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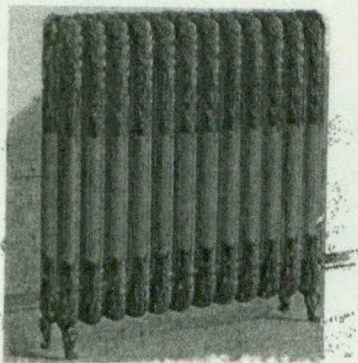
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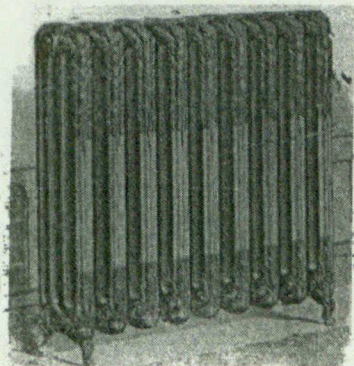
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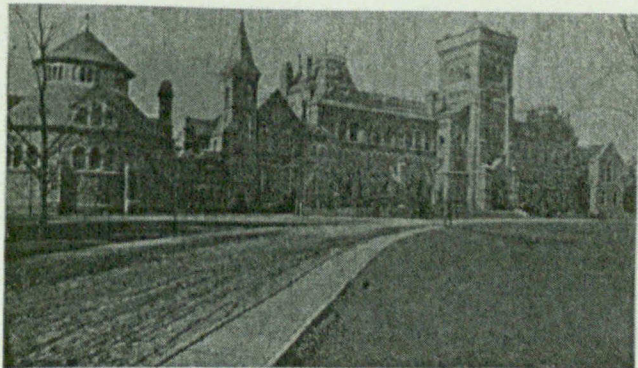
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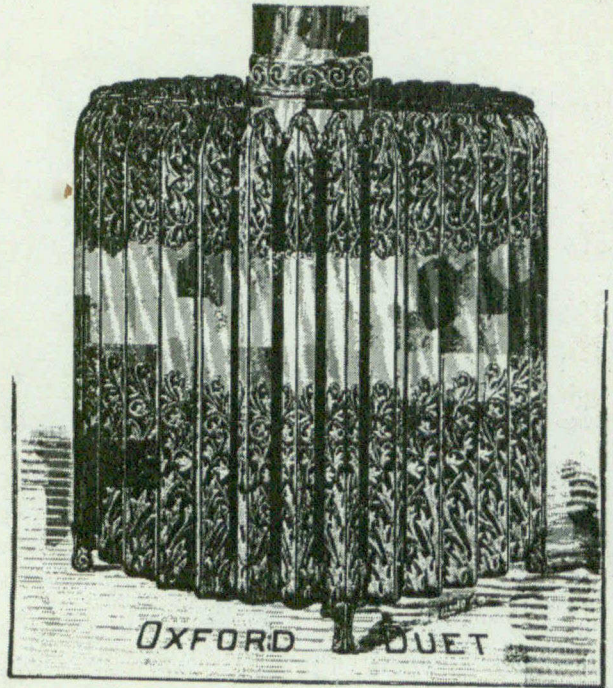
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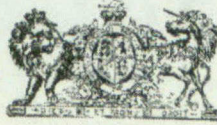
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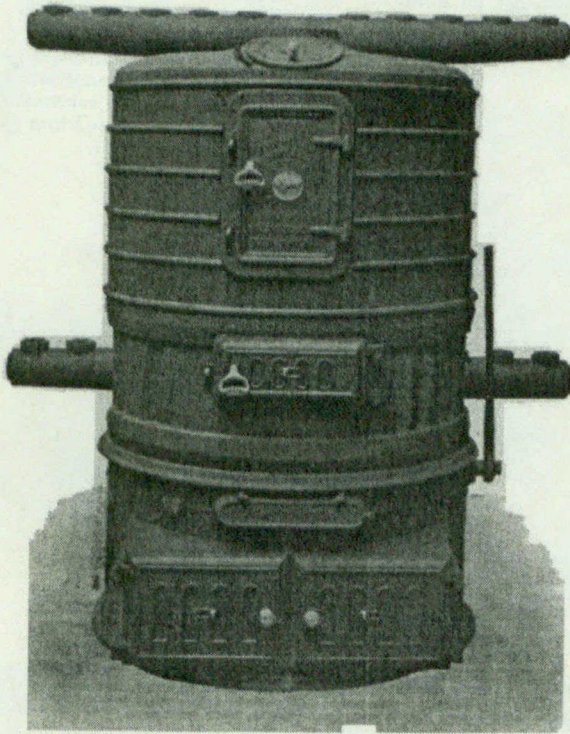
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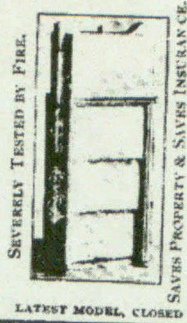
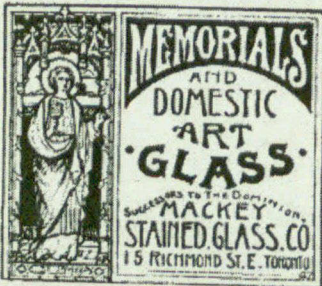
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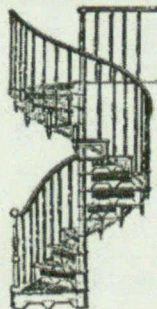


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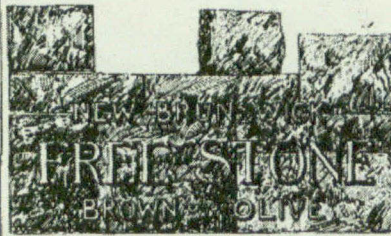
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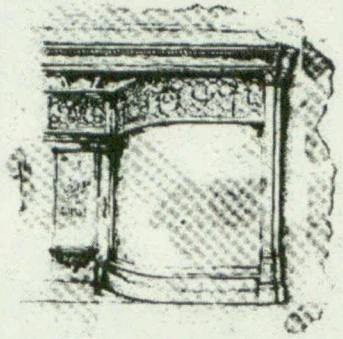
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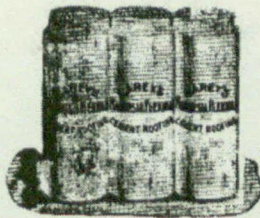
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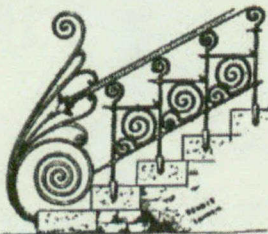
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## ILLUSTRATIONS ON SHEETS.

Physician's Office and Residence, College Street, Toronto.—Beaumont Jarvis, architect.

## ILLUSTRATIONS IN TEXT.

St. Paul's Presbyterian Church, Brandon, Man.—W. H. Shillinglaw, Architect.  
Portion of Chimney Hood.—Designed and Executed by the Elliott & Son Co., Toronto.

## ADDITIONAL ILLUSTRATIONS IN ARCHITECTS' EDITION.

Tite Prize Competition, 1900—Design for Gateway to a Public Park, submitted by Messrs. Thos. McLaren and Andrew Sharp, A. R. I. B. A.  
Royal Life Insurance Building, Montreal.—Hutchison & Wood, Architects.  
Conservatory and Crematorium, Mount Royal Cemetery, Montreal.—A. T. Taylor, F.R.I.B.A., Architect.

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### Builders' Conventions.

THE National Association of Master Builders of the United States held an informal meeting in Washington on March 5th to arrange the preliminaries for a regular convention to be held in the same city next October. Three years have passed since the last general convention of the Association. The value of such gatherings is recognized as affording opportunity for considering all important questions affecting the building industry. An occasional convention of the master builders in the various provinces of the Dominion would no doubt prove beneficial to all concerned. Apart from local Builders' Exchanges in a few cities there exists no organization in Canada among employers in the building trades.

### City Improvement.

ON the 23rd inst. an influential deputation will wait on the Board of Control of the Toronto City Council, to urge that a sum of money be appropriated sufficient to cover the cost of a report and plans by an expert for the future improvement of the city. It is understood that private subscriptions have been offered for this purpose on condition that the City Council will make an appropriation. It is certainly time that action should be taken in the direction of working out the improvement of the city on definite lines instead of piecemeal, as in

the past. This should be done in the best possible manner under the direction of an expert of wide experience. The plan should include not only the city proper but the outlying parks. The cost of a preliminary report and plan should not be very large, and the working out of the scheme could then be proceeded with year by year. It is hoped that the Council will be as much alive to the future welfare of the city as are the public spirited citizens who are moving in the matter.

### Some Lessons from New South Wales.

A gentleman who recently spent some time in visiting Canada after having lived many years in New South Wales, has some interesting things to say about that country. He describes it as a country of vast natural wealth. As evidence of its development mentions that, although the population is only 800,000, the export trade amounts to £13,000,000 annually. He states that New South Wales appears to be the Mecca towards which political theorists and economists tend, and in consequence socialistic ideas prevail to a much larger degree than in Canada. For example, all railways, telegraph lines, and public works of every kind are managed directly by the government. Asked regarding the result of these conditions, his reply was that under the prevailing system the cost of public

works is very much greater than would be the case under our system of constructing such works by contract. Another deplorable result is that bribery and corruption universally prevail, and the standard of public morality has become sadly impaired. Some years ago the government of New South Wales borrowed a large sum of money for the purpose of constructing a railway from one end of the country to the other, a distance of about 1,000 miles. This money, however, was never used for the purpose for which it was borrowed, but has been diverted and frittered away on a great number of minor objects. Much of it no doubt has found its way into the pockets of the politicians. There is here food for reflection for the press of this country and those who are clamouring for the control by the government and the municipalities of all kinds of business enterprises.

#### Bricklaying in England and America.

MUCH interest has been awakened among architects, builders and building workmen in England by the results achieved by the contractors in the construction of the British Westinghouse Electric & Manufacturing Company's works at Manchester. The contractors are an American firm, Messrs James Stewart & Company, of St. Louis, Mo. Previous to the commencement of work on this factory, the average number of bricks laid per day by Union workmen in England was about 450. In a letter to the "London Times" Mr. Stewart states that the average attained under the direction of his superintendent on the Westinghouse Company's buildings has been from 1,400 to 1,800 bricks per man per day of nine hours. The averages mentioned included face brick work. On common work an average of 2,250 bricks per man per day was reached. The walls range in thickness from 19 to 23 inches. The bricks were laid in mortar. In the construction of a chimney stack at Birkenhead, by the same contractors, an average was attained of 1,976 bricks per man per day of nine hours. Mr. Stewart states that the results achieved in the last mentioned case were in part attributable to the facilities afforded the workmen, such as a double platform lift, each platform holding two barrows of bricks, one ascending the other descending. Only fifteen seconds was occupied in raising this platform to a height of 150 feet. Soft mortar was used instead of the stiff mortar usually employed in England, thus permitting enough mortar to be laid with one stretch of the trowel for half a dozen to a dozen bricks, and allowing of the bricks being laid by a light pressure of the hand and a light tap of the trowel instead of by repeated hammering of the trowel to force the brick into place, as in stiff mortar. As an incentive to the workmen, they were paid 1½d per hour above the Trade Union rate. A record was kept of each man's work and the workman who failed to measure up to the standard were dispensed with. The new standard for workmen which has thus been established by American contractors should result to the advantage of English employers and prove a hard blow to the efforts of the Unions to restrict, to the greatest possible extent, as in the past, the amount of work which Union men shall perform. Mr. Stewart states that in the United States the workman's average per day is from 2,000 on the best class work, such as private residences, including face brick as well as common, to 2,500 and even 2,700 including face and common on other

structures. This is far above the Canadian standard. The average here is from 700 to 1,000 bricks per day according to the character of the work.

