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HO many people it has always seemed regrettable that a department of architecture should have been forced to grow up in such an atmosphere of rigid observance of strain and stress as prevails at the Massachusetts Institute of Technology, and the department, its pupils and instructors have always been at a disadvantage because of that antagonism between architectural art and engineering science which obtains everywhere, in the world's work, as well as in its preparatory schools. One cannot touch pitch without becoming defiled, and one can hardly dwell among barbarians without adopting some of their manners and habits of thought; but we never expected to find that an instructor in an architectural department could be so affected by his surroundings as to commit such an act of vandalism as is implied in the painting-out of the broad frieze that decorated Huntington Hall in the oldest of the Institute's buildings. This frieze, which represented in vigorous outline-drawings— rendered with some stiffness, yet with sufficient accuracy and feeling, after the manner that prevailed in England thirty years ago—the arts and crafts whose interests were to be fostered at the Institute, was wholly worthy of preservation, not only because of its intrinsic worth but because its appearance in Boston, as practically the first piece of mural decoration in this country, was epoch making, and because of this alone, apart from its real interest, it was worthy of respect and preservation.

WE have just received a copy of the constitution and by-laws of the Colorado Chapter, A. I. A., which is notable for two or three things. Although the Chapter received its charter in 1892, we find in its present list of members only one who is enrolled as a member of the Institute itself, according to the Institute's last published membership list. Doubtless there is a satisfactory explanation for this seeming violation of the letter of the Institute's laws, which require a certain number of Fellows in the Institute before a charter can be issued to a local society and demand that the president and secretary of the Chapter shall be Fellows in the Institute. We call attention to this point because it has a bearing on what we said last week as to the voting strength of non-members in local bodies outweighing the vote of the Institute members, and the very great desirability there is that the Institute should be extremely careful that, through seemingly desirable regulations, it does not alienate the potential support it could easily secure from non-Institute members in local societies. It also adds point to our recommendation to avoid the introduction of needless machinery. Seemingly, after the letter of the law, this Chapter should be disbanded, but to take such a step would be a prejudice to the real interests of the Institute, which should concern itself chiefly, if not wholly, with the maintenance of proper professional manners and morals, and this need not imply, as the Institute's proposed new constitution certainly does, that this can only be effected by a judiciary committee sitting to hear "complaints of members against members." The absence of

Institute members from the Chapter rolls may indicate the successful carrying-out, in an inverse manner, of the scheme by which, in defiance of the Institute laws, an architect can become a Fellow of the A. I. A. through joining a local Chapter and then retain his Fellowship and avoid his Chapter dues by resigning from the Chapter as soon as Fellowship has been secured. We do not intimate that anything of this nature has been done, but, on the face of the evidence, the situation seems peculiar; at least, it is a good instance of the complications that grow out of the Institute's attempt to regulate the relations between itself and its Chapters.

IN another respect the Colorado document is interesting. The "Code of Ethics" formulated by the Boston Society of Architects some years ago has been adopted *verbatim* by several Chapters of the Institute, without addition or emendation. But now the Colorado Chapter, while incorporating this code of ethics in its essence as one of its by-laws, and almost in its entirety, does so only after very considerable changes in the wording and an absolute change in the form. In making the recommendations of the Boston code mandatory and enforcing their observance by penalties, these far-Western architects have taken a step which their Boston fellows did not care to take, a step which, even in its Boston form, the Institute itself has not yet dared to take or even in its new by-laws hint a willingness to attempt. Therefore, supposing the Colorado charter is subject to withdrawal because of lack of entire observance of the Institute laws, we should have exhibited the peculiar action of one body of men thrusting out from fellowship another body of men who had bound themselves to follow a higher code of professional morality than the ejectors themselves were willing to observe. One of the Colorado by-laws we regret to see. Article IX declares that "No member shall offer professional service for less compensation than that indicated by the following schedule of charges," and then follows the schedule recommended by the American Institute of Architects. The Institute schedule is merely recommendatory, like other schedules in other countries, but in no sense mandatory, and there is nothing more foundationless than the very common belief that a member of the Institute who for one reason or another chooses not to observe its prescriptions thereby subjects himself to "discipline." The Colorado Chapter, however, through making observance of the schedule mandatory have adopted the one most objectionable feature of trade-unionism and have derogated from their position as a professional body.

WE regret to learn of the death in Denver, Colo., of Mr. Henry J. Humphreys, which was due to consumption brought on by exposure and overwork. Born in Baltimore thirty two years ago, all of Mr. Humphreys's professional career was spent in Colorado, where for two years he was in partnership with Mr. F. E. Kidder. For the last few years he had been in practice alone, almost the last work he had to do being the Mining Building of the Trans-Mississippi Exhibition at Omaha.

IF the newspaper statements are to be trusted, the new Superintendent of the Chicago schools, Mr. Andrews, has done a most reprehensible thing, and in his endeavor to alleviate one evil his new order promises to create a greater one. "School headache" has long been known to be due as often to defective eyesight as to improper heating and ventilation, and since it is not possible to adjust the conditions affecting each scholar in the matter of lighting and seating with reference to the light so as to give each one an equal chance with every other pupil, the next best thing to do may by some be thought to be to bring the eyes of each pupil to an average degree of efficiency by counteracting natural or artificial defects through the agency of rectifying spectacle lenses. As the defects in a child's eyesight may be an accidental or temporary matter, established as a passing condition of its process of physical development, it is always a serious question whether such child should be "put into glasses" or should be removed from school until the weakening stage of sudden growth or teething has been safely passed. In any case no child should be forced to wear glasses except after careful examination by a competent oculist, and to issue an order that all the children of the Chicago schools should be examined as to their eyesight by

their teachers, not by oculists, is a remarkable thing to do, if such an order has really been issued. Probably the report is inaccurate and all that is intended is that the teachers shall be more observant than in the past, and that if they have reason to suspect that a child's eyesight is defective such case shall be at once reported for proper examination by an expert. The matter of school-room lighting is serious enough to deserve every care and attention, and architects are availing themselves of all the evidence they can secure, so as to afford to pupils the best amount of light distributed in the most advantageous way. But while much attention has been given to size and position of windows, and some care has been taken to give the wall-surfaces an agreeable and artistic treatment, we doubt whether enough thought has been given to the school blackboard, of which the black surfaces are often always fronting the scholars' eyes whenever they raise them from their books, so that the eye is strained by the continual contrast between the dark wall-surface and the white book-page. The matter of the color of the school blackboard has been studied, the result being that those who have conducted the inquiries advise the abolition of the black surface and the substitution therefor of a cream-colored, buff or yellowish surface, varying in tone and color according to the amount and quality of light. As white chalk could not be used on such a board a colored crayon would be needed, and it is found that a sky-blue crayon gives a better result than any other. Perhaps if the blackboard should be abolished much of the school-headache would go with it.

THE folk-tale of the Germans wherein the peasant freeholder refuses to sell land and cottage to the lord of the manor so that the latter may remove an obstruction to his lady's outlook finds many a parallel in modern times in the self-respecting owner of a plot of land which blocks the carrying-out of some real-estate speculator's operations, or the still more obstinate holder of a leasehold who refuses to cancel or sell his lease to his own landlord, when the latter desires to improve his own property. An instance of the obstinacy of the first kind existed until recently in Philadelphia, where could be seen the great marble bulk of the Drexel Building enfolding a modest brick building which formed the accenting blemish on a fine front. Of an instance of obstinacy of the second kind ex-Governor Morton of New York was lately the victim. A building on Nassau Street, New York, belonging to Mr. Morton, was burned some months ago and it was decided to rebuild so as to take in the adjoining property. The leases of the occupants of the building were bought up, but in some way it was not remembered that a tobacconist had a separate lease of what probably used to be a passageway which had been fitted up as a store. When an attempt was made to pull down the building he stood upon his rights in lieu of the three thousand dollars he asked for his lease. Obstinacy begot obstinacy and the little store was the scene of picturesque conflicts between the tobacconist and the contractor's workmen, and the cause of legal intervention by the Courts according as one or the other demanded legal aid or lawful redress of wrong. As the tobacconist clearly had law, if not equity, on his side, he generally won his skirmishes, and though no decisive battle has been fought, it is now said that he has gained his point and parted with his lease at a higher price than he originally asked for it.

THE success that is attending the operation of the completed subway system in Boston is so great that the citizens are desirous to have it extended and will not begrudge paying such taxes as the desired extension may require. Meanwhile, they are getting a good deal of satisfaction out of the knowledge that the Rapid Transit Commission find that they have, under the Act, sufficient power to go on and extend the subway system to East Boston, even although to do so a tunnel must be built under the harbor. The National Government has this week signified its willingness that such a structure shall pass beneath the waterway under its control, and within three or four years the "Island Ward" may be in the enjoyment of the same sort of rejuvenating impulse which Brooklyn experienced shortly after the opening of East River Bridge. As the harbor is not very wide the tunnel will not be difficult to build, and will probably be completed without encountering any of the mishaps which have made the Hudson River Tunnel—on which so many thousands have been squandered—a byword in engineering circles. The Hudson River Tunnel, now lying full of water beneath the river, and said to be nearly

two-thirds finished, has, we believe, once more been sold by order of the Court, and the purchasers, having procured more English capital to aid them, propose to resume work upon it at once and hope to carry it through to completion without further mishap.

WHAT architect, the son of an architect, has a son who also is an architect, in like manner as Madrazo, whose death we chronicled a week or so ago, was both son and father of a painter? What does heredity amount to when it comes to the exercising of a talent which is supposed to be innate? It is one of the commonest instincts of paternalism for a father to seek to make a place and afford an opening for one of his sons by taking the young fellow into his office, store or studio. The step is taken largely because the father does not know what else to do with the boy, but more frequently still, we believe, through the mistaken belief that there is more in heredity than there really is. In the case of a mercantile business, well established and with strong and reliable connections, the reins of management may at times be entrusted with promise of continued success to the younger man, if only he be possessed of ordinary common-sense and can be content to do what his father has done before him. In the case of a law practice, particularly if it deal with trusts and the management of estates, the substitution of the son for the father also may sometimes be safely effected. But in the case of such employments as the author's, the artist's, the doctor's or the architect's we believe it a great mistake for the father to give much weight to the theory of the hereditary transmission of talent, and an infinitely greater mistake for the son to indulge himself in such belief. No man's success is more purely the result of the powers that are born in him than the artist's—of whatever variety he may be—and we distinctly believe that these powers are accidental, that is, that they are, in the language of zoölogy, mere "sports" of the species and that, being sports, their characteristics are not certainly transmissible. Of course we are thinking now mainly of the advisability of an architect's training a son to succeed him, and though such a step is not in all cases to be reprobated, it is one which should be taken only after the boy has established beyond peradventure that he has inherited some of the chief qualities needed to command success. The matter is an intensely interesting one to the observer, and such a one, we think, usually discovers, nine times out of ten, that a son succeeding a successful father is, if not a failure, at least a disappointed man. A little consideration of the question will show that the causes of this discontent and failure are not wholly due to lack of inherited ability but chiefly if not solely to an amiable failing on the part of the young man which may be styled filial modesty. Inevitably a son uses his father and his father's career as a sort of mental yardstick and, forgetting that there is a generation between them and a generation's difference in conditions and surroundings, allows himself to feel that because his father did not succeed in one direction it is therefore useless for him to try in that direction, and so neglects a path that might lead him to success. Besides this, every son is subjected to more or less unconscious snubbing by his father and the snub is given with most frequency, always unconsciously and unintentionally, according as the pursuits and interests of the two parallel one another. On the other hand, a boy who elects to follow art solely because he feels a modest interest in it, although none of his forbears have been artists of any kind, has a good chance of success because he has no parental yardstick always at hand, and the inevitable parental snub, lacking the authority of experience, excites antagonism and the determination to conquer and not the disheartenment of predicted failure foretold by an expert. The offspring of an uneducated sire who is enabled to follow one of the liberal professions has, other things being equal, a good chance of making a success, simply because he does not realize that there is a point where filial modesty suggests it would be well for him to stop, and so he can take full advantage of the virgin soil of his own nature and grow. The growth may be rank but it will be healthy, individual, inventive and will promote a real progress in the art or calling he has adopted. In short, of two boys just graduated from an architectural school, whose work gave evidence of seemingly equal ability, one the son of an architect of repute, and the other of, say, an illiterate blacksmith, we believe that the latter's career would conduce to progress and improvement in the art more certainly than the former's. Look around on every side and consider whether the successful men of to-day, in any walk of life, are sons of successful sires.

LICH-GATES.



At Birstal, Yorkshire.

THE term "lich-gate" is applied to a sort of open shed covering the entrance to a church-yard, so as to form a shelter under which the bier or coffin may rest on its way to the grave.¹

These structures seem to be peculiar to English soil; for, with the exception of a mere mention of a few in Scotland and Wales, of which I have been unable to find adequate description or illustration, the only examples found are in England.

To quote the *Church Builder*:² "Their most common form is a simple shed, covered either with tiles or thatch and supported on strong timbers well braced together." But they are sometimes built of stone.

There has been much discussion as to the age of these constructions. One writer declares that none of the existing examples are as much as three hundred years old.



At West Wickham, Kent.

A correspondent of *Notes and Queries*,³ however, cites a fifteenth-century lich-gate at St. Peter's, South Weald, Essex; and adds that there are: "ancient lich-gates at Beckingham, Lincolnshire; Berryharbor (Berry Arbour), Devonshire; Birstal, Yorkshire; Bromsgrove, Worcestershire; Burnside, Westmoreland; Compton, Berkshire; Garsington, Ox-

fordsire; West Wickham, Kent; and Worth, Sussex"; all of which antedate the Reformation.

Lich-gates are certainly of ancient origin, for we are told that "a gate formerly existed near Gloucester Cathedral, and under it the corpse of King Edward II rested on its way to interment, in 1272; it was rebuilt by his successor and the side-walls remained in 1848 at the bottom of College Street."⁴

Later authenticated examples occur at Cradley, and Whitbourne, Herefordshire, both of which were built about 1635. There is a fifteenth-century lich-gate at Throwleigh, in Devonshire; and one of the beams of the gate at Abbots Kerswell bears the inscription,

"Fear God — 1605, Honor ye King."

Of the older examples the Garsington gate is one of the simplest, being a mere open shed with its ridge parallel to the street. The roof is supported on plates carried by six upright square timbers, from the middle pair of which the gates themselves swing. The whole structure is absolutely devoid of ornament. Equally plain is the stone gate at Birstal, Yorkshire: two gabled stone walls carry a rough roof, apparently of tile or slate. The ridge, like that of Garsington gate, is parallel to the street, but it is ornamented with three stone balls, one at the centre and one near each end. At West Wickham, Kent, is a lich-gate with a plain hipped roof. Here also the ridge is parallel to the street; the supporting timbers are arranged X fashion with a central timber upright. The roof seems to have been originally



At Garsington, Oxfordshire.

of thatch. The timbers were generally placed on a stone foundation, and were frequently very rough hewn, as at Boughton.

The gates themselves were either hung at the sides to swing back against the wall or side timbers, or they were turned upon a pivot in the centre, as at Childwall, Lancashire, and at Burnsall, Yorkshire. The device for opening the gate at Burnsall is thus described:⁵



At Beckenham, Kent.

"The stone pier on the north side has a well-hole in which the weight that closes the gate works up and down. An upright swivel-post or 'heart-tree' (as the people there call it) stands in the centre and through this pass the rails of the gate; an iron bent lever is fixed to the top of this post, which is connected by a chain and guide-pulley to the weight, so that when any one passes through, both ends of the gate open in opposite directions."

Kent seems to possess the most numerous examples of lich-gates. The Beckenham gate is similar in the arrangement of its timbers to that at West Wickham, but its roof has a saddle-backed ridge. At Boughton, Monchelsea, Kent, we find one with its gable end facing the street. This is an almost unique example among the older gates, though the majority of modern ones are arranged in this way. The verge-board of the Boughton gate is cut in rough Gothic fashion, but the timbers are very primitive not even being squared.

The Lenham (Kent) gate is attached to another building. In the *Architectural Association Sketch Book*⁶ I find illustrations, and the following note in regard to it: "This lich-gate is obviously of the fifteenth-century construction with the exception of the roof, which must be of much later date, the rafters being very poor and rough and built into the adjoining house. It is commonly reported that this lich-gate was removed from Canterbury some one hundred years



At Boughton, Kent.

back, which, if true, may account for the peculiar treatment of the roof."

Lich-gates occur at Heston, Middlesex; Moorwinstow, Cornwall; and other places. In Wales they are found at Llandbedr and near Pensarn, Merionethshire. Of these, and the two Scotch gates said

¹ *Architectural Publication Society's Dictionary.*

² *Church Builder Journal*, 1862 (Stones of the Temple II, Plate 97).

³ *Notes and Queries*, Series IV, Vol. 1, p 445.

⁴ A. P. S. Dictionary.

⁵ *Church Builder Journal*, 1862 (Stones of the Temple II, Plate 97).

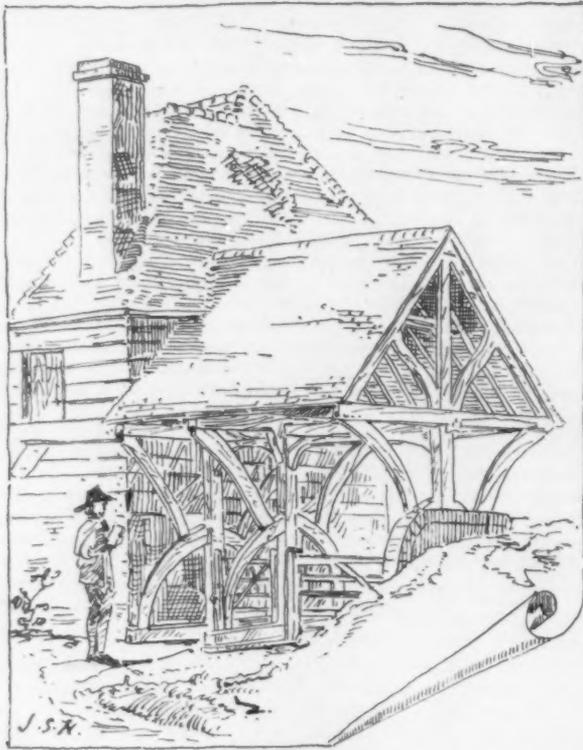
⁶ *Architectural Association Sketch-Book*, Vol. III, Plate 12.

to exist at Peebles and Blackford, Perthshire, I can find no information.¹

The lich-gate was usually a mere shed with perhaps seats placed along the sides and a coffin-rest or lich-stone in the centre. But at Bray Church, Berkshire, the lich-gate has two chambers over it, connected with an ancient charitable bequest. On one of the upright timbers is carved the date 1448.

The lich-gate at Barking Abbey also has a chamber over it, called the Chapel of the Holy Rood. At Bickington and Throwleigh the bier house is associated with the church house. At Bickington the church house is built over the lich-gate; at Throwleigh it is on one side. In both places the work is of Early Perpendicular date.²

As to the origin and spelling of the term lich-gate, and its synonyms, there is some discussion. Nearly all agree that the word comes from the Saxon "lic," meaning a dead body. Such a derivation points to the spelling "lich" gate as the proper one, and to this spelling Parker's "Glossary of Architecture," the "Architectural Publication Society's Dictionary" and the "Century Dictionary" all adhere. Most of the architectural and archaeological magazines, however, such as the *Builder*, *Building News*, *Notes and Queries*, etc., use also the spelling "lych," derived apparently from the Dutch "lyk." Common usage and custom seem to prefer the spelling "lych," but there is no reason to suppose that this is the older form.



At Lenham, Kent.

In *Notes and Queries* I find also the terms "lyke porch" and "litch porch" occurring as synonyms.³ In Devon and Cornwall, lich-gates are called trim-trams, and in Herefordshire "scallage," or "scallenge" gates. Trim-tram⁴ is probably a corruption of the words "trim train," meaning the place where the mourners may be set in order before the burial-service commences. It is also possible that the word may have some connection with tram, meaning a car, or cart, hence a funeral-car; or bier on wheels.⁵

Scallage or scallenge is probably derived from "scalus," a corruption of stallus, a stall or seat.⁶ This probably applies to lich-gates which are provided with a lich-stone, or coffin-rest, flanked by seats for the mourners.

That lich-gates should be regarded with superstitious awe is hardly surprising, considering the times in which they originated and their use. The spirit of the person last buried was supposed to hover over the lich-gate until another interment took place, when he turned over his guardianship to the newcomer and passed to rest. Hence if two funerals were to take place the same day each train hastened forward to get its dead buried first. If, as sometimes happened, they arrived at the lich-gate together, the dead would be left unburied by the roadside until the living could settle by a rough-and-tumble fisticuff contest which ghost should remain as warder of the gate.⁷

JOHN S. HOLBROOK.

¹ *The Churchman*, Nov. 1, 1890, p. 570.

² *Notes and Queries*, IV, 1, 445.

³ *Notes and Queries*, I, 8, 540.

⁴ A. P. S. Dictionary.

⁵ *Notes and Queries*, III, 3, 39.

⁶ Lewis (C. G.), "Glossary of Provincial Terms" used in Herefordshire.

⁷ *Notes and Queries*, III, 8, 189.

THE FRENCH SOCIETY OF CIVIL ENGINEERS.



THE French Society of Civil Engineers is one of the great representative technical institutions of the world, and as it has recently celebrated its fiftieth anniversary — it is thirty years the junior of the English institution — the present is an appropriate time to give some details of its history to our readers, who are for the most part acquainted with it through the valuable Transactions which it publishes. The flourishing condition of the Society is indicated by the fact that its Jubilee has been held in a new and handsome building completed last year, and of which we publish some illustrations.

The membership of the Society is to a certain extent restricted by the regulations which control the profession in France. There the *Ingénieur Civil* is a free agent, as contrasted with *Ingénieur des Corps de l'Etat*, though the civil engineer not infrequently passes to his career from the state training-schools, such as the *Ecole des Arts et Métiers*, and the *Ecole Centrale des Arts et Manufactures*. It was in 1848, following the example of the Institution of Civil Engineers, that a number of the old students from the *Ecole Centrale* determined to create a society which would receive all the free engineers without distinction of their origin. M. A. C. Benoit-Duportail has described in interesting detail the birth of the association, which is due to MM. Alecan, Callon, Faure, Laurens, and Thomas. It was resolved that engineers of the Ponts et Chaussées and state mining engineers would not be eligible for admission to the Society; as a matter of fact, these government engineers are constantly employed to control railways and certain industries, so that they stand in somewhat peculiar relations with regard to the free engineers.

At the date of its foundation names famous in French engineering progress are found on the list of the Society. M. Eugène Flachat as President, MM. Callon and Degoussé as Vice-Presidents, are among the number. The objects of the Society were well defined: 1. To throw light, by discussion, on obscure questions relating to civil engineering. 2. To assist in aiding the development of applied sciences, auxiliary to civil engineering and associated industries. 3. To extend professional teaching among workmen and shop-foremen. 4. To investigate questions of industrial economy, of administration, and in general of public utility; to increase the power, production, and wealth of the country. 5. To insure closer relations among the members. 6. To act as a kind of employment bureau for its members. 7. To establish a benevolent fund in case of necessity. In looking back over the obvious and outward history of the Society, it will be realized how fully this programme has been completed; while its more private history, chiefly in regard to clauses 6 and 7, bears a no less satisfactory record.

The beginnings of the Society were on a very modest scale, and during nearly two years the members met at the printing-office where the *Bulletins* were produced; their Transactions were at first also extremely limited, and the first three publications were translations from English, one being a description of the Conway Tubular Bridge.

Very soon, however, the Society was able to obtain a suitable place for its meetings, and it made use of the same hall during 22 years, though it was only large enough to hold 60 persons. In 1872 the Society numbered a thousand members, and it became necessary to remove to larger quarters. By that time the financial position was highly satisfactory, and had been greatly strengthened by the generosity of some of its members. In fact, the situation was so good that the Society was able to construct its own house, with a lecture-hall large enough for 200 persons and a library sufficient to contain the large collection of books belonging to it. The cost of the grounds was 86,000*f.*, and the building cost 144,000*f.*, 40,000*f.*, besides, being spent on furniture and fittings. But the number of members continued to increase, and the headquarters in the Rue Rougemont became too small for its purpose.

Another change now became necessary; a purchaser was found for the house in the Rue Rougemont, and, thanks to the hearty co-operation of the members, funds were raised for the construction of another and a larger building. In fact the subscriptions amounted to five times the sum required. Such a fortunate development would have been impossible but for the influx of members, and the steady stream of donations, which has brought the financial condition to its present state. In 1860 the secured capital of the Society was 50,000*f.*, the minimum sum necessary for official recognition; this capital invested in railway stock insured a small but certain income to the Society. In 1864 the capital had reached 80,000*f.* By 1867 it was increased to 100,000*f.* From that date the prosperity of the Society steadily increased; large sums had been borrowed for building the house in the Rue Rougemont, and these had to be returned in 14 years; as a matter of fact, the debt was cleared in seven years. To complete the financial story, we may compare the Society's budget of 1887 with that of 1897. At the end of 1887 the receipts included 60,000*f.* from subscriptions, 5,500*f.* interest on investments, 3,500*f.* for advertisements in the *Bulletin*, and 5,400*f.* derived from letting the hall for other meetings. In all, the revenue was 103,000*f.* The expenses included 40,700*f.* for printing, 17,000*f.* for salaries, 7,000*f.* for maintenance, and 8,000*f.* for miscellaneous expenses. The capital of the Society was 435,000*f.*, of which 278,000*f.* represented the value of the house, and 136,000 the invested capital. In 1897 the treasurer, M. de Chasseloup-Laubat, had a very satisfactory report to present. The secured investments amounted to 86,000*f.*; there was a balance in hand of 6,000*f.*, and 64,000*f.* of

various debts, 10,000*f.* to the library account, and 6,500*f.* for furniture, while the new building represented 1,044,000*f.*; on the other hand, there was a loan of 515,000*f.* for building, and debts to be paid on the building account amounting to 64,000*f.* These figures are sufficient to show the present standing of the Society, and indicate what its growth will be in the future; and they are, perhaps, more remarkable in France than they would be here, for in France many important societies exist only in a languishing condition, in spite, or perhaps because, of government subsidies.

As may be readily imagined, the French Society of Civil Engineers has steadily grown in the strength of its membership. In 1838 there were only 134 members; in 1871 there were 1,000; by 1882 this number was doubled; and in 1897 the total amounted to 3,054. The number is not so great as that of the Institution of Civil Engineers, but the rate of progress is as rapid, and the Society is, as we have seen, 30 years younger than our own Institution. Moreover, a large number of engineers in France are, on account of their official position, not eligible for membership. The donations to the Society are large and numerous. Legacies of 5,000*f.* are by no means rare, and M. H. Giffard bequeathed no less than 50,000*f.* to the Society.

The importance of the published Transactions has increased with every volume. In 1865 the *Bulletin* was issued once in three months; in 1875, every two months; in 1880 it was made monthly, with a literary supplement. At the present time full minutes are issued every two weeks, directly after each meeting, and these are reproduced in the monthly *Bulletin*. Together the minutes form 65 volumes, containing at least 800 papers and reports of discussions. The library comprises 18,000 volumes, and it receives more than 300 periodicals. We must not forget to mention the Society's year-book, issued since 1883, containing much general information, besides the alphabetical and classified list of members.

We will now proceed to give a short description of the new buildings, which are illustrated elsewhere: The architect of the new building of the Society is M. Delmas, to whose courtesy we are indebted for the illustrations that accompany this article; and we take this opportunity of also thanking M. de Dax, the secretary-general of the Society, for the information he has placed at our disposal. The building was completed in a remarkably short time; it was only on December 27, 1895, that M. Delmas received his final instructions and the work of pulling down the existing houses commenced. On March 28, 1896, the final plans were approved by the committee of the Society; the new works were started on March 29, 1896, and on December 17 following the Society held its first meeting in the great hall. In January, 1897, the official inauguration took place, and, as we have said above, the Jubilee was celebrated in the building. It should be mentioned that M. Delmas received from first to last great assistance from the members, who freely gave him the benefit of their experience, while not a few supplied materials or decorations, as a donation, or on favorable terms.

The general arrangement of the building is extremely simple: in the basement are placed the necessary machinery and apparatus, as well as the archives of the Society; the ground-floor is occupied by the vestibule, the great *séance-hall* and some adjoining rooms. It was very desirable that this part of the building should be on the street level, because it is a constant practice of the Society to let this hall and its annexes for concerts and other meetings. On the *entresol* are arranged a suite of rooms used as the members' club. On the first floor are the secretary's and other offices, as well as the chief committee-room. The second story is entirely devoted to the library; and on the third floor is the living apartment of the secretary-general, with a private staircase, which also serves for the general service of the building, doors being provided giving access on every story.

Passing to a more detailed consideration, we may say a few words about the façade, which is illustrated in Figure 23. As M. Delmas, the architect, remarked, this is of no particular architectural style, but is adapted specially for the purpose for which it is designed; it was desired to admit unlimited quantities of air and light in some parts of the building, while in others, such as the main vestibule, the smoking-room of the club, the secretary's office, and the reading-room, it was not desirable to have too much light. It will be noticed that the great arched recess in the façade abuts on two stone piers, enriched with decorative pilasters, between which are formed smaller bays lighting secondary rooms. The top story and the roof are scarcely visible from the street, because this (the Rue de Londres, which is not far from the Opéra, and the Rue St. Lazare) is somewhat narrow, and decoration at so great a height from the ground would have involved useless expense.

The basement of the building plays a very important part; it contains a boiler-room and extensive coal stores, the heating-furnaces, water meters and mains, cellars, a kitchen for the *concierge*, strong-rooms for the archives of the Society, space for storing the seats, tables, and other furniture of the great hall, and the engine-room and electric plant for operating the elevator, the inclined floor of the main hall, and the iron curtain. This basement is 3.20 metres high, and access is given to it by three staircases; one of these is a small service stairway, another gives direct communication with the street by a doorway on the street-level on the left-hand side of the façade, and connects also with the secretary's staircase already referred to. The ground-floor is naturally the most interesting in the building, on account of some peculiarities in construction and decoration. On entering by the main doorway of the building, the visitor finds him-

self in a very beautifully-decorated vestibule. The main entrance is on the left, and at the end of the vestibule is the apartment of the *concierge*, while on the right is the entrance to the great hall; a magnificent mirror, presented to the Society by the Compagnie de St. Gobain, forms one of the decorative features of this vestibule. The remainder of the decoration is very beautifully designed: it comprises a considerable amount of bronze, Louis XVI, polished oak and embossed metal; the floor is in mosaic, laid on a Coignet cement structure, while another system is employed for the cement and mosaic flooring of the *entresol*. The decorations of the vestibule are greatly increased by the very beautiful electric-light brackets, and by two mosaic designs which ornament the ceilings, and which were, like many other things, gifts to the Society. The large mirror, to which we have already referred as having been presented by the Compagnie de St. Gobain, measures 5.12 by 4.03 metres. At the bottom of the vestibule, in coming from the street there are six glazed doors which give access to the great lecture-hall; these doors, as well as the screen of which they form a part, can be removed, so that when desired the vestibule and hall can be thrown into one. The hall is lighted from above, and is framed with a steel arched roof, unenclosed. The decoration of this hall is not yet completed; one of its principal features will be an allegorical painting, which will occupy the left-hand wall on entering; for the present this wall is concealed by drapery. A very special and interesting feature in the construction of this hall is the floor; usually this is horizontal, but by an ingenious device it can be lowered at one end, so as to incline it through its whole length, and an audience will thus be enabled to have a better view of the platform. When the floor is inclined, the axis of the hall is in the direction that one follows in coming from the street, and, therefore, perpendicular to the wall opposite to the entrance-doors of the vestibule. When seats are so placed as to be opposite the bay which is to the right on entering the vestibule, it is usually for some concert or other performance, which takes place on a raised stage, and in the room forming an *annexe* to the great hall. The appearance of the inclined floor is shown in some of the illustrations. The inclination can be made greater or less, according to requirements; when it is only slight the chairs are placed direct on the floor, steps being then unnecessary. The mechanism for moving the floor is extremely interesting, and will be understood by reference to the illustrations, Figures 8 to 12 of our two-page engraving; this part of the work was carried out by Messrs. Piat et Fils. The framing carrying the floor is hinged on the side of the building, parallel to the vestibule; at the other side it is almost balanced by a series of chains and counterweights; the total weight of the floor is about 30 tons, of which 29 tons are balanced; two winches are sufficient to raise or lower the floor; these are shown clearly by Figures 10 and 11. When the floor is horizontal it is held up by vertical columns provided with screw adjustments that can be run back when the floor is lowered. In the hall an Edoux elevator is installed, communicating with a large storeroom in the basement, and by means of this the chairs, movable steps, etc., can be very quickly cleared from the hall. At one side of the latter, as we have already said, there is a much smaller hall which serves as a stage when theatrical representations are given, or it may be employed for smaller *conversations*. The entrance to this room is through the vestibule, and it can be cut off completely from the main hall by means of an iron curtain, the design for which was prepared by M. Delmas, and carried out by Messrs. Dufrene and Jaquemet. Figures 13 to 20 show the details of the mechanism for operating this curtain.

The staircase leading to the *entresol* is iron framed with wooden steps, and beside it is an Edoux elevator rising to the top of the building. The *entresol* is 3.25 metres high, and contains a cloak-room, a reading-room, smoking and writing rooms, lavatories, and a special room which, by removing certain panels, communicates with the large hall below; the special object of this arrangement is for the installation of the projector and oxyhydrogen apparatus for lantern displays, etc. On the next story, that is to say, the first floor, is a large committee-room giving access to a terrace constructed over a part of the great hall; on this floor is also the office of the President of the Society, that of the secretary, M. de Dax, and the general offices. The second floor is one of the most interesting in the building, because it contains the fine library of the Society. A part of this floor is divided into two stories; in the centre is the reading-room, which occupies the whole height of 4.70 metres in order that there may be plenty of light and air; it is lighted by two large bays opposite each other, the window in one of these bays being seen in the façade of the building, Figure 23. From one end to the other on each side of this large hall is a gallery about midway of the height, for giving more convenient access to the books; these galleries are connected by a light bridge passing across the reading-room. Means are provided for increased book accommodation by hanging book-cases suspended on rollers to rails fixed upon the ceiling.

The accommodation on the third floor, where the secretary resides, has been carefully designed with regard to completeness and comfort. The installation for heating and ventilation, completed by Messrs. Pommier & Delaporte, is on the hot-water low-pressure system; the general arrangement is indicated by Figures 4 to 7. The service is kept supplied by two boilers, which can be worked together or separately, and on the closed circuit of mains radiators are connected in sufficient numbers on every floor. These radiators are placed in recesses, where they are not obtrusive, and can easily be inspected at any time. The air supply is received in

the basement from outside, and after being warmed is distributed through the various rooms. The vitiated air is removed through a series of vertical outlets; a similar system is in use for heating the large hall, but as this is only in use occasionally, a separate boiler is employed. Ventilation is effected by means of a chimney, in which is an electrical ventilator placed above the glazed ceiling of the hall, but below the outer roof; numerous openings in the ceiling allow the vitiated air to escape into this space before being expelled.

The French Society of Civil Engineers may be heartily congratulated on the admirably designed and commodious building which they now possess. It occupies an area 707 square metres, as compared with the 197 square metres of their previous house. There can be little doubt that before many years have passed the prosperous growth of the Society will render further extensions necessary.

—Engineering.



REVIVAL OF BUILDING. — NEW HOTEL FOR TORONTO. — THE TORONTO COURT-HOUSE. — VIOLATIONS OF THE MONTREAL BUILDING-LAWS CORRECTED BY FORCE. — NEW MANITOBA LIEN LAW. — WANING INTEREST IN THE ONTARIO ASSOCIATION OF ARCHITECTS. — THE IMPROVING CONDITION OF THE QUEBEC ASSOCIATION.

THE building trade, which for some years past has been so miserably dull, has this year awakened into very decided activity, especially in the city of Toronto. Its activity is of a healthy character; private residences, mercantile buildings and offices form the chief part of the work, and there appears to be very little of mere speculative building, — rows of cheap houses, for instance — erected by builders with the aid of loan companies to be sold as soon as finished. Rosedale, the most beautiful suburb, from a picturesque point-of-view, where for a long time the sound of a builder's tool has not been heard, is now alive with workmen, fine houses springing up in considerable numbers, fast filling-up vacant lots that have been heavy burdens for years past on the hands of their owners. It has taken years to get over the disastrous effects of the boom, and, indeed, they are not completely got over yet, but the signs of recovery are excellent. The boom caused Toronto to spread out in every direction; streets were laid out and lots sold and resold, to the great delight of local land agents, poor houses were run up and quickly sold, people moved out to the new suburbs, leaving better-built houses for cheaper rents, and no influx of population occurred to counterbalance the general exit from more central streets. "Last owners" got so badly bitten, however, that there is no likelihood of such a boom being tried again, and it is an agreeable sight to see unsightly old structures on the main streets being demolished and handsome new offices and shop buildings taking their places.

At last, after many years of talk, a mammoth hotel is really to be built. Toronto for many years has not had sufficient accommodation for the tremendous influx of visitors in the summer season; "doubling-up" has been the rule at all the hotels — a more miserable condition of things in hot weather being hard to imagine. However, guests will in future seasons be able to spread themselves. The new hotel is to be built in the very centre of the business portion of the city, on a site now occupied by six or eight leading shops, the only pity about it being that the depth of the site is so limited that it will be necessary to resort to height to make up for the deficiencies of area. The streets are decidedly narrow in the neighborhood and a lofty building of such a frontage as this hotel is to have will make them appear narrower still.

It is indeed time for the formation of a guild for the purpose of beautifying the city — or, rather, one should say for the prevention of its disfigurement, when the City Council erect an entrance to a public lavatory and gentleman's convenience right in the front of one of the principal buildings in the heart of the city, to wit, the general Post-office. At the junction of streets that meet in the form of a T now stands a corrugated-iron concern, that looks like a gigantic quart-pot with a conical top so placed that no photograph can ever be taken of the fine Post-office without the quart-pot, magnified out of all proportion and appearing to occupy the greater portion of the façade. It will be hard for a future generation of students who may see such a view of the Post-office to tell to what century the architecture belongs — a Renaissance building with a great tin pot for a central adornment and chief feature. There is such a guild in Toronto as we have mentioned, but it is to be hoped, for its own credit, that it was formed just too late to prevent the monstrosity.

The new Court-house and Municipal Building (which has had time to be called "ancient" rather than new, as it must be twenty years since it was first called "new") is fast approaching completion. Its very lofty tower only wants its high pitched roof and corner turrets, and they will be built in the course of the next few

weeks. The interior of the building is almost complete and it is to be formally opened about September. The tower is 240 feet high, the spire being 45 feet more. The capstone was laid by the Mayor and a party of ladies and gentlemen assembled at the summit to see him do it. The nerves of the whole party were sorely tried by the ascent and descent, which were made by half a dozen at a time, in the rough box used for hauling up the stones, attached by a wire rope to a derrick at the top of the tower.

It is not very often one hears of city authorities having to resort to force to compel submission to the building by-laws of the place. As a rule, building-inspection is more or less of a farce, plans being passed by incompetent clerks and the owners or architects doing pretty much as they like afterwards. But in Montreal things are done better, and a little while ago a building was condemned, the Court having been appealed to and having given its judgment in accordance with the report of the architects whom the Court had appointed to examine the building. The owner was fined and ordered to demolish the building within twenty-four hours. Instead of obeying the Court, however, he proceeded to barricade the building and resist the Inspector, who, with a staff of men, appeared at the expiration of the time to demolish the building for him. Part of the foundation, some of the joists and pillars were defective as to size and proportions; the front was said to be 25 feet too high and property in the rear was not separated by a fire-wall, as is required by the by-law. It appears to have been a particularly flagrant case of disregard of the by-laws.

The Province of Manitoba has at the recent session of its legislature been worrying over the subject of mechanic's liens. Instead of doing away with them altogether a new act has been passed, which is now in effect. Architects and contractors doing business with the Manitobans should be informed of the law, though we will hope they may never have to make a nearer acquaintance with it. Liens must be registered; no lien can be for less than \$20. Mortgages existing at the time of the commencement of the work or the placing of materials on the ground have priority over liens. Insurance money may be applied under certain circumstances in reducing a lien. A lien is limited in amount to the sum owing to the contractor. It is a merciful arrangement, that where the owner has paid in good faith 80 per cent before he receives notice of any lien that payment shall operate as a discharge in his favor. The owner is ordered to retain a percentage of the contract money for a period of thirty days after the completion of a building, the percentage being in proportion to the amount of the contract. The form in which registration of liens is to be made is given in detail, and arrangements about the trial of actions to enforce liens are also gone into fully.

I should like to call attention to a valuable paper read before the British Association for the Advancement of Science in Toronto, 1897, by Prof. H. T. Bovey, of McGill University, Montreal. It is altogether too long for reproduction here but it is given in full in the *Canadian Architect and Builder*. The paper is on the result of experiments on the strength of white-pine, red-pine, hemlock and spruce, and is provided with tables which are very complete. It appears in the August number of the journal here mentioned.

The Ontario Association of Architects, which has been in existence for six or seven years and has had so long and hard a fight for the purpose of obtaining legislation for the better protection of the public, seems to be pretty well disgusted at the failure of its efforts in the past. The examinations that have been held under its management and direction, in cooperation with the authorities of the School of Practical Science, have not been attended as well as they should have been. Many members have retired, not seeing the advisability of continuing their subscriptions and getting for themselves no return and not being sufficiently patriotic to pay for possible benefits to future generations. The younger members of the profession can hardly be made to see the advantages of the Association, and it is evident from the repeated repulses the Association has received at the hands of the provincial legislators that the public does not appreciate the kindly efforts of the profession in its behalf. The most energetic members, whose enthusiasm at the outset knew no bounds, begin to realize that they have undertaken a thankless task and that to obtain success has become almost hopeless. Direct antagonism on the part of some architects has, no doubt, done the Association harm, but it cannot be denied that its management has been a great deal to blame — the policy "keeping quiet" has been a failure. There never was enough done to interest the public, or to keep the objects of the Association before the public. The fact that there is an association has hardly been remembered by any but members from one year to another, when its existence was called to mind by its efforts to have a bill passed. Spasmodic attempts were occasionally made to let the public know that it was not dead; two or three lectures on "Architecture" have been given to which the public were admitted, but the public was not much interested and attended in but small numbers; but there was no series of lectures carried through a winter season, no meetings were held by local members, whose proceedings might have been chronicled in the daily press, and if at any time people were disposed to take an interest in the Association, that interest soon died out from lack of fuel to keep it alight.

The Province of Quebec Association adopted tactics entirely opposed to those of the Ontario Association, and kept itself before the public; the result has been that it has attained the legislation it required and is in a fairly flourishing condition, while the Ontario

Association is quietly dying. It still has its secretary, who is a very worthy member, and who, no doubt, will be heard from as long as there is any life in the body, and, if he will pardon the simile, will probably be like the leg of a crushed "daddy-long-legs"—that continues to kick after life has left the body.

BOOKS AND PAPERS

DR. ALEXANDER ROBERTSON'S new book¹ upon St. Mark's, Venice, is delightful. It swarms with illustrations of all kinds of work within and without the church—marbles, mosaics, enamels—and, moreover, many of the photographs from which the reproductions have been made, are entirely new, and were taken from, apparently, the most impossible situations, such as, for example, the curved inner part of an arch, or of a vault.

The plan of the book is to prove that all the decorations of the great church were intended to give a pictorial interpretation of the scheme of salvation, with types and anti-types as shown by the writers of the Old and New Testaments. Whether the religion of the old Venetians was more "altogether Biblical" than that of other Catholics may be questioned. We see the same scheme in all our old churches.

The doorways, the glass, and the sculptures, everywhere point to the doctrines of Christianity as illustrated in wood and stone in order that the unlearned, who ran, might read—Our Blessed Lord being the centre round and towards whom apostles, martyrs, prophets, saints and angels innumerable gravitated. St. Mark's is no more "Scriptural" than the Cathedrals of Chartres or Rouen or Paris—and as to the mosaics proving that "an open Bible" was more the treasure of the Venetians than of the Parisians,—surely Dr. Robertson's enthusiasm has somewhat led him astray. That Venice produced many copies, both in manuscript and print, of the Scriptures, no one will deny; but that the printing of Bibles in the fifteenth century in many languages, in any way was the result of the love of the Venetians of the ninth and tenth centuries for the scriptural decoration of their church, is somewhat far fetched, unless we allow that Caxton conceived his ideas as regards the Bible in the vulgar tongue from the sculptures and glass of Westminster Abbey. No doubt we are all influenced by our surroundings; but Venetians no more than Londoners or Parisians; for we find symbolism everywhere in old Christian buildings.

But apart from the author's way of accounting for the pictorial mosaics of St. Mark's, the book is full of most interesting material, and the mosaics are most thoroughly described—each period being spoken of as "First or Ninth-Century Edition, Second or Tenth-Century Edition," these headings being printed in larger type than the rest of the text, which is convenient for reference. The decorations on the walls follow the *Italic Version of the Scriptures Vetus Italica*. "The Title-Page" is inscribed upon the *façade*. It brings before us: 1. Him of whom the book speaks; 2. Him whose name it bears; 3. Those who make it: which being interpreted means—*a. Christ; b. St. Mark; c. The Venetians.* Such is the scheme of the book, carried through each portion of the church and with the greatest attention to detail.

In the chapter upon the Venetians, the author draws attention to the Trades of Venice, the Guilds, etc., and describes Boat-building, Wine selling, Baking, Building, Carpentry, and the like, as carried on by the people, and illustrated in the sculpture of the archivolt of the *façade*.

The *Pala d'Oro*, that wondrous reredos of the high-altar, is fully described, and also the contents of the treasury. As regards the so-called manuscript Gospel of St. Mark, Dr. Robertson points out that St. Mark wrote in Greek, not Latin; and that this manuscript is undoubtedly a fragment of "a fifth or sixth century copy of Jerome's Vulgate, the rest of which is preserved in the little town of Cividale in Friuli, and at Prague," the so-called signature of the apostle, being, of course, a fraud.

In speaking of the artists working in the *Laboratorio* rooms in and about the church—the author advocates "clearing the pages of our Bible, as opportunity is afforded, of these modern defective mosaics . . . and reprinting such portions in their ancient characters." This seems steering perilously near Lord Grimthorpe's terrible substitution of nineteenth-century Early English work for honest Perpendicular and reputable Jacobean architecture