

**PAGES**

**MISSING**



# The Canadian Architect and Builder

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## ILLUSTRATIONS ON SHEETS.

Cheap Cottages at Garden City, Essex, Eng.—Designs by Messrs. Gilbert Fraser, H. Cayley and F. W. Troup.  
 No. 500 Wilbrod St., Ottawa.—Mr. J. W. H. Watts, R.C.A., Architect.—The Drawing Room, The Library.

## ADDITIONAL ILLUSTRATIONS IN ARCHITECTS' EDITION.

Canadian Bank of Commerce, at Edmonton—Messrs. Darling & Pearson, Architects, Toronto.  
 Main Entrance to the C. P. R. Station at Winnipeg.—Mr. E. Maxwell, Architect, Montreal.

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### An Architects Bequest for Architecture.

The late Mr. Cummings, of Boston, the designer of the new Old South Church, has left fifty thousand dollars to the Boston Museum of Fine Arts with the provision that the income shall be used "in the purchase of representations—whether models, casts, paintings, drawings or photographs—of the best architecture of all ages. "There is a second bequest of ten thousand dollars to the trustees of the Boston Athenaeum, who are to use the income of the fund in the purchase of architectural books and photographs. The annual income from each fund bears a suitable relation to the cost of the objects required by each institution, and seems to be sufficient to take advantage of the best opportunities that offer from time to time. The most satisfactory part of the disposition of the bequest, however, is that it leaves opportunity for the future, and does not saddle upon the institutions benefited either a collection or directions for the acquirement of a collection which, however well it would suit our ideas of the necessary thing, may have but faint interest for students of a future generation.

### The Albany Disaster and Others.

The coroner and a commissioner of experts, appointed for the purpose, have been investigating the responsibility for the accident in the Meyers department store at Albany, and their reports, which are practically identical, have resulted in the arrest of the

contractor and his superintendent, who are both held for manslaughter. The evidence shows that excavation was carried too near the piers that collapsed, and that the shoring of the floors above was insufficient.

This evidently fair finding is just in time to be an example for a few more cases of collapse that have occurred. In New York an old brick house has collapsed in consequence of blasting which was carried on in an adjacent excavation. Nine persons were killed. Shores were being placed against the walls, by a wrecking gang from the Building Department, when the collapse occurred. In Pittsburgh, a new wall went down with several men on it, some of whom were "fatally hurt." In Boston—or as the *American Architect*, from whom we get our information, says "even" in Boston—there has occurred the fall of an old building undergoing alterations. It is evident that "an alteration job" should, at any rate from the building inspector's point of view, lose the slight that is usually put upon it as a second-class affair, and should receive first-class attention.

### The late Mr. Alfred Waterhouse.

It appears from the biographical notices of the late Mr. Waterhouse that have been appearing since his death last month, (August 22nd), that his own choice of a profession was painting; the choice



of architecture as a profession being the result of a compromise with his father who (he was a Quaker) esteemed commerce more highly than art. It appears also that the taste for painting did not suffer from the strenuous practical life that Mr. Waterhouse lived, as an architect devoted to large affairs; and when at length he was forced to take leisure, it was in painting that he occupied it.

It is interesting to find in the career of Mr. Waterhouse who excelled in plan, and (as *The Times* says) "Seemed able to grasp and deal with every practical problem in building as soon as it was presented to him", a confirmation of the doctrine that it is the architect who approaches architecture in the spirit of an artist who (rather than the practical man so much esteemed by the cautions) is the sound workman in building. The *Builder's* pregnant account of Mr. Waterhouse is an ideal description of an architect,— "With a quickness of perception in regard to planning, which long practice had developed almost to a intuition, he was able to carry out buildings on a large scale almost as an improvisation, seeing at a glance the key to the whole treatment of the scheme and clothing it at once in an architectural garb".

It is, however, odd that the quality of beauty in detail is lacking in his work; both in composition and superficial effect it seems to be overlined. Here is an extract from the diary of a student, fresh from the office of H. H. Richardson, who visited Eaton Hall, (rebuilt by Mr. Waterhouse for the Duke of Westminster), in 1886, a few years after it was finished;—"I have carried away chiefly a perception of the scale of requirements in such an establishment and of excellence in the plan. The ornament was also carried out with the greatest possible taste, there were no bare spots, and no overloaded places. Yet I got not the least pleasure from the detail, but rather discomfort. It was consistent and scholarly Gothic. Indeed it was more than scholarly, it was masterly; handled in the freest and most skilful manner in adapting it to modern requirements. Nevertheless I was continually oppressed by a sense of architecture. When the clerk of works brought me in triumph to the supreme effort—the main staircase in the Duke's private house—I felt my heart soften towards the Duke as one does towards one whose surroundings are utterly wretched. And yet it is clearly great work. It is good ideas expressed in abominably uncouth, affected English." This seems to express pretty nearly the mixed feeling of Englishmen towards Mr. Waterhouse's Gothic, and the disfavour was continued to later work in another style which is still described as wanting in repose. It is likely that the softening hands of time will improve the appearance of his work, and what now seems to be technical excellence a little hard will then appeal to taste. An examination of mediaeval Gothic often leads one to the conviction that, when it was new and cleanly cut, it also must have been a little hard.

formed of what they would see in the way of Royal Art Treasures at the Toronto Fair are to be found on p. ii of the July number of this journal, where a quotation from a circular purporting to come from the Directors of the Exhibition, (but which, of course, we cannot prove really came from them or was anything but the manifesto of an unscrupulous postman), first prepared the mind for something extraordinary by making a disparaging reference to the Jubilee presents, viewed in comparison with this present lot of royal treasures, first in the matter of attractiveness and secondly in the matter of bulk. The comparison of mere bulk was made as "a statement that will convey to many people some idea of the number at least of these antique relics that have been gathered from the art repositories of the castles of the King, of the ancient and renowned corporations of London, City of Oxford, Cambridge and Dublin Universities, and from the wonderful collection in South Kensington Museum." What was there was simply a collection of casts made from the treasures above specified by the branch of the Education Department at the South Kensington Museum and gilded or silvered by them to represent the material of the original. It is bad enough to have a grossly deceitful advertisement of this kind circulated as coming from the directors of a semi-municipal affair like the Toronto Exhibition but it is equally disheartening to find that not one individual or one newspaper has said one word in protest against this way of promoting the Fair. If it is understood that about the exhibits the Directors are to trifle with the public and that we are to get together there (at some expense) merely to see a principal show of a variety character and sideshows of characters which "vary mostly for the worse"—it may be understood, but it is a pity that it is so.

While the fraud on the general public who went to see objects interesting, as the circular promised them to be, for "richness" and "historical connection" injures the nation's honour which is more valuable than its art, it cannot be denied that models of this kind would be a help to art. Not so much these particular models—they were too many of a kind and the kind was too elaborate and costly for this country—but models such as are made at South Kensington of all kinds of art treasures:—Gold and silver work, carving in all substances from iron to wood, book-binding and leather work, lace, tapestry and textiles, plaster work, gesso, &c., would all, if well selected, be of great use in developing the manufactures of this country. The principal condition for obtaining loans of them would be the establishment of a museum or other proper place where they could be received with some certainty not only if being properly taken care of but of being properly used. On what conditions we might even then obtain loans is not certain, but that so many models have found their way here once is an encouragement to hope that others of a more practical character could be got here again. A loan or two might be required to introduce the idea, but there is no reason why, that being done, we should not aim at getting what we want by purchase. Indeed the models shown at the Fair may suggest to manufacturers themselves the idea of trying to place an order with the Education Department at South Kensington for models that would help their work. The Department has a photographic catalogue of its productions in this line.

The National Exhibition came under our notice this year because of its large offer in the way of art treasures and paintings imported from England and France. The offer was not fulfilled in the way in which the preliminary advertising would lead anybody to expect. The terms in which the public were in-

**Art and Advertising  
at the Toronto Fair.**



## AN AMERICAN GOTHIC REVIVAL.

Mr. Ralph Adams Cram, in a series of three notable papers in *The Brickbuilder*, has been preaching a Gothic crusade; not altogether as a voice crying in a wilderness, but rather leading on a host already engaged in the new movement.

Gothic was true architecture while Palladianism was a sham, so that one is chary of raising an opposing voice against any movement that looks for its ideal to the Gothic centuries. But, in the larger sense, Gothic architecture is not merely the architecture of the middle ages, nor is Palladianism merely that particular perversion of Greek principles for which Palladio is distinguished. It is possible to apply the Palladian method to Gothic forms, and it looks very much as if only Palladian Gothic will be produced by the army of converts to fifteenth century design, which gives so much delight to Mr. Cram, but which one cannot be accused of cynicism in recognizing, (by name, some of them), as the usual following of a new fashion in American architecture. "The work of restoring and revivifying Gothic," Mr. Cram says, "is proceeding with leaps and bounds". We are sorry to hear it; it could not do a worse thing. To Mr. Cram this mysterious movement is a growth "out of the persistent soil of inextinguishable inheritance and under the sun of dawning spirituality". He hopes all things because his heart is with the movement, but the examples of current Gothic, in the illustration sheets of the very numbers of *The Brickbuilder* in which his articles appear, incline us to retain our less charitable opinion. There are no doubt spiritually minded men to whom Gothic represents, as it does to Mr. Cram, the "Christian architecture"; but for the many, to whom it represents a fashion to be followed, the animating spirit is the spirit of Palladio. Mr. Cram's own churches have for some time been to the profession, an enviable attainment; and his West Point success has brought the thing to a crisis. The supply has created a demand, that is all. It is a fashion, not a movement.

Mr. Cram thinks—this is the gist of his three papers—that the time has come to cast off the paganism of centuries and join hands again with the fifteenth century when the course of Christian architecture was interrupted. "It must begin where it left off," he says, "and it must work at first from precedent". This is how he brings the question to a definite point—which is what it needs. General principles are nothing. Mr. Cram's general principles are unquestionable; but so are everybody's. Even Mr. Flagg is probably a pure minded person. But trouble comes in the application of principles to style. Mr. Cram's idea is that "style is nonsense unless" (in the first place) "it develops from historical and racial associations". He claims continuity of race with the English, and affirms that, since with the Suppression of the Monasteries in England the racial style died, it is with architecture as the Suppression found it \* that we have to do.

This is a clear enough programme. Is it true? It is not quite new. Ruskin, whom Mr. Cram considers to be "quite the worst critic and exponent of architecture that ever lived" has already advocated the adoption of the Perpendicular as the basis and starting point of a true English style. His proposition was not taken up. Is Mr. Cram the appointed agent to carry out Ruskin's

idea? We should be glad to think so. Our sympathy is entirely with Mr. Cram in his desire to make architecture, what it ought to be, "a language, not a sequence of fads." Mr. Cram is a brother; but brothers, when their positiveness is stronger than their argument, are sometimes rather irritating.

Mr. Cram's whole discourse is a process of begging the question. To begin with, is it right to say that mediæval architecture alone is "Christian architecture?" If it is, is not an accompanying condition implied that the mediæval church alone was the Christian church? That statement would be rather confusing to some tens of millions of Mr. Cram's fellow citizens who do not share his obvious regret that the Reformation succeeded. The question is still further confused by the fact that the mediæval church (which still exists) finds itself quite at home under the dome of St. Peter's, housed in an architectural style of which Mr. Cram speaks in unmeasured terms with which we have too much sympathy to quote them against him. It is idle to regret the Reformation, disturbing as some of its consequences seem to be. Erasmus was not conspicuously a saint of God; Luther was certainly not a work of the devil. The ways of the Lord are wonderful; and one of them, which Mr. Cram and others have a way of entirely over-looking, is the development of Greek thought. Greek philosophy has not been unrecognized; it was indeed all important to that very mediæval church which gave us the "Christian architecture." And had Greek architecture no place to fill in the Christian world? One of its sources of origin, it cannot be doubted, was Solomon's trabeated temple, which is the only church that was ever built of which we have any sure warranty that the mind of God was with it.

Not to go any further into the labyrinth of speculative argument than just to claim recognition for the Greeks, let us see what may be the consequences of this. Here of course, in the application to style, is the place where, as usual, untruth may creep in; but the acknowledgement of Greek architecture, as having an intended place in the progress of the world—of the Christian world, for it is all Christian now in spite of the predominance of the heathen—seems to us the acknowledgement that there is a true architecture of constructed form as well as of formed construction. It is usual to talk of Gothic as "decorated construction" as if the construction followed mere necessity and its beautification by its treatment in detail was the whole method of the designers. Proportioning the construction is always the essential element of design in the mediæval styles; decorative finish is equally essential but subsequent and minor. St. Paul's and Westminster Abbey are equally a matter of proportional construction, as far as the interior is concerned, and the present writer confesses to more exalted feelings in the greatness and simplicity of St. Paul's than in the comparative littleness and positive complexity of Westminster Abbey. The pointed arches of the Abbey, piercing almost to the triforium sill, are an annoyance and a constructional annoyance; the ragged Corinthian capitals of St. Paul's are only a matter of detail that might be corrected—and that is what we humbly propose as our contribution to this subject.