#### Justice to Tenderers

THE final action of the City Council of Toronto, with regard to awarding contracts for concrete sidewalks, tenders for which were received recently, is being looked for with much interest. When the tenders were opened, it was found that a firm of Chicago contractors had put in the lowest bids for the bulk of the work, and the Board of Control recommended that the contracts be awarded to them. Immediately that this decision was announced, the aldermen were besieged by local contractors, and the cry was raised that the successful tenderers should not be given the work because they were aliens. This objection having come to the ears of the Chicago firm, they sent a letter to the city authorities expressing their willingness to open an office in Canada, and to employ none but Canadians and Canadian material in the carrying out of the work. To our mind, this offer removed every legitimate ground of objection, and should have secured them the contracts. Such, however, has not so far been the result. The local contractors have organized and are evidently bringing to bear as much pressure as possible to compel the aldermen to withhold the contracts from the lowest bidders. It is to be hoped that a majority of the members of the Council will act justly in this matter. The local contractors are not entitled to these contracts, first, because their tenders were not the lowest submitted, and second, because they are suspected of having agreed together to extort from the city an exorbitant price for the work. If the Council violate the principle of giving contracts to the lowest tenderer, where the securities and all other conditions have been complied with, they will justly be accused of sacrificing the interests of the tax-payers and of dealing unjustly by outside contractors. The result will be that in future no outside bids will be submitted for the work in Toronto, and the local contractors will be in a position to charge what they please. The Council should either cease to publicly advertise for tenders, and let it be known that no outsider need apply, or stand by the principle of giving contracts to the lowest bidder whether he be an insider or an outsider. Since the above was put in type the contracts have been given to the City Engineer.

#### THE BEAUTIFYING OF CITIES.

The Park Committee of the City of Sherbrooke, P. Q., have arranged with Frederick G. Todd, Landscape Architect, of Montreal, to prepare plans for their various parks and squares. Mr. Todd's contract covers five years and, aside from planning for the parks, he will make a report each year dealing with the growth and extension of the city, which will take up its future needs as regards the location of public buildings and streets and the beautifying of the city.

The City of Sherbrooke is specially fortunate in having set aside an unusually large amount of land for parks and playgrounds, the area, according to the 1901 Park census, being greater in proportion to the number of inhabitants than any other city with the exception of two or three in the United States. It is a matter for congratulation also that the City Council have decided thus early to have a general scheme definitely laid down which can be followed from year to year.

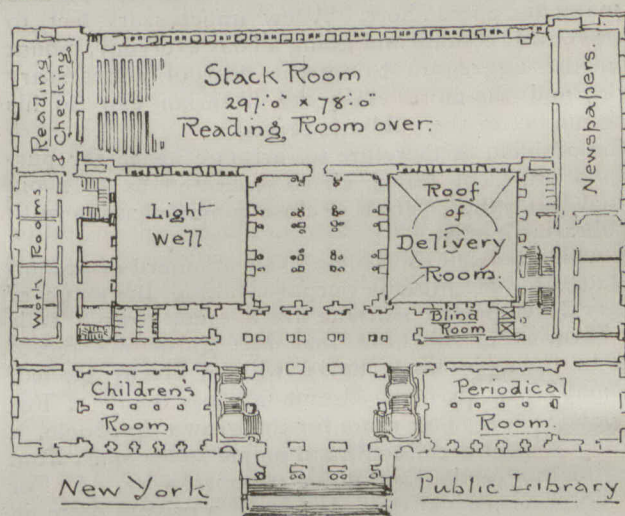
## LIBRARY DESIGN.

In former days a library was essentially a place where books were kept; now it is essentially a place for giving out books. The value of the volume was the original motive for building; the value of its contents is the motive now. So that a library has become a place where books are stored, safely of course, but for the main purpose of distribution on as large a scale as possible; and the leading idea is how to get the books into the hands of the reading public. Librarians are not even content with this, but want to enlarge the limits of the reading public and create a reading public of a better kind, by taking the younger generation in hand and inducing them to read good books.

This being the case the commercial analogy has impressed itself upon library methods. Librarians trying to reach the public take a hint where they can from the shopkeeper. Books on China were rushed to the front in Toronto Public Library long before the allied forces reached Peking. A special Prohibition catalogue is out now, to educate the voter for the coming struggle. Slips with a list of the better books of a kind are prepared in some libraries as book marks to entice the reader, especially the young reader, from his affection for the worse.

Along with these small arts of reaching the public the great schemes have been considered, and are to some extent adopted. The late Dr. Poole of Chicago had the Newbery Reference Library built somewhat on the system of a departmental store; each department of literature in a room by itself; so that instead of conveying books from a far distant depository to the reader in a general reading room, the student can go to the department in which his researches are being made and take down for himself the books he wants. This is certainly a great idea and should be, in the case it suits, a complete success. But there must be many cases for which the system creates difficulty for the reader. A reference library is the very place where one wants to be in contact with two or three departments at once. An historical work on the first floor is likely to require for its elucidation a map from the map room in the attic and an article from the periodical room on the ground floor. It seems in fact as if this system could be applied more practically to the lending department, so as to avoid procuring books from the stack rooms by a machinery of pneumatic tubes, automatic lifts and electric railways, upon which a planner pounces at once as an indication of something wrong in the plan. A borrower wants but one book; or, if he wants more than one, he wants them to take away with him; and there is no reason why he should not go from the department of fiction to that of science or elsewhere and pick up his books as he would his purchases in a departmental store. The department rooms in different stories could back upon departments of the many-storied stack room so as to bring the attendants into close contact with both the books and public; or even, if it is desired, continue into the middle class of libraries the system of open access to the shelves which is now so much in vogue in libraries of the smallest class. But open access is still on its trial. The public seems to be "indifferent honest;" and there are other difficulties, which increase with the size of the library; so that there is no question at present of open access except in small libraries,

The large public library would require a series of articles to itself. Both the public department and the working department are multifarious and tend to increase. On the one hand the library may combine, with its book departments, galleries for the display of pictures, prints, photographs, rare books and other educative objects, besides rooms for special studies, which require not only books of reference, but such additional circumstances as a table for drawing instruments, space to spread out specimens from a hortus siccus, or quiet to use a microscope. On the other hand, behind the scenes, the ordinary works of receiving, preparing, cataloguing and checking the books may be supplemented by printing and binding shops, arrangements for dealing with branch libraries, etc. These are the variations that occur in any problem and for them the architect must be briefed. It would take too much space to study now these minor circumstances, but the essential conditions of the problem may be summarized, as they appear in the plan for the New York Public Library; a plan so well considered and carried out that it may be taken to represent the best that is known on the subject at present.



The stack room runs across the back end of the building, sideways on; so that it may be duplicated without carrying the ultimate limits of the stack room further away from the delivery desk than is the case in Boston now. In this position also the stack room is in contact with the main building all along its length, and comes into close communication with numerous minor reading rooms. The main reading room, for 800 readers, is on top of the stacks. This is the proper place for it, not as in Boston in front of the building, with the halls between it and the stack room. Placed over the stacks, very simple arrangements suffice for communication and the delivery of books; and there are additional advantages in the way of quiet, of light and air, and of construction. There being nothing above there is no need for columns, which are not impressive when dotted over an area of this kind. The 78 feet span may be roofed over clear and make a noble feature. Finally there is the principal advantage, that the reading room can grow as the stack room grows; for, when the stack room is repeated, the reading room can be repeated too.

The other great points in this plan are that the book borrowers—the people who merely come and go—are kept away in a place by themselves; a large room, convenient for the borrowers and in close connection with the stacks, but in the basement with a side entrance peculiar to itself. The rest of the floating population are confined to the ground floor; the periodical and newspaper readers are on one side and the children on the other, as near as possible to the entrance. Thus quiet is secured for the rest of the library.

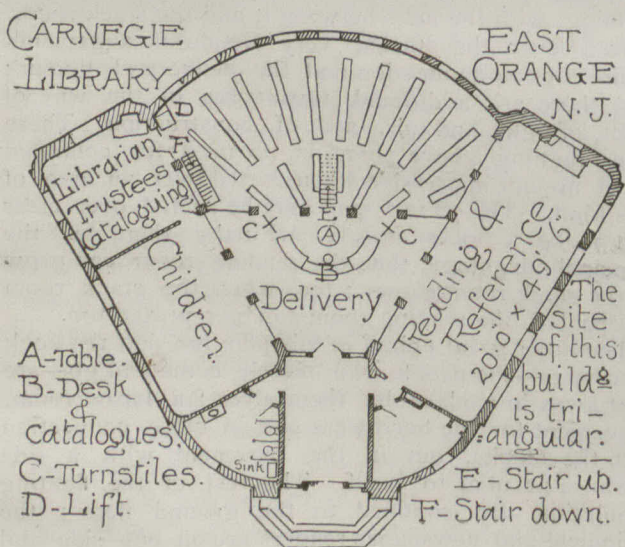
There is an undetermined middle ground between the large library and that which may be classed as

small. The essential distinction which lifts this division above the small library class is the extension beyond the power of control by a central office. Detailed supervision passes from the hands of the librarian into that of a staff; and the librarian's office, instead of being the first thing to meet the eye, should be, though accessible, retired. In other words the library has reached the sub-divided stage and sub-division—the unified sub-division which keeps all purposes apart but all in touch with the books—is the main thing to be brought about. The borrowers should be kept as far as possible from the readers; the children from the grown-up readers; and the newspaper readers from both. In short the principles illustrated by the plan of the New York library may be applied on a much smaller scale, as long as there are similar combinations of purpose.

The small library has more direct poetry than any, and is an attractive problem. But its basis is severely practical. The poetry consists in the building's unity, and therein lies also the practical basis. A librarian with one or two assistants must attend to everything and oversee everything. Hence the public functions must be all on one floor and as far as possible all in sight from the administrative centre. This will make smooth the path of the librarian. It is necessary also to make his paths short. A few unnecessary feet to be traversed, coming and going all day everyday, mount up in the aggregate to a great deal of unnecessary work; and the more easily the librarian can do his work the better the public is served.

The problem is therefore to arrange space for purposes of different kinds, all so separated as to avoid mutual annoyance, yet all in close communication with the librarian's office.

It would be well to assume a fair standard of accommodation for the present purpose, taking the stage of library development suitable for a small town. It is for libraries of this kind that Mr. Carnegie's recent gifts to towns in this country will be chiefly applied. We may then perhaps assume not less than: 1. For the public; a reading room for the grown up people, a reading room for children, and ample space apart from these for the coming and going of borrowers. 2. For the librarian; a delivery desk and a private room in connection with it; for talking is not the thing in a library, and if the librarian wants to talk at length he should have a place for seclusion, for the sake of the public as well as for the sake of privacy. There should be also working room for unpacking, marking and cataloguing the books. The unpacking room would be best in the basement, but the other work should be done on the ground floor, in close connection with the librarian's office. 3. For the storage of books; plenty of room now and an opportunity to grow.



The last sub-division is the most difficult part of the library plan on account of the continual increase of the number of books. The difficulty is complicated by the present manner of admitting the public to the book-

shelves. If the librarian is to keep an eye upon the stacks where the public are handling the books, undoubtedly the circular stack room with radiating stacks is the best. If future extension of the stack room is to be considered, undoubtedly the circular form is not the best. One is inclined to think that there is too much stress laid upon the need of making a sort of policeman of the librarian. There is a New York story of a man who came down Broadway, under an umbrella, in a heavy shower. The doors on both sides of the street were full of people taking shelter; people who had not umbrellas and wanted them. The man lowered his umbrella at a shop door, looked round upon the assembled multitudes, stood up his umbrella against the wall and went in. . . The public will police each other if there are enough of them. There is also such a thing as creating a sentiment of honour by assuming it—judiciously. To some minds it might become a sort of sport to circumvent a fussy librarian by irregular borrowing; whereas if this were assumed to be (as it is) an act of public dishonor too mean to be thought of in connection with respectable people it would cease to be a temptation. There will always be a sprinkling of the naturally bad; but the best means of throwing difficulties in their way is to tone up the rest.

The librarian's principal business is to help the public to get the books they want or ought to have; and the principal need in the book room is plenty of space for the needs of this generation and a chance for the next to enlarge it if they want to.

The most obvious arrangement of these functions is to place the book room and working offices in the rear, the reading rooms and delivery hall in front and the librarian between. The delivery hall and desk will come naturally in the middle and the reading rooms on each side. Fortunately the reading room for grown up people is usually required to be of a larger size than that for children so that it is not necessary to make the front part of the building symmetrical in plan. In a building of such small size and so few parts, symmetry is difficult to manage without producing a dull exterior effect. If there are supplementary public rooms on an upper floor to be approached, the clear sweep of rooms on the ground floor is most easily preserved by throwing the staircase to the front, where it will be of great service in establishing an unsymmetrical balance of parts.

