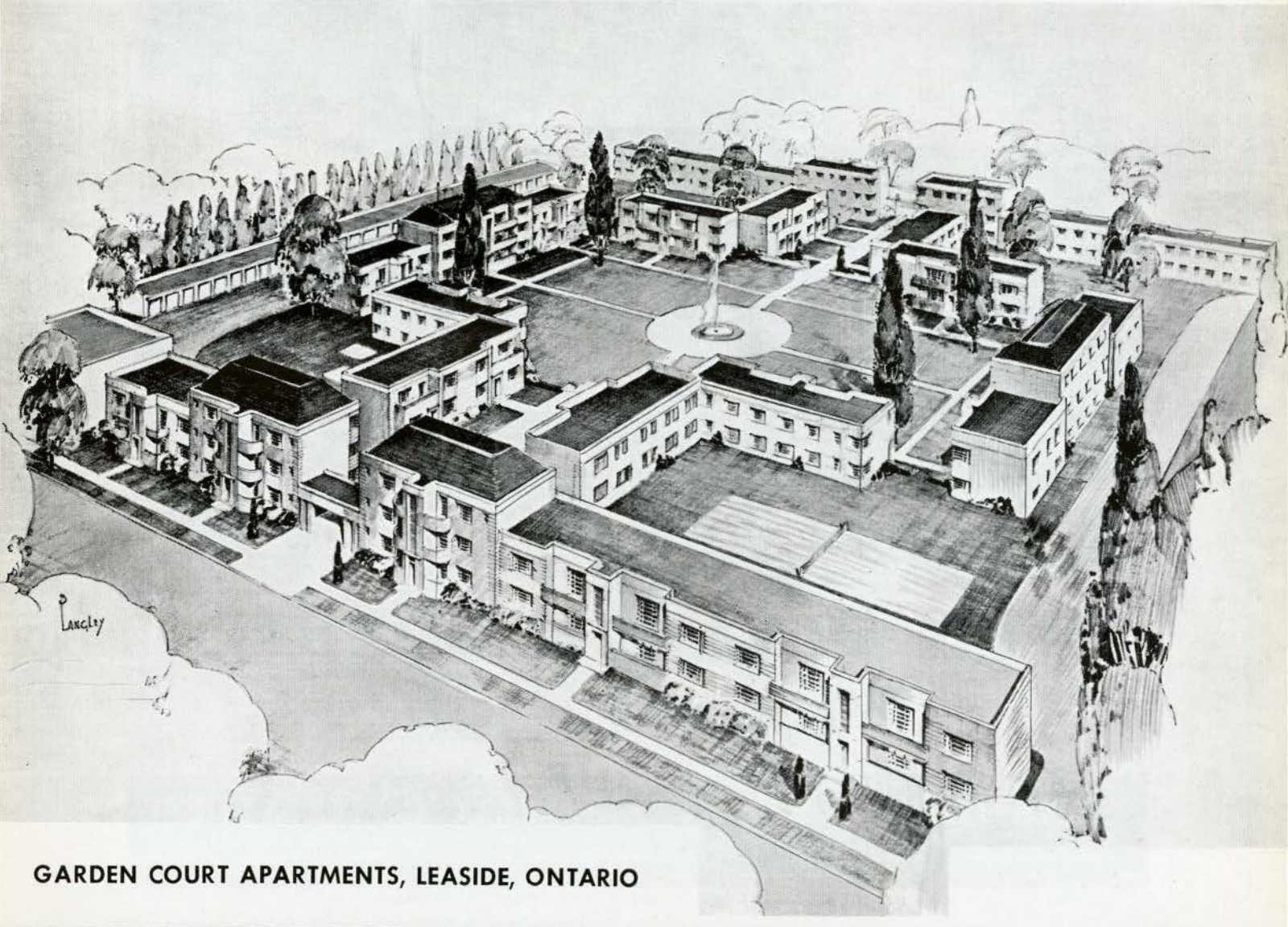

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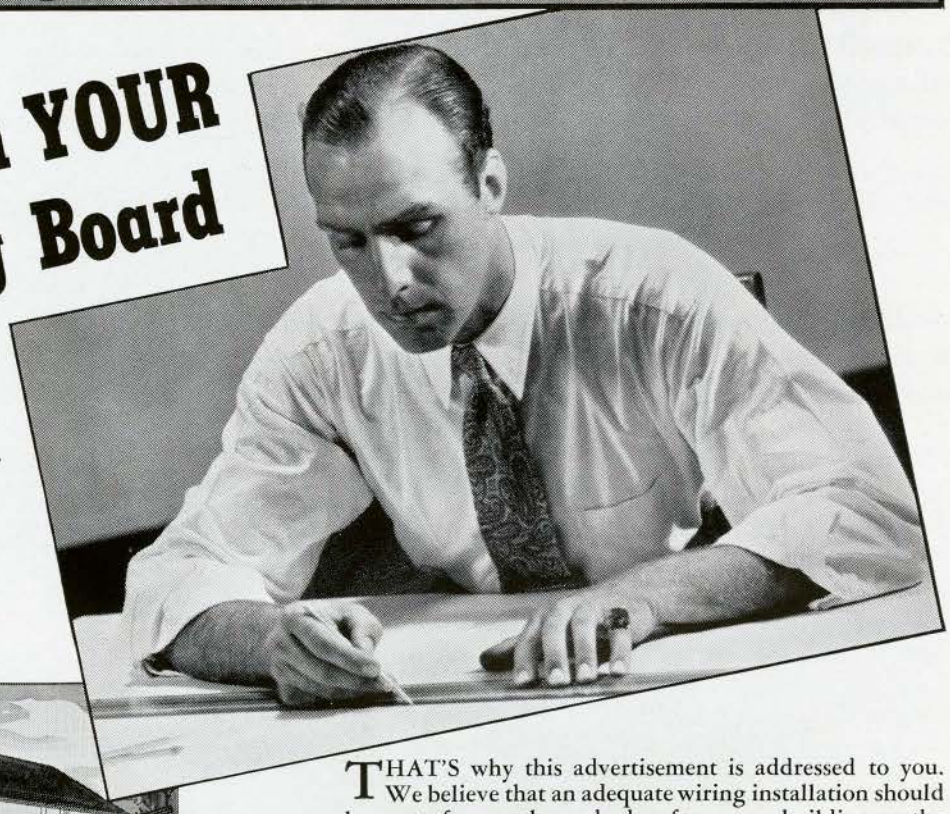

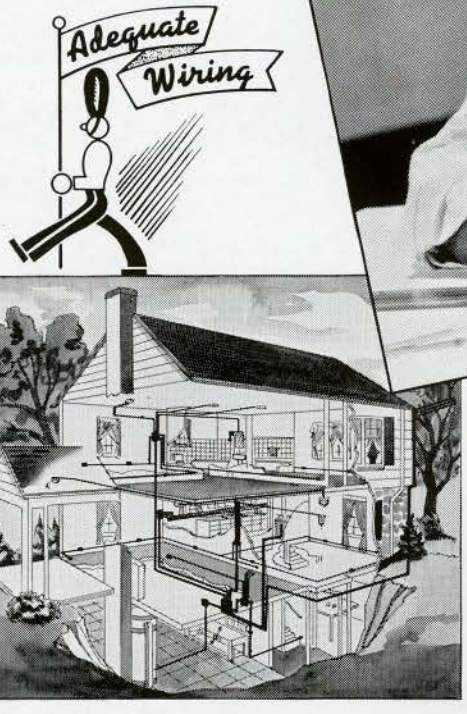

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JOURNAL

ROYAL ARCHITECTURAL INSTITUTE OF CANADA

Serial No. 171 TORONTO, NOVEMBER, 1939 Vol. 16, No. 11

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PLATES

SUBSCRIPTION RATES

Canada and Newfoundland—Three Dollars per year. Great Britain, British Possessions, United States and Mexico—Five Dollars per year. All Other Countries—Six Dollars per year. Single Copies—Canada 50 Cents; Other Countries 75 Cents.

ARCHITECTS everywhere are wondering and asking what they can do to be of service to the country. The mystery surrounding operations on the West front is limpid clear compared with operations on the Home front, and the words of Milton "They also serve who only stand and wait" offer little consolation to a profession straining to get into architectural action. We have every sympathy for the pacific departments in Ottawa suddenly embroiled in war, and have no doubt that their efforts are toward the utilization of every individual who can be of service. What progress has been made we do not know, but the President, who has been in constant touch with Ottawa, has promised us an official statement next month. It is through no fault of the Council that no definite statement can be made today. All the efforts of the Institute, now and for some time to come, will be directed toward the greatest possible use of the profession in the national interest. We hope that during this period of transition in Ottawa, when departments are being changed from peace to war time conditions, that important construction work will not be done without architects. We are at the moment in the ironical position of a man carrying a well oiled rifle, his pockets bulging with ammunition — and, as yet, no target to shoot at. We must resist, as well as we are able, any attempt to provide targets for the man with a bow and arrow or, worse still, a sling and a nice round stone. No opportunity should be lost of informing boards dealing with the building industry that the only people in Canada trained to plan are architects; and no other body of men possesses their knowledge of building materials and the uses to which they may be put. We are told that planning in a military sense will receive vastly more attention than in the last war, and that planning of industry will indeed win the war. That architects are trained planners may seem platitudinous to us, but it is a fact that must be driven home to those who have the responsibility for Canada's war time buildings.

We have no doubt that the Council of the Institute and the National Construction Council would welcome suggestions from Architectural organizations. Chapters in capital cities might well organize general meetings to discuss our active co-operation in war time work. The pages of this Journal are open to anyone with a useful proposal.

Along with a dozen or more architects, we spent a very pleasant evening a month ago as a guest of Mr. W. L. Somerville. We were asked to meet the tail end of the International Congress of Hospital Architects. There were three in all, Mr. Stevens, Mr. Erickson, and Mr. Stephenson of Australia. We have rarely spent a more enjoyable evening, due largely to the presence of Mr. Stephenson who had the floor and whose work occupied the walls. He gave us a discourse on his hospitals in which there was never a dull moment. He loves balconies and convinced all the non-hospital architects and some of the others that they were grand things to have even in Canada; and like all Australians he is an ardent advocate of hollow walls which Mr. Govan thought theoretically unsound, and from an insulating point of view quite absurd. That is an argument that might well be carried further in the Journal. We have long considered Mr. Stephenson one of the leading architects in the world and were pleased to hear that among his accomplishments was the design of a crack Australian train.

It is nice to sit back and think of a modern architect sending men from his office in a British Dominion to do research work in America and Europe, and to hear him talk in the most modest way of this job costing half a million—this one a million, and that two million, and realize that we were in a kind of stratosphere of pounds sterling. We showed Mr. Stephenson's work in November, 1937, and will always be happy to show more.

SOME IMPRESSIONS OF THE 71st CONVENTION OF THE AMERICAN INSTITUTE OF ARCHITECTS

By CECIL S. BURGESS

AT the Convention of the American Institute of Architects which, to some extent, took the place of the 15th International Congress of Architects, a number of delegates to the Congress were present, having started on their journey before the Congress was called off. These were chiefly representatives of South American Republics,—Argentine, Uruguay, Brazil, Venezuela, Chile, etc. There were only two representatives from Canada. These were both from Alberta,—Mr. J. Martland, City Architect of Edmonton, and the writer. Under these circumstances a few notes regarding the Convention may be of interest here.

Delegates from abroad received a specially hospitable reception as guests of the Convention. They were given every opportunity to take advantage of the various visits that had been planned. This included inspection of various building projects as well as visits to George Washington's mansion and estate at Mount Vernon and to Williamsburg, Virginia.

Williamsburg, for a hundred years the capital of Virginia, is now being taken to pieces and carefully reconstructed as nearly as possible in the condition in which it stood in 1750. What actually remained of the old place included, in more or less dilapidated condition,—the Capitol, the Court House, the Jail, the Main Building and President's House of the College of William and Mary, besides some of the town inns and residences. Many later excrescences have been weeded out and a number of buildings re-erected upon foundations discovered by excavation. The principal buildings have been put in complete repair and entirely refurnished, partly with the original furniture, partly with collected furniture of the period. Whilst it is claimed that the old place has thus become an "authentic" example of an 18th century town — authenticity has here been given a quite special meaning. Extraordinary research, historical and scientific, has been employed to attain this authenticity. Analyses and experiments have been made with such materials as bricks, shingles and paints to ensure the exact effect of the originals. A great old Irish glass chandelier was discovered as far off as China and brought to the Ball Room of the Governor's Palace, where it exactly matches an original one which had been preserved at the other end of the room. All this has been done under the superintendence of Williamsburg Incorporated with the support of Mr. J. D. Rockefeller, Jr. The very beautiful garden attached to the Governor's Palace is one of the most successful features of the place.

Probably the chief lesson to be derived from this curious example of restoration lies in the beautiful general appearance of this 18th century town. It stands as evidence of the success in town planning that was attainable and here achieved at that period. It may be set down as a mere museum specimen but, even so, it exhibits as nowhere else the complete social economy of a well-conducted community according to the ideals of that time. More genuine authenticity, as the word is generally understood, may be found in many of the "unspoiled" towns of New England, but probably none can come near this as a complete exposition of the ideals of the period.

Amongst the building projects visited some of the more interesting were those of the Langston Low Cost Housing Project in Washington and the new Satellite Town of Greenbelt in Maryland.