It is useless to speak of Wren's architecture as heathen; it is not. Some of his churches, that have been modernized in arrangement, appeal as perfectly to

\* i. e. with the fully developed Perpendicular or Tudor style.



the devout as any churches in the world. One of them is occupied by a congregation with perhaps the most mediaeval service in England; and the perpetual smell of incense in the church sets it apart as a sacred place, even to one who abhors the use of incense in the service. But there is no satisfaction in "the Renaissance box of bricks" which were Wren's only repertory of detail. The question is, do they constitute classical architecture any more than Gothic detail makes Gothic design?

The essential principle of classic design seems to us to be the construction of form—the Greek principle. This is not absolutely either true or false; it may be either. Let us assume its proper use and see how it will fit the Gothicist's conditions of architectural style as set forth by Mr. Cram. Apart from a general exaltation of the need of harmony, proportion, etc., common to all styles; a general denunciation of archaeology and imitation; and a special damnation of the Renaissance—the conditions upheld by the Gothicist are "that architecture is a language, not a sequence of fads, and that style is nonsense unless it develops from historical and racial associations, expresses construction, function and contemporary ideas, uses honest materials honestly, and is intrinsically beautiful, both in detail and as a whole."

Admitting the truth of all these items, the point to be wrestled with in classical design is the expression of construction.

The point the Gothicist will have to wrestle with (we may just mention it in passing) is the expression of contemporary ideas; and we must respectfully express a doubt whether Mr. Cram is doing it in the narrow spans he gives his churches (those shown in *The Brick-builder*.) It may be necessary to contract the span in order to meet the requirements of a tie-beam roof that will give the true Tudor effect. But is not this resurrecting his style to much in the body in which it died. "It did not die", he says "but only retreated to the sanctuary of the Island of Avallon with King Arthur and all the other inextinguishable truths." Inextinguishable in truth it may be but not in form. "Arthur has come again," Tennyson assures us, "in port and manner like a modern gentleman"; and should not the architecture which also retreated to his sanctuary appear again in a form more expressive of "contemporary ideas?"

The contemporary idea of architecture is that it should be fireproof. This was not so in the fifteenth-sixteenth century, nor was it so in the time of Wren; but it was the generating force in the development of pointed architecture, and there is every reason to find in it the cause that will develop from the Perpendicular (the most delightful and suggestive as well as the last of the English styles), by way of the models Wren has left us, a style of church building which will fulfil the conditions of true design, and not be alien, as mediaeval Gothic is, to our modern life.

Apart from the question of fire-proofing there is still difficulty with the roof. The mediaeval church inclined to a narrow habit in spans. Our inclination is to a wide habit. On this score also a wooden roof is not in accord with modern life; and an architect, to whom a true mediaeval wooden roof is a necessity of church design, will find difficulty in stating his position fully to the building committee of his church. Iron cased with wood is good enough for them.

He loses frankness in his dealings with them in the matter because he has no argument that will convince them, who, as he bitterly reflects, are altogether possessed by modern ideas. If he will only reflect a little longer, until he becomes aware that it is he who is not possessed by modern ideas, is in fact archaeological, he will perhaps recollect that this is a habit of mind that is denounced in the Creed of the Gothicists and will turn his mind to making a design in accordance with modern ideas. Iron for his roof is the first consequence; and the second is concealment, for iron is neither fit to be seen nor safe when exposed. He is now modern and may congratulate himself that he so far fulfills the condition of his Creed that his design is based on contemporary ideas. The expression of construction and of function remain to him. The latter is largely a matter of plan, which we may assume to be right, and of details and ornament, which need not be heathenish though the principal of design be—what it seems to have become—Greek.

One cannot affirm with certainty how the problem of concealed construction is to be treated. Invention is at work in building material, in great part in order to meet these very conditions of modern life—the employment of iron in construction and the desire to build fire-proof. We may conceive of our church designed in some casing material—a condition no different from Wren's in the city churches. We may think of reinforced concrete, with an exposed construction not at all (in the bridges that have been built of this material) unsuggestive of a sort of work that would follow on well from the last stage of Gothic architecture in England. But in any case it is a question of vertical pressure on vertical walls, and any structural form into which the walling is cast will be designed not to enable the wall to carry its load the better but to express better the fact that it carries it.

This is the architecture of modern life. Not the display of function but its expression, and, if a man is to speak the language of his times in architecture, that is the language he must learn. So far the Renaissance box of bricks has been our only means of expression. The real ground of its invariableness has been the conviction that the proportion of parts in an order is inviolable. This conviction does not now hold the best designers. The orders are not an object of blind adoration. The way is open to Mr. Cram and his fellow-countrymen to find a new and more Christian language in the open phrase book of Gothic architecture, and we sincerely hope they may do so. But the style of architecture to which it must be applied will, it seems likely to us, be, if it is truly modern, Greek in its principle of design.

It seems that the word "pediment" which, because it seems to have something to do with the foot, is so confusing to people who know but a little about architecture, has had its derivation made clearer by the Oxford English Dictionary, in the seventh volume, which has been recently published. Early examples of the use of the word show that it was written "periment" or "periment" and Dr. Murray thinks that this word was "a workman's corruption of pyramid, which a triangular gable sometimes resembles in section, and which is actually pronounced peremint or purrimint by the illiterate in some districts at the present day. He gives the genealogical succession of the word as "pyramid, peremint, periment, pedament, pedement, pediment." The jump from periment to pedament seems to have been caused by the educated (Evelyn uses the word) because there happens to be a Latin word pedamentum meaning a prop, usually used of a vine stake.



## OUR ILLUSTRATIONS.

THE CANADIAN BANK OF COMMERCE, EDMONTON.—  
MESSRS. DARLING AND PEARSON, ARCHITECTS, TORONTO.

In construction this design is a combination of gray stone and red brick. It has a stone base, stone columns and doorway, and a wooden cornice in scale with and painted like the stone. Stone work is mingled with the brick for the key-stones, impostes and sills of windows, and in the quoin-blocks and caps of the chimneys.

The design exactly expresses the idea it ought to convey—that of a country-town bank, in which the banking office is on the street level and the upper floors are a residence for the manager. This half domestic result has been attained, not only by the domestic windows of the upper part, but by great simplicity and refinement of detail.

MAIN ENTRANCE TO C.P.R. STATION, WINNIPEG.—MR. E.  
MAXWELL, ARCHITECT, MONTREAL.

The materials of this design are red brick, imported from Wisconsin, and gray limestone from the Garson quarries, near Winnipeg.

The treatment of the order deserves study. It is due to the design of the rest of the front to say that the photograph does not do justice to it. If this part is examined through a magnifying glass, (a most useful instrument in an architect's office), the confused appearance, presented in a more distant inspection of the plate, disappears, and it can be seen that the two-storey window opening is framed by an architrave band of projecting brick. When this is grasped the springing stones cease to look spotty—an illustration of the added force which a visible function gives to decorative detail. The corbel or drop, under the shield form in cornice, is the root of the trouble, because it spreads like a capital and produces the illusion of a pilaster between the windows. If this had less width than the shield projection above it, or were omitted altogether, it would be better.

The dignity of the order which composes the entrance is due, in great measure, to the unusual size and broad proportion of the dentils and to the fact that the corona carries through. The dentils are modified by the insertion of a roll between them. The swagged capitals are a good enrichment and give the necessary emphasis to counterbalance the force of the dentils.

NO. 500 WILBROD ST., OTTAWA.—MR. J. W. H. WATTS,  
R.C.A., ARCHITECT.—DRAWING ROOM AND LIBRARY.

We have received no plan of this residence, of which the exterior was published, in the June number of this journal. But it can be seen from the illustrations that the drawing room and library communicate with one another, giving to each a vista of considerable extent.

## CHEAP COTTAGES NO. 2.

We reproduce this week four examples from the exhibition of cottages at Garden City.

Mr. Fraser's design for concrete blocks was one of the £150 class but the representative of the Concrete Machinery Co., by whom it was built, admitted that he would not undertake to build it for sale at that sum. It should be noted also that the class price was intended to be the net cost of erection "exclusive of architects' fee and builder's profit."

The sizes of the rooms are as follows:—Parlour 14'6" x 12'0". Kitchen 14'6" x 12'0". Scullery 8'0" x

8'0". Larder 8'0" x 3'6". Staircase and entrance hall 11'6" x 6'0". End bedrooms each 14'6" x 12'0". Middle bedroom 11'6" x 8'0".

Floors, wood on solid floor and wood boards on wood joists.

The walls are built from blocks made on the site by a portable hand power engine with a capacity of 150 blocks a day. The blocks measure 32" x 9" x 10".

The house would be best adapted to our purposes by raising it above the ground enough to allow light and air (and coal) into an excavated cellar, large enough for a small furnace that would heat at least the ground floor. There would then, to include only what is absolutely necessary, be but one chimney required—that on the kitchen side. It would, however, be desirable to leave in it the fireplace in the bedroom on that side. The coals and w.c. wing should be swung round to make a porch for the back entrance. The water closet might, even in our climate, open off this if it were properly supplied with hot air from the furnace. The alternative to heating from the cellar would be to project the entrance hall wall enough to leave room for a hall stove with the pipe passing upstairs and entering the chimney through the small bedroom. The water closet should then be transformed to an earth closet and should be entered from out of doors.

The design by Mr. Cayley is of the five-roomed class to cost £35 a room. The cost of this pair was £330, but the offer to duplicate is £380. It is stated that there would be a saving of 5 per cent. if a group of four were built.

The bath tub in the scullery is no doubt covered by a hinged lid which makes a table.

In the remaining design, by Mr. Troup, we revert to the £150 class. He gives less accommodation but there seems more chance of building the house for the money, under ordinary circumstances; indeed in its description, in the catalogue of the exhibition, the offer is made to duplicate it for £150, plus the architect's fee and the builder's profit.

The construction is our own frame construction of 2" x 4" studs, braced and covered with insulating paper and weather-boarding (i.e. clap boarding) outside; lathed and plastered inside; chimneys and foundations up to floor level, brick. Floors joisted and boarded, except scullery & c. Roof pan-tiles. There is 6 in. of cement concrete over the whole area of the house and extending 6 in. beyond the walls all round.

There is an earth closet, but in other respects the house is supplied with water from mains and drains through 52 ft. of glazed earthenware pipe to a small cess pool in the kitchen garden.

## A CARPENTER DRIVING A NAIL.

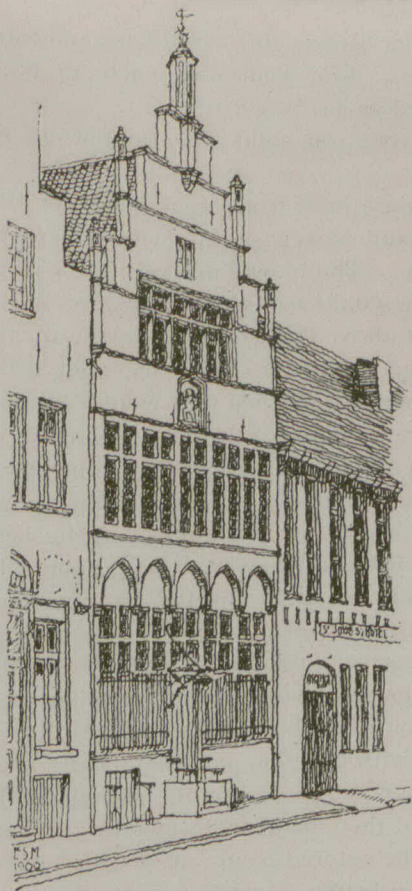
How many hammer strokes does a carpenter use in driving a nail?

Perhaps not one carpenter in a thousand or one layman in ten times that number can tell, or ever thinks of it, says the Chicago Tribune. The truth of the matter is this: The carpenter takes seven strokes in driving a nail into ordinary wood and twelve regular strokes and two finishing strokes in driving nails into hardwood.

These figures are furnished by a man who works at night, and sleeps—or tries to sleep—by day, and whose bedroom window opens out upon a flat building in course of erection. He figured the average number of hammer strokes for nine mornings, and, having learned them, moved to a hotel until the new building is completed.

He discovered that the carpenter drives an average of three nails a minute in soft wood and a fraction under three in hardwood. At this rate he would drive 1,440 nails a day in soft wood, if he keeps up the gait steadily, and 1,282 in hardwood. He would give 10,080 hammer strokes in soft wood and 20,160 in hardwood.—*American Carpenter and Builder.*





SKETCH OF CAFE AT ORIENT

BY E. STANLEY MITTOR.

## WHAT I WANT IN MY HOUSE.

BY A HOUSE-KEEPER.

On deciding to remove from the country to Toronto for the sake of educational facilities, we were warned that we should experience great difficulty in finding a house. This has proved to be the case. And after a lengthy and fruitless search, we have determined to build for ourselves.

In our country house we enjoyed ample space and light and air. But these are all costly luxuries in a large city, and we must be content with a moderate sized house of ten rooms for our family of four persons; and as the plot of ground on which it is to stand is long and narrow, some of the rooms must be smaller than we should like, and all cannot be equally well lighted.

