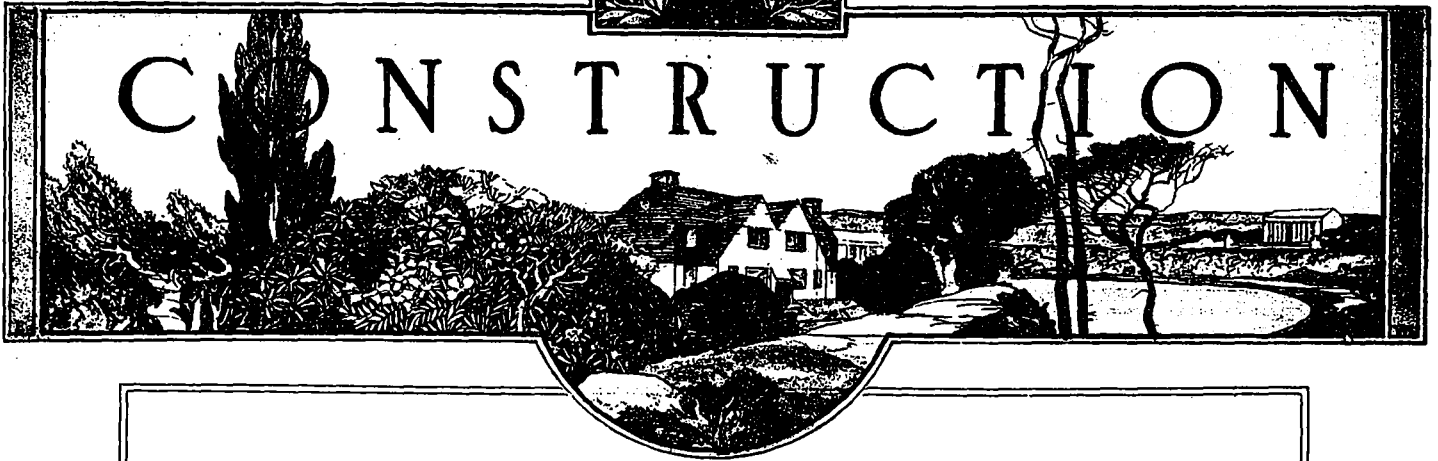


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CONSTRUCTION



September, 1916

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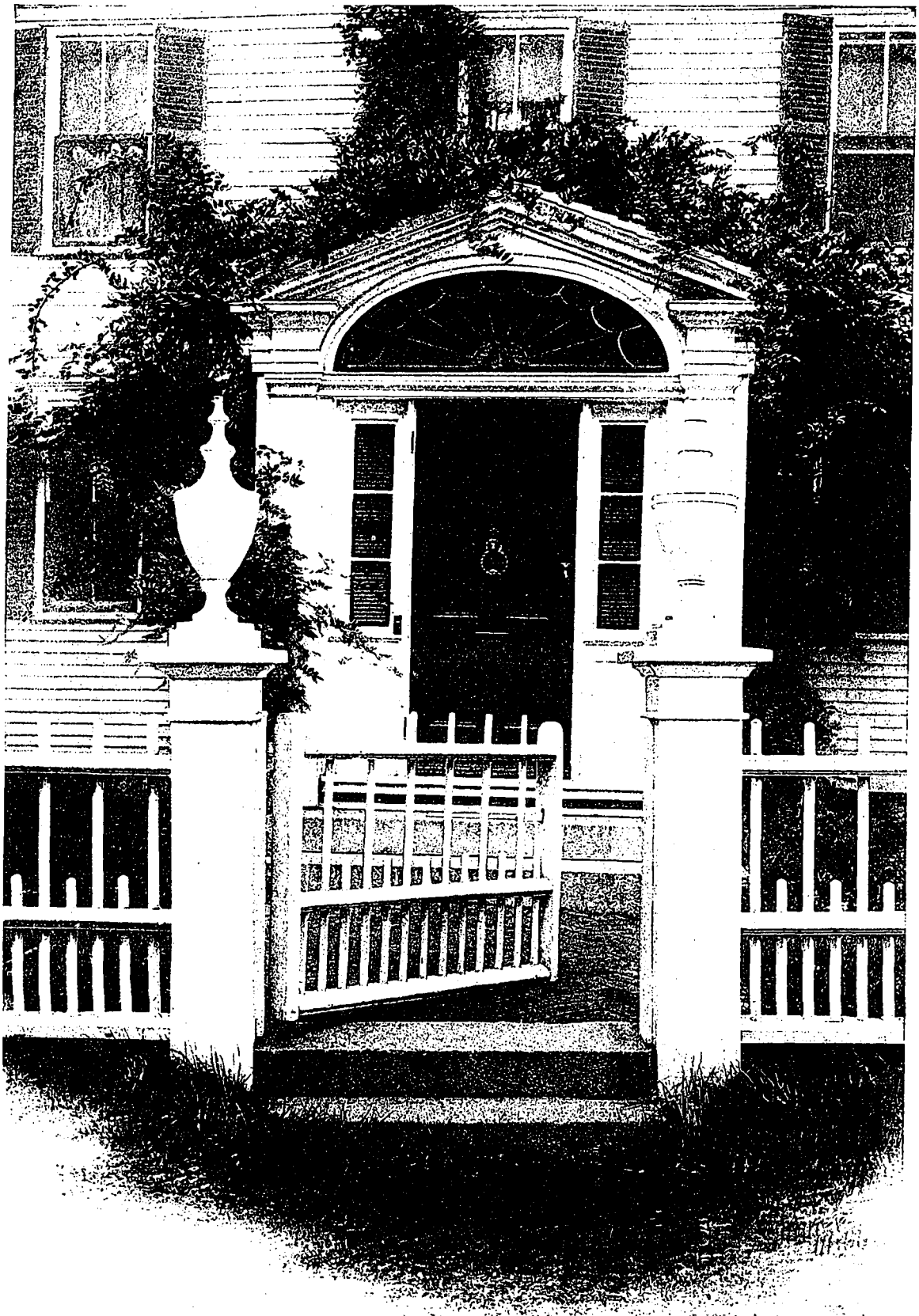
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BRANCH OFFICES

MONTREAL

NEW YORK



ARTISTIC DOORWAY
BUILT ABOUT 1750
OF WHITE PINE.

Bronze in Architecture

Interest in Bronze Work Stimulated by the Establishment of Bronze Statuary Casting.

FOR the first time in the history of this country the art of bronze casting, which reached its zenith under the Florentine Masters, is being cultivated. The part played by bronze in the development of civilization is indicated by the fact that a whole period or era of the human race is known as the Bronze Age. It was the cycle immediately following the crude stone age and preceding the age of iron, which brings us down to the present, a heterogeneous period of many phases, but still the iron age.

The bronze of classical antiquity consisted

made, as is proven from discovered relics.

The Assyrians are recognized as the first to introduce the casting of bronze into the making of statuary. Remains of Assyrian statuary have been found containing a core of iron, which, owing to the difference in the coefficient of expansion and contraction of the iron and bronze, was not satisfactory.

The Greek artists were pioneers in the art of casting bronze hollow, the introduction of this method being a great gain to sculpture. It enabled models of clay, which could be made quickly, to be accurately reproduced, although



BRONZE FIGURE, SIX FEET HIGH, BOY WITH TURKEY,
FOUNTAIN MAISONNEUVE MARKET.



BRONZE FIGURE, SIX FEET HIGH, BOY WITH NET AND FISH,
FOUNTAIN MAISONNEUVE MARKET.

chiefly of copper, with an alloy of one or more of the metals, tin, zinc, lead and silver, the character of the alloy changing as times changed or as was required for different purposes. The Greeks used bronze for coins consisting of an alloy of copper and tin up to 400 B.C., after which lead also was introduced. The Romans also used lead for a time as part of their bronze alloy for coins. The earliest employment of bronze for artistic purposes was to hammer it out into thin plates, which were fastened together with nails. The first statues were so

the difficulty and expense of this process placed it at a disadvantage as compared with marble. It was, however, frequently employed, and in the case of large statues it had no rival.

The Colossus of Rhodes, a figure of the sun god Helios, and one of the seven ancient wonders of the world, said to be one hundred and five feet high, was an example of the utmost that art could do with bronze. It was thrown down by an earthquake after standing fifty-six years. A bronze statue of Zeus at Tarentum was sixty feet high.

The earliest establishment for bronze founding of any extent was carried on on the Greek Island of Delos, and next to that, the Island of Aegina. At the time of the sculptors Myron and Polyeletus a rivalry existed between these two places, each sculptor preferring the bronze from a different source. The bronze of Corinth was more celebrated than either. It was supposed to have been obtained by the melting together of statues of bronze, gold and silver at the burning of the town. Pliny, referring to the bronze of Corinth, said it was more precious than silver, its value approaching that of gold.

With the exception of statuettes, candelabra, mirrors and bronze vessels, only a few fragments remain of the vast number of bronze statues by ancient sculptors. One of the most notable of these is the colossal bronze head of Venus in the British Museum.

The art of bronze casting, which had sunk with the Byzantine Empire, was revived in the eleventh century. In the twelfth century it was taken up in Italy. Although interesting works of this kind exist from the thirteenth and fourteenth centuries, it was not until the fifteenth that the art obtained its complete mastery under the Florentine artists. Since then the order of sculpture in bronze has reverted to the production of statues and groups in the round.

Because of the ancient associations connected with the history of bronze casting and its relation to the development of art, particular interest attaches to the initiation of bronze casting in Canada. Statuary founding promises to open up a new field to Canadian craftsmen. Naturally the cost of statuary founding in Canada is higher, but sculptors have shown their willingness to patronize the Canadian industry, even at the necessary higher cost, thus putting it on a secure footing, and showing that the European conflict may have some immediate economic

compensation for us in stimulating industry.

PROCESS OF MANUFACTURE.

The old method of bronze casting, known as *cire perdue*, was to use wax for the thickness of the statue between the core and the mould, which was of baked clay. The wax was melted and poured off before the metal was run in, the core and mould being held apart by stays of iron wire. In modern practice large works are never cast in one piece.

The present practice is to make the model in plaster and to build around it piece moulds of Caen sand from one and one-half to two inches thick, the size of the pieces being determined by the shape and character of the positions they occupy. These pieces are backed by plaster of paris to about one foot in thickness, with indentations cut in their horizontal thickness into which the succeeding portion of the mould fits. The mould is then taken to pieces, dried and rebuilt in the casting pit. It is then filled with core composition in a liquid state, and when this is sufficiently hardened, again taken to pieces. The core thus obtained is thoroughly dried and reduced in size by scraping away as much of the material as would represent the thickness of the metal to be cast.

This done, the mould is again built up over the core.

The ordinary method of melting bronze is by means of a reverberating furnace. Copper is first melted with small charcoal or coke, after which tin is rapidly thrust down to the bottom of the molten mass. The mould as described above is now ready for the metal which is poured in in the ordinary manner. When the casting is removed from the mould it is turned over to artists who eliminate all roughness, adding sharpness and detail where necessary.

Illustrations shown in this article represent



BRONZE GROUP, MAISON-NEUVE BATH HOUSE.

largely the work of Mr. Alfred Laliberte, sculptor of Montreal, being figures for the large central retail market at Maisonneuve, suburb of Montreal. The group finished weighs about seven thousand, five hundred and nineteen pounds.

THE WORK ITSELF.

The principal figure, a Canadian peasant woman, carrying on her arm a large and well filled basket of fruit and vegetables, stands nine feet two inches high, and weighs about 2,000 pounds. The figure was cast in four sections and was entirely successful.

To execute this large figure was an extraordinary piece of work. It would have been considered so, even in a Belgian foundry. But it was done in the most workman-like manner, with a great degree of facility. A jocular workman gave it the name of "Lizzie," and by that name it was known in the factory from start to finish of the job.

This figure is supported on a large marble base. On each of the points of this is the figure of a boy, weighing about 1,200 pounds. One, nearly six feet



"LIZZIE," THE PRINCIPAL FIGURE AT THE MAISONNEUVE MARKET PLACE FOUNTAIN, NINE FEET HIGH.

tall, has a net over his shoulder and a large fish in his arms. The second boy is leading a calf and the third is struggling with a turkey. At the base of the figure are three large frogs, the mouths of which form water spouts.

At intervals around the base are six large and three smaller turtles, the larger ones weighing about 200 pounds and the smaller ones 100 pounds each. Each of the large turtles was cast in seven pieces, making forty-two moulds. The smaller turtles needed only two moulds each.

The special work had to be done outside the regular work and caused no small amount of work and planning, handling six-ton moulds and melting enormous quantities of bronze so as not

to interfere with other pieces. Every detail had to be figured closely and every minute operation run to exact schedule. The largest single casting weighed 1,400 pounds with gates and sprues.

Building Restrictions in England

The new defence of the realm regulation, by which, on and after July 20th, 1916, all the building and construction work is, with certain exceptions, prohibited, is considered by those engaged in the building trades as designed for the regulation of the steel so largely used in building construction, to enable the best use to be made of the materials available.

The *Yorkshire Observer* states that inquiries among representatives of the building and allied trades in Bradford show that the staple trade of the city may be affected by the new order, unless concessions by the Ministry of Munitions are made. The building trades for twelve months, except for munition purposes, have practically been stagnant, but there are in Bradford several warehouses and works in course of construction which



LORD DORCHESTER, FOR QUEBEC PARLIAMENT BUILDINGS, EIGHT FEET HIGH.

may have to stand unfinished unless permission for progress with the work can be obtained.

As to the future of the building trades the same publication says that the Yorkshire Federation of Building Trades has advised its members where possible and desirable to endeavor to contract for work on the basis of fixed profit on actual cost of time and material, adding the cost of insurance and establishment charges on which to take the percentage of profit, and this plan is being followed by numerous builders in the city.

Advance in Cost Due to War to be Adjusted.

Builders are also inserting a clause in their contracts, stating that they are based upon the

prices of materials and the rates of wages prevailing at the time of tendering, and providing that any proved advance in cost, unavoidably and exclusively due to war conditions, shall be adjusted on the completion of the work, besides allowing an extension of time where delay in the delivery of material or goods is due to war conditions.

The builder does not anticipate a speedy return to normal conditions, locally, after the war is over. The restoration and rebuilding of the war-devastated countries, which will benefit those who take a hand in it, will swallow up no mean proportion of the available supplies of materials, and this fact, in conjunction with the restricted shipping facilities there will be for some time after the conclusion of hostilities, will tend to keep up the prices of builders' materials.

Settlers' Permits For Fires

During the last session of the Legislature of Quebec several amendments were made to the Fire Act, which are calculated to add materially to its strength and efficiency.

One of these provisions requires that settlers engaged in clearing operations must, between April 1 and November 15 of each year, secure a burning permit from an authorized forest officer before setting out clearing fires. Wherever this provision is properly enforced, it will undoubtedly effect a very material reduction in the forest fire loss. One of the most serious features of the fire situation throughout Canada is the tendency of settlers to burn debris during dry periods, when fire is likely to spread and cause serious damage. A similar provision is urgently needed in Northern Ontario, where there is practically no control of settlers' clearing operations.

Another amendment to the Quebec Act provides that the debris from settlers' clearing operations must, before burning, be piled in heaps or rows at a distance of at least fifty feet from the forest. On this basis, it is much more practicable to control the fire than where the old method of broadcast burning is employed.

Holder of timber licenses on Crown lands are required to clear away the debris on a depth of one hundred feet from railway rights of way. This is an excellent provision, but should be made applicable to privately owned lands as well. In many cases, the efforts of railway companies in the direction of fire protection are largely neutralized through the presence of large quantities of the most inflammable debris on lands immediately adjacent to railway rights of way.

Another excellent provision of the new Quebec Act is that any fire ranger or other forest officer may summon any male citizen between 18 and 55 years of age to assist in extinguishing any forest fire, the rate of pay being specified, and penalty provided for failure to obey summons.

The fire laws of the Province of Quebec are among the most progressive of any part of Canada, but much larger appropriations are needed to make them fully effective. In particular, provision should be made for a much larger staff of inspectors. The present staff is not sufficient to exercise proper supervision over the fire rangers on licensed lands, nor is there any adequate provision made for the proper protection of Crown lands not under license.



BRONZE LION ON BALUSTRADE.



CANADIAN BRONZE CASTING—STUDIO.

New Customs Examining Warehouse, Montreal

A Lasting Monument Has Been Erected in this Building by the Dominion Government, upon McGill Street, Not Far From the River Front.

THIS building was structurally finished some time ago, and is now nearly fully furnished, equipped and occupied, and, encased in grey granite from the Laurentians with Wallace sandstone to the upper stories, backed with plastic brick, with walls in places some nine feet thick, forms a massive and imposing structure.

The present building constitutes rather less than half of a block, which, with the proposed

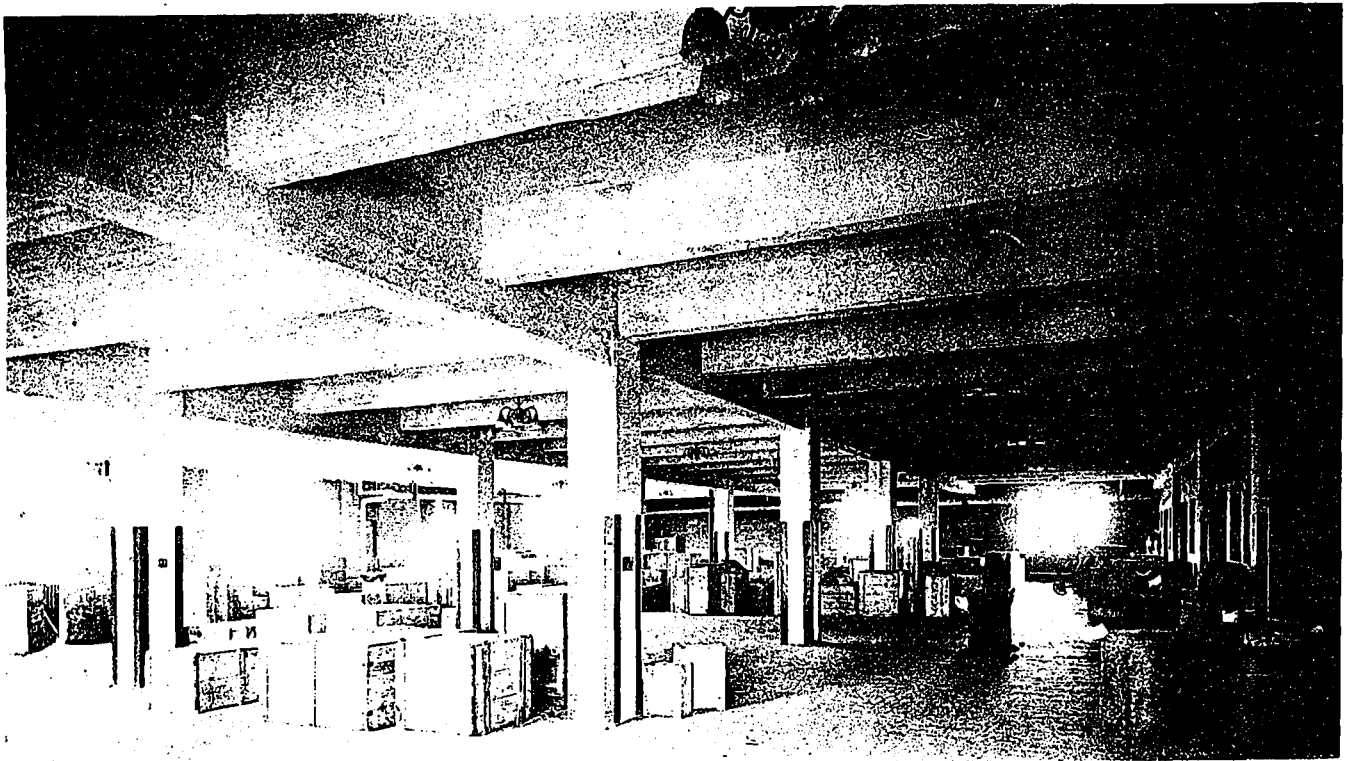
new Customs House, already planned, will occupy the whole of a city site bounded on all four sides and with frontages to four streets, with an overall length exceeding four hundred and sixty feet.

Extensive and difficult operations were needed in overcoming obstacles encountered during the foundations work. Hard and soft clay, some gravel, strata saturated with water, evidences of an old underground stream not yet



CUSTOMS EXAMINING WAREHOUSE, MONTREAL, QUE.

E. L. HORWOOD, ARCHITECT; A. H. LAPIERRE ASSOCIATED.

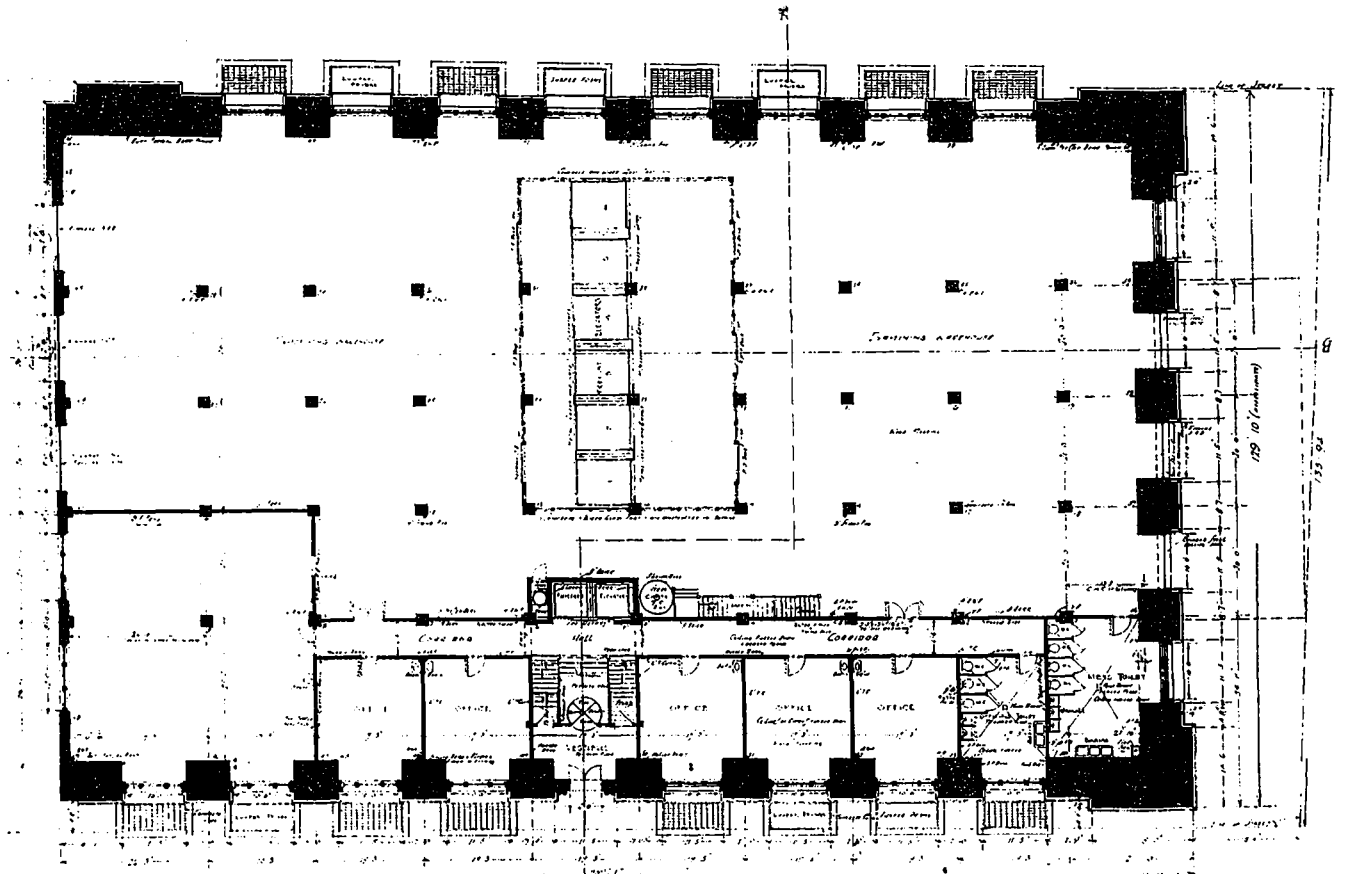


TYPICAL FLOOR, CUSTOMS EXAMINING WAREHOUSE, MONTREAL, QUE.

extinct, and immense boulders between them rendered quite useless the usual methods of carrying down the concrete piers upon which the building was to stand. Bottoms of excavations bulged and bubbled upwards, and continued pumping threatened to bring in the neighboring streets and affect the surrounding buildings.

Sheet piling was replaced by patent interlocking steel, which in turn was crippled as soon as it met the harder layers and in no case could be effectively used among the boulders encountered underground.

To overcome the difficulty it was necessary to sink pneumatic caissons, blast boulders where



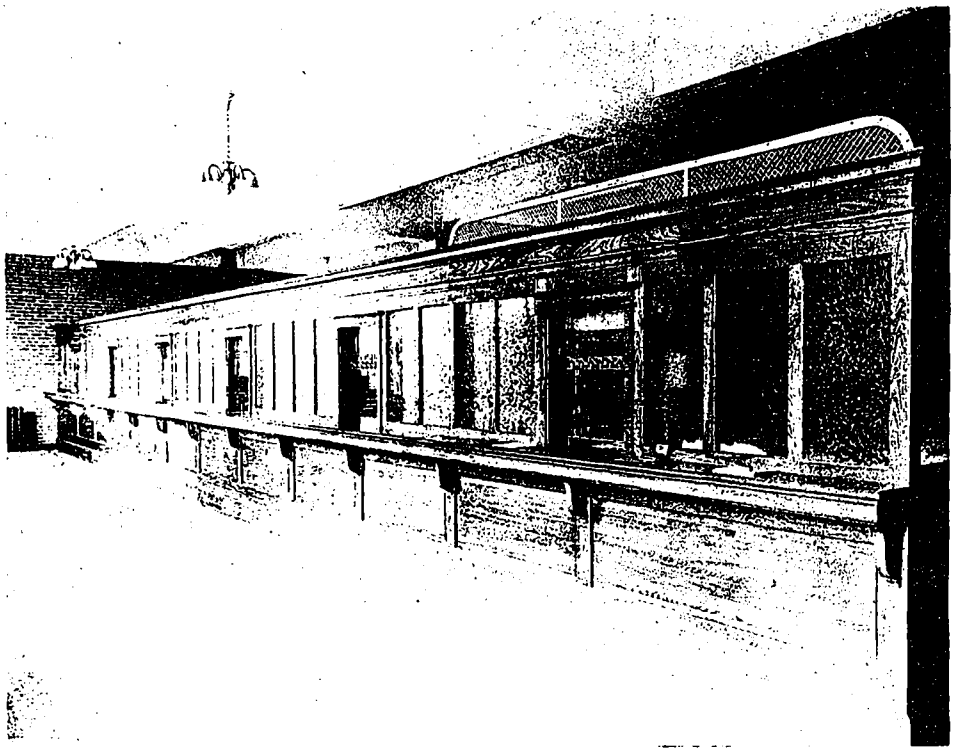
GROUND FLOOR PLAN, CUSTOMS EXAMINING WAREHOUSE, MONTREAL, QUE.

E. L. HORWOOD, ARCHITECT; A. H. LAPIERRE, ASSOCIATED.

they were met with, and eventually bring the piers to rest upon the solid rock, in places over eighty feet below the sidewalks. In one instance a boulder, passed by a descending caisson, became influenced by the movement and slowly turned over, crushing into and penetrating the caisson through the side, and necessitating blasting and repairs under exceptionally difficult circumstances.

The steel construction rapidly followed as soon as the piers were levelled off and the grillages set.

This and the floors, roof, walls and structure generally are of particularly strong and sound construction, and, including the partitions, are fireproof throughout. Doors are kalameined and fire resisting; borrowed lights are equipped with wired glass. The structural steel is brick covered in the walls and concrete covered in the floors; the floors are in reinforced concrete, that of the basement being twelve inches thick and reinforced in two directions with half-inch bars on six-inch centres in order to resist an upward thrust from the sometimes water-logged soil. This floor and the basement walls are water-

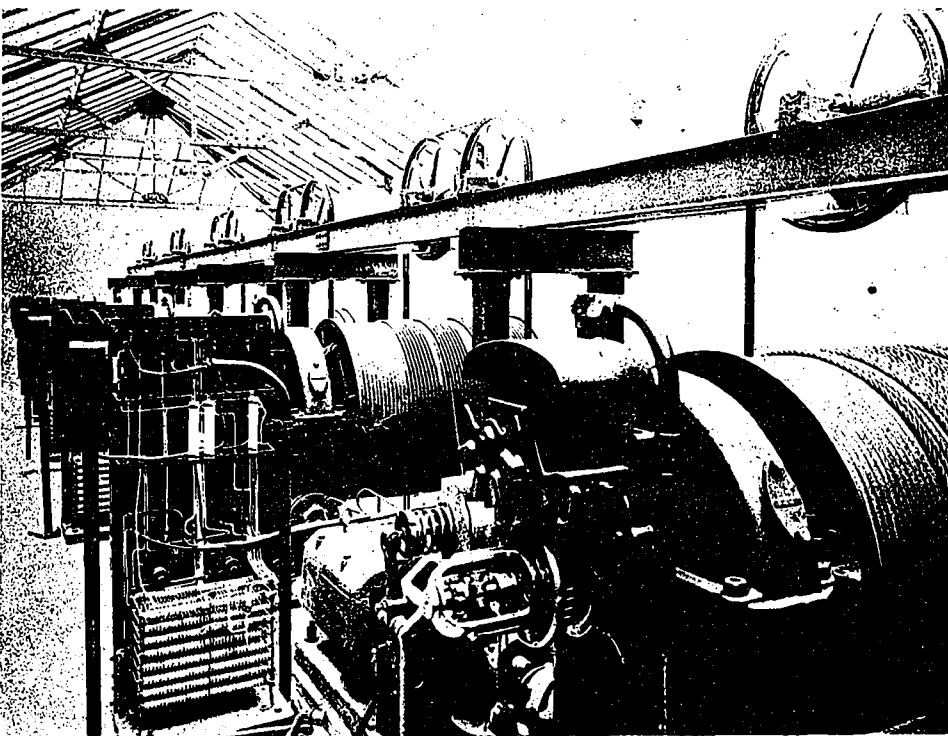


EXPRESS OFFICE, CUSTOMS EXAMINING WAREHOUSE, MONTREAL, QUE.

proofed internally. Upper floors have a heavy hardwood finish to meet the severe wear and tear, trucking over, etc., to which they will be subjected, and in the basement the waterproofed finish has been graded to drain off liquids from leaky storage. Land drains lead the water in the sub-soil, from all parts of the basement to a sunpitt in the boiler room, from which it is ejected into the drain to the sewer by an automatic cellar drainer.

Internally the warehouse and toilet room walls are lined in pressed brick, and the offices, halls, staircase and corridors plastered. A suspended plaster ceiling on metal lathing protects the top floor from heat from the roof, and suspended ceilings in the corridors and toilet rooms provide space for much unsightly plumber's work and piping, at the same time retaining easy means of access.

Marble from Canadian quarries has been extensively used in stair treads, dados, wall linings and plinths in the main staircase, halls and corridors, lavatories and toilet rooms, and with terrazzo flooring in these positions, is not only effective, sanitary and easily cleaned,



ELEVATOR CONTROL, CUSTOMS EXAMINING WAREHOUSE, MONTREAL, QUE.

but it also forms a most permanent finish, needing no periodical attention, as do so many other materials.

Exterior doors to warehouse are steel rolling shutters, counterbalanced by spring and operated by gearing necessitated by their size.

Exterior doors to warehouse are Kinnear steel rolling shutters, counterbalanced by spring and operated by gearing necessitated by their size.

Considerable exterior and interior glazing has been done in steel sashes.

The sanitary system, with a thousand-gallon flushometer on the top floor, leaves little at the mercy of careless or destructive people, sometimes found to misuse conveniences of a public building.

Hot water to the basins and sinks is supplied by a separate hot water heater and three-hundred gallon storage cylinder.

Water supplies are taken from the city mains.

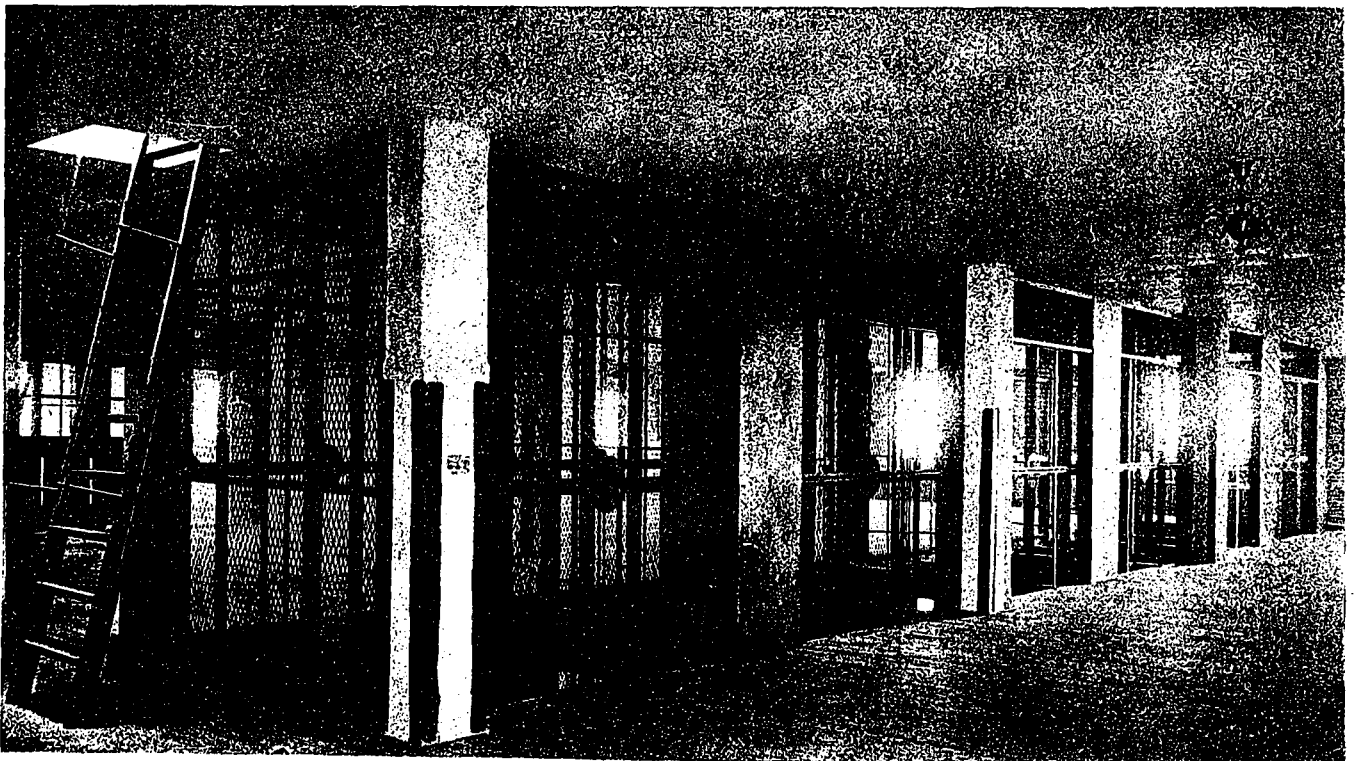
The heating has been specially considered and five boilers provided, some five feet in diameter and fourteen feet long, forming an installation calculated to meet the requirement of the whole block when finished. Part of these deal with the existing building, with steam at low pressure circulated to the various radiators.

High tension wires have been brought into the building underground, to three thirty K.W. transformers, from which they proceed to the general distributing switch board to supply the lighting current, and from which panel is also controlled the power wires for the various elevators.



MAIN STAIRWAY, CUSTOMS EXAMINING WAREHOUSE, MONTREAL, Q'É.

The elevators are grouped, with two for passengers opposite the entrance, and half a dozen larger ones for freight across the body of the building, each eight feet wide and ten feet across, generally arranged to be used from either side, and to carry loads of three tons at a time. The passenger machines are in a commodious room in the basement, and the freight machines form an imposing installation in their long pent house over the roof.



ELEVATOR SHAFT, CUSTOMS EXAMINING WAREHOUSE, MONTREAL, Q'É.

Art at The National Exhibition

Work of Famous Artists and Sculptors Represented.

THE collection of paintings and sculpture adorning the Art Gallery this year surpasses in interest and significance any previous display that has been seen in this country. It embraces the entire collection of the work of contemporary French artists sent by the Ministry of Fine Arts at Paris to the Panama-Pacific Exposition. Taken as a whole, it is an epitome of what has been accomplished in a country where art is honored above all things, in the twentieth century; though it embraces the achievements of veterans whose names were established decades ago. One hundred and forty painters, nine etchers and engravers, and twenty-two sculptors are represented, some of them by numerous examples.

Everybody with a cursory knowledge of the history of art has heard the names of Claude Monet and Auguste Renoir, the leaders of the impressionistic movement of the seventies, and who did so much by their new processes in the analysis of light and the division of tones to revolutionize conceptions of painting. Both of these veterans are represented by works executed within the present century. Monet's contribution is a painting of his beloved *Vitruvius*, which shows his methods in brush work and in treatment of atmospheric tones in their finest development. Renoir's canvass, "*Garden in the Rue Corot*," shows the remarkable individuality of his style and his brilliant color sense. Both these pictures are of immense value; but impressionism is only one of a score of schools of thought that are represented.

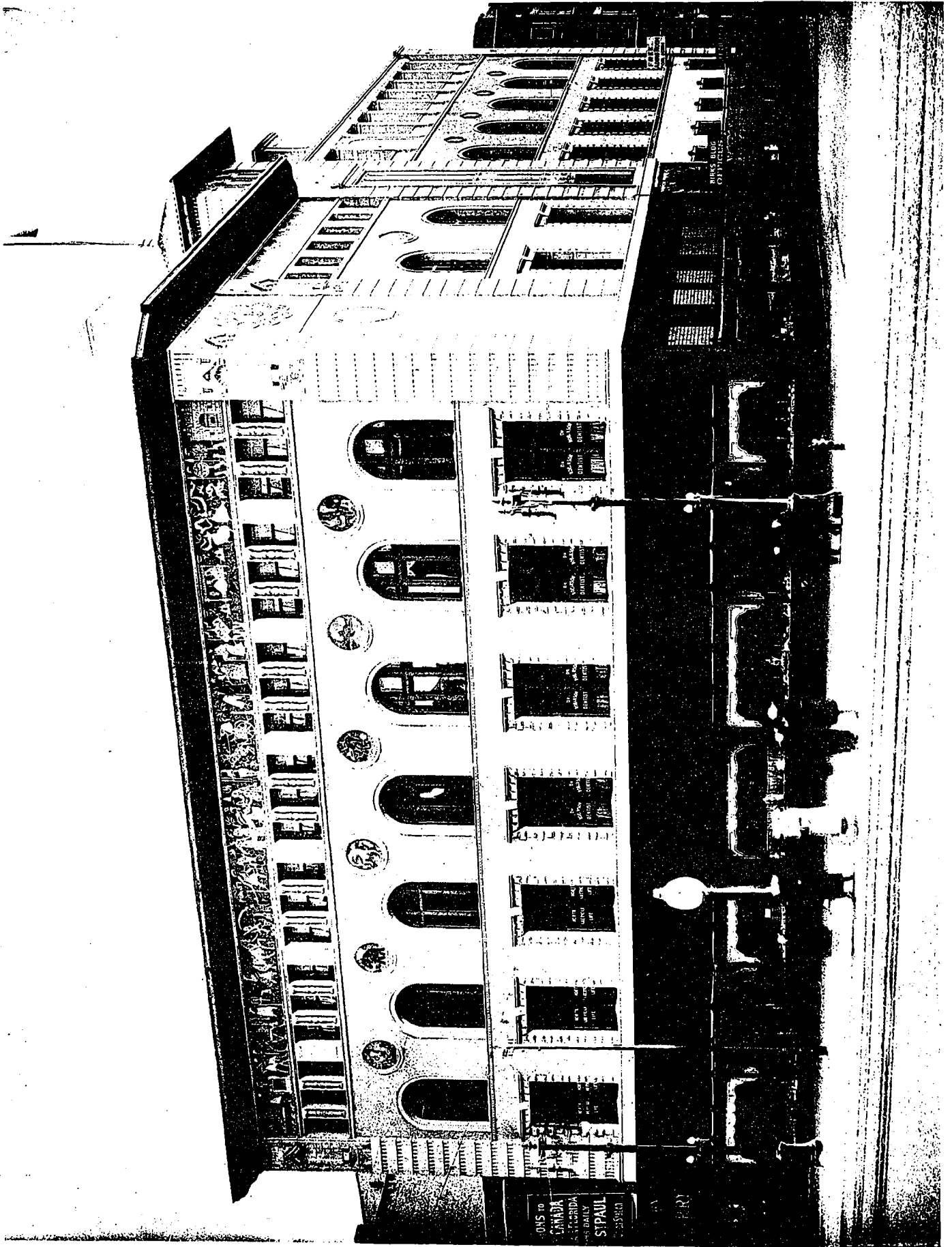
It must be remembered that this collection was arranged previous to the outbreak of the war, which broke out four months before the opening of the San Francisco Fair. Consequently the great conflict is not reflected in the beautiful canvasses that will adorn the walls of the Art Gallery. Here are, however, a considerable number of pictures that take on a new value and significance because of the war. This is especially so of Paul Helleu's architectural piece, "*Rheims Cathedral, Before the Bombardment*," which is an exquisitely painted interior showing the great windows of mediæval painted glass, wantonly destroyed by German vandals. Helleu's work as a dry paint etcher is well known on this side of the Atlantic, and his amazing mastery of detail is shown in this work. The River Marne, where the defeat of German hopes began, figures in several beautiful canvasses. Notable among these is Andre Chappuy's "*The Banks of the Marne*," which is the property of the French Government. It is

painted with a smoothness of brush work that is masterly and shows in a delightful way the life of the river side. Another picture in the same field is Charles Milcendeau's "*Washer-woman of the Marne*." The poetic appeal of the river and its environs is shown in Georges Griveau's "*Silver Thread of the Marne*." Another picture with a geographical significance for all of us is Louis Braquaval's landscape, "*The mouth of the Somme*." There are other fine landscapes and figure pieces showing the life of Flanders and most of the other places that have been stained by blood in the great conflict.

Among other notable pictures is Felix Vallot's portrait group, "*Painters*," which, with its hard outlines and meticulous study of faces, recalls the early Flemish school.

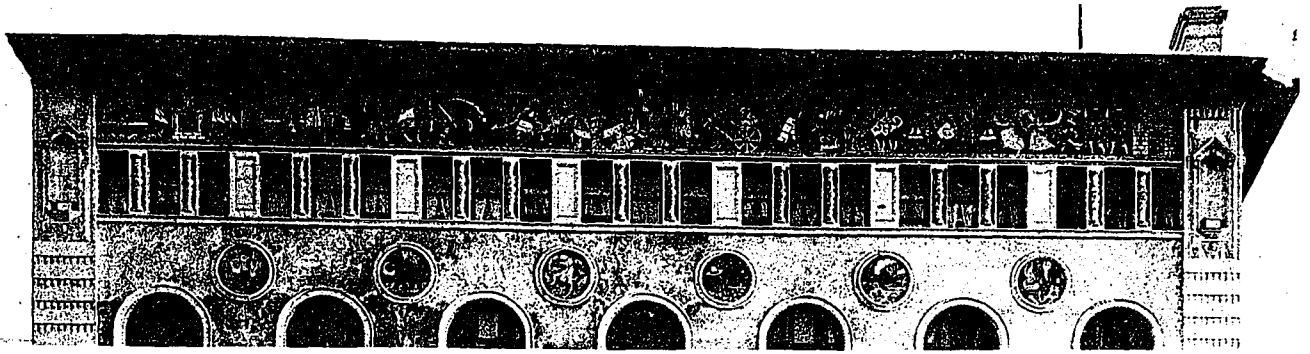
One of the most attractive of nudes is "*The Swan*," by J. Francis Aubertin. It shows a nude woman caressing a graceful bird, and is notable for its harmony of line and poetry of feeling. One of the most interesting of the numerous portraits is "*The Lady with the Hydrangea*," by Henri Caro Delvaile, in which the painting of the face and all the delicate accessories of silks and flowers is exquisite in quality. Two other notable examples of portraiture are Jaques Emile Blanche's studies of the famous novelist, Henry James, and of the beautiful actress and dancer, Ida Rubenstein. The work of Boutet de Monvel is always delightful in its harmony of line and delicacy of coloring. He sends two fine architectural pieces of a decorative character, "*The Village*" and "*The Country Town*." A decorative painter of a more mystical divergent type is Maurice Denis, whose ornamentation recalls the Renaissance methods of Botticelli. He sends no less than fourteen pieces. A piquant study is Jen Gabriel's "*The Frog, or the Interrupted Toilet*," which shows a lady interrupted by the little intruder just as she is about to don her garments.

Canadians have been so starved in the matter of fine sculpture that such a collection as that being installed at the Exhibition is a boon. Its most notable piece from the standpoint of public knowledge is a bust by Auguste Rodin, the most discussed sculptor of the day, and there are other beautiful pieces in various styles by such men as Henri Bouchard, Joseph Bernard, Emile Bourdelle and other men of genius. Small as is this collection, it should give the visitor enlarged ideas of the rich possibilities of sculpture.



HE-MOBELLED BIRKS BUILDING, WINNIPEG, MAN.

NOBBS & HYDE, ARCHITECTS.



DETAILS OF FRIEZE AND MEDALLIONS, RE-MODELLED BIRKS' BUILDING, WINNIPEG, MAN.

The Re-modelled Birks Building, Winnipeg

The Accompanying Illustrations Show What Might Be Termed "Before and After Taking" Results Due to Judicious Partaking of the Architects' Prescription.

THE old yellow building has been remodelled above the lower storey in terra cotta and stucco, the wall surfaces being in the latter material, while the angle piers and trimmings generally are in the former. It should be noted that there has been no change in the wall openings except at the centre, where the tower has been replaced by regular window units. The wall is surmounted by a projecting cornice in oak. Below the cornice there is a frieze in terra cotta inlay and medallions in the same material occur on the wall below. The colors used in the terra cotta inlays are red, white, buff and black, and the heavy dark joint between the pieces is used as far as may be to help out the drawing, as is the lead in stained glass.

The designs for the frieze were made to half full size by Mr. Nobbs, with advice on the subject matter from Prof. Ramsay Traquair of McGill University.

The company carrying out the terra cotta work invented a most interesting method of enlarging by photography the architects' designs to the full size terra cotta scale.

The frieze on Portage avenue tells the story of the meeting of King Solomon and the Queen of

Sheba. The central group represents the monarchs with their attendants, the Queen kneeling in salutation, while King Solomon presents her with a necklace of pearls. At the left hand end of the frieze a ship lies in the harbor of Tyre, while on the right are seen the gates of Jerusalem. Reading from left to right, the first incident shown is the passing of the gifts by the custom authorities at Tyre, Hiram, King of Tyre, being represented as taking toll; next is shown the camel on which the Queen may be supposed to have ridden, preceded by a negro carrying a parrot and an Indian with a peacock. A horse, on the back of which an ape has seated himself, is next in order, and before his groom a gigantic negro carries a tusk of ivory. The master of the apes in trouble with one of his charges is the next figure, and in front of him is the Queen and her attendants, already described.

From the other end we see issuing from the gates of Jerusalem part of the guard. Before them are some of the ladies of the court celebrating the occasion with dance and song, while the Rose of Sharon precedes them, borne by two negroes with plumed head-



BIRKS BUILDING, WINNIPEG, MAN., AS IT APPEARED BEFORE RE-MODELLING.

dresses and led by a body of killed warriors.

The three wise men (the first an historian with his scroll, the second an astrologer with a divining rod and a crystal sphere, the third a speculative philosopher requiring no instrumental aid in his profession) follow the chariot from which the King has just descended to make his gift, while immediately behind the King two of his guard stand at attention. The owl as a symbol of knowledge is shown in a circle immediately behind the monarch, while the "lily of the field" blooms hard by.

On the six medallions between the arched windows on the Portage avenue front are shown the sources of the precious and semi-precious materials used in the jeweler's art. The turquoise

(Turkish stone), as typical of the semi-precious stones, occupies the first medallion on the left; the second contains an elephant for ivory, and in the third a merman is shown diving for pearls. In the fourth medallion a Kimberley negro seeks the diamond. In the fifth the semi-precious materials, tortoise-shell, coral and mother-of-pearl are represented by a wave delivering its riches on a tropical beach. In the sixth medallion a gnome occupies himself smelting the precious metals.

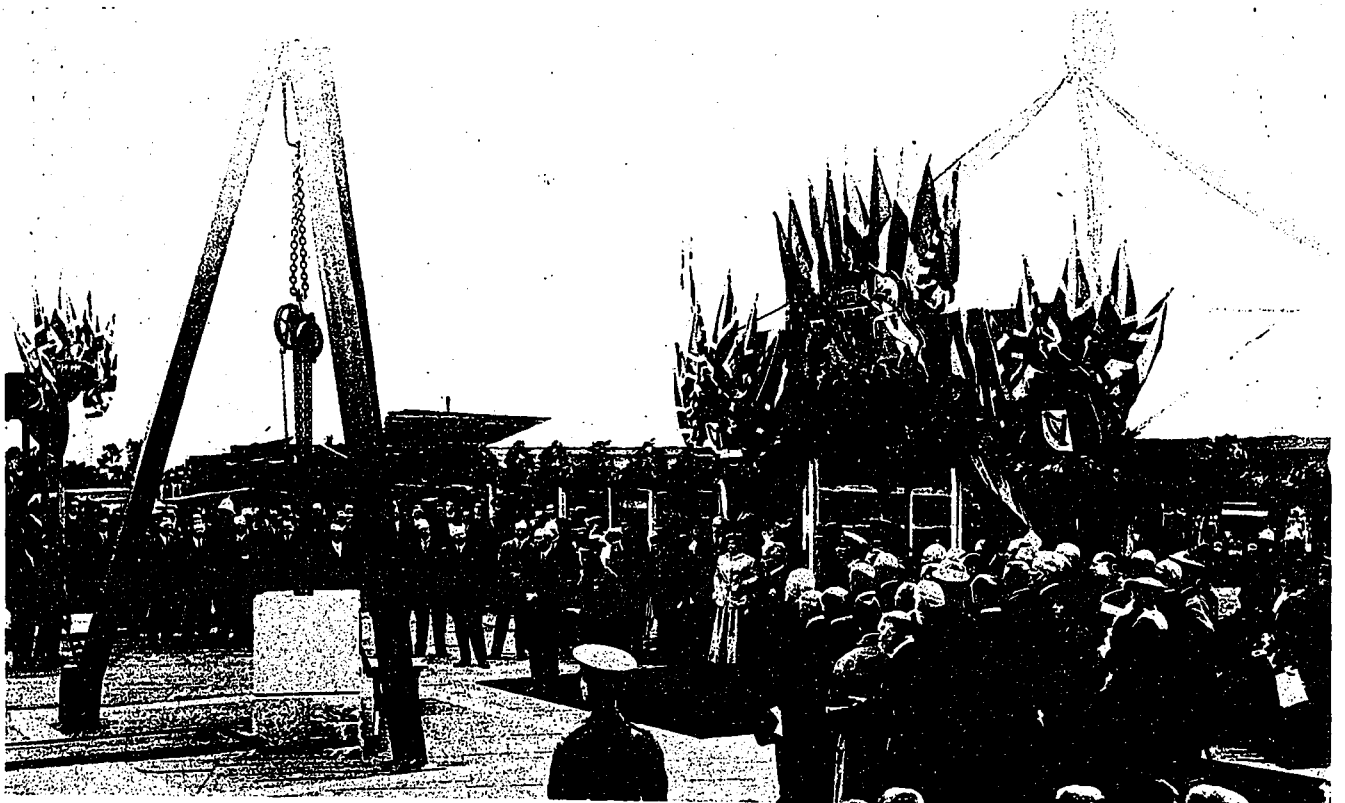
On Smith street the decorations generally are of a less significant character. The seventh circular medallion of the series, however, shows a silversmith surrounded by the tools of his craft.

Historic Re-laying of Corner Stone

Duke of Connaught Performs Historic Ceremony. Architects Supervise the Operation. Copy of "Construction" Amongst Documents Deposited, Containing Article on Parliament Buildings, by W. A. Langton, O.A.A.

AN event of interest to all Canadians, and particularly to the architectural and contracting interests, took place at Ottawa on September 1, when the corner-stone for the new Parliament Building was laid by the Duke of Connaught before a distinguished gathering. Fifty-six years before, also on September 1, the corner-stone was originally laid by the late King Edward, then Prince of Wales.

The actual operation of laying the corner-stone was accomplished under the direction of the Dominion consulting architect, David Dewart; John A. Pearson and J. O. Marchand, architects for the new structure, and Wm. Lyall, president of P. Lyall & Sons, contractors for the building. Those present at the ceremony included the Duchess of Connaught, Princess Patricia, Sir Robert Borden, Honorable Robert



RE-LAYING THE CORNERSTONE FOR CANADA'S NEW HOUSE OF PARLIAMENT AT OTTAWA.

This general view shows the ceremony in progress. The corner-stone is conspicuous. The flags are on the front of the Royal tent. His Royal Highness, who laid the stone, is in the centre; Hon. Robert Rogers to his right, and Premier Borden behind the Duke of Connaught.

Rogers, and other members of the Government; Lieutenant-Governor of Ontario Sir John Hendrie; Sir Pierre LeBlanc, Lieutenant-Governor of Quebec; Lieutenant-Governor McKeen of Nova Scotia, Lieutenant-Governor McDonald of Prince Edward Island, the Judges of the Supreme Court, officers of the Headquarters Staff, and other Government officials.

This unique ceremony, fraught with such interest to all Canadians, and for which elaborate arrangements had been made, was carried out in a successful manner. The ceremony took place sharp at 12 o'clock, when His Royal Highness, accompanied by the Princess Louise Dragoon Guard, arrived on Parliament Hill, where they were received by a Guard of Honor from the Governor-General's Foot Guards. The 207th and 230th Battalions gave a further military aspect to the scene.

At the point at which the stone, which had served on a similar occasion in the former buildings, was to be laid, a tripod derrick was installed to facilitate lifting the heavy cube. The corner-stone of the old building was on the north side, under the Senate, and just where the library joined the main building. The new location of the corner-stone is on the extreme north-east corner of the new building, some 100 feet farther east. The old stone bore the inscription: "This corner-stone of the building, intended to receive the Legislature of Canada, was laid by Albert Edward, Prince of Wales, on the first day of September, 1860." Underneath the old inscription on the stone has been added these words: "Relaid by his brother, the Duke of Connaught, on the first day of September, 1916."

The old phial was again placed under the stone, and alongside it the new records were placed in a heavy copper receptacle.

The corner-stone having been raised by derrick, and mortar having been placed upon the base, Hon. Robert Rogers presented His Royal Highness with a handsome silver trowel, a mallet and a plumb triangle. "As this stone was originally laid by the men of fifty-six years ago," said Hon. Mr. Rogers, "in an abiding faith in the future greatness and development of this country, so we, in asking Your Royal Highness to honor us and the country by officiating upon this occasion, are inspired with a determination that the national progress which has been made since the commencement of the original building shall, under the blessing of Divine Providence, be continued in increasing proportions.

"The work accomplished within the walls of the old building by the representatives of the people of Canada during the years of its occupation, will ever remain engraved upon the pages of the nation's history. Just what pages will be contributed to history by the legislators who will serve the country within the walls of

the building now being erected no one can tell, but we all devoutly hope that they will be pages replete with the same themes of progress, of courage, of devotion, of true liberty, and of loyalty to country, flag and king

His Royal Highness levelled the surface of the mortar, and the stone was lowered into position amidst loud applause and the playing by the band of "O Canada."

In part, His Royal Highness said: "Your Honors, the Right Honorable the Prime Minister, ladies and gentlemen: We are assembled here to-day on the occasion of a great ceremony connected with the life-blood, if I may so use that expression, of the Dominion of Canada. I have, at your request, just laid the old corner-stone of the Parliament Buildings of, in those days, the Province of Canada, in its new resting-place. To-day is the anniversary of the laying of this stone, fifty-six years ago, by my beloved and lamented brother, the then Prince of Wales, afterwards King Edward VII. It is probably a unique occasion for a brother, after an interval of more than half a century, to lay the same foundation stone that was laid at that time. When we look at that stone, and think of all it represents, and of the changes that have taken place since it was first laid, we recognize how little those who assisted at the ceremony of those days could look forward to the great progress and advancement that has been made by the great Dominion of Canada. This stone, on which rested the old Parliament Buildings, which I personally have known since the year 1869, will, I hope, continue for centuries to mark the corner-stone of the great legislative buildings of the Dominion of Canada."

Documents deposited in the corner-stone included the names and titles of Lieutenant-Governors and members of the Dominion Cabinet, the names of the Speakers and members of the House of Commons and Senate, a short statement relating to the war, the names of the rulers of the countries which are the allies of Great Britain, the names of the architects and contractors, a set of standard coins, gold, silver and copper, Canadian postage stamps of the current year, copies of the programme and cards of invitation for the ceremony, copy of the 1916 edition "The Canadian Parliamentary Guide," a copy of CONSTRUCTION, Vol. 2, No. 1, of November, 1908, containing an article by W. A. Langton, O.A.A., on Canada's national buildings, with a number of plates showing the main architectural features of the old Parliament Buildings, copies of the current issues of the Ottawa daily newspapers, annual report, 1916, of "The Historic Landmarks Association of Canada," report of the Royal Commission appointed to investigate the origin of the disastrous fire of February 3, 1916.

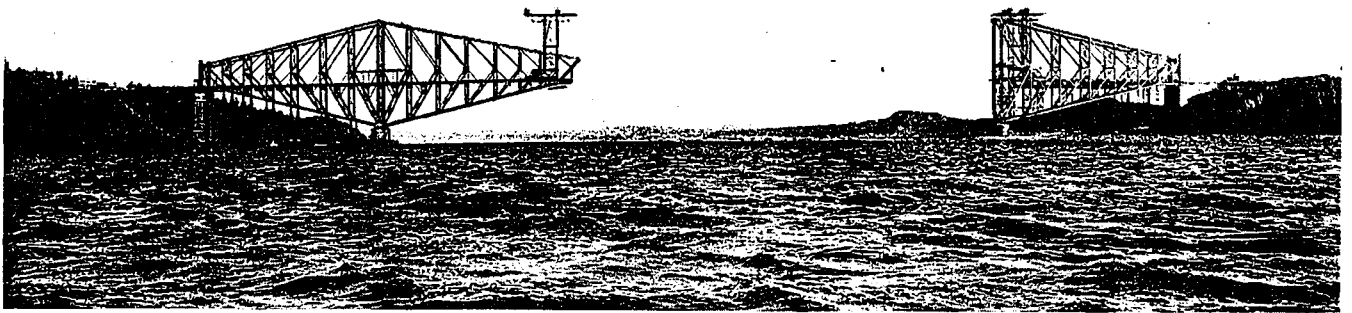
The New Quebec Bridge

Disaster Overtakes the Final Operation of Completing the Most Important Structure in Bridge-Making History.

GRIM tragedy has set a heavy hand on the expert efforts to span the St. Lawrence River near Quebec. Following the disaster of 1907, when the original bridge collapsed with heavy loss of life, the foremost engineering skill of the country was applied to secure the successful completion of the present structure. On

ing over one of the end girders upon which the wrecked span rested.

The principal dimensions of the bridge are: Length from shore to shore, 3,890 feet; width between buttresses, 1,800 feet; length of central span, 640 feet; height of central span above river, 150 feet. There were two railway tracks,

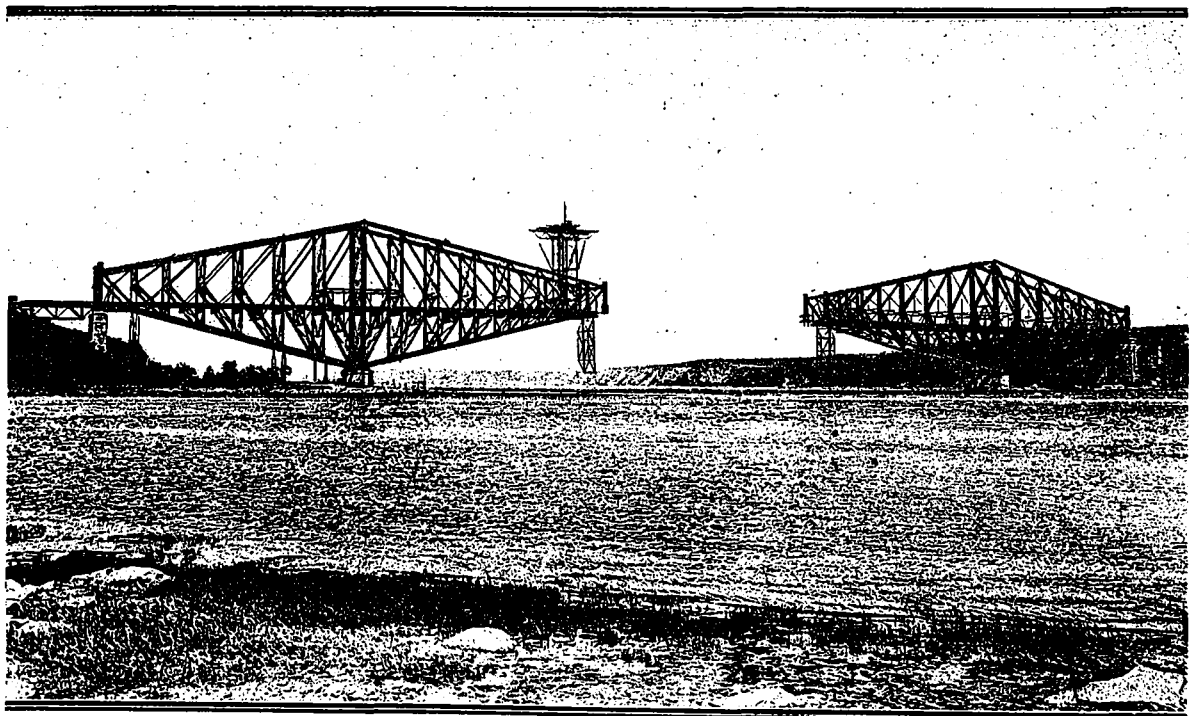


APPEARANCE OF BRIDGE, NOVEMBER, 1915.

the morning of September 11th, in the midst of rejoicing by hundreds of distinguished spectators, when the success of the final operation, that of securing the centre span in place, seemed assured, it fell without warning, causing the death of twelve men. The direct cause is not yet clear.

It is believed to be due to the failure of a cast-

two street car tracks, and two roadways. The bridge has a channel span of 90 feet longer than the Forth Bridge, Scotland, which has previously held the world's record in that respect. The weight of steel in the bridge was 180,000,000 pounds, and the cost, \$17,000,000. The span, which seems to be a complete wreck, cost more than \$1,000,000.



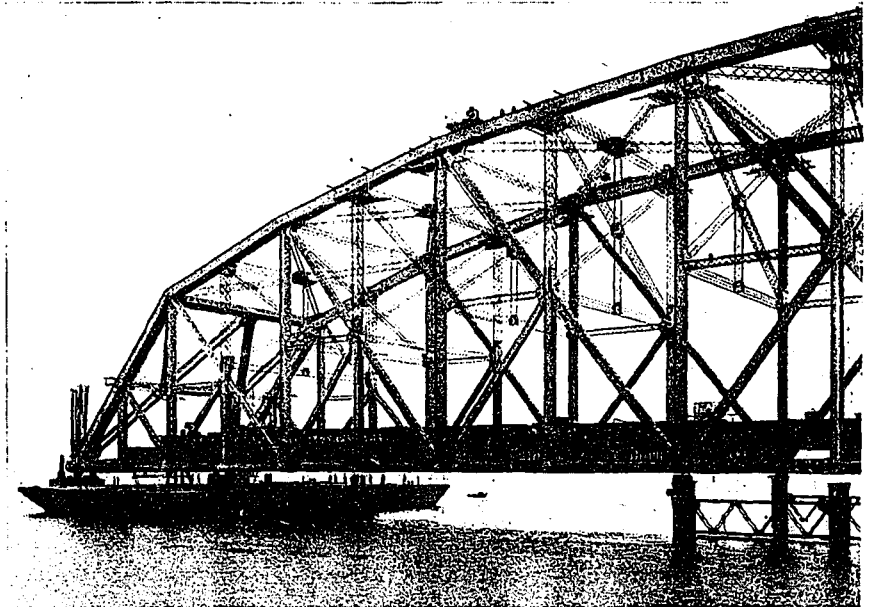
NORTH AND SOUTH ENDS OF NEW QUEBEC BRIDGE.

After the disastrous attempt to erect the first bridge the Dominion Government decided to reconstruct it. The Federal Railways Department appointed a commission to examine the fallen structure and to make a report thereon. The gentlemen comprising this body were Henry Holgate, Montreal; Prof. J. G. G. Kerry, of McGill, Montreal, and Dr. John Galbraith, of Toronto University. Their report was so instructive that a copy of it was asked for by practically every prominent seat of learning on the continent.

Another commission was appointed, in whose hands was placed the mammoth undertaking. The commission named was composed of H. E. Vautelet, chairman, of Montreal; Ralph Modjeski, Chicago, and Maurice Fitzmaurice, chief engineer of the County Council of London, England.

Mr. Fitzmaurice resigned and Charles McDonald, formerly of Gananoque, Ont., but many years one of the leading bridge engineers of the United States, was induced to go on the board until such time as a contract had been signed.

Tenders were received from one company in Germany, one in England, two in the United States, and from the St. Lawrence Bridge Company, the last named being a union of two strong Canadian companies. The contract was finally let to the St. Lawrence Bridge Company for the superstructure on April 4, 1911; that for the substructure having been let to

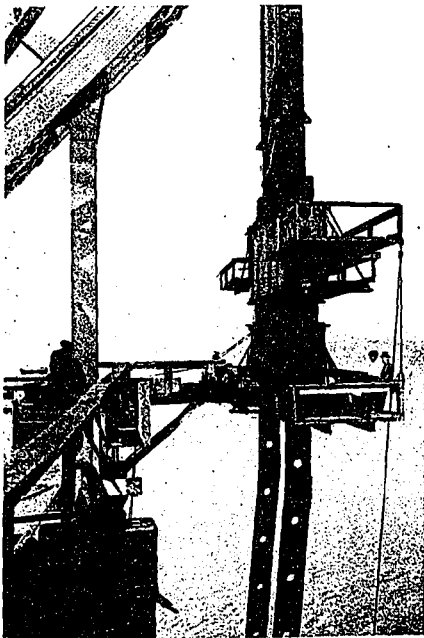


OUTER END OF CENTRE SPAN, SHOWING PONTOONS BEING PLACED IN POSITION.

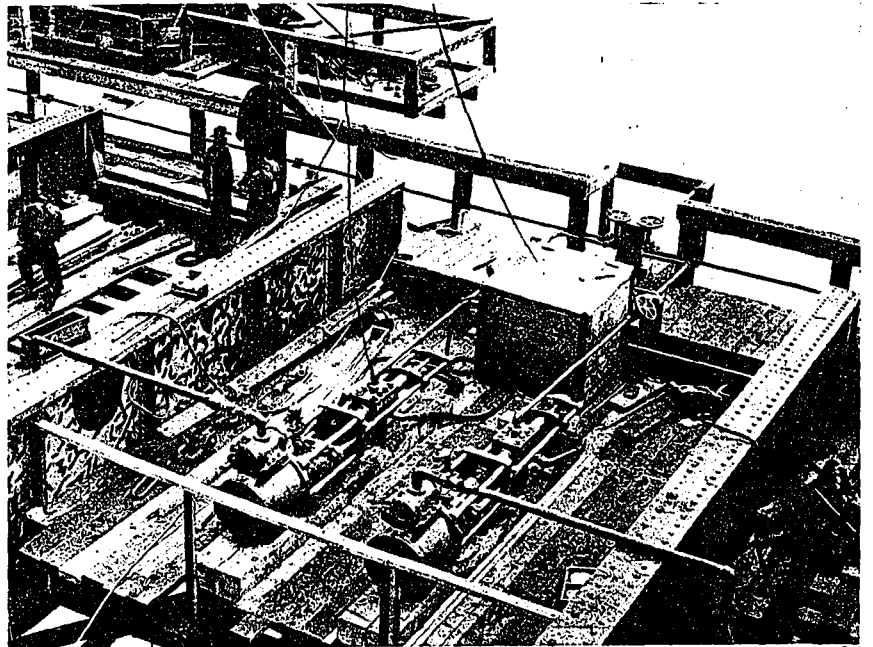
M. P. Davis on January 10, 1910. C. N. Monserrat became chairman and chief engineer of the bridge commission, and Mr. McDonald was succeeded by C. C. Schneider, of New York. The engineering staff heads were Phelps Johnston and George H. Duggan, of Montreal.

The bridge was built primarily to carry the National Transcontinental Railway between the Atlantic and the Pacific, but the following railways will also use it: The C.P.R., the Grand Trunk, the Quebec Central, the Intercolonial, the Quebec and Lake St. John, the Quebec and Saguenay, the Canadian Northern, and the Delaware and Hudson.

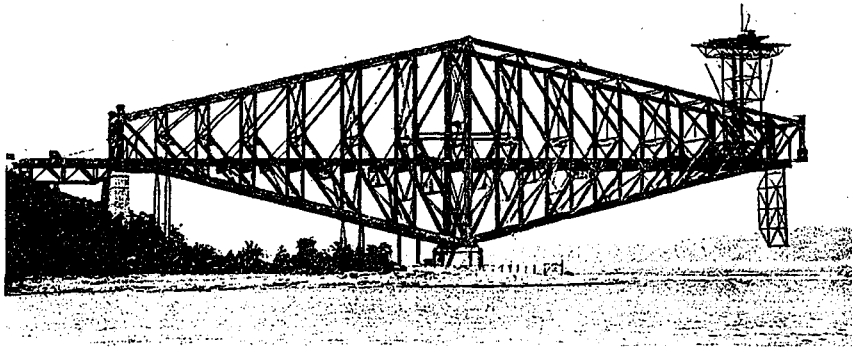
In 1915 the north shore truss was completed. When the cantilever arm on the north shore was being erected the south shore anchor arm was being put together, and by the 1st of August



JACKING GIRDERS, HANGER CHAINS AND LIFTING JACKS.



HYDRAULIC PUMPS AND PIPE LINE TO LIFTING JACKS.



SOUTH SHORE CANTILEVER, AUGUST 6, 1916.

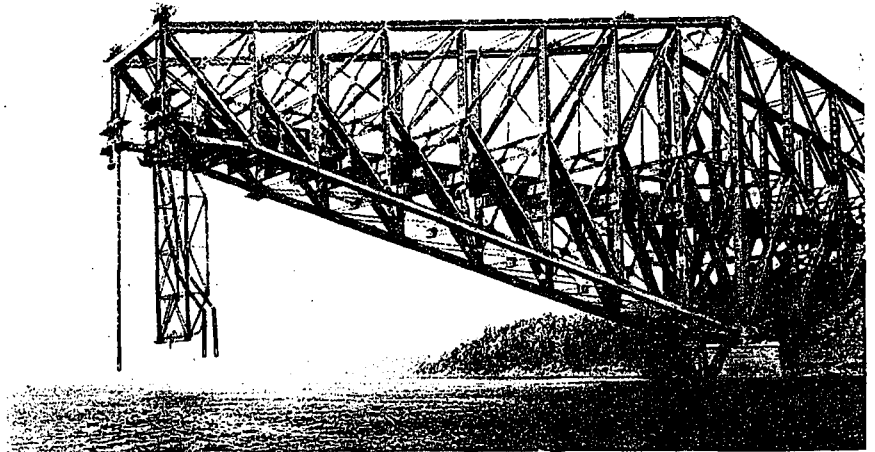
of this year the operations on the south shore section were practically completed. Meanwhile the centre span was being fabricated, and the date arranged for floating the span to the point where it was to be raised into its final position between the two cantilever trusses.

In a circular issued to engineers, who were anticipating this remarkable engineering feat with great interest, Mr. Duggan pointed out that the centre span was supported by six scows, each one hundred and sixty-five feet long and thirty-two feet wide, built with heavy steel frames. Six tugs towed the scows from Sillery Cove to the bridge position. At this point eight tugs were employed to hold the span during the operation.

After the span was securely moored in this position, the hoisting chains, made of a series of bar links, by which it was to be raised, were dropped into position and attached to the span. After the links were secured to the span they were pulled up by hydraulic power and the span thus lifted to its position. The eye-bars from which the span was finally suspended,

were to have been joined about the middle of their length by pins. There were two hydraulic jacks to a corner, or eight in all. The load to be lifted was estimated at five thousand five hundred and forty tons. The rams of the jacks were twenty-two inches in diameter, and the working pressure four thousand pounds. The jacks had been tested in position to a pressure of five thousand pounds, or twenty-five per cent. overload. The hydraulic pumps operating the

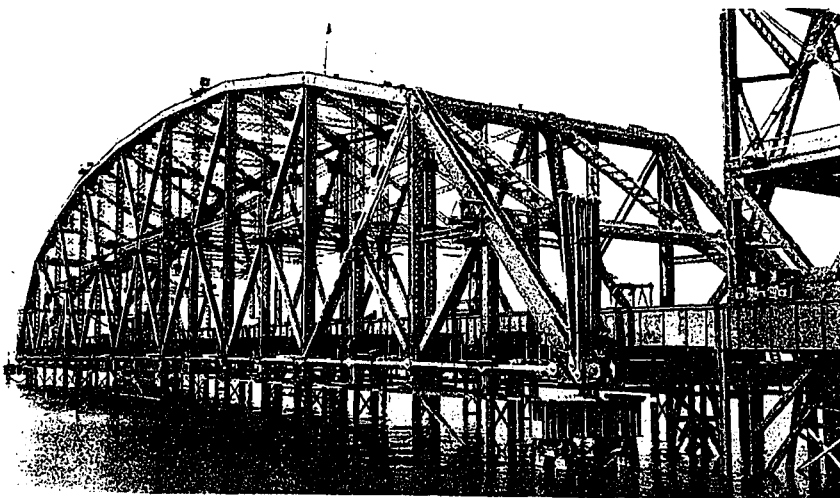
jacks, two at each end of the span, were operated by compressed air piped from power houses on shore. There was a separated control valve for each jack at each corner and control valves for each pair of jacks at each end. Multiplying tell-tales were arranged so



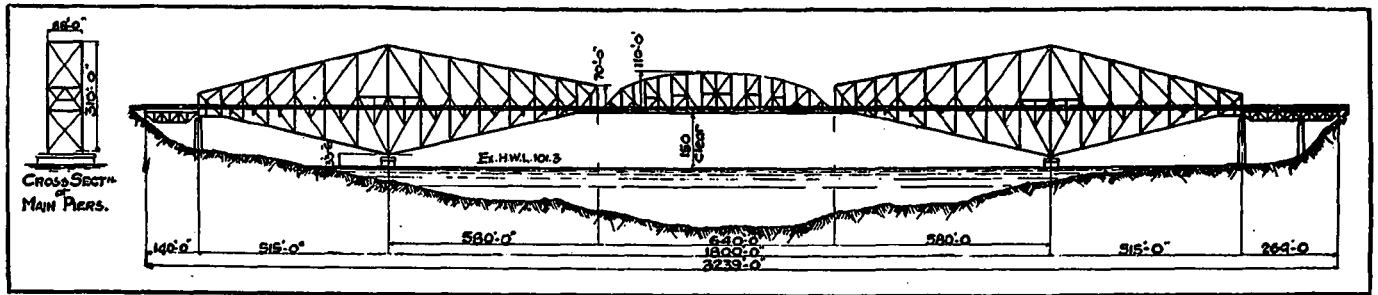
NORTH SHORE CANTILEVER WITH CENTRE SPAN LIFTING APPARATUS AT OUTER END.

that the valve operators at the corners could keep the moving girder exactly horizontal, and the valve operator at the centre of the span could keep the span itself horizontal. A telephone system was arranged by which each lift at the ends of the span were reported to the officer in general charge, and the two ends thus kept at the same vertical height.

There was a system of counter-weighted screw-jacks, hand-operated, to follow up the hydraulic jacks so that in the event of a packing blowing out or any accident happening to a hydraulic jack, it could be removed and repaired while the bridge was resting on the follow-up screw-jacks. The hoisting chains, two to a corner, were each composed of two bars, thirty inches by two and one-fourth inches, thirty feet long, connected by twelve-inch



CENTRE SPAN OF NEW QUEBEC BRIDGE.



SKELETON VIEW OF QUEBEC BRIDGE, SHOWING PRINCIPAL DIMENSIONS.

diameter pins. The pins for connecting these links to the girders were also twelve-inch diameter.

The mooring frames were calculated at erection unit stresses for a force of three hundred thousand pounds applied at the lower end. The mooring lines, four in number at each end, were one and one-fourth inch plough steel rope, with nine part three-fourth inch wire rope falls leading to engines on the deck. The hoisting tackle, or back-guy for the mooring frame, was a nine part seven-eighths inch wire rope tackle leading to one of the main hoisting engines formerly used on the erection traveler.

Dealing with one corner only, all four cor-

ners being alike, there was placed across the end of the cantilever arm vertically over the point of intersection a heavy cross girder from the ends of which was suspended another cross girder, known as the fixed girder, and placed at about the floor level of the cantilever arm. On top of this girder were placed hydraulic jacks with a working stroke of about two feet, and resting on these jacks and operated by them was the third or movable girder.

It is highly improbable that the wrecked span now lying in two hundred feet of water can be salvaged. To erect a new span will require about nine months, so that possibly a year's delay will be occasioned by the accident.

Royal Architectural Institute of Canada

Annual Assembly at Quebec, September 8th and 9th. Inspiring Address by Retiring President Russell. Report of Council Includes Many Important Architectural Matters.

WITH one hundred members of the profession with the colors and taking into consideration present conditions in the building trade, a small attendance at the annual assembly of the Royal Architectural Institute of Canada, held at Quebec on September 8th and 9th, was not unanticipated. On account of the postponement of the assembly booked for September, 1914, this year's convention included the seventh, eighth and ninth annual assemblies and rendered necessary the clearing away of a large accumulation of routine business. Through the courtesy of the Mayor and Council of Quebec, the business sessions were held in the City Hall, the headquarters of the Institute being at the Chateau Frontenac.

The inaugural session was held on Saturday morning, September 9th, with the president, Mr. J. H. G. Russell, of Winnipeg, in the chair. A formal welcome to the city was extended by Mayor Lavigne in the following words:

Mr. Chairman, Officers and Members of the Royal Institute of Architects, in convention assembled in Quebec:

Gentlemen.—It affords me great pleasure to tender you, as Mayor of Quebec, the hearty welcome of this city, on the occasion of your present convention.

The citizens of Quebec always greet with satisfaction the gathering of such important organizations as your Institute, and are most happy to offer you the freedom of our good old city.

Although we cannot boast of such marvelous modern architecture as other sister cities can offer to the study of the architect, still, we take pride in the venerable edifices and monu-

ments of past ages in which sufficient artistic taste is displayed to interest members of your distinguished profession.

And moreover, without renouncing the glorious privilege of preserving real treasures in the way of historical associations and venerable old landmarks, we are proud to show a new Quebec rising in full modern progress with edifices and public works in no way inferior to those to be found in cities of much greater importance than our city.

Your conventions are the means of making known to the public the latest developments in the art of architecture, and out of your learned deliberations we are fully assured that important results will be achieved.

You have our best wishes for the success of your meeting, and we sincerely hope that you will carry with you such a pleasant remembrance of your sojourn in Quebec that you will be induced to return here for the holding of some future congress of your Institute.

This was followed by the President's address as follows:

Three years ago we had our last annual assembly at Calgary, and parted with the prospect of a bright and prosperous year of work outlined ahead. In less than a year our Empire was plunged into war, one which is proving to be the most terrible in history. I need not enter into the causes leading up to this struggle. Sufficient to say it is one of right against might, one for freedom and righteousness, which the great Empire (of which we are a part), and our French, Russian, and other allies will surely carry through to a successful issue, as not long will the world be content to work out its disagreements by might of destruction.

Owing to the war, our annual assemblies for 1914 and 1915 were postponed, and although conditions are still much the same, it was thought to be in the best interests of the Institute to hold a business session this year, as, since the war began, other questions, important in their place, have been occupying their minds to the exclusion of the objects of the Institute, and your present officers have held office too long, owing to these unforeseen circumstances.

Canada has taken a rightful part in this war; she has raised large armies, to which our Institute has given about 100 of its members to help a great cause. As a nation we have not risen to our responsibilities nor assumed our rightful share of the burden our mother country is carrying; the time has arrived when we should put forth every effort of which we are capable. There are thousands of young men in every Province of our fair Dominion who would look far better wearing khaki than mufti, and should be with our brothers in France, Flanders, and elsewhere, fighting their country's battles.

Owing to the depression along all lines of construction, partly on account of the war, many of our members have closed their offices and sought other employment, and they are having a sea-

son of trial and hardship, such as calls for our sympathy and moral support, and the earnest prayer of all is that this conflict will soon be over.

We should take some action at this gathering to honor the names of our members who have given up so much to help their country in this time of need.

While this war has its dark side, it also has a bright side. Great moral and social reforms are spreading throughout all nations, and I think the world will be a better one for the great sacrifices now being made, and there will be a closer relationship between nations, a striving after higher ideals of Government, and all things pertaining to the betterment of mankind.

A question that is interesting the profession is: what effect will the war have on architecture? We have read with feelings of grief and sorrow of the apparent wanton destruction of a great many fine architectural structures in Belgium and France, and ask, how are such things possible in this enlightened age? At the conclusion of peace, there will be a great period of reconstruction. Our members who are spared to return to us and resume the practice of their profession will no doubt be filled with new ideas, and their point of view may be entirely changed; this may apply more specially to those who are held prisoners of war in Germany, where they will have more time for observation and reflection. Whether this will be a help towards the striving after a national style of architecture for Canada or not, remains to be seen, but some lessons will surely be given by which all will profit.

Sir Gilbert Parker, in his address to the Calgary assembly, said: "Architecture is the first expression of the human race; then comes painting, sculpture and music. Your position is not less to-day, for your profession appears to me to be one that is getting nearer to the people themselves than any other profession in your country." I think Sir Gilbert was not far amiss in this statement. The organization of our Institute and its different affiliated bodies has brought the profession closer to the public; the Architects' Acts passed by a number of our Provinces have been a great help toward establishing the profession on a more stable basis. The advice and counsel of these different associations is sought after by both Provincial and civic governments, as well as private corporations, to assist in solving the many complex questions of building, city beautifying, housing conditions, etc., and the disinterested service rendered by our associations in these matters is appreciated by those who seek it, and places us where we are a far more important part of the community than we could possibly be if we had to act as individuals. One of the things we need is a better understanding on the part of the public.

The weekly luncheon is a great help in bringing the different members of Provincial associations together where they can discuss the problems that are continually coming up in the daily round of work, and where one may receive the advice and sympathy of his fellows. The discussions should lead the thoughts of those present to higher ideals in professional life and business morality, and increase each member's efficiency, by encouraging the exchange of ideas and endeavoring to elevate the standard of our profession and co-operate with each member for the benefit of each and all.

There has been a great deal said for and against the various Acts for the registration of architects, some claiming that it does not tend to elevate the profession, and that the better plan is through education. While the latter is no doubt true to a certain degree, I am of the opinion that the Registration Act is accomplishing the object sought.

The argument that a number of incompetent men have to be registered when an Act is passed is true, as no one can or should be legislated out of business, but this evil ends at the passing of the Act. From that time on the process of the elimination of this class is slow, but sure, and each year sees an improvement. It will only be a matter of a few years when the standard of the profession in these Provinces will be of a higher order than it could possibly be without the Act. Candidates for registration have to pass an examination, and while there may be objections to this method, it will not be long before those contemplating the study of architecture will see the great advantage of taking a university course, which all will agree is the proper procedure. In the meantime, as long as examinations are to be held, it would be better if they were standardized throughout the Dominion, but this cannot be accomplished until each Province has an Act of Registration. If this were consummated, the Royal Architectural Institute would have far more weight in carrying through any reform it might advocate than it has to-day. I think we should strive to that end and render all the assistance possible to the Provinces that are seeking legislation along these lines.

The objects of our Institute are to a large extent professional and ethical. The better standards of practice and service, as laid down by the Institute, are elevating the profession throughout our Dominion, and credit may be taken for assistance given towards architectural education; each architect practising is profiting thereby and should consider it a privilege to be counted one of its members. Where he is not a member through his connection with one of the affiliated bodies, he should make a point of becoming one through co-operation with his fellow-practitioners, as it is only through united effort that the best results for all may be obtained.

A ministerial friend of mine often uses the following apt illustration of Kipling's: "The strength of the pack is the wolf, and the strength of the wolf is the pack."

While the government of the Institute rests in the assembly and not the council, which is merely the instrument of the assembly to carry out its will, it must necessarily follow, owing to our country being one of great distances, that we cannot hold more than one general meeting during the year, and the questions that are continually coming up have to be decided by the council. As the majority opinion of the entire membership should be the objective of the council, it should be the aim of each of the federated bodies to discuss with and advise their members of council from time to time regarding the affairs of the Institute, so that the best interests of the profession may be served.

On account of the great expense and time that would be involved, as well as the difficulty of selecting a central place of meeting, it has been found next to impossible to get the members of council together between the times of the annual meetings, and at the Calgary assembly it was decided to try to carry on the business of council by mail. This method has its disadvantages, and while it proved interesting to a certain degree, it was not taken full advantage of by the members. I

think one reason is that the length of time given to send in replies to the question under discussion is too long, and matters that do not require immediate attention are often laid aside for a more convenient season, and consequently overlooked. Our Honorary Secretary will give you a resume of the doings of council in his report.

Some of the Provincial bodies are remitting the fees of their members who are serving their King and country in this war. It might be well for this assembly to consider the question as to whether this plan should not be followed by the Institute. There is also the question as to whether the different bodies should be called on to pay fees to the Institute for members who belong to more than one of the federated bodies, as, in a great many cases, the Institute is receiving double, and in some cases treble fees for one member, on account of some being registered to practice in different Provinces. This is a hardship on the Provincial bodies.

The competition for the Departmental Buildings at Ottawa is in a very unsatisfactory state. The unfortunate fire which destroyed the central building of the group on Parliament Hill in Ottawa may have had some bearing on the deliberations of the Government regarding future extension work, as I understand they have definitely decided not to go ahead with the Departmental and Courts Building, but the authors of the six premitted designs should have better consideration than they are receiving, and the Institute should give them all the assistance possible in their efforts to obtain relief.

At the Calgary meeting our by-laws were amended. This was necessary, as it was the first general annual meeting of the R. A. I. C. as a federated body of the different societies. At that meeting, among other things, a lengthy discussion took place over the different classes of members, and it was finally agreed that all members would start on the same footing, and the honorary title of Fellow should be conferred only on a member who shall have notably contributed to the advancement of the profession in design, construction, literature or education.

A strong argument, put forward in favor of adhering to the by-law as it now stands, appeals to the higher thoughts regarding the objects and best wishes for success of the Institute. This argument was that to allow the slightest suspicion of individual gain or personal advancement, and especially one that would result in creating a distinctive class of members, would have the effect of casting a permanent shadow over every deliberation, and cloud each action with the doubting question: Is this also contingent upon personal gain? One is prompted to exclaim: Can anything ever be looked at with the unprejudiced eyes of one who seeks only the good of the community, and who buries for the time all thought of personal advancement or profit?

If an organization is to succeed in inspiring its members to work for a common good, surely the constitution and by-laws of the organization should be the symbol of ideal aspirations which may forever act as a guide in the future deliberations of its assemblies.

Our one hope of success in this, as in any similar institution, is in making an appeal to the individual on the broad lines of co-operation in the work for the sake of, in our case, the profession. Our hopes in this Institute work can only be realized by such an appeal.

It must be remembered that the new Institute was formed, not by augmenting the old by admitting members of the Provincial associations or of the old Institute, but as an organization composed of units of Provincial bodies. Each member of an associate Provincial body, was admitted to the Institute only by virtue of his membership in the Provincial body. No other qualification would entitle him to membership in the newly-formed Institute wherever the Provincial body had affiliated.

The annual dues paid by each Provincial association are the dues that each Province owes as its share of an expenditure incurred by the Institute of amalgamated Provinces. The share of the annual expenditure that each province shall pay is determined by the relative number of members in the Province as compared to the whole. Any separation of the individual members by grouping into distinct classes is antagonistic to the spirit that prompted and which succeeded in constructing the organization as it now stands, and which has as its broad aim the advancement and protection of the architectural profession throughout Canada.

In conclusion, let each of us use our best endeavors to elevate the standards of the profession in which we are engaged, and so conduct our affairs that our fellow-architects may find it wise, profitable and conducive to happiness to emulate our example.

The report of the Council was then presented by the honorary secretary, Mr. Alcide Chausse, as follows:

Gentlemen.—The 1913-14 Council of the Royal Architectural Institute of Canada, while elected for one term, have through the circumstances created by the European war, administered the affairs of the Institute during three years. The charter of the Institute does not mention that there must be annual meetings of its members, but the by-laws have special provisions to the effect that the Institute should have general annual assemblies.

At the Calgary General Annual Assembly, held on the 15th and 16th September, 1913, it was decided that the seventh General Annual Assembly be held at Quebec at a date to be fixed by the Council. Later the Council fixed the 21st and 22nd September, 1914, as the time for the annual gathering of the members of the Institute; that decision was made before the beginning of the war. All the arrangements were made for the holding of the seventh General Annual Assembly at the dates fixed by the Council, but about six weeks before the date of the meeting war was declared, and nearly all national associations, societies or bodies decided to postpone their conventions. After consultation with the members of the Council, the President, on the 10th September, directed the Hon. Secretary to send the following notice to all members of the Royal Architectural Institute of Canada: "Owing to the unsettled conditions, due to European war, it has been regretfully decided to postpone for an indefinite period the seventh General Annual Assembly of the Royal Architectural Institute of Canada, which was to have been held at Quebec, Que., on the 21st and 22nd September, 1914."

Since the Calgary convention, all the business of the Institute was transacted by correspondence. There was one meeting of the Council, called to meet at Toronto, on the 22nd April, 1916; there were six members of the Council present, while the by-laws of the Institute require a quorum of seven members. As the matters to be considered were urgent, it was decided to hold the meeting, its decisions and resolutions subject to the approbation of this Assembly. They form part of this report, and if it is adopted, it will be understood that what has been done at Toronto, on the 22nd April, 1916, by six members of your Council, has been done in the best interest of the Institute, and has your sanction.

During these two days, 8th and 9th September, 1916, there will be held three Assemblies of the Institute, so as to bring all its affairs to date; these Assemblies are the seventh, eighth and ninth, and next year will be the tenth anniversary of the foundation of the Royal Architectural Institute of Canada. Founded as the "Institute of Architects of Canada," on the 19th August, 1907, at Montreal, as an independent body from the then existing provincial associations, a Dominion charter was obtained on the 16th June, 1908. It was found later that there should be some kind of parentage between all the Canadian architectural associations, and, after several conferences, it was decided to revise the charter with a view of federating the various associations of architects having provincial charters. On the 1st April, 1912, the Dominion charter was amended, and the name of the Institute was changed to that of "The Royal Architectural Institute of Canada," special permission to use and adopt the prefix "Royal" having been granted by His Majesty King Edward VII., on the 2nd June, 1909.

MINUTES OF THE COUNCIL OF THE ROYAL ARCHITECTURAL INSTITUTE OF CANADA DURING YEAR COMMENCING 16TH SEPTEMBER, 1913.

Note.—At the last General Annual Assembly of the Royal Architectural Institute of Canada, held at Calgary, the by-laws were amended so as to have consultations or discussions of matters requiring urgency to be submitted to the members of the Council by mail. As an experiment, all the matters which occurred were submitted to the Council in accordance with article 27 of the by-laws of the Royal Institute.

The only meeting of the Council was held at Calgary on the 16th September, 1913, at 4 o'clock, p.m., in the Public Library. At the meeting the officers were elected: a Finance Committee composed of Messrs. Edmund Burke, E. L. Horwood and J. W. H. Watts was appointed; it was decided to retain the rooms for the office of the Royal Institute at Montreal at \$150 per annum; to engage an Assistant Secretary at a salary of \$200 a year; fixing the "pro rata" rate at \$2.00; authorizing the Hon. Treasurer to pay the travelling expenses to the Quebec Assembly of the President, Hon. Secretary and Hon. Treasurer; and to have the revised charter and by-laws printed and copies to be sent to all the members of the Royal Institute and to the federated associations of architects.

Twelve subjects were discussed during the year by correspondence, as follows:

1. **Examination of Licentiate R.I.B.A. by the R.A.I.C.**—Proposition: The Royal Institute of British Architects, on the 12th November, 1913, sent a copy of the following resolution with regard to the examination qualifying licentiate for the Fellowship of the R.I.B.A., together with a request to conduct these examinations in the future:

"Resolved: That it be recommended to the Council to sanction the holding of the examinations in the colonies of licentiate who are desirous of becoming Fellows, provided that arrangements can be made for the proper supervision of the examination by some responsible member or members of the Institute in the colonies."

The question was submitted to the Council on the 26th December, 1913, and the opinions of the members were received up to the 26th January, 1914. Those who took part in the discussion were Messrs. Percy E. Nobbs, John S. Archibald, J. P. Hynes, J. O. Marchand, Alcide Chausse, J. W. H. Watts, F. S. Baker, F. Chapman Clemasha, W. G. Van Egmond, J. H. G. Russell, W. P. Over, Wm. Fingland, Colborne P. Meredith, A. Frank Wickson and James Henderson. No replies were received from Messrs. Jos. P. Ouellet, A. G. Creighton, G. M. Lang and Roland W. Lines.

On the 26th January, 1914, above opinions were sent to all the members of the Council for further discussion. Opinions were received from Messrs. Wm. Fingland, W. Percy Over, A. L. Favell, F. S. Baker, J. W. H. Watts, Colborne P. Meredith, John S. Archibald, Percy E. Nobbs, A. G. Crighton, J. H. G. Russell and Alcide Chausse. Messrs. Roland W. Lines, Jos. P. Ouellet, F. Chapman Clemasha, J. P. Hynes, James Henderson, G. M. Lang, W. G. Van Egmond and Frank Wickson did not express any opinion.

The decision of the President was as follows: After going carefully over the different opinions of our Council, I decide that the Council of the R.A.I.C. undertake the supervision of the R.I.B.A. examinations qualifying licentiate for Fellowship in the R.I.B.A., through the examining boards of the different Provincial Associations, all such examinations to be held on the same date throughout the Dominion, and the expense in connection therewith to be borne by the Royal Institute of British Architects.

This decision was sent to the members of the Council on the 18th February, 1914.

2. **The Saskatoon Chapter of the R.A.I.C.**—Proposition: A chapter of the R.A.I.C. had been formed at Saskatoon, Sask., called "The Saskatoon Chapter of the Royal Architectural Institute of Canada," and its Hon. Sec.-Treasurer, Mr. F. Lorain Turnbull, wrote on the 21st November, 1913: "There is some doubt among our members as to whether under the new incorporation of the R.A.I.C. this local chapter ceases to be a chapter of the R.A.I.C., and becomes a chapter of the Saskatoon Association of Architects. I would be glad to get your ruling on this point."

This question was submitted to the Council on the 28th November, 1913, and the opinions were received up to the 28th December, 1913, and were from Messrs. J. W. H. Watts, F. S. Baker, John S. Archibald, Colborne P. Meredith, J. H. G. Russell, W. Percy Over, Wm. Fingland, A. Frank Wickson, P. E. Nobbs, W. G. Van Egmond, James Henderson, A. L. Favell and Alcide Chausse. Messrs. Roland W. Lines, Jos. P. Ouellet, F. C.

Clemasha, A. G. Creighton, J. P. Hynes, G. M. Lang and J. O. Marchand did not send their opinions.

The decision of the President was as follows: The Saskatoon Chapter of the R.A.I.C. never existed officially, as it was not established under the authority of the Council, as it was provided by Article 51 of the By-laws of the R.A.I.C., then in force when the Saskatoon Chapter was formed.

3. **Convener for the Provincial Delegations.**—Proposition: According to Article 27 of the By-laws of the R.A.I.C., "In case of urgency the Hon. Secretary shall communicate the question under consideration and discussion to the convener of the delegation of each Province, who shall consult their respective delegates and report their decision immediately to the Hon. Secretary of the Institute." The system used for Discussions 1 and 2 was that there was no convener, and that the members of the Council, individually, gave their opinion on subjects submitted. While not strictly in conformity with the By-laws, it was quicker, and each member of the Council could send their personal opinion.

Messrs. F. S. Baker, J. W. H. Watts, Percy E. Nobbs, A. G. Creighton, Alcide Chausse, J. H. G. Russell and Colborne P. Meredith sent their opinions. Messrs. Roland W. Lines, Jos. P. Ouellet, John S. Archibald, F. C. Clemasha, A. L. Favell, Wm. Fingland, J. P. Hynes, G. M. Lang, J. O. Marchand, W. P. Over, W. G. Van Egmond, A. Frank Wickson and James Henderson did not send their opinions.

The decision of the President was: The privilege of taking part in this discussion was not accepted by a number of our Council. After reading the opinions of those who took part, I am in hearty accord with the majority, that our present system is a very interesting one, and as it accomplishes the object, we will continue it until our next annual meeting.

4. **Builders' Exchange Proposition.**—Proposition: The adoption by the R.A.I.C. of the weekly publication of the Montreal Builders' Exchange, "The Builders' Bulletin," as the official organ of the Royal Architectural Institute of Canada. This was sent to the Council on the 26th January, 1914.

Opinions were received before the 26th February, 1914, from Messrs. Percy E. Nobbs, J. H. G. Russell, J. O. Marchand, A. Frank Wickson, W. G. Van Egmond, J. P. Hynes, J. W. H. Watts, W. Percy Over, F. C. Clemasha, John S. Archibald, Colborne P. Meredith and Alcide Chausse. Messrs. Roland W. Lines, Jos. P. Ouellet, F. S. Baker, A. G. Creighton, A. L. Favell, Wm. Fingland, G. M. Lang and James Henderson did not express any opinion.

The decision of the President was: The Montreal Builders' Exchange made a proposal to the Royal Architectural Institute of Canada of using their Bulletin as the official paper of the Institute. A majority of our Council took part in this discussion, and decided almost unanimously that it would be detrimental to the best interests of the profession to enter into such agreement.

The time may arrive when we will be able to have our own official publication, or to be represented by a strictly architectural journal, and until that time arrives we are better without any publication, official or otherwise.

5. **Date of the Quebec Assembly, 1914.**—Proposition: It was suggested that the seventh General Annual Assembly of Quebec be held on the 21st and 22nd September, 1914. This proposition was made by Mr. Jos. P. Ouellet.

Took part in the discussion: Messrs. A. Frank Wickson, Jos. P. Ouellet, J. W. H. Watts, W. G. Van Egmond, John S. Archibald, C. P. Meredith, Alcide Chausse and F. S. Baker. Messrs. Roland W. Lines, F. C. Clemasha, A. G. Creighton, A. L. Favell, Wm. Fingland, J. P. Hynes, G. M. Lang, J. O. Marchand, P. E. Nobbs, W. P. Over and James Henderson did not discuss this matter.

The decision of the President was: The suggestion of our Vice-President, Mr. Jos. P. Ouellet, that we hold our next General Annual Assembly of the Royal Architectural Institute on Monday and Tuesday, 21st and 22nd of September, has been approved by all the members of Council who took part in the discussion, and our Hon. Secretary will advise Mr. Ouellet that the dates are satisfactory, and proceed with all necessary arrangements to prepare for the meeting.

I am sure it is the wish of each member of the Institute that the meeting to be held in Quebec next September should be the largest and most enthusiastic one we have held; to accomplish this, every one who is able should attend, and then some more. Kindly work to this end and success will be sure.

6. **Duty on Imported Stone from the United States.**—Proposition: Mr. F. S. Baker wrote to the President that the Federal Government were thinking about putting on import duty on building stone imported from the United States. It was thought that if this were put into effect it would have a very harmful effect on the cost of certain classes of buildings. On the 21st January, 1914, the President decided to obtain the views of the Council on this subject, and on the 28th January the proposition was sent to the members of the Council; they were given to the 15th February, 1914, to send in their opinions.

Opinions on this matter were expressed by Messrs. J. W. H. Watts, John S. Archibald, C. P. Meredith, Alcide Chausse, F. S. Baker, J. P. Hynes, W. G. Van Egmond, J. O. Marchand, A. Frank Wickson, W. Percy Over, J. H. G. Russell, A. G. Creighton, Percy E. Nobbs and F. C. Clemasha.

No opinions were received from Messrs. Roland W. Lines, Jos. P. Ouellet, A. L. Favell, G. M. Lang and James Henderson.

The decision of the President was: This was something I was going to take up with the Hon. Minister of Public Works, the Hon. Robert Rogers, but on account of the work we were engaged on in assessing the competitive plans for the new Government Buildings, we assessors thought it better not to meet the Minister until after the final decision, and am at a loss to know which will be the most effective method to pursue.

If Mr. Meredith, who is in Ottawa, will consent, he might deliver the papers.

My idea was that the letters from the members of the Council regarding this question be sent by you to the Minister along with a letter from yourself telling him that the attention of the Institute had been called to the question of the Government increasing the duty on building stone from outside of Canada, and that in our opinion it would be detrimental to the interests of the large majority of the people, and ask them to kindly give the question their serious consideration before adding anything further to the present import duty on stone.

Mr. Meredith might keep the matter in mind if it comes up, and let us know what is being done, but could be written to later, after you get this in shape.

A copy of above decision was sent to Mr. Meredith on the 21st April, 1914, and on the 27th he replied: "I should be most happy to see the Minister in regard to tariff, but I do not consider that anything can be done, as since this question was first taken up by the Institute the new tariff has come into effect, and it would seem most unlikely that they would again change the import duty, at least without giving the new tariff a trial."

7. Re-election of Fellows R.A.I.C.—Proposition: At the last General Annual Assembly, held at Calgary, the following resolution was adopted:

Moved by Mr. A. R. Greig, seconded by Mr. R. W. Lines: That the Council at an early date consider individually the ex-Fellows of the Institute, and that those considered by them sufficiently eminent in the profession be elected as Fellows.

This discussion was sent to the members of the Council on the 12th February, 1914, and the following members of the Council sent their views on this subject: Messrs. F. S. Baker, J. P. Hynes, John S. Archibald, A. Frank Wickson, Wm. Fingland, Percy E. Nobbs, C. P. Meredith, W. Percy Over, W. G. Van Egmond, J. W. H. Watts and Alcide Chausse.

Those who did not reply are Messrs. Roland W. Lines, Jos. P. Ouellet, F. Chapman Clemasha, A. G. Creighton, A. L. Favell, G. M. Lang, J. O. Marchand and James Henderson.

The decision of the President was: The by-laws of the Architectural Institute of Canada bearing on the question was as follows: "Fellows must have been engaged in the practice of the profession of Architecture for at least ten (10) years. Fellows shall be elected from the class of Associates."

At the Annual Assembly held in Calgary last year this by-law was changed to the following: "There are no Associates. The classes of membership are Fellows, Members, Honorary Members and Honorary Corresponding Members. Fellowship in the Institute is conferred upon a member who in the opinion of the Council shall have notably contributed to the advancement of the Profession in design, construction, literature or education."

The Calgary Assembly came to the conclusion that the new organization should start out with one class, namely members, and that Fellowship in the R.A.I.C. should stand for something.

I agree with Mr. J. S. Archibald and Prof. Nobbs, that the list of Fellows in the R.A.I.C. is far from representative.

The old qualifications for the honor, and it should be an honor, were ten years in practice and an additional ten dollars fee, the new organization in the revised by-law is trying to make the degree worth while.

The legality of the power of the Calgary Assembly to take away the degree of Fellow after it has been conferred has been brought out in the discussion. On taking this question up with a solicitor, he questioned the right under the charter of the A.I.C. or the R.A.I.C. having power to confer titles at all. The charter states in section 4 that certain parties may be admitted as members only and thinks the clause is not broad enough to allow of by-laws being drafted to confer special honor on certain members. I think the question may stand till our next Assembly meeting, when Council can discuss it to better advantage together, than by correspondence, in the meantime let each member consider the question fully in all its bearings.

8. Rome Scholarships. Proposition:—It is proposed by Mr. F. S. Baker, seconded by Mr. J. P. Hynes: "That the proposal of Rome Scholarships is for the Institute to arrange a competition among students who would be eligible for these scholarships in Canada, the winner to be given the nomination by the Royal Architectural Institute of Canada. This would relieve him of the preliminary competition. We would move, therefore, with the above explanation:

That the President be requested to name a committee of members in Montreal, Toronto and Winnipeg, to arrange a competition among architectural students in Canada eligible for the scholarship attached to the British schools at Rome, selecting a suitable subject, and all other particulars including a second and a third prize, and report to the Council of the R.A.I.C. by letter prior to June 1st, 1914."

This proposition was sent to the members of the Council on the 14th April, 1914, and the opinions were received to the 1st May, 1914.

The members of the Council who took part in the discussion were Messrs. F. S. Baker, Roland W. Lines, F. Chapman Clemasha, John S. Archibald, Colborne P. Meredith, A. Frank Wickson, J. O. Marchand, J. W. H. Watts and Alcide Chausse.

Messrs. Jos. P. Ouellet, A. G. Creighton, A. L. Favell, Wm. Fingland, J. P. Hynes, G. M. Lang, P. E. Nobbs, W. Percy Over, W. G. Van Egmond and James Henderson did not send their opinion on this proposition.

The decision of the President was: Owing to an oversight of the President a decision on this very important question has been delayed to such an extent that it would be better to leave it over for the Quebec meeting to deal with, and in doing so he offers his humble apologies to the mover and seconder of the discussion for his failure in not carrying out his duties to them and the Council at the proper time.

9. The R. A. I. C. Medal.—Proposition: It is moved by Mr. F. S. Baker, seconded by Mr. J. P. Hynes: "That the President be requested to appoint a committee to arrange for the making of a design and a die for the Institute medal, and that the presentation of the first medal struck from this die to the winner of the Halifax Tower Competition as then arranged and agreed, or in lieu thereof to provide a separate medal or some other prize for the winner of this competition, so that the obligation of the Institute in that particular may be carried out."

The discussion was between Messrs. Roland W. Lines, F. Chapman Clemasha, John S. Archibald, Colborne P. Meredith, A. Frank Wickson, J. O. Marchand, F. S. Baker, J. W. H. Watts and Alcide Chausse.

No replies were received from Messrs. J. P. Ouellet, A. G. Creighton, A. L. Favell, Wm. Fingland, J. P. Hynes, G. M. Lang, P. E. Nobbs, W. Percy Over, W. G. Van Egmond and James Henderson.

The decision of the President was: The members who took part in this discussion are all unanimous that something be done and the majority are in favor of the motion.

The Institute should always carry out anything it undertakes to do and the question of ways and means should be taken up first before agreeing to undertake something there are apparently

no funds for. In this case I am sure the money required for the medal or prize can be easily secured.

I have great pleasure in asking Mr. F. S. Baker and J. P. Hynes to be a committee to carry out the objects of the motion, with power to add to their numbers.

10. Souvenir Programme for the Quebec Assembly.—Proposition: Mr. Maurice J. Connolly, a publisher from Edmonton, Alta., submitted a proposal to publish for the coming Quebec Assembly a Souvenir Programme, in the form of a book containing the programme of the Assembly, the Officers and Council of the Institute, a list of all the members of the Institute, and other valuable information and illustrations. He was to pay all expenses in connection with the publication and distribution of the Souvenir, but he wanted the authorization to publish advertisements of building supplies firms, to cover his expenses. This was sent to the Council on 14th April, 1914.

Messrs. John S. Archibald, A. Frank Wickson, Alcide Chausse, F. S. Baker, J. W. H. Watts, J. O. Marchand and Jos. P. Ouellet sent their opinions before the 10th of May, 1914.

No opinions were received from Messrs. Roland W. Lines, F. Chapman Clemasha, A. G. Creighton, A. L. Favell, Wm. Fingland, J. P. Hynes, G. M. Lang, Colborne P. Meredith, P. E. Nobbs, W. P. Over, W. G. Van Egmond and James Henderson.

The decision of the President was: The Souvenir Programme, published by Mr. Connolly, in connection with the Calgary Assembly, caused a good deal of trouble at the start and could very well have been omitted.

It is almost impossible to have an outside party get up a programme without certain of the advertisers getting the idea that the R.A.I.C. would have an interest in the publication and that is one thing I feel sure each member of the Council would deplore.

If this could be accomplished without the medium of advertisers, and something artistic produced that our delegates would appreciate, then it would be worth while taking the matter up, but this is not possible for financial reasons, if no other. In this discussion, three members favor the proposal, one member has no objections under certain conditions, three are not favorable, and twelve have not sent in any opinion.

I do not favor the idea, being firmly of the belief that if a programme were to be published it should be undertaken by the Institute.

With due regard to the opinions of all, and after taking everything into consideration, I think we had better not accept Mr. Connolly's proposal.

11. Ontario Museum of Archaeology.—Proposition: It is suggested by Mr. Frank Wickson: "That in the interest of education in this country it is most desirable that there should be specimens of perfect period rooms and furniture. In the new Royal Ontario Museum of Archaeology they have one such room and we are endeavoring to get the Ontario Government to supply others of different periods and similar character."

"I believe that samples of furniture would be valuable for both architects and manufacturers, particularly those who manufacture furniture. I should like to know if the Institute would consider it helping along general lines of education if we were to ask the Dominion Government to make an allowance for buying such furniture."

12. Federation with the Architectural Institute of British Columbia.—Proposition: The Architectural Institute of British Columbia, incorporated by provincial charter, and having its office at Vancouver, B. C., having a membership of twenty-four, is applying for federation with the Royal Architectural Institute of Canada. The British Columbia Society of Architects, having its office at Victoria, B. C., has also applied for affiliation, they claim that they represent the majority of British Columbia architects, but they are not chartered. Article 3 of the charter of the R.A.I.C. gives us power to affiliate with any society or association having similar objects to those of the Institute.

After discussion by the members of the Council the matter was brought before the President, who decided as follows:

"After giving this question further consideration, I am of the opinion that the Council of the Royal Architectural Institute of Canada cannot take any action regarding the Architects of British Columbia until the members of the Architectural Institute of British Columbia and the British Columbia Society of Architects, get together and adjust their differences, both societies cannot federate with the Royal Architectural Institute of Canada, and should we recognize either one, a certain injustice would be done to the members of the other organization."

"I feel sure a united society would be a stronger organization in every respect than two separate societies. It would mean so much more to the profession at large, to say nothing of the good fellowship and harmony it would engender among the individual members."

"As far as our Council is concerned I think that it is not possible to discuss this question through correspondence and arrive at a satisfactory solution, with conditions as they are in British Columbia."

"It might be well to apprise the two British Columbia societies of the feeling of our Council, it may help to get them together."

A letter is being sent to both British Columbia societies as suggested by the President.

13. Annual Assembly and Council Meetings by Correspondence.—Proposition: It was proposed, owing to war conditions, to carry on the business of two Assemblies and several Council Meetings by correspondence.

It was decided not to have any General Assemblies by correspondence, as for the meetings of the Council, the by-laws of the Institute provide for such meetings by correspondence.

Minutes of the Meeting of the Council of the Royal Architectural Institute of Canada, held on the 22nd April, 1916, in the rooms of the Ontario Association of Architects, at Toronto, Ont., at 9.30 o'clock a.m.

Present: Messrs. J. W. H. Watts, J. S. Archibald, F. S. Baker, J. P. Hynes, A. F. Wickson, Alcide Chausse and Hugh Vallance (member of the 1915-16 Council) representing the absent members from the P.Q.A.A.

Messrs. J. H. G. Russell, J. P. Ouellet and James Henderson wrote that they could not come. Messrs. R. W. Lines, F. C. Clemasha, C. P. Meredith and P. E. Nobbs, were prevented from coming they being on military duty.

Chairman: Mr. J. S. Archibald was requested to preside at the meeting, on a motion proposed by Mr. A. F. Wickson, seconded by Mr. J. P. Hynes, and unanimously adopted.

The question was raised as to the legality of this meeting of the 1913-14 Council, there being only six members present, while article 17 of the by-laws of the Institute require a quorum of seven members.

It was decided that the meeting be held subject to the ratification of its decision by the coming General Annual Assembly.

The minutes of the meetings of the Council held at Calgary, Alta., on the 15th and 16th September, 1913, were read and approved.

It was proposed by Mr. F. S. Baker, seconded by Mr. J. W. H. Watts, and resolved that: The minutes accumulated by correspondence during the war be referred to the General Annual Assembly for approval with the suggestion that in future each Provincial delegation appoint a convenor who will call a meeting of the local delegation to prepare and dispatch an answer thereto.

The Hon. Treasurer reported as follows:

Receipts	\$ 878.28
Expenses	396.38
Balance in Bank	\$ 481.90

ASSETS:

Ontario Association 2 years in arrears, about.....	\$ 304.00
Alberta Association 2 years in arrears, about.....	250.00
Saskatchewan Association 1 year in arrears, about.....	125.00

Total

Moved by Mr. J. W. H. Watts, seconded by Mr. Alcide Chausse, and resolved: that the Seventh General Annual Assembly, which was postponed from the 21st and 22nd September, 1914, be held at Quebec, as decided by the Calgary Assembly, on the 8th and 9th September, 1916, and that the Eighth and Ninth General Annual Assemblies, which were deferred on account of the conditions created by the European war, be held at the same place and the same time, so as to bring the affairs of the Institute to date.

Moved by Mr. F. S. Baker, seconded by Mr. J. P. Hynes, and resolved: that the postponed General Annual Assemblies be held with the least expenses, and that none be authorized in connection with these assemblies, except the sending of the notices and any small expense essential to obtaining room for the meetings, etc.

The Hon. Secretary reported as follows:

There are on the books of the Royal Architectural Institute of Canada 573 members, classed as follows:

Alberta Association of Architects	70
Manitoba Association of Architects	47
Ontario Association of Architects	170
Province of Quebec Association of Architects	151
Saskatchewan Association of Architects	67
Not belonging to federated Associations	31
Honorary members	21
Corresponding members	16

573

It was decided that the following matters be left for consideration by the Council at its next meeting:

- Arrears due by federated associations.
- Federation of British Columbia Societies of Architects.
- Re-election of Fellows R. A. I. C.
- R. A. I. C. Medal.
- Celebration of the Tenth Anniversary in 1917.
- Ottawa Architectural Competition.

The Hon. Secretary submitted a list of the members of the Royal Architectural Institute of Canada, who have enlisted. This Roll of Honor comprises 19 members from the Province of Saskatchewan; 12 from the Province of Manitoba; 10 from the Province of Quebec; no information has been received on this subject from the Provinces of Alberta and Ontario. As we have no federation with the architectural organizations in the Provinces of British Columbia, New Brunswick, Prince Edward Island and Nova Scotia, we have no information from these parts of the Dominion, but it is estimated that there are presently serving the King and the Empire over 100 Canadian architects.

It was unanimously resolved that thanks be voted to the Ontario Association of Architects for the use of their rooms for this meeting.

There being no other business before the Chair the meeting was adjourned.

Among the items of general business was an application for federation from the Architectural Institute of British Columbia (Incorporated). It was decided, however, to take no action as it was felt that the two bodies in the province should get together as no progress could be made without unanimity.

The matter of the election of Fellows was also discussed, and it was decided to adhere to the position taken at the Calgary assembly. It will be left to the provincial bodies to nominate men whom they consider worthy of such honor and the nomination will then be passed upon by the Council.

With regard to the next place of meeting, Mr. J. W. H. Watts introduced a resolution that the next Assembly be held at Hamilton, upon a date to be fixed by Council, but it was decided to leave the whole matter in the hands of the Council.

Following upon the suggestion in the Presidential address, it was decided to suspend all fees from members who have enlisted for active service. Along similar lines, it was decided that fees should be payable by firms only in the province where they are registered, thus relieving members registered in more than one province of being compelled to pay fees two or three times over.

Upon taking up the question of the election of officers and Council for 1916-1917, Mr. J. H. G. Russell was nominated for re-election but declined the honor for a further term, although strongly urged to accept. The following list was therefore adopted:

President.—Mr. J. P. Onellet, Quebec.

Vice Presidents.—Mr. A. Frank Wickson, Toronto; Mr. W. B. Van Egmond, Regina.

Hon. Secretary.—Mr. Alcide Chausse, Montreal.

Hon. Treas.—Mr. J. W. H. Watts, Ottawa.

Council.—Messrs. James Henderson, R. P. Blackey, W. D. Cromarty, J. H. G. Russell, H. E. Matthews, W. P. Over, C. W. Acton Bond, J. P. Hynes, C. P. Meredith, J. W. H. Watts, D. R. Brown, A. B. Champagne, Joseph Perreault, R. G. Bunyard, A. G. Creighton, H. Cooper.

Canada's Heavy Fire Loss

In war time, and while many interests are urging thrift and economy, the Canadian people are burning up their created resources at a much greater rate this year than last.

During the first five months of 1916, the fire loss in Canada has exceeded that of January to May, 1915, by approximately \$3,000,000, or \$600,000 per month.

Canada has need of all her financial resources. She is borrowing money to carry on the war, and is paying 5 per cent. interest thereon. The additional fire loss of 1916 would therefore pay the interest charge on the recent war loan of \$100,000,000, and would pay \$2,200,000 of the principal. Canada's average annual fire loss, of over \$23,000,000, would pay 5 per cent. interest on approximately half a billion dollars. Our fire loss is, however, something for which we are receiving no value, either financial or patriotic; it is simply a tax, due in great part to carelessness, which Canadians appear willing to pay, and which they, as a whole, are doing little to avert.

Articles required in the building trade.—A correspondent in New Zealand is anxious to get in touch with Canadian manufacturers of the following articles required in the building trade: Roofing materials, iron, asphalt, asbestos, tiles, or cement, timber, heating apparatus, coolers, sanitation, ventilation, waterproofing materials, cements, paints, etc.—No. 1089, *Trade Enquiries*.

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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 duly returned.

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FRASER S. KEITH - - - EDITOR AND MANAGER

Vol. IX Toronto, September, 1916 No. 9

Government's Lack of Patriotism.

When the Government of Canada sees fit, as it has done, to offer a gratuitous insult to the engineering, architectural and contracting interests in this country, it is surely time for a vigorous protest. In giving the designing and erecting of the new Dominion arsenal at Lindsay to a New York firm, it has been guilty of a crime against the public welfare, which should not be tolerated by the people of the Dominion.

The weak-kneed attempt on the part of the Hon. A. E. Kemp to justify the action of the Government in giving this work to a foreign company, by inferring that Canadian architects, engineers and contractors were not competent to undertake this important work, is adding further insult to injury, and like hitting a man below the belt after he has been struck on the face. Failing to find an excuse for getting outsiders to do work for which the people of Canada are paying, and which could be as well done by men who are going to be called upon to pay their share of the up-keep of this Government

institution, the would-be defender of the Government's action takes it upon himself to belittle the ability of the men already injured.

From the method pursued in placing the arsenal contract, the Canadian Government proves itself guilty of stupendous ignorance and a lack of loyalty and patriotism, intolerable at any time, but under existing conditions and circumstances little short of criminal. Its ignorance of the fact that there is hardly a building in the United States, either public or private, that could not have been as well designed by Canadian architects, or erected by Canadian contractors, might be excused, but its treasonable disloyalty to the men who have been affected by the war more adversely than any other group, is unpardonable.

The history of shell-making in this country offers an object lesson to all who yet fail to possess a due sense of the resourcefulness of Canadians in an emergency. When the war broke out the metal-working industry was at a low ebb. Shell-making meant its salvation. No experts in this line were available. Turning out shells presented problems and difficulties beyond anything ever attempted by mechanical engineers and expert mechanics in this country. The problems presented were met with and solved by a display of inventive adaptability that was little short of marvelous. So well was the work done that experts came from the United States to study our methods and get ideas. Editors of mechanical papers from across the line came for information, with which they enlightened their readers as to how mechanical difficulties in shell-making were overcome. British papers freely copied Canadian literature describing Canadian methods. The Government of Australia issued an official booklet on shell-making to aid the manufacturers of that country. The information in that booklet was obtained in Canada. Yet, according to our own Government, the breed of men who accomplished this could not be entrusted with the comparatively simple problem of designing and erecting a munition manufacturing plant.

The day the corner-stone of the Dominion arsenal was being laid with great pomp and ceremony in Lindsay by Sir Sam Hughes, members of the Canadian Manufacturers' Association were in New York putting in tenders for material for this building. Toronto manufacturers found it necessary to go to the United States in order to get a chance to bid for a share in supplying their material to a building for which the people of Canada are paying. Could absurdity be extended further?

In striking contrast to this free and easy method on the part of the Government and private corporations of ignoring Canadian worth and ability at the expense of the general welfare

of the country, is the wall imposed against us by the federal Government of the United States. As an actual illustration of this might be mentioned the case of a Hamilton architect who competed for, and won, a competition on a building which was to be erected in a city not far from the Canadian border. This successful architect, whose work was judged on its merit, was not allowed to enter the United States to superintend the erection of the building. The federal law of

the United States includes under their Alien Labor Act, which controls the entry of foreign labor into their borders, and places in the same class as mechanics, the architect, the engineer, and the contractor.

It is up to us as architects, as engineers, as contractors, as manufacturers, to see that our own laws are made at least as far-reaching as those of our neighbor, where it is in the public interest to do so.

An Anomalous Situation Requires Action

Conditions Existent in the Affairs of Architects, Engineers and Contractors in Canada Necessitate Joint Action on the Part of the Royal Architectural Institute of Canada, the Canadian Society of Civil Engineers, the Builders' Exchanges and Canadian Manufacturers Association.

The Canadian Society of Civil Engineers, realizing the injustice being done to the engineering profession culminating in the appointment of an American engineer as advisor to the Canadian Government Commission on railway affairs, has issued a circular under date of September 7th, calling for the co-operation of every member of Society. The circular says in part:

"The above Commission immediately appointed an American engineer as its advisor, and instructed him to organize a corps of engineers for valuation and advisory work. We wish to record our strong condemnation of the policy of placing in the hand of aliens the engineering work of a commission appointed by the Canadian Government to investigate Canadian railways for which the Canadian community has paid.

The inferences to be drawn from the employment of aliens in the above connection are that the Federal Government considers:

1st. That the Canadian engineers who built the railways are not competent to report upon them.

2nd. That the Canadian universities, in many cases enjoying Government subsidies, are not producing competent engineers; and

3rd. That the Canadian Society of Civil Engineers, although embracing a membership of about three thousand, is not considered worthy of consultation on an important engineering question.

The above mentioned appointment of alien engineers is not by any means the first of its kind, as many similar but possibly less flagrant cases have preceded it, and it is not improbable that the recurrence of such appointments may be due to the fact that Canadian engineers neither assert themselves nor demand recognition.

In order to impress upon the Federal Government the fact that one of its first duties is to encourage and develop the engineering profession in Canada in every possible way, the Council has selected this gross violation of a vital principle to initiate a campaign and impress the fact that Canadian engineers must receive due consideration. The Canadian railways, canals, public works and other engineering attainments are a proof that Canadian engineers stand in the front rank, and it should be quite unnecessary for them to have to appeal to their own Government for recognition.

It may be argued in support of the present alien appointment that Canadian engineers are not acceptable because many have been in the employ of the railway companies. To this we would reply that, as the Commission itself is to advise the Government, basing itself upon the engineering data given to it, any experienced engineers are competent to collect and submit the necessary information to the Commission.

It may also be argued that the Government gave the Commission a free hand in the appointment of an engineering staff, and, since this freedom of appointment is essential, our protest should be to the Commission itself. To this we reply:

1st. That when a particularly flagrant case arises such as this where competent constructing and operating engineers are passed over in favor of alien engineers, the question of the suitability of the Commission appointed by the Government for the work in hand comes into question.

2nd. A protest to the Commission itself would probably prove futile, and, even if successful, would not in any way impress the Government, the creator of Commissions, in regard to future procedure in matters of this kind.

The Council of the Canadian Society of Civil Engineers, therefore asks you to use your influence in every way to diffuse a knowledge of this matter throughout your community, and to place before those with whom you may come in contact the facts of the case and the position of engineers in relation thereto. Specifically, the following is recommended:

1st. That you write to your representative in the Dominion Parliament, whether Government or Opposition, setting forth the facts of the case in a strong way, and pointing out that this is merely an incident in a long course of similar procedures.

2nd. That you write in a similar vein to those having influence with the Government in your own community or elsewhere.

3rd. That wherever similar incidents are brought to your attention you voice a protest, giving the facts to your local branch of the Canadian Society of Civil Engineers or to the Secretary at Montreal in such a manner that the Council may deal therewith.

4th. That you do not delay acting in this matter as above outlined, but proceed to-day to do what you can to bring every pressure to bear in every direction for the good of the engineering community in Canada."

Instead of acting independently, a stronger case could be presented with a more reasonable hope of accomplishment if the Canadian Society of Civil Engineers joined with the Royal Architectural Institute of Canada, and the various Provincial Builders' Exchanges, and then in turn secured the support of the Canadian Manufacturers' Association. The influence of these organizations acting together would be powerful enough to obtain the object we desire.

C O R R E S P O N D E N C E

The opinions published herewith, of men occupying important positions, confirm the stand taken by "Construction" that we are face to face with a situation calling for action.

* * *

Toronto, September 6, 1916.

Editor, CONSTRUCTION, Toronto:

The Toronto Chapter of the Ontario Association of Architects has, for the past year, been interested in the extraordinary conditions of architectural practice with which we find ourselves confronted.

It appears that buildings costing over six million dollars have been designed by American architects since the beginning of the War, and apparently the end is not yet.

CONSTRUCTION published in the issue of August of this year, the reply of the U. S. Immigration Commissioner quoting the laws of the United States as applied to Canadian archi-

itects, engineers and contractors desiring to do business in that country.

While Canadian architects are absolutely barred from following their profession in the United States, should such an opportunity be offered to any of us, our country freely admits architects from the United States to practice here. The present laws of Canada governing the control of drawings from other countries, while imposing a duty on the value of the work involved, do not prevent the alien architects from coming here to practice temporarily. They would be welcome if they came here to stay. It would seem only the most elementary act of self-defense to have our laws agree with the laws of the United States, and definitely prohibit such alien employment.

When one stops to consider that the American architect, being more familiar with his native building materials, specifies these in preference to similar Canadian building materials, the great injustice done to our business and manufacturing industries is realized. Again, in the awarding of contracts the same preference is seen, and foreign contractors secure the greater share of such work.

The experience of those of us who have been considering conditions during the past year shows that a campaign of education of the public is just as vital to our interests as the alien labor law. It is quite evident that our commercial concerns and financial men need to realize that there is not the necessity to go out of the country for what the country needs in professional services and also in the bulk of building materials.

It is difficult to say definitely what has caused this tendency towards the employment of alien architects for business and manufacturing concerns, there may be several contributing causes; but it would seem that the desire for specialists was the first. Specialization is not to be decried, we can use all there now is, and need more, in the engineering sciences connected with building, but not in architecture. All the modern education and training required of architects would go for naught, if they were compelled to become specialists in particular kinds of commercial buildings. The principles controlling construction are not confined to any one class or group of buildings, and an architect can complete successful buildings for different kinds of manufacturing or business concerns when he is given the proper information and the owners know what they require. Some of the most successful buildings in the United States to-day are the first of that particular class of building which the architects thereof were commissioned to do. Those buildings were successes because the owners knew what they wanted for their

particular needs, and the architects were able to harmonize all the various needs through having been given such information.

Imagine the case of a business concern about to erect a new building of which there is no similar building in this country. There may be several buildings of this type across the border, and instead of the Canadian concern going across and bringing back the alien architect for the Canadian building, let the owners take the Canadian architect across with them; and, if necessary, send him to different cities to gather the particular information needed. This is not a new principle but has been used by other owners in other countries for years.

In our campaign of education it is desirable that the various architectural associations should all work together. The London Chapter of the Ontario Association of Architects has already signified its desire to help in securing the legislation we seek; and there was recently an informal meeting between the Provincial Builders Exchange and some of the Council of the O. A. A. All this is in the right direction. We have been offered help in such a campaign from several sources and are hopeful of great results. It would seem to be conforming to the spirit of the convention, called for this fall by the Department of Trade and Commerce, if the Architectural Associations could have some comprehensive scheme prepared, to be presented before that Convention.

Yours very truly,

R. K. SHEPARD,

Chairman, Toronto Chapter,
Ontario Association of Architects.

* * *

Department of City Architect and Superintendent of Building.

Toronto, Sept. 1st, 1916.

Editor, CONSTRUCTION, Toronto:

I beg to acknowledge the receipt of your letter of July 17th, 1916, in which you request my opinion on the subject of "bettering conditions for architects."

In reply would say that I think your paper is taking a much-needed stand in this matter and is to be congratulated therefor.

The Commission of Conservation have notified me that they have undertaken the important task of investigating the extent of fire losses and efficiency of fire protection in Canada, with a view to suggesting some means whereby the present deplorable waste of fire may be curtailed. They also stated that they favored a uniform building code for all Provinces, setting out a standard of minimum building requirements, graded according to the population of the towns to which applicable.

By referring to the above extracts from the Commission, I think they have given one of the best arguments possible why architects should have the proper training, and, having acquired the necessary experience, then be adequately protected, as it is self-evident that unless the architect can interpret the building code, using the fibre stresses given as well as the other requirements, the building code would be null and void. This is particularly so in towns where there is no properly equipped building department, as it would be a very slow and laborious thing if all plans had to be submitted to some central bureau miles away, and then have it necessary for the owner or architect to travel miles to change plans and specifications that did not agree with some part of the code.

When you consider the great confidence that the public have to place in the work of the architects in entering large buildings, and in ninety-nine out of one hundred cases they do not even know who the architect was, it is surprising that the public has not insisted on the architects being properly trained, not only from the artistic side, but also from the constructional point of view, because, after all, it makes very little difference to a person as to the beauty of the building if it should fall down on top of them.

When you consider the fact that the University of Toronto gives at present a splendid course in architecture, it seems to me that legislation similar to what is enacted to protect doctors, lawyers, etc., could be enacted and put on a first-class basis at once without any extra cost to the government.

Upon talking with numerous architects in Toronto on the subject, I am of the opinion that the first step in securing legislation of the nature given above would be to have all the architects at present practising practically unanimous on the subject, and I find that the most of them would be pleased to have such an Act passed.

As Canada has a great future ahead of it, it seems reasonable to have the change made as soon as possible.

Yours truly,

W. W. PEARSE,

City Architect and Supt. of Building.

* * *

The Provincial Builders' and Supply Association of Ontario.

Office of Secretary.

Toronto, Aug. 31st, 1916.

Editor, CONSTRUCTION, Toronto:

I have read with interest the articles you have written in your issues of July and August upon the injustice being done to both Canadian architects and Canadian contractors by the employment, by Canadian owners and manufacturers,

of American architects and contractors to do their work, as evidenced by the figures mentioned in the said articles.

That there is serious need of action being taken is evidenced by the fact that the Wm. Davies Company have just awarded the contract for their large new building to a Chicago firm of contractors, under Chicago architects, and the same course was, as you know, followed by another Toronto company in the awarding of the works on their new mail order building and the employees' home.

In such cases as these I think that the Canadian Manufacturers' Association should take action, and so emphasize their much advertised slogan, printed broadcast some months ago, entitled—"Canada for the Canadians."

It seems to me that the first steps to combat this foreign invasion should be taken by the architects, primarily in seeking legislation for their protection, such as you mention in your articles, for it is generally the influence of the foreign architect that induces the client to employ the foreign contractor, and, therefore, if such legislation were obtained, the contractor would also obtain protection. There is also the matter of customs duty on plans prepared outside Canada, amounting at the present time to 30 per cent. of 1 per cent. of the value of the building, and, although the claim has been put forward that foreign architects could and do evade the duty by bringing in just rough sketches, and sending draughtsmen here to perfect and complete the same, I feel that the law can be construed to cover such, and, if not, then legislation should be sought to have the Act amended to do so, as I think that if it was pointed out to an owner contemplating erecting, say, a five hundred thousand dollar building, that in the event of his employing a foreign architect he would have an additional cost over the said architect's fees of fifteen hundred dollars for duty, he would be inclined to enquire into the abilities of the Canadian architect and the Canadian contractor.

The Canadian contractor is largely dependent upon his architect for work, although it is true that these so-called general contractors, who come from the States, generally sub-let the majority of the works to the local men, but it is the manner in which they do so that is the greatest disgrace and hardship to us. They come, say, to Toronto to figure a job, and call upon all the local men to give them figures, and, when they themselves have been awarded the contract, instead of awarding the sub-contracts to the contractors whose figures secured them the work, they immediately proceed to peddle for new figures. In other words, instead of contractors,

the majority are nothing more or less than *brokers*.

As I said before, the Canadian Manufacturers' Association should take this matter up with their members and try to induce them to strengthen the other industries and professions of their country by employing them, as it is only by the strength and solidity of all the constituent trades and industries that Canada can become the great and powerful country that she is entitled to be, and surely all true and loyal citizens can have no other wish than to see her in that position.

Yours truly,

A. E. FLOWER,

Secretary.

* * *

The Architectural Institute of British Columbia,
Office of the Hon. Sec'y.

Vancouver, B. C.

Editor, CONSTRUCTION, Toronto:

In recent times a well-known Vancouver building owner proclaimed from a public platform that it was the duty of all residents of British Columbia to deal with business men and firms established within the Province, and this at a time when a very large building named after him was nearing completion, under the supervision of architects whose residence was in the United States, although they had a temporary branch office in Vancouver; a building contractor brought from the same place, and in the construction of which a very large amount of American manufactured material had been used.

Complaints have been continuously made by architects, engineers, contractors and manufacturers of building materials in the Province of British Columbia that an injustice is being done to them in the way that a very large amount of construction work in this Province has been for the last six or seven years, and still continues to be, designed and erected by Americans, and of American material, and that these American architects, engineers and contractors may or may not have branch or temporary offices here, but are in any case non-residents of Canada, and that it is reasonable to assume that the profits they make will be entirely lost to the country.

Such non-residents have no community interests in this country, and, unlike the Americans who permanently reside here, merely invade it as exploiters prepared to close down their branch or temporary offices during periods of depression; pursuing, at a distance, a policy of "watchful waiting" until business revives.

The opening paragraph of this letter cites only one of many instances of the particular kind of glaring inconsistency practised by certain building owners in this Province.

Moreover, it is remarkable that this absence

of patriotic and public spirit has been more particularly exhibited by many of those individuals, firms and corporations whose chief purpose and interest in promoting the erection of structures is that, either as owners of office buildings, bankers, public service corporations or privileged manufacturers, they may seek the support of and make profit out of the Canadian public, and, while objecting to foreign competition themselves, entirely disregard all moral and business obligations to patronize and support such as may be possible of the various branches of Canadian business endeavor carried on in their midst, and by sections of the public to whom they appeal for patronage and support. For it should be borne in mind, even in the case where American capital is introduced into Canada, that it is done solely with the object that it will from the resources of the country return profits to its owners, and surely it is no more than reasonable to require the capitalists exploiting the country for their own benefit, that in so doing they should patronize and employ the residents of it.

The Pantages Theatre Co. is the latest instance where the public of British Columbia is to be asked to support and give profit to a company whose first move in building their new theatre is to ignore the resident and employ an American architect residing in the United States.

That there is no excuse for this condition of affairs in this instance, or any other, needs no demonstration, since Canadians in all these branches of work are not one whit less competent than their brethren over the line.

That the American architect or engineer is largely responsible for the introduction of the American builder and material has often been conclusively proved, not only in the West, but in the East.

Figures issued by the Builders' Exchange of Ontario show that during the year 1915 plans and specifications were prepared by American architects for work amounting to \$2,769,000, and that as the result of this favoring of American architects, only \$90,000 worth of this work was executed by Canadian builders.

Moreover, during this period plans had been prepared by American architects for buildings to be erected in Canada aggregating \$4,545,000 in value.

At the present time the Architectural Institute of British Columbia, Inc., is unable to give complete figures on the lines of the Builders' Exchange of Ontario, but from close observation and knowledge of building conditions for several years past, the Architectural Institute is of opinion that figures would make even a worse showing for British Columbia than Ontario.

In Canada, protests of this kind are unfortun-

ately only at the complaint stage, whereas in the United States they have for a long time been in the stage of action, and not only do architects', engineers' and manufacturers' societies very strongly intervene, but the American public will not countenance the exploitation of their country by non-residents.

The absurdity of the situation is obvious, and as the plea of patriotism carries no weight, otherwise the situation would not exist, a remedy ought surely to be found that will prevent such injustice being suffered by residents having community interests and responsibilities in Canada, and which will also foster and extend the knowledge that it is not necessary to look to and depend upon the United States for men of ability and for workmanship of quality, but that Canada has among her own residents men as fully qualified and capable of undertaking and carrying on all the various forms of professional and commercial endeavor as can be found outside her borders.

Signed on behalf of the Council of the Architectural Institute of British Columbia, Inc.,

R. MACKAY FRIPP, *President.*

Stimulating Trade

Five hundred cars of lumber are being shipped daily from the mills of British Columbia to various Canadian points. This represents the greatest amount of business in the history of the lumber industry for the Coast Province. It is the direct and satisfactory result of the aggressive publicity campaign commenced a few months ago by the Government of British Columbia. In adopting this policy an example has been set to the older Provinces of the Dominion—the stimulating of a demand for a natural asset.

During the few months since an office was opened in Toronto and a campaign of publicity commenced the demand for B.C. lumber in Eastern Canada has increased at a wonderful rate. Architects and builders are now able to see for themselves the splendid samples of the various B.C. woods, and to judge their quality and appearance from the numerous samples in the B.C. Lumber Commissioner's office in Toronto. The B.C. Government was particularly fortunate in the appointment of a commissioner as representative for Eastern Canada. Mr. L. B. Beale, who is in charge as B.C. lumber commissioner, is not only an authority on the woods and timber resources of B.C., but an enthusiastic and affable advocate of their uses. Much of the success of the B.C. campaign is due to his energy and enthusiasm. Canada needs just such men, and should have them to-day representing her in foreign countries, stimulating an interest in her natural products and creating a demand for them and for the output of her factories.

CONSTRUCTION NEWS

Information of Special Interest to Architects Contractors, and Manufacturers.
Construction Building Reports will Give You Up-to-date Information Every
Day on all New Buildings About to be Erected or in Course of Erection.

The outlook for the building trade is particularly bright. The past month has marked an unusual amount of building in Ontario and Quebec. Over five million dollars' worth of work is now under way in Toronto alone, and all indications point to increased activity.

BUSINESS BUILDINGS.

BARRIE—Pounder Bros. have received a contract to erect a telephone building at Barrie, to cost \$15,000.

CALGARY, ALTA.—Architect W. S. Bates, Alberta Block, has prepared plans for the Lancaster Building.

DELHI, ONT.—Architect W. Forth, Waterford, has prepared plans for the new telephone exchange, to cost \$10,000.

FORT WILLIAM, ONT.—Seaman & Penniman have been awarded the contract to erect an office building and eight stores, to cost \$80,000.

HAGERSVILLE, ONT.—The Bank of Hamilton has prepared plans for a new bank building, to cost \$10,000.

OSHAWA, ONT.—Pounder Bros., 21 Downie street, Stratford, have been awarded the contract to erect a telephone building on Victoria street.

PEMBROKE, ONT.—J. Thackray, Pembroke, has prepared plans for an office block, to cost \$40,000.

PETERBORO, ONT.—Architects Bond & Smith, 15 Wilton avenue, Toronto, have prepared plans for W. H. Hill's office and apartments, to cost \$10,000.

PORT ARTHUR, ONT.—Architect John Warrington has prepared plans for the General Realty Co., Port Arthur, for a business block, to cost \$80,000.

SARNIA, ONT.—Gutteridge & Grace, builders, 278 Front street north, have been awarded the contract to erect an office building on River street.

SHERBROOKE, QUE.—Plans are being prepared for a new branch for the Canadian Bank of Commerce, Mr. G. G. Valles, 67 Belvidere street, has commenced work on a new three-storey business block, to cost \$4,500.

TORONTO, ONT.—Architect G. C. Biggs, 34 Victoria street, has prepared plans for repairs to the Canadian Northern Railway office buildings at 39 Wellington street east and 46 Front street east.

WINDSOR, ONT.—Architects Watt & Blackwell, Bank of Toronto Building, London, Ont., are preparing plans for an office building, to cost \$65,000.

WINNIPEG, MAN.—Architect J. D. Atchison & Co., 914 Boyd Building, Winnipeg, has prepared plans for a bank on Main and McDermott streets, to cost \$400,000.

CIVIL ENGINEERING.

CLANDIEBOYE, MAN.—Tenders have been called for two pile bridges; secretary, J. B. Forster.

MISSION CITY—Tenders have been called for the erection of a general traffic bridge.

MONTREAL, QUE.—Tenders have been called for a steel bridge to be erected over the Chateauguay River.

MOOSE JAW, SASK.—Tenders have been called for several reinforced concrete bridges; H. S. Carpenter, chairman. Tenders have been called for bridge abutments for several reinforced bridges; H. S. Carpenter, chairman.

SARNIA, ONT.—Tenders have been called for four steel and cement bridges; W. A. Scott, clerk.

STE. JULIENNE, QUE.—Tenders have been called for a bridge; G. A. Archambault, secretary-treasurer.

SUDBURY, ONT.—Tenders have been called for 1,446 lineal feet of cement sidewalks; W. J. Ross, town clerk.

CLUBS, HOSPITALS, THEATRES AND HOTELS.

BRANTFORD, ONT.—Debentures have been issued by the city of Brantford for the erection of a hospital, to cost \$58,000.

BROCKVILLE, ONT.—Chas. R. Rud is erecting a hotel at the corner of James and William streets, to cost \$12,000.

DOVER, ONT.—The Canadian Pacific Railway Company has prepared plans for a contemplated hotel.

INGERSOLL, ONT.—Architect W. G. Murray, Dominion Bank Building, London, has drawn plans for an hospital addition, to cost \$8,000.

OTTAWA, ONT.—Architects Millson & Burgess, Union Bank Building, have prepared plans for an hospital sun room, to cost \$8,300. Architect Chas. Brodeur, 63 Hotel-de-Ville, Ottawa, has prepared plans for an hospital alteration, to cost \$40,000.

NEW GLASGOW, N.S.—Work has commenced on two new theatres, to cost \$100,000.

SASKATOON, SASK.—Architect W. H. Evans has called for tenders for the erection of a frame hospital building.

TORONTO, ONT.—Architect Geo. B. Post, New York City, is preparing plans for a contemplated hotel to cost \$2,000,000. Architect Geo. D. Redmond, 33 Fairview Boulevard, has prepared plans for a theatre, to cost \$25,000. Architect I. W. Lambe, Ruddy Building, Wellington street east, has prepared plans for a theatre, to cost \$100,000.

FIRE LOSSES.

AYLMER, ONT.—J. H. Glover store and stock destroyed by fire; loss \$10,000. T. H. Willoughby bakery destroyed by fire; loss \$2,000.

BLIND RIVER, ONT.—The following buildings were destroyed by fire, loss \$150,000: The Post Office, Methodist Church, Royal Bank Building, Trelaw & Menard's Block, ten stores and two offices.

COLLINGWOOD, ONT.—The Collingwood Packing Co. was totally destroyed by fire; loss \$100,000.

DRUMMONDVILLE, QUE.—The Aetna Chemical Company's powder factory was destroyed by fire; loss \$20,000.

DUNDAS, ONT.—The building of the Hydro Commissioners was destroyed by fire; loss \$125,000.

FREDERICTON, N.B.—Bridges and railways destroyed; loss \$100,000. The Furnald blacksmith shop was destroyed; loss \$1,100.

OWEN SOUND, BEN ALLIEN, ONT.—James Bumstead, barn destroyed by fire; loss \$3,000.

PEMBROKE, ONT.—The Pembroke Woollen Mills Co., Ltd., destroyed by fire; loss \$10,000.

STE. ANNE DE LA PACATIERE, QUE.—Fire destroyed the convent of the Sisters of Ste. Famille; loss \$30,000.

SAULT STE. MARIE, ONT.—Fire destroyed all the business section of Blind River District. Total loss \$125,000.

ST. CATHARINES, ONT.—H. Sneathly, livery barn destroyed by fire; loss \$5,000.

TORONTO, ONT.—J. E. Snyder, Mfg. Agent, premises destroyed by fire; loss \$8,000.

WINNIPEG, MAN.—The factory of The Paint and Glass Co. was destroyed by fire; loss \$100,000. The building occupied by The Leslie Furnishing Co. was damaged by fire to the extent of \$20,000.

PLANTS, FACTORIES AND WAREHOUSES.

BELLEVILLE, ONT.—The Maple Leaf Tire Co., Ltd., Belleville, have commenced work on a new factory, to cost \$40,000.

BRANTFORD, ONT.—The Dominion Steel Products are erecting a steel factory, to cost \$60,000.

BRANTFORD, ONT.—Architect C. W. Hall, 321 Colborne street, has prepared plans for the Hygienic Dairy Co.'s new factory and office buildings, to cost \$25,000.

BRANTFORD, ONT.—Austin Co., Cleveland, Ohio, have been awarded the contract for erecting a steel factory for the Dominion Steel Products Co., to cost \$65,000.

BROCKVILLE, ONT.—The Canadian Briscoe Motor Car Co. have commenced work on an addition to their factory.

CHATHAM, ONT.—Architects Adams & Adams, King street, have prepared plans for the American Pad and Textile Co. factory on Queen street, to cost \$45,000. Wells & Gray, Confederation Life Building, Toronto, have been awarded the contract.

DUNDAS, ONT.—John Bertram & Sons Co., Ltd., have prepared plans for a factory on Hall street, to cost \$50,000.

EDMONTON, ALTA.—R. G. Dawe has called for tenders for the erection of a wholesale grocery warehouse at Red Deer, brick and concrete construction.

FALLS VIEW, ONT.—Brown Pollard Co., Niagara Falls, N.Y., have been awarded the contract for erecting a factory, to cost \$75,000.

FERGUS, ONT.—Beattie Bros., Fergus, Ont., have plans prepared for a factory addition, to cost \$40,000.

FREDERICTON, N.B.—Mr. J. Fred Ryan has been awarded the contract for erecting a smelting plant for the Bathurst Lumber Co.

HAMILTON, ONT.—G. E. Mills, 614 King street east, has been awarded the contract for a factory addition, to cost \$6,000.

HAMILTON, ONT.—Architect C. T. Maine, 201 Devonshire street, Boston, Mass., has prepared plans for a factory on Cumberland avenue, to cost \$25,000; W. H. Cooper, Clyde Building, Hamilton, has been awarded the contract. The Bank of Hamilton are preparing plans for alterations to their factory on Victoria avenue north. Architects McPhie, Kelly & Darling, Bank of Hamilton Building, have prepared plans for a factory for W. T. Rawleigh Co., Freeport, Ill., on Rosslyn avenue, to cost \$60,000. F. F. Dalley Co., Hughson street west, are having plans prepared for factory alterations. Architect H. G. Christman, 32 Federal Life Building, is preparing plans for factory alterations, to cost \$15,000. The Acme Stamping Co. are preparing plans for a factory addition, to cost \$15,000. Frid Bros., Bank of Hamilton Building, have been awarded the contract for building an addition to Union Drawn Steel, Ltd., factory, to cost \$6,000.

LONDON, ONT.—J. R. Shuttleworth & Son Hat Co., 377 Dundas street, is having plans prepared for a factory addition, to cost \$20,000.

LONDON, ONT.—L. Keenteyside, 487 King street, is having plans prepared for factory alterations, to cost \$5,000.

LONDON, ONT.—Architect F. C. White is preparing plans for a factory addition for the London Rolling Mills, to cost \$12,000.

LONDON, ONT.—J. Shuttleworth, 322 Princess avenue, is having plans prepared for an addition to his factory on Dundas street, to cost \$15,000.

MONTREAL, QUE.—Plans have been drawn for a factory to cost \$20,000 belonging to the Montreal Tramways Co.; it is of cement fireproof construction. The Dominion Textile Co., 112 St. James street, is erecting a factory on St. Ambrose street, to cost \$15,000. The Wm. Davies, Mill street, is erecting a warehouse on Mill street, to cost \$6,800. Architect James Adamson, Amesbury avenue, has drawn plans for Sultana, Ltd., and a warehouse will be erected on Amherst street, to cost \$7,000. The Atlas Construction Co., 37 Belmont street, have prepared plans for the Thomson-Norris Co., 335 Notre Dame street west, and a new factory will be erected on Masson street at a cost of \$84,000.

MONTREAL, QUE.—The Northern Customs Concentrator, Ltd., propose to add a 100-ton flotation plant to their mill.

NANPETCI VILLAGE, ONT.—The British-American Nickel Co., Murray Mine, Ont., is having plans prepared for a hydro power plant, to cost \$1,250,000.

NEW WESTMINSTER, B.C.—Work has started on a new shingle mill belonging to the Acorn Lumber and Shingle Co.

NIAGARA FALLS, ONT.—Pollard Mfg. Co. has had plans prepared for a foundry, to cost \$100,000.

NIAGARA FALLS.—The Perfection Tire and Motor Co., Madison, Iowa, is contemplating a factory, to cost \$65,000.

NIAGARA FALLS, ONT.—The Canadian Axolite Plant, Ltd., is erecting a carborundum plant, to cost \$100,000. The Oneida Community, Ellen street, Niagara Falls, are preparing plans for a new factory.

NIAGARA FALLS, ONT.—The Oneida Community, Ltd., is contemplating an addition to their factory. Synder & Gillette, Niagara Falls, have been awarded the contract for erecting a foundry, to cost \$45,000.

ORANGEVILLE, ONT.—The Canadian Clock Co., Orangeville, is erecting a factory at a cost of \$40,000.

OSHAWA, ONT.—W. J. Trick Co., Toronto, have been awarded the contract for erecting a brass foundry for the McCullough Brass Foundry Co., to cost \$5,000.

OSHAWA, ONT.—Architect Geo. D. Redmond, 33 Fairview boulevard, Toronto, has prepared plans for three factories belonging to the Chevrolet Motor Co. of Canada, Ltd.; J. D. Young & Son, 835 College street, Toronto, have been awarded the contract.

OTTAWA, ONT.—Tenders have been called for by the Dominion Government for a flax building.

OTTAWA, ONT.—Geo. Crain, Clewom avenue, has been awarded the contract for a factory addition, to cost \$16,000.

PETROLEA, ONT.—Architect R. W. Fawcett, 116½ Front street, Sarnia, Ont., has prepared plans for a flax mill, storehouse, concrete tanks and shed.

PORT COLBORNE, ONT.—The International Nickel Co. and British-American Nickel Co. are contemplating erecting a nickel refinery, to cost \$3,000,000; Hon. G. H. Ferguson, Minister of Lands, Forests and Mines.

RENFREW, ONT.—Architect John McNeil, Renfrew, is preparing plans for a factory addition, to cost \$10,000.

SASKATOON, SASK.—An Eastern concern is negotiating for a site to erect a garment factory. The Manitoba Power, Pulp and Paper Co., Ltd., have plans drawn for the erection of a sawmill, paper factory, pulp mill, and hydro-electric power transmission plant at Grand Rapids, to cost about \$2,000,000. The Sawyer-Massey Co. have prepared plans for a warehouse to cost about \$7,000.

SHERBROOKE, QUE.—Anglins, Ltd., of Montreal, have the contract for the addition to the machine shop of the Canadian Ingersoll Rand Drill Company, to cost about \$70,000. Messrs. Loomis-Dakin, Ltd., have the contract for an extension to the power house and tailrace of the Butterfield Co., Rock Island, to cost \$15,000.

SIMCOE, ONT.—The Unique Shoe Co. is erecting a factory, to cost \$20,000.

STAMFORD TOWNSHIP, ONT.—The Township Council are preparing plans for an electric light plant, to cost \$26,000; C. P. Munroe, clerk.

SUDBURY, ONT.—Architect P. J. O'Soeman, Sudbury, has prepared plans for a warehouse for H. Peters, Toronto, to cost \$6,000.

TORONTO, ONT.—Architect W. H. Smith has prepared plans for a factory addition for Adams Bros., to cost \$55,000.

TORONTO, ONT.—Architects Prack & Perrin, Lumsden Building, have prepared plans for the Russell Motor Car Co.'s munition plant addition, Dufferin street, at a cost of \$40,000; Deakin Construction Co. have been awarded the contract.

TORONTO, ONT.—The Du Pont Fabrikoid Co., 364 Dufferin street, have prepared plans for a factory addition, to cost \$150,000. T. E. Essery, 441 Confederation Life Building, is erecting a warehouse at a cost of \$20,000. C. A. Scott, 575 Logan avenue, has been awarded the contract for building a factory addition, to cost \$12,000. Architects Henschein & McLaren, 431 Lombard street, Chicago, have prepared plans for the Wm. Davies abattoir building, on Front and Cypress streets.

TORONTO, ONT.—Architect C. J. Gibson, 51 Yonge street, has prepared plans for a store and warehouse, to cost \$30,000. Architects and Engineers Prack & Perrin, 808 Lumsden Building, have prepared plans for a factory building, to cost \$65,000. H. C. Christman & Co., Federal Life Building, Hamilton, have been awarded the contract. Architect R. S. McConnell, 167 Yonge street, has prepared plans for a factory, to cost \$40,000; L. Dowling, 167 Yonge street, has been awarded the contract. Architect R. S. McConnell, 167 Yonge street, has prepared plans for a factory on William street; L. Dowling, 167 Yonge street, has been awarded the contract. The Canadian Handson Vanwick Co., 15 Morrow street, is building an addition to their factory at a cost of \$7,000. The Dominion Construction Co., 14 Wellington street, is excavating for a factory, to cost \$750,000; W. D. Spangler, 152 Simcoe street, is the architect. Architects and Engineers Prack & Perrin, Lumsden Building, have prepared plans for a warehouse, to cost \$365,000. Architect S. L. Yelles, 67 Baldwin street, has prepared plans for a warehouse, to cost \$40,000. The Dominion Government, Public Works Department, Ottawa, has awarded the contract for the erection of an examining warehouse at the corner of Front and Yonge streets, to Geo. A. Fuller, Ltd., of Montreal; work has been postponed. Architects Wm. Steele & Sons, Ryrie Building, have prepared plans for an embroidery factory, to cost \$75,000.

TRENTON, ONT.—A. E. Cuff, Ontario street, is erecting an addition to his factory at a cost of \$10,000.

VICTORIA, B.C.—Tenders have been called for by E. A. Wilnot, inspector of dykes, for removing and installing a semiautomatic pumping plant.

WALKERTON, ONT.—The Canadian Spool and Bobbin, Walkerton, are erecting a factory, to cost \$12,000.

WELLAND, ONT.—The Canadian Steel Foundries, Ltd., Crowland street, are having plans prepared for an ammunition factory, to cost \$40,000.

WELLAND, ONT.—Ryan & Gardiner, Main street east, have been awarded the contract for building a foundry addi-

tion to the Canadian Steel Foundries, Welland, to cost \$6,000.

WINDSOR, ONT.—A. F. Buers & Co., 340 University street, Montreal, have been awarded the contract for paper mills, to cost \$35,000.

PUBLIC BUILDINGS AND STATIONS.

BARRIE, ONT.—Architects Chapman & McGiffin, Toronto, have prepared plans for a library on Collier street, to cost \$15,000; Ball planing Mill Co. has been awarded the contract.

BRANTFORD, ONT.—Shultz Bros., Ltd., have been awarded the contract to build a station, to cost \$25,000.

HALIFAX, N.S.—Tenders have been called for by the city for the erection of a railway depot building at the new terminal; the building will be of granite.

HARRISTON, ONT.—The town clerk has awarded the contract for building the new town hall; cost \$12,000.

NIAGARA FALLS, ONT.—Walbridge, Aldinger Co., Detroit, Mich., have been awarded the contract for the erection of a terminal, to cost \$200,000.

OTTAWA, ONT.—Tenders have been called for the installation of incandescent lamps in public building; R. C. Desrochers, secretary.

PEMBROKE, ONT.—Architect R. S. Kalsch, Power Building, Montreal, has drawn plans for the sub-station at Pembroke; Wm. Markus, Ltd., Pembroke, have been awarded the contract; the station will cost \$10,000.

PORTAGE LA PRAIRIE, MAN.—Tenders have been called for the erection of a new court house at The Pas.

PORT COLBORNE, ONT.—The Grand Trunk Railway Co., Montreal office, has had plans drawn for the erection of a station and freight shed; W. J. Carmichael, architect.

THE PAS, MAN.—Architect G. N. Taylor, The Pas, has drawn plans for a public building.

TORONTO, ONT.—Tenders have been called for by the Hydro-Electric Commissioners, 226 Yonge street, for the erection of a sub-station, to cost \$90,000.

RESIDENCES, STORES AND FLATS.

BICTONA, B.C.—The Canadian Explosives, Ltd., have called for tenders for the erection of a three-storey boarding-house, at James Island, B.C.

DELHI, ONT.—A. E. Steele has had plans prepared for his store, to cost \$5,000.

EXETER, ONT.—W. S. Howis has prepared plans for his drug store, to cost \$7,000.

HALIFAX, N.S.—The Eastern Investment Corporation are erecting a warehouse on Phillips street, a residence on Jennings street. A store for Ben's, Ltd., is being erected on Pepperell street. Goodue & Petrie are erecting a warehouse on Shirley street. J. E. Bulter is erecting a store and dwelling on Shirley street. J. W. Hurshman has commenced work on a store at 612 Robie street. A MacDonald is erecting a house on Phillips street. J. S. Parker is erecting a house on Cork street. Emile Coume and Wm. Lockyer have prepared plans for two houses on Stairs street. F. A. Shaw is erecting a garage on Henry street.

HAMILTON, ONT.—Brennen & Sons, 40 Ferguson avenue, have been awarded the contract for an apartment house, to cost \$20,000.

HAMILTON, ONT.—Architect F. W. Warren, Bank of Hamilton Building, has prepared plans for a residence on Ontario street, to cost \$5,000.

HAMILTON, ONT.—Architect Gordon Hutton, Bank of Hamilton Building, has prepared plans for a residence, to cost \$12,000; Geo. P. Smith, 26 Carrick avenue, has been awarded the contract. Architect H. C. McBride, 148 Dundas street, has prepared plans for W. J. Ashplant's residence, to cost \$7,000. W. J. Workman, 15 Lottridge avenue, has been awarded the contract for J. P. Marshall's residence on Undermount avenue. Brennen & Sons, 40 Ferguson avenue, have been awarded the contract for an apartment house on Tisale street.

HUMBERSTONE, ONT.—Architect C. M. Borter, Main street, Niagara Falls, is preparing plans for a residence for S. J. Quinn, Buffalo, N.Y., to cost \$6,000.

LONDON, ONT.—Architect J. W. Munro, Bank of Toronto Building, is preparing plans for Mrs. N. McHardy's residence on Grand avenue, to cost \$5,000. Architects Watt & Blackwell, Bank of Toronto Building, have prepared plans for W. H. McKewen's residence and garage on Piccadilly street, to cost \$10,000. Architect J. V. Munroe, Bank of Toronto Chambers, has prepared plans for Mrs. N. McHardy Smith's bungalow, to cost \$5,000; R. H. Smith has been awarded the contract. C. Trebilcock, Colborne street, has had plans prepared for his residence on Colborne street, to cost \$5,000. Architects Watt & Blackwell, Bank of Toronto Building, have prepared plans for a residence for W. F. McKewen, to cost \$8,000.

LUCKNOW, ONT.—A. Solomon has awarded N. MacCallum, Lucknow, Ont., the contract for building his two stores on Main street, to cost \$10,000.

MONTREAL, QUE.—W. H. Pyne & Co., local contractors, are putting up nine houses valued at \$8,000 each. There are in all twenty houses under construction in the Garden Suburb, the total value of which is \$160,000. Tenders have been called for the erection of a residence for the teachers at Caughnawaga, Que. Mr. Haugdon, architect, has prepared plans for two dwellings to be erected on Marlow street, to cost \$14,000. The Merchants' and Employers' Guarantee and Accident Co., 33 Craig street west, are making repairs to a dwelling on St. Denis street, at a cost of \$5,500. Gibber & McRobert, 10 Benoit street, are making repairs to a store on St. Catherine street west, at a cost of \$4,600. A. Lefebvre, 3632-33 Arenia street, has prepared plans for a dwelling to be erected on St. Gerard street, to cost \$1,200. Dr. E. Poulin, 2942 St. Laurent, is erecting six dwellings on Clarke street, to cost \$5,000. S. Messier, 1933 Bordeaux street, is erecting a dwelling on Bordeaux street, to cost \$4,500. St. Urbain Academy is erecting a house on St. Urbain street, to cost \$6,000. Architect Chas. J. Brown, 4263 St. Catherine street, has prepared plans for T. A. Trenholme's residence, to cost \$12,000. Mr. E. Emery, owner and architect, has prepared plans for two dwellings, to cost \$8,000. Mr. W. H. Creed, owner and architect, has prepared plans for a house, to cost \$5,000.

OAKVILLE, ONT.—W. Whitaker, Jr., is having plans prepared for his store addition, to cost \$5,000.

OTTAWA, ONT.—A. E. Pagnette, 19 Noel street, is erecting a store and apartments on St. Patrick and Chapel streets, to cost \$12,000. Architect W. H. George, Castle Building, has prepared plans for a residence for J. M. Ross, 49 Metcalfe street, on Laurier avenue, to cost \$7,000. Miss E. Butterworth, Elmscourt Apartments, is erecting a residence on Rideau Terrace, to cost \$5,000. Architect S. F. Smith, 448 McCleod street, has prepared plans for a residence for B. and F. Blackburn, 202 Creighton street, on Rideau street, to cost \$5,000; A. E. Thoms, 155 Sunnyside avenue, is erecting a residence on Sunnyside avenue, to cost \$6,000. W. G. Adamson, 126 Spark street, is erecting a store on Rideau street, to cost \$5,000. Architect W. H. George, 19 Castle street, has prepared plans for J. Harper's residence on Powell avenue; R. A. Kemp, 149 First avenue, has been awarded the contract.

PORT STANLEY, ONT.—J. C. Duffield, 520 Queens avenue, has had plans prepared for his residence, to cost \$15,000; John Haymen & Co., 432 Wellington street, have been awarded the contract.

SARNIA, ONT.—Architect R. W. Fawcett, Sarnia, has prepared plans for E. Clark's store and apartments, to cost \$5,000.

TEESWATER, ONT.—G. H. Hasenflug has had plans prepared for his store, to cost \$5,000.

TORONTO, ONT.—J. Richards, 1 Longdale road, is erecting an apartment house on Ontario and Prospect streets, to cost \$30,000.

TORONTO, ONT.—A. D. Richards, 29 Glenholme avenue, is erecting a duplex residence on Regal road, to cost \$8,000. Architects Edwards & Edwards, 18 Toronto street, have prepared plans for two residences for A. A. Thompson on St. Clair avenue west, to cost \$12,000. J. J. Downey, 398 Sunnyside avenue, has commenced work on two duplex residences on Edna street, to cost \$10,000. T. J. Allan, 48 Oakmont road, owner and contractor, is erecting two duplex residences on Ascot and Earls court streets, to cost \$8,000. Architects S. B. Coon & Son, Ryrie building, have prepared plans for H. C. Fletcher's residence on East Roxboro and Edgar streets, to cost \$15,000. Architect P. H. Finney, 79 Adelaide street east, has prepared plans for Nightscales and Smith's bungalow, on Neville Park boulevard, to cost \$5,000. C. F. Cudmore, 62 Pacific avenue, is erecting a residence on Clendennan avenue, to cost \$6,000. Architect P. H. Finney, 79 Adelaide street east, has prepared plans for A. D. Richard's duplex residence on Regal road, to cost \$8,000.

WINDSOR, ONT.—Architect J. C. Pennington, La Belle Building, has prepared plans for D. W. McGregor's residence on Victoria street, to cost \$10,000.

WINDSOR, ONT.—Architects Walker & Phail, 156 Douglass avenue, have prepared plans for Woolworth stores, to be erected at the corner of London and Oulette streets, to cost \$17,000. Architects C. Jacques & Co. have prepared plans for the Peninsular Security Co.'s store, to cost \$10,000; Urel & Jacques have been awarded the contract.

SCHOOLS, COLLEGES AND CHURCHES.

AMHERSTBURG, ONT.—Joseph L. Dufour, 132 Aymer street, Windsor, Ont., has been awarded the contract for erecting a school, to cost \$5,000.

AVON, ONT.—The School Board is erecting a school, to cost \$20,000.

BEEETON, ONT.—The School Board is preparing plans for a school.

BINSCARTH, MAN.—Tenders have been called for the erection of a one-room school at Clifford.

BRUCE MINNS, ONT.—Architect Thomas R. Wilks, 612 Queen street, Sault Ste. Marie, Ont., has prepared plans for a public school.

BURSCARTH, MAN.—The Foxwarren council have borrowed \$6,000 for the purpose of building an addition to the present schoolhouse.

CALGARY, ALTA.—Plans have been prepared for rebuilding the Central Methodist Church, to cost about \$35,000.

CHATHAM, ONT.—Architects Chappell & Hunter, Charlottetown, P.E.I., have prepared plans for a church, to cost \$30,000; Robert Forrest, Chatham, has been awarded the contract.

EGANVILLE, ONT.—Architect B. Michel, Carlton Place, Ont., has prepared plans for a church, to cost \$15,000; Mr. Reinke, Eganville, has been awarded the contract.

FORD CITY, ONT.—Architect J. C. Pennington, La Belle Building, Windsor, has prepared plans for a school, to cost \$35,000; P. H. Secord & Sons, 133 Nelson street, Brantford, have been awarded the contract.

FROBISHER, SASK.—Tenders have been called for the erection of a two-room school, to cost \$10,000.

GALT, ONT.—Architect J. Evans, 30 Water street north, has prepared plans for a school, to cost \$45,000; P. H. Secord & Sons have been awarded the contract.

HAMILTON, ONT.—Architect F. W. Warren, Bank of Hamilton, has prepared plans for a church, to cost \$9,000.

HAMILTON, ONT.—Architect Stewart Witton has prepared plans for a school, to cost \$40,000. Architect F. W. Warren, Bank of Hamilton Building, is preparing plans for a church, to cost \$9,000.

HAMILTON, ONT.—Architects Stewart & Witton, 7 Hughson street, have prepared plans for a church addition, to cost \$15,000; Mitchell & Riddell, 46 Head street, have been awarded the contract.

HAYWOOD, MAN.—Tenders have been called for the erection of a new school for the Stirling School District.

MONTREAL, QUE.—An educational building is to be erected on Delormier street, to cost \$140,000. Commissioner Scolaire de St. Henri, City Hall, is making repairs to the school on College and St. Antoine streets, at a cost of \$17,000. F. S. Louis de France, 90 Rue Beilaner, is making repairs to the church at the corner of City Hall and Roy avenue, at a cost of \$2,000. The Catholic Common School, 85 St. Catherine street, is making repairs to their school at the corner of Western and Old Orchard streets, at a cost of \$32,000.

NELSON, B.C.—Snyder & Brethour, Vancouver, B.C., have been awarded the contract for building an addition to the High School at a cost of \$19,403.50.

PETERBORO, ONT.—Architect Wm. Blackwell, 372½ Water street, has prepared plans for a church, to cost \$20,000; H. Fry, 190 Rubridge street, has been awarded the contract.

PORTAGE LA PRAIRIE, MAN.—The cornerstone of the new Victoria School has been laid.

RIDGEVILLE, ONT.—Architect J. L. Nichols, Welland, Ont., has prepared plans for a school, cost \$5,000.

RIMOUSKI, QUE.—Architect Pierre Levesque, 115 St. John street, Quebec, has prepared plans for a convent addition, to cost \$25,000.

ROSSLAND, B.C.—Tenders have been called for a twelve-room school, to cost \$60,000; J. A. McLeod, secretary.

SHAWVILLE, QUE. (District No. 12)—Tenders have been called for by the School Board for the erection of a new school.

SIMCOE, ONT.—Tenders have been called for by the Board of Education for two new school buildings.

ST. JOHN, N.B.—Architect F. Neil Brodie has prepared plans for a school, to cost \$70,000.

ST. JOHN N.B.—Architect F. Neil Brodie is preparing plans for a new school to be erected in St. John, N.B.

ST. JOHN—Tenders are being called for by the St. Damien School Board for the erection of a new school, to cost about \$10,000.

TAVISTOCK, ONT.—Architect J. Russell, 21 Downie street, Stratford, has prepared plans for a school, to cost \$10,000; A. Saltzer, Tavistock, has been awarded the contract.

TIMMINS, ONT.—Architects Ellis & Ellis have prepared plans for a school, to cost \$30,000; P. H. Secord & Sons, 133 Nelson street, Brantford, have been awarded the contract.

TORONTO, ONT.—Tenders have been awarded on the Boon Avenue Baptist Church, which is to cost \$10,000.

TRENTON, ONT.—The School Board is preparing plans for a school, to cost \$40,000.

TWEED, ONT.—Architects Ellis & Ellis have prepared plans for a High School, to cost \$25,000.

VICTORIA, B.C.—Tenders have been called by the Minister of Public Works, British Columbia, for the erection and completion of a one-room addition, and sundry alterations to the Sidney School.

WATERLOO, QUE.—The work of the R.C. church and priest's house is well under way. A new two-storey boarding-house has also been erected.

WINDSOR, ONT.—Architect J. C. Pennington, Labelle Building, has prepared plans for a Collegiate Institute, to cost \$170,000; Wells & Gray, Toronto and Windsor, have been awarded the contract.

WINNIPEG, MAN.—The cornerstone of new Christ Church was laid on August 11; the building will be of stone construction.

MISCELLANEOUS.

CONISTON, ONT.—The Canadian Asbestos Co., Montreal, have been awarded the contract for the erection of a new roof on a smelter to cost \$20,000.

FORT WILLIAM, ONT.—Barnett McQueen Co., Fort William, have been awarded the contract for erecting a grain elevator to cost \$250,000.

HAMILTON, ONT.—Architects Stewart & Witton are preparing plans for an addition to the Beach waterworks, to cost \$70,000. Architects McPhie, Kelly & Darling, 701 Bank of Hamilton Building, have prepared plans for a yacht house, to cost \$18,000. The Mercury Mills on Cumberland street are nearing completion.

LONDON, ONT.—Architects Watt & Blackwell, Bank of Toronto Building, London, have prepared plans for a restaurant to cost \$15,500. Geo. White & Sons, Cabell avenue, are having plans prepared for an addition to their boiler works, to cost \$25,000. Architect Brigadier W. G. Miller, 20 Albert street, is preparing plans for a hall, to cost \$12,000; tenders will be called for.

McADAM, N.B.—Tenders have called for by the Canadian Pacific Railway, Montreal Office, for the erection of a power-house and storage building.

MERRITTON, ONT.—The Lincoln Paper Mills, Merritton, have prepared plans for paper mills additions to cost \$200,000.

MONTREAL, QUE.—Tenders have been called for by J. W. Pugsley, Secretary of the Department of Railways and Canals, for the superstructure of the elevator Transcona.

MONTROSE, ONT.—Work has been started on a round house to cost \$100,000. Walbridge Aldrige Co., Detroit, Michigan, has been awarded the contract.

OTTAWA, ONT.—Architects Hand, Harris & Merritt, 7 King street east, are preparing plans for a restaurant to cost \$40,000.

OTTAWA, ONT.—Tenders have been called for by Mr. McCallum, City Hall, for the erection of a workshop to cost \$10,000.

OTTAWA, ONT.—Tenders have been called for by the contractors of the new Parliament Buildings for brick and Portland cement.

PICTON, ONT.—Hogg & Lytle have started work on an elevator to cost \$15,000.

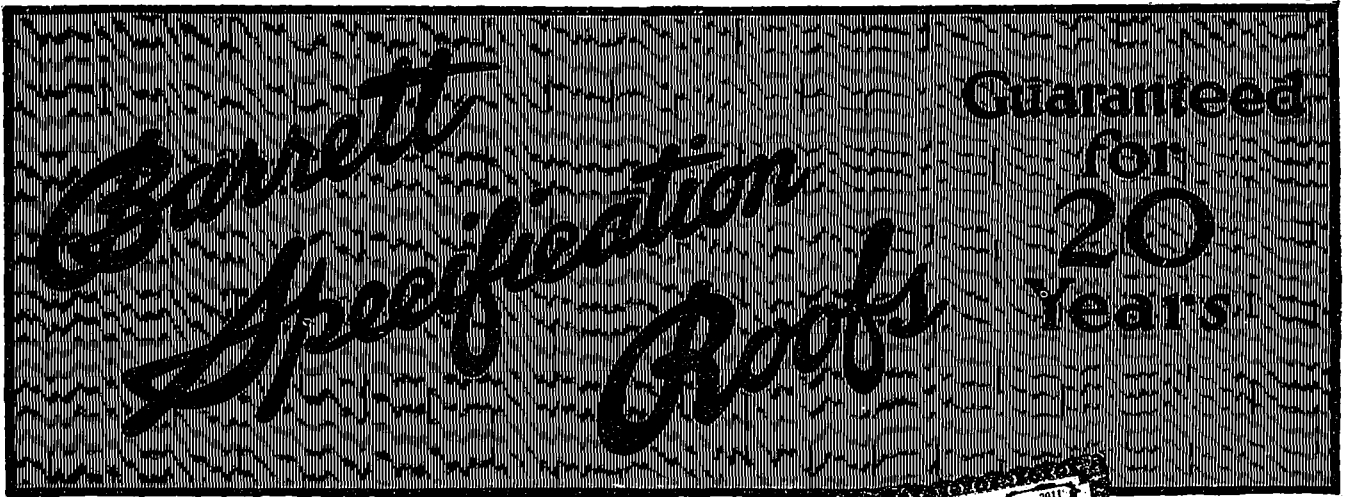
PORT ARTHUR, ONT.—Simmons Contracting Co. are excavating for a roundhouse to cost \$45,000.

PORT ARTHUR, ONT.—The Canadian Starch Co., Port Arthur, have prepared plans for a starch house to cost \$60,000.

PORT STANLEY, ONT.—Architects Watt & Blackwell, Bank of Toronto Building, London, are preparing plans for a refreshment pavilion and bath-house to cost \$25,000.

RENFREW, ONT.—Architect A. E. Spooner, Renfrew, Ont., has prepared plans for a curling rink to cost \$8,000. M. J. O'Brien, Renfrew, has been awarded the contract.

SMOOTH ROCK FALLS, ONT.—Morrow & Beatty, New Liskeard, have been awarded the contract for erecting pulp mills to cost \$150,000, E. W. Neelans, engineer.



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**No Upkeep Cost for 20 Years
—Absolutely Guaranteed**

Here are details of a plan to guarantee your roof for 20 years—at no extra cost.

It's a new feature of our service.

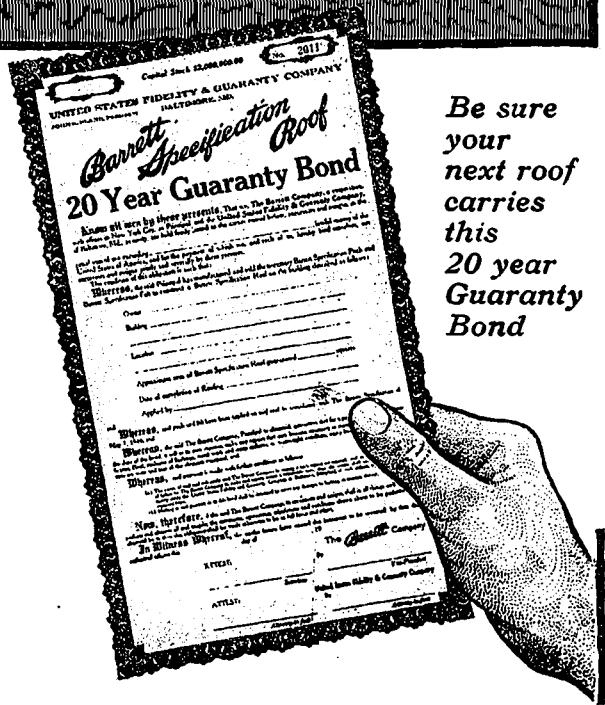
We know from an experience of over half a century that a Barrett Specification Roof, if properly laid by a good roofing contractor, will last at least 20 years. Scores of roofs of this type have lasted almost twice that period.

In order that purchasers may have the benefit of this experience we have arranged with one of the largest Surety Companies to issue, hereafter, a 20 Year Guaranty Bond on all Barrett Specification Roofs of 50 squares or more in all towns in the Dominion of 25,000 population and over—and in smaller places where our Inspection Service is available.

Our only requirements are that the roofing contractor shall be satisfactory to us and that the Specification dated May 1, 1916, shall be strictly followed.

All you have to do to secure the 20 Year Guaranty Bond is to give the roofing contractors copies of The Barrett Specification of that date, and tell them to figure on that basis. From the buyer's standpoint the arrangement is practically ideal, for under the plan the owner is assured of having an inspector on the roof whose only interest is to make it as good as possible—for if it isn't right we alone are the loser.

Do not confuse this Surety Bond with the ordinary "Guarantee."



Be sure your next roof carries this 20 year Guaranty Bond

It is something quite different. It is issued, not by an individual or a manufacturer, but by one of the largest and best known Surety Companies and is a legal, workable document that has no loopholes.

When you give the roofing contractor a copy of The Barrett Specification of May 1, 1916, to figure on, you are ordering the very best roof it is possible to construct and one that takes the base rate of insurance. In addition you secure a 20 Year Surety Bond, guaranteeing freedom from upkeep cost for that period.

If you are interested and want any further information, write our nearest office and the matter will have prompt and careful attention.

A copy of The Barrett Specification, with roofing diagrams, sent free on request.

THE PATERSON MANUFACTURING COMPANY, LIMITED
MONTREAL TORONTO WINNIPEG VANCOUVER

THE CARRITTE-PATERSON MANUFACTURING CO., LIMITED
ST. JOHN, N.B. HALIFAX, N.S. SYDNEY, N.S.

ST. MARYS, ONT.—Specifications have been prepared by the Seneca Septic Tank Co., Stratford, Ont., for a sewage plant. Dr. J. R. Stanley, M.O.H., St. Marys, will supervise.

STRATFORD, ONT.—Dr. W. H. Hamilton, Fort William, Ont., is having plans prepared for a mausoleum to cost \$10,000.

TORONTO, ONT.—Architect M. Max Dunning, Chicago, Ill., has prepared plans for stables to cost \$25,000; tenders to be called for. Architects Hynes, Kelaman & Watson, 105 Bond street, have prepared plans for a nurses' home. The Wm. Davies Co., Ltd., 521 Front street east, are excavating for an abattoir building, to cost \$2,000,000. Architects Chapman & McGiffin, 95 King street east, have prepared plans for a refreshment pavilion; Toronto Harbor Commission, 50 Bay street, are the owners and contractors. Tenders have been called for by Engineers James, Loudon & Hertzburg, 1005 Excelsior Life Building, for the erection of mechanical filters. Tenders have been called for by Chairman T. L. Church for a five-ton traveling beam. J. D. Young & Son, 335 College street, have been awarded the contract for erecting a shipping building, to cost \$10,000. The Harris Abattoir, Union Stock Yards, are working on an addition to their abattoir, to cost \$12,000; G. V. Gray, 625 Confederation Life Building, is the general contractor.

VANCOUVER, B.C.—The Canadian Pacific Railway is erecting an 850-foot pier at a cost of \$1,500,000.

WALKERTON, ONT.—J. W. South, Otter Creek, Walkerton, is having plans prepared for a rolling mills.

THE ARCHITECT'S OPPORTUNITY.

In the past the idea has held that in an abundance of money lay the architect's best opportunity for coming to the front and producing architecture of the finest quality. When the client had money, and enough to spare, he went to his architect and ordered a mansion that was to reflect his wealth and importance, the mansion was produced and gave satisfaction according as its designer had interpreted the client's wish to make it resplendent above that of his neighbors. It was the designer's opportunity in the sense that it enabled him to design without stint, to elaborate to the fullest extent of his desire, to produce something that must attract, no matter what form the attraction took. The client may have been a parvenu in which case it would be difficult for the architect to keep out of his design some at least of the vulgarity dear to the heart of the parvenu. If he were a person above vulgarity he would expect his architect at least to be unsparring in the details which commonly constitute ornament in design. If it were a public body or a Government Department there would at least be the encouragement to be over-generous with space, with height of facade, with size of door and window; and the architect would feel it impossible to deal with such work on a large scale without adding elaboration in proportion to the scale. In any case the tendency to free spending on building would create a tendency to free use of ornament, since ornament is so handy a thing for covering up bad design or ill proportion. This has truly been the source of much bad architecture; it may even be put down as one of the causes of present day degeneracy; and for examples we need not go further than India.

But how about the reverse of the picture? What should be the effect on design of a serious restriction of funds for building purposes? We take up the annual report on Architectural Work in India and looking over its illustrations, page after page, note how little the volume contains of anything that may be called florid in design. When one closes the volume and asks himself what is the keynote of its contents, he has to confess that it is absolute simplicity, almost baldness, yet that it is architecturally satisfying, a record of good taste expressed with but little elaboration and obviously at only small expense. We are not rich in India. The Indian Princes and many Indian business men are, and we see their riches reflected from their palaces but few of which would stand up against sober criticism. But the Government is not rich, and no one knows it better than its own officers who have to spend the funds they are entrusted with with a sparing hand. Has this circumstance not its educational effect on its architects? We think it has. They are being trained to depend for the worth of their work on the simple elements that constitute good art. The meretriciousness of ornament is discarded, and they are turning out work, much of it in plain brick and sand plaster, which possesses the intrinsic merit of good arrangement, good grouping and good proportion, with an adaptation to purpose which may be read in the very face of it. We do not say all this for the purpose of glorifying the men whose works we are referring to; it is probable that most men trained in the art and placed under the same circumstances would achieve the same results. Our purpose is to illustrate the principle that the architect's opportunity really lies in the restriction of the means furnished to him for pursuing his art. It is merely another exemplification of the old adage—"No school like the school of adversity."

But the lesson taught to our Indian architects is surely about to be taught to architects at home, and indeed over all Europe, on a much more impressive scale. This is a period in which building work is suspended, while buildings in large numbers are also being annihilated. The next will be a period in which the demand for building will be unprecedented while the wherewithal to build will be restricted as it never has been. The architect must then come to the rescue with a skill he has never been called upon to exercise before. He must cast aside the predilections of a lifetime and choose the materials which economy suggests, he must see to it that neither space nor material is wasted in any part of his design, must put on one side his most cherished features of ornament, and trust for his effects in simplicity and directness. His worth in fact as an architect will be valued in proportion as he has studied economy without sacrificing stability and beauty. This is to be the new ideal after the war and will be a direct outcome of it. It will create a new outlook and a new study, and if rightly taken might lead to a regeneration of art. The complaint has been made for years that the art is decaying and will soon cease to be an art; but we have with unexpected suddenness been brought to a halt with an outlook beyond differing materially from the one behind. It is for us to seize the opportunity and make the most of it—"Indian Engineering."

LONGEST STEEL ARCH BRIDGE IN THE WORLD.

The longest steel arch bridge in the world is the recently completed one over Hell Gate, East River, New York. It has a span of 1,000 feet between the abutment towers, a clear height of 135 feet and a total height of 200 feet above high water.

GAS ASSOCIATION CONVENTION.

The Ninth Annual Convention of the Canadian Gas Association was held at Quebec on August 16th and 17th, there being over one hundred and fifty in attendance. The papers read at the convention included "Gas Lighting," by J. P. Conroy, of the General Gas Light Company, New York.

"Is Industrial Fuel Business Worth While," by H. E. G. Watson, Consumers' Gas Company, Toronto.

"What is a Gas Meter?" by J. B. McNary, Manager, Canadian Meter Company, Hamilton, Ontario.

"A Comparison of Modern Coal Carbonizations Systems," by Vernon Baker, Engineers, D. R. Russell Engineering and Development Company, St. Louis, Mo.

"The Relationship Between the Accounting and Operating Departments," by H. K. Tennent, Accountant, Quebec Railway, Light, Heat and Power Co., Quebec.

"Some Wrinkles on Distribution," by P. B. Lamb, Ottawa Gas Co., Ottawa, Ont.

The election of officers resulted as follows: President, J. P. King, Stratford, Ont.; 1st Vice-President, J. H. Yonge, London, Ont.; 2nd Vice-President, C. C. Folger, Kingston, Ont.; Executive Committee, R. A. Wallace, Quebec; Arthur Hewitt, Toronto; J. S. Norriss, Montreal; A. A. Dion, Ottawa; T. A. Gardner, Brockville; V. S. McEntyre, Kitchener, Ontario. Secretary-Treasurer, Geo. W. Allen, Toronto, Ontario.

CATALOGUES, ETC.

Kaustine Sanitary Equipment.—A descriptive catalogue setting forth the Kaustine waterless method of rural sanitation has been issued by the Kaustine Co., Limited, Toronto. It sets forth in a comprehensive and illustrated way the many conveniences of the system. How to make your village or country home sanitary is of necessary interest and is aptly covered by this catalogue.

"Corr-Mesh" is the title of the catalogue issued by the Corrugated Bar Company, of Buffalo, N.Y., describing the stiff rib expanded metal manufactured by them, and contains details, specifications, construction, photographs, instructions for using the material, and other data for architects, engineers and contractors. These materials are especially adapted for construction of partitions and exterior walls, as well as for floors and roofs, slabs, walls for factory buildings, stucco residences, and farm buildings.

Non-Slippping Treads and Tiles.—The specialties of the Diamond Tread Co., Ltd., are described and illustrated in a folder issued by them. The treads and tiles are supplied under exclusive contract to the War Office and Admiralty. They are made in any length and prepared ready for fixing on new or worn wood, stone or granolithic steps. The products of this concern should be of interest to architects. Copies of this catalogue may be obtained from W. A. Buchanan, Traders Bank Building, Toronto.

Concrete Swimming and Wading Pools and How to Build Them.—This is the latest publication of the Portland Cement Association. It treats of the fundamental principles that should be observed in locating, constructing and operating the private or small semi-public outdoor pool so that all of its advantages may be realized. The illustrations in this booklet will impress one with the wide range of cost that may govern in the construction of a swimming pool. This booklet may be obtained free of cost upon request of the Portland Cement Association, 111 West Washington street, Chicago, Ill.

"Modern" Heating Systems for large buildings are now being marketed by the Modern Heating and Engineering Co., Ltd., recently incorporated by Montreal and Hull business men. This heating system is of interest to every architect, engineer and contractor, as there is a guaranteed pure saving of at least 25 per cent. compared with the consumption of the next best system, which represents a claim that the system will pay for itself in four years. The headquarters of this company are at 83 Bleury street, Montreal, with the following officers: President, Jos. Gravel; Vice-President, Jos. Caron; Directors, A. A. Mondou, M.P., Dr. U. Archambault and A. A. Archambault; General Manager and Treasurer, J. W. Guimont; Assistant Manager and Heating Engineer, John T. Lochart.

CONTRACTORS and SUB-CONTRACTORS

'As Supplied by The Architects of Building
Featured in This Issue

Building, Customs Examining Warehouse, Montreal, P.Q.

Architect, E. L. Horwood; Consulting Architect, A. H. Lapiere. Brick, plain, LaPrairie National Brick Co.; fancy, No. 1 Buff Pressed, Toronto Pressed Brick Co. Dartnell Ltd., agents; enameled, Don Valley White Enameled Brick, David McGill, agent.

Boilers, Warden King, Limited.

Casements and Window Construction and Window Trim, W. Pauze & Fils Co.

Concrete Work, Reinforced, Hofeller Concrete Co., Ltd.

Electric Wiring and Apparatus, P. Lather & Co.

Elevators and Hoists, Otis Fensom Co., Ltd.

Fire Doors, T. Lessard & Sons, Ltd.

Flooring, Seaman Kent Co.

Glass, Alex. Craig, Ltd.

Hardware, Peterborough Lock Mfg. Co., Ltd.

Marble, P. Lyall & Sons Cons. Co., Ltd.

Ornamental Iron, John Watson & Sons, Ltd.

Paints, Alex. Craig, Ltd., contractor, McArthur-Irwin, Sherwin-Williams.

Plumbing, bath fittings, sanitary fixtures, faucets, T. O'Connell.

Plaster Work, ceiling, R. D. Clarke & Sons, Ltd.

Radiators, manufacturers, Dominion Radiator.

Roofing, T. Lessard & Sons, Ltd.

Stone, natural, Wallace Sandstone Quarries, Ltd.

Granite, Stanstead Granite Co.

Structural Iron and Steel, National Bridge Co.

Terra Cotta, partitions, etc., Montreal Terra Cotta Co., Ltd., 42

St. Sacrament.

Varnish, Glidden Varnish.

Contractors, general, P. Lyall & Sons Construction Co., Ltd.