Inside there is room for a large effect. It has been urged that, for the purpose of keeping all parts in view from the delivery desk, the library should consist of an area under a single roof; subdivided, on the floor only, by desks, seats, bookcases and balustrades. Fortunately this expedient would not so well serve the end in view as a more architectonic method. It is the floor that is to be kept clear not the ceiling. The continuous ceiling would be a great sound carrier and is better broken. For architectonic purposes also—to give a sense of seclusion in the various rooms—it will be necessary to sub-divide the ceiling; for the eye measures a room by the ceiling rather than by the floor. If therefore the rooms are divided from the hall by an open screen of columns, there will be a satisfactory sense of seclusion in the reading rooms; while the eye can range the whole length of the library, with a sense of space increased by the intervention of columns; and everything will be in sight from the delivery desk. Columns are a slight obstruction to a person immovably seated in a pew at church, but none at all to one moving about; and the delivery desk has usually a bowed front to give it greater extension into the hall.

It is not possible in a short space to enter further into the question of plan, much less to discuss matters of detail; high light in the reading rooms, artificial ventilation screened from dust, washable floors, the make and dimensions of book cases, etc.

The present article is only an attempt to appreciate the situation as a help to imagination in planning,

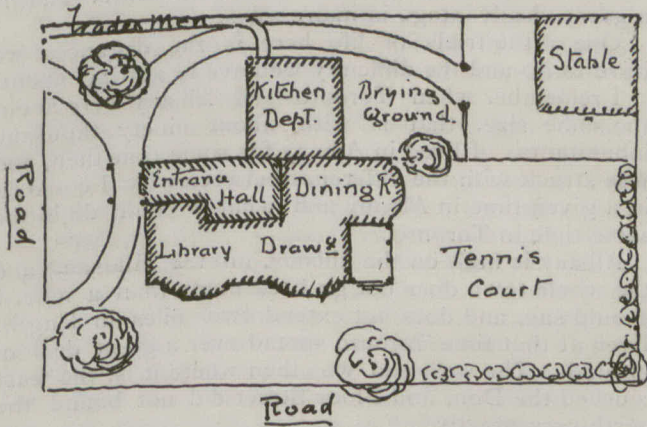
W. A. LANGTON,

## CITY PLANNING.

LECTURE BY W. A. LANGTON, PRESIDENT ONTARIO ASSOCIATION OF ARCHITECTS, BEFORE THE CENTRAL ONTARIO SCHOOL OF ART, MARCH 20TH, 1902.

I want to begin at the very first principles and find out what it is that makes a city beautiful; for if you fill a city with statues and fountains, you have but filled it with beautiful objects. What we want to do is to make the city itself beautiful.

At the bottom of everything that is beautiful, there is a plan. Every good thing that is made, is made according to a plan: a house, a piece of furniture, a piece of machinery.



I have placed upon the board an illustration of this. I am not going to talk to you about house planning, but this is something that we will all understand which will show the nature of planning, and I have therefore put upon the board the design of a house for a country town, on half an acre. The first essential in making a good plan is that the house shall be divided into its several departments in such a way that they do not clash with one another. On this design the family living rooms are colored blue, the kitchen department is colored yellow, and the public part of the house—the entrance, staircase and hall—are colored red. I wish you to notice that they are all contained in themselves, that there is no blue in the red, and no yellow in the blue; that there is no conflict. The kitchen department has to do with the dining-room, and therefore the living rooms touch the kitchen department at this point. The kitchen department also overlaps the public portion just at one point by which it gets communication with the front door. The public touch the kitchen only at the front door; they touch the other living rooms. This principle extends not only to the departments of the house, but also to all the departments of the grounds.

The service department outside does not touch the living part. As the north side of the house is given up to the service department, the north side of the lot is given up to the stable and yards. The drive from the stable runs along the north and meets the public drive at the entrance on the north-west. Thus, just as the living rooms of the house occupy all the south and eastern sides, all the ground to the south and east is private, not intruded upon by either service or the public.

When this design was received, the owner had only one suggestion to make. He thought the stable ought to be placed in the south east corner. See how this upsets everything! The stable drive must run all round the south side in front of the living room windows. The tennis lawn can only exist by being shoved up by the drying ground. The man, when he goes from the stable to the kitchen must either cross the tennis lawn or go round by the drive past the drawing room windows and the front door.

That explains the nature of a plan.

The first consideration in making a good house plan then, is that the functions should be kept together. In the same way, the first thing that we have to consider in planning a city, if we have the opportunity of planning it from the bottom, is to keep all the functions together. It is not so difficult to do this after a city is

started as you would think, because to a great extent functions do keep together. There are cities now which are almost perfect in this respect.

In Boston, when they laid out the Back Bay—I fancy everybody knows something about the plan of Boston: there was the old city surrounded by a low, marshy district, and beyond that the beautiful suburbs. They have filled in the marshy district (the Back Bay), and made it the principal residential part of the city. In so doing they made Commonwealth Avenue, a long wide avenue with rows of trees, which goes through the Back Bay and connects Boston Common, the edge of the city, with the suburbs, so that the rich man who lives in the suburbs, which are as beautiful as any suburbs in the world, can come to the city and go back every day and need never in the whole course of his existence, unless he wants to, see anything squalid. He can drive along treed avenues all the way to his office, and so all the way back again. His church is on that line. His office, if he has an office, and the principal shops which he will frequent will be within a stone's throw of Boston Common. His Club faces it.

In the old part of the city there is another story. Here you have shipping, warehouses and smells. Here also the poor and disreputable people live. And instead of the spick and span appearance of the elegant part of Boston, you will find streets covered with paper as ours are with maple leaves in November.

That is an illustration of how a city can, subsequently to its first planning, be made or arranged so that the functions, the different parts of the city, keep each to itself.

In Berlin there is a law which divides the city into districts, and does not allow any conflict in the districts. It is not lawful to put up a tall apartment house in the middle of the villa district. Liberty, after all, is relative. A man cannot do what he likes in every case. One ought not to learn the cornet in a lighthouse. And a first principle of city life is that a man cannot do what he likes with his own. If any one doubts that, let him try to start a glue factory on King Street, between Yonge and Bay Streets, and see what happens.

It is only necessary to extend that principle in practice to find that we restrict to a great extent the building and other arrangements in different parts of the city. I have here an extract from a By-law which was passed in Rochester, in 1899-1900, which says: "It is inequitable as often happens to sections of our city which have received a trade mark of special value by reason of residential unity and beauty to have some vandal destroy such special value on the plea that 'he has a right to do what he likes with his own property.'" They passed that by-law and decided for Rochester that a man has not a right to do what he likes with his own property. That is the first foundation of municipal planning and municipal intervention in making a city beautiful, that a city has got something to say as to what is to be put up in the different parts of the city.

It seems to me that one of the first considerations for a beautiful city is that there should not be such a mixture of business as we have got in Toronto. Factories should be in an outlying part of the city, and the offices and residences should be in touch with one another.

Why should a factory be within a city? The use of a city is not as a place to make things in, but as a place to carry on the transactions resulting from the transfer of the things made. The business transacted in a city is transacted with the offices and agents of the factory, not with the operatives. Therefore the factory space, the factory smoke and the operatives are all external matters introduced into city life only to clog its simplicity and ease of action.

Then look at the other side. The factory operatives come into town hastily in the morning only to go out of it in haste in the evening. Why should they do this, when their work could be done just as well in the suburbs? It is not work that is the labourer's curse, but want of leisure; and that he should be required to waste what little time he has that he could call his own

in going to and from home in crowded street cars—a journey that is likely to increase in distance continually, rather than to diminish,—is an evil which is not necessary; and to take steps to get over this state of affairs is to do the best thing that can be done to ameliorate the labourer's lot.

Whatever coming and going between factories and the offices and warehouses in town is necessary can be done more easily and perfectly by one or two persons, or, as it is done now, by an electric spark. It would not be necessary to do more than speak through the telephone, in most cases.

Does not this idea present a more alluring picture? Land is dear in the city, but out of it,—when once it is accepted that communication with the city is by telephone, motor or railway for individuals, there is nothing to hinder factories stretching freely over the land, with room for the hands to live about on land enough to have gardens which they can cultivate in the leisure saved by living near their work, and in this way add not only pleasure but profit to their lives.

It is inevitable that if the factories are placed where land is not too costly, the plan that Messrs. Lever Brothers have adopted, of making an industrial village, will be followed by other large works. There are other instances of the kind in England. There was an article in a recent *Studio*, giving an account of another institution of the kind, with a village in which the buildings were all designed by a good architect, making a very pretty village.

What the factories really want is not to be in the city but to be near the railway. They line the course of the railways, and that is why they come into town. What we want is both that the factories should be out of town, and that the railways should be with them. We are all agreed upon that point.

The thing to do is to bring in only such arms of the railways as are needed to deliver passengers and such goods for retail purposes as are necessary.

I have dwelt upon this point at some length, as I think that is really important. Present conditions are the cause of a great deal of backwards and forwards travelling in our own city and in most other cities, and to get over it in some way would not only lighten the labour but brighten the lives of the persons who work in the factories, and would make the city which is deprived of their presence a much more beautiful and agreeable place to live in.

That brings me to my next general point on City planning.

As the gate of a city has always been conspicuous, so at the present time the gate of a modern city, which is the railroad station, ought to be conspicuous. We have all known, no doubt, what an advantage this is in a strange city.

This brings me to inquire into the question which was brought before us by the *World* a few years ago as to the extension of Queen's Avenue, as they call it now, down to the Union Station. I have had a slide made to show what stands in the way of such a scheme being carried through. At the time the scheme was first mentioned there was nothing on the line but a few old buildings and a number of sheds. Now there are two solid buildings added. The difficulty this scheme met with was I fancy the idea that the work of making and paying for the new street would come upon us at once if the proposition were adopted.

There is a way of doing such things in France, which seems to the American Architect, from which I quote, to be "economical and judicious," "the practice," that is, "when a street needs to be widened, of condemning the land needed to carry out the alteration, and paying for the land alone, at a fair valuation. The buildings existing on the land are not disturbed, but the owners of the estates, in consideration of the purchase of the land, are prohibited from making any alteration in their buildings which will prolong the existence of the portion standing on the condemned land. In the rapid changes which go on in city life, it is seldom necessary to wait many years before the

owner finds it for his interest to alter or reconstruct his building, and the land previously condemned is then thrown open to public use."

By a method of this kind it would be possible to plan for the future; so that a scheme for the well being of the city could not be obstructed by anything being done, which would make it impossible to carry out the idea when it becomes feasible to do it.

The next thing which I should like to consider in the planning of a city is the advantage of compactness. We recognize this advantage in the planning of a house. I think it will be found an advantage also that the city should be as compact as possible. I think we scatter along the ground too much in Toronto. That is a great disadvantage in many ways.

One of the trials of life here is the distances we have to go and the difficulty we have in getting about.

I remember when Toronto and Albany were about the same size, that is with about ninety thousand inhabitants. I lived in Albany for some time then, and was struck with the difference between what I could do in a given time in Albany and what I could do in the same time in Toronto.

Albany is built on the hillside, on the Hudson, and the whole town does not go back more than a mile, I should say, and does not extend two miles in length. Even at that time Toronto spread over a great deal of ground. The west end was then where it is, the east touched the Don, and Bloor Street did not bound the north very exactly.

Arriving at Albany by an early train, I went to the Capitol at half-past seven and made an appointment for nine o'clock. Then I looked up a lodging, and I remember going into two or three places before I was satisfied; after that I went down to the station and got my luggage, returned to my lodging, unpacked, made my morning toilet, and kept my appointment, all in an hour and a half; and I am not sure but I breakfasted, too.

What could one do in Toronto in an hour and a half in the way of going from the Union Station to the Parliament Buildings, then down to Church Street, to hunt up a lodging, thence to the Union Station, back to Church Street, shave, bathe, dress and get back to the Parliament Buildings; all by walking except for the necessity of a cab to bring up the luggage. This is an absolutely fair comparison of the relative position of localities and distances in two towns of an equal population, but built on a different plan.

I complain of the unnecessary distances, but there is more than that involved. Consider the nondescript character which it gives to the city.

We are proud of Jarvis Street, and a good street of that kind is an ornament to the city and agreeable to live in; but we do not want humble imitations of it all over the city.

These suburban streets and suburban residences in the heart of the city are misplaced. We cannot afford to give the space they really require. The houses are detached from one another but that is all. There is not room to put windows on every side. It is done; but the result is distressing even to look at in passing by. We should be much happier if we frankly adopted the idea of never having windows on the side, and put the houses close together.

I was going up Bond street, an old-fashioned residential street, the other day with this lecture in my mind, and was struck with the fact that it is really a more characteristic and interesting street than Jarvis street. I do not want to be misunderstood as saying that Bond street is a finer street than Jarvis street now, but it has the elements in it of the proper kind of beauty for a city street. There would be a row of three or four houses and then a big house with a little ground at the side of it. The contrast of solidity and openness gives a varied picturesqueness, beside which the straggle of houses all slightly detached but not essentially separated is monotonous and without character. Solidity is the first attribute of a city, and foliage or verdure interchanged with it, or backed by it, has twice the value it would otherwise have.

Another principle in all planning is that the best sites should be used for the best purposes. In a city the best sites should be used for public purposes. I think we have passed the time when private power or wealth can absorb the best there is in the city, and I think we may take it as a principle that the best site in the city should be taken up by the "city," as we say, that is for municipal purposes.

In Quebec the best site is Durham Terrace. The Citadel of course is also used for public purposes and may perhaps some day make an additional pleasure ground for the people.

At Montreal the same principle holds good. They have the Mountain park.

At Ottawa the Parliament buildings have the finest site in the city, or, in fact, I should think, in the province. Twenty miles from the city you can always see the Parliament buildings.

In Toronto we have a waterfront question. That is the principal thing we have at the present time.

The waterfront question is a railroad question and is really I think a relic of the past when the railroad and the shipping were of equal importance and worked together. I am afraid the only comfort we can take for the present, in this matter, is the understanding that the waterfront trouble has the live standing of a question. The waterfront has gone wrong, and the question is whether we can do anything to set it right. The more we think about the waterfront question, the more likely we are to find a solution for it. So let us hold to it that it is a question, a question for the future.

Everything that I have thought about in this lecture has brought more clearly to my mind the conviction that the movement the Guild of Civic Art is making, to have a plan of the city made for building to in the future, is a move in the right direction and is necessary.

The suburbs of continental cities, especially in Germany, in past years have been laid out by competition. The city makes terms with the owners of property according to the accepted plan. That is to say, the designers have a perfectly free hand about laying out the suburbs. I understand that results justify the method. The great point for us at present is not to lose chances for the future. Another point that we are all troubled over is the want of security or stability in investments in real estate and building. Nobody dare put up a decent house in any part of the city, because no one knows how soon the function of that part of the city will be moved away to another part. We cannot trust any neighborhood to remain of one character longer than twenty years. We do not know when a factory will encroach upon us, or when a tall apartment house will come alongside of our villa.

If a plan were fixed more definitely than now as to the way in which the city was to grow in the future, we would know more about what was to happen in the future and there would be more security in this direction.

Planning is a science, as I have endeavored to indicate, and it cannot be done hap-hazard.

That brings me to discuss the different kinds of city plan. There are three kinds of plan. There is first what is called the Gridiron plan; that is our own plan in Toronto, lines crossing one another at right angles. We have one or two curved streets, and I go by them whenever I can, for the purpose of seeing a curved street. The advantage of this plan is, of course, the simplicity in laying out, and it is said to possess the maximum building space. But our blocks are too large. Look at the great space between King street and Adelaide. They are now beginning to fill that up with factories. There is no reason why there should not through those places go what is very much needed in Toronto, diagonal streets. If we could not make a continuous one, we could I am sure make one that would be practically continuous. There are at present a series of discontinuous diagonal streets made by people who walk across the corners. A certain lot of people who live west come down to town via the lower part of Beverley street. They live anywhere northwest but zigzag downwards for the sake of the corner cuts, and

strike Beverley street near the bottom for the sake of the corners at the Grange, and the little square behind St. George's church. A gentleman told me that walking down from his house on Beverley street to his office east of Yonge Street, if he took advantage of all the turns, he could save five minutes in his walking. That shows the advantage of going along a diagonal street over going around a right angle. Two sides of a triangle are together greater than the third side.

There is secondly the plan on a ringed basis, as is shown in Vienna. (Here was shown a slide showing the plan of Vienna.) This ringed street is not a very large one. The old town is contained within the Ring Strasse which is a street of fine buildings presenting it is said a more dignified appearance than the streets which are straight. From that street all the other streets lead out. They say that every street car passes all the way around this ringed street and back to its own route, and that Vienna can be filled and emptied in a shorter time than any other city.

Milan, on a smaller scale, shows the same circular arrangement. There is the cathedral in the centre from around which they have pulled down the houses which once surrounded it and have made a fine large square into which all the street cars come.

Paris, you see, gets the same in a more extended form by the internal and external boulevards which surround the city. They are the line of the old fortifications which have been taken advantage of to make circular streets.

There is more than mere convenience in this arrangement. A curved street is a much more beautiful thing than is a straight street, and it is said to have the advantage that it is not so liable to jam. We are not troubled with jams here yet, but they are in the old towns, and to have a curved street is said to be a help to their avoidance.

The third plan is to have diagonal or radiating streets—streets diagonal to a square. It is usually a combination of the gridiron with the diagonal streets running across.

This slide shows the plan of Washington, which is the type of this design. Washington was laid off in advance. It is a specimen of a city which was laid out before it was built. It was laid off by L'Enfant who belonged to the school of landscape gardeners from which such things sprung in France. The city in the main runs with north and south and east and west streets, as are our streets here; but they have in all directions these fine diagonal thoroughfares, which are, of course, of great advantage for convenience in communication. It is also a great thing for air; they can get the winds from every direction brought into the city much more easily than where the streets are only in the two directions. It also gives in these little spaces formed by the intersection of the diagonal streets a motive for a great deal of variety in the building and decoration of the city.

This is a sort of thing which might be superimposed upon Toronto for the benefit of our children. They are doing it in London; in Paris they have found it is not so expensive as one would think it is, because the number of additional frontages created by running a road through the middle of a block makes it partly pay for itself. We lose the frontage that is taken off where the street cuts through, but get instead two quite considerable frontages, so that there is actually more building space and more land to be sold than there was before.

That concludes the general statement of planning, although one might go much further into it, but we have sixty slides to shew.

What I have tried to do is to show that in order to make a city beautiful, you have to attend in the first place to the plan. As far as convenience goes you see the nearer we can make our plan approach to that of a spider's web the better. What he wants is to get from the centre to any point in the shortest possible time. That is what we want, too.

We shall now go on with the slides, which each illustrate some point of plan, and they will be shown in blocks, according to the principle they illustrate.





ST. PAUL'S PRESBYTERIAN CHURCH, BRANDON, MAN.  
W. H. Shillinglaw, Architect.

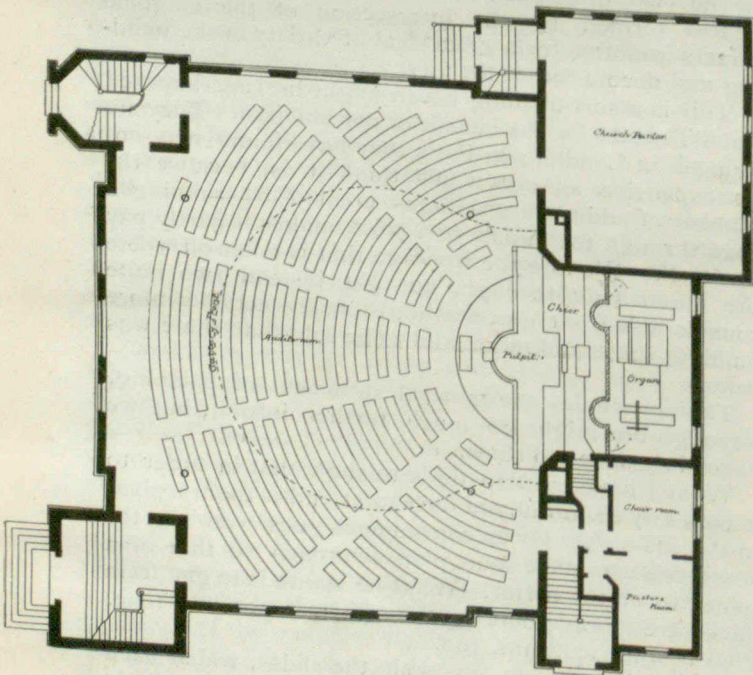
ST. PAUL'S PRESBYTERIAN CHURCH

BRANDON, MAN.

W. H. Shillinglaw, Architect.

Brandon, Man.

Scale 1/8" = 1 foot



AUDITORIUM FLOOR PLAN

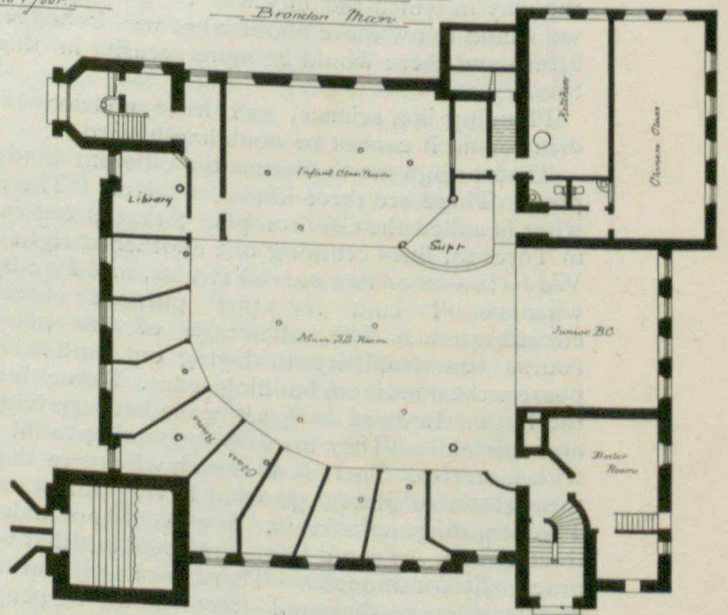
ST. PAUL'S PRESBYTERIAN CHURCH

BRANDON, MAN.

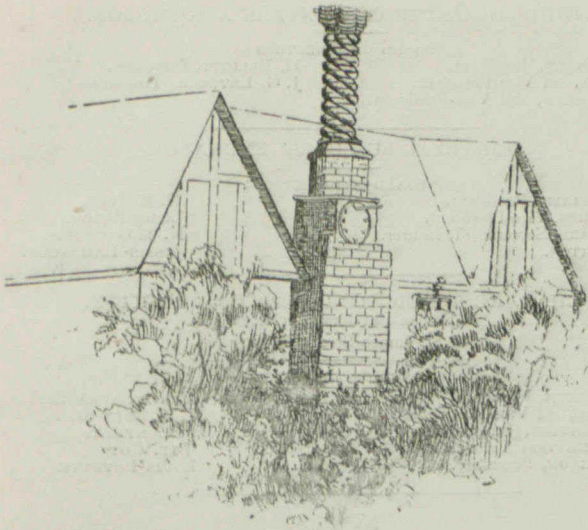
W. H. Shillinglaw, Architect.

Brandon, Man.

Scale 1/4" = 1 foot



BASEMENT FLOOR PLAN



NORTHWEST LETTER.

WINNIPEG, April 5th, 1902.

The cold and the snow of winter have passed away and we are face to face with another building season. The indications are favorable for a prosperous year.

However, the old wage trouble is up again in connection with the carpenters and joiners. This year the men have started early so that one of the objections to their action last year has passed away. Now their demands are known before the rush comes on. It is a vexed question, hard to solve in a manner satisfactory to all parties concerned. It admits of many arguments pro and con—points that have been debated and re-debated so many times that they are almost worn threadbare by this time. The minimum wage of 32 cents per hour is in evidence but in our mind this is not considered by the men the most important point; the recognition by the contractors of their union seems still to be the strong undercurrent which may carry both sides on to the rocks of disagreement and trouble. While we are willing to acknowledge that the unions are altogether within their rights in banding themselves together for their own protection and the advancement of their trade, we doubt the advisability of trying to force on the contractors the question of the union's recognition. We believe in a good wage for good men, and if in some way the poorer class of men now in the trade could be weeded out and classified as carpenters helpers and paid a fair wage for the work performed till they could work as good carpenters able to earn for those who employ them a fair equivalent for the wage paid it would in some measure we feel right the matter. It must appear to all that in the long run it pays to employ good workmen and it also pays to pay a good wage to good men—men who will do a fair day's work for a fair day's pay. We look and wish for a closer bond of fellowship and a truer commingling of interests between capital and labor, for their interests are one and the same if looked upon in the right spirit is a spirit of fairness, a spirit of honesty in word and action, a spirit of friendliness and a desire that the interests, monetary and otherwise, should be respected. This may be a high ideal but one which if attained to would end most, if not all the labor disputes of the present day.

The buildings at present proposed are mostly of the better class. This is good evidence of the general prosperity of the community and from an architectural standpoint is most desirable, as architects in this country are so bound down to the lowest cost that there is very little opportunity to work in good detail and ornament.

There is room in this city for a good modern house at a medium rent. As a rule rents are high, and what the average man requires is a comfortable house not too far from the centre of the city and at a rent which could be paid out of a moderate salary. To the capitalist who will put up such houses and solve the high rent problem there is certainty of a good return on the investment. The house must be warmly built, but while this is called a cold country we maintain that the amount of fuel if judiciously used should not exceed the amount used in Ontario, because as a rule we build much warmer.

A measure of great importance to the architectural profession in this city and province has for a time at least been shelved by the Legislature. The civil engineers and architects of the city and province proposed to form an Engineering and Architectural

Institute and for this purpose had applied to the local Legislature for a charter of incorporation. The bill met with much opposition from various quarters. The Dominion land surveyors gave strong opposition. They being a close society objected to the civil engineers having certain powers as to surveys and plans which they said were exclusively their own, or in other words they had obtained a good thing from the Legislature many years ago and were determined to hold it if possible. Vested rights was the cry, and in some measure this cry prevailed.

The section referring to the architects met with perhaps greater opposition, and from quarters least expected. The architects have proposed to regulate the entrance into the Province of foreign plans and to confine the preparation of plans and designs to all practicing as architects in the city or province at the present time, or who might register as architects within six months after the passing of the Bill. A provision was also made for an entrance examination for all wishing to enter and practice after the six months.

The intention of the Bill was to try and raise the standard of the profession, and throw around it such safeguards as would be beneficial to the general public, as well as the architects. To do this requires a certain amount of protection which can only be obtained through legislation. It was thought the Bill would lay the foundation on which architecture might be gradually raised to a position of prominence in our Province, but the benefits would accrue not so much at the present time as in the years to come. Such were the ideas of those who backed up the measure.

The labor party blindly opposed it on the so called ground of monopoly—a strange and inconsistent stand for the party to take, as their very existence is based on a general monopoly with a tyrannical clause incorporated therein. It seems strange that they cannot see that to raise the standard of architecture, would mean at the same time advancing their own trade interests. In no way would it interfere with them.

Another party strong in opposition (and least expected) was the local Builders' Exchange. Their opposition seems to have been taken from a selfish stand-point. It would appear that they wish to draw plans or have them drawn, then put in tenders for work and execute it without inspection, and so monopolize the whole, a good thing for them perhaps, but not to the best interest of the owner or the general public. They stated that the Building By-law (so-called) safe-guarded the public interests without the assistance of qualified inspection, &c., but like most By-laws of this nature drawn up by those not fitted for the work, one can make anything out of it, and its provisions may be carried out or not as influence may direct.

The above was part of the opposition which the Bill received, and while it passed through the committee stage with some amendments, it was thrown out in the House. We trust in the near future it may appear again, and may then receive fair treatment at the hands of the members. In the meantime it has started the ball rolling, and aroused we trust among the architects of the Province, a general desire to see the profession placed on a good basis and receive at the same time a fair amount of legislative protection.

#### ST. PAUL'S PRESBYTERIAN CHURCH, BRANDON, ONT.

This church, illustrations and plans of which are given on preceding page, was designed and erected last year under the direction of Mr. W. H. Shillinglaw, architect, of Brandon, Man. The basement is constructed of local field stone and the superstructure of white brick with Bedford limestone trimmings. The auditorium, including gallery, has a seating capacity of 1,000, and the Sunday school in the basement of 500. The building is heated by steam on the direct indirect system. The total cost was \$40,000.

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NOTES.

John and James Campbell, of Seattle, have purchased the well-known McKean stone quarry, at Picton, and will put in machinery to properly develop the property.

As a result of a recent conference between the architects and master builders of Toronto, the architects have agreed to specify that the carpenter contractor shall put down the permanent floors in buildings under construction called for by the amended building by-laws.

The Prussian Minister of Public Works offers prizes of 5000 3000 and 2000 marks for the best apparatus for measuring wind pressure, and a further prize of 3000 marks for the instrument which has the best record after a long trial. The competition closed on April 1st.

The Royal Canadian Academy at its recent meeting in Montreal elected the following officers:—President, Robert Harris, Montreal; Vice-President, A. C. Hutchison, Montreal; Secretary-Treasurer, James Smith, Toronto. Mr. Wm. Hope, of Montreal, was elected an R. C. A., and J. G. Franchere, of Montreal, and W. St. Thomas Smith, of Toronto, R. C. A's.

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PERSONAL.

Mr. G. A. Reid, R. C. A., has resigned the Presidency of the Ontario Society of Artists, after many years of faithful and efficient service.

Mr. Peter McMichael, of the James Robertson Co., St. John, N. B., is said to have received the appointment of general manager of the Dominion Radiator Co., of Toronto, in succession to Mr. John M. Taylor.

Mr. G. S. Lemasine, the young English designer, who has spent some months in the office of Messrs Darling and Pearson, and Ald. S. G. Curry, architects, Toronto, is about to take a position with Messrs Castle & Son, of Montreal. Mr. Lemasine is the author of the paper on the Field of Design, and the clever sketches illustrating the same presented recently before the Ontario Association of Architects, and printed in the CANADIAN ARCHITECT AND BUILDER for March.

Mr. Gordon, of the firm of Gordon and Helliwell, architects, who left Toronto a year ago to execute a commission in Corea, for the American Presbyterian Church, is now in Pekin, where he will erect a hospital building. Brick is the material principally employed, but it is not up to the Canadian standard, and the same can be said of the native workmen. Mr. Gordon's Toronto friends will be pleased to hear that he is enjoying good health, and gaining experience of a novel and interesting character.

Messrs. Darling and Pearson, architects, Toronto, have decided to open a branch in Winnipeg. Mr. Percy Over, who has been with the firm for a considerable time, left Toronto for Winnipeg on Saturday last to take charge of the office in that city. Mr. Over will be greatly missed, especially by the younger members of the profession in Toronto, on account of the active part which he has taken in connection with the students' classes which have met weekly in the O. A. A. rooms during the past winter.

Mr. James Bloomfield, of Messrs Henry Bloomfield & Sons, artists in stained glass, Vancouver, B. C., spent a few days in Toronto, last month, while en route to New York. While there, he made the acquaintance of the leading workers in glass, and artists in other lines, and carried away a favorable impression of the city. He is looking forward to the time when Vancouver shall have so grown in population and wealth that her citizens will have more leisure than at present to devote to matters artistic.

An informal luncheon was tendered Mr. G. S. Lesmansie and Mr. Percy Over, in the O. A. A. rooms, Toronto, on the eve of their departure for Montreal and Winnipeg respectively. Mr. W. A. Langton fittingly expressed appreciation of the services rendered by these gentlemen in behalf of the educational work of the Association, the regret occasioned by their departure,

and the hope that at some future time they might find their way back to Toronto. Mr. Lesmansie was presented with a pipe and case, and Mr. Over with a full set of Shakespeares' works as mementos of the occasion, and a slight expression of hearty good will.

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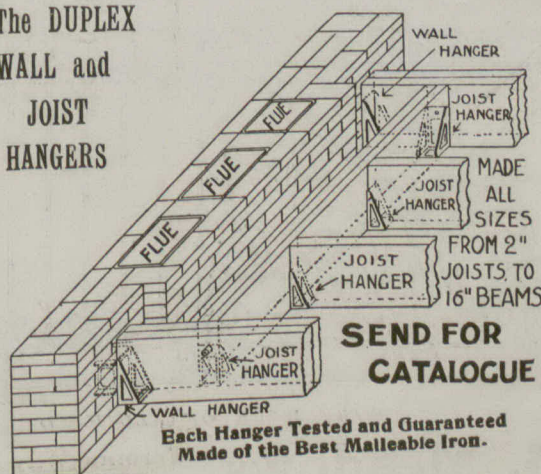
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**LESSONS OF THE PARK AVENUE HOTEL FIRE.**

The recent fire in the Park Avenue Hotel, New York, caused but little damage to the building, which proved to be a good example of fireproof construction. The floors were of iron and brick, the partitions of brick and the elevators and stairways enclosed in brick walls. The fire was confined to the main hall. A sad feature of the occurrence, however, is the fact that several persons were suffocated by the smoke which entered their rooms from the halls and stairways through the crevices around the transoms and doorways. This is a new phase of the fireproofing problem to which attention must be given in the future.

**MOUNT ROYAL CREMATORIUM.**

The Mount Royal Crematorium, Montreal, built from the designs and under the superintendence of Andrew T. Taylor, F. R. I. B. A., architect, Montreal, is now completed. So far as known this is the first building of the kind to be erected in Canada. The crematorium is situated to the left of the entrance of Mount Royal Cemetery.

The gateway and the porch lead to a large conservatory hall, about 81 x 42 feet inside. The conservatory will serve a double purpose. It will be used as a waiting hall for the crematorium, and also for the winter vaults, which are located beyond. From this conservatory a door leads into an ante-room, from which another leads into the crematorium proper. This latter consists of two portions, a waiting hall and a chamber in which the incinerators are placed. The conservatory has a high glass roof, with ornamental iron trusses, and a floor of mosaic marble, and will be kept well filled with flowers. The crematorium proper is lined with marble. It has an arched roof and windows, fitted with leaded lights. A portion of

of it is lined with white tiles. The idea is to make the whole pleasing and attractive without extravagance or over ornamentation.

The style of the building is Gothic. Montreal limestone is used for the walls. The doors are of oak. The conservatory has large plate glass windows. The building will be heated by hot water pipes. The incinerators are of the most modern arrangement. Room for four incinerators have been allowed, but two only are built at present.

**NOTES.**

Mr. Henry Martin, A. R. C. A., who has of late given special attention to the painting of architectural subjects, has on view at Matthews' Gallery in Toronto, an interesting collection of water colors of his character.

A by-law of the London County Council enacts that no house, building or other erection shall be erected upon any site or portion of any site which shall have been filled up with dust or other refuse, or in or upon which any such matter shall have been deposited unless and until such refuse shall have been properly removed by excavation or otherwise from such site.

The following are the names of the successful candidates in Architectural Drawing and Building Construction at the recent closing examinations of The Toronto Technical School. Class 1.—I. Ritchie, W. H. Martin, A. Boissoneau, W. Young, G. Skinner, R. J. Webb, F. Markham, H. J. Baker, S. Young, A. Harriman. Class 2.—A. Fisher, A. R. Boyle, F. W. Robinson, H. Anthony. Pass—F. Essex, W. J. Randall, A. P. Allan, Leslie Price.

The Inland Architect has commenced the publication of a series of notes by architects in general practice in the United States, showing the cost per cubic foot of different kinds of buildings. Messrs Jenney and Mundie report the cost of a number of fire proof buildings in which iron and steel construction was employed. The figures cover a wide range from 7 4-10 cents per cubic foot for a warehouse and manufacturing building, and 10 1-5 cents for stables, to 17 1-5 cents for an apartment building, and 20 cents to 57 1/4 cents for office buildings.

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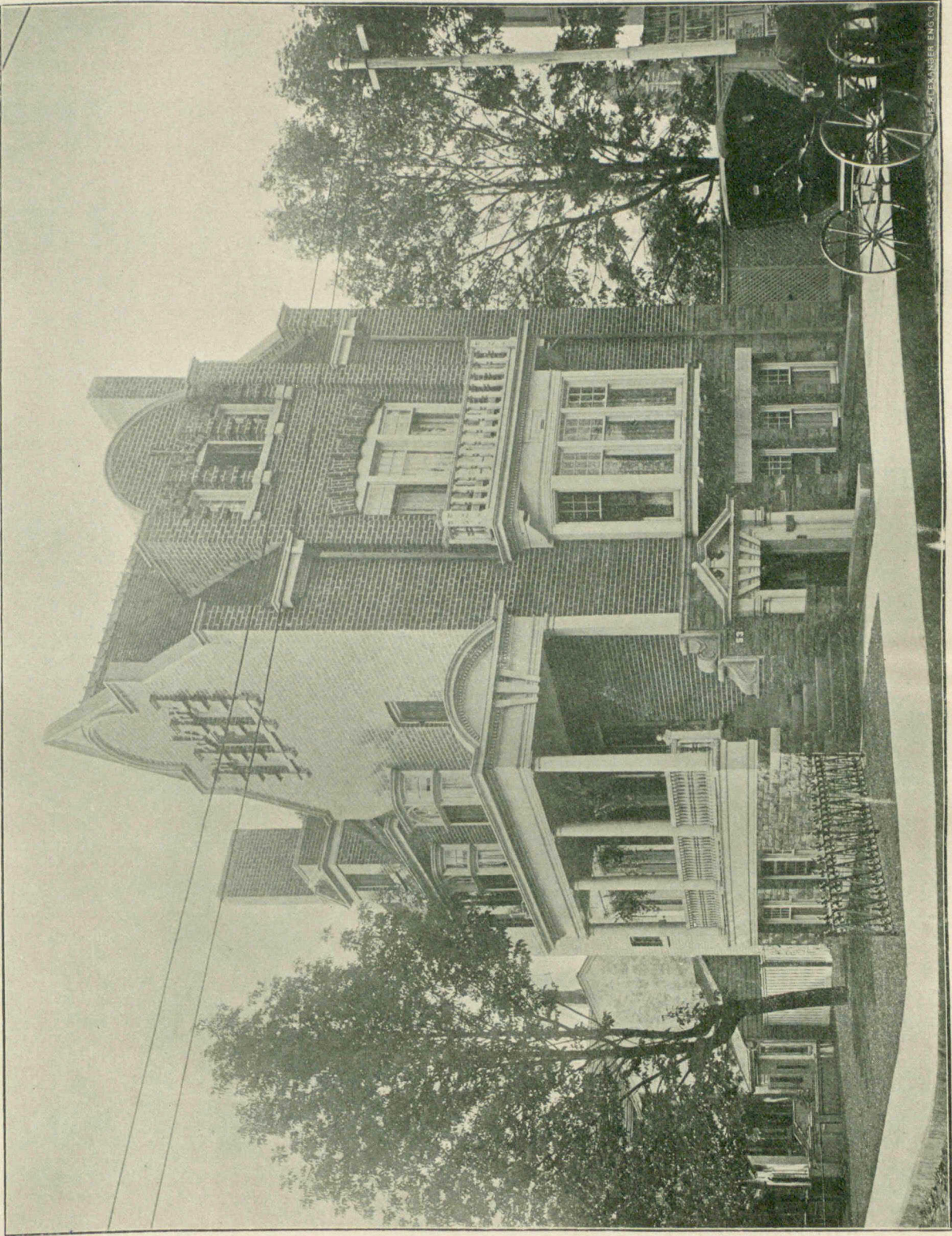
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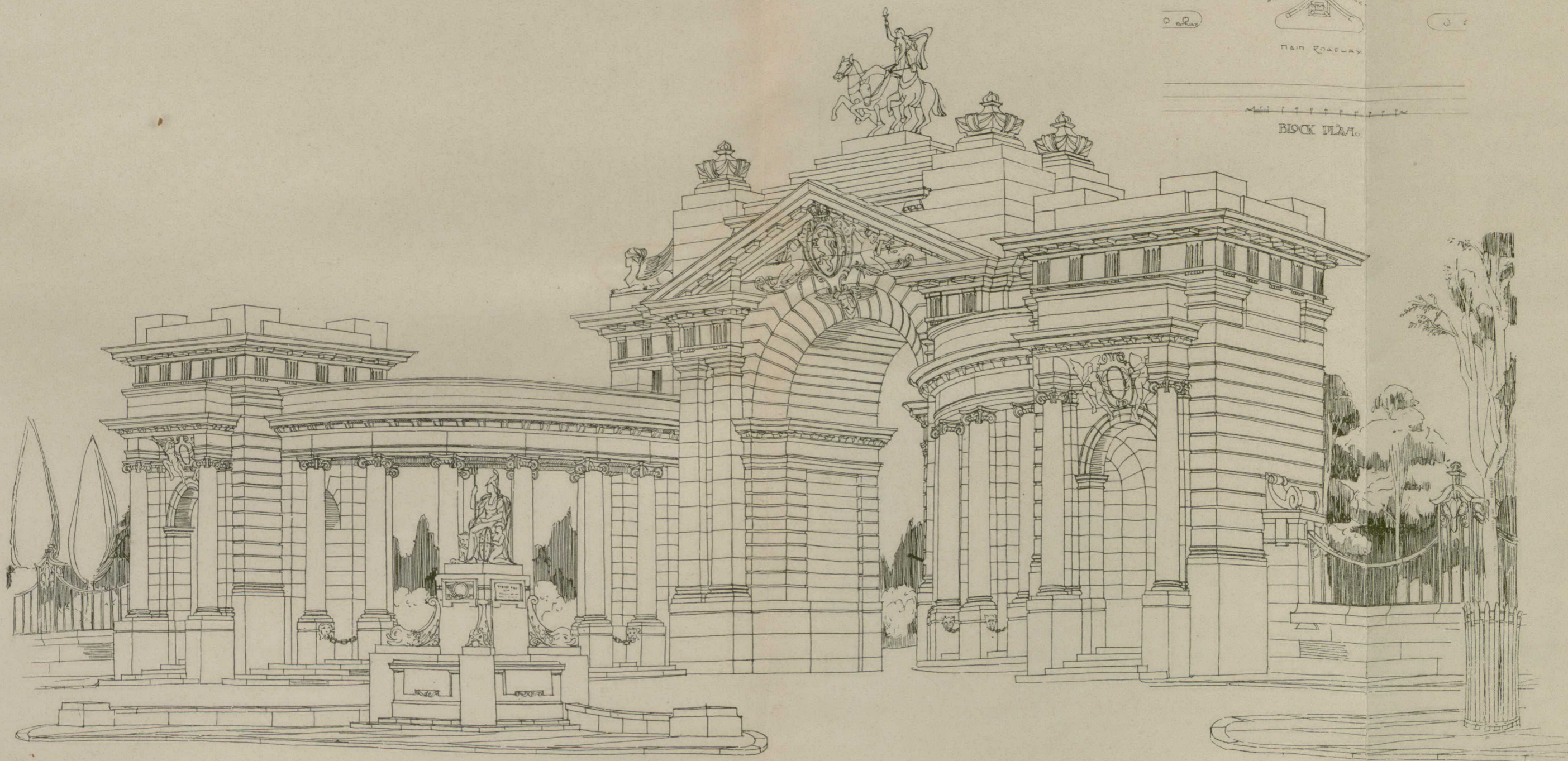
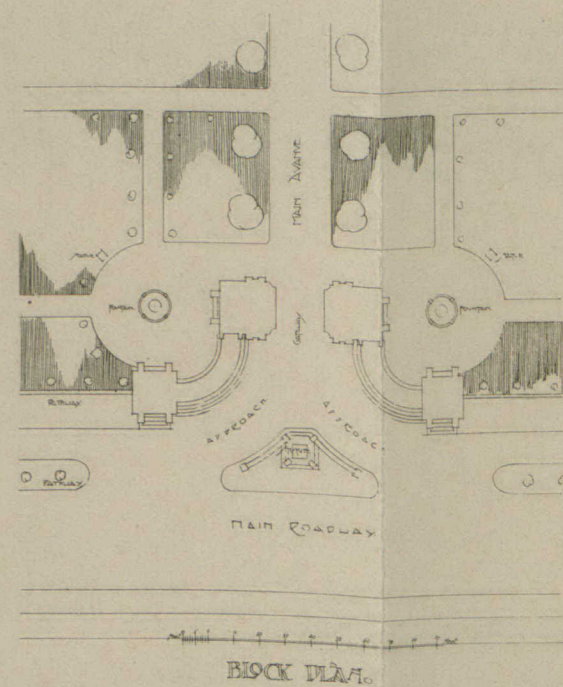
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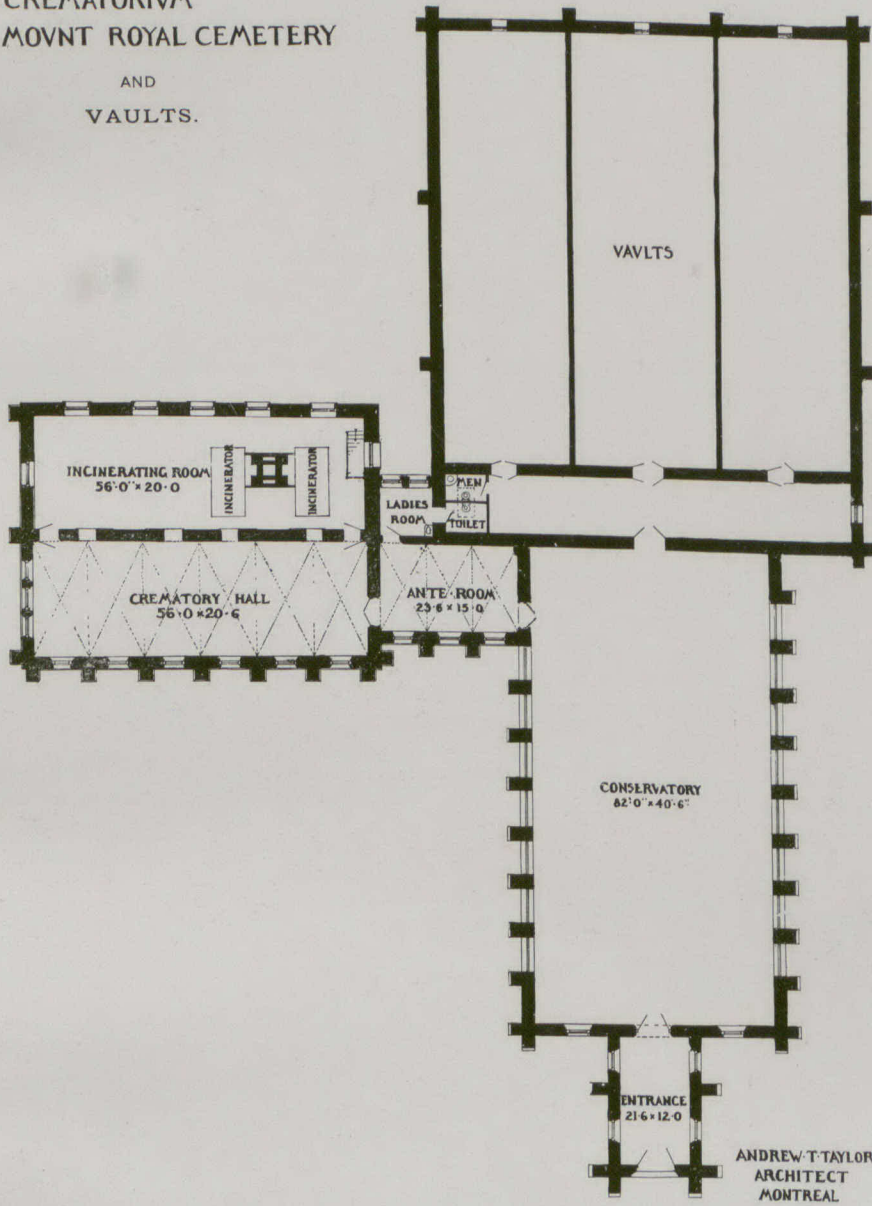


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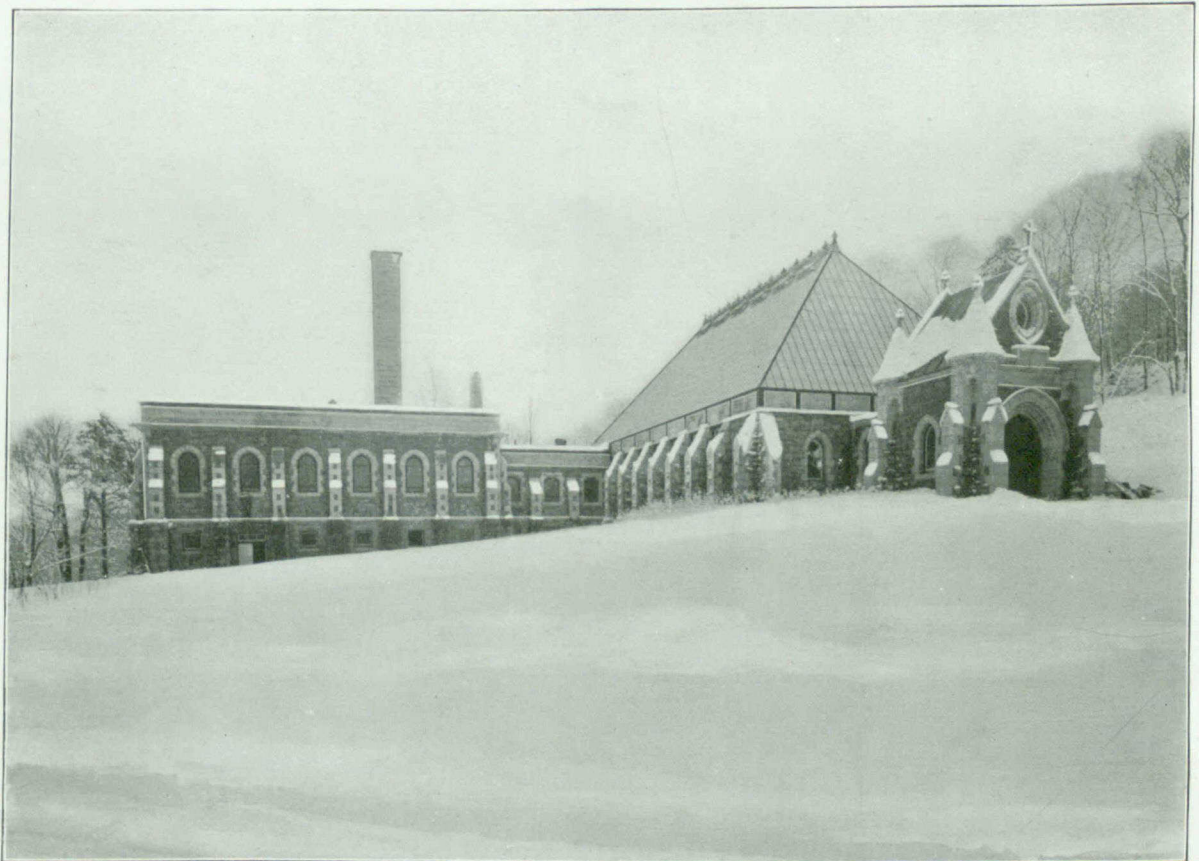
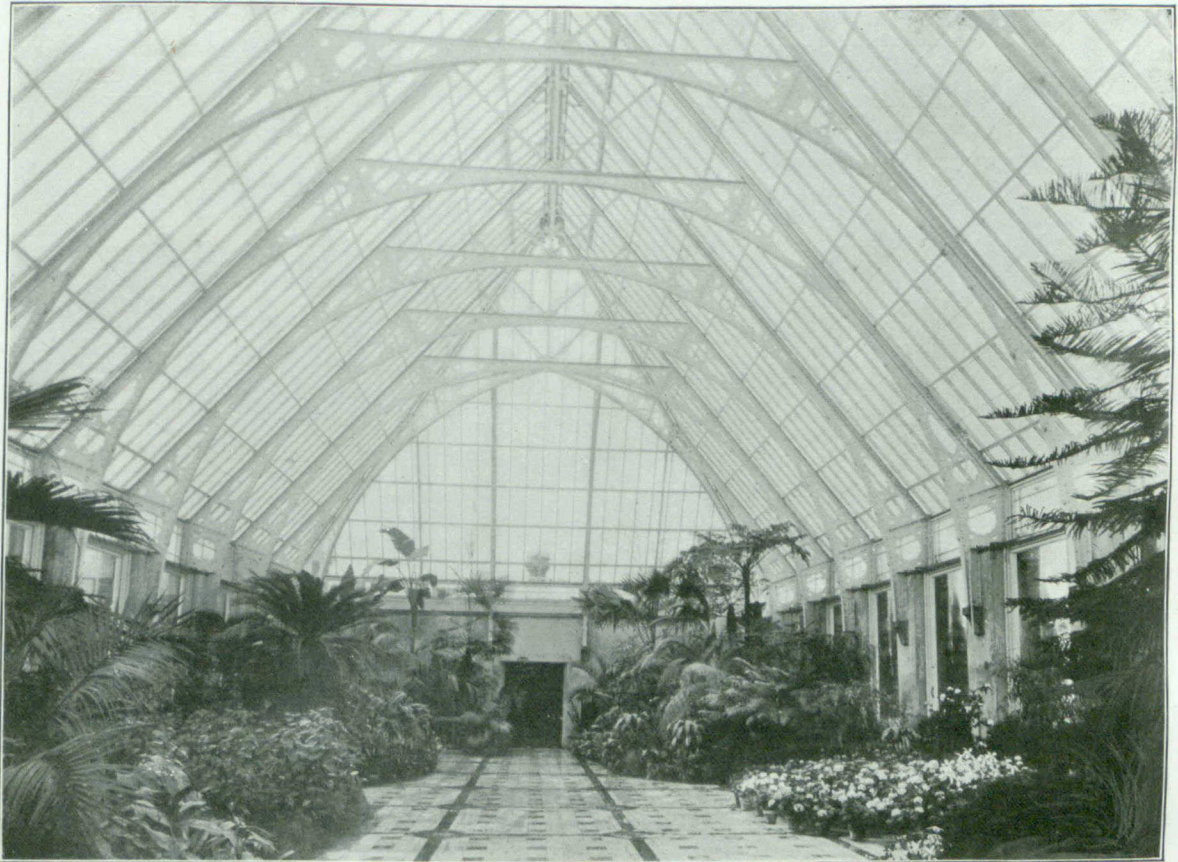


CREMATORIUM  
MOUNT ROYAL CEMETERY  
AND  
VAULTS.



GROUND PLAN AND CREMATORIUM HALL OF CONSERVATORY AND CREMATORIUM, MOUNT ROYAL CEMETERY, MONTREAL.

A. T. TAYLOR, F.R.I.B.A., ARCHITECT.



CONSERVATORY AND CREMATORIUM, MOUNT ROYAL CEMETERY, MONTREAL.

A. T. TAYLOR, F.R.I.B.A., ARCHITECT.

OBITUARY.

R. C. JOHN DUNN.

We regret to be called upon to chronicle the death of Mr. R. C. John Dunn, of St. John, N. B., one of the most prominent architects of Eastern Canada. He had been ill for a considerable time. The late Mr. Dunn was a native of the city of St. John, having been born in 1847. He began the study of architecture when a lad with Mr. George N. Smith. Subsequently he visited Europe, and took a course of study in Boston, afterwards working in various parts of the United States and spending considerable time in Chicago with an eminent architect named Bovington by whom he was tendered a partnership, which he declined. In 1875 he returned to and opened an office in his native city, where he practised his profession during the remainder of his life. He designed and superintended the erection of many important buildings, not only in St. John, but throughout the Maritime Provinces. Among these may be mentioned the Aberdeen and Alexandra School Buildings, the Provincial Lunatic Asylum Annex, The residence of Mr. Geo. K. McLeod, the Department Buildings in Fredericton, the Court House and Jail at Bathurst, the Court House at Chatham, the remodelling of the Fredericton City Hall and Trinity Church. Mr. Dunn was at one time associated with Mr. Morgan Smith under the firm name of Smith & Dunn. He was held in the highest respect in his native city and throughout the Maritime Provinces, and socially was extremely popular.

THE HOUSE THAT JERRY BUILT.

This is the man for whom it was planned,  
And this is the scamp who put it in hand,  
And filled in the footings with stones and sand  
With no cement, and said, "It's grand!"  
When building the house that Jerry built.

These are the bricks, as soft as cheese,  
That broke in two if you chanced to sneeze;  
Said Jerry: "The man what don't like these,  
Lor, blow me! he will be 'ard to please;  
They'll last for months—unless there's a breeze!"  
In the beautiful house that Jerry built.

These are the windows of packing-case wood,  
Said Jerry: "Of course it's understood  
It'll be extra for windows of real wood;  
These 'ere are special, and much too good!"  
To go in the house that Jerry built.

This is the rubbish that blocked up the drain,  
Said Jerry: "Now don't you labor in vain;  
Fill it in—it'll never be seen again,  
It's ten to one he won't complain;  
The cellar is meant to collect the rain  
That falls on the house that Jerry built.

This is the elegant panelled door,  
With the natural finish left by the saw,  
Which warped till its panels fell out on the floor.  
He bought it for six shillings—but "Lor!"  
Said Jerry, "it looks worth ten bob more."  
Too good for the house that Jerry built.

These are the slates—some small, some great,  
Most were crooked but a few were straight.  
Each kept in place by the next one's weight;  
Said Jerry, instructively, to his mate:  
"I saves my nails and I trusts to fate!"  
When building the house that Jerry built.

These are the locks he bought for a song,  
They work three times and then go wrong.  
He said: "It's lucky they ain't too strong;  
There'll be some repairs a-coming along."  
To be done to the house that Jerry built.

This is the price the purchaser paid  
(He'd made some cash in the grocery trade);  
"Dirt cheap," said the man of trowel and spade.  
As the check in his horny hand was laid;  
"And a better house has never been made."  
For the price of the house that Jerry built.

This is the band that came up the road;  
The drummer drummed and the cornet blowed,  
And as it passed, the house like a flash  
Fell suddenly down with a fearful crash,  
And all that remained was a heap of smash;  
And the owner said words like "blow" and "dash."  
And he stared in amaze at the heap of dust,  
While the more he stared the more he cursed  
At the vanished house that Jerry built.

A. E. F.—In London Builders' Journal.

Mr. John M. Taylor, who has managed so successfully the Dominion Radiator Co., of Toronto, since its inception, has resigned, and in conjunction with his brother, Mr. Adam Taylor, has bought a controlling interest in the firm of A. R. Woodyatt & Co., of Guelph, Ont. Mr. J. M. Taylor becomes general manager of the above Company while remaining a Director of the Radiator Company which he was so long connected. The good wishes of numerous friends will follow him to Guelph.

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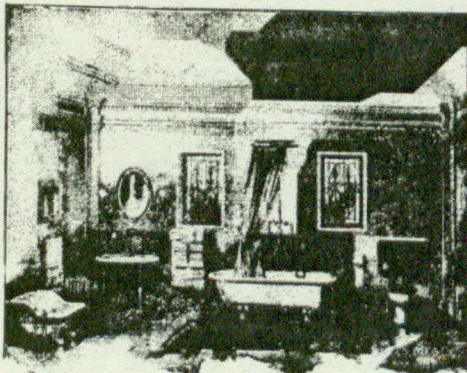
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Some idea of the truth of this assertion may be gained by a perusal of the following interesting items regarding the resources and affairs of this concern.

To begin with, their different factories, covering an area of over 100,000 square feet, are equipped in all departments with the latest and most approved machinery that provides them with appliances sufficient to cut up 25,000,000 square feet of lumber per year; of which lumber a great portion is brought in the log from the company's own limits and driven by them to their mills at Trenton, to be there sawn into the sizes required for the manufacture of hardwood and pine veneered and solid doors, sash, boxes, dressed lumber, lath, shingles, flooring, and, in fact, every species of wood goods required for the building trades, including their famous patent lumber doors, which, during the past year, have been meeting with such success in the large markets of New York and Chicago, and which they are at the present time shipping to all parts of the world.

In view of the fact that this firm enjoys large connections in Canada and the United States, they have also at their command the finest procurable assortment of hardwoods and veneers, which they principally use in the manufacture of patent lumber doors and finish.

The capacity of their door factory is about 300,000 doors per annum, which is equal to about 10,000,000 feet of lumber, and of their box factory 15,000,000 feet.

Very recently they have expended upwards of \$100,000 in the enlargement of their factories, in the construction of a new power house fitted with water-wheels of the latest and most powerful design, and in the installation of a complete and extensive system of dry kilns.

Situated as they are in the midst of a region most favorable for the manufacture and exportation of wood goods, having under their control almost unlimited water-power from a river in which

thousands of horse-power are daily going to waste, and assisted in their shipping operations by the Grand Trunk, Canadian Pacific and Central Ontario Railways, and by the lake steamers which call regularly at the port of Trenton, this large concern has obtained, and will continue to hold a very prominent position among firms in the woodworking business, and at the present time they are open to compete in their lines with any manufacturer in the world.

Besides the recent fitting up of the Canadian Pacific Depot at Montreal, and the completion of other large contracts, this firm has but recently secured a contract for the supplying of 1200 patent lumber birch (mahogany finish) doors, with the casings and mouldings, to the new King Edward Hotel, Toronto, Ontario.

Messrs. Gilmour & Company, Limited, have expressed a strong desire that, should any of our readers wish prices of or information regarding any of their products, they should at once communicate with the firm through their head office, Trenton, Canada, and they state that they will be most happy to give close attention to all such inquiries.

Shellac knotting thinned down with one-third of its weight of methylated spirits forms an excellent medium for preventing or stopping suction in plaster work.

The Canadian Automatic Fireproof Door & Shutter Company, of Montreal, makes an announcement in this number regarding the device known as "Barber's Fire Doors and Shutters." These doors and shutters are made of prepared wood or fireproof materials encased with metal. When open they are boxed up in the head of the frame in sections, there being two sets of the doors and one set for windows. When closed down they form a dead air chamber between the two sets of doors, or the one set and the windows as the case may be. The sections are counter-balanced with weights so as to be easily closed or opened. They act by a rise in temperature to 120 degrees Fahrenheit, melting the plug almost instantly. The device recently withstood a successful test in Montreal in the presence of leading under writers, architects, builders, and the officials of the fire department of that city.

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New York, March 24th, 1902.

WINTER TRANSPLANTING OF TREES.

Bell Telephone Building, Montreal, March 24, 1902.  
To the Editor of THE CANADIAN ARCHITECT AND BUILDER.

SIR,—In your editorial on "Winter Transplanting of Trees" you infer perhaps without intending to do so that the transplanting of trees in winter is a difficult operation and as yet is only being experimented with.

As a matter of fact, the moving of trees in winter is very easily done at a comparatively small expense and the percentage of loss should be very small if reasonable care is taken.

The usual method employed is to prepare the holes which are to receive the trees by making an excavation which shall be at least one foot deeper and eighteen inches wider than the ball which it is to receive. A liberal supply of good earth should then be prepared and kept from freezing so that it may be used to pack in around the ball at the time of moving. The trees themselves should be prepared for moving by digging about them a trench varying in depth and distance from the trunk according to the size of the tree. Ordinarily it is sufficient to dig the trench three feet distant from the trunk and two feet deep for a tree 6-10 inches in diameter, while with a tree from one foot to eighteen inches in diameter, the trench should be from four to five feet from the trunk and three feet deep. Some special trees require more earth than this and some can be moved with much less, but the above is a good general average. Before the ground freezes it is best to cut away the ball of earth underneath so as to leave only sufficient earth for the tree to stand on. The tree should then be gayed and left standing until the ball of earth is well frozen, after which time it is a very easy matter to tip it over and put a drag under it or to move it with a derrick. If the soil is very sandy it is well to wet the ball of earth about the tree and let it freeze. It is quite important that the trees should be moved after the first heavy freeze, for if allowed to freeze and thaw several times, many of the roots are sure to be broken by the expansion and contraction of the earth.

Three years ago I moved twelve trees near Boston which ranged from eight to twenty inches in diameter without the loss of a single tree, in fact most of the trees hardly showed that they had been disturbed. There is no special credit attached to this operation, but I merely mention it as a fact to demonstrate the feasibility of moving trees in winter.

Yours very truly,

FREDERICK G. TODD.

To the Editor of THE CANADIAN ARCHITECT AND BUILDER.

SIR,—In your latest issue, page 41, under the caption "Tests of Strength of Hollow Building Blocks," you state that the principal advantage in their use for wall building was in the saving of weight, and you request the opinion of others as to other savings. The hollow blocks used for the purpose indicated are different from the usual 4 x 8 x 12 porous terra-cotta ones employed in partition construction; they are hard burnt, heavier, weighing about 20 lbs. each. The saving in material, labor and freight is considerable as shown below: A wall 50 feet long, by 10 feet high, 12 in. thick, would require of common brick, 8x3 1/2 x 2 1-2 about 11,000 weighing 4 lbs.—44,000. The same wall of hollow blocks, 4 x 8 x 12, 8 in. thick, which with the addition of bond iron No. 22 x 1 1/2 between alternate courses of the blocks, is far stronger than the other—would require 1,500 blocks or 500 square feet, weighing 20 lbs. .... 30,000 lbs. Difference in favor of hollow blocks ..... 14,000 "

Cost of material at factory, 11,000 common bks. .... \$5.75 \$63.25  
" " " " 500 sq. ft. hollow blocks, .....  
10c. sq. foot ..... \$50.00

Difference in favor hollow blocks ..... \$13.25

Labor laying 11,000 common brick, allowing average day's labor of mason 1,200 brick, 9 days, 72 hours ..... 60c \$43.20  
Helper 72 hours ..... 30c \$21.60 \$64.80  
Labor laying 500 sq. feet hollow blocks, allowing 300 sq. ft. for days labor of mason, 2 1-2 days, 20 hours ..... 60c \$12.00  
Helper 20 hours ..... 30c \$ 6.00 \$18.00

Difference in favor hollow blocks ..... \$46.80

From above you will readily see that the advantage in favor of hollow blocks is appreciable.

Saving in material wall 50x10x12" thick, (8 in.) ..... \$17.25  
" " labor " " ..... \$46.80  
" " freight " " 14,000 lbs., or

leaving out the question of freight, over 45%.

Yours truly,

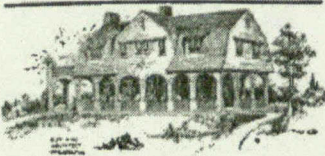
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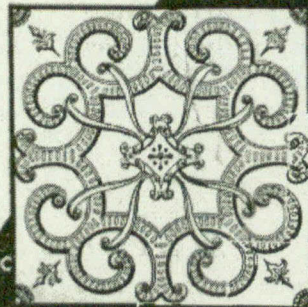
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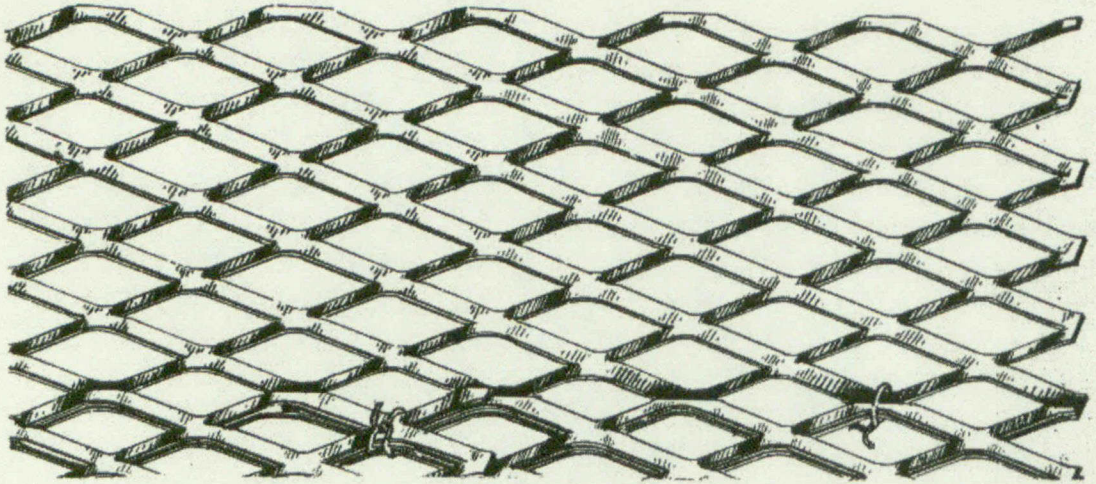
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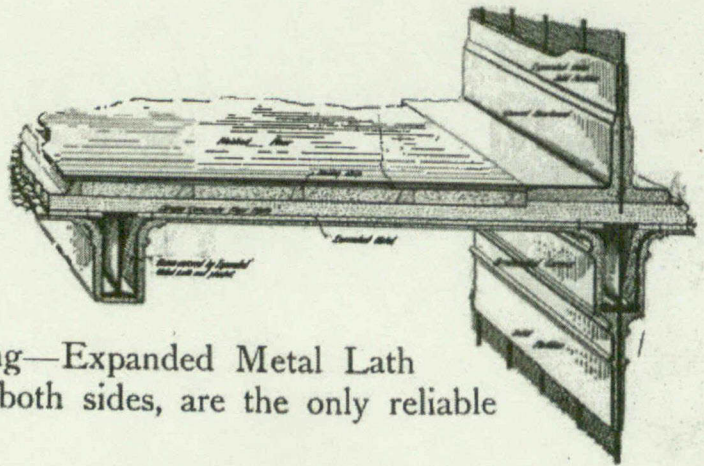
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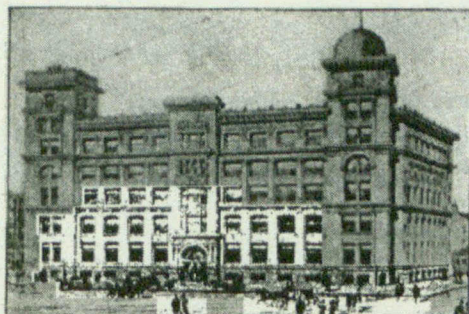
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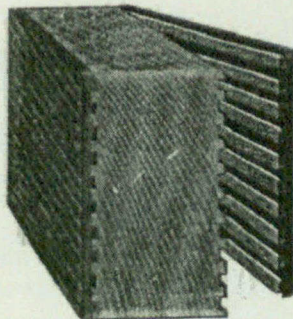
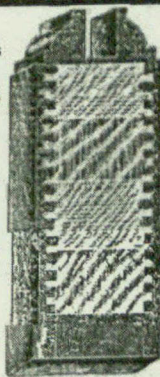
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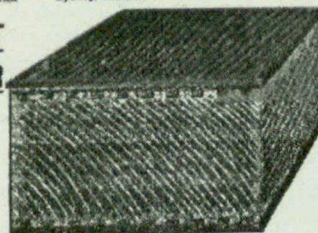


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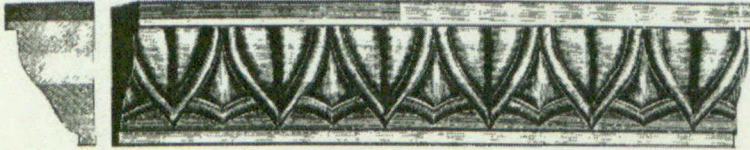
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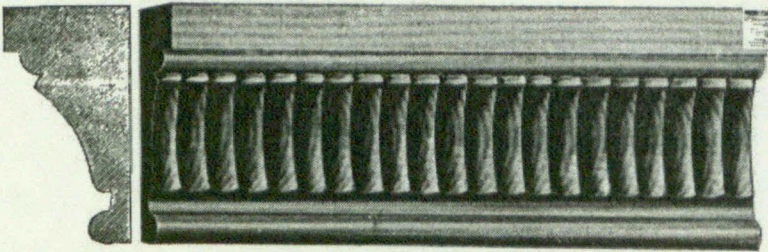
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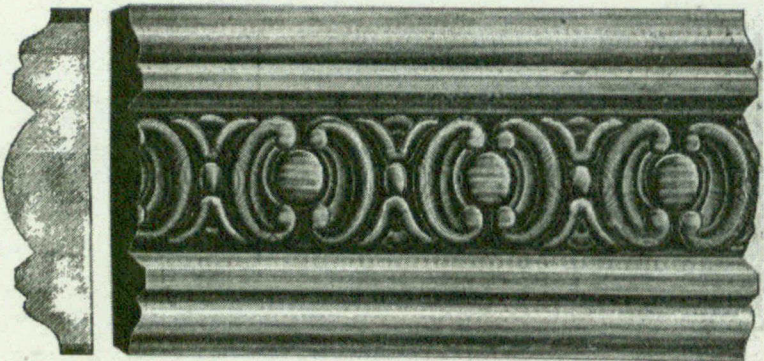
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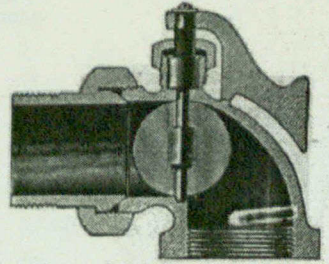
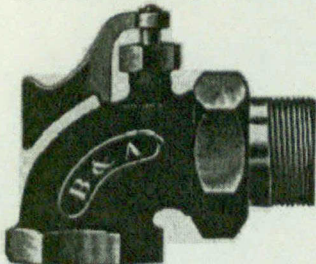
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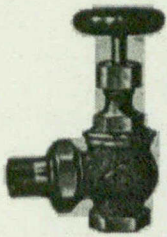
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