In planning for this city house there are several points in which it must differ widely from our former home. Having neither garden nor orchard, there is no need for a cellar, large enough, and cool enough, to contain a winter's supply of apples, potatoes, &c. Nor do I require a store-room that will hold hogs-heads of sugar or chests of tea. All such things can be obtained in small quantities day by day, or week by week from the various tradesmen. My cellar here will contain a furnace (a combination of hot air and hot water) with the season's supply of feed for it, and for the other fires.

This furnace and coal cellar should be solidly partitioned off from the laundry or servants bath-room, and should have a separate entrance from the outside, for the use of the man who attends to the furnace.

A fourth good-sized division of the cellar, also separate from the furnace room, and well lighted by two or three windows, may be useful as a store-room and work shop. Plenty of shelves will be required.

Coming to the first or ground floor, I wish to have my house somewhat differently laid out from the ready-made houses, of which I have seen and rejected so many, since I arrived in Toronto. The usual plan of having all the rooms on the ground floor *en suite*, is distasteful to me.

Much space is generally wasted in "a square reception hall", and it is sought to make up for the consequent cramping of the living-rooms, by arranging them to open into one another by wide double doors. The drawing-room, dining room and library are practically all one room, and the dining-room generally communicates directly with the pantry and sometimes with the kitchen!

To my mind the hall and passages are the only proper means of communication with the living rooms, which should each be separate from one another, and should only be entered from the hall.

To this end I wish the hall to occupy the centre of the house, with the drawing-room on one side of it and the library and dining-room on the other. A door, with a patent check of cup and ball construction, to prevent it from banging, should separate the front hall from the back; the back hall being little more than a passage, leading on the one side to the kitchen, and on the other to the pantry, with the back stairs between. Another door, also with cup and ball check, should here give access to the dining-room, so that the family meals are not carried through the front hall.

In this house I cannot spare any of my scanty space for the large roomy hall, so characteristic of country houses. I need every available inch for the living-rooms. So my hall is but a space in which to carry up the stairway, and into which the rooms open. But it has walls which will be valuable when we come to hang the pictures. Photographs of foreign places, engravings of historical pictures, and maps, I think most suitable for a hall.

My drawing-room is never only a company room, whether in town or country; we live there habitually, and have no upstairs sitting-room. Therefore it must be the largest room in the house and well warmed and lighted. An open fire-place is essential, in addition to radiator or register, and the windows must not be darkened by a verandah.

The library and dining-room must be small, and will probably suffer in the matter of light from the near neighborhood of the next house. And we may find it necessary to omit a separate library altogether and allow our student a table and book-case in the dining-room, which will be a better-sized room by this means. A verandah at the back of the house may open from a side window of the dining-room, and will be more private than if it faced the road. The kitchen will be small but compact, and the stove will burn coal or wood. Some people use gas. But I think a kitchen with only a gas range is a cheerless place. I shall however have a small gas stove in my pantry—which I prefer to call my still-room. It is true that I do not now distil essences or strong waters there, but I do make all kinds of jams and jellies and put up all the canned fruit with my own hands. So a gas stove will be useful, and with a sink, and hot and cold water at hand, I need never interfere with the rightful occupant of the kitchen.

The still-room will have cupboards all around the walls for the glass and china of daily use, as well as for best china, and other seldom-wanted household



gear. There will I hope be enough room for the jam and jelly pots, the cellar being too damp, and the attic too dry for them.

The back-door opens into the back passage, close to the kitchen and on the other side of the passage is a very small larder, which will contain a refrigerator built as a fixture to the house, with a door for the delivery of the ice from outside. A good-sized safe, covered with wire netting, and mounted on brackets, with room for a barrel of flour under it, will take up nearly all the remaining space in this tiny larder.

Going upstairs to the bedrooms, I should like to have at the half-way landing an oriel window, fitted up with shelves and stands for house-plants. We shall miss our country greenhouse, and this will be a sorry substitute, but some green growing things we must have, and I think this window full of ferns or begonias will look pretty, both from the upstairs and downstairs hall. If possible I should like to have an open fireplace, two windows, and two hanging closets in every bedroom. But this cannot be contrived within our limits of space. However four of the seven rooms on the two upper floors will have fireplaces—two on each floor—and there must also be a bathroom on each floor. A small linen-room lighted by a window and fitted with drawers and cupboards will hold all my stores of house-linen. A housemaid's closet will find a place in an angle near the back stairs, and on the upper floor a closet over the linen-room will have rows of hooks all round it for hanging evening gowns, and a shelf for hat-boxes. One of the fireless rooms will serve as a trunk room, or a refuge for some of those superfluities which we are certain to bring with us in spite of the most rigid resolutions. Our furniture is mostly old-fashioned and some of it is still good enough to accompany us on our flitting. But one of the upstairs rooms, to be occupied by our student, has a recess which will accommodate a wonderful series of drawers and shelves—fixtures to the house—long shelves for coats, shallow drawers for shirts, a compartment entirely devoted to trousers, and boots and shoes in a cupboard to themselves, all to be closed behind doors. The house will be wired for the electric light, with brackets beside every bed, and I hope the day is not far off when I may begin to choose the carpets.

### CHARACTER IN PARK DESIGN.\*

There are so many gentlemen here to-night who have had much more experience and broader problems of municipal improvement to deal with, that it seems presumptuous on my part to attempt to say anything about Park Design which may be considered of any value, but I sincerely hope that something in my paper may give a clearer conception of Park Design to some, and also that a discussion may follow in which I may benefit from your experience.

Rather than attempt to cover the whole subject of Park Design, I thought it better to consider that important principal of all good designs, Individual Character. It seems to me that if there is one thing more than another which is always pleasing, it is to go through a Park with a strong individual character of its own, whose expression is varied and yet harmonious. That Park is certain to give the most pleasure and accomplish the most good for humanity, which

while it is designed to care for every practical necessity of the people still preserves a definite character of its own, varied in its expression. It has been demonstrated over and over again that public parks are not only great benefactors, but public necessities in all large cities. What would London do without her large Parks? What would New York do without her Central Park? People whose lives are lived among the bustle and strife of a large city require some place where they can rest after the days' exertion; mothers with little ones, whose life in the narrow tenements is ill-suited to fit them for life's battle; to all these what a boon are the public parks, where the air is at least more pure than in the street, and the children can romp on the grass or roam through the woods. But it is asked what has Park Design to do with all this? Is it necessary that a Park should be designed for such purposes. The constant familiar observation of surroundings cannot help but have some influence, especially upon the younger members of the community, and if these surroundings are untidy and careless, they must influence to a certain extent one's after life, while the same is true if one's surroundings are neat, beautiful and artistic. Aside from this, with a little care, it is as easy to see that our parks are designed in an artistic manner as in a careless slipshod way. And is it nothing that the tired business man, or the over-taxed mother can walk or drive or sit and rest in the Park, and feel soothed and rested by its quiet and beautiful scenes.

Parks are so different, both as to their natural conditions and the requirements of those who are to use them, it is impossible to follow any definite rules in preparing a design, but there are certain general principles which we can perhaps discuss to advantage. Taking it for granted that the land is already in possession of the City, and that we are not concerned with its selection, the first thing to be done is to study the proposed park and the locality so that we can bring sound judgment to bear as to the practical consideration involved by the use which must be made of the park so that it will prove most valuable to the citizen. After a thorough examination of the property, we shall probably find that it has some dominant natural characteristic features. Sometimes this character may be especially strong, as is the case with our own Mount Royal Park, while other parks may seem to possess no very strong character, but whether this is so or not, our first step after a thorough study of the problem should be to fix firmly in our minds the dominant character of the park, and if the park is large there may be several different features, but it is always best to have one more important than the others, with the others if possible leading up to it. This chief feature may be a mountain from which can be had extensive views, a beautiful wood, an open plain, extensive water, or it may even be supplied by history. With the chief character of our park decided upon, everything must be as far as possible subordinated to it, and made to accentuate it, making it more impressive and pleasing. The drives should be laid out so as to exhibit to the best advantage this chief feature, while at the same time they must be located so as to serve the best practical purposes of the park, and be of good grade. In like manner the planting, location and construction of shelters and other buildings, should be considered first of all as to their effect upon this dominant

\* A paper by Frederick G. Todd, Landscape Architect; read at the Convention of the American Municipal Society in Montreal.



character of the park. We in Montreal are all very proud of our Mount Royal Park, and I should like to use it as an illustration of what I have endeavored to explain to you. We are not troubled here as to what is the chief feature of the park. The park includes the whole of the top of Mount Royal and much of its side slopes, and I think I will not be disputed in saying that it is naturally one of the finest, if not the finest city park in America. Nothing we can do can change the dominant feature of the park, and yet there is just as much care necessary in treating this park to bring out its magnificent possibilities, as would be required to lay out a park on level ground, indeed, greater care is required, for there is always the temptation to make a show so that people will see that something is being done, whereas the most pleasing way would be to have everything done in such a way that one would suppose that nature herself was responsible. I think that you will all agree that the general design for Mount Royal Park is excellent. The drives being located in such a way that they ascend the mountain by incredibly easy grades, and at the same time exhibit the views from the various parts of the mountain to the best advantage. As time goes on, Nature will with what assistance is being given her cover some of the scars made in building the drives, while plans have already been asked for a Lookout and Café on the mountain to replace the present inharmonious structures. We might well spend the entire evening on Mount Royal alone, considering the design for the drives, how they were laid out by the late Mr. Olmstead, to take advantage of every view and finally culminate in that grand and impressive view to be had from the Lookout. How the Lookout could be best constructed to form an important part of our main feature, without intruding too much of its own personality. How the cutting of a few trees here and there would open up important vistas, and the planting of others would increase the beauty of the park. But it certainly would be questionable politeness on my part to devote so much time to our own park, and aside from this, there are a number of other parks which I want to just touch upon.

The Plains of Abraham at Quebec, which were set aside as a public park a short time ago, present an unusual opportunity of making a fine public park of great interest to the general public of not only the whole of Canada, but the United States as well. Nothing can prevent the magnificent views obtainable from these Plains from being the great characteristic feature of the Park, but the whole Park is so bound up in the History of this continent that the opportunity of designing the Park in such a way as to perpetuate this history, would seem to be much more interesting than to lay it out as an ordinary Park, with clumps of trees dotted about, and the whole cut up with walks and drives. Almost any town or city can have just as good flower beds and shrubs, just as well made walks and drives, as can be had on the Plains of Abraham, but few other places can command such magnificent views and to no other park can the history of the Plains of Abraham be given. Therefore it is not difficult to decide that we must provide drives and walks along the mighty precipice, (up which Wolfe scrambled with his army), in order that we may obtain the views, but as the chief pleasure of this Park will be derived from that portion of it along the precipice, the rest of the drive might well be confined to the borders of the Park,

leaving a vast military park in the centre. In the laying out of the Park and in the nomenclature used everything might be done with the object of perpetuating the valor of the two armies who struggled here for the control of the continent. In this Park flowers, trees and shrubs of all kinds must be considered as subordinate to the general design. Trees and shrubs there must be to give shade and to give form to the design, but they should only be used in such a manner as to make the design more effective, and not scattered over the Park.

Where water is present to a large extent in the Park, it is almost always pleasing to make this water a chief feature of the Park or at least that portion of the Park where the water occurs. There is a particularly good example of this in Boston in the Back Bay Fens. This land, formerly overflowed by every tide and alternating between a beautiful pond and an illflavored marsh, has been changed into a beautiful park by the building of a dam so that the water is retained at the same level. In this Park the water has been made use of to a very pleasing extent. The drives as well as the walks have all been laid out so as to make this waterscape as effective as possible from different points, and the planting further carries out this pleasing effect by a particularly pleasing skyline, which, as it is reflected into the water, becomes doubly important. The Kew Gardens in England, are remarkable for the beautiful manner in which the water views are treated, and this is mostly due to effective planting. Another Park which includes a great deal of water, and which promises to be the most beautiful waterway Park, is a Park situated at Stratford, Ont. The Park Board there has been unusually fortunate in securing the land along a wide stream from the centre of the City to an outlying Park a quarter of a mile distant. This stream of water is not large, but owing to a dam which is within the Park property, the width of the sheet of water varies from 150 feet to 600 feet, so that the drives along its edge should be very effective. In this Park the planting must be one of the chief features as upon the skyline with its corresponding reflections and the framing in of vistas, will depend much of the beauty of the Park.

In The West where the parks must necessarily be located upon the open prairie, and where at the best the open surface is only partly rolling, it is perhaps more difficult to decide upon the chief character of the Park, but in one example I have taken the open plain itself. The Park is of some three hundred acres in extent, and it seems to me that to endeavor to make this open plain more effective would be better than to attempt to obtain a park which would have for its chief feature the woods or any modification of the topography of the ground which could be made; but to render this plan the most pleasing some contrast was obviously necessary. Therefore I suggest an entrance directly into the large formal court which would have for its chief feature a water basin 600 ft in length. This court was entirely shut in from the rest of the Park by a formal circle, hidden again on the outside by an irregular planting of trees. Within this court everything was formal and flowering shrubs and flowers and bedding plants are intended to form a part of its decoration. The whole formal court is made perfectly level, and in doing this the far side is raised four or five feet above the surrounding Park, and by terracing up this



portion, it is made to appear even higher. The drive after encircling the formal court emerges on this terrace from which there is an unbroken view for the distance of about a mile to the far end of the Park where it terminates in border a plantation. Groups of trees are scattered in the foreground and at intervals over the Park in order to give scale and distance to the view. After leaving this formal terrace the drive encircles the Park, one branch following along the bank of the Assiniboine River, and through a thickly wooded portion of the Park, and returning at the other side of the park, skirting along the border plantation through groups of trees.