The Langston Housing Project consists of 274 dwellings for negro families. Two of the three architects in charge are themselves negroes, and the general manager is a negro. Members of the Convention were very efficiently shown over the project by the assistant manager, also a negro. The site being a very uneven one, presented considerable difficulty in planning. This has been successfully contended with. The manner in which the finished enterprise is being conducted must be very encouraging to the projectors. There is ample evidence that the better conditions provided inspire the tenants with self respect.

Greenbelt is twelve miles from the centre of Washington and is a commuters' town. The majority of the population work in Washington. It is laid out on steeply rolling ground in the heart of natural bush land. Tenancy is limited to persons with $1,000 to $2,000 annual income. Rents are at the rate of one-fifth of income. Only families with a number of children are permitted to occupy the larger houses. All residences are of row-house type, not apartments. Ample garden space is left between the buildings. Through-traffic roads are reduced to a minimum and numerous underpasses ensure that children and others need seldom cross a traffic road. The town has a civic centre with public school, community hall, theatre, public baths and a shopping centre. The population is at present about 3,000 and a strong community spirit has sprung up.

The whole air of this place suggests a more wholesome type of life as well as a more genuine social economy than most of the somewhat grandiose high apartment buildings that are being carried out as the solution of the housing problem in many large cities. The idea of families with young children being brought up in a fifth or sixth floor flat can surely never be considered a really humane one.

A visit to the World's Fair at New York was included as the final item in the programme of the Convention. Members met together as a start and took a bus drive together around the Fair, but were wisely left thereafter to select their own choices. It would be impossible to give any complete account of this ambitious display. It is too big to be thoroughly explored in a few days, and probably no individual would ever want to undertake such an exploration, no matter what time he had at his disposal.

One cannot conclude without an expression of thanks to the secretary of the Congress and to many members of the Convention for their generous welcome and many kindnesses shown to visitors from outside the United States amongst whom those from Canada received particular attention.

PERSONALLY CONDUCTED TOUR

I HAD spent an arduous morning solving self-imposed architectural problems and interviewing salesmen for materials to be used in future buildings "If and When". Thus it was that when the noon whistle blew my footsteps turned automatically into the old tavern and there was Sharp sitting at his accustomed table. Yes, there he sat, not in his usual cheery mood, but in an attitude of deepest gloom, with an empty glass beside him. He was sketching on a paper serviette with his blunt cigar-shaped crayon, and shifting his tongue in his cheeks from side to side in characteristic manner.

"God bless the work," I greeted him, after giving an order. "But why this unutterable gloom?"

Sharp laid down his pencil as he replied, "Just trying out a scheme of decoration for second storey Yonge Street—to hide the vacant windows—must hide 'em during the Lord Chancellor's visit to Toronto."

My spirits fell in spite of the fall of level in my glass. "I lost a bet once," I grumbled.

"What's that got to do with it?" queried Sharp.

"Well," I answered, "I made a bet that I could pass an imaginary line through the second storey of a block on Yonge Street, without touching an occupied apartment."

"But surely," said he astonished, "you didn't lose?"

"Yes," I replied sadly, "I got next but one to the far corner and ran into a family of Bohunks,—ten of 'em. They'd been living there rent free and presence unknown for six months. They had a hole through the party wall so that if anyone came along, they'd just slip into the next building until the danger passed."

"Yes," observed Sharp judicially, after a pause, "an investment in real property now-a-days is the same thing as a bet on the races, except you lose your money a bit slower and have a lot less fun for it. It was different in the good old days when the only investments were the sock under the hearth brick and the first mortgage."

"And I don't believe," I remarked, "that any of these pump priming schemes increase the volume of anything but the taxes."

"Pump priming," said Sharp, "consists in building something for somebody, to be paid for by somebody else that doesn't want to build."

"Well," said I, "as a taxpayer, I'm not keen on the Dominion Housing Act, but with asylums it's different. You feel that some day you might get back a bit of your own in board and lodging."

We sat silently for some minutes, sipping our beer.

"Sad thoughts indeed," I resumed, "but deeper still the sadness on thy brow. What's got you down?"

"You'd be down, too," replied Sharp, "if you had gone through what I did last night."

"These parties———" I commenced.

"It wasn't a party," interrupted Sharp, "it was a dream."

"A dream?" queried I. "That you got a good job I suppose, —that's tough luck!"

"No," answered Sharp mournfully. "Not that. That happens so often that if a client came into the office I'd probably ask him to come back in the morning."

"Well," said I, "finish your drink and let's have another. I want to hear this dream of yours."

Our beer arrived and Sharp, taking a long swig, set his glass down and began solemnly, "It was about the Lord Chancellor. The Civic Welcome. And a Personally Conducted Tour."

I stared at him in astonishment. "A Personally Conducted Tour," I gulped. "By whom?"

"By me," replied Sharp complacently. "Myself I done it, —and how!"

"Gosh!" I said, "that is a novel idea. I've heard of an architect building a city, but I never yet heard of one taking a part in civic affairs. Carry on."

"Well," said Sharp, "you know what dreams are like,— that queer, irresponsible feeling—there I was, standing on a highly decorated platform, looking down Bay Street. All around me were men in morning coats. Their faces were set and they were holding their top hats and trying to keep 'em from getting crushed. I was in overalls. There was a florid man in a florid costume waving a key and talking. There were soldiers in bright uniforms and all eyes were fixed on our distinguished visitor standing there, solemn and thoughtful.

"Suddenly a mist came floating down from the amputated gargoyles;—thickened, and then everything seemed to 'dissolve and like this insubstantial pageant faded, leave not a wrack behind.' A sudden clearing, and there was I in my overalls, alone on the platform with the Lord Chancellor. I suppressed a mad desire to run as he moved slowly toward me.

" 'Sharp,' he said quietly, 'I want you to take me on a Personally Conducted Tour.'

"I plucked up my courage in a torrent of words.

" 'Yes, my Lord, I can show you the headquarters of the Orange Order — pardon, sir, you've seen that already — I can show you the headquarters of the Leadership League,— or the place down Bay Street where good Canadians not only say they'd gamble on the future of the North Country, but do. I'd like to show you the Parliament Buildings and the University. One is particularly concerned with Education and the other with politics, but I never can remember which.'

"To all this His Lordship listened patiently.

" 'No,' he declined sadly, 'I'll have to see those anyway.' Then he brightened as he went on. 'What I want to see is the great industry for which Toronto is famed far and wide.'

"My jaw dropped. 'B-b-but, sir, I'm afraid I don't understand,—what great industry is that?'

" 'The great Parking industry,' answered the Lord Chancellor impressively. 'I must see that.'

"My face cleared. 'Indeed, sir, now I know, — and you couldn't have found a better guide. I can also show you, sir, its great allied industry which is swelling in volume every day.'

" 'And what may that be?' asked my distinguished companion with interest.

" 'The Un-building Trade,' I replied.

" 'Is that an important industry?' asked His Lordship.

" 'It is indeed, sir,' I answered, and then confidentially: 'Wreckers Incorporated rose sharply on the Exchange yesterday.'

" 'Tell me, Sharp,' said he, 'is this industry firmly established?'

"By this time we had strolled a short distance and were gazing at a vacant lot draped with motor cars.

" 'Oh, yes, sir,' I replied. 'It was hard at first. The owners would hang on, hoping that a miracle might lower the taxes or increase the rentals. But now they've got used to it. As soon as the losses on the building exceed the difference between the estimated Parking Rentals and the vacant land taxes by 100%, down comes the building. Something like that,—perhaps it's 10%—anyway, the percentage is coming down,—and so are the buildings.'

"We had strolled another half block and were gazing at an immense area covered with cars and surrounded by mottled and patchy brick walls with the mortar popping out of the joints. Here and there you could trace an old stairway or the blackened recess of ancient fireplace and flue.

" 'This,' said I, 'was once the site of a lordly building, and somebody congratulated somebody else on having erected such modern premises,—Magnificent,—a credit to the city, —and so forth.'

" 'Remarkable,' observed my companion. 'And have these great industries, Un-building and Parking, any future?'.

" 'Alas, my Lord,' I replied, 'there's a catch in it. At present they're going wonderfully. The taxes lost by the Un-building slide automatically onto the surrounding properties, thus expediting the application of the above-mentioned formula by which is determined the decision in re "Status Quo vs. Un-building." I'm afraid, though, that at the present mill rate, the ore reserves will soon run low."

(I must here explain that during this conversation we had been availing ourselves of the hospitality of the old tavern. Sharp's brain was clear enough, but his articulation somewhat blurred.)

" 'Your Yonge Street,' said the Lord Chancellor thoughtfully, 'offers a fine field of action for the Un-building industry.'

"By now we had reached another large vacant lot on which, however, there were no cars.

" 'Ah,' said our distinguished visitor in surprise. 'Un-building but not Parking. How's that?'

" 'A solitary exception to prove the rule, sir,' I replied. 'That's not a parking place. That's a new Financial Cold Storage Plant they're putting up. We've got a bunch of 'em here,—choke full of frozen capital.'

" 'It's all intensely interesting,' said he judicially, 'but surely there must be a limit to the demand for Financial Cold Storage and Parking.'

"It's the limit now, sir,' said I, relapsing into the vernacular. 'I could show you dozens of these plants and miles of Parking frontage. The Financial Cold Storage Plants have salted down all the frozen Capital. The municipality is rapidly becoming its largest landowner. It's like a Loan Company, that is being forced to foreclose all its mortgages.'

"We gazed silently for some minutes at the brick bat paved waste, and I continued:

" 'I would advise, sir, another Personally Conducted Tour in the West. If anything, it's worse out there.'

" 'That would suggest,' said the Lord Chancellor thoughtfully, 'that if my logic is correct, the land of this fair Dominion is being forced by a faulty system of taxation into the hands of the Crown. Before long you will be changed from a democracy into a fuedal state. This is a serious situation. Your people must learn how very serious it is. It's time for you to wake up'

"Throughout this speech his voice had been rising in crescendo and his words were caught by the surrounding walls and tossed echoing among the Skyscrapers.

"Time-to-wake-up . . . . . Time . . . . . wake up ! ! ! ! !

"The sharp lines of the perspective of the tall buildings seemed to waver and shrink and I found myself staring at the ceiling of my bedroom with sunlight and shadow piling up mass designs on the wall opposite

"My landlady, Mrs. 'Arris, is undoubtedly English—Heart of Empire,—but neither in appearance, voice nor manner remotely resembles our distinguished guest."

"There's more than the Stuff of dreams in that," said I after a pause for lubrication. "But someone's got to fill those gaps some day. Why shouldn't we get the job?"

"Job your grandmother,—I mean your grandchildren!" retorted Sharp. "We'll be in our graves long before that. There's only one future for an architect or builder now-a-days."

"What's that?" I asked.

Sharp looked at me as Sherlock Holmes must often have looked at Dr. Watson.

"To buy a winning ticket in the Irish Sweep," he replied.

—*N. or M.*

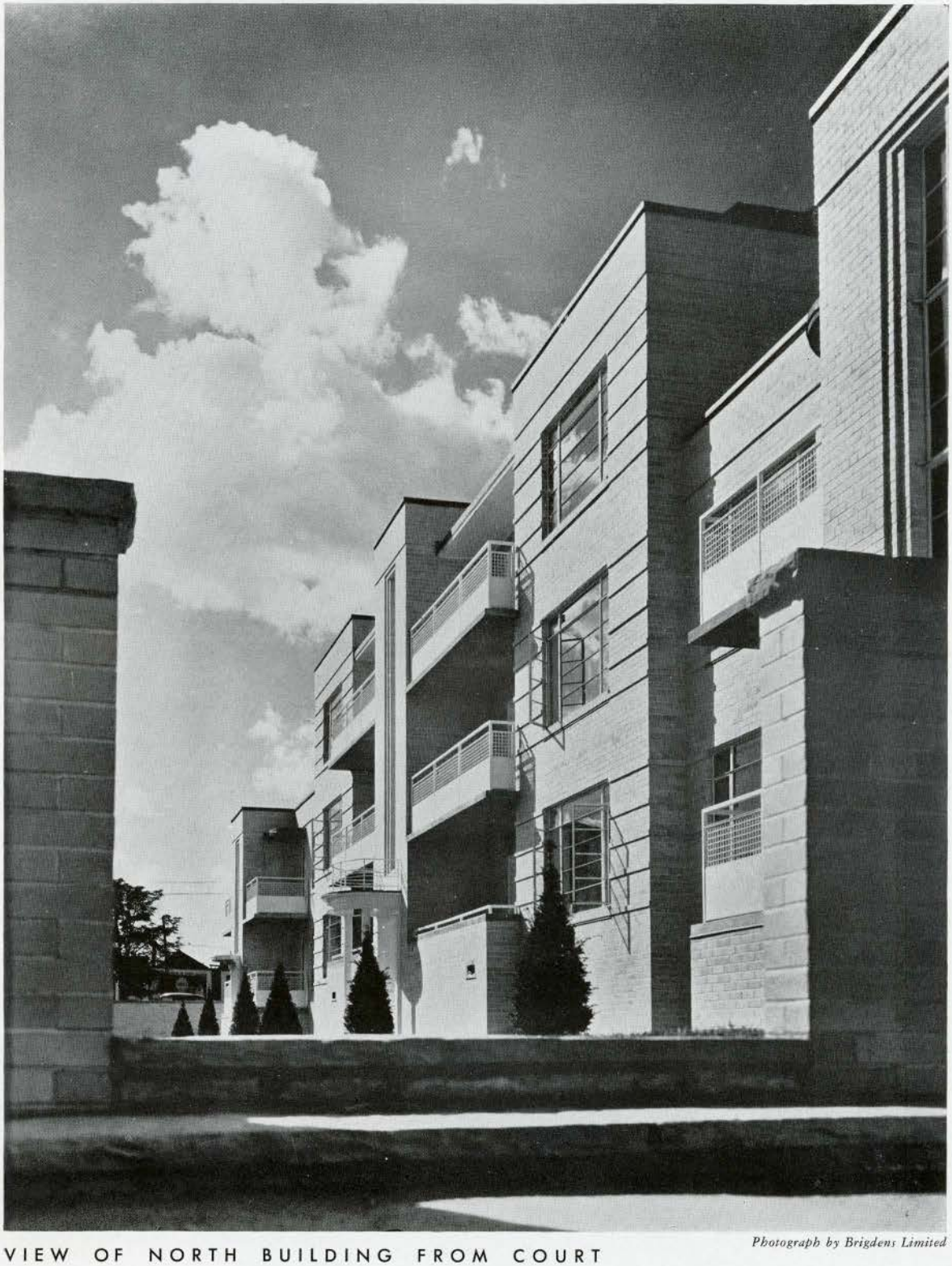
GARDEN COURT APARTMENTS, LEASIDE, ONTARIO
FORSEY PAGE AND STEELE, ARCHITECTS

LOCATION—The property, centrally located on Bayview Avenue, contains five and one-half acres and has a frontage of over three hundred and fifty feet on Bayview Avenue. It is approximately three and one-half miles from the business centre of Toronto. The surroundings of the property are excellent, being entirely of new, moderate-priced homes ($8,000 to $11,000), built within the last few years, and some sections still under construction. The property has no nuisance factors, such as proximity to industrial plants, dumps, etc. There is no filled ground or rock or rough topography.

