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THE New York papers are complaining, with much reason, of the removal of the records of the Board of Health from the fireproof Criminal Court Building to the old Athletic Club, on the corner of Fifty-fifth Street and Sixth Avenue, which is very far from being fireproof, and when half filled with boxes of papers will be about as tempting a place for a conflagration as can be found in New York. It is hardly necessary to say that the consequences of a fire among the Board of Health records would be most serious. In New York, where there are no parish registers, those of the Board of Health form the only official evidence of marriages, births and deaths. The records of the New York Board cover all deaths in the city since 1798, and all marriages and births since 1853, and there are no duplicates, except some accidental ones, which are stored in the same building as the originals. As every one does not know how important these records are, it may be observed that no bank, savings-bank or private banker will pay money standing to the credit of any person, to his heirs or representatives after his decease without legal proof of his death, and the proof required is a transcript of the Board of Health record of that event. We once had to abandon the attempt to collect a draft on a New York banking-house for fourteen or fifteen dollars, drawn in favor of a person who died before it was presented for payment, because the expense of obtaining proof of his death, which occurred in another State, satisfactory to the bankers, would have been more than the amount of the draft; and the difficulty of collecting money in such cases, where there was no record to refer to, would be enormous. Again, claims to property in foreign countries cannot be maintained without official proof of marriages, births and deaths, and the loss of the only record of these matters in New York, a large majority of whose inhabitants have foreign connections, would work incalculable hardship and wrong. Even where property is not concerned, no American can be legally married in most European countries, nor can an American child be received into any school, public or private, on the Continent generally, without the production of an "*acte de naissance*," or transcript of the official record of birth and parentage, and no life-insurance company, either here or abroad, will pay the amount of a policy without an official copy of the record of the death of the policy-holder. Some idea of the extent to which these records are used may be gained from the current reports of the office, which show that last year nearly eleven thousand transcripts of certificates of death were furnished, and twenty-five hundred searches were made for marriage-certificates, and thirteen hundred transcripts of them furnished, and nineteen hundred searches for certificates of birth were made, and one thousand transcripts furnished; the difference between the totals of searches and transcripts showing the number of cases in which the search was fruitless. Fortunately, the officials of the Health Department are aware of the perilous position of these priceless papers, and do their best to watch them, but it cannot be possible that the citizens of New York will long tolerate the risk to which their honor and their property is exposed by what is believed to have been a device of an influential politician to get rid of the bad bargain which he had made in buying the club building, by causing it to be leased by the subservient Sinking Fund Commission for the use of that Municipal Department, which ought, above all others, to have its records securely housed.

SO far as we are familiar with professional periodical literature, there is no journal which has taken as much trouble to give its readers full, reliable and frequent indices as has the *American Architect*, but in spite of this effort we know, from experience, how difficult it is for any seeker after a given fact or a given illustration to know that what he seeks surely is or is not to be found in our files. When the search means the collection of references to all representations of a given style or type of building, it entails, in our case, the lifting from the shelves of more than sixty heavy volumes, so we are disposed to welcome and find useful anything in the nature of topical indexing. A few years ago, the Boston Public Library, the Library of Harvard College, the Massachusetts Institute of Technology, we believe, and possibly the Boston Athenæum, conceived the idea of producing, by coöperative effort, an index of all illustrations of art and architecture that were to be found in the collections of the individual libraries, whether as separate photographs or individual engravings, or merely illustrative cuts embodied, perhaps without much connection, in the text of some book. This undertaking, involving the examination of every book in these great institutions, was, of course, one calling for time, money and patience in its accomplishment, and we really do not know how great or how little progress has been made by any one. Evidently, something has been done, since the *Monthly Bulletin* of the Boston Public Library for August contains a supplement of thirty pages giving references to illustrations of the library buildings alone that are to be found in its collections. Roughly speaking, there appear to be references to libraries in something over one thousand different towns, American and foreign, but it is not declared how many separate illustrations of each building go to each reference. As a large part of these references are to illustrations in periodicals, it is probable that the issues containing them can, in many cases, still be had of the publishers, and so this list published by the Boston Public Library, becomes of value even to architects who cannot have access to the Library itself. In the same way the "*Catalogue of the Books relating to Architecture, Construction and Decoration*" in the same library is well worth the half-dollar that is its price. What is the cost of the list of libraries here mentioned we do not know, but as an annual subscription to the *Bulletin* is only twenty-five cents, probably no more than this would be charged for a single number, even if containing a special supplement.

IT is said that the Victoria Club, of Boston, is entertaining the praiseworthy intention of erecting in the old burying-ground that still holds an unobtrusive place on Boston Common, a monument to the British soldiers who died or were killed during the occupancy of Boston by British troops, including those who fell at the battle of Bunker Hill. We fancy that this idea was suggested by the disinterring, during the building of the subway, of a number of bodies which had all the appearance of having been buried at one time in a common trench, as is the custom when the victims of a battle have to be disposed of somewhat unceremoniously, and the finding of belt-buckles and other military insignia fortified this belief, which was further confirmed by the public records, which showed that the fallen soldiers were laid near what was then the water's edge. The idea strikes us as felicitous, but only if given execution in a proper and becoming monument, one more in keeping with the proprieties and the surroundings than the monument to John Hancock which, a few years ago, was set up in the Granary Burying-ground, the most beautiful half-acre that can be found in a day's search. Although the burying-ground on the Common has not so much character as either the Granary or the King's Chapel ground, it has too much to be marred by an ambitious effort of the modern designer of funeral monuments, who is too apt to turn for his inspiration to

that museum of unrestful effort, the cemetery of Père Lachaise. There is so much of what is good in the English monumental work of the time of the Georges that the designer of the new monument could not do better than seek his inspiration through a study of material so easily accessible. A low die, properly treated, with the recumbent figure of a private soldier in the now picturesque uniform of the period, would, it seems to us, form a more pertinent memorial than one of the aspiring kind which make our graveyards, when seen from a distance, seem as if the dead had just heard the last trump and were starting on their upward journey.

A VERY amusing outcome of a county court-house quarrel seems to be foreshadowed in a report that the friends of good roads and free bridges, taking advantage of a crisis in the court-house fight, are likely to persuade the Commissioners of Luzerne County, Pa., to buy so many toll-bridges and improve so many roads that the county will have to issue bonds to the full legal limit. If this is done the building of the court-house will have to await the liquidation of the bridge bonds, say twenty years hence. We are not sure enough of our facts to attempt to give details of this court-house muddle, in which a non-resident architect, armed with "one of the best-worded instruments" signed by the Commissioners in behalf of the county, seems to be deeply concerned on the one hand, and the citizens and the resident architects, on the other. If the newspaper statements may be believed, the non-resident has already secured a large sum, which represents but half of his claim for certain rejected drawings, while he also is alleged to hold a signed agreement that he should be paid "five per cent on the cost of *any* court-house built in Luzerne County," apparently irrespective of whether such court-house had been designed by himself or by a resident architect. If the newspaper statements are not purely apocryphal, we advise Luzerne County to go in for bridges and keep on buying bridges until the non-resident architect has flitted to a world where there are no foolish commissioners to sign "well-worded" agreements. But the non-resident and his claim are merely incidental to the general muddle, and the advocates of free-bridges are now getting their chance through a mere vulgar fight over the site for the building.

THROUGH their familiarity with the Colonial meeting-house tower and spire of their own country, Americans have, we feel, a peculiar regard for those of Wren's churches that change, time and progress have left still standing in London. It will be a matter of regret to them, then, to learn that the burrowing of the Central London Railway beneath the Church of St. Mary-le-Bow has resulted in such a settling of the superincumbent ground as to have produced large and far-extending cracks in the walls of this, after Westminster and St. Paul's, perhaps the best-known of London churches. Cracks wide enough to admit a finger and running from floor to ceiling and a canting of the tower which swings the apex of the spire two feet out of perpendicular may well have caused agitation in the minds of the Church Fabric Committee.

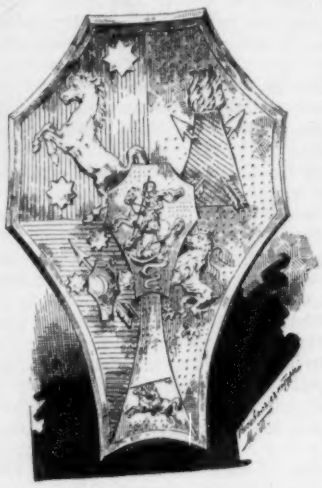
THOSE who have read Dumas, and those who have sojourned in Paris long enough to become really familiar with its historical topography, can hardly fail to be interested in any movement that is likely to affect so familiar a landmark as the Palais Royal. Those who have night after night, as we have, taken the galleries of the Palais Royal on their way from the "left bank" to the boulevards, will recall that the Palais Royal backs upon the Rue de Beaujolais, a neighborhood that, after dark, one feels more comfortable to pass through than to stop in, and that at a little higher level begins the Rue Vivienne, which reaches to the Boulevard. It has been suggested that the Rue Vivienne should be extended through the garden of the Palais Royal and come out on the Place du Palais Royal, directly in front of the Louvre. The Rue Vivienne would thus become a great thoroughfare, and would relieve the now overcrowded Rue Richelieu, and one result of this, perhaps the one that is most sought, would be the rehabilitation of the glories of the galleries of the Palais Royal itself, and the shops therein, which years ago lost their popularity, would once more regain their splendid attractiveness, and the galleries become again one of the noted features of a brilliant Paris. It was with amazement that we noticed, when last in Paris ten years ago, some of those once-popular shops standing dark and tenantless where, formerly, all was light and gaiety, and purchasers were plentiful. But fashion changed, and the historic building has, of late years, lost its vogue, and so has not yielded to the Government the income that it should, and many plans have been devised for making the property more productive. Amongst others the very natural plan of roofing over the entire garden with glass and converting the space into a winter-garden might have been carried out, but for the protests of the abutters and the dwellers in the upper stories of the galleries themselves, whose right of air and light would have been interfered with. The Bank of France once tried to acquire part of the building for use as an annex, but the authorities were too grasping and set their price too high, and lately it has been proposed to build there a vast hippodrome, to seat six thousand persons, in time for the coming exposition. This proposition is but a reminiscence, not an invention, for during his occupancy of it, Louis-Philippe-Joseph, Duc de Chartres, later "Philippe Égalité," caused the architect Louis to design a hippodrome in the garden, which, owing to the lawsuits brought by the abutters, had to be built finally half underground. It was never actually used as a circus, though the revolutionary meetings that were held there later fairly deserved the name.

PERHAPS there are others who, in reading Dumas and French history, have supposed that the present Palais Royal was the Palais Cardinal, so famous in the annals of the time of Louis XIII and XIV, and which, in 1629, was begun after the design prepared by the architect Lemercier, at the command of Cardinal Richelieu, on the site where, in part, formerly stood the old hôtels of the Armagnacs and the Rambouillets. The site of the Palais Cardinal, which Richelieu secured to himself by actually moving out the fortifications of the city itself, covered much more ground than the Palais Royal of to-day, but in acquiring his parcels of land the cardinal secured more than he needed, and in selling to others what he did not need himself, forgot to impose needful restrictions on the purchasers and this has entailed trouble to all future owners of the property. Although the Palais Cardinal was the stage on which much of the romantic but historic doings of the times took place, it could hardly have been the magnificent affair we suppose it to have been since first the chapel was only eighteen feet long and the salle d'opéra was but thirty-six feet wide. Moreover, when the property came into the hands of Monsieur, the brother of Louis XIV, he caused Mansard to add to it an entire new wing along the Rue Richelieu, and it is probably this wing that, with a large part of the main building, was destroyed in 1763 by the fire that broke out in the theatre, which had been hallowed by the acting of Corneille, Molliere, Racine and others. Now because the Duc d'Orleans had, in 1749, ceded to the City of Paris the right of producing plays in this theatre, he demanded that the city should rebuild his palace, and that the theatre might no longer be a menace to the palace, he bought five adjacent houses, while the city bought three more, and on the site so acquired the present Théâtre Français now stands. The city felt that if it must pay for the new palace it might surely choose the architect, and so put the work into the hands of Moreau, a choice not satisfactory to the Duc d'Orleans, who selected Contant d'Ivry. Moreau, therefore, built the theatre and the façade on the Rue St. Honoré, while Contant d'Ivry built the vestibules and the grand staircase. Apparently, the work did not satisfy, for shortly after the Duc d'Orleans went to live elsewhere, turning the property over to his son, Philippe Égalité, who was about to make changes to suit himself, when a new fire in the theatre, in 1781, nearly swept the whole building out of existence. This time reconstruction was entrusted to a single architect, Louis-Nicolas-Victor Louis, who is essentially the designer of the Palais Royal as it now is. Fontaine continued the work of Louis and himself designed the west wing or Gallerie Montpensier, and after the ravages of the Communist in 1871 restorations were made by Chambrol and Moreau-Desproux.

THE Massachusetts Forestry Association asks for photographs to illustrate forest growth, roadside treatment of trees, and methods of fighting forest fires. It seems that this active Association has found the public quite responsive to its efforts at disseminating information, and looks forward to a busy winter; and it is believed that there may be many amateur photographers, or owners of pictures or illustrations of various kinds, who could assist in the work of the Association by contributions which, when reproduced as lantern slides, might be very useful as aids to popular lectures.

PAINT-FACTS AND PAINTING SPECIFICATIONS.[1] — V.

LINSEED-OIL, TURPENTINE AND DRYERS.



Escutcheon from the Monument to Alexander III, Moscow, Russia.

THE oil is the life of the paint. So says the practical painter, and while the statement may not be absolutely exact, still there is much reason for his statement. Paint, as we have already seen, is produced by the intimate mixture of a finely-powdered solid substance, or pigment, with a liquid or vehicle in which it is held in suspension. The mission of the vehicle is to bind the particles of pigment together and cause them to adhere to the wood; to unite them into one homogeneous whole which shall form a protecting envelope to the surface upon which the paint is applied. The durability of the paint, therefore, depends not only on the pigment but even more upon the vehicle, and upon its capacity for resisting the action of the weather, for when the vehicle or binder begins to decay and lose its grip upon the wood, at that same moment the paint begins to perish.

According to the uses of the paint the medium may be either vegetable or mineral oils, animal oils or fats, volatile oils or spirits, water or milk, though with some of these, other substances must be added to act as a binder, as for example, glue, which is used as a binder for ordinary water-paints or kalsomines used for interior painting upon plastered walls.

To the house-painter, the oil *par excellence* is linseed-oil or the oil expressed from the seed of the flax. This oil possesses peculiarities which render it particularly suitable for the purpose of a paint vehicle. Condit says of it, that it is "so remarkable a compound that only our familiarity with it blunts the edge of our curiosity about its composition." Our first definite knowledge of linseed-oil as a paint-oil comes from some period of the Middle Ages, but as flax was known to the most primitive peoples, we cannot say how early the discovery of its oil was made. Quoting again from Condit: "Linseed-oil is a waterproof substance, and simply and only by this quality of protecting wood and iron from becoming wet, it is a preservative. It is a fluid which is drunk in by the wood, and which, did not the oil harden, would sink in deeper and deeper, but it hardens and holds fast to the surface-fibres of the wood, protecting them from water and by this protection alone securing its hold as a paint layer. . . . The great value of linseed-oil depends upon at least three properties: It is not affected by water; it is fluent and sinks into the wood; it hardens."

How is it that linseed-oil hardens or dries? Most fluids dry by evaporation; linseed-oil dries partly by evaporation and partly by oxidation. When dry, it is heavier than when it is a liquid. In other words, the thin layer of linseed-oil with which the surface is covered when the paint is spread upon it, takes up oxygen from the air as it dries or hardens and actually gains in weight. Four-fifths of the substance of linseed-oil is a drying oil which takes up from the oxygen of the air twenty-one per cent of its own weight of oxygen-gas and becomes a hard leatherlike substance known as linoxyn. The process of the drying is thus described by Dr. E. A. Behrens, a recognized German authority on the subject: —

"In the drying stages of linseed-oil, there is first a formation of glycerine and linoxyn, then of palmitic and oleic-acid. Saponification and oxidation take place in quick succession. The liberated glycerine oxidizes next. Linseed-oil always contains a small portion of oleic-acid, which, as it were, is not as well combined with glycerine as the other parts that form the oil. This small portion of oleic acid, which is only in loose combination with glycerine, oxidizes first and brings about oxidation of the whole mass, that is, it makes the oil active. The older the oil, the more oleic-acid is formed and the more rapid the oxidation of the oil. Therefore we may say that older linseed-oil dries more quickly than fresh-pressed oil, because the process of saponification (the liberation of linoxyn, oleic-acid and glycerine) so necessary to the drying of oil, has partially taken place in the old oil."