I have endeavored in these very sketchy notes of several different parks to point out how desirable it is that our different parks possess some individual characteristics which shall make them interesting for their own sake and not because they are similar to some others, and the great key to success in this is to allow ourselves to become so imbued with the love of nature in her most interesting phases that we shall unconsciously work in harmony with her in all we attempt to accomplish.

#### COMMON DEFECTS IN EXISTING BUILDINGS.

Aside from inadequate public fire protection, the fire record of a city and the danger of fire spreading from one building to another (the "exposure" or "conflagration" hazard), there are many defects in buildings, and other conditions which effect the chance of a serious loss, for which charges are made in underwriters' schedules. They are as follows:

- Side or bearing walls not of standard thickness.
- Party walls not of standard thickness.
- Walls not parapeted.
- Poor quality of brick.
- Poor quality of mortar.
- Iron fronts.
- Slate roofs.
- Shingle roofs.
- Mansard roofs.
- Concealed spaces in roofs.
- Floors not of standard thickness.
- Floor supports not standard.
- Combustible sheathing on walls.
- Combustible sheathings on ceilings.
- Excessive ground-floor area.
- Excessive height.
- Elevators not properly enclosed.
- Stairways not properly enclosed.
- Well holes, hatchways, etc., not properly trapped.
- Wooden chutes, dumb-waiters, ventilating shafts and other openings through floors.
- Skylights of excessive area with wooden frames and glazed with thin glass.
- Wooden cornices, wooden dormer windows, cupolas, monitor roofs, large wooden signs.
- Wooden awnings.
- Lighting by unapproved method.
- Heating by unapproved method.
- Chimneys of unsafe construction.
- Streets not paved or otherwise inaccessible.
- Streets of standard width.
- Overhead electrical wires strung in streets.
- Multiplicity of tenants.
- Age and repair of buildings.
- Wooden rears, extensions, etc., on brick buildings.
- Stone piers, stone columns, pillars, or brick piers with bond stones, carrying important weights.
- Unprotected iron columns.

#### FAULTS OF MANAGEMENT.

Besides structural defects which may make a building uninsurable there are faults of management (the

personal element) which also affect the chance of a serious loss, to wit:

- Stovepipes not properly arranged.
- Floor under stoves not protected.
- Bottom of elevator shaft used for store-room, coat closet, or lamp and oil closet.
- Swinging gas brackets.
- Untidiness as to rubbish, ashes, etc., especially in cellar.
- Packing material not in bins.
- Cracked or bulged walls, bond timber in walls, thin and worn floors, broken plastering exposing lathing, broken windows, especially on lower floors.
- Empty boxes, rubbish and barrels in rear yard or alley or in the recess for windows below grade, or in area or cellar openings under sidewalk gratings.
- Lights in show windows, open or unprotected, or electric bulbs covered with tissue paper or paper shades.
- Sawdust spittoons, or sawdust on floors, especially in drug and oil stores.
- Kerosene used on floors when sweeping.
- Wooden ash and waste cans.
- Woodwork exposed by furnaces.
- Fireplaces improperly built.
- Steampipes in contact with woodwork and other combustible material.
- Crowding of premises.
- Neglect of fire appliances.

Extract from article in *Insurance Engineering*.

#### PREVENTING FROST ON SHOW WINDOWS IN WINTER.

During winter weather many shop keepers experience more or less difficulty in keeping their show windows free from the ice that in low temperature tends to defeat the object of the display. No doubt all of the devices for keeping glass clear of ice, published from time to time in the journals, have received a fair test, with varying satisfaction. A writer in one of the foreign drug journals, apparently a druggist who has experienced the rigors of high latitudes, insists that none of the ordinary schemes are of much use, and that the only certain remedy for the opaque deposit of solid water is a double layer of glass with a sufficient air-space between. He states that applications of glycerine, alcohol, and other solutions are of no avail in extreme weather and that, in any case, they must be so frequently renewed that they become extremely troublesome. In the northern portions of Russia, where zero weather is sufficiently common, experience has taught the owners of show windows that the only effective protection is a three-inch air space between two panes of glass. The outer sash is rendered as nearly tight as possible by calking the chinks and pasting strips of paper over the crevices. The glass is then carefully cleaned and dried on a clear, mild day, and a second sash, fitted with the same care to prevent all circulation of air, is inserted about three inches within the first. The double panes are said to obstruct the view very little. The physical cause of the deposit of moisture and ice upon windows is the difference in temperature between the surface of the glass and the air bearing a relatively high proportion of moisture, which comes in contact with it. —*Scientific American*.

The Robert Simpson Company, of Toronto, has purchased a site in Montreal for the erection of a departmental store. The lot has a frontage of 220 feet on St. Catharine street.

THE VETERAN PAINTER in *The Painter and Decorator* says: I heard the other day of an architect who agreed to draw the plans of a new house for nothing for the sake of the advertisement the work would give him. The owner was fool enough to believe him, and then when bids were asked, the architect went to the carpenter and the mason, the plumber, the painter, and all the other mechanics, and told them how much to add for him. The owner thought the architect was working for glory, but he paid him \$2,500 just the same, where the regular five per cent. fee would have been \$1,000 or \$1,200. It is only another example of the truth that a man is a fool if he thinks he can get anything in this world for nothing.



## LIBRARY PLANNING.

By F. J. BURGOVNE, Librarian of the Lambeth Public Libraries.

During the last few years there has been great development in the art of library planning. The long series of gifts by Mr. Carnegie for library buildings has been the means of exciting the emulation of architects in all parts of this country and America, with the result that many plans have been evolved well worthy of consideration by committees about to erect libraries. At the same time it is hardly necessary to say that no model plan can be said to be the best. As long as sites vary in size, area, shape, and position, it will be manifestly impossible to point to any particular disposition of rooms as the best that could be adopted, and we can only consider the various types of plans which may be useful to meet the requirements of towns of various sizes, my observations being limited to the wants of libraries open free to the public, which for that reason have requirements differing from proprietary and college libraries, where the number of readers is limited. I will roughly divide public libraries for the purposes of this discussion into three classes: small, medium and large. Let us first consider the minimum accommodation which the small library may reasonably be expected to provide. It should have a place for the reading of newspapers and periodicals, and a lending department for the loan of books for home reading. The staff of such a library will be small, and will probably consist of two persons, a librarian and a youth. It is necessary, therefore, that the librarian's usual position shall be some place where he can readily supervise the whole building. The spot which experience has proved to be the best for his location is the issue desk or counter of the lending department. The plan of such a library is simple. It should consist of two rooms side by side, one used for lending library and the other for reading purposes. If the division is effected by a glass partition the supervision is easy. It is necessary to so arrange the lending department that it may be cut off entirely from the public, as in many small libraries the news-room will be open to the public at times when the lending library is closed. Buildings of the second class, which I have called "medium," are such as would be expected in towns or districts of 50,000 inhabitants or thereabouts. Here the staff will be somewhat larger, and the police duty which fell upon the librarian of the smaller library will probably be given to a porter, and so the necessity for supervision of the whole building by one person from a given point is not so pressing. The accommodation provided for the public will be similar to that of the small library, but on a larger scale, with the addition of a reference department. This is generally obtained by providing a room for the dual purposes of reading the higher-class magazines and reviews as well as the works of reference. The rooms should be on one floor, and the reference books should be shelved alongside those forming the lending department. This is necessary, as the stock of reference books will be small, and it will often be necessary to issue lending-library books for reading upon the premises. This is again the minimum accommodation, but in some places separate reading-rooms for women, and for children, are provided. Experience has proved that a separate room for women is quite unnecessary. The average woman prefers the company of a mere "mere man," and there is no doubt that the presence of women in the reading-rooms is on the whole conducive to order, and the better behaviour of the opposite sex. The provision of children's reading-rooms is now seen to be essential in all well-regulated libraries. Readers require catching when young, and the habit of reading requires training as much as other habits. Most of our libraries have collections of books suitable for children to borrow and read at home, but something more than this has been found to be necessary. A room for reading is used by many as a quiet place for the preparation of home lessons, but but in the main its purpose will be recreative. It is

necessary to provide shelving and form a collection of books distinct from those in the lending department. If the library income is so small as to preclude this being done, the room must be planned to adjoin the lending, as it is fatal to order for the attendant to be absent from it for any length of time. In planning such a room a separate entrance should be provided, preferably in a side street. In the larger towns, where it is expected that much use will be made of this department, it will be wise to provide separate rooms for the sexes, or a partition may be placed across at right angles to the attendant's desk. With regard to furniture, I am of opinion that tables and forms are a mistake and that it is best to provide separate desks, as is done in schools. It is useful also to have a lavatory handy, in order that the rule of "clean hands" may be rigidly enforced. I do not recommend that it should be freely open, but that it can be used if necessary. A little trouble taken to induce the habit of cleanliness may result in much lasting good, both to the reader and to the library books. In the third class—the larger municipal library—there must be provided all the accommodation sketched for the smaller libraries, but on a more liberal scale. This must be especially the case with the reference department, and very much more room must be provided both for its readers and for the shelving of its books. The reference library has, I think, suffered in the past from neglect, mainly because of the costly character of its books, and in the competition between it and the more popular lending library it has often had to go to the wall. I would plead for a more generous recognition of the good work done in this department. It must be remembered that the main work of the lending library is to provide recreation—a useful aim, but not the highest. The work of the reference library is study, and surely it is hardly necessary to ask that full facilities be provided therein for this purpose. In the older libraries of even large towns, the reference department is often housed in a room of insufficient size. It seems to have been regarded as a place where books too large for the lending library can be dumped, and in practice the chief use made of it was the perusal of directories and the thumbing of bound volumes of the illustrated papers. Of late years this feeling has to a large extent changed. It is seen that the only place for quiet reading which many thousand young fellows who live in shops or lodgings have is the reference department of the public library. This is especially the case in London and our larger cities. We have had a discussion this mornning on newsrooms, and heard strong opinions that they might well be discarded. If space has to be curtailed in any department, would it not be better for the community to give a young fellow room to learn, say, shorthand, than to give him an evening halfpenny paper, most of the "news" in which will be contradicted in the issue of the day after? I would suggest that in the ideal library the public portion of the reference library might well be divided into two. In one portion the dictionaries, encyclopædias, directories, &c., which are in constant demand might be used, and the other portion of the room could be practically reserved for the more studious reader. In providing accommodation for the student, attention should be given to his wants, and elbow room in abundance be given. The ideal provision is that of a separate table for each reader, so designed and placed as to shield him from the observation of other readers, and give a feeling of cosiness and privacy. This is by no means unnecessary, for many cannot properly work under the noisy conditions found in some libraries. Only last week a student feelingly told me that he could not study in a certain library, which has a lofty iron roof full of echoes. He stated that he felt much the same sensation as if he was sitting in a railway station, and so was incapable of concentrating attention upon his work. To provide separate tables, as suggested, for each student reader, a minimum of 20 square feet of floor space should be allowed; but for the ordinary reader 15 feet will be sufficient. With regard to the provision of lecture-

\*A paper read at Cambridge, England before the Librarian's Association.



halls in connection with libraries, I must frankly say that I am of opinion that they are not worth the expense of their building and upkeep. Providing them seems to me to be foreign to the purposes of the Libraries Acts, and it is folly to burden the already overloaded penny rate with their cost. In all public libraries the public rooms should be so planned as to allow of a maximum of natural light. Where light can only be obtained from side windows, no room should be more than 30 feet. in width, and if the street is narrow and high buildings obstruct the view, 20 ft. is quite wide enough. In the latter case a style of architecture should be adopted which allows of large square windows high up in the walls, and they should be glazed with large sheets of glass rather than with the art filigree work so often used, which obstructs 50 per cent. of the light. A simple experiment will show the importance of ample window space. If an opaque screen 7 ft. in height be placed over the upper portion of a window 8 ft. in height, and light be admitted to a room from the bottom portion only, it will be found that the quantity of light so obtained is only one-sixth that admitted from the same area of glass exposed when the screen is dropped and light is admitted through a foot of the top portion of the window. It is therefore most important not only to have the windows high, but to adopt a square shape as free from obstructive ornament as possible. Incidentally, this will help the ventilation, for the effect of windows slightly open near the ceiling of a crowded room is to freshen the air with a minimum of draught. The window-sills should be about 6 ft. from the floor, especially in newsrooms, to allow provisions of wall reading-stands, and to prevent idlers standing about looking into the streets. The best general arrangement of a newsroom is undoubtedly that of providing reading slopes for the popular papers around the wall, with tables occupying the centre of the room. This allows easy supervision. The rooms should be lofty. In my central library, which is visited by 2,000 people daily, they are 15 ft. 6 in., and I find that it is none too much. To calculate the accommodation which can be provided in a room of a given area, it may be mentioned that it requires 4 ft. of slope for each large daily paper. The minimum width of the table is 3 ft., if readers are to sit on both sides, and a minimum of 2 ft. must be allowed for each chair. The space between the tables should be at least 7 ft., and between the ends of the table and the edge of the newspaper slopes at least 6 ft. On these lines a room 50 ft. by 24 ft., with slopes on three sides will accommodate about 35 papers of mixed sizes and seat 40 persons. Counting each paper as one reader, this gives 16 ft. per reader of floor space. The same area, if arranged for tables only, without newspaper slopes, would allow a central gangway 6 ft. wide the length of the room and four tables, each 9 ft. long, on either side, with seats for 64 persons. This works out a superficial area of about 17 ft. per reader. The Fulham central library has a well-arranged reading room, 71 ft. by 35 ft., with a newspaper slope around its walls and tables in the centre. There are 42 papers on the slopes, and seats for 96 readers. The gangways are ample, and the floor space per reader is 18 ft. I have so far spoken entirely about the rooms used by the public; but the working requirements of the library also want due consideration. The librarian must have an office. In the smaller library this should be near the issue-desk of the lending library. In the larger libraries it would be better placed in conjunction with the reference department. It should be of considerable size, for in many cases it will be used for sub-committee meetings. Generally the room will be shelved for the reception of books on bibliography, catalogues, and other working tools of the librarian. In large libraries there should be a fire-proof strong-room on the same floor as the reference department, for storing rarities; rooms for storage of newspaper files and books withdrawn for binding. Space must also be provided for the entry and cataloguing of new books. Staff-mess-rooms are also necessary, and if the employees are of both sexes, suitable

lavatory arrangements for each. In any library which is likely to obtain valuable books, either by gift or purchase, a room should be provided with a north light in which copies of prints and plates may be made by photography, so as to obviate the necessity of valuable books being taken from the premises. This need cost but little; a room on top of the building 15 ft. by 10 ft., with a dark-room for changing plates being all that is necessary. Before planning a building the architect should obtain from the librarian a clear idea of the method of work to be employed in it. In a lending library there are three modes of issue; with an indicator, without an indicator, and allowing readers to select their own books from the shelves, usually termed the "open access" system. In each case the arrangement of the counters and shelving will be different. If an indicator is used, a counter not more than 2 ft. 9 in. in height is required, upon which it can be placed, and a good light is necessary on both sides. An indicator requires about 1 ft. 3 in. of counter space, for the display of each 1,000 numbers, and the counter should be long enough to take indicator for future additions, display case for new book, and an issue desk for each 10,000 volumes. In the larger libraries it will be best to break the indicator up into blocks of 2,000 or 3,000, and separate them by a show case or issue desk, so as to distribute the readers consulting it. The space allowed the public in front of the indicator is, in most libraries, too little. If a daily average issue of 500 volumes is expected, it should be large enough to comfortably accommodate 100 persons, the maximum number which may be expected to be present at one time on a busy Saturday night. If the issue is worked without an indicator, each person hands a list of books to the librarian, who selects what may be in, enters it up; and hands it over to the borrower. This method of issue is only practicable in small libraries, or where a large staff can be employed. A considerable amount of public space is necessary, but it need not be of the same shape as is necessary for the indicator system. For the "open access" system a small central inclosure for the attendant is necessary, placed at the entrance of the room, with inlet and exit gates. The bookcases of the lending library may, with the indicator system, be as near to each other as 3 ft. With the open access system a minimum of 6 ft. should be allowed. If the building is in a neighbourhood where it is likely to be thronged at certain hours even more space is necessary. With moderately large rooms it may be roughly calculated that eighteen books may be shelved to the square foot with the indicator system and fourteen per foot with the open access system; the bookcases being 7 ft. 6 in. in height, with nine shelves in each division. Very few lending libraries will require shelving for more than 25,000 volumes. In calculating the space required for reference library books, it must be remembered that they include folios and quartos, and require more space per volume than the lending department stock. An ordinary reference library store-room, with cases 3 ft. apart and 7 ft. 6 in. in height, may be calculated to shelve fourteen volumes to the square foot of floor space.

In the discussion which followed, Mr. Burgoyne's objection to a lecture room was criticized in a general way by more than one speaker. Mr. Alderman Stolterfoht (Liverpool Libraries Committee), who was the most definite, said that in Liverpool they had fully realized the value of lectures, and their new libraries always included large halls suitable for lectures. Thirty or forty lectures were delivered every year in each lecture-hall, and as many in other halls in the town. These lectures added largely to the work of the reference-room, because the subjects of lectures were illustrated with books, which were afterwards much in demand.

Mr. Charles Welch (Librarian Guildhall Library, London), said that such rooms, if let out to societies could be made self-supporting. In reply to a speaker who understood that Mr. Burgoyne's objection was not to the work of lecture rooms but to the expense of the



lectures, Mr. P. Cowell, (Chief librarian, Liverpool Public Libraries), said that at Liverpool £1000 was made out of the lecture-rooms last year.

#### THE REINFORCED CONCRETE ARCH.

While the peculiar advantages of reinforced concrete are most strikingly illustrated in beams and all members designed to resist a direct bending moment, such reinforcement also provides exactly that support the want of which constitutes the essential weakness of all masonry struts—columns or arch rings. The Engineer is too apt to forget that no compressive stress—other than that which can exist in a fluid—is possible in any solid without the co-existence of molecular tension in some direction. That is to say, provided the diagram of stress at a point is not a sphere, there must be tensile stress between the molecules in a plane at right angles to the maximum axis of the ellipsoid of compressive stress. This tensile stress is in many cases so small that ordinary masonry can easily be trusted to withstand it in spite of the objections which exist to even the smallest tensile stress in a brittle material. When, however, we consider struts which are narrow in one dimension—as arch rings, or narrow in two—as columns, this tensile stress becomes enormously more important. To this add the direct bending stress imposed by accidental deviation of load from the true axis of form or to casual differences in strain due to want of homogeneity in our material, and the excessive thickness formerly considered necessary in masonry arch rings and long pillars is readily explicable.

The transverse and radial reinforcements in a concrete arch, providing for the conjugate tensile stress enable us to load our material to its safe limit of resistance for direct compression. The longitudinal reinforcement provides strength to resist direct bending moment and thereby enables us to enormously reduce the thickness of our arch ring. In designing any ordinary arch the Engineer is not concerned with a single "line of pressure;" it is the envelope of all lines of pressure due to all possible fluctuations in the instantaneous line of pressure due to moving loads, strains and settlements, which must form the basis of his calculation. This envelope is a broad band—under some circumstances a very broad band—which in ordinary masonry must lie within the middle third of the arch ring. With properly reinforced concrete, however, there is no such limitation: this band may if necessary exceed the thickness of the arch ring provided the bending moment so introduced is not objectionable in amount. We can therefore reduce the section of our strut to little more than that necessary to resist the direct compressive stress.—*Extract from article in Indian Engineering.*

#### LABOR AND THE OPEN SHOP.

(By the Wilmington, Del., Association.)

The open shop is a new name for an institution. The new name is the result of the changed attitude of labor in part toward the shop. For years it was understood that the chief conditions of employment were skill and character, conditions so evidently just as to be almost everywhere regarded sufficient and satisfactory. When organized labor began to assert itself, under the guidance of an unwise and often arrogant leadership, it ignored the old conditions of service as insufficient and added new ones, some of which were so foreign to a right conception of just human relationships and human rights as to compel protests from self-respecting men among both employers and employees.

Among the conditions of service presented by organized labor and insisted on with greater or less urgency until the present time are: First the right to control the shop. This assumed right of control covers the superintendency, allotment of work, apprenticeship, compensation, class of workmen and other details vital to the existence of the shop. Second, the right to

establish a system of espionage to be accompanied by reports of any and all violation of rules of organization. Third, right to interview and call to account the employer for any violation of the rules of organization. Fourth, right to exclude all, whatever their qualifications, who refuse to indentify themselves with organized labor. Under such conditions as these organized labor proposes to enter and stay in the shop. Any shop failing to accept the conditions becomes closed to organization: any shop accepting the conditions becomes closed to all labor outside of organization.

The open shop is the protest of American manhood against an intolerant, tyrannical and unjust attitude of organized labor as dictated by its leaders. The open shop has no complaint against rightful organization for rightful ends. It has no voice against unionism in itself. Its protest is against that position which arrogates for itself all rights and denies any right for others. The open shop stands for liberty and not for license. It will not listen to the cry of labor simply because it wears the badge of organization, though placed there by thousands of hands, and though its claims be vociferated by thousands of throats. It will answer the cry of labor wherever it comes with the badge and in the spirit of true manhood. In thus bearing itself the open shop opens the way for manly worth without distinction of class to carry to the home the food and the raiment and the other essentials which every home has an equal right to expect and receive.

Organized labor under its present policy offers no compensation for any losses which its arbitrary rules entail; it takes no share in the added cares and responsibilities which are the outcome of its policy; it puts its grip upon the shop and holds on until its paralyzing grasp is felt in every department. When its burdensome presence can no longer be tolerated and an outraged and indignant ownership asserts the fact it perforce departs to swell the ranks of oppressors elsewhere, exulting in the wake of ruin or loss which it has left behind, or lacking other recourse, remains to spy out and harass those who seek to rebuild and restore upon just lines.

Is therefore in harmony with the dictates of justice and humanity that the open shop should exist, and the conflict for the principle upon which it stands should never cease while the imperishable truth that God has made all men free and equal remains to nerve human wills and inspire human hearts.—*The Western Architect.*

#### FIRE CLAY IN NOVA SCOTIA.

The manufacture of fire brick from native clay will be started on a large scale in Nova Scotia. At present large quantities are imported almost monthly by the large steel companies in Cape Breton, New Glasgow and other industrial centres, the bricks coming mostly from England.

About a year ago a deposit of fire clay was struck in the Drummond Colliery at Westville, owned by the Intercolonial Coal Co. An experimental plant was in stalled and a test of the Drummond fire brick has been made at the steel plant at Sydney, and it is stated that the home-made bricks served the purpose fully as well as the imported ones. Further test is to be made in one of the open-hearth furnaces, and hopes are high that a brick to stand any required heat can be produced at Westville. Often has the wish been expressed that there was fire clay in Nova Scotia suitable for making firebrick. It looks now as if the problem is about to be solved. It is the intention of the management of the Inter-colonial Coal Co. to erect two kilns of a capacity of 80,000 bricks each per month. This will be the only plant east of Quebec.

Mr. Harry Weiner, of Montreal, is erecting a tenement to shelter 116 families, providing them each with from five to six rooms, electrically lighted, and fitted with bath room and modern conveniences. Flats rent for \$14, \$15 and \$16 per month. The tenement, when complete, is to cost \$125,000. It is to be three storeys in height, enclosing three sides of a square.



## MONTREAL NOTES.

At the Convention of the American Society of Municipal Improvement held in Montreal, during the first week of September, one of the speakers, Mr. F. W. Fitzpatrick of Washington, D.C., dealt with the subject of town buildings and the means by which the standard of these may be improved. After dwelling on the importance of fireproof buildings, more especially within prescribed city areas, and on the necessity, of limiting the height of city buildings, Mr. Fitzpatrick concluded by some suggestions as to the taxation of properties. It was his idea that taxes ought be proportioned to the quality of the buildings, but in inverse ratio rather than according to the present system of taxing buildings in direct proportion to their values. Could such a system be put in practice, it would obviously give great encouragement to the erection of sound and beautiful buildings; but a more obviously just and less drastic method of attaining this end, along similar lines, has long been advocated, and at the present day its advocates are probably rather less sanguine of its speedy adoption than they were at the time the idea was originally promulgated.

The idea referred to is simply that of Mr. Henry George and his followers, the single tax men, whose proposal was to wipe out the whole complicated system of municipal taxes and substitute therefor a single tax on the land, graduated according to the value each portion had acquired from the fact of its more or less advantageous position in relation to the community in which it was located. Thus wherever land in a city was valuable it would be so highly taxed that it would pay to hold it only by placing something upon it which would make it earn enough to meet these taxes. We should not then see vacant and slovenly properties standing about and idly earning large incomes for their holders. Nothing could be more simple or more just, or tend more to the benefit of a city in an architectural sense or to the business interests of its inhabitants; but unfortunately, like many other fragments of ideal justice, it is difficult of realization, and, like many other dreams for the attainment of a high standard of public life, the public interests are here again blocked by a whole phalanx of private interests. So long as men are, as at present, taxed for improving their property they will be glad to hear of any scheme for terminating such a gross injustice,

Architects will have no difficulty in endorsing Mr. Fitzpatrick's dictum that the buildings are the town whilst the streets and parks are merely adjuncts. Yet even from the architects point of view these adjuncts are of much immediate importance. Location is a prime consideration in the matter of architectural effect, and the difficulty in obtaining fair play for the architectural effect of our streets was emphasized lately when the Road Committee raised the question as to the possibility of abating the telegraph and telephone pole nuisance. This nuisance is going to an exasperating extreme. Our streets are getting to resemble forests of dead trees, and there is hardly a building in the city which one can see otherwise than through a screen of wires. As various companies claim the right to erect their poles and wires without the direct sanction of the city, it was resolved to get an opinion from the City Attorney. The opinion was, in effect, "that these companies have the right to use the streets of the city to

erect their poles therein, but the city, by means of the Council, is authorized to superintend the work of erecting the poles." Considering this opinion and the influence which the companies have in high places, it seems as if the end was not yet; and we must walk around and see the posts multiply and replenish the sky without any man to hinder. The removal of this nuisance alone would raise our untidy city ten per cent. in the estimation of visitors; these visitors who, in spite of all our sins as a city, seem to love us still; for the stranger within our gates is very much in evidence during the fall of the year.

The objects which receive the chief attention of visitors to Montreal are, first of all, our mountain which is all glorious at all times; secondly, a number of churches filled with cheap and tawdry show; and, thirdly, our antiquities and old associations, which very few of ourselves seem to care very much about. There is at present on foot a proposal which we fear will involve the loss or serious detriment of one of our interesting old buildings—the Inland Revenue Building. With a view to constructing an addition to this quaint old building, the Government is wishing to purchase a portion of the square in front of it from the City but, this ground being a public park, it is under consideration whether the City has the right to cede any part of it for building purposes. We hope not, for the building with its little square, though all comprised in a very small area and without great pretensions, makes a pleasant little spot in an otherwise unlovely locality.

There surely can hardly be two opinions with regard to a city of the extent and wealth of Montreal that it should have public buildings and public collections such as one might be proud to show to its visitors and which would be an education and a delight to its own people. There exist the little Art Gallery in the corner of Philip Square—a small Natural History Museum in University street and the Chateau de Ramezay to represent what might and ought to be, each one, a great institution, thronged with people eager to get and able to obtain information and education on a hundred subjects.

A Public Library is in reality more essential than a public prison, and would prove in every way more profitable. Its existence would be a powerful influence in reducing the necessity for the other. Prevention is better than cure. These ideas like the single tax scheme, are dreams, but they are dreams which, in most cities with which Montreal presumes to compare herself, have already advanced farther towards realization, and we shall hope that, as Montreal advances in wealth, she will advance in culture and civilization as well.

CONCORDIA SALUS.

## BOOKS.

We have received a copy of the YEAR BOOK for 1905 of the COLUMBIA UNIVERSITY SCHOOL OF ARCHITECTURE published by THE ARCHITECTURAL SOCIETY. It is full of drawings which are of course excellent as drawings, but they exhibit also an apparent facility and certainty in academic design which promises that a student who fulfils this course will have at least culture, and bring to his practical work a knowledge of the nature of architectural problems and of architectural language. There are other ways in which a young man can fit himself for an architectural career and it is probably he



who relies most on his college training, expecting it to frank him through, that should take one of the other rough and ready ways; but for the independent mind, which will in any case produce something better than its food, it is a thousand pities that it should not get the best food, and that, there is no doubt, is the academic training.

#### BOOKKEEPING FROM A MASTER PAINTER'S STANDPOINT.\*

No one will dispute the importance of keeping books of record in any line of business, no matter how small or large, as without some system of bookkeeping how can a business man get at his true financial position from time to time.

In many lines of business it is possible for the head of the concern to tell at the close of each day just where he stands, and while perhaps this would not be possible in the painting business without an enormous amount of clerical work, yet it is of the utmost importance that an accurate account should be kept of the cost of each job, no matter how small, as a guide for future work, as it often happens that the same work is done again at some future date.

It is just possible that a mistake may have been made in figuring up an estimate for work, and unless strict account is kept of the wages and material, it is impossible to form any idea of what the work cost to do, or to detect an error in figuring if any has been made.

This now suggests to us what might be called two of the most important books an up-to-date painter should keep, viz., a wages book to enter the wages paid each workman on a certain job, and a material book in which should be charged every gallon or pound of material used on the same job.

Suppose a Master Painter who does a fair business and has two good sized jobs on hand at the same time; the one yields him a good profit, and the other proves a losing game. So his business goes on and at the end of the year if he has a credit balance in the bank he thinks that while his profit is not quite as much as he expected, considering the amount of business done, yet his work all paid. Then perhaps after a while he is asked by his customer to do one of his losing jobs again, the same amount of work for the same price as previously charged. He does the work again, thereby sustaining a second loss. Now, how much more satisfactory and profitable it would have been for this man if he had kept these two little, but very important books.

Now there are Master Painters who believe that when these books are properly kept, and the wages and material on a job are added together, these two items represent the cost, and they deduct this from the amount of the contract and consider the balance net profit.

Of course this is wrong, as the cost of conducting a business such as rent, cartage, office help, insurance, heating, lighting, etc., must all be considered and form part of the cost just as much as wages and material.

I have heard of a case where two men went into business with a capital of say five hundred dollars (\$500.00). They got along very well together, both working at their trade. When they had finished two or three jobs and collected the money, they charged up what they thought the correct amount for wages and material used, and as they happened to have some six hundred and fifty dollars in the bank, they came to the conclusion that this was profit and promptly divided the one hundred and fifty dollars (\$150), leaving the original capital intact. This went along for some time and everything was lovely, but a time came when business became very quiet; they then had time to collect all their outstanding accounts and also had the privilege of paying their bills. The result was considerably less than the original capital of five hundred

dollars (\$500.00). This led to a row and a dissolution of partnership. To this day each believes the other to be a thief, and all because proper wage, material, and cost books were not kept.

The amount or percentage to be added to wages and material to cover the cost of these uncontrollable expenses varies from 10 to 25 per cent. according to conditions and the amount of business done, but every man should find out just what percentage he must add.

There is one feature in connection with the average Master Painter's bookkeeping that is sadly neglected, and that is the rendering of accounts promptly for work done. More especially is this the case if business is brisk, as the boss devotes the bulk of his time to looking after his men and the work he has in hand.

All he thinks about is to collect enough money to pay his wages, and when things slacken off he will spend some time measuring up work done months ago, and perhaps when the bills are sent out he has omitted charging part of the work on account of trying to carry all these matters in his mind instead of measuring and charging up the work as soon as it is finished, or within a reasonable time.

Many a man has lost business just through this very thing, as customers expect a painter to render his account as soon as the work is completed, and if, as is the case very often, they have to wait six or seven months after asking repeatedly for an account, the next job may go to some one else, or matters may be reversed and the painter may have to wait six or seven months for his money.

Now as to the different books that should be found in a painter's office. This, of course, depends largely on the size of the business and the conditions surrounding it, but such books as the ledger, cash book, day book, letter book, and time book, and the two very necessary books before mentioned, viz., the wages book and material book, combined with any others that may be considered necessary, should be found in every progressive and well-conducted painting and decorating business, and when a contract is started an account should be opened in the material book and all material sent from time to time charged against the contract as it leaves the shop. Then a similar account should be opened in the wages book and after each pay day, whether it be weekly or fortnightly, the time should be taken from the time sheets and charged against the proper contract. Then when any particular piece of work is completed, and all materials brought back are credited, a very few minutes will serve to show, by adding together wages and material plus the percentage for running expenses, just what profit or loss there is in each job.

I know of a Master Painter who disliked very much the idea of keeping a set of books. His system was to charge up his work and keep all his accounts in a small note book carried in his pocket, and his boast was that if he was asked on the street by a customer what the amount of his account was, he could tell in a few seconds; but it so happened that one day our friend lost his note book and it was never found, and to this day that man does not know how much he is out by the loss of his note book, but he lost no time in adopting a simple method of book-keeping to prevent a repetition of what had happened.

We all realize that the conditions governing the painting trade are so different that what would suit one would not be applicable to the other, but the point to bear in mind is the importance of keeping your books in an intelligent manner, having everything in such shape that if anything should happen to yourself some one else could take them up without fear of financial loss through work not having been charged up.

FRANK H. McCAUSLAND.

It is usual now to establish the refrigerator on the ground floor not far from the kitchen. As long as there is sufficient ice, food will keep even in a warm place. But it must be remembered that the ice will not. The size of the ice bill varies inversely as the distance of the ice-box from warmth.

\* A paper by Mr. Frank H. McCausland at the Convention of Master Painters at Hamilton, July 26.



A distinctly new line has been taken in engineering organization by the authorities who are conducting the operations on the U.S. Panama Canal. There is no doubt that a condition of affairs approaching actual insubordination has been prevailing among the employes, more especially among the large number of young engineers and artizans who have been attracted to the spot from the United States; and who, in the words of a writer in the (U.S.) *Engineering Record*, "did not find any of the famed luxuries of tropical life waiting for their enjoyment." They discovered, on the other hand, that the conditions of their position imposed on them long stretches of arduous labor, without the opportunity of any relief from those relaxations or amusements to which they had been accustomed. Many in consequence abandoned an employment carried on under such forbidding circumstances and returned to their own country, where the accounts they delivered of their experience were not of a nature to encourage the advent of new adventurers to fill their place. The Panama Canal Commission have, therefore, given their serious consideration to the maintenance of a steady supply of supervision and labour, and to that end have appointed what they term a "Welfare" specialist, whose duty it will be to devise means and opportunities for the amusement and recreation of the hands engaged on the canal. The step seems to be a judicious one; and the work in tactful and sympathetic hands should do much to develop and maintain that morale which is an absolute necessity to the success of an undertaking so formidable to life and habits as the construction of a huge waterway across the miasmatic isthmus of Panama.—*Times Engineering Supplement*.

In New York City it is said that the craze for erecting apartment buildings in the various grades is subsiding. Instead there is a revival of the erection of individual dwellings. So far this year there have been filed with the bureau of buildings plans for dwellings aggregating a greater financial outlay than all the dwelling plans filed in 1904. An examination of the building records shows that the turning point from dwellings to apartment houses came in 1899, and steadily increased up to and including 1903, remaining stationary in 1904, and decreasing in favor of dwellings again in the current year. Through July first plans had been filed in Manhattan for dwellings worth more than \$3,000,000, which exceeded by \$1,000,000 the total values of dwelling plans filed in 1904. Real estate men be-

gan to notice the change last fall. Persons of wealth who had closed their homes and caught the family hotel idea began to reopen their dwellings, and families returning from country places took up the same movement, which has been gaining strength ever since. Builders now are becoming wary of farther apartment hotel operations, and even the construction of flat houses is going on more slowly. It is the opinion of many interested in investments that the apartment house, except it be of exceptional worth and large size, is something of a delusion and a snare. The deadly parallel is being drawn upon buildings which were erected several years ago with an alluring array of figures drawn in advance of their completion as to their possibilities and probabilities of earnings.

Who of us has not, at one time or another, seen the effect of a harmonious color scheme ruined by the introduction of violent contrasts and jarring tones and shades? The following notice, which was affixed at the entrance of an exhibition of modern paintings in Germany recently, has been quoted by a contemporary in a humorous vein. Does it not, however, mark a decided step in the right direction.

TAKE NOTICE!

In order that the effect of the pictures may not be totally lost, or at least partially impaired, by the loud and glaring colors of ladies' dresses, the managers have decided to issue the following regulations:—

"The galleries are only open to visitors dressed in white, black, or violet. Grey has the privilege of being admitted at a reduced entrance fee. Violet is admitted free of charge. Persons wearing the national costumes are refused admission."

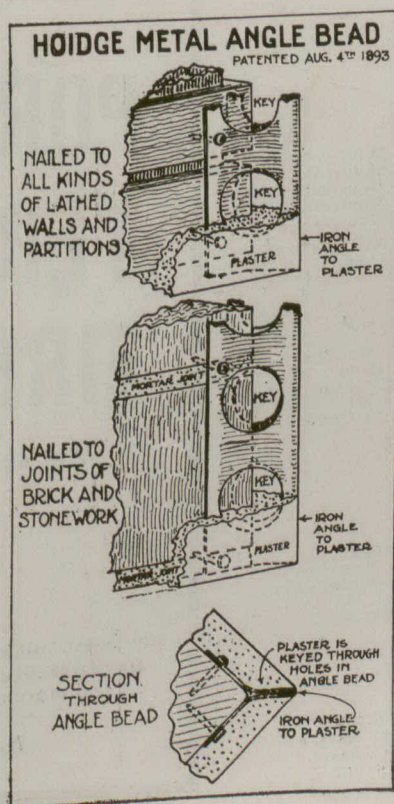
"The public are requested to observe the above rules in the interests of art and artists, be particular to appear in violet.—THE MANAGERS"

*The Cabinet Maker and House Furnisher.*

The general character of a small town in Ontario is very pleasing. The trees are generally well grown now and there are plenty of them, usually too many. The introduction of granolithic sidewalks to take the place of the old wooden walks is a great improvement, giving an appearance of neatness and solidity that the wood never did. The small houses are satisfactory. It is the more ambitious people who get Shoppell's or some one else's cheap houses who work against the beauty of the town.

While the general death rate of New York has gone down 25 per cent. in the last twenty years, there are some diseases on the increase. Acute respiratory diseases, are so marked that a "Pneumonia Commission" has been appointed to find out the cause which it is generally suspected is bad air in street cars and office buildings.

There are yet many openings in Canada for manufacturing industries whose raw material is timber. A gentleman was recently in Toronto exploiting the market for wooden columns, although he was already aware that there existed in this country no small demand for these goods. He represented an American firm which had been importing Canadian lumber and consequently paying a duty thereon of two dollars per thousand feet, manufacturing the lumber into columns, and shipping some of the columns into Canada, subject, of course, to a duty of twenty-five per cent. These columns are made largely from clear pine costing sometimes as much as one hundred dollars per thousand feet. Recognizing the advantages which a home factory would possess in supplying the Canadian trade, this gentleman was looking around for a suitable location. The duties on the lumber and the finished article alone represent a very acceptable profit, not to speak of the increased business which would likely be thus secured.



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(With a Weekly Intermediate Edition—The CANADIAN CONTRACT RECORD).  
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Mr. Paul M. Clemens, architect, of Winnipeg, was married  
recently to Miss Laufey G. Goodman, of Winnipeg.

Mr. A. Knieling, architect, who was formerly with Messrs.  
Parr & Fee, Vancouver, has recently started business for  
himself in that city. Mr. Knieling is German by birth, and it  
was in the Fatherland that he studied architecture. Coming to  
New York he pursued his profession there for a short time, prior  
to his arrival in the Terminal City, where he has been for the  
past three years. His offices are located in the Molsons Bank  
Building, Vancouver.

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of David B. Dick of Toronto.

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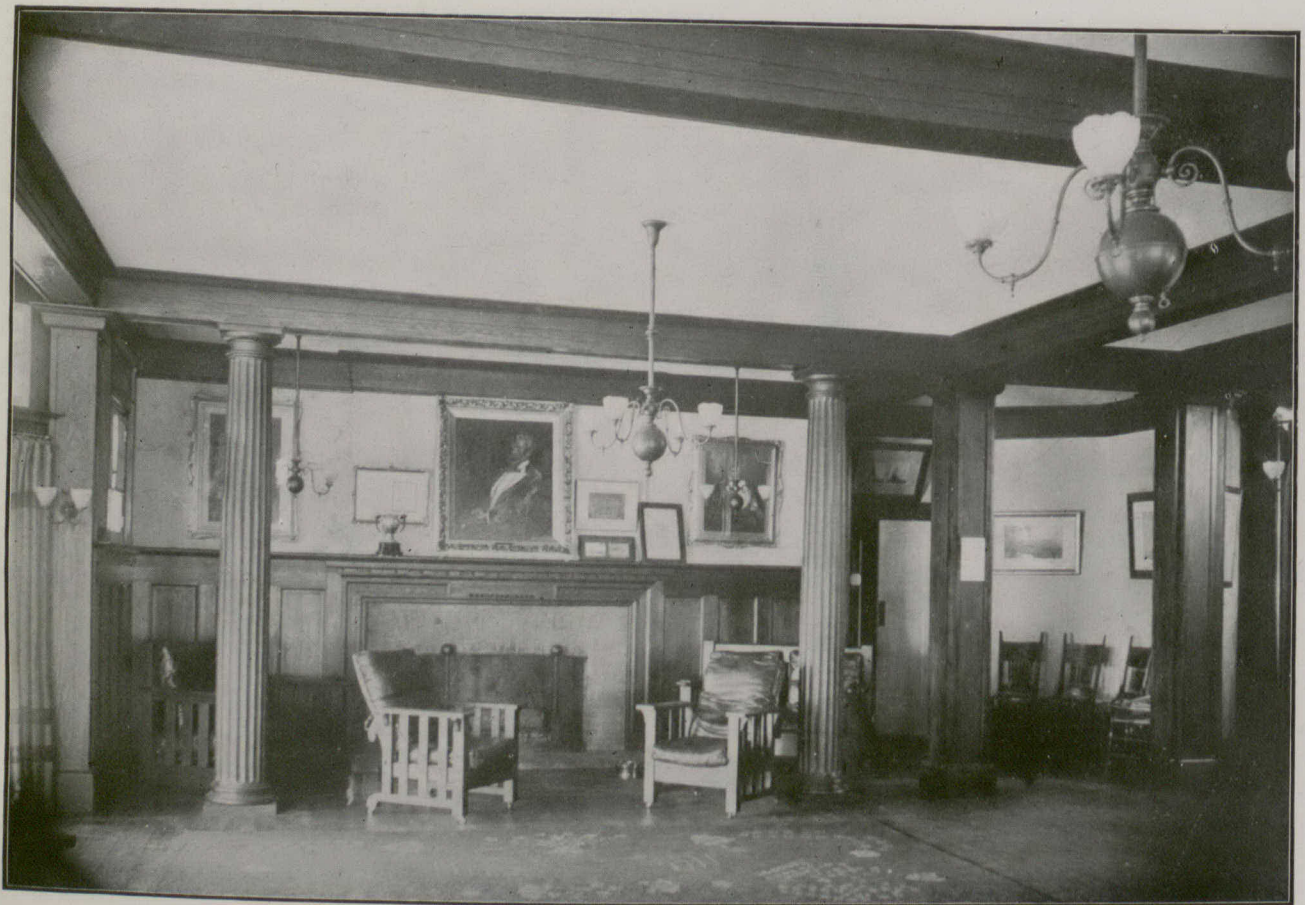
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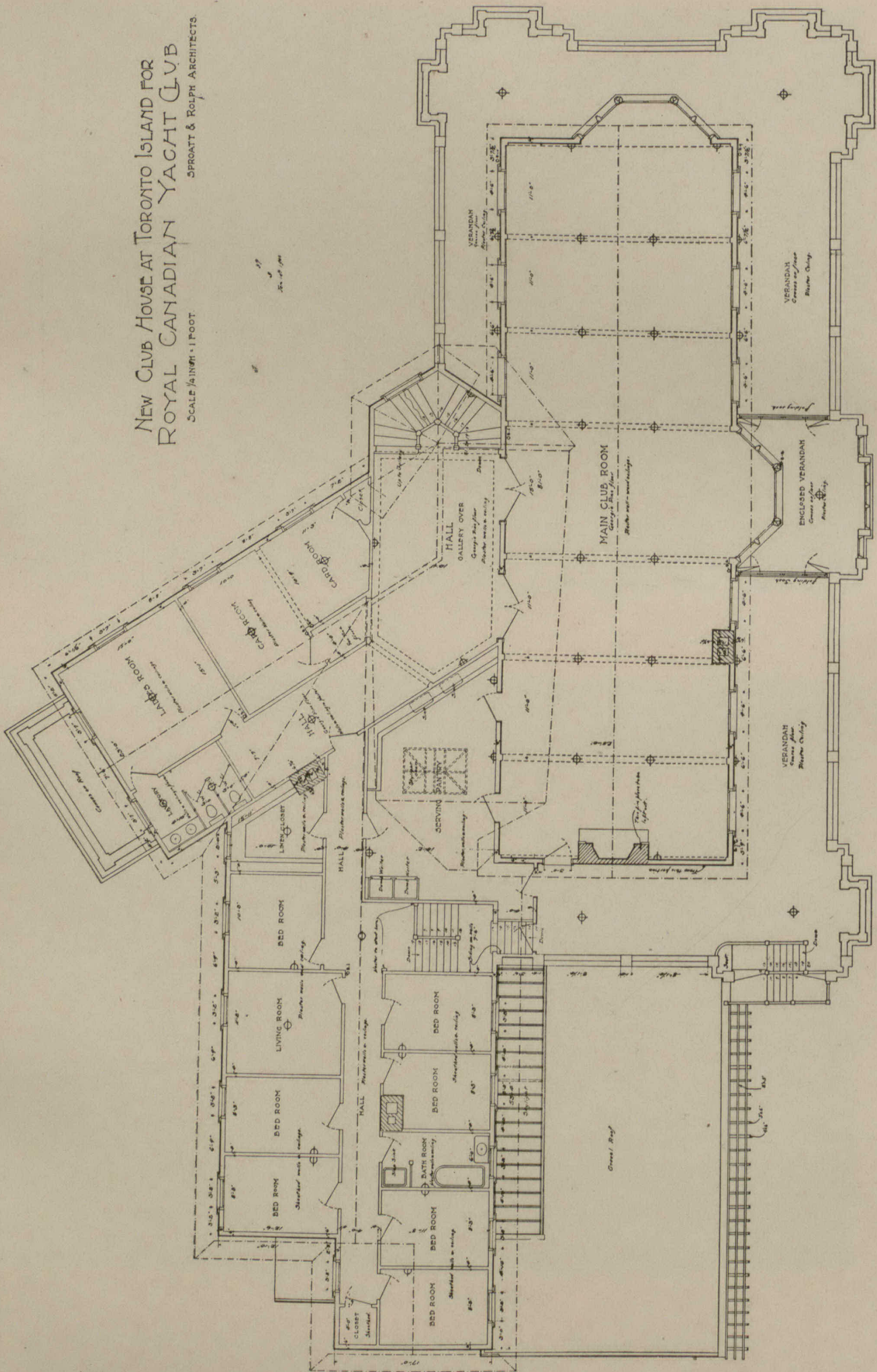


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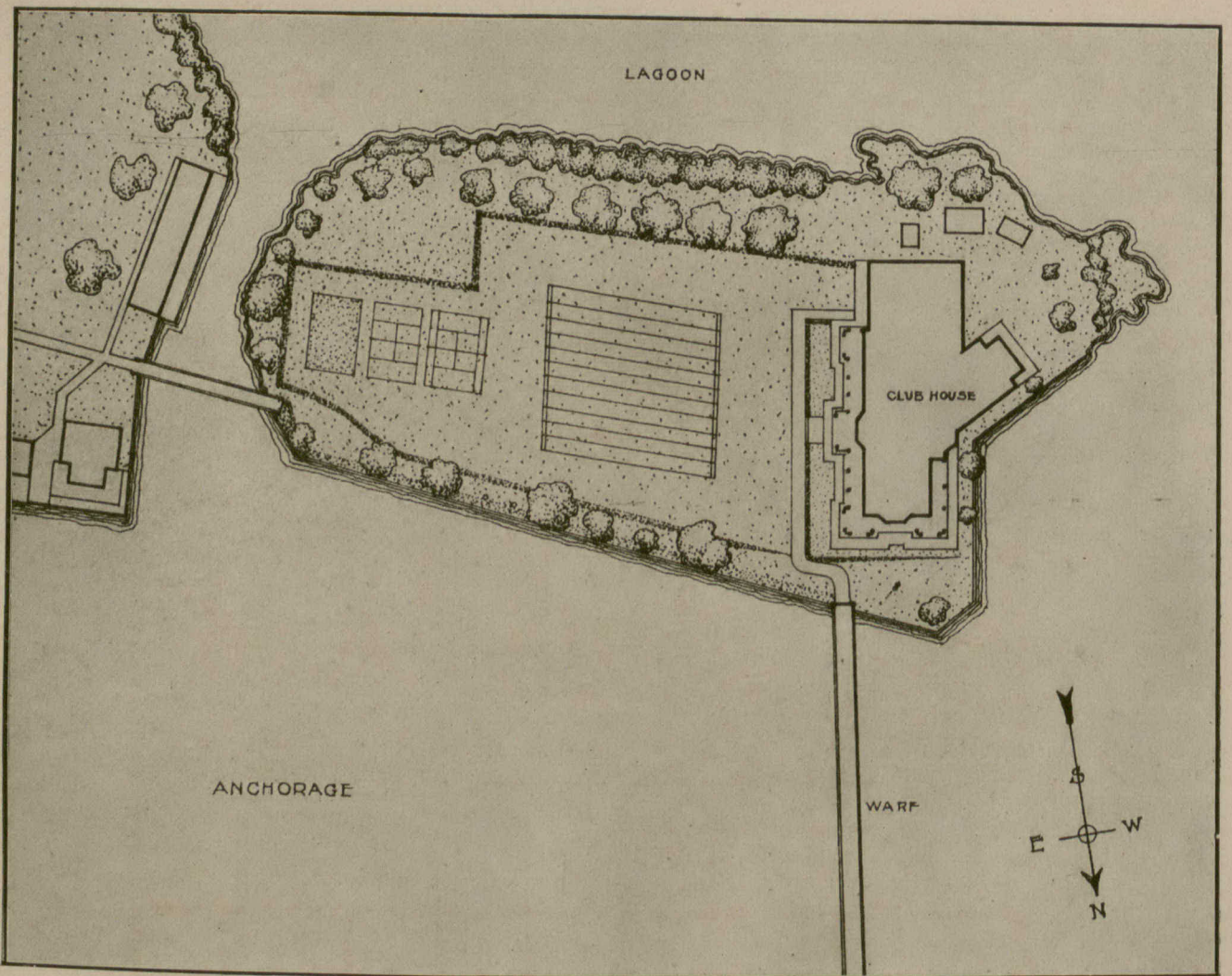


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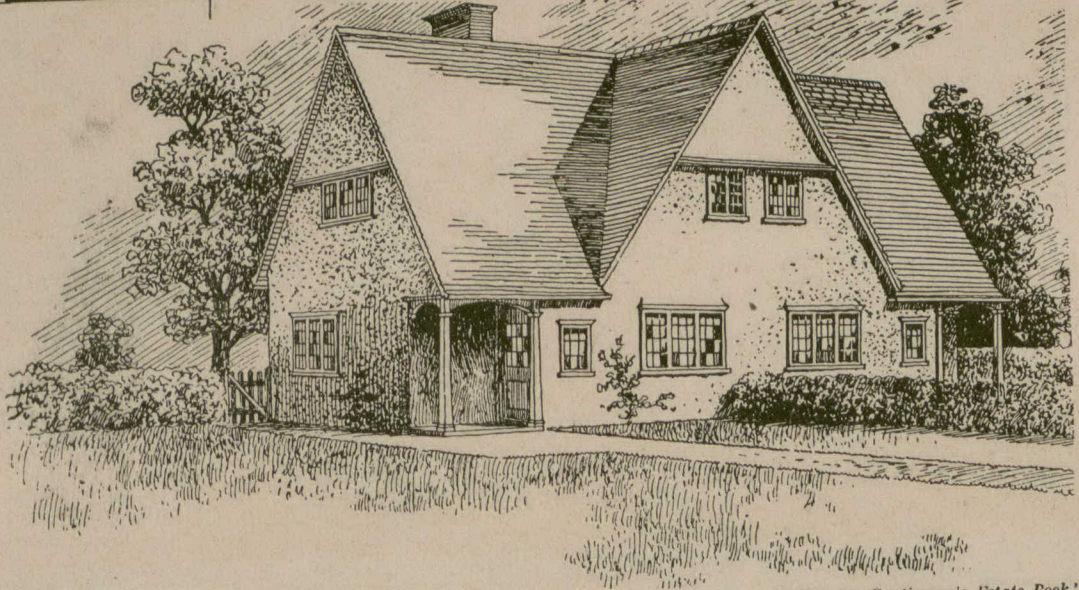
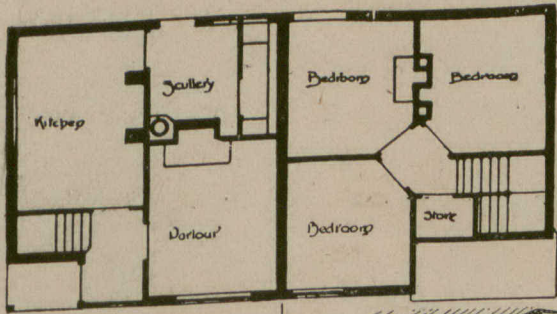
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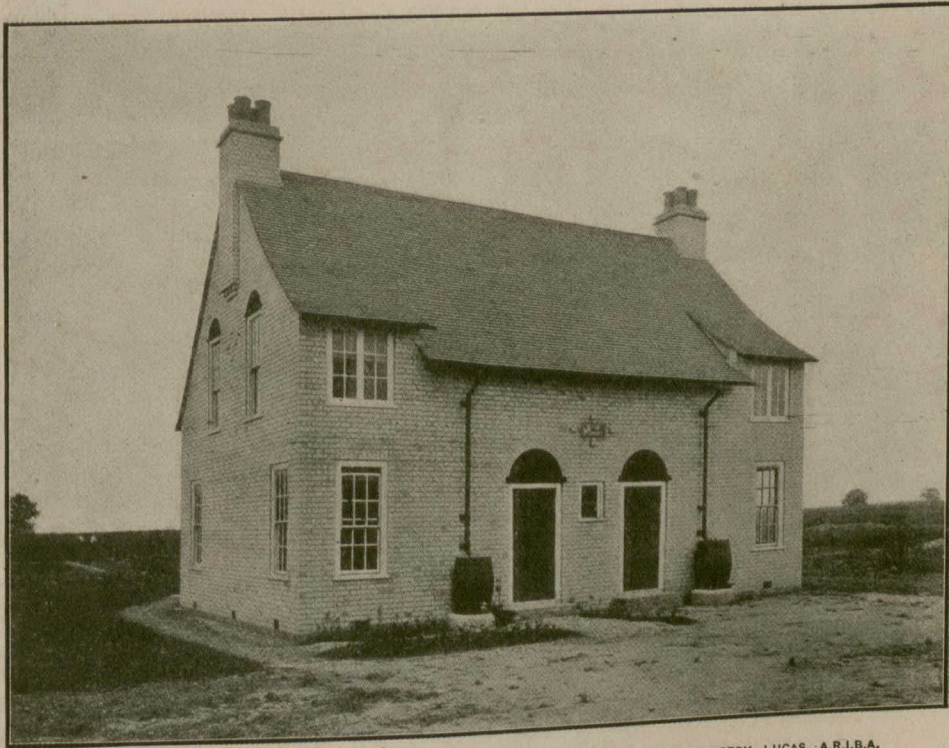


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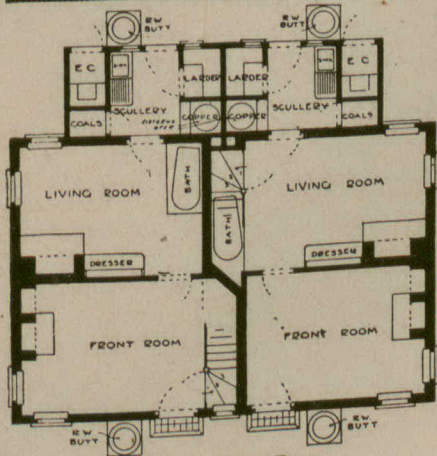
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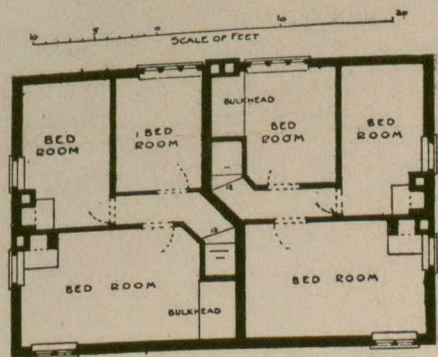
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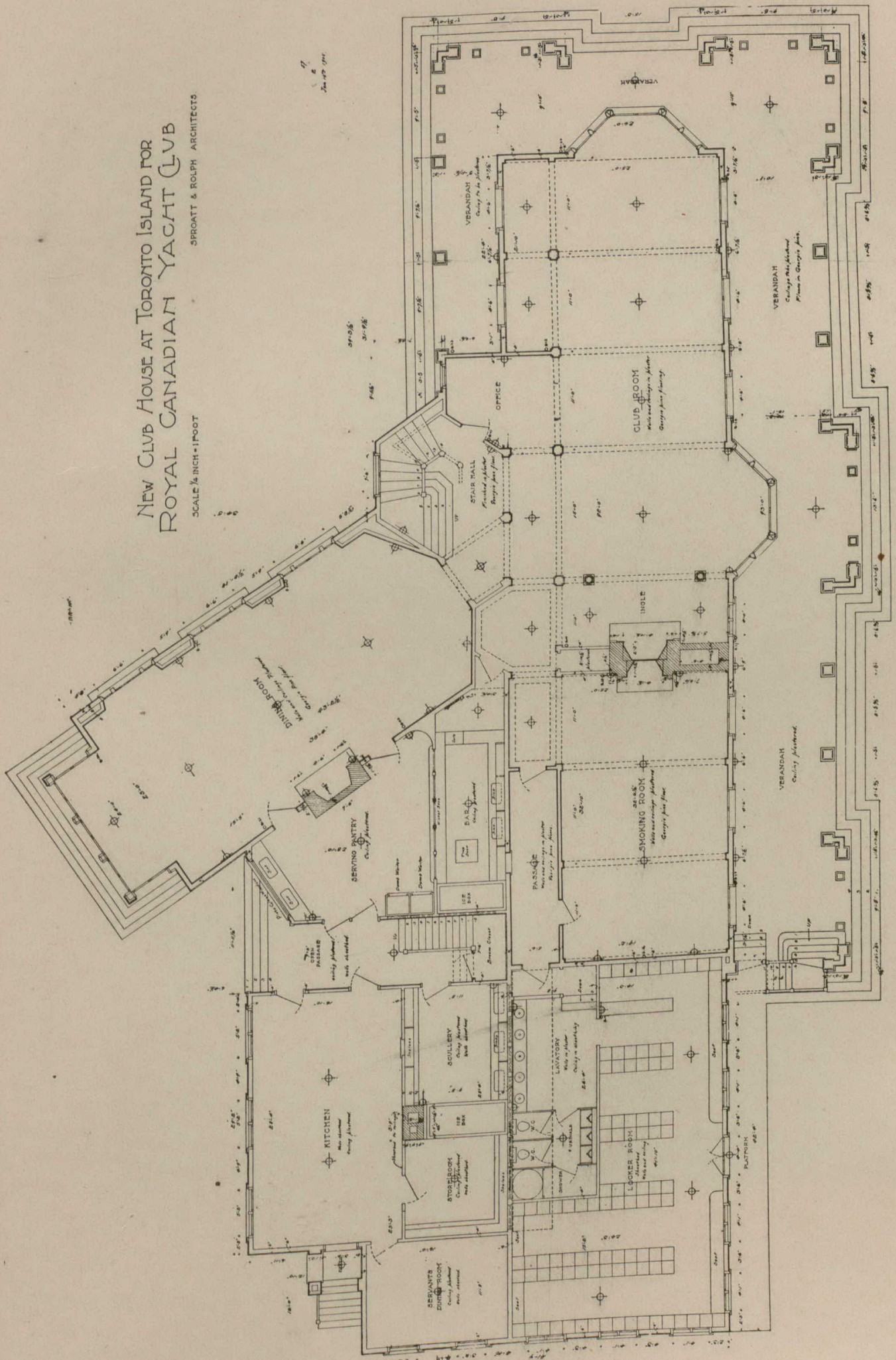
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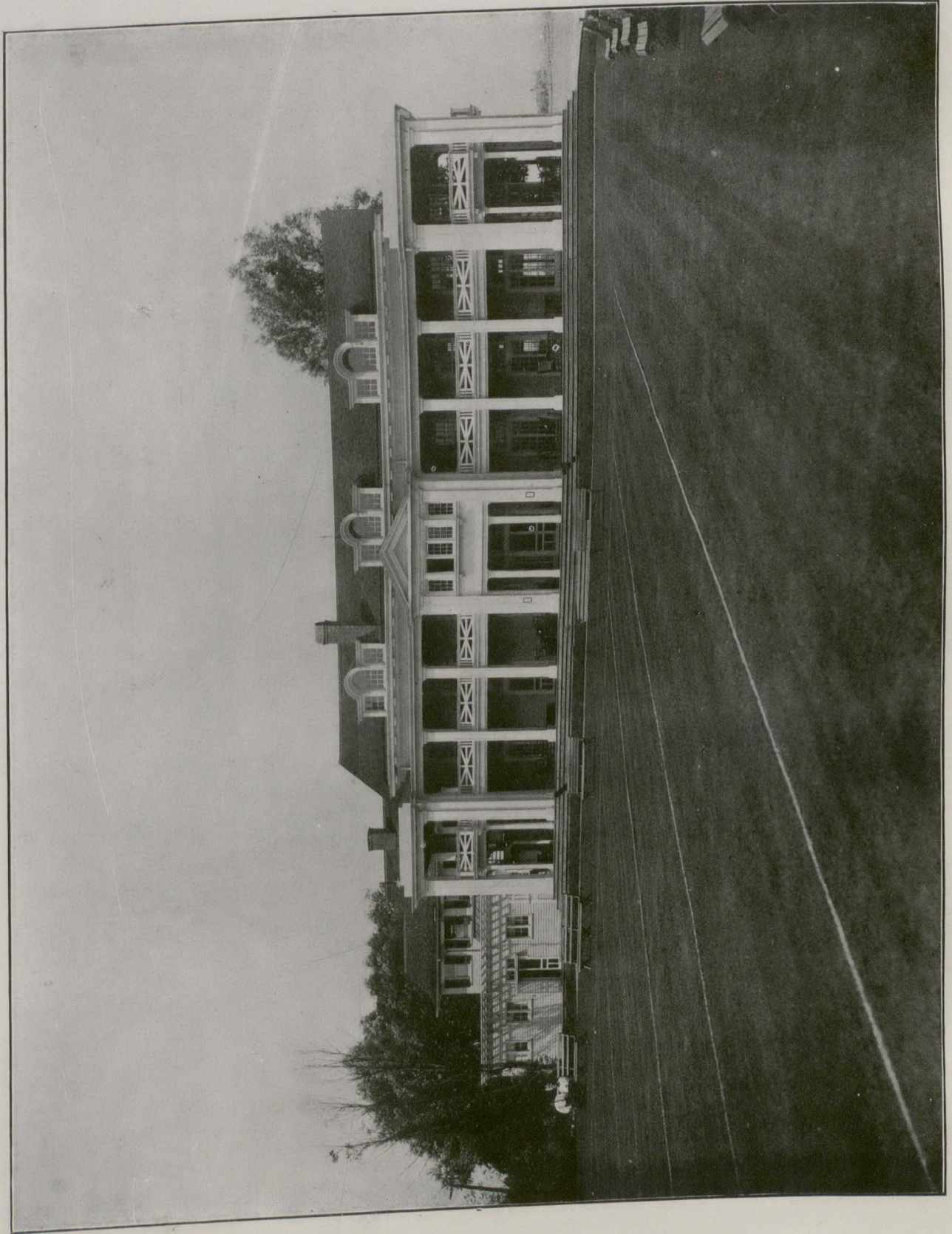
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