PARKING—General parking is, of course, available on Bayview Avenue, and on Berney Crescent at the easterly boundary of the property. Garage accommodation is provided for cars on the north and south boundaries of the property. Entrances to the garages are from Bayview Avenue and Berney Crescent by a thirty-foot driveway.

PLOT LAYOUT—The layout, of the site and buildings, embodies a departure from conventional apartment house design. Less than 23% of the available property is utilized by buildings. Thus, by the proper grouping of buildings there are large court areas which insure plenty of light and air for every apartment. The large centre court (over an acre and a half) is a more formal lawn and garden, while adjacent courts are play areas having tennis courts, etc. Even buildings which have street frontage are set well back from the street and have the benefit of a large court area. The court areas are of such an extent there are no "near facing" windows, thus providing a maximum amount of privacy for each apartment.

INTERIOR LAYOUT—The interior layout of the buildings is different from the conventional apartment house design. The long corridor is eliminated, and in its stead separate entrances and stairways serve four to six apartments. (See Apartment Plan.) Greater privacy is the result and also the noise factor, always a nuisance in long-corridor apartments, is cut down appreciably. Each apartment extends from one side of the building to the other, thus giving greater ventilation



VIEW OF NORTH BUILDING FROM COURT

Photograph by Brigdens Limited

SOUTH VIEW OF TYPE 3 APARTMENT

ENTRANCE DETAIL

through the apartment than is possible with an apartment on one side of a building only.

GENERAL CONSTRUCTION MATERIALS — Every thought has been given to safety, and the durability of the buildings. Reinforced concrete floors are used throughout, while all outside walls, main walls separating apartments and stairway walls are masonry construction. Steel sash and steel stairs are further evidence of fireproof features and durability of structure.

EQUIPMENT—An automatic oil heating and domestic hot water plant is installed which cuts dirt to a minimum.

Heating — Trane Co. of Canada, Limited, and S. A. Armstrong, Mono-Flo Systems.

Streamline piping and fittings are used throughout.

Electric refrigerators and ranges are used throughout.

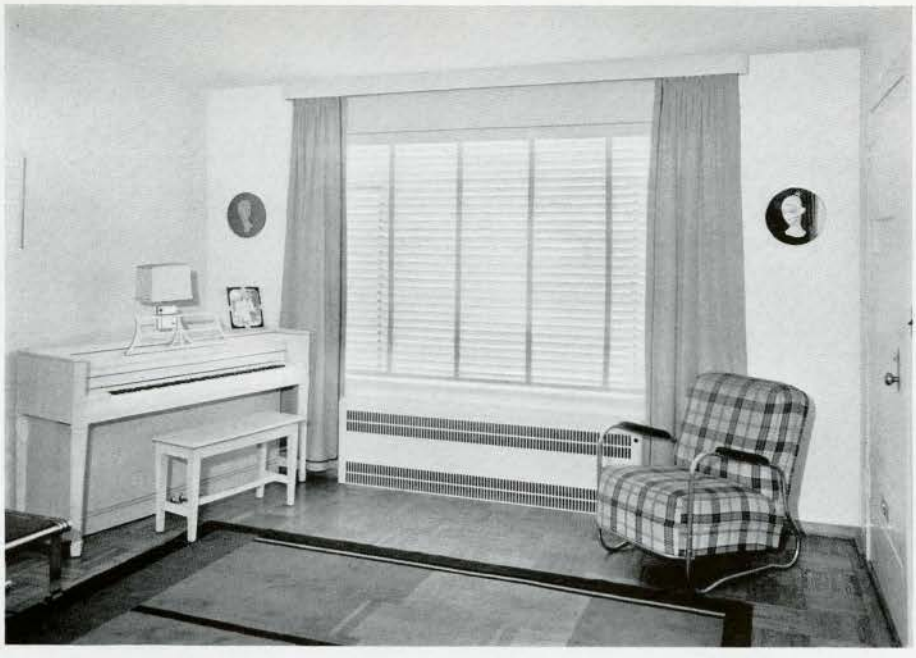
Vitrolite used in all bathrooms.

Block type hardwood flooring is used throughout. A decorative scheme for the walls may be chosen in several colours.

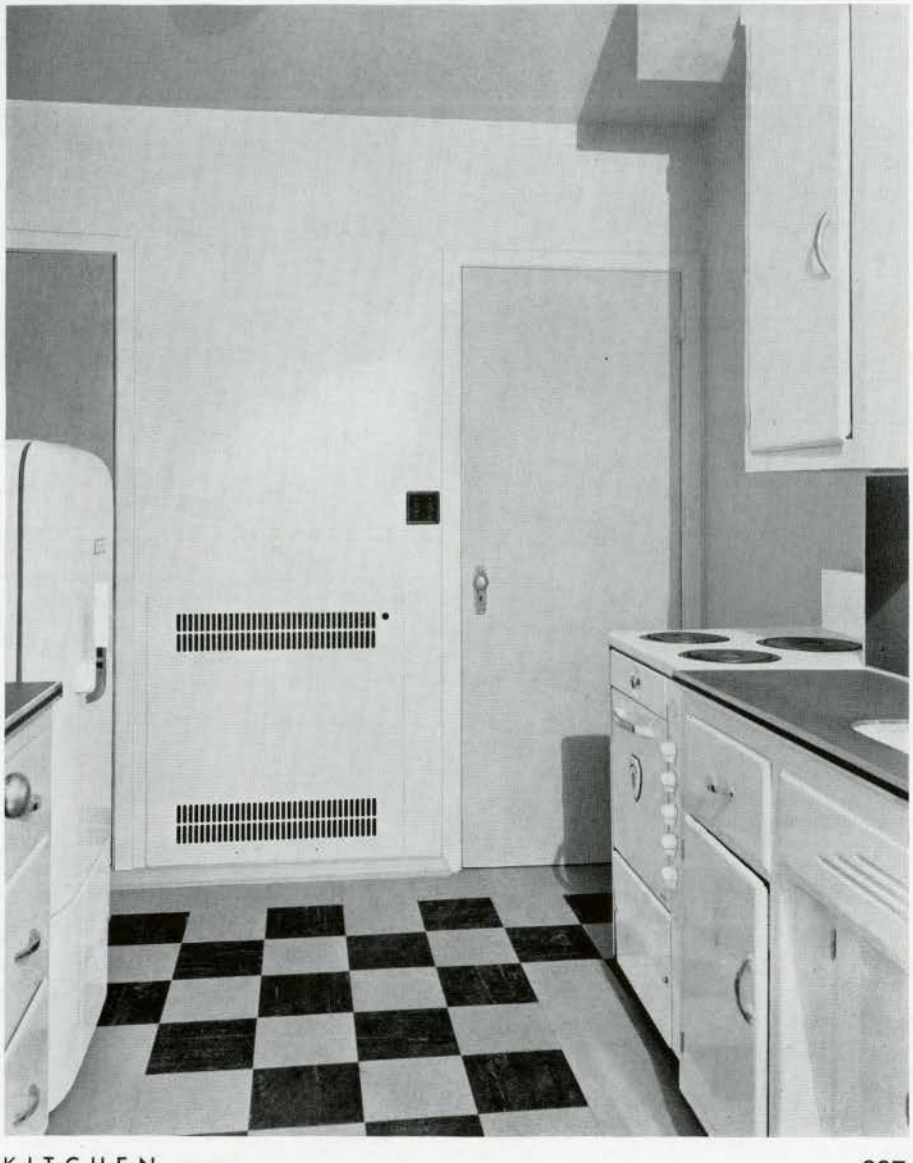
In the basement complete laundry and drying-room facilities are installed in units to serve four to six apartments, and in addition there is adequate private storage space.

RECREATIONAL FACILITIES—People living at Garden Court have the enjoyment of being able to stroll or sit and admire the beautiful park-like surroundings. There is a tennis court and several winter recreation rooms are provided with Ping Pong tables, etc.

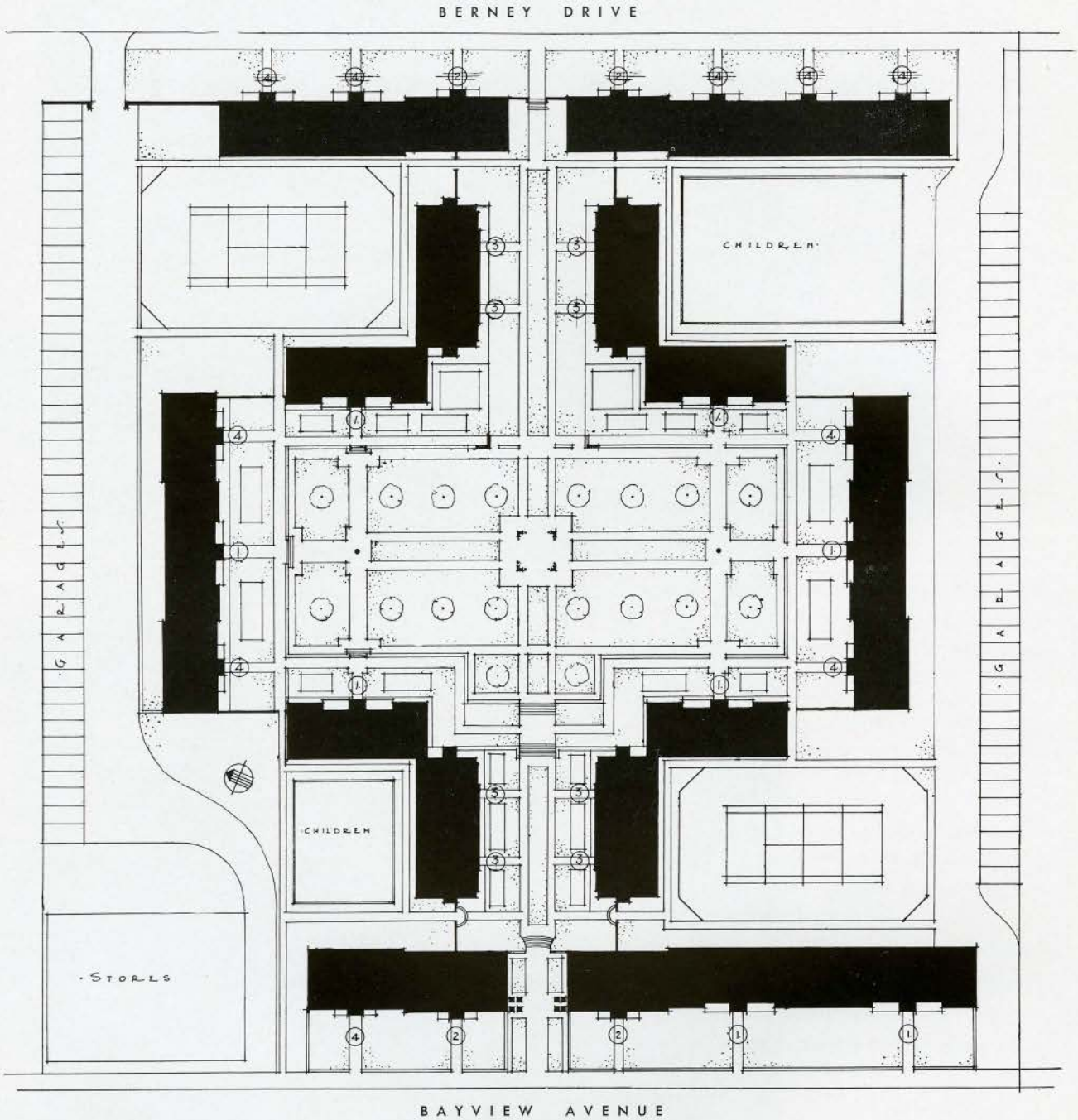
CONTRACTOR—The Jackson-Lewis Company Limited.



LIVING ROOM

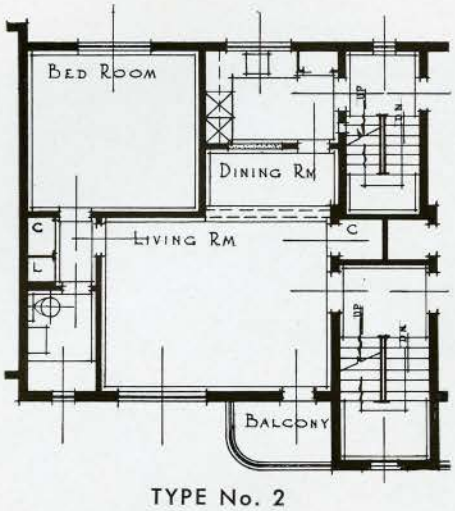


KITCHEN


BERNEY DRIVE
CHILDREN
GARAGES
GARAGES
CHILDREN
STORES
BAYVIEW AVENUE

BLOCK PLAN

GARDEN COURT APARTMENTS — TYPICAL PLANS



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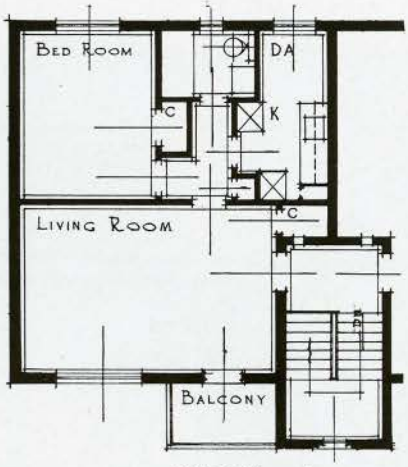

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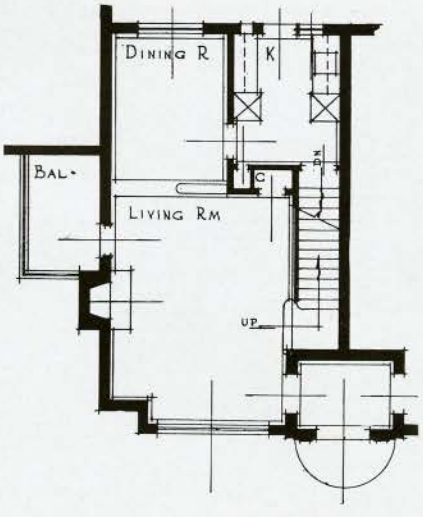

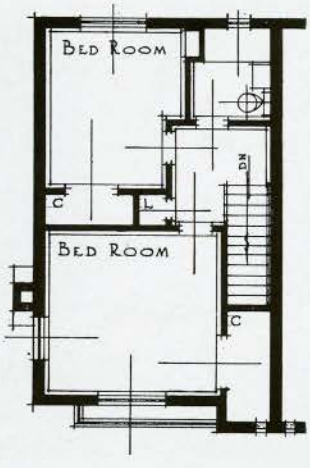

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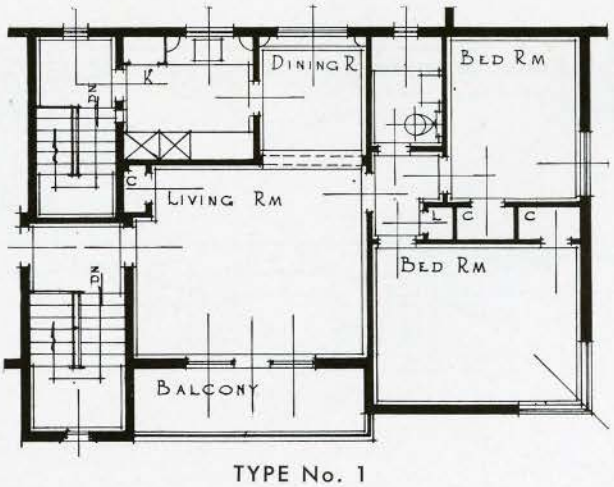

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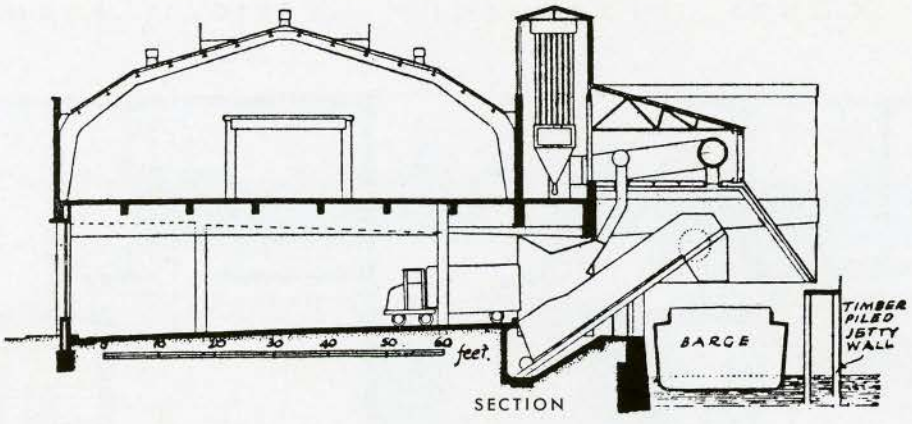
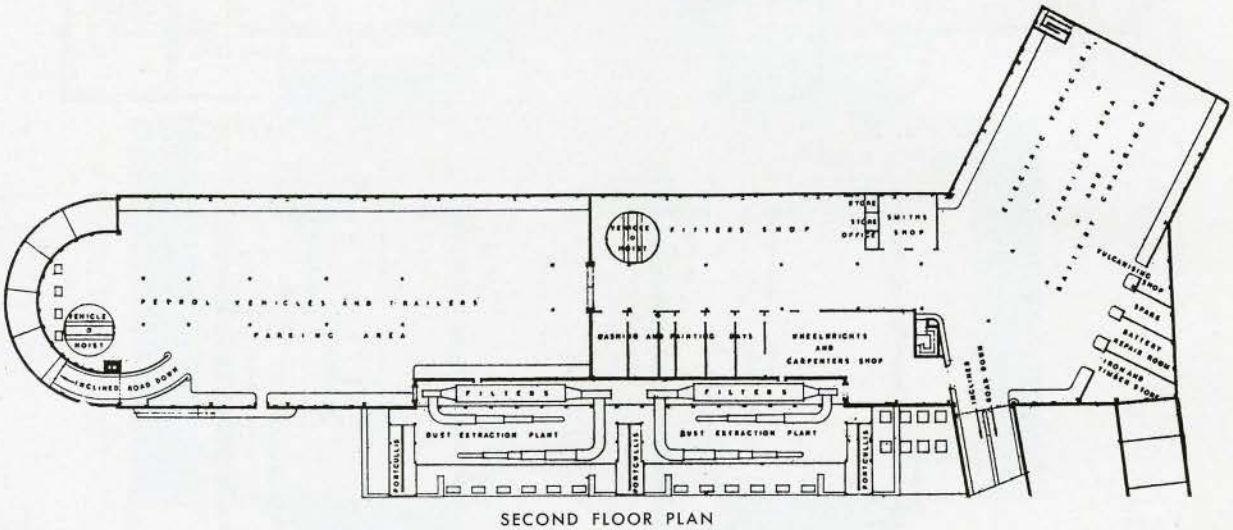
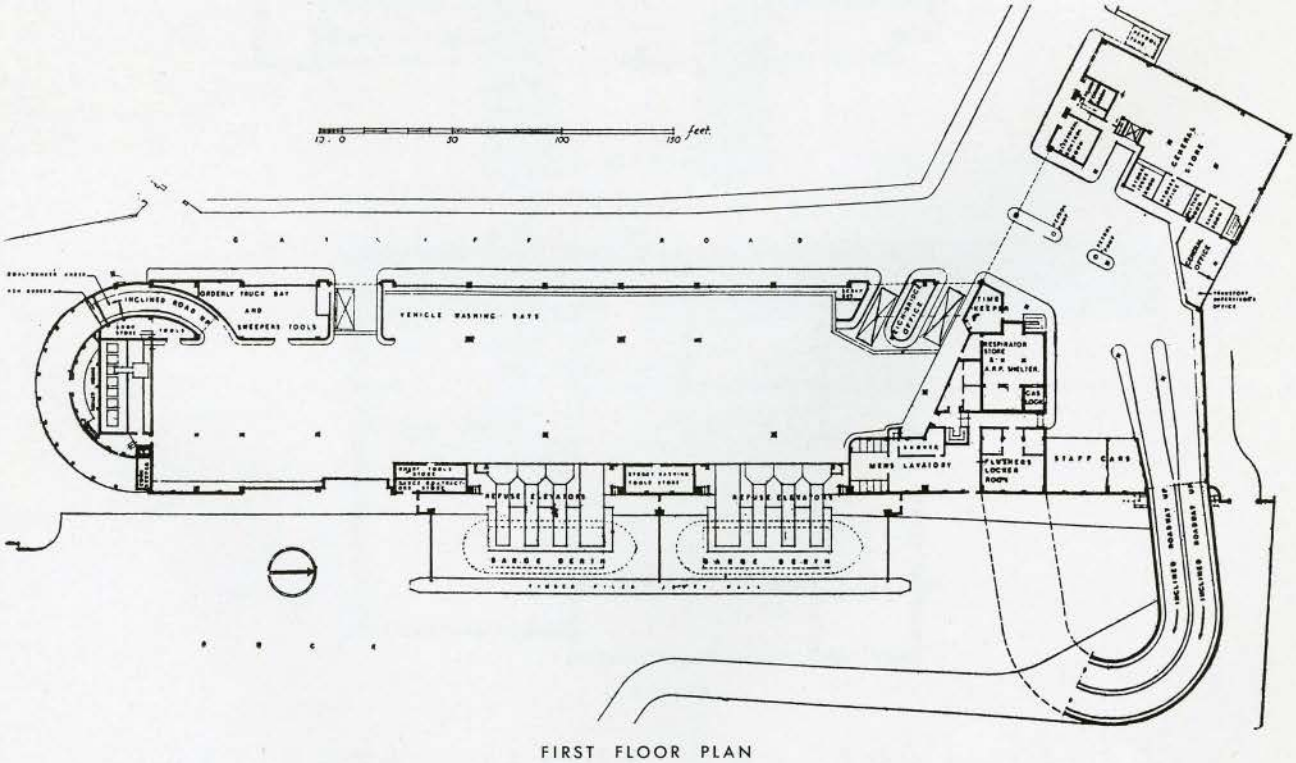
FORSEY PAGE AND STEELE, ARCHITECTS



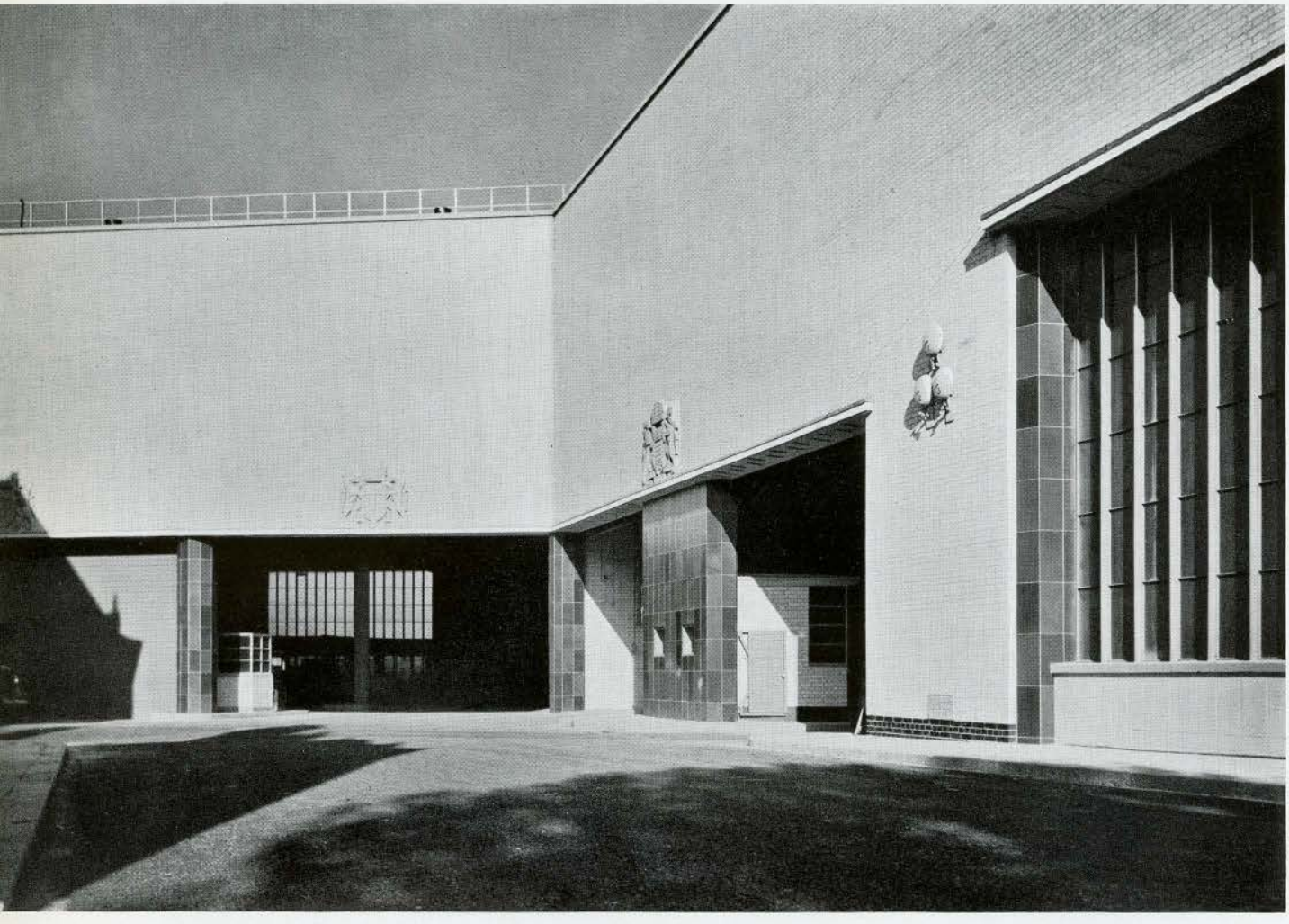
SECTION



SECOND FLOOR PLAN



FIRST FLOOR PLAN

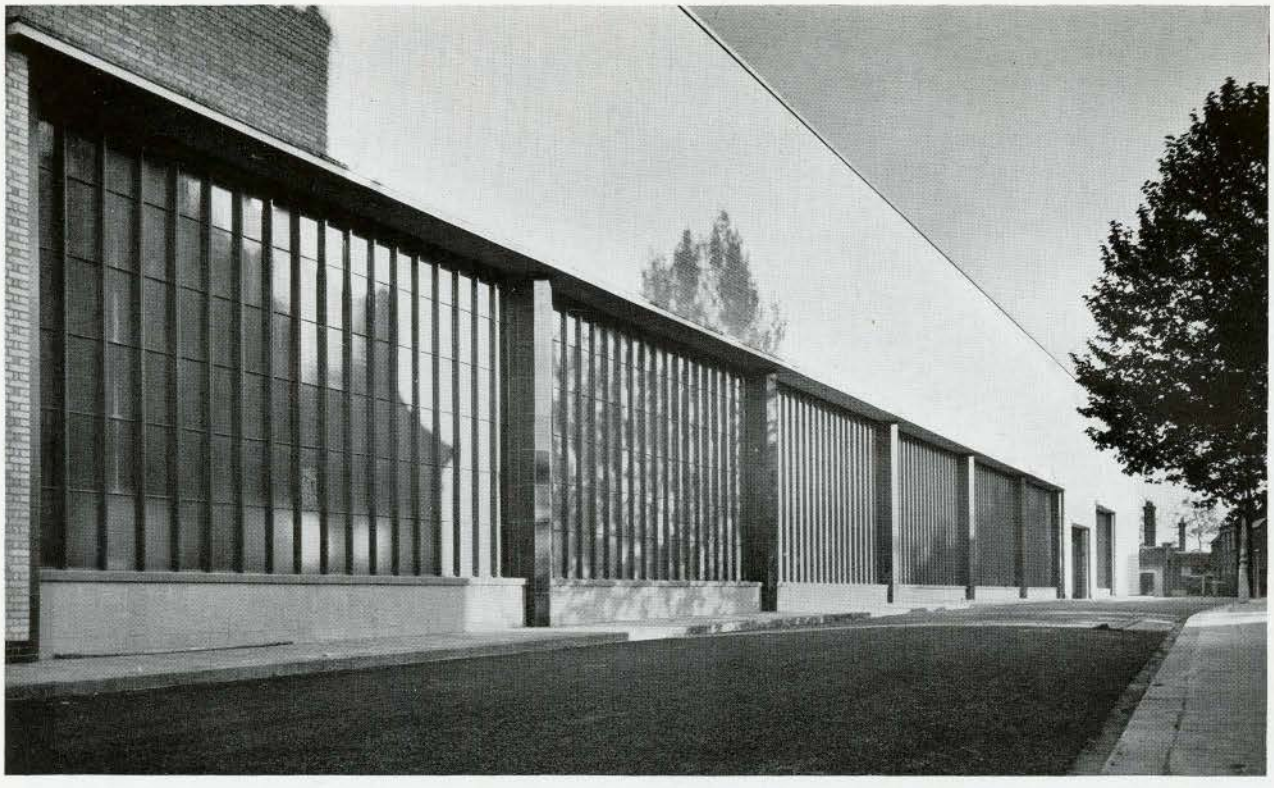


CENTRAL CLEANSING AND TRANSPORT DEPOT
FOR THE CITY OF WESTMINSTER, ENGLAND

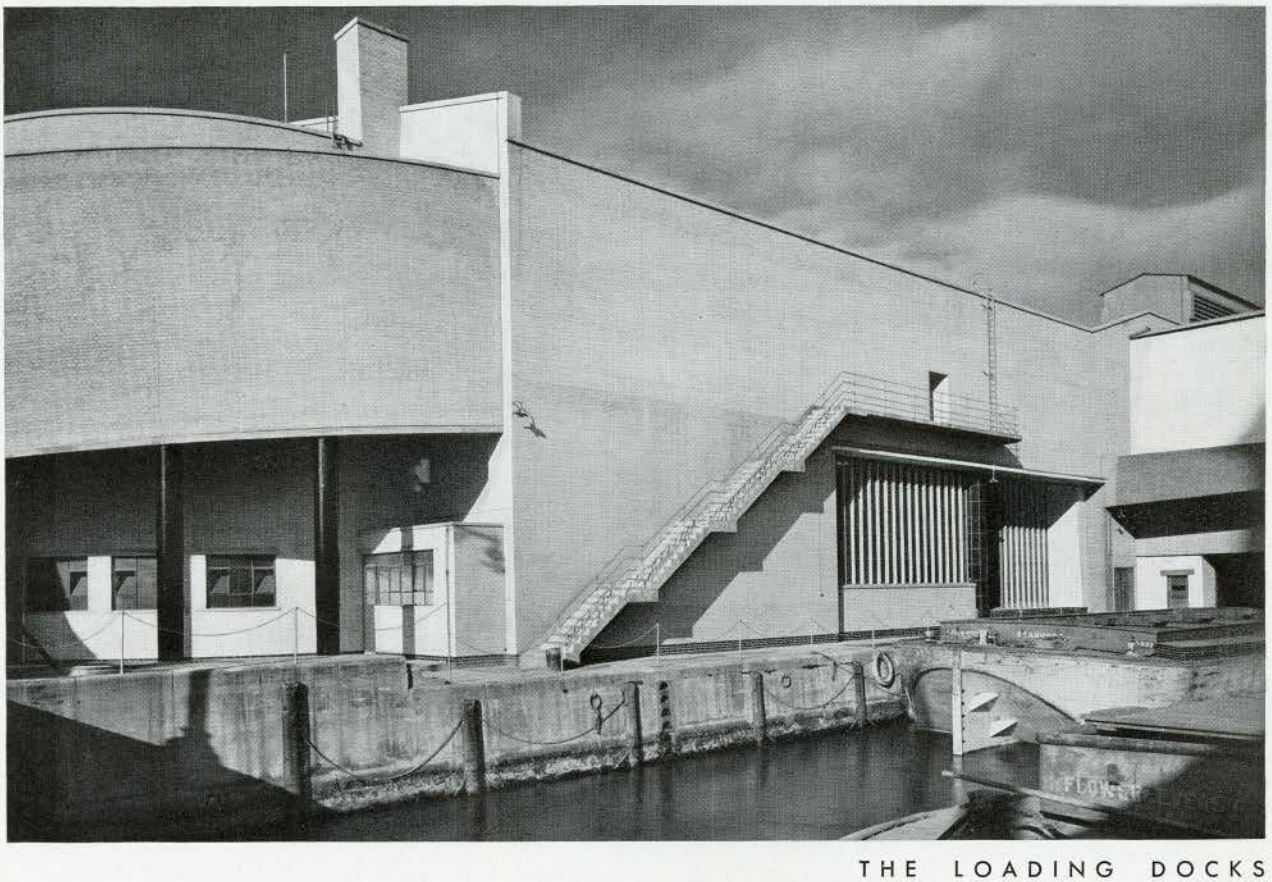
LONDON ARCHITECTURE MEDAL AWARD

GREY WORNUM, ARCHITECT

LIONEL SMITH, ASSISTANT



GATLIFF ROAD FACADE



THE LOADING DOCKS

SOUND TRANSMISSION IN BUILDINGS

A New Technique of Insulation

By WILLIAM ALLEN

Preliminary

IN COMMON with many laboratories throughout the world the National Physical Laboratory and the Building Research Station in England have expended some part of their effort for several recent years in a study of the problems of sound transmission in buildings. Of late the feeling has grown that the work in these laboratories had reached a sufficiently advanced stage for comprehensive suggestions to be made for the use of the work in practice, and accordingly a short publication has been prepared in which the fundamentals of the theory, and the application of these in buildings is dealt with. (1)

In the following notes it is intended to "abstract" these briefly, and to give some idea of the probable effects of the suggestions upon current practice.

1. The Transmission of Sound

It is now apparent that sound is transmitted in buildings in only two ways which are of major importance. These are:

(*a*) By free air-paths, such as cracks around doors and windows;

(b) By flexural vibration of the parts of the building structure itself.

The importance of the first of these is self-evident, but, while the second method has often been recognised as a means of transmitting sound, it has not commonly been observed that it is really responsible for the worst of the noise-troubles experienced in buildings. Sound has sometimes been said, for instance, to pass directly through a wall, whereas it appears that the amount which can be transferred in this way by a brick partition, or a concrete floor, to take an actual case, is only something of the order of one part in two billion five hundred million, which would not normally be noticeable. Rather, it seems, these members are set in vibration like a sheet of metal or a drum membrane, and emit sound to either side causing, in the case of partitions and floors, the effects which are termed "transmission" from one side to the other.

When the flexural vibrations extend themselves and affect all the parts of the building to which the vibrating member is rigidly attached, it is said that sound is being transmitted by the structure. The process takes place in much the same way that a pond into which a stone is dropped becomes covered with waves.

The flexural vibrations in a building will travel as far as the rigid continuous structure exists, or until their energy is dissipated, and the bending moments induced by the flexural vibrations form an effective means whereby this energy may be transmitted from one member to another with which it is in rigid contact.

Thus, when a wall or a floor is struck a blow, or an airborne wave impinges upon the boundaries of the room containing the source, flexural vibrations are set up in the structure which extend to all the neighbouring portions of the building, and a listener in a nearby room will in turn hear the sound not from one wall only, or from the floor, but in some degree from *all* the boundaries of his room.

Figure 1 in the book, illustrating this point, accompanies these notes.

DIAGRAMMATIC INDICATION OF HOW AIR-BORNE SOUND TRAVELS IN A CONTINUOUS BUILDING STRUCTURE

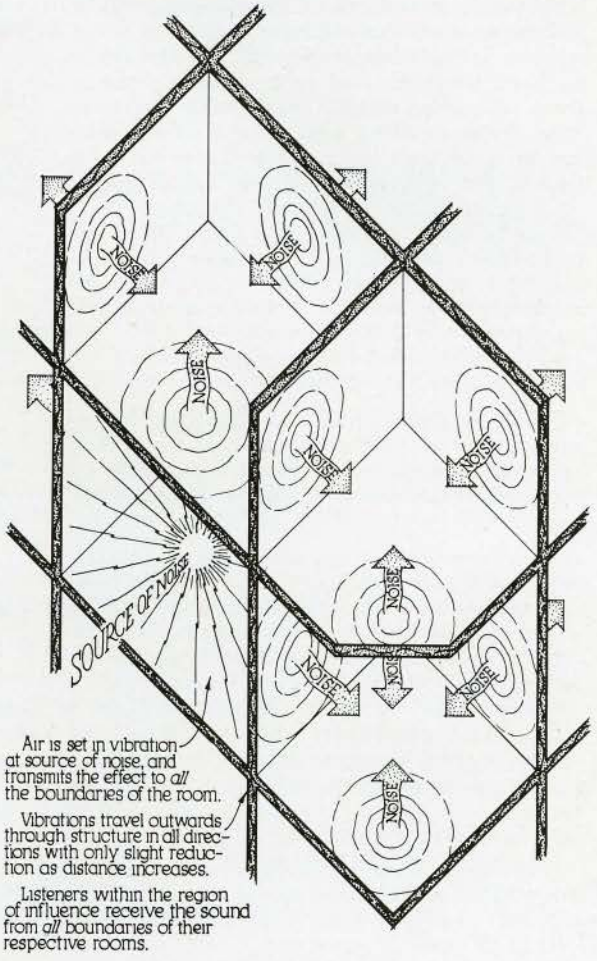


FIGURE 1—FROM "SOUND TRANSMISSION IN BUILDINGS: PRACTICAL NOTES FOR ARCHITECTS AND BUILDERS".

2. The "Mass Law"

A relationship, termed usually, the "Mass Law" exists between the mass of a membrane and the amount which it will vibrate flexurally under a given impulse.

Without going into the mathematics of this useful law, it may simply be said that the relationship is such that the mass of a membrane has to be doubled before the human ear can readily detect a reduction in the amount of sound it will emit. In other words, sound insulation is almost entirely dependent on the weight per superficial square foot of the structure.

Highly absorbent materials, commonly used for the purpose of acoustic control in rooms but often sold under the name "sound insulators" do not offer any material exception to this law, and when so advertised, should be regarded with some caution. On the other hand double constructions, such

as stud partitions, offer an insulation in excess of that which would be indicated by their mass, and will often prove useful where great weight would be detrimental.

3. *The Effect of the Mass Law*

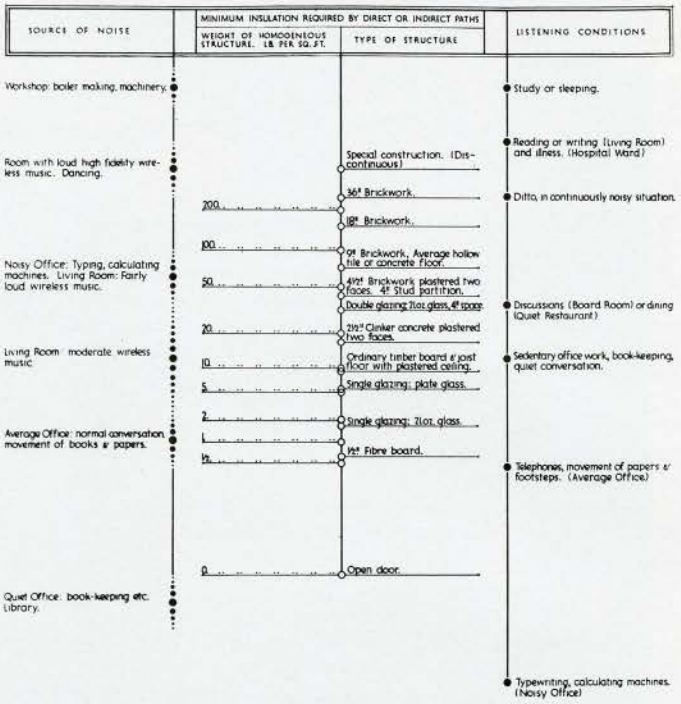
The Mass Law has one effect of over-riding importance. If the weight of a building element has to be doubled each time it is desired to achieve a discernible improvement in conditions, it is obvious that a limit will rapidly be reached where to double the weight of the structure would be uneconomic. Thus, to improve conditions which obtain for 9 in. brickwork or its equivalent involves brickwork of 18 in. thickness everywhere and proportionately heavier floors. This being entirely impracticable in practise suggests that a working limit of sound insulation for continuous rigid structures will be found; and it has been proven, both in the laboratory and in existing building structures of all types, that this is so.(2) Where buildings have their parts rigidly linked one to the other sound insulation between any two neighbouring rooms is strictly limited to that which one might expect from construction the equivalent in weight of 4½ or 9 in. brickwork.

4. *The Adequacy of Structures*

While the limitation of sound insulation in continuous structures will no doubt seem restrictive, there are nevertheless many conditions in current building occupancy which require no greater insulation than this.

In order to make it possible for the architect to determine rapidly the adequacy of his proposed structures the Research Station has prepared and included within its publication several nomograms—one for outdoor and one for indoor air-borne noises, and one for impacts — which reduce the mass law and its effects to a simple graphical analysis. The second of these nomograms, Figure 4 in the book, is reproduced here, and it may be of some interest to illustrate its use by examining with its aid one or two example cases.

DIAGRAM TO DETERMINE APPROXIMATELY THE ADEQUACY OF BUILDING STRUCTURES TO INSULATE INDOOR AIR BORNE NOISES



HOW TO USE DIAGRAM:

1. Decide maximum amount of noise likely to be made in room which is considered as source of noise and find the appropriate point on the scale in the left hand column.
2. Decide minimum conditions likely to exist in listening room and find the appropriate point on the scale in the right hand column.
3. Join the points so determined in the two outside columns by a straight line. The intersection of this line with the centre scale shows approximately the adequacy of various structures which may be common to both rooms to give a satisfactory degree of quiet in the listening room. Any structure falling above this point of intersection should be adequate, any falling below it, inadequate.
4. A structure not listed in the centre column can be roughly placed by determining its weight per sq. ft. of superficial area or by consulting BUILDING RESEARCH Special Report No 26.

NOTE: This diagram is based upon average sound reduction values for the average listener. If the noise source contains dominant low frequencies, transmission will be slightly greater than anticipated. Allowance should be made for this and for the listener's sensitivity to noise.

FIGURE 4.

Case 1, Adjacent Offices

A conference room is to be placed next to a typing office. It is required to find the weight of structure which will be adequate to reduce the noise of the typewriters to a tolerable level in the conference room.

In the left hand column on the nomogram it is obvious that the region marked "Noisy Office" will approximate the conditions in the typing room, and in the right hand column the point marked "Discussions (Board Room)" should be appropriate. Joining these two regions with a straight-edge it is apparent from the centre scale that something of the order of a stud partition, plastered both faces, or the equivalent in weight of 4½ in. brickwork for both direct and indirect paths should be adequate.

Thus it will be seen that some conditions can be found which do not require insulation in excess of that which can readily be provided in continuous structures.

Case 2, Apartment Houses

Another instance — one where much greater insulation is required — will be useful to introduce a novel building technique which has been developed at the Research Station to deal with the more severe types of noise problem. By its use the limits of sound insulation imposed by continuous structure can be overcome, and insulation of a much higher order achieved.

The noise problem in the apartment house is primarily to provide between neighbouring apartments effective insulation of sounds from radios, and, secondly, to provide adequate reduction of the noise of impacts, such as footsteps, occuring overhead.

On the accompanying nomogram the region marked "Living Room" in the left hand column is probably representative of average conditions in the apartment acting as the noise source. The requirements of quiet in the neighbouring apartment will probably be those represented by the point marked "Study, or Sleeping", in the right hand column. If these two points are joined by a straight-edge it will be seen, from the centre scale that 36 in. of brickwork, or more if loud radio is allowed for, will be required between these two flats.

This construction is not, of course, practical; but it will be observed that note has been made at the top of the centre scale of a "Special Discontinuous Construction", equivalent in effect to some six feet or more of masonry, and this has been set at a point reached at the Building Research Station in experimental work on discontinuous structures. Methods of constructing buildings along these lines have now been worked out and examples of the application of the principles to apartments, hotels, hospitals and several other types of buildings have been prepared and are included in the new publication.

5. *Discontinuous Construction*

The term "discontinuous construction" refers to a system of constructing buildings wherein the rigid continuity of the

structure is interrupted from time to time. When this is properly carried out it appears that effective sound insulation can be achieved with only a small increase in the total weight of a structure.

The degree to which discontinuities have to be introduced will vary, but it depends largely on the type of noise and the precise nature of the problem. In general a distinction of degree can be made between air-borne sounds and impacts. The latter are localised, and require only a localised treatment (such as a "floating floor"(3) for dealing with footsteps) whereas noise from a radio impinges on all the boundaries of a room, and to keep the noise from entering the remainder of the structure the source of the noise must be surrounded by what is, in effect, a "box".

It is impossible in the short space available in such a note as this to go far into detail on the recommendations for the discontinuous construction of buildings, but it will be of some interest, perhaps, to describe one or two of the salient features in the approach to the design of a building along these lines. For the purpose, perhaps, the apartment house problem cited above will be useful.

The first degree of discontinuity is that involved by the requirement to insulate impact noises. From the nomogram which deals with this problem it can be determined that a floating floor of the best construction, or even, again, entirely discontinuous construction is desirable. The point is not necessarily critical, but the higher the insulation, the greater will be the insurance against disturbance of any kind.

Insulation of a powerful air-borne noise source, such as radio, requires a very complete degree of discontinuous construction; as stated earlier such a source must, in fact, be surrounded by an insulated box if all the continuous paths for sound are to be interrupted, each box to be complete as to bottom, sides and top.

In experimental work a "box" construction has been evolved which can be applied without difficulty in practice. It consists essentially of a floating floor for the "bottom", cavity walls of which the inner leaves form sides of the "box", and a suspended ceiling which forms the top. Each "box" is an entire apartment in the scheme as visualised at the moment, and is, by virtue of its construction, insulated from the continuous structure which forms the framework of the building—the shelves for the "boxes", as it were.

It will be seen that in this instance the proposals are comprehensive. They are, in fact, so comprehensive that it will probably not prove feasible to "apply" them directly to previously conceived building designs, and it appears at present that it will be an altogether more satisfactory, more economical, and effective approach if the principles put forward can operate as a function of the design of the building. Examination of the detail which is of necessity involved at windows and doors, at columns and fireplaces, serves only to further emphasise this point.

This, however, should offer no real difficulty, and it seems likely that when some amount of practical experience has been gained — at the moment this is largely lacking — the essentials of the problem will seem less complex, and even the detailing will be simplified.

Application of the principles in problems connected with hospitals and office buildings show again the advantage to be gained when planning is accepted as an aid to sound insulation and the fundamentals of the technique are allowed to operate as a function of the design.

In the examples which are given in the book this approach has been followed to a reasonable extent, sufficient at least to show the aims in mind, and both "idea" drawings and plans are given for the various type buildings, in addition to working details. It is thought that with the aid of these, architects should not have any difficulty in applying the new ideas in practise.

6. *Conclusion*

The present note is already an all too brief summary of the work described, and it will perhaps be useful, therefore, if a conclusion is made by taking a few deductions from the salient points of the matter presented, rather than by a further abstraction of the information given.

(1) *It will be readily observed that sound insulation and heat insulation have very little in common.* Thus materials advertised as "heat insulators and sound insulators" should be regarded with some scepticism. The two techniques are not incompatable, but something which is beneficial for one is not necessarily beneficial for the other.

Similarly sound insulation and acoustics should not be confused. Treatment of a room to provide pleasant audibility can have only a very limited effect upon the sound transmitted to or from it.

(2) *Sound insulation, unlike heat insulation and acoustic treatment, can largely be dealt with on the draughting board.* A minimum of special materials is required, and planning will be found to be the architects' principal aid. Where special materials are called for, they will be found to be needed for their resilience, and not for any mystic qualities of insulation.

(3) *From the knowledge that sound insulation in rigid continuous structures is limited it can be usefully deduced that highly effective partitions are unnecessary in such buildings.* It should be the aim of the architect in these cases to see that each path for sound, whether direct or indirect, is brought up to the standard of efficiency indicated by the nomograms, but that none is unnecessarily made more effective. The overall efficiency in buildings cannot thereby be improved.

REFERENCES:

(1) Fitzmaurice, R., and Allen, W. "Sound Transmission in Buildings; Practical Notes for Architects and Builders." To be published by H. M. Stationery Office. Available through all booksellers. Price probably $1.25.

(2) Constable, J. E. R. "Transmission of Sound Between Neighbouring Rooms in a Brick Building." Proc. Phys. Soc., 1938. 51 Part 1 (283) 53-61.

(3) Allen, W. "Designing Concrete Floors to Reduce the Transmission of Sound." R.A.I.C.J., November, 1938, 239.

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PROVINCIAL PAGE

ALBERTA

The writer apologizes for omission to send a provincial letter last month. This was due to the necessity, owing to unforeseen circumstances, to start on a journey to the east at an earlier date than anticipated. The final objective of the journey referred to was attendance at the 15th International Congress of Architects at Washington. The postponement of the Congress was not intimated until after the writer had left Edmonton.

Owing to the war the erection of the Glenora School, Edmonton, has been cancelled for the present. It is, however, the intention to carry on the extension to the General Hospital. The alterations to the eight-storey Tegler Building are now so far advanced that it is announced that the Zeller Company will open a new department store there about the middle of November.

Naturally, in view of a long war, architects are looking around to consider in what way they may be of most service in that connection.

A new school is being erected in the town of Banff by the Banff School Trustees in co-operation with the Dominion Government. The land and the plans of the building, prepared by the Department of Mines and Resources at Ottawa, are the Dominion's contribution to the scheme. The building includes an Auditorium which will be used during the summer by the University of Alberta Banff School of Fine Arts for courses in Dramatics, Art and Music. The cost is in the neighbourhood of $50,000. The walls are now in course of erection. The Buchan Construction Company of Calgary are the contractors. The same firm are now erecting a new $50,000 building for the Hudson's Bay Company in Banff.

— Cecil S. Burgess.

BRITISH COLUMBIA

War has left the Architectural Fraternity here rather at a loss to know what effect it will have on business generally. The writer has spent much of his time since the first of September accepting cancellations, or listening to prospective clients give reasons why they should not build at the present time.

Construction will be assisted by the increased defence work along the West Coast. Work has commenced on the Patricia Bay hanger and runway for the Department of National Defence. Other large defence works should be under way soon. Although this work stimulates construction generally, it is of little help to the private architect unless something can be done to distribute more Government work to private firms.

The recent large orders for British Columbia lumber in the United Kingdom have made the lumber interests very optimistic, and with increased manufacturing, some architects are even looking forward to increased business.

Gardiner & Mercer, one of the oldest and best known architectural firms in Western Canada, have dissolved partnership. They are responsible for many buildings and have done several hospitals in Vancouver and British Columbia generally. One of the last contracts to be let from their office was that of the Chilliwack Hospital. Mr. Frank Gardiner will hereafter practise under his own name and Mr. Andrew Mercer is taking into partnership his son, Mr. Jack Mercer. The firm will be known as Mercer & Mercer.

Sharp & Thompson report that the Brock Memorial Students Building at the University of British Columbia should be completed about the end of December.

Mr. William Fredk. Gardiner, President of the Architectural Institute of British Columbia, has published an urgent appeal that all architects in this province co-operate with the R.A.I.C. and sign the registration form for national service.

— Robert A. D. Berwick.

MANITOBA

One of the most popular architectural pilgrimage centres on the continent is the old ante-Bellum town of Natchez, Mississippi. Here you will find more and finer houses of the Classic Revival Period than anywhere else in the old South. Even the popular magazines rhapsodize over its ivy-covered classic porticoes and its deep lawns shaded by magnolia and live oak trees.

It is best to go to Natchez during the Garden Club week when the atmosphere of the town is enhanced by lawn parties and balls in period costume. Unfortunately, I was not able to do that. Instead I went to the headquarters of the Garden Tour, where a delightful lady "carried" me to see several of the houses, introduced me to the occupants, and told me something about the history of each place. To my sorrow, I found that she had access to only a part of the group, the rival Garden Club apparently having reserved the rest of them. This was disappointing since I had only a limited time to see Natchez.

The houses I did see were well worth the time I gave them. They are well preserved, as they should be, for these relics of a more prosperous age are paying dividends for the care that has been given them. They range in style from the four-columned porticoes one usually sees in Virginia to those with twenty-eight columns completely surrounding the house. Here is an architecture that belongs to its locality, everything has been done to make the hot summer months more pleasant Ceilings are high, walls are thick, the wide porticoes provide welcome shade to the upper windows. The central hall is wide and open and comfortable chairs are provided there to take advantage of the breeze that seems invariably to be blowing through the house. Even the lack of furniture, particularly of the over-stuffed variety, is a welcome accent to the airiness and spaciousness of the great rooms.

The trees are necessary to complete the setting. The magnolias, the live oaks with hanging moss, heavy-leafed shrubs, brilliant flowers in exotic hues, all form a fitting background for these white houses that depend upon deep shadow and strong contrast for their greatest effectiveness.

The school year is beginning with the enthusiasm that architectural students are always able to muster in spite of wars or world conditions. We are fortunate in having a good enrolment with Architecture and Interior Decoration combined. They are already talking about their contribution to the cause and will do their bit to help the Red Cross and Federated Budget through the painting of posters. Here is a field architectural students will find ready for their particular talents.

— Milton S. Osborne.

ONTARIO

There is little of interest on the architectural horizon in this province just now, most of the work actually being done consisting of small houses erected under the National Housing Act. At Ottawa the Federal Government is about to put up a two-storey frame building of considerable area, to provide temporary relief from the acute over-crowding of office space. We also hear, this time on the very best of authority, that work on the Postal Terminal at Toronto is *not* being slowed down, and are very glad indeed to make this correction. The London Life Insurance Company are having plans prepared for extensive additions to their head office, and some work on the clearing of the site is now being done; but it is not expected that tenders will be called until some time next year.

The Executive of the Toronto Chapter are considering the question of monthly luncheons—or, rather, re-considering a previous decision to drop them for the time being. Everyone realizes, of course, that the old slogan "business as usual" contains more than a trace of hokum in war time, especially for architects; but it does seem a pity to curtail Chapter activities at a time when effective organizations may well prove a source of strength to the Government, where unrelated individual effort would be embarrassing. It is certainly reasonable to believe that, if and when the war should get under way, monthly meetings—whether they be luncheons or some other type—will be better supplied with subjects for discussion than in the piping times of peace. It would certainly do us no harm to get our thoughts *off* architecture once in a while.

A great many of the architects of Toronto and vicinity will learn with regret of the death of Mr. William Hughes, whose career as a builder goes back sixty years and more to the days when time-schedules had not been invented, and brickwork was brickwork indeed. He was born in the family home on Simcoe Street and lived there all his life; conducting the business from an office overlooking the yard and stables, as his father, no doubt, had done before him. (The yard also provided space for one of his pet hobbies—the cultivation of pink celery). In much of the building for which he was responsible he was associated with a cousin, the late Samuel R. Hughes, who did the carpentry and millwork. His own specialty was masonry; and his work was beyond reproach, as many a fine piece of walling remains to affirm. Outside of masonry, he divided his enthusiasms between horses, trap-shooting, duck-hunting and the indulgence of a droll humour —which latter is why the writer will always wonder whether a certain pair of ducks, (more strongly suggestive of fish than fowl), were taken at random from the bag or selected with malice aforethought.

— Gladstone Evans.

QUEBEC

Twenty-three designs have been received in connection with the Competition for the future Headquarters of the Association. The Jury of Award comprise the following: R. H. Macdonald, President; J. J. Perrault, First Vice-President; J. R. Smith, Second Vice-President; Professor Percy E. Nobbs of McGill University and Professor Emile Venne of the Ecole des Beaux Arts.

A General Meeting of the members to be held at the Windsor Hotel has been called for October 16th when the future policy of the Association with reference to its new offices is to be discussed.

Several proposals will be placed before the meeting on this occasion regarding the acquisition of different properties, but if a recent special meeting of some of the Past Presidents is any guide, the general opinion seems to be that the present time is not opportune for any large expenditure of the Society's capital funds. For the duration of the war it is felt that office accommodation and requirements should be kept down to a minimum. As was to be expected, the war is affecting the architectural profession and construction industry in many ways, and will continue to do so adversely, although not to the same extent as in Great Britain where matters have pretty much come to a standstill. In London the R.I.B.A. in the first week of the war decided to close its offices, to cease publishing its *Journal,* to discontinue its examinations for membership and to suspend the work of the Board of Architectural Education. Moreover, in order to satisfy Government requirements, the Institute has had to create an air-raid shelter in the basement of their building for the skeleton staff that is being employed at Portland Place.

The International Conference of Architects cancelled the holding of their September meetings in Washington, as all delegates from Great Britain and other European centres were unable to attend. The A.I.A. carried through their own annual convention as advertised to be held jointly with the International Conference. The only representative from Great Britain was Sir Raymond Unwin. He is lecturing later at Columbia and Harvard Universities. Canada had only two representatives, Prof. Cecil S. Burgess from the University of Alberta and another member from the S. C. Province. Prof. Burgess, who was visiting Montreal recently, is retiring from University work this year, and intends to devote his whole time to the many problems of town planning and the improvement of slum areas in Edmonton. It is to be regretted that following his retirement the School of Architecture at Edmonton will have to discontinue the good work that was inaugurated by, and has been carried on so effectually by Prof. Burgess for many years.

In attempting to meet the many problems that have arisen due to the war crisis, it is encouraging to know the R.A.I.C. Executive are working in the spirit of the policy that has been adopted by the R.I.B.A., namely, that "It will be the anxious and continual duty of the Institute to maintain the profession's place in the service of the country, while conserving all that is in their charge that may help a new and better architecture to build the world up afterwards."

— Philip J. Turner.

NEWS ITEM FROM BRITISH COLUMBIA

Formal presentation of honorary membership in the Architectural Institute of British Columbia, conferred at the last annual meeting, was made to Lieutenant-Governor Eric W. Hamber on Thursday, October 5th, by the President of the Institute, William Fredk. Gardiner.

Attending the interesting ceremony also were two other honorary life members, Joseph H. Bowman and Major C. B. Fowler, as well as E. B. McMaster, Secretary of the Institute.

R.A.I.C. CONTRACT DOCUMENTS

Members of the Institute are advised that copies of the R.A.I.C. contract documents may be obtained from the secretary, 74 King Street East, Toronto, at the following prices:

Standard Form of Construction Tender—10 cents each, 60 cents per dozen.

Standard Form of Agreement Between Client and Architect—10 cents each, $1.00 per dozen.

"Stipulated Sum" Form of Contract — 15 cents each, $1.50 per dozen.

"Cost Plus" Form of Contract—15 cents each, $1.50 per dozen.

Money orders or cheques payable at par in Toronto must accompany all orders for contract forms.

COPY OF LETTER SENT TO PRESIDENTS OF PROVINCIAL ASSOCIATIONS

Montreal, October 2, 1939.

Dear Sir:

Architects who have had the opportunity of observing other professional societies cannot help but feel a pardonable pride in the efficient organization of the R.A.I.C. In fact, it is no exaggeration to say that it forms a model for a successful, national, professional Association.

Whereas those who framed the Constitution of our Institute planned well, it remains for us who come after to maintain a progressive development of its ideals and to continue to increase its usefulness to the Architects of Canada.

The great success which the Institute has achieved is due to that spirit of co-operation, mutual assistance and recognition which has always marked the relations between the various Provincial Associations, and this spirit continues to manifest itself in all our undertakings.

Relying on this sentiment, your Executive feels that a further co-operative step by the Component Associations would be of the greatest value to the whole profession. The principle involved is the recognition by all the Associations of the Diplomas in Architecture granted by Canadian Universities.

The Province of Quebec Association of Architects accepts the qualifications of graduates in Architecture from the following:—

McGill University,
Ecole des Beaux Arts, Montreal,
University of Toronto,
University of Manitoba.

It also requires that the candidate for admission to membership pass an examination in Professional Practice and serve one year's indenture after graduation.

The Ontario Association has approved similar recognition of the above Universities.

The Executive of the R.A.I.C. would consider it a great advance in inter-Provincial co-operation if your Association could also find it possible to accept the Diplomas of the Canadian Universities mentioned above as qualification for admission to your membership, thereby establishing a uniformity in "Admission requirements" across Canada. This appears reasonable in view of the standing of these Universities, and the fact that every province does not have University facilities for the granting of degrees in Architecture.

The Executive also considers it a sound principle that, in addition to the above Diploma, the candidate should be required to pass an examination in Professional Practice or its equivalent as set by the Provincial Professional Association and to have one year's indenture, to qualify for admission.

Under the existing reciprocal arrangements between the Associations, a member in one province, who originally qualified to practise in that province through a Diploma of one of these Universities, may be granted membership or a permit to practise in another province. It would therefore seem logical for the second province to recognize the Diploma directly as a qualification for membership.

We trust that this suggestion will commend itself to our confreres in your Province, and that, if you have not already officially taken such action, you may find an early opportunity of considering the question with a view to standardizing the procedure in this important matter of admission.

Faithfully yours,

Gordon McL. Pitts.

BOOK REVIEW

WORKING DETAILS, PART I: DOMESTIC

Edited by MILDRED W. WHITE, A.R.I.B.A.

The Architectural Press, London. 139pp., 9¼x12½ in. Price, 10/6.

This is the first volume of a series, the remainder of which will set forth public, commercial, and industrial details. It is comprised of plates selected from those appearing in the Architects' *Journal* since 1934, and which are classified under headings of Structure, Windows, Doors, Staircases, Furniture, Fireplaces, and Miscellaneous. Each detail is illustrated by a photograph and explained fully by dimensioned drawings including a comprehensive axonometric and large scale details. These drawings are of a standard which is now expected of the Architectural Press, and may be taken as good examples of modern drafting.

The examples are selected from a design standpoint as well as from considerations of construction, and are all modern but one. This is not a collection of standard details, or an exposition of solutions of the economic problems of construction. The type of work shown is, in the main, of the more expensive "custom built" class.

Such a book as this is obviously intended for direct use in the architect's office, but like so many English architectural publications, is far less applicable in Canada. Not only do the usual differences between English and Canadian practice in matters of roofing materials, heating and ventilating, millwork, and the like detract from its usefulness to us, but the section on Kitchens might well be omitted, as the standard grade of good Canadian kitchens still seems to lead even these hand-picked English ones.

The discriminating moderns in this country, however, must still depend for general design inspiration on foreign examples, and in this book he will find much that interests him, for while some of the material may be familiar through reproduction in other publications, the opportunity to study the internal design of such details will add interest to them.

Would that there were available such a series chosen from regions where construction practice more closely parallels our own.

—*George H. Piersol.*

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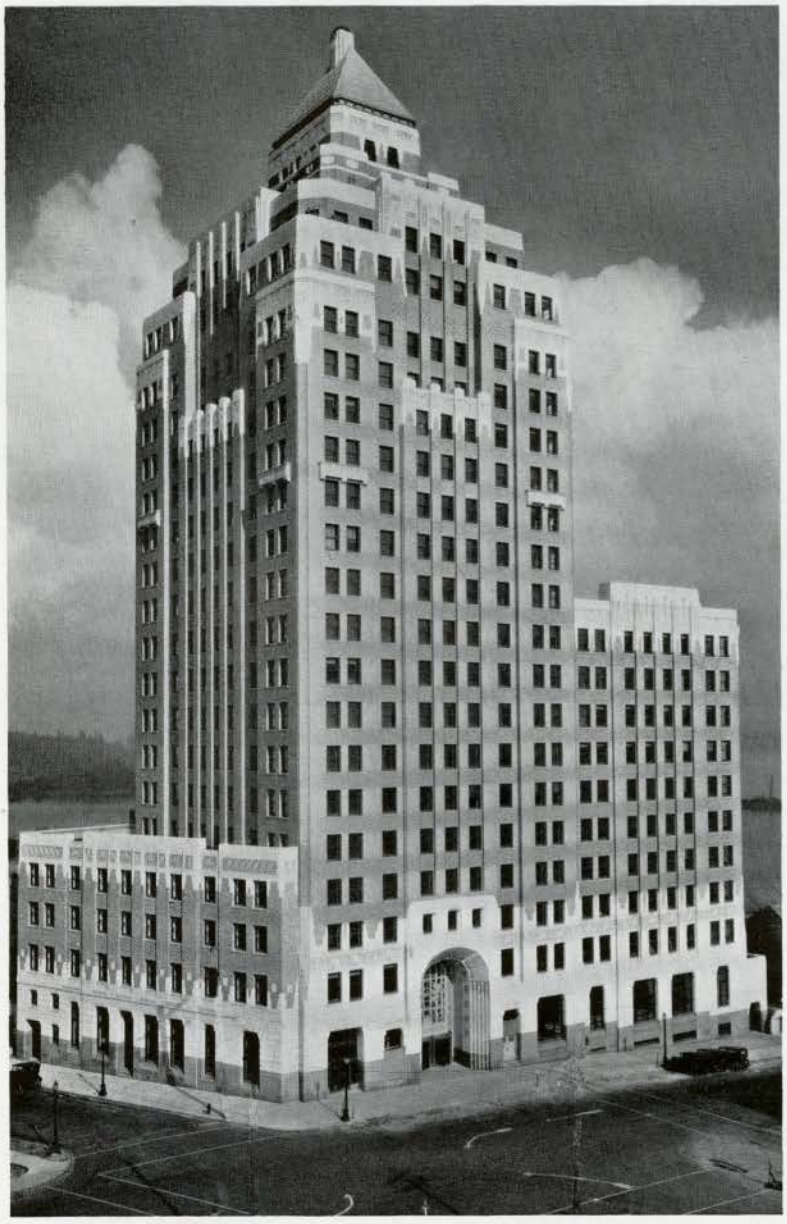

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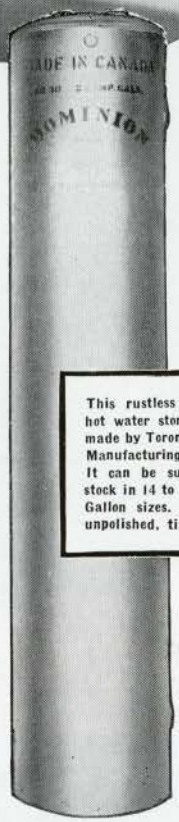

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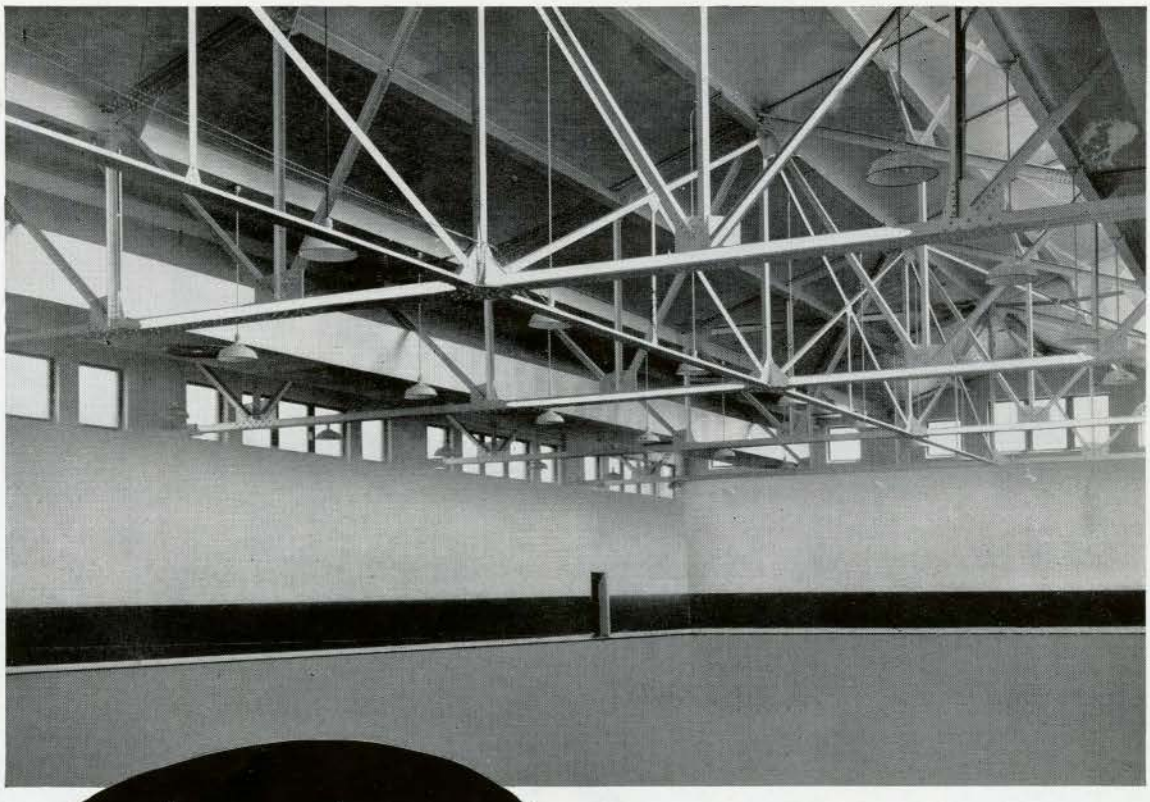

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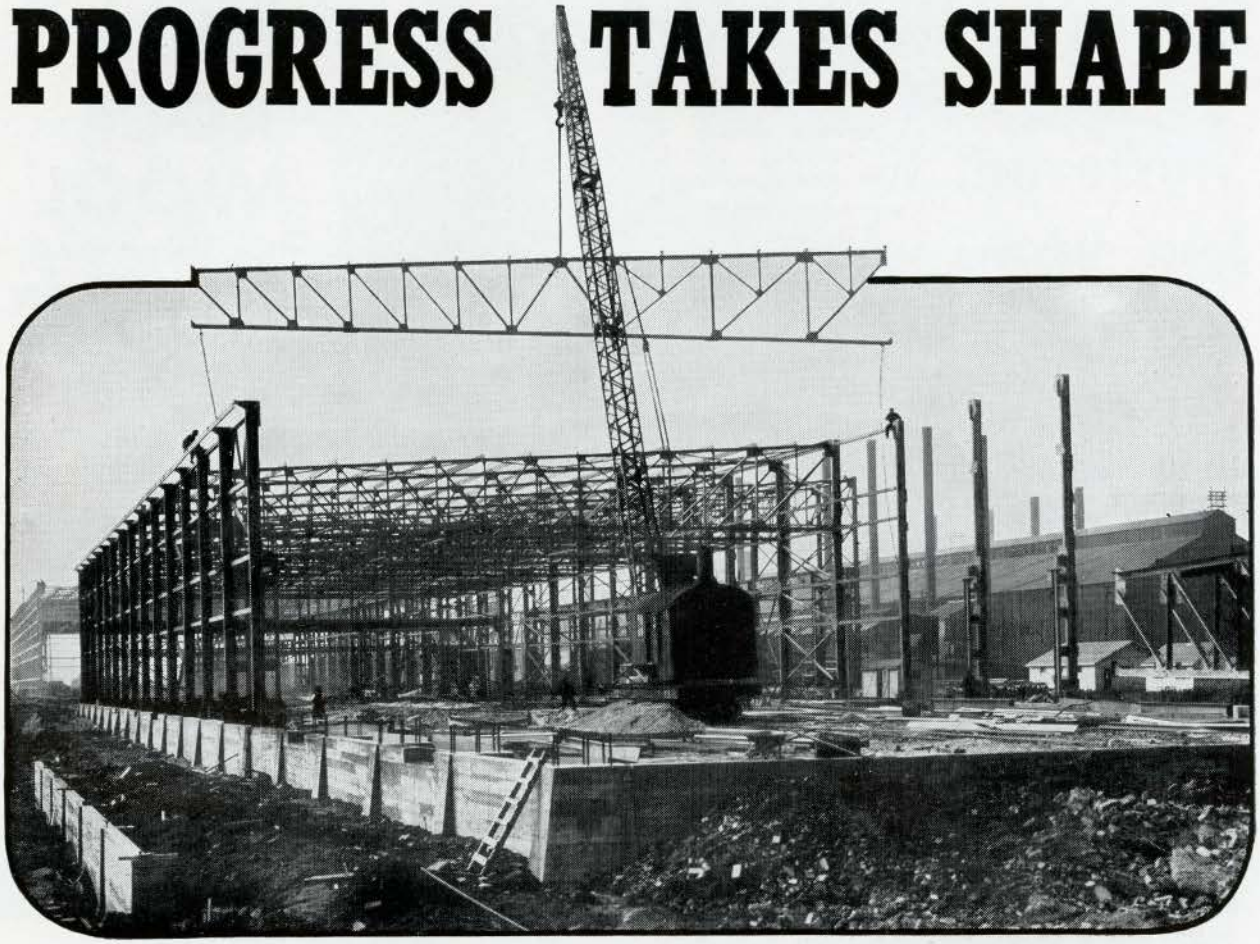

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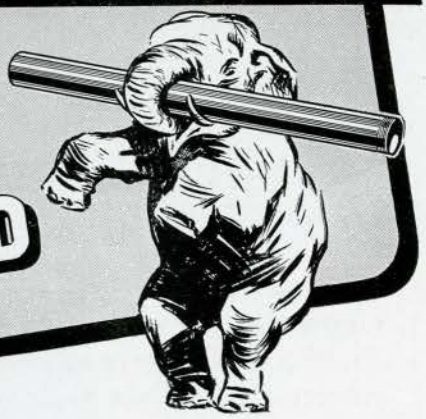

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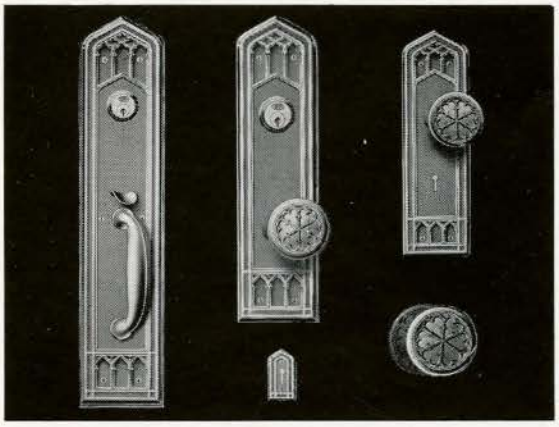

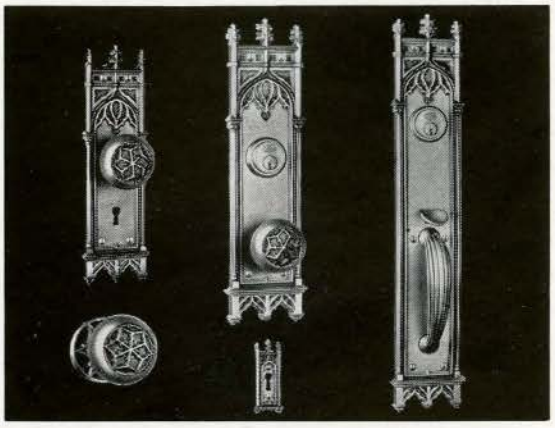

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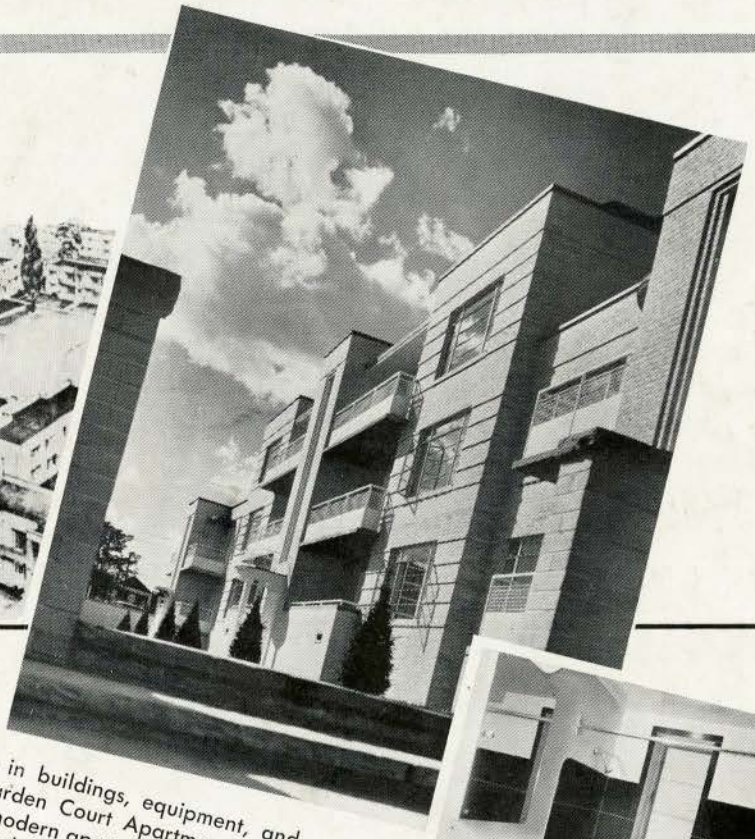

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