But on the other hand, linseed-oil when exposed to the air for any length of time is apt to become fatty, which prevents it from perfectly drying, and hence it is not so well adapted for painting as the new fresh oil. But oil requires a certain length of time to season or age, in order to permit the mucilage and other substances contained in the seed, which are pressed out with the oil, to settle out from it, leaving the oil clear and pure and adapted for paint-making. This settling is accomplished by storing in large tanks, the mucilage and "foots" gradually being deposited in the bottom, while the clear oil is drawn off from the top.

[1] Continued from No. 1231, Page 36.

The original process of making linseed-oil was by subjecting the ground seed to heavy pressure, the oil being known as "cold-pressed linseed-oil." But this did not yield a sufficient percentage of oil to satisfy the crushers, and it was found that the flow was increased by subjecting the ground seed to the influence of steam — partially cooking it — and then while still hot, pressing out the oil by heavy hydraulic pressure. This very considerably increased the yield of oil, but at the same time carried with it a much greater percentage of mucilage, woody fibre and other substances contained in the seed that are of no benefit to it as a paint-oil. Oil produced by this process is known as "hot-pressed linseed-oil," and is the kind ordinarily sold as raw linseed-oil. The experience of practical painters however has demonstrated that the "cold-pressed" though more expensive to produce, because the same quantity of seed will not yield so much oil, is far superior in regard to the durability of the paint-skin. It is difficult, however, to make sure of obtaining genuine "cold-pressed" oil, for though the crushers assure their customers that they manufacture oil in the old-fashioned way, there are few of them who do not yield to the temptation of increasing quantity at the expense of quality of product, since it is almost impossible to convince the average painter that he ought to pay more per gallon for pure linseed-oil made by one process than for that made by another process. Moreover, it would require a very delicate chemical analysis, far beyond the ability of the painter or architect to make, and indeed only possible to the chemist having a special knowledge of oils, in order to detect the difference between cold-pressed and hot-pressed oils, though the results, as far as durability are concerned, are very marked.

Still another process of oil-making has been introduced, by which the oil is extracted from the previously-steamed seed, by passing naphtha through it. This dissolves out all the oil, mucilage and foots, leaving practically nothing but the woody fibre of the seed. The naphtha is then evaporated or distilled out of the oil by moderate heat; since its boiling-point is much lower than that of linseed-oil. This is known as the "percolator process" of linseed-oil making, and while it yields a very large percentage of oil, it not only contains a greater proportion of deleterious substances, such as mucilage, that are contained in the seed itself, but it is found in practice that it is almost impossible to perfectly free it from naphtha, and this substance for some reason is harmful to the paint, causing its rapid perishing or chalking.

The architect who desires to secure the best results for his client should always specify the use of pure "cold-pressed" linseed-oil, though unfortunately he can have no guaranty of obtaining it except the good faith of the painter, and he in turn is dependent entirely upon the word of the manufacturer.

Linseed-oil, produced by any of the foregoing methods, is of a light amber color. For some purposes it is desirable to have it as nearly colorless as possible, especially for interior white-work; since the raw linseed-oil will slightly tinge the white-lead or other white base with which it is mixed, giving it a yellowish cast. Out-of-doors this is of no real moment, since the action of the sunlight soon bleaches the oil in the paint, and makes it perfectly white, but for interior work this yellowish cast is deemed objectionable. The old-fashioned way of bleaching linseed-oil is to expose the well-settled and clarified oil to the sunlight in large shallow pans. Oil bleached in this way is perfectly safe to use; and where a white oil is desired "bleached, raw cold-pressed linseed-oil" should be specified.

The hurry incidental to modern manufacturing methods, caused by a desire to twist money over quickly, has led to the introduction of a process for producing a white linseed-oil, by taking the oil just as it comes from the presses, and treating it with sulphuric-acid. This burns out the mucilage and woody fibre contained in the oil, the result being a clear oil, resembling a well-settled, bleached oil, which is known in the trade as "refined linseed-oil." Just sufficient sulphuric-acid should be used to combine with and destroy the impurities in the oil; but in actual practice an excess of acid is necessarily introduced, requiring subsequent washing and other processes to remove it. While these processes may be theoretically correct, as an actual fact there is a very small percentage of sulphuric-acid left in the oil, and this is sufficient to induce rapid perishing of the paint. The competition among the white-lead corroders to produce very white white-lead has induced them to use the refined linseed-oil to grind their product, and this probably accounts for many of the cases of rapid chalking that are reported from time to time in the painters' periodicals. This seems to have been proved by some recent experiments made by E. P. Edwards, a well-known master-painter of Elizabeth, N. J., who had a batch of white-lead ground specially to order in pure, unrefined, cold-pressed raw linseed-oil, with which he painted one house, while on another house, painted at the same time and under the same conditions, he used the ordinary grinding in refined oil from the same corroders. Careful examination from time to time showed a decided advantage in favor of the lead ground in unrefined oil, which showed no evidence whatever of chalking long after the other had exhibited decided signs of it. As very few painters use refined oil in mixing their paints, and as the ordinary raw linseed-oil will bleach out perfectly white after a few days' exposure to the sun, it would seem to be a mistaken policy on the part of the manufacturers to use refined oil for grinding white-lead. It would be well if architects generally would specify that the white-lead to be used on their work should be specially ground in well-settled, unrefined, pure, cold-pressed, raw linseed oil, and insist

that only such white-lead shall be furnished. If they would take this stand, and then are not so unreasonable as to insist that the lead furnished should look absolutely white in the keg, they would start a reform in paint manufacture that would greatly increase the durability of work painted with pure white-lead, and do away with much of the objection to this material on account of rapid chalking.

Now while linseed-oil is a drying oil in itself, it dries comparatively slowly. There are sometimes occasions and weather conditions when the drying of the paint must be made more rapid; in other words, when the oxidizing influences must be increased. This can be accomplished by boiling the oil, usually with certain salts of lead or manganese that are oxidizing agents; or by the simple addition of dryers, which are chemicals having a strong oxidizing power, prepared either in paste or liquid form, so that they may be readily incorporated with the paint. In Egland dryers are usually used in paste form, but the American painter prefers liquid dryers. Hastening the drying of paint by the addition of an oxidizing agent shortens its life, as a rule, so that only just so much dryer should be employed as is absolutely necessary. The quantity depends to a great extent upon atmospheric conditions at the time of painting, or on the probability of bad weather. Hence the question of dryers is one that cannot be made a part of the specifications but must be left entirely to the judgment of the experienced painter.

Boiled-oil should not be used in the priming coat. It is a cardinal principle of painting that the priming coat must dry flat or dull. Boiling changes the character of oil and makes it more like a varnish, giving it a tendency to dry with more or less gloss. A glossy priming coat is very apt to cause subsequent coats to peel and blister. Moreover, boiled-oil dries on the surface first, while the under part of the paint-skin still remains soft, thus causing the paint to shrivel. No subsequent painting will ever present a smooth surface; the only remedy being to burn the paint off to the bare wood. For the priming coat the paint should be mixed with pure, raw linseed-oil having just as little "dryer" as possible. A small proportion of turpentine may be added as the judgment of the painter may dictate. The addition of turpentine causes the paint to dry with a harder and more porous surface, having little or no lustre. This acts as a better and more durable foundation than the glossier surface given by oil alone, and its porousness permits the oil of the subsequent coats to soak in and grip the priming coat. As a rule the priming coat should be mixed rather thinner than the subsequent coats, since the pores of the wood will suck up the oil, and if the paint be mixed "stout" will leave little but a dry powder on the surface.

Turpentine, which is a product of the pitch-pine, has the property of rendering paint more fluid and more easily spread. It is nearly all volatile, but a small residue is of a gummy nature and assists in binding the paint. In this it differs from benzine and naphtha, which are purely volatile, and have no binding properties whatever. The turpentine-can is a great temptation to the lazy journeyman, since a free application of turpentine enables him to spread the paint with less muscular effort, but this labor-saving is only gained at the expense of the durability of the paint. Unfortunately this is something that neither architect nor employing painter can guard against, for the journeyman always chooses a time when the foreman is looking in some other direction to render his work easier by such methods as this. Benzine and naphtha are occasionally used as paint thinners, especially in mixed paints, which are kept from growing fatty in the cans by their use, but they cannot be recommended. The architect who detects the smell of either of these fluids where the painters are at work should immediately inquire into it, and stop it at once if they have been used for thinners, condemning any paint in which these materials have been mixed.

Experiments made by Dr. Charles B. Dudley, Chief Chemist of the Pennsylvania Railroad, have conclusively proved that the skin formed by the drying of linseed-oil when poured out upon a sheet of glass is sufficiently porous to be permeable by moisture and gases, but in the dried paint-skin this porosity is to a great extent overcome by the fine particles of pigment which probably fill the interstices in the linseed-oil skin, since it has been conclusively proved that paint mixed with linseed-oil is practically waterproof. Even if it were to a slight degree porous, as may be the case when comparatively coarse pigments are used, this is beneficial rather than detrimental if the paint is applied to a wooden surface, since it permits the escape of any moisture and sap contained in the wood. In painting ironwork, great care must be taken to select pigments that form with the linseed-oil a cement that is impervious to moisture; yet even with the most careful selection the paint-skin is permeable by sulphur-gases from locomotive engines and the like, as is seen by the manner in which tie-rods of overhead railroad-bridges are eaten away, sometimes even though the paint appears to be intact. This has led some manufacturers to experiment in order to produce a vehicle of a varnish-like nature that shall be practically impervious to gas and moisture, and a fair measure of success has met their efforts in this direction.

The high price of linseed-oil has caused it to be largely adulterated by unscrupulous dealers, who, to escape detection, trust to the well-known carelessness of the average painter about testing the materials he purchases. Fish-oil, which is much used, causes the oil to dry more slowly and tacky, and is decidedly detrimental to the paint, except where it is to be used on tin and sheet-iron roofs, in which case the greater elasticity of the fish-oil counteracts to some extent the expansion and contraction of the metal. Resin-oil is a dangerous adulterant of linseed-oil, as are also certain petroleum products largely used to extend its bulk. Corn-oil is one of the latest and most dangerous adulterants, since it can neither be detected by taste or smell,— the ever-ready means of testing employed by the practical painter,— but it renders the paint very slow-drying, so that it will wash off under a heavy rain, and will perish more rapidly than pure linseed-oil.

Turpentine is adulterated with benzine or other petroleum or coal-tar products of low cost that are very injurious to the paint. Unfortunately it is difficult for the architect to guard against adulterated oil and turpentine, since the painter usually buys these materials for pure, and they are sophisticated by unscrupulous dealers before they come into his hands. It is true there are simple chemical tests to determine the purity of these materials, but as paint is usually mixed at the shop and sent to the work ready to apply, it is impossible for the architect to detect impurities in the oil by means of them. Nor is anything gained by specifying that the paint shall be mixed at the job, for paint mixed at the shop is usually much more thoroughly and intimately mixed than it is possible to do at the work, and what might be gained by affording an opportunity to examine the materials would be lost by inferior mixing of the paint. Safety can only be obtained by employing a thoroughly honest and competent painter and insisting that he shall buy his oil direct from a crusher, or from a reputable jobbing-house in unbroken crusher's packages.

Several substitute-oils have been offered, but most of them are simply mixtures of resin-oil or similar substances with inferior grades of linseed-oil, and possess no merit whatever. The writer is acquainted with but one substitute-oil which is a definite manufactured oil having a chemical composition of its own, and differing entirely from the substances of which it is made. This has been extensively used on railroad and engineering constructions and with apparent success. The skin formed by it when drying on glass is tough and leathery and is insoluble in strong or dilute acids, alkalies or carbon di-sulphide. It appears to possess some of the properties of india-rubber. Paint mixed with this oil, however, so far as the writer has observed, appears to shrivel somewhat when applied to an iron surface.

A great deal of the linseed-oil that is sold for "boiled-oil" is simply raw-oil loaded with a large proportion of powerful dryers. In the trade this is known as "bung-hole boiled," since it never sees the fire, but the dryers are simply poured into the bung-hole of the barrel. The architect should guard carefully against boiled-oil of this kind, since it causes the paint to perish rapidly.

Edward Hurst Brown.

THE TORONTO MARKET-HOUSE COMPETITION. — CANADA AS AN IRON-PRODUCING COUNTRY. — COURTS OF EQUITY WILL NOT INTERFERE WITH BUILDING CONTRACTS. — RIVER AND HARBOR IMPROVEMENTS.

THE Market-hall Competition in the City of Toronto, to which allusion was made in a former letter, has aroused a great deal of interest in the profession in its results, although so little was taken in it at its inception that only five local firms competed. The City Council set aside the sum of $150,000 for the new building, and plans having been received, a committee of so-called "experts" was appointed to examine them. After several weeks' delay all the designs were reported as being too costly, although the experts mentioned one design as being the most suitable, if it had been possible to carry it out for the stipulated sum. The authors of this design declared that the cost of their building would be within the sum, and finally they were asked to prepare specifications and obtain tenders. The tenders amounted to a little over the $150,000 and with the architects' fees the total cost was placed at $158,000. A committee of the City Council that had the matter in hand accepted these plans, believing the cost to be perfectly fair and reasonable as, since the $150,000 was appropriated for the purpose several months ago, the price of material had so largely increased. A second firm of architects who competed entered a protest. This firm had obtained tenders on their design which placed the cost at under $146,000 and they claimed that the successful firm had omitted several important items that would add $30,000 to the cost. They claim that the prize should be awarded to them and are prepared to give a good deal of trouble. It is to be very much regretted that members of the profession should act as this firm has done, for no possible good can result to themselves and only harm to the profession generally. The public do not get a very exalted idea of architects when such tactics are pursued. It certainly is to be hoped the matter will be allowed to drop.

It is stated on the authority of a well-known iron man that Canada

is destined to become one of the greatest iron-producing countries of the world, if not actually the greatest of all. Not only has Canada immense deposits of iron-ore in different locations all over the country, but her transportation facilities give her great advantages over the United States, so far as the export of iron, at least, is concerned. In Nova Scotia, iron and steel can be smelted on the sea-coast and thence distributed to all parts of the world, and of all favorable positions in the whole of North America, the Welland Canal, between Lakes Erie and Ontario, is spoken of as the very first. It is predicted that the country will be overrun with smelting-plants within the next few years. With 14 feet of water from Lake Erie to the Atlantic Ocean, the Canadian furnaces have an immense advantage over every other country, where for miles transportation over land must be accomplished by the railways. Some change will have to be made in the bounty arrangements now existing for the production of iron, if such a state of things as is suggested actually takes place, or Canada would be paying more than she could afford.

A case which ought to be a warning to people who think they can dispense with the services of an architect when they want to build, has recently been settled in the Court of Appeal of the Province of Ontario. A man who makes a contract with a builder to execute certain works for him has apparently no remedy, if he sees the work is not being properly carried out, until the completion of the contract, when he can sue for damages with the risk of being unable to sustain the charge. In the case in question a certain building was to be pulled down and another erected on the site, the old materials being re-used so far as admissible and new being provided for the rest of the building. The owner was not satisfied with the new material supplied by the builder, and as the builder refused to make any change, the owner obtained an injunction restraining the builder from proceeding with the works. The builder appealed to have the injunction set aside, and was successful, the judges stating that Courts of Equity will not interfere in building contracts; the contract provided that the builder should complete the building and nothing need be paid until it was complete; there was no provision for any superintendence and no authority given anyone as to the rejection of material. The owner's only remedy was for damages when the work was completed. This will apparently apply to every case where no architect is employed, with authority to act as judge of materials and workmanship.

The Dominion Government is proposing to expend the very large sum of $55,000,000 in various improvement works to harbors on the lakes and the rivers of the Maritime Provinces, in bridges, canal-works and such things, but whether the money will be laid out depends upon the temper of Parliament. Certain works, however, have already been voted on and Toronto harbor is to be improved by the expenditure of $50,000. The bay is getting very shallow, owing to the constantly-shifting sand and to the silt brought down by a river that runs into it. The course of this river is to be diverted, piers are to be lengthened, and the bay itself dredged.

Five hundred thousand dollars will be spent on the improvement of the harbor at Montreal in continuation of works that have been going on for years. But these are but small bites out of the enormous amount of work the Government suggests. A general election, however, is close at hand.

THE LORDS AND THE ROYAL ACADEMY.

ON June 19 last, Lord Stanley of Alderley inquired if the Government would give effect to the following recommendations of the select committee of 1836 and of the Royal Commission of 1863 with respect to the Royal Academy: (1) That the Academy should rest on a wider and more liberal basis, and be viewed as a national institution, and that it should have a charter in lieu of the instrument of 1768; (2) That an annual report should be published of the proceedings of the Academy, with a statement of its income and expenditure, duly audited; (3) That all voting for R. A.'s or Associates should be open; (4) That the Academicians and Associates now existing should send four works as of right, and never more, and that Associates henceforth elected should send no work as of right, and never more than four; (5) That the charge for admission should be 1*s*, as heretofore, but on Mondays it might be raised to a higher sum, and that the exhibition should be wholly free on Saturdays; (6) That the system of the teaching hitherto followed is not satisfactory; (7) That the system of teaching which prevailed in France seemed well worthy of consideration, and that the annual balance-sheet of the accounts of the Academy should be printed and submitted along with the annual report to the general assembly. He also called the attention of the House to the repudiation by the Royal Academy of their responsibility as bailees for damage to works confided to their custody, and also to the 60,000*l.* of the Chantrey Bequest, of which the Chantrey Trustees gave no account.

The Marquis of Salisbury in reply said: "I think that the ground fallacy of my noble friend's speech is the impression which he appears to entertain that a Commission must always be attended to, and that, as a matter of fact, a Commission always is attended to. Now that is not my experience of public life. I have witnessed the appointment of a great number of Commissions, but my impression is that a very small percentage have received any notice from legislators or from Parliament. My noble friend is a man of very great industry, and if he would devote himself to ascertaining how many Commissions during the last sixty years have reported and how many of those reports have given ground for any action, he will furnish a very important contribution to the history of his time. I think I know several Commissions now pending that have not the slightest probability of any action being taken upon them. But my noble friend appears to look forward to a period, which Lord Wemyss glanced at on a previous occasion, when the Government should undertake the management of the Royal Academy. I confess that I think this undertaking is reserved for bolder hands than mine. I hope that if there is to be an artistic party in Parliament, which will prescribe for the various artistic bodies what they ought to do, they will organize themselves in some such way that all their recommendations may have a unanimous tendency. I am afraid that the dreams of my noble friend and Lord Wemyss are still far apart in the remedies they recommend for the consideration of Parliament. But the practical point is, Are the Government going to introduce any measure this session to alter the constitution of the Royal Academy? I have had the privilege to hear the exposition of the state of public business which my right honorable friend the leader of the House of Commons has to-day made before that body. I think that when my noble friend comes to read it he will agree with me that the task of introducing any such thorny and difficult subject as the reform of our artistic institutions is not likely to be undertaken in the two months which yet remain of the session. There is no subject which produces such a healthy difference of opinion as questions which relate to art, and consequently there is no subject which is likely to make so great a demand on the time of Parliament. I certainly should think it very imprudent of any Minister to undertake such a task, unless he is driven by very much greater evils and defects than it is possible to show in the present management of the Royal Academy. On the whole, the results appear to me to be quite as good as they are likely to be by introducing the Civil Service into the management of the Royal Academy, and I doubt whether any addition of politicians to the governing bodies of our great art institutions will add much to the value and beauty of their work." — *The Architect.*

THE NATURAL CENTURY.

IN the following letter from Mr. Neal H. Ewing in the New York *Times* will be found what seems to us the best exposition of all that can be said in favor of closing this century with the current year. If those who take the view as we do that the century closes with the next year will read Mr. Ewing's argument with attention, they will find, as we did, that the question is by no means a simple one.

"The so-called century problem will not stay solved, despite the clearness of elucidation with which it is shown that 1901 begins the new series. Why is this? It can hardly be that the 1900 men fail to grasp the argument that if the Christian age is divided into periods of 100 years each, the first period begins with the year 1, the second period with the year 101, . . . and the twentieth period with the year 1901. (1 and 100 make 101, 101 and 100 make 201, etc.) This solution is so plain that to assume that the 1900 men do not understand it and to reiterate it for their benefit is touchingly naïve, and reminds me of how another calendar problem has been discussed.

"The design of the Gregorian reform in 1582 was to bring future time into agreement with the year 325. Now, if we apply the rule back, we have nine years whose bissextile days are dropped, 1500, 1400, 1300, —, 1100, 1000, 900, —, 700, 600, 500, but the reformed calendar skipped ten days. Some years ago a writer pointed this out and announced, as a curious fact, that Pope Gregory had made a mistake in counting. It would indeed be a curious fact if it were a fact at all. The reform, however, was not chronological, but chronometrical; the old dates did not have to be disturbed, but our clock was running slow, and had to be set and regulated, and a retrenchment of ten days was the most nearly exact.

"To resume, the argument for 1901 is as sound as it is plain — but it does not cover the case. The world changes from age to age; 1961, for example, will present a very different picture from that presented a century earlier. The change is one of even continuity from minute to minute, except as to one point — the dates. Every Sylvester night a new banner is flung out, and the earth is reinscribed. And notably once within those hundred years there is a grand reinscription of the centurial figures; an event which people see but once in their lifetime, if they see it at all, a definite event falling with cataclysmic abruptness. This characteristic change, happening once in a century, will ever mark off the history of the world into exact century eras, and the next one of these century eras is not six months distant.

"We are forbidden to call this new century era a new century. And yet, why not? Is not 1900 exactly a century later than 1800? Is not 1800 exactly a century later than 1700? Did not the earth bear the banner sixteen exactly 100 years? And so on back to the 500s, which brings us to the introduction of our chronological system by Dionysius. Our chronology as a tradition now stops short. We need not be troubled over the first century containing only ninety-nine years, because our chronology has historically no first century; this it has only reconstructed in a retrospective sense. The early centuries, as "centuries" are purely artificial and imaginary; they never existed; for instance, there was no debate 1800 years ago as to when the second century would begin, for nobody knew that the second century was going to begin at all. Parenthetically, 1900 is in closer agreement than 1901 with the real date of Christ's birth.

"The centurial figures are the symbol, and the only symbol, of the centuries. Once every hundred years there is a change in the symbol, and this great secular event is of startling prominence. What more natural than to bring the century into harmony with its only visible mark? What more consonant with order than to make each group of a hundred years correspond with a single centennial emblem? Be it noticed that, apart from the centennial emblems, there is absolutely nothing to give the centuries any form. The initial figures 18 are time's standard which the earth carries while it makes 100 trips around the sun. Then a new standard 19 is put up. Shall we wait now a whole year for 1901, at the behest of the abacists? No, we will not pass over the significant year 1900, which is stamped with the great secular change, but with cheers we will welcome it and the new century. The 1900 men, who compose the vast majority of the people, say to their opponents: 'We freely admit that the century you have in your mind, the artificial century, begins in 1901, but the natural century (which we prefer) begins in 1900.'"

LETTERS OF SIR JOHN VANBRUGH.

ONE of the most interesting collections of letters in England, says the *Architect*, is to be found at Castle Howard, the principal seat of the Earls of Carlisle. The building was commenced in 1702, from the designs of Sir John Vanbrugh. There are many letters in the correspondence between the third earl and the architect showing the careful attention which was given to the architectural details and surroundings of the edifice. But the Historical Manuscripts Commission considered the subjects were too technical and circumscribed to be treated in their investigation, which was to "throw light upon subjects connected with the civil, ecclesiastical, literary or scientific history of this country." It is to be regretted that art was not allowed to come within the purview of the Commissioners as well as science or literature. About the relations between architects and clients in the past little is known, and when evidence appears it should be utilized.

At the time [1720–21] there was war between the Duchess and Vanbrugh over Blenheim, and the reason for his disrespect can therefore be understood.

The House of Commons had voted half a million for the erection of Blenheim, but a much larger sum was expended. The question was, who was to pay? The Duchess, who had the management of the finances during the great warrior's imbecility, maintained that Vanbrugh was not acting under her authority or the authority of Parliament, and endeavored to escape all responsibility. She was the best hater of that age, and as Vanbrugh's claims affected her pocket, he enjoyed the utmost power of her spite. A letter to Lord Carlisle reveals her opinion of the architect, who only claimed the money owing to him: —

The counsel on Sir John's side laid great weight upon my Lord Treasurer Godolphin's warrant to Sir John Vanbrugh, and the judges ran into that very willingly, for to my certain knowledge two of them were gained by old Craggs's interest and artifices. I thank God he is now no more able to do any mischief, and the Parliament seem to be dissatisfied with his ill-gotten estate, and have a mind to recover what they can of it for the use of the unfortunate S. Sea people. I know it was very difficult to get the better of Mr. Craggs when he was living, but perhaps his ghost may not have so much influence upon the members of Parliament. . . . The chief argument I hear he [Sir John] makes use of to gain those who were the late Lord Godolphin's friends are (*sic*) as follows: That to set aside his warrant is to cast a blot on his memory and the like; whereas I think it is more natural to argue the other way, and to say that so good a man, and so sincere a friend as he was to the Duke of Marlborough, could not possibly design to frustrate the Queen's intentions and the Parliament's by making him liable to the expense of such a building [Blenheim], and in the midst of all those declarations to imagine that my Lord Go. meant anything by the words in the warrant more than that he had made Sir John surveyor at my Lord Marlborough's recommendation, and that the building was on the Duke of Marl.'s behalf, as the Queen gave it him and made him the sole judge of it.

There are other letters at Castle Howard from the Duchess relating to the case, which are dated March and April 1721. The Duke was still living. He died in 1722, and in 1725 there is a letter again denouncing Vanbrugh. On the ground that he had during the Duke's lifetime published a libel on him and the Duchess, his entry to Blenheim or any part of the park was prohibited.

The majority of architects are sooner or later doomed to appear as witnesses in law-courts. It would, therefore, be wise to accept the inevitable, and by mimic trials endeavor to become prepared for the ordeal. Sir John Vanbrugh was successful at the trial of his action against the Duchess. But he made a sorry exhibition of himself as a witness. Lady Lechmere, who accompanied Her Grace on the occasion, wrote to her father, Lord Carlisle, saying: "I was sorry to find Sir John make so wretched a figure, and indeed could not have believed it, without his letters, papers and oaths, which spoke very contrary." An appeal was lodged, in order that the case could be brought to the House of Lords, where the termagant counted on supporters. The proceedings before the highest tribunal are described in the following letter, dated May 9, 1721, from Lady Lechmere to Lord Carlisle: —

I was yesterday at the House of Lords with the Duchess of Marlborough; the cause is put off for a fortnight; she tells me she sent you down one of her written cases, and the opinions of the judges in the Court of Exchequer. Sir John Vanbrugh was here this morning, and says he has sent you a printed paper (which I fancy you would not approve); he is now frighted about it, for he has made himself liable to severe punishment, by being guilty of a breach of the House of Lords, in printing a libel upon a peer while a cause is depending before them in judgment, in which Sir John himself is a witness; how he 'll come off I can't tell, but he has given the Duke of Marlborough the advantage of having a full blow at him if he pleases.

A few months afterwards there was an end to the twistings and turnings of the English condottiere, the Duke of Marlborough. He died on June 17, and two days afterwards we find Vanbrugh endeavoring to obtain a commission for the monument. Some people who possessed estates had erected mortuaries in spots which they admired. Why should Marlborough be buried within the vaults of a church? Accordingly Sir John wrote as follows to his patron: —

I have only time to-night to acquaint your lordship with a few particulars I have learnt of what my Lord Marlborough has left, which is more than the most extravagant believers ever named. The Treasury, a little before he died, found he had a full million rolling in the Government on loans, etc., besides his stocks, his ninety-nine years' annuities not subscribed in, his land, his posthouse 5,000*l.* a year, his mortgages and God knows what he may have besides in foreign banks.

He has left his widow (I wish some ensign had her) 10,000*l.* a year, to spoil Blenheim her own way; 12 000*l.* a year more to keep herself clean and plague folks at law with; 2,000*l.* a year to Lord Sund[erland] for ever and as much to the Duchess of Montague for life; 8,000*l.* a year to Lord Ryalton for present maintenance; and the gross of his wealth (for these are but snippings) to Lady Godolphin and her successors, according to the grand settlement. I forgot one article (a sad one), he has only given Lord Godolphin a jointure of 3,000*l.* a year if he outlive my lady. This I fancy was Her Grace's doings for not voting for her [on her appeal to the House of Lords in her action against Vanbrugh].

It having been referred to my Lord Godolphin with the other executors, Clayton and Guidet, to consider about the duke's funeral and place of burying, I have taken the liberty to mention to my lord what your lordship designs at Castle Howard, and has been practised by the most polite people before priestcraft got poor carcasses into their keeping, to make a little money of.

Sure, if ever any such thing as erecting monuments in open places was right, it would be so in this case. But I fancy the duchess will prevent his lying near her, though 'twould not make her very melancholy neither. The place I propose is in Blenheim Park, with some plain but magnificent and durable monument over him.

A month afterwards Vanbrugh was obliged to own there was an end to his project. But it will be seen from his letter he was not without hope that the possessors of Marlborough's great wealth could be utilized for his own advantage.

I believe my Lord Godolphin would have liked very well to have had the Duke of Marlborough buried in the park with a very good monument over him, but the duke directs in his will that they should bury him in the chapel at Blenheim. Here is a pompous funeral preparing, but curbed and crippled by Her Grace, who will govern it by her fancies, amongst which there is but one good one, and that is, that she 'll pay for it. I don't know whether it won't cost her ten thousand pounds. What a noble monument would that have made, whereas this idle show will be gone in half an hour and forgot in two days. The other would have been a show, and a noble one, to many future ages.

The king is much pleased with Kensington, and the easy way of living he is fallen into there. He goes, however, to Hampton Court the beginning of next month, and 'tis thought will make some little tour towards Salisbury, and back by Winchester and Portsmouth. He is not a bit content with Sir Tho. Hewet in finishing the rooms at Kensington. I have hopes of his doing something of advantage to me, though not as an architect; which is not a trade, I believe, for anybody to recommend themselves by at Court. I fancy your lordship's godson will be a professor that way, for he knows pillars and arches and round windows and square windows already, whether he finds them in a book or in the streets, and is much pleased with a house I am building him in the field at Greenwich, it being a tower of white bricks, only one room and a closet on a floor. He talks everything, is much given to rhyming, and has a great turn to dry joking. What these seeds may grow to, God knows, they being of a kind that may do his business, up-hill or down-hill, or perhaps upon the whole he were as well without them. They serve, however, to make himself and other people sport at present.

In the following February we find Vanbrugh taking up a more useful scheme — the improvement of London streets. The streets at the time were in so detestable a condition that even foreign visitors were amazed at them. It was difficult to introduce any reform, for then as now private interests were in favor of continuance of abuses which had become familiar. Vanbrugh enlisted the aid of Lord Morpeth, who was the son of the Earl of Carlisle. The time was one which dictated attention to sanitation, although it could not then be realized there was any connection between clean streets and health. In Paris no less than 14,000 people had been exterminated by the small-pox. The king wished to have inoculation tried, but when the Sorbonne was consulted the decision was adverse to the operation. According to Vanbrugh, the High Church clergy in England agreed with the Sorbonne. But however pressing were the reasons in favor of street improvements, it was necessary to use diplomacy in order to persuade members to advocate the measure.

The Bill was not, however, proceeded with in that session. In September, 1725, there is a letter from Vanbrugh, who was then at

Greenwich. Hawksmoor was with him and "was caught by the gout pretty badly." He also says he was afraid "a distemper has got hold of me, even worse than the gout, which is an asthma; at least I have strong symptoms of one, and know well how hard it is to deal with. But if I can't cure that I will, however, try once more to cure London streets; the Speaker seeming now quite in earnest about it, and desires we will have the Bill ready to bring in at the opening of the sessions, so I am preparing everything I can think of that may be of service to support it." In his next letter Vanbrugh states the restoration of Hawksmoor to his office of clerk-of-the-works at Whitehall, owing to the death of Sir Thomas Hewet, who, as above stated, did not satisfy George I with his finishing of rooms at Kensington Palace.

Vanbrugh was not permitted to see his Paving Bill become law and employed for the benefit of the public. He died in the following March. There is a marvellous difference between his buildings and his letters. Pope considered he was deficient in grace, while Horace Walpole said he was deficient in proportion, convenience and propriety. However true the strictures may be when applied to his buildings, they do not characterize his letters. There is no affectation of a wit or of a ponderous thinker. All is frank and simple in them. He had good reason to respect Lord Carlisle, but we find none of that obsequiousness which was common in those who were allowed to address a peer. Vanbrugh's letters should gain for his memory more esteem than is likely to arise from a study of his buildings, although they have a scenic impressiveness which is rare in English work.

BUILDING LAW

DAMAGES FOR PERSONAL INJURIES. — I.

LIABILITY for Dangerous Premises. — An owner who digs a deep hole on his unfenced land, about twenty-five feet from a street, which fills with water, and is concealed by boards and shavings floating on the surface, is not liable in damages for the death of a child five years old, who, without the consent of the owner, goes on the land, and is drowned in the hole.

[Grindley *vs.* McKechnie (Supreme Judicial Court of Mass.), 40 *N. E. Rep.* 764.]

Liability of Owner for Dangerous Building. — The Supreme Court of Nebraska holds that the owner of real property, in exercising his own tastes and inclinations as to the character of a building he will erect upon it, has no right to build and maintain a structure which, by reason of defects or inherent weakness either in material or construction, is liable to fall and do injury to an adjoining owner or the public. He is liable for the natural, probable, reasonable and proximate consequences of his acts only, and it is for the jury to determine whether any of these caused the injury.

[Kitchen *vs.* Carter, 66 *Northwestern Reporter*, 854.]

Assumption of Risk by Laborer on Building. — A laborer, of mature years, who had been employed for two years in putting up iron work in buildings and was familiar with such work, while moving a derrick on loose planks laid across the girders of a building in process of erection, by direction of his foreman, attempted to change the direction of the derrick on the plank by using a crow-bar while standing with one foot on the plank and the other braced against a girder, and slipped and fell into the cellar and was injured. According to his own testimony he apprehended no risk while performing this service. The court held that as the risk to which he was exposed was obvious and voluntarily assumed, the contractor was not liable.

[Holloran *vs.* Union Iron & Foundry Co. (Sup. Ct. Mo.), 35 *Southwestern Reporter*, 260.]

The Appellate Court of Indiana recently held that, one employed to assist in the erection of a building, who, in the ordinary course of such employment, is placed in a position where danger of personal injury is obvious, though acting under the control and direct orders of a superintendent, assumes the risk of such position.

[Stuart *vs.* New Albany Mfg. Co., 43 *Northeastern Reporter*, 961.]

Owners not Liable to Injured Employés of Independent Contractors. — It appeared that parties desiring to erect a brick barn contracted with certain mechanics for its construction; that the contract for the brickwork was let to one H. and provided that the scaffolding should be furnished by the bricklayer, and that the work should be done under the direction of the architects and owners, and to their entire satisfaction; that the contract for the carpentry was let under similar conditions to another mechanic; that the owners had no control over the employés of such contractors, or over the method in which the work should be performed; and that the party injured was an employé of the contractor for the brickwork, as a bricklayer on the building. The court held that the mechanics were independent contractors, and that the owners were not liable for injuries which happened to the employés of such contractors through the negligence of such contractors or their employés.

[Hupton *vs.* Unterkircher (Supreme Ct., Ia.), 66 *N. W. Reporter*, 776.]

Liability of Contractor for Negligence of Foreman. — The act of the foreman of a building-contractor in stretching a guy-rope across a railroad-track to aid in taking down a derrick, is within the scope of his authority, so as to render the contractor liable for an accident caused by the rope to a switchman standing on a moving car, when the foreman had general charge of the work, and special charge of moving derricks, though the contractor had instructed him to employ a derrick specialist when moving derricks.

[Reinke *vs.* Bentley (Supreme Ct., Wis.), 63 *N. W. Rep.*, 1055.]

Liability for Injury to Employé. — The foreman of a bridge gang and a mechanic working under his superintendence are not fellow-servants, and the employer is liable for the negligence of the former whereby the latter is injured.

[San Antonio & A. P. Ry. Co. *vs.* McDonald (Court of Civil Appeals of Texas), 31 *S. W. Rep.*, 72.]

When Owner is not Liable for Defect While Building. — An owner who contracted for the erection of a building, not in itself dangerous, and furnished the contractor with plans which, while not in all matters specific, could not have misled the contractor, is not liable for an injury to an adjoining landowner by the falling of a wall, due to the failure of the contractor to follow the fair meaning of the specifications.

[Neumann *vs.* Greenleaf Real Estate Co. 73 *Mo. App. Ct. Reporter*, 326.]

Negligence of Subcontractor. — A building contractor is not liable for injury to one of his employés caused by the negligence of a subcontractor, where the contractor had no control over the subcontractor. And this is especially true where the latter was a man of skill and experience, and the general contractor was justified in assuming that he would perform his part of the contract in a satisfactory and proper manner.

[Wittenberg *vs.* Frederichs (Sup Ct. App. Div.), 40 *N. Y. Supp. Reporter*, 895.]

[To be continued.]

ILLUSTRATIONS

[*Contributors of drawings are requested to send also plans and a full and adequate description of the buildings, including a statement of cost.*]

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NOTES & CLIPPINGS

The Greatest Spans in the World. — Among the largest spans of the arched type of bridge construction are the spandrel-braced structure at Niagara, of 550 feet; that of Garabit, India, of 540 feet; the Lisbon (Portugal) Douro bridge, of 528 feet; the St. Louis, of 520 feet; the Grunnenthal (Germany), of 513 feet, and the Harlem, of 510 feet. An arched railway bridge has recently been erected at Mungsten, in Germany, which has a span of 560 feet, thus being now the largest span of the arched-bridge type in the world. The construction of this viaduct has attracted world-wide attention. The object to be accomplished by the carrying out of this great engineering undertaking was that the necessity arose for running a railway between the two important industrial centres of Solingen (the German "Sheffield") and Remscheid, which are situated about five miles apart. For some time the physical difficulties to be encountered and overcome delayed the execution of the enterprise, and it was not until about eight years ago that serious steps were taken to advance it from the embryonic stage to that of an accomplished fact. Among other obstacles, the difference of level between the two stations was 340 feet, and the valley of the River Wupper, which had to be crossed, was from 300 to 400 feet deep. Previous to the construction of the new line the distance between the towns of Solingen and Remscheid was twenty-eight miles, which caused the transport of goods to and fro to reach a very high figure. The special constructive feature in the new railway is the viaduct over the valley of the Wupper, at about half a mile from Mungsten, which is erected at a height of 354 feet from the water-level of the river below to the level of the rails above, and has a length of 1,590 feet. All the workshops, houses for the men employed, and all other buildings and installations necessary for the execution of so extensive and important an undertaking, were erected at the Solingen side of the viaduct. All the machinery and mechanical appliances were worked by hydraulic power, the motive force being furnished by water pumped from the river, which was also used for the production of electric-light. After the work of levelling 12,000 cubic yards of clay and schist, an area of about 10,000 square yards was obtained, upon which was erected an electrical station containing a couple of dynamos, with a total power of 23,000 watts and a large forge and smith's shop. It was in the spring of 1895 that the metallic part of the structure was commenced, in the month of July of the following year that the building up to the great central arch was taken in hand, and in the same month of the next year that the work was completed. The rapid manner in which the whole of this great structure was successfully executed is the more commendable because a considerable part of the central arch was put together during a severe winter, and when the stormy winds severely tried the nerve and resources of all those concerned in the undertaking. The total cost of the viaduct amounted to about $2,000,000. — *Philadelphia Record.*

Revolutionary Mementoes at Versailles. — Visitors to Versailles during the summer will find a new attraction in the museum, consisting of a department containing more or less artistic relics and mementoes of the Revolution of 1789, collected by the keeper, M. Pierre de Nolhac. The room in which the articles are placed is on the second floor of the Palace. One of the most interesting of the exhibits is a marble bust of the Dauphin, son of Louis XVI, which was thrown down and broken by the mob when they entered the Tuileries. It has been remarkably well patched and restored. Near it are busts or portraits of Robespierre, Mirabeau, Fabre, d'Eglantine, Bailly, Barrère, Manuel, and numerous other notabilities or notorieties connected with the great upheaval. There is also a drawing by Moreau le Jeune, of the Assembly of the Notables, with pictures of the Federation Fête on the Champ de Mars, and a big, bad canvas representing Louis XVI in a red uniform on a white horse, done by Carteaux, who was a poor painter and an indifferent general. The collection well repays a visit. M. de Nolhac found many of his interesting exhibits in garrets and lumber-rooms of the Old Palace of All the Glories. — *Paris Correspondence London Telegraph.*

The Colossal Turull Bird Monument. — The most colossal monument on the Continent of Europe, and second alone in dimensions to the Liberty statue in New York, writes the Vienna correspondent of the *Chicago Record*, is that of the fabulous Turull bird recently erected on the summit of the Banhida Mountain, in County Komorn, Hungary, in commemoration of the Hungarian millennium, which was celebrated with a stupendous amount of patriotic enthusiasm in 1896 in all portions of the kingdom. The site is well chosen, seeing that the monument occupies the spot where Arpad slew Swatopluk, the Slavic chieftain, on his invasion of the Hungary of to-day. It was mainly due to the exertions of the famous Magyar romancer, Jokai Mor, that the collection for the monument was started. This bird, fable has it, has played an extraordinary part in the destinies of the nation, so that the poorest, moved to enthusiasm by the eloquence of the popular poet, contributed the copper he could ill afford to spare to the general fund. The conception of the monument is that of the Magyar sculptor, Donath Gyula, the metals used being copper and iron. The height from the claw to the tip of the wing is 68 feet, the outspread wings are 46 feet long and the sword of Arpad, which the monster bird holds in its claws, measures 40 feet.

The Palace of Theodoric. — The works upon the site of the so-called "Palace of Theodoric" at Ravenna have been brought to an end. It has now become clear, according to the Munich *Allgemeine Zeitung*, that the palace dates from a later period than that of the great Goth, and as it bears traces of the East Roman builders, was probably erected by the Exarchs during their residence at Ravenna. There are signs also of its having served as a barrack for soldiers.

Deep Wells. — A curiosity at least is this compilation of the deepest wells in the world: In Europe, one at Passy, France, depth, 2,000 feet; at La Chapelle, Paris, depth, 2,950 feet; at Grenelle, Paris, depth, 1,798 feet; at Neusalwerk, near Minden, depth, 2,288 feet; at Kissingen, Bavaria, depth, 1,787 feet; at Sperenberg, near Berlin, depth, 4,190 feet, which is said to be the deepest in the world; at Pesth, Hungary, depth, 3,182 feet. In the United States there are wells located at St. Louis, depth, 3,843 feet; at Louisville, depth, 2,086 feet; at Columbus, Ohio, depth, 2,775 1-2 feet, and at Charleston, S. C., depth, 1,250 feet. — *N. Y. Tribune.*

A Chaldean Brick. — What is asserted to be the oldest brick in existence was recently exhibited at a meeting of the Académie des Inscriptions et Belles-Lettres of Paris, by M. Henzey, the keeper of the Louvre. It is supposed to date from the fortieth century before Christ and was discovered at Tello, the ancient Sirpulo, in Chaldea, by the French archæologist de Sarzee. The brick in question was curved in shape, and, while it had been baked, it did not show any signs of having been pressed or moulded. The mark of the maker was merely the impress of his thumb, and the specimen is without doubt one of the earliest marks of civilization ever discovered. As brick-making is the earliest of the known arts, this particular piece must mark very nearly the dawn of civilization. — *N. Y. Evening Post.*

A Penitentiary built by Convicts. — The Montana State Penitentiary, a handsome brick and stone building, capable of accommodating five hundred prisoners and said to be one of the finest buildings of the kind in the country, has a somewhat novel history. The work, which would have cost at least a quarter of a million, was done by the inmates of the prison within a space of four years, at a cost of only about $50,000. With the exception of the superintendent, the foreman of the brickyard and the tinner who had charge of the covering of the roof, all the work was done by "criminals," many of them unskilled laborers. Even the architect who furnished the design for the building was a prisoner whose sentence expired only a few weeks prior to the commencement of the construction. There were no quarrels among the men, no insubordination and no attempted escapes while the work was in progress. Without chains or fetters and with few guards the men quarried the rock, cut and dressed the granite blocks, moulded and burned the bricks, dug the sand, burned the lime, cut the logs and sawed the timber. — *Boston Transcript.*

The Church of Notre Dame at Clermont. — In the course of an agreeable account of "The Churches of Auvergne" in the August *Century*, Mrs. Schuyler van Rensselaer revives one of the most famous scenes in French history — the preaching of the first crusade by Peter the Hermit at the Council of Clermont. Thanks to its holy patroness and her miraculous statue, the little church of Notre Dame du Port, and not the cathedral, which so far outranked it in station, size, and title, was the hearthstone of the religious and civic life of Clermont. It was one of the chief strongholds of Mariolatry in France. Annually thousands of pilgrims sought the low-browed, semicircular, and columned crypt where the ancient statue stood; and when, in days of peculiar peril, it was carried through the streets, the hands that were to touch it, and the priests and laymen who were to form its escort, were first solemnly blessed in the cathedral church. Many interesting and significant events were witnessed by the Church of Notre Dame du Port; but one of them so overshadows the rest that we are apt to forget them all in its favor. Here, in the month of November, in the year 1095, when the present Church of Notre Dame du Port was fresh and fair from the hands of its builders, rich with carving and gorgeous with color, a great ecclesiastical council assembled. Thirteen archbishops were gathered together, 205 cardinals, bishops, and abbots, from all parts of France and many foreign lands, and such companies of secular lords and princes, and such hosts of followers, servants, pilgrims, beggars, priests, and sight-seers, that "the towns and villages of the neighborhood were full of people, and divers were constrained to have their tents and pavilions set up in the fields and meadows, notwithstanding that the season and the country were cold to an extreme." Among the cardinals was one who afterward became Pope Innocent II; and among the bishops was the great warrior, Odo of Bayeux, uncle of that still greater warrior, William of Normandy and England. Over them all presided the actual Pontiff, Urban II. And when, on the tenth day of deliberation, the troubles of the Christians in the East were laid before the council, while the people in myriads looked and listened, there stood close by the side of the Pope the contrasting figure of a shabby monk called Peter the Hermit. You know the rest of the story. You have read Peter's vivid, impassioned account of the desecration of the tomb of the Saviour and the persecution of European pilgrims — of the woe of Jerusalem and the duty of Christendom. You have read how Urban, himself a Frenchman by birth and speech, reinforced Peter's words with burning words of his own, and ended with the bold command: "Take ye, then, the road to Jerusalem for the remission of your sins, and depart assured of the imperishable glory which awaits you in the kingdom of heaven!" You have been told how the crowd shouted in return, "*Dieu le veut! Dieu le veut!*" although you have never heard the shouts of any crowd so vast; how, amid perpetual repetitions of this ecstatic "God willeth it!" soldiers and burghers, yeomen and priests, dispersed to pin the red cross to their sleeves; and how, infecting all Europe with their faith and fury, they assembled in the following spring, 300,000 of them, with Peter the Hermit at their head, for the beginning of the first crusade. No more stirring scene than the Council of Clermont is portrayed in any of history's books, and none which meant the inception of a popular movement with more varied and profound results. And as no building built with hands could contain the multitude that played a part in it, the setting for it was the open "Port" in front of Notre Dame.

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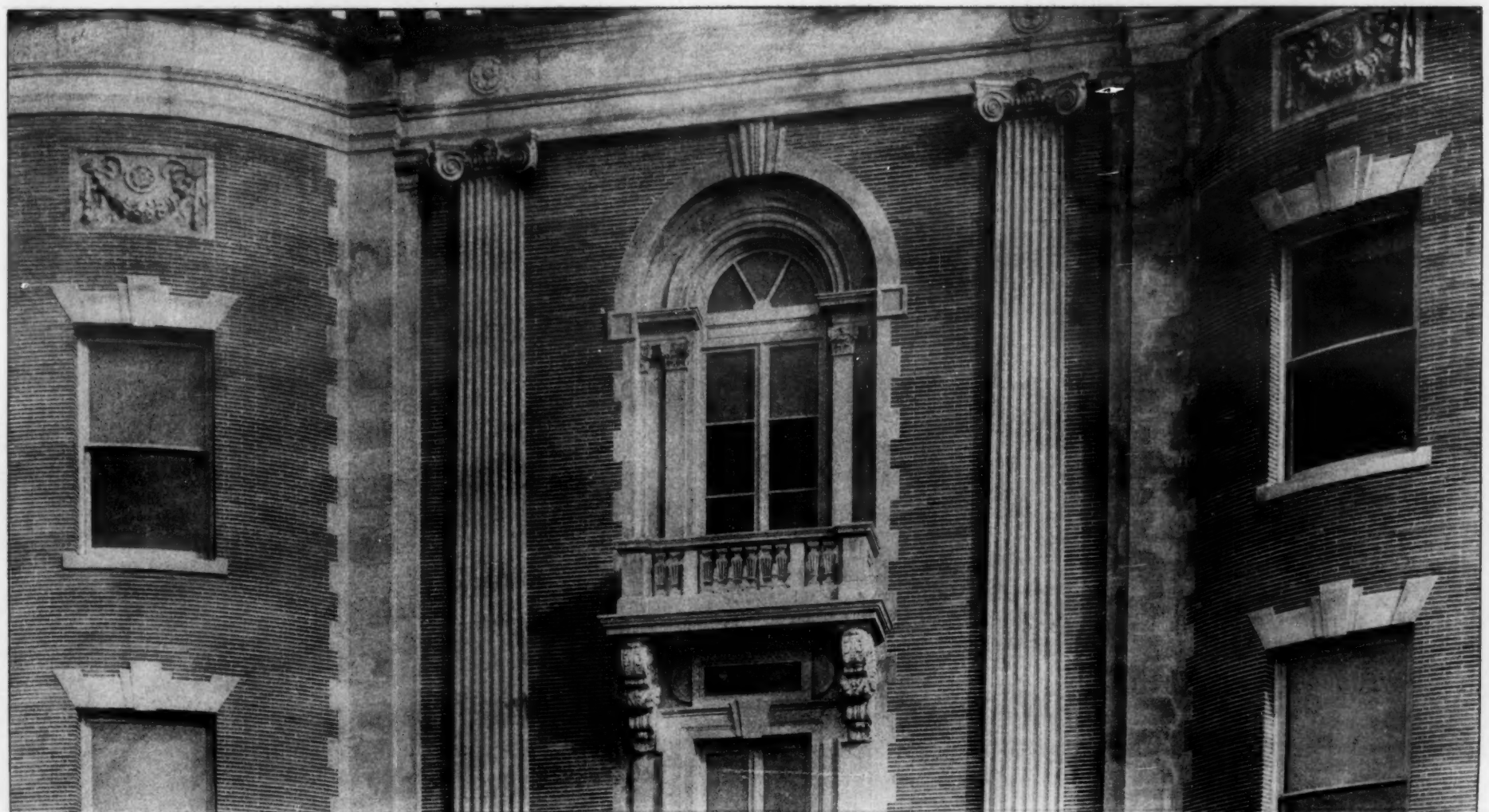

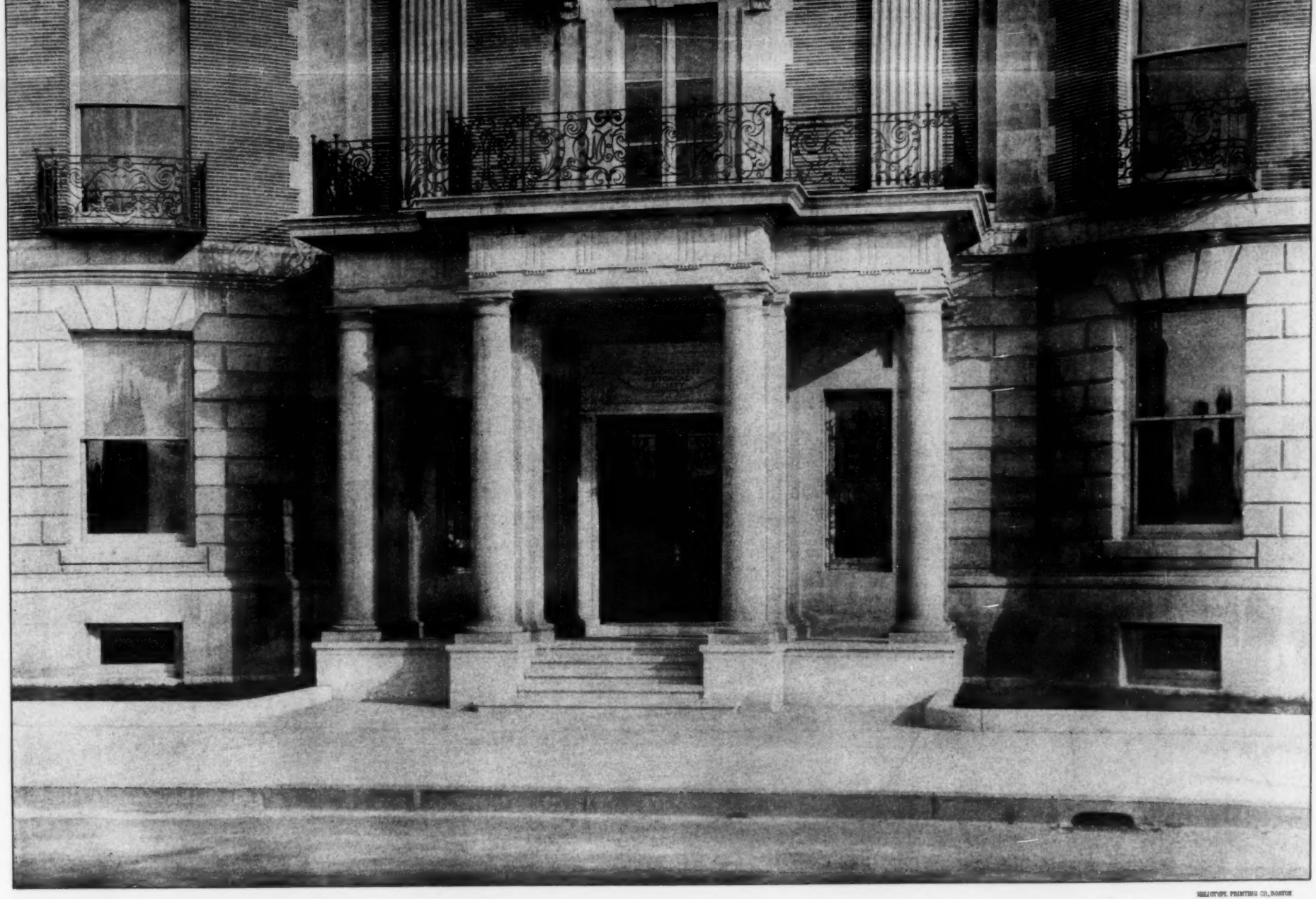

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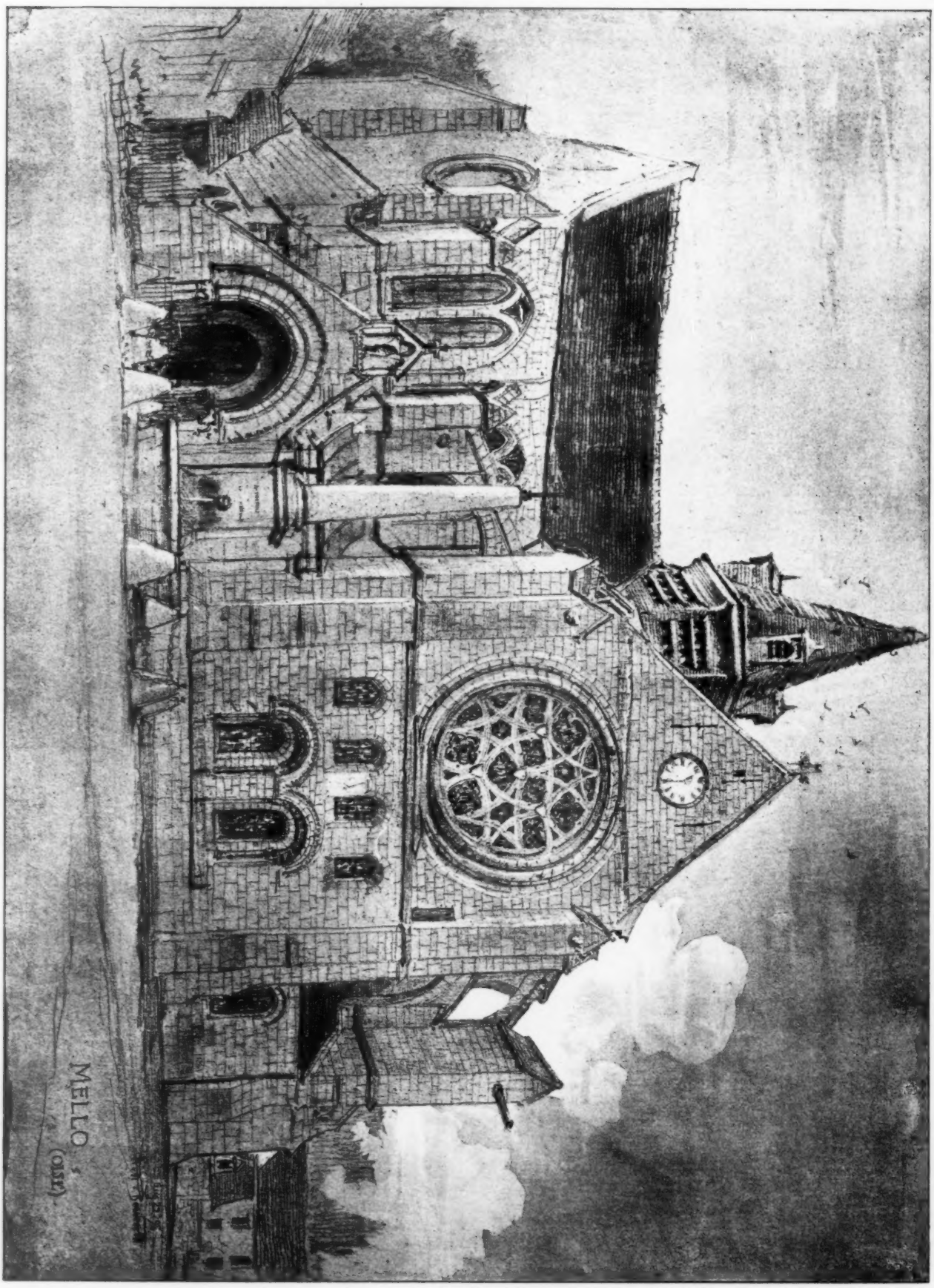

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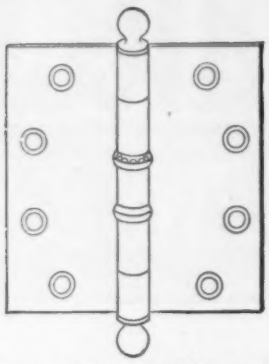

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Foundation:			
Dimension	@	5 00 ₱ ton.	@ 5 00
Block	@	4 60 ₱ perch.	Conshocken
Rubble	@	1 25 @ 1 50	1 45 @ 2 50
Sandstone:			
Longmeadow	@ 80	80 @ 90	
Kibbe	@ 90	90 @ 1 10	95 @ 1 05
Brown (Connecticut)	1 00 @	1 00 @ 1 30	1 05 @ 1 25
Amherst Ohio	90 @ 95	90 @ 1 00	85 @ 95
Berea "	75 @ 1 00	85 @ 90	55 @ 75
Berlin "	75 @ 1 00	80 @ 90	85 @ 95
Belleville	80 @ 1 25	25 @ 1 35	1 00 @ 1 10
New Brunswick (Dorchester)	@ 1 00	75 @ 90	1 05 @ 1 15
Potsdam Red	@ 1 30	@ 1 40	@ 1 40
Caen	@	@ 2 00	1 25 @ 1 35
Carlisle, English	@ 1 05	@ 1 05	95 @ 1 05
Corse Hill (Scotch)	@ 1 05	@ 1 05	95 @ 1 05
Granite: (*Maine*)		@ 60	55 @ 65
Limestone:			
Bedford	45 @ 1 25	95 @ 1 00	75 @ 85
Joliet	1 00		Richmond
Lemont			₱ 75 @ 1 50
Serpentine		10 50 per ton.	Perch 4 50 @ 5 50
Bluestone: (₱ *sq. ft.*)			
Sidewalk	30 @ 5 00	40 @ 1 75	1 in. th. 10 @ 25
Planed	50 @ 6 00	@ 75	37 @ 50
Marble: (₱ *cu. ft.*)			
Lee, Mass	@	1 75 @ 2 50	2 00 @ 2 50
Rutland, white and blue	@	@ 3 00	2 00 @ 3 00
Sutherland Falls	1 25 @ 1 75	@ 2 00	1 70 @ 3 00
Glens Falls, black	@	@	4 00 @ 4 50
Italian, blue-veined	@	@	2 50 @ 2 75
" Sienna	@	@	@ 5 00
Tennessee, red	@	@	4 00 @ 6 00
" Knoxville	@	@	3 00 @ 4 00
Pennsylvania, blue	@	@	2 00 @ 3 00
Vermont, white	@	@	2 25 @ 3 00
Slate: Roofing (₱ *square*)			
Green	5 00 @ 6 00	4 75 @ 5 25	2 90 @ 3 60
" unfading	5 00 @ 6 00	5 50 @ 6 50	4 25 @ 5 00
Purple	5 00 @ 6 00	5 50 @ 6 50	4 50 @ 5 50
Red	@ 10 00	10 00 @ 11 00	11 50 @ 13 00
Black, Lehigh	4 25 @ 4 75	@	4 00 @ 4 35
" Chapmans	@	@	4 50 @ 5 00
Genuine Bangor	4 35 @ 5 50	4 75 @ 5 90	4 35 @ 5 50
Unfading black,	6 00 @ 8 50	6 00 @ 8 50	6 50 @ 9 00
" "	5 50 @ 8 00	5 50 @ 8 00	6 50 @ 9 00
Tiles, Am. ₱ M	@	@	@ 28 00
N. Peach Bottom, war. unfading	@	@	5 76 @ 6 25
Fire Clay Roof Tile on cars at fac.	8 00 @	8 00 @	8 60 @
LUMBER. — ₱ M.			
Boards: (*Ordinary dimensions.*)			
Pine, 1st quality, clear	65 00 @ 75 00	55 00 @ 75 00	47 50 @ 60 00
" 2d quality	55 00 @ 60 00	@ 55 00	38 00 @ 48 50
" 3d quality	18 00 @ 22 00	@ 45 00	27 50 @ 36 50
Spruce	@ 25 00	14 00 @ 20 00	15 00 @ 21 50
Hemlock	ea13½ @ 14	13 50 @ 18 00	11 50 @ 13 75
Yellow pine	20 @ 40	22 00 @ 40 00	14 00 @ 29 00
Cypress	@	28 00 @ 55 00	30 00 @ 38 00
Clapboards:			
Pine	@	35 00 @ 55 00	14 00 @ 25 00
Spruce	@	24 00 @ 40 00	*Not sold.*
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Pine			25 00 @ 37 30
Spruce	14 00 @ 16 00	17 00 @ 20 00	15 00 @ 21 50
Hemlock	12 00 @ 16 00	14 50 @ 17 00	14 00 @ 20 00
Yellow pine	18 00 @ 21 00	25 00 @ 50 00	22 50 @ 30 00
Laths:	@		
Pine ..... Round Wood	@	2 00 @ 2 50	2 75 @ 3 00
Spruce ..... Slab	@ 2 25	2 25 @ 2 75	2 30 @ 2 35
Shingles:			
Pine, shaved ₱ M	5 00 @ 6 00	@	
Pine, sawed "	4 00 @ 5 00	@ 450	
Spruce, sawed "	1 50 @ 2 00	1 50 @ 2 00	
Redwood ₱ 125.	1 40 @ 1 60	3 25 @ 4 00	30″ $35 @ 40
Cedar split ₱ M		@ 6 00	24″ 8 @ 21
Cedar sawed "	@	2 75 @ 3 75	20″ 35 @ 14
Cypress. Split ..... 7 x 24 "	18 00 @ 20 00	5 00 @ 6 00	11 00 @ 14

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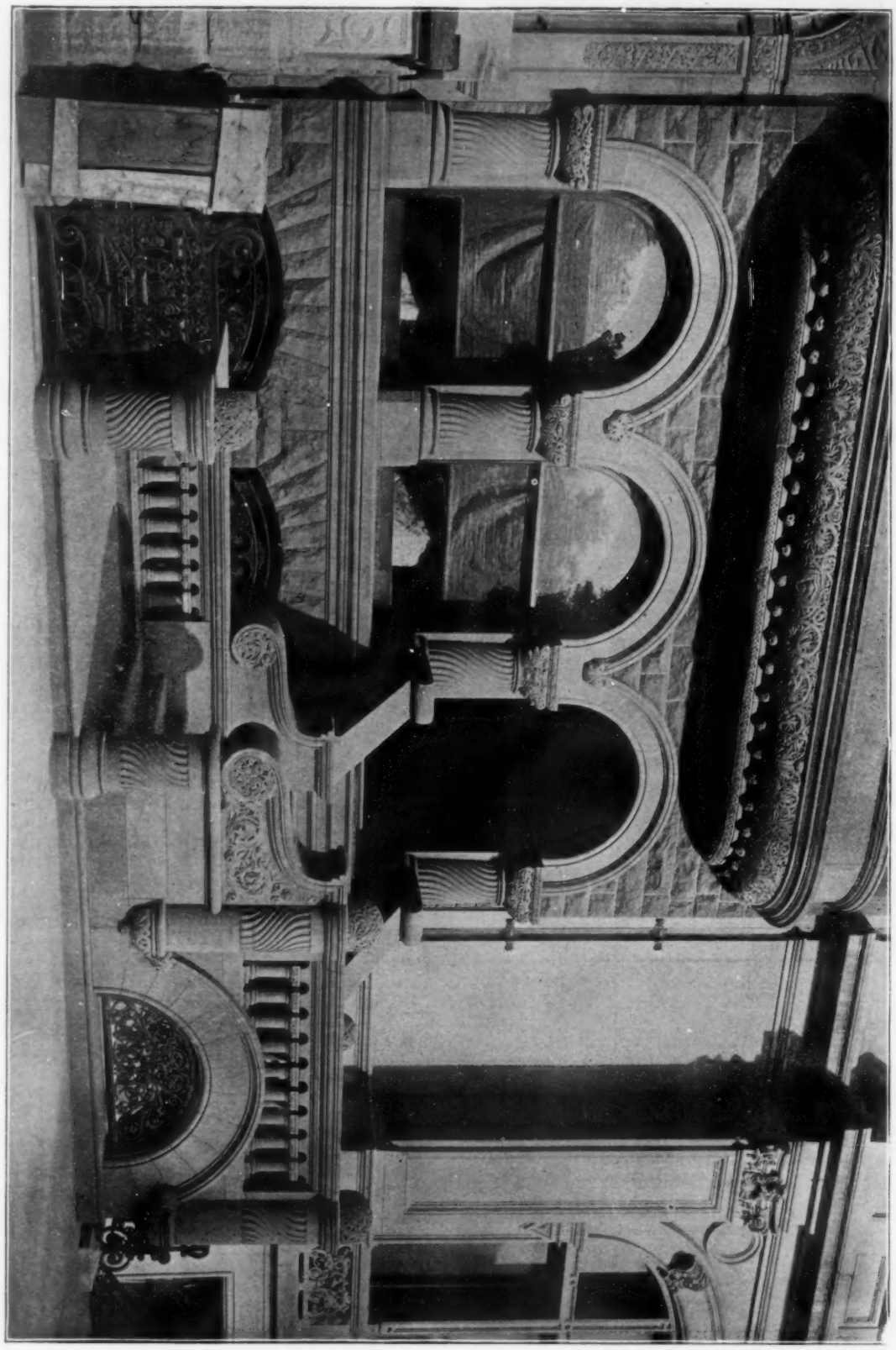

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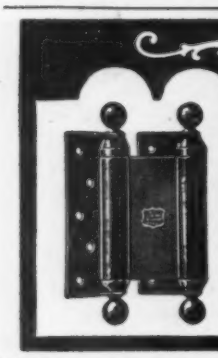

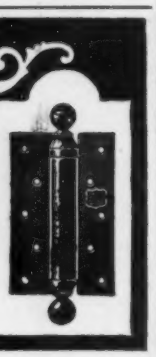

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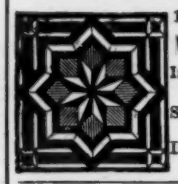

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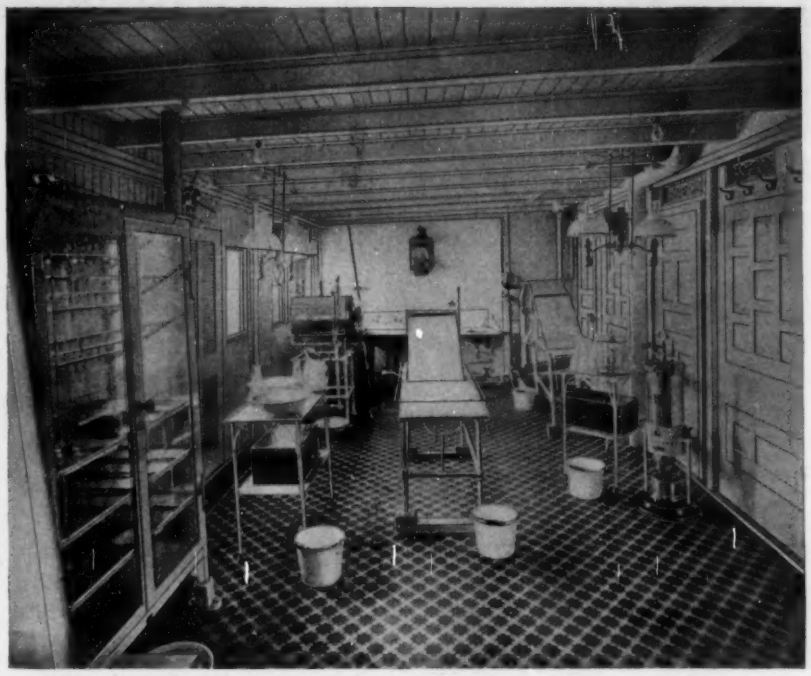

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BUILDING INTELLIGENCE.

(Reported for The American Architect and Building News.)

[Although a large portion of the building intelligence is provided by their regular correspondents, the editors greatly desire to receive voluntary information, especially from the smaller and outlying towns.]

ADVANCE RUMORS.

Anderson, Ind. — Thos. Owens & Co., of Louisville, have received the contract for the Methodist Church, at $28,797.

Fletcher Bros., 47 Wiggins Blk., Cincinnati, O., have received contract for building the Central Christian Church, at $24,697.

Andover, Mass. — Phillips Academy is to build a $50,000 gymnasium.

Augusta, Ga. — Henry A. Johannsen is preparing plans for a three-story business structure, 43' x 70', to be erected on Broad St. The front will be of Georgia marble and the rear of pressed brick; cost, $20,000.

Baltimore, Md. — The contract for the Calvert Building at Fayette and St. Paul Sts. has been awarded to the Geo. A. Fuller Co., of Chicago and Baltimore. The contract price is reported to be $700,000. J. Evans Sperry, architect, 601 *Herald* Building.

Battle Creek, Mich. — The Postum Cereal Co. will erect a hotel and two store-buildings, to cost about $110,000.

Bloomington, Ind. — The congregation of the Presbyterian Church is having plans prepared for the erection of a new edifice, to cost $10,000.

Brownsville, Tenn. — The School Board contemplates the erection of a $10,000 brick school-house, to be erected in the fall.

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(*Advance Rumors Continued.*)

Buffalo, N. Y.—The Directors of the Holy Angels Academy are considering the matter of expending about $50,000 on improvements.

Charleston, W. Va.—The Legislature has appropriated $60,000 for the construction of the annex to the State Capitol, the cost of which is limited to that amount.

Carlisle, Pa.—The contract for the First Lutheran Church has been awarded to Jas. Porter, for $45,-000.

Chicago Heights, Ill.—George A. Fuller Co. have the contract to erect four factory buildings, 100′ x 150′ each, for the Sargent Company, 59th and Wallace Sts., at $125,000.

Chicago, Ill.—R. A. Greifenhagen will erect an eight-story apartment-house at 2613 Michigan Ave., plans for which will be prepared by George S. Kingsley, 401, 109 Randolph St. It will cover an area of 50′ x 162′, of fireproof construction; cost, about $100,000.

Dankmar Adler has prepared plans for a coliseum, proposed to be built on the Ogden tract on the north shore; estimated cost, $350,000.

The several colored organized fraternities of this place have purchased a site on State St., north of 43d St., from W. H. Bowers, 339 Thirty-first St., on which they will erect a new building, to cost about $25,000.

Colorado Springs, Col.—T. P. Barber, architect, has made plans for the new Y. M. C. A. Building, to be erected at a cost of about $30,000.

Columbia, Mo.—A $25,000 hospital will be erected on the university grounds, plans for which are being prepared by Thomas Nolan for the State University.

Denver, Col.—Plans are being prepared by the F. E. Edbrooke Architect Co., 811 People's Bank Building, for alterations to be made to the Tabor Opera-house Block; cost, about $100,000.

Des Moines, Ia.—A corporation known as the Iowa Methodist Hospital Association has been formed with a capital of $500,000. It is expected that $100,000 of this amount will be used for the erection of a hospital.

The Stoner Wall Paper Manufacturing Co. has had plans prepared and will let the contract at once for a new building, which will cost about $25,000.

Dubuque, Ia.—T. T. Carkeek, Lincoln Building, is preparing plans for a $50,000 building for the Second National Bank.

Englewood, N. J.—Shepley, Rutan & Coolidge have let contracts for a new electric light and power plant to be built here for the Commonwealth Electric Light Co., now a branch of the Chicago Edison Co. The power-house is to be erected on 56th St., near Wallace St., and will be as nearly fireproof as it can be made, with exterior of pressed brick and stone and interior of structural iron and steel. Construction is estimated at $100,000, and the equipment will cost as much again.

Fall River, Mass.—Callahan & Daley are erecting a $25,000 three-story brick and stone building on Hartwell St., for Quinlan Leary. E. I. Marble and Frank Irving Cooper are the architects.

Quinn, Woodland & Co. are to build a $25,000 addition to their stores on S. Main St. Louis G. Destremps, Room 9, Borden Blk., architect.

Florence, Ala.—Mr. Marshall, of Montgomery, has received the contract for a court-house for $20,475.

Forsythe, Mont.—Preparations are being made and plans have been drawn for the erection of a $10,000 school-building.

Greenfield, Mass.—Frizzell & Keefe have drawn plans for a new hall for the Father Mathew Society to be built on its lot at the corner of Hope and Olive Sts. It will be a two-story wooden building with basement, to cost about $3,500. The first floor will be finished off for stores, and the second story will be used by the society. The building will be ready for occupancy this winter.

F. E. Wells has bought an acre and a half of land of J. W. Riddell, on Riddell St., and will erect a one-story factory, 50′ x 100′.

Holyoke, Mass.—Casper Ranger has been awarded the contract for the building of a coal-pocket on the New York, New Haven & Hartford Railroad for W. B. Whiting & Co. The structure will cost between $10,000 and $20,000, and will take 200,000 to 300,000 feet of lumber.

Hopkinsville, Tenn.—The directors of the Colorado Baptist College will soon begin the erection of a $15,000 building on the lot recently purchased.

Hurley, Wis.—F. D. Orff, Minneapolis, Minn., has completed plans for a two-story brick high-school house, 74′ x 80′, and bids for construction are wanted by Geo. C. Foster, clerk, until August 29th.

Independence, Kan.—The Union Improvement Co. is about to build a $20,000 brick and stone business building. H. M. Hadley, of Topeka, architect.

Jordon, S. C.—The Methodist Society will erect a $25,000 church, for which plans have been prepared; work will commence about September 1.

Kansas City, Mo.—The Little Sisters of the Poor will erect an addition to their building at Springfield and Holmes Sts., plans for which are being prepared by Shepard & Farrar, New Ridge Building; cost, about $25,000.

Hollinger & Mitchell, 221 Main St., have received the contract for the east wing of the Manual Training School for $35,525.

La Salle, Ill.—Reports state that the Carl Pressing Cement Co. will build a new factory, to be of steel construction and cost $100,000.

Lexington, Va.—A new building will be erected at the Virginia Military Institute to the memory of Gen. Francis H. Smith. The drawings have been completed by William C. McDowell and bids will be received by the middle of this month for its construction. The building will cost about $20,000, constructed of brick, three stories, 196′ long and 74′ 6″ wide. A tower 12′ square, with an altitude of 74′, will rise at the front.

Los Angeles, Cal.—Senator W. A. Clark will build a new sugar-factory on the Cerilos ranch. The capacity will be 1,000 barrels per day, and the plant will cost $500,000.

Louisville, Ky.—The American Tobacco Co. is to build another big factory in this city, the cost of the structure alone being $150,000, exclusive of the land and other appurtenances.

Marietta, O.—Plans have been completed for the new $10,000 building to be erected by the Elks on Front St.

Milwaukee, Wis.—The Christian Scientists have purchased a site for a church on Prospect Ave. and Keene St. Architects will be asked to submit competitive plans.

Minneapolis, Minn.—Charles S. Sedgwick, architect, has completed plans for a chapel to be added to Andrew Presbyterian Church on 4th St. and 8th Ave., S. E. It will be 50′ x 100′, of native blue stone and of the same style architecture as the church, with slate roof, hot air heat; estimated cost $15,000.

Newark, N. J.—The Arion Singing Society of this city have decided to erect a building with permanent headquarters for the organization, and also a hall suitable for its entertainments. The building will cost about $50,000.

Newport, R. I.—William Walcott, of Colley & Co., bankers and brokers, of New York, Boston and Providence, has made an offer to the owner of the Conckling Estate, Touro Park West, for the purchase of the entire property, and if the offer is accepted he will erect one of the most modern and elaborate hotels in the country.

New York, N. Y.—Wm. H. Hume & Son, 3 Union Sq., W., have completed plans for a $1,800,000 building for Simpson, Crawford & Simpson, to be erected on 6th Ave. and 19th and 20th Sts.

Norfolk, Va.—Architect J. E. R. Carpenter has prepared plans for a five-story store building for Miller, Rhoads & Co.; cost $60,000.

Northampton, Mass.—At a special meeting of the City Council for a reconsideration of the armory matter, the vote showed nine opposed and eight in favor. An indefinite postponement was then moved and carried.

Perkasie, Pa.—Ground has been broken for a new Baptist Church at the corner of 3d and Arch Sts.

Philadelphia, Pa.—John Devlin will erect 28 dwellings in different parts of the city. Twenty-two will be in the vicinity of 48th St. and Westminster Ave., and will cost about $100,000. The other six will be erected in Germantown, on E. Tulpehocken St., between Lensen and Ross Sts., at an estimated cost of $27,000. The houses will all be three stories, of stone, 16′ x 52′, except the two properties at the northwest and southwest corners of 48th St. and Wyalusing Ave., which are to be 18′ x 52′, and cost $4,500 each.

The corner-stone of the new edifice of the Lehigh Avenue Baptist Church was laid a few days ago, at 12th St. and Lehigh Ave. There was a large attendance present to witness the ceremonies, composed of the congregation and those who were interested in the welfare of the church.

Pittsburgh, Pa.—L. Benz & Bros. have received the contract for erecting the buildings for the Duquesne Brewing Co., which will cost about $200,000.

Prairieview, Tex.—A $10,000 dormitory is to be erected for the State Normal School.

Princeton, N. J.—A valuable piece of property on the corner of Nassau St. and University Pl. has just been purchased in the interest of the university. A large grocery store and dwelling-house now occupy the ground, but these will soon give way to the erection of a large dormitory, which will doubtless be put up soon after the university opens in September.

Providence, R. I.—Hoppin & Ely, architects, 32 Westminster St., have completed plans for a tower and spire to be added to St. Stephen's Church on George St. The contract for building the tower has been let to William Gilbane & Brothers, and it is expected that in about three weeks the first stone will be ready and the erection of the tower will be begun. It will take three months to complete it. The expense of building the tower will be met by a fund which has been collected during the past ten years especially for this purpose.

Rock Island, Ill.—A new $50,000 passenger station will be built this fall by the C. B. & Q. R. R.

Architects Drack & Kearns have prepared plans for a story addition to the Woodman Building, to cost $20,000.

Sioux City, Ia.—The contract for building the new St. Joseph Hospital has been awarded to O. H. Olson, Stillwater, Minn., at $18,000.

South Omaha, Neb.—Armour & Co. have decided to erect a large cold storage warehouse at this place. It will be 184′ x 200′, nine-story, and built of brick. The cost will be in the neighborhood of $250,000.

Springfield, Vt.—Jones & Lampson Machine Co. are making extensive improvements to their plant, and have let the contract to the Berlin Iron Bridge Co., of East Berlin, Conn., for a new steel building, 60′ wide and 95′ long. The building will have many special features which make it exceedingly interesting.

Tunnellhill, Ky.—Max Sneider will build a frame and stone dwelling and barn costing $16,000. Plans are being prepared by Edgar E. Albus, Louisville.

Worcester, Mass.—Architects Frost, Briggs & Chamberlin have been commissioned to prepare drawings for the proposed new high-school building to be built on Richards St., at an estimated cost of $130,000, exclusive of the land.

Dr. George D. Moore has bad plans prepared by Frank A. Moore, of 123 E. 23d St., New York City, for a fine private residence to be erected on Salisbury St. The plans call for a large frame structure to cost from $18,000 to $20,000. The plans are now being figured here.

Edwin T. Chapin and Charles D. Parker have completed plans for the new wire mills to be erected on Webster St., for the Spencer Wire Co. The main building will be 50′ x 200′. Contractor E. J. Cross will construct the building, doing the work by the day.

The erection of the new Grafton Street School-house from plans by Architect J. W. Pattison, has been awarded to Contractor Urgel Jacques.

APARTMENT-HOUSES.

New York, N. Y.—*Brooke Ave.*, cor. Wendover Ave., 3 four-st'y bk. flats; $52,000; o., James Anderson, 376 W. 32d St.; a., R. Werner, 3d Ave., cor. Wendover Ave.

Broadway, cor. 109th St., seven-st'y bk. & st. flat & stores, 80′ x 100′; $185,000; o., Henry G. Gabay, 892 Third Ave.; a., Henry Anderson, 1180 Broadway.

Sixty-ninth St., nr. Amsterdam Ave., six-st'y bk. & st. flat, 40′ x 90′ 5″; $60,000; o., Wilber M. Gaige, 129 W. 125th St.; a., Geo. J. Ebert, 82 Lawrence St.

One Hundred and Sixty-fifth St., cor. Prospect Ave., four-st'y bk. flat, 37′ x 80′; $35,000; o., Louther S. Horne, 1783 Sedgwick Ave., a., Jos. C. Cocker.

Eleventh St., nr. Greenwich St., 3 five-st'y bk. flats & stores, 28′ 8″ x 81′ 9″; $27,000 each; o., Jos. F. Doyle, 795 St. Nicholas Ave.; a., Neville & Bagge.

Worcester, Mass.—*Mechanic and Bridge Sts.*, two-st'y bk., granite & brown st. building arranged for 3 stores & 6 flats, 121′ x 121′; $20,000; o., Rollin G. White; c., Thomas Barrett.

CHURCHES.

Barnesville, Minn.—Bk. & st. church, 50′ x 150′, shingle roof, hot water; $14,000; o., Assumption Catholic Society; a., E. Brielmaer & Sons, Milwaukee, Wis.

Brooklyn, N. Y.—*Lafayette Ave.*, cor. St. James Pl., one-st'y bk. church, 68′ x 139′, slate roof, steam heat; $56,000; o., St. James Episcopal Church, on premises; a., H. R. Brewster, 41 Wall St., New York.

Chicago, Ill.—*W. Forty-seventh St., Nos.* 1732-38, one-st'y bk. church, 59′ x 81′; $12,000; o., Methodist Episcopal Society; b., Fred A. Kruse; a., F. Ahlschlager.

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The Builders' Association of California.

San Francisco, Cal., Aug. 4, 1899.

Bartlett Lumber Co., Boston, Mass.

Gentlemen:—After twenty years' experience in California as a builder I have decided that the California Redwood is superior to any soft wood in the United States, and I believe in the world. It is easy to work; has no pitch; will not warp or check and shrinks less than any wood I ever handled; is not inflammable like pine, and while it will burn, the slightest spray will extinguish the flame and cause it to char. For natural finish and color it equals Spanish cedar or mahogany. It is the best wood to hold glue that I have ever used.

The curly Redwood is grand, also the burl, and takes a fine polish. It is a lasting wood and for ties and fence-posts is used exclusively.

All tanks in California are made from Redwood. I put up a Redwood tank made from 2″ stock in 1876, and it is in perfect condition today, although exposed to the weather on a frame 30 ft. high. Size of the tank 12 ft. in diameter and 30 ft. high.

There is no wood that works better on a machine, as you can run mouldings almost as smooth as glass.

Respectfully yours,
(Signed) C. M. DEPEW.

San Francisco, Cal., July 10, 1899.

Bartlett Lumber Co., Boston, Mass.

Gentlemen:—For fourteen years I have been actively engaged as a contractor and house-builder in the city of San Francisco.

From my experience of thirty-five years as a practical carpenter I am thoroughly familiar with the relative merits of all kinds of lumber used in the construction of houses.

For interior finish I have found Redwood fully equal to any of the soft woods, and for exterior finish, I regard it as far superior to any other lumber. For all purposes, it keeps its place better, shrinking and swelling less than any kind of lumber I ever used. In its lasting qualities and freedom from rot or decay, it is far superior to pine and other soft woods. Being free from pitch, it takes paint well, finishes beautifully in natural color with oil, and can be polished equal to the finest hardwoods. It is very slow burning; less inflammable than any of the other woods, and is practically non-combustible.

I am now putting up under contract, for the United States Government at Mare Island, California, $100,000 worth of buildings. In one instance, on my suggestion, the specifications for 90,000 feet of sheathing were changed from pine to Redwood.

Very respectfully,
(Signed) J. W. HANSBROUGH.

We have in stock and in transit from one to two millions of Redwood and can furnish any sizes required. Read our references from week to week; also write us for descriptive booklet.

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BUILDING INTELLIGENCE.

(*Churches Continued.*)

Milwaukee, Wis.—Bk & st. church, 72′ x 150′, slate roof, hot water; $65 000; o., St. Casimer Society.

Philadelphia, Pa.—*Kensington and Venango Aves.*, bk. & st. church; $25,000; o., Third Moravian Church; a., J. Cather Newsom.

West Holland Town, Wis.—One-st'y bk. church, 56′ x 113′, pitch roof, steam; $14,000; o., St. Francis Society; a., H. A. Foeller, Green Bay.

EDUCATIONAL.

Pittsburgh, Pa.—*Hale and Bennett Sts.*, two-st'y bk. school, 68′ x 100′; $40,000; o., City; a., Milligan & Miller, Wilkinsburg.

Rockford, Ia.—Two-st'y bk. school, 68′ x 90′, pitch roof, steam; $15,000; o., Board of Education; a., F. D. Orff, Minneapolis, Minn.

Worcester, Mass.—*Providence St.*, two-st'y bk. school, 39′ x 82′, pitch roof; $13,467; o., City; c., Eli Belisle; a., Earle & Fisher, State Mut. Building.

FACTORIES.

Brooklyn, N. Y.—*N. Third St. and Kent Ave.*, four-st'y bk. factory, 45′ x 52′; $8,000; o., Bloch & Hirsch; a., J. M. Baker, Long Island City, L. I.

Prospect St., cor. Pearl St., three-st'y bk. factory, 44′ x 95′, gravel roof, steam; $25,000; o., J. Schumpf & Son, on premises; a., R. L. Daus, 26 Court St.

Cincinnati, O.—Three-st'y bk. factory, mill construction, 250′ x 300′; $125,000; o., Globe Wernicke Co.; a., Harry Hake, Lincoln Inn Building.

Philadelphia, Pa.—*Indiana Ave. and A St.*, five-st'y bk. building, 61′ x 62′; $42,000; o., Hoyle, Harris & Kaye; b., John Fritzinger; a., Hales & Ballinger.

St. Louis, Mo.—*Choteau Ave.*, nr. 8th St., four-st'y bk. factory, 75′ x 86′, comp. roof, steam; $30,000; o., Quick Meal Stove Co; a., E. C. Janssen, 506 Olive St.

HOSPITALS.

Boston, Mass.—*Allen and Charles Sts.*, Ward 8, three-st'y domestic building, 89′ x 116′, flat roof, steam; $75,000; o., Mass. Gen. Hospital; b., Connery & Wentworth, Pemberton Sq.

Allen and Charles Sts., Ward 8, one-st'y operating room, 128′ x 144′, flat roof, steam; $60,000; o., Mass. Gen. Hospital; b., Connery & Wentworth, Pemberton Sq.

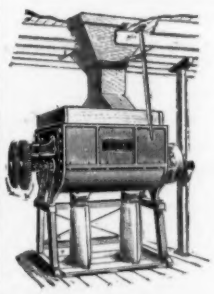
Allen and Charles Sts., Ward 8, two-st'y bk. dormitory, 33′ x 52′ x 66′, flat roof, steam; $70,000; o., Mass. Gen. Hospital; b., Connery & Wentworth, Pemberton Sq.

New York, N. Y.—*Sixteenth St. and Avenue D*, two-st'y bk. hospital, 34′ x 65′; $16,000; o., City; a., Horgan & Slattery, 1 Madison Ave.

HOUSES.

Astoria, L. I., N. Y.—*Pomroy Ave.*, cor. Flushing Ave., three-st'y & base. bk. & fr. dwell., 22′ x 43′ 9″ x 72′; $8,000; o., J. A. Moss, 14th St. & 2d Ave., New York City; a., Charles Rentz, 153 Fourth Ave., New York City.

Birmingham, Ala.—*Eleventh Ave. and Twenty-first St.*, two-st'y & base. bk. & fr. dwell., 48′ x 60′,



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(*Houses Continued.*)

slate roof; $8,000; o., Dr. Bankston; a., J. W. McClain & Co.

Boston, Mass.—*E. Fourth St., No.* 922, Ward 14, three-st'y fr. dwell., 22′ x 60′, flat roof, stoves; $5,000; o. & b., A. H. Flint, 614 Sixth St.

Maverick St., nr. Cottage St., Ward 2, 3 three-st'y fr. dwells., 22′ x 48′, flat roofs, stoves; $12,000; o. & b., Wilbur Goodwin, 115 Princeton St.

Vale St., nr. Dorchester St., Ward 15, three-st'y fr. dwell., 24′ x 51′, flat roof, stoves; $5,000; o. & b., Edw. Tracy, 39 Court St.

Heath St., nr. Huntington Ave., Ward 19, 8 two-st'y bk. dwells., 23′ x 50′, flat roofs, stoves; $60,000; o., L. Aronsky; b., A. Diamond.

Stratton St., nr. Blue Hill Ave., Ward 24, two-st'y fr. dwell., 26′ x 48′, pitch roof, furnace; $5,000; o., Mary Hannah; b., August Dalin.

Crescent Ave., nr. Dorchester Ave., Ward 24,

BUILDING INTELLIGENCE.

(*Houses Continued.*)

three-st'y fr. dwell., 24′ x 50′ flat roof, furnace; $5,500; o., Elizabeth E. McCarthy; b., W. A. Williams, 18 Wrentham St., Dorchester.

Huntington Ave., nr. Vancouver St., Ward 19, three-st'y bk. dwell., 31′ x 40′ x 56′, flat roof, hot water; $12,000; o., M. J. Rogers, Robinwood Ave.; a., C. A. Russell.

Magnolia St., nr. Greenheys St., Ward 20, 2½-st'y fr. dwell., 33′ x 36′, pitch roof, furnace; $5,000; o., Henry R. Clark; a., J. F. & G. H. Smith, 13 School St.

Columbia Road, cor. Seaver St., Ward 20, 2½-st'y fr. dwell., 37′ x 47′, pitch roof, hot water; $7,[illegible]00; o., W. H. Fields and J. F. Whalen; b., Wilkinson, Ewell & Pratt; a., E. J. Lewis, Jr., 9 Park St.

Ballou Ave., nr. Jones St., Ward 24, 2 two-st'y fr. dwells., 23′ x 37′, pitch roofs, furnaces; $6,000; o., C. C. Maybary; b., B. F. Crosscut.

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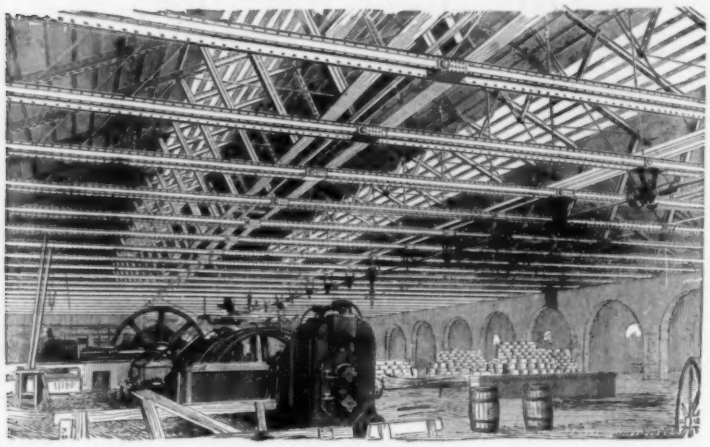

The above illustration is taken direct from a photograph and shows the interior of a rolling mill of the Coe Brass Manufacturing Company, at Torrington, Conn., the roof trusses of which were designed and built by us. The building is 118 ft. wide and 233 ft. long, the roof trusses being of sufficient strength not only to carry shafting but to raise the rolls in and out of the housings.

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BUILDING INTELLIGENCE.

(*Houses Continued.*)

North Ave., two-st'y fr. dwell.; $4,000; o., Arthur Dimond; a., John P. Kingston.

Canterbury St., three-st'y fr. dwell., 28′ x 50′, flat roof, stoves; $3,600; o., Misses Etta T. and Kate E. Whalen; b., John J. Sullivan; a., E. T. Chapin.

Yonkers, N. Y. — *N. Broadway*, four 2½-st'y fr. dwells., 30′ x 60′; $40,000, a., Stein, Cohen & Roth, 41 Union Sq., New York City.

MERCANTILE BUILDINGS.

St. Louis, Mo. — *Locust St.*, bet. 8th & 9th Sts., three-st'y bk. building, 25′ x 104′, comp. roof, steam; $14,000; o., Humboldt Realty Co.; a., Mullgardt & Dunham, Commercial Building.

OFFICE-BUILDINGS.

Monett, Mo. — Three-st'y bk. bank building, 25′ x 100′, comp. roof; $15,000; o., P. J. Lehnhard, Carthage; a., J. A. Prather, Carthage.

Petoskey, Mich. — Four-st'y bk. & st. store & office building; $45,000; o., David Cusham; a., F. D. Davis; not let.

STABLES.

Boston, Mass. — *Florence St.*, nr. Sycamore St., Ward 23, two-st'y fr. stable, 30′ x 50′; $2,000; o. & b., Thos. E. Havey, Roslindale.

TENEMENT-HOUSES.

Boston, Mass. — *N. Bennett St., No.* 20, Ward 6, four-st'y bk. flats, 17′ x 20′ x 68′, flat roof, stoves; $12,000; o., A. Hoffecker, 107 Clifton St., Roxbury.

Brooklyn, N. Y. — *Twelfth St.*, nr. 9th Ave., four-st'y bk. & st. flat, 34′ x 42′ x 87′; $15,000; o., Mr. Crawford; a., Thomas Bennett, 198 Fifty-third St.

Seventy-seventh St. and Third Ave., three-st'y bk. & st. flat & store, 27′ x 64′; $9,000; o., Ely Bros., 56 Warren St., New York City; a., Thos. Bennett, 198 Fifty-third St.

Sixth Ave., nr. 53d St., three-st'y bk. & st. flat, 25′ x 90′; $12,000; o., A. Tadross, 79 Washington St., New York City; a., F. L. Lowe, 186 Remsen St.

Third Ave., nr. 77th St., 3 three-st'y bk. & st. flats & stores, 27′ x 62′; $24,000; o., Ely Bros., 56 Warren St., New York City; a., Thomas Bennett, 198 Fifty-third St.

Morgan Ave., cor. Stagg St., three-st'y bk. store & flat, 25′ x 65′; $7,500; o., Jacob Hofner, Stagg & Bogart Sts.; a., T. Engelhardt, 905 Broadway.

New York, N. Y. — *Allen St., Nos.* 137-139, four-st'y bk. flat, 40′ x 59′ 1″; $33,000; o., Benedict A. Klein, 125 E. 120th St.; a., G. F. Pelham, 503 Fifth Ave.

Monroe St., No. 35, six-st'y & base. bk. & st. flat & store, 25′ x 86′ 6″; $25,000; o., Weil & Mayer, 35 Nassau St.; a., Schneider & Herter.

Brook Ave., nr. 169th St., 3 four-st'y tenements, 29′ 1″ & 27′ 8″ x 68′ 8″; $27,000; o., B. Havanagh, 129 W. 155th St.; a., B. & J. P. Walther, 205 E. 125th St.

THEATRES AND HALLS.

Findlay, O. — Five-st'y bk. & st. opera-house & office-building, 73′ x 182′, tin roof, steam; $60,000; o., Opera-house Co.; a., Geo. O. Garnsey, Chicago, Ill.

Louisburg, N. C. — Three-st'y bk. auditorium, 48′ x 70′, slate roof; $10,000; o., Louisburg Female College; a., F. K. Flomson, Raleigh.

WAREHOUSES.

Milwaukee, Wis. — *St. Paul Ave. and Fifteenth St.*, four & one-st'y bk. storage warehouse, mill construction, 65′ x 175′ & 65′ x 138′, comp. roof; $30,000; o., Gender & Paschke; a., Ferry & Clas.

COMPETITIONS.

CHANGE OF SCALE. — Society of Beaux-Arts, Class B, Order Programme No. 9, Competition No. 34. The scale of finished plan has been reduced from 1-8″ to the foot to 1-16″ to the foot. ERNEST FLAGG, Chairman.

HOME. [At New Orleans, La.]

Plans and specifications are wanted for a Home for Incurables, to cost not more than $30,000. EMMA K. WALSH, 1808 Peters Ave., Chmn. Bldg. Com. 1235

Y. M. C. A. BUILDING. [At Scranton, Pa.]

Competitive plans will be received until September 15 for a new $150,000 Y. M. C. A. Building. The first prize will be $1,000 and $750 will be divided among the three next best designs. 1235

BANK. [At Hampton, Va.]

The Bank of Hampton will erect a new bank and office building and invites competitive plans. The

BUILDING INTELLIGENCE.

(*Houses Continued.*)

Clement Park, No. 27, Ward 24, 2½-st'y fr. dwell., 36′ x 36′, pitch roof, furnace; $5,000; o., Annie R. Foster; b., Howard Bros., 412 Dorchester Ave.

Fairbanks St., cor. Faneuil St., Ward 25, 2½-st'y fr. dwell., 27′ x 40′, pitch roof, furnace; $5,000; o., Edwin L. Watson, 1165 Main St., Worcester; b., C. L. Lawson.

Gore St., Nos. 6-8, Ward 19, 2 three-st'y fr. dwells., 22′ x 43′, flat roofs, stoves; $9,000; o. & b., M. J. O'Brien, 805 Parker St.

Maryland St., nr. Savin Hill Ave., Ward 20, three-st'y fr. dwell., 24′ x 48′, flat roof, stoves; $4,000; o. & b., Wm. Douse, 16 Maryland St., Dorchester.

Wayne St., Ward 21, 2½-st'y fr. dwell., 32′ x 62′, pitch roof, furnace; $11,000; o., Albert F. Hayden, 27 State St.; b., G. A. Cahill; a., J. W. Beal.

Columbia Road, nr. Bird St., Ward 20, 5 three-st'y fr. dwells., 26′ x 62′, flat roofs, hot water; $20,000; o., Dorchester Associates; b., R. Bossie, 297 Norfolk St.

Fairbanks St., nr. Washington St., Ward 25, two-st'y fr. dwell., 26′ x 31′, pitch roof, furnace; $4,000; o., John T. McFarlane, 17 Summer St.; b., McFarlane Bros.

Ruggles St., Nos. 405-13, Ward 18, 5 two-st'y bk. dwells., 16′ x 21′ x 60′, flat roofs, stoves; $40,000; o. & b., Geo. W. Adams, Revere.

Beacon St., nr. Audubon Circle, Ward 11, three-st'y bk. dwell., 23′ x 58′, flat roof, steam; $17,000; o., W. L. Miller, 17 Milk St.; b., S. K. Marston.

Brooklyn, N. Y. — *E. Seventeenth St.*, nr. Beverley Road, two-st'y & attic fr. dwell., 28′ x 46′ 6″, shingle roof, hot air; $5,000; o. & b., G. W. Egbert, 126 E. 19th St.; a., J. Martin.

Fifth Ave., s. e. cor. 16th St., three-st'y bk. store & dwell., 25′ x 67′ 6″, gravel roof; $8,000; o., P. J. O'Hara, 225 Sixteenth St.; a., Lawton & Field, 95 Lenox Road.

Eighty-sixth St., nr. 2d Ave., two-st'y & attic fr. dwell., 28′ x 54′, shingle roof, hot water; $8,000; o., Eliza Bockman, 70th St., bet. 1st & Narrows Aves.; a., R. D. Tengen.

Pacific St., nr. Albany Ave., 4 three-st'y & base. bk. dwells., 20′ x 59′, hot air; $60,000; o., L. Wagner, 120 Broadway, New York; a., F. A. Minuth, 289 Fourth Ave., New York.

Eighty-second St., nr. 12th Ave., two-st'y & attic fr. dwell., 32′ 6″ x 34′ 6″, shingle roof, hot air; $5,000; o., W. L. Johnson, 82d St. & 11th Ave.; a., C. Schubert, Bath Ave.

BUILDING INTELLIGENCE.

(*Houses Continued.*)

Chicago, Ill. — *Adams St., No.* 1395, three-st'y bk. & st. dwell., 25′ x 63′, comp. roof; $10,000; o., Thos. Sutton, 234 S. Leavitt St.; a., John D. Atchi on.

Irving Park Boulevard, two-st'y fr. dwell., 32′ x 58′, shingle roof, hot water; $7,000; o., Prof. John A. Wadhams, 2465 Lowell Ave.; a., J. T. Bright.

Detroit, Mich. — *Cadillac Ave.*, 2½-st'y st. dwell., 35′ x 50′, tile roof, hot water; $9,000; o., George E. Carrie, 1250 Jefferson Ave.; a., Norval Wardrop.

Harper Ave., two-st'y bk. dwell., 24′ x 47′, slate roof, furnace; $5,000; o., Theodore Graether, 1053 Brooklyn Ave.

Germantown, Pa. — *Walnut Lane and McCallum St.*, three-st'y st. dwell.; $10,500; b., W. J. Gruhler; a., Mantle Fielding.

Newton, Mass. — *Westbourn Road*, two-st'y fr. dwell., 31′ x 40′, pitch roof, furnace; $6,500; o. & b., T. R. O'Connor.

Highland St., two-st'y fr. dwell., 38′ x 57′; $10,000; o., F. B. Bancroft; b., W. Pettigrew; a., Chapman & Fraser, Boston.

New York, N. Y. — *Eagle Ave.*, nr. 156th St., 10 two-st'y bk. & st. dwells., 18′ x 55′; $50,000; o., Hilde Bernard Reeves, New Brighton; a., H. Alban Reeves, Park Row Building.

Parkersburg, W. Va. — *Ann and Eleventh Sts.*, 2½-st'y fr. & bk. dwell., 39′ 6″ x 60′, slate roof, hot water; $5,500; o., C. A. Wade; a., Wm. Howe Patton, 310½ Market St.

Philadelphia, Pa. — *Boyer St.*, nr. Gowen Ave., three-st'y st. dwell., 48′ x 51′; $8,000; o., Mrs. La Rue King; b., Howard Rue.

Somerville, Mass. — *Highland Ave*, cor. Leslie Ave., 2½-st'y fr. dwell., 31′ x 42′, pitch roof, hot water; $4,700; o. & b., J. R. McLellan, 116 Belmont St.

Highland Ave., nr. Belmont St., two-st'y fr. dwell., 26′ x 48′, pitch roof, furnace; $6,000; o. & b., Otto Olson.

St. Louis, Mo. — *Copelin Ave.*, 2½-st'y bk. dwell., 34′ x 55′, slate roof, furnace; $6,000; o., Adolph Braun; a., D. J. Wilhelmi.

Worcester, Mass. — *Lund St.*, three-st'y fr. dwell., $3,500; o., David Hunt; b., F. J. Gates; a., E. T. Chapin.

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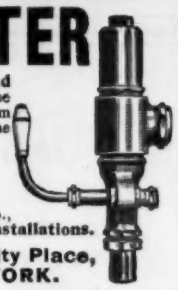

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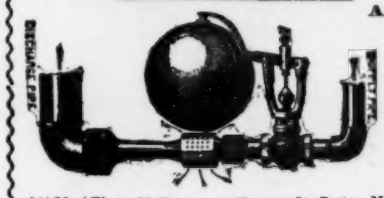

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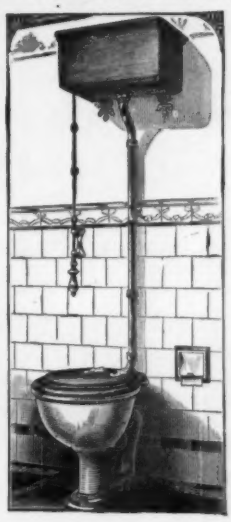

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SEWER SYSTEM. [At Jackson, Miss.]
Sealed proposals will be received by the Mayor and Board of Aldermen at the City-hall **till September 5, 1899,** for constructing complete a system of house and storm sewers, approximating 24 miles in length. D. P. PORTER, JR., clerk. WALTER G. KIRKPATRICK, engineer. 1235

OFFICER'S QUARTERS. [At San Francisco, Cal.]
Proposals will be received at the Bureau of Navigation, Navy Department, **until the 30th day of August, 1899,** for the construction of a building for officers' quarters for the U. S. Naval Training Station on Yerba Buena Island, San Francisco, Cal. F. W. DICKINS, acting chief of Bureau. 1234

Treasury Department, Office Supervising Architect, Washington, D. C., August 12th, 1899. Sealed proposals will be received at this office until 2 o'clock P. M. on the 28th day of September, 1899, and then opened, for extension of the low pressure and exhaust steam heating and mechanical ventilating apparatus in the U. S. Post-office, Court-house and Custom-house building at St. Paul, Minn., in accordance with the drawings and specification, which will be furnished at the discretion of the Supervising Architect on application at this office or at the office of the Custodian at St. Paul, Minn. JAMES KNOX TAYLOR, Supervising Architect. 1235

ELECTRIC LIGHT BUILDING. [At Portsmouth, N. H.]
Sealed proposals will be received at the Bureau of Yards and Docks, Navy Department, Washington, D. C., **until September 2, 1899,** for the construction of an electric light building and a boiler-room at the navy yard, Portsmouth, N. H. Also separate proposals for installing two boilers, with heater, pumps, etc. MORDECAI T. ENDICOTT, chief of bureau. 1234

REMODELING LIBRARY. [At West Point, N. Y.]
Office of the Quartermaster, U. S. M. A., West Point, N. Y. Sealed proposals will be received at this office **until September 4, 1899,** for the reconstruction and remodeling of the library building for the U. S. Military Academy at West Point, N. Y. Address Q. M., U. S. M. A. 1234

SCHOOL. [At Nogales, Ariz.]
Bids are wanted **August 25** for a school. JAS. B. MIX, Acting Clk. Bd. Trus. 1234

RUBBLE STONE. [At Sandy Bay, Mass.]
U. S. Engineer Office, Boston, Mass. Sealed proposals for delivery of rubble stone in breakwater at Sandy Bay, Mass., will be received here **until September 5, 1899.** CHAS. R. SUTER, Col., Engineers. 1235

COMPETITIONS.

building will be 64' x 94', four stories high, and cost $40,000. Address J. C. OUTTEN, cashier. 1235

CHURCH. [At Roanoke, Va.]
Plans for a Catholic church, brick and stone, will be received **until December 1.** J. J. GARRY. 1236

PROPOSALS.

PAVING BRICK. [At Danville, Va.]
Sealed proposals will be received at the office of the City Engineer **until the 30th day of August, 1899,** for furnishing vitrified paving brick or blocks for paving a street containing approximately twenty thousand square yards. The brick to be delivered free on board cars in Danville. By order of the City Council, C. A. BALLOU, city engineer.
Danville, Va., August 3, 1899. 1234

PROPOSALS.

BRICK PAVEMENT. [At Norfolk, Va.]
Sealed proposals will be received at the Bureau of Yards and Docks, Navy Department, Washington, D. C., **until September 2, 1899,** for laying 5,000 square feet, more or less, of vitrified brick pavement on a concrete base, at the Navy Yard, Norfolk, Va. MORDECAI T. ENDICOTT, Chief of Bureau. 1235

SCHOOL. [At Hurley, Wis.]
Bids are wanted **until August 29** for the construction of a brick high school. Address GEO. C. FOSTER, Clerk School Board. 1235

ELECTRIC LIGHTING. [At West Point, N. Y.]
Office of the Quartermaster, U. S. M. A., West Point, N. Y. Sealed proposals will be received at this office **until September 8, 1899,** for electric light plant. Address Q. M., U. S. M. A. 1235

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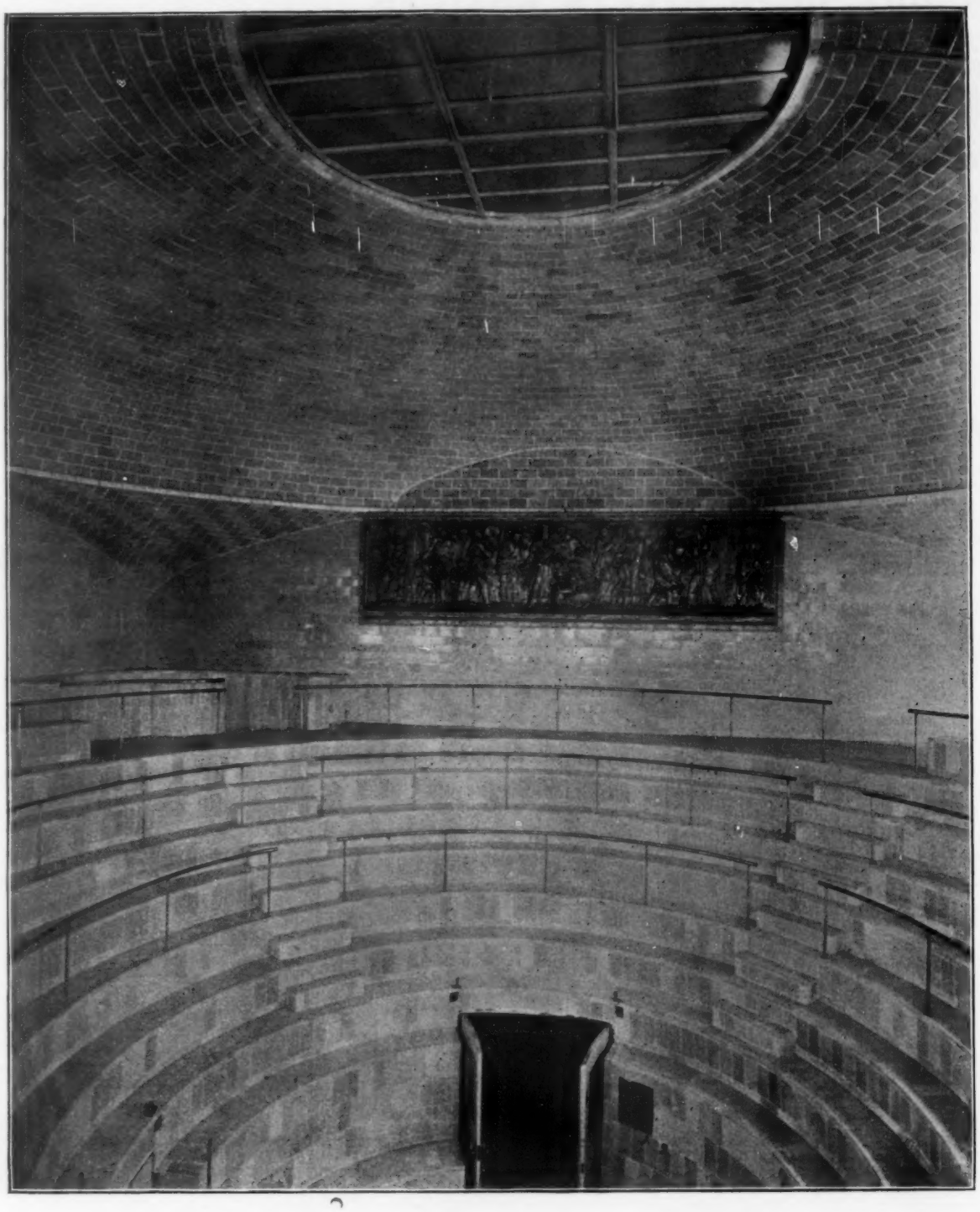

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SECTION 3. No Member should be a party to a building contract except as "owner."

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SECTION 10. It is unprofessional to furnish designs in competition for private work or for public work, unless for proper compensation, and unless a competent professional adviser is employed to draw up the "conditions" and assist in the award.

SECTION 11. No Member should submit drawings except as an original contributor in any duly instituted competition, or attempt to secure any work for which such a competition remains undecided.

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SECTION 13. No Member shall compete in amount of commission, or offer to work for less than another, in order to secure the work.

SECTION 14. It is unprofessional to enter into competition with or to consult with an architect who has been dishonorably expelled from the "Institute" or "Society."

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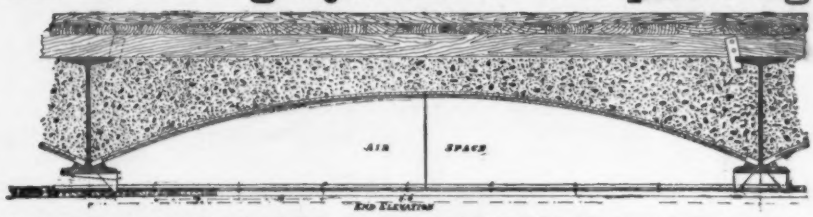

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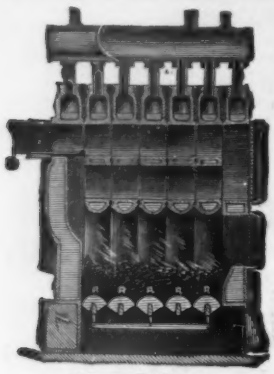

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AMERICAN ARCHITECT AND BUILDING NEWS CO. 211 Tremont St. Boston, Mass.

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SILVER LAKE CO. 78 Chauncy St. Boston, Mass.

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SEAM-FACE GRANITE.

GILBRETH SEAM-FACE GRANITE CO., 160 Fifth Ave., 85 Water St., Boston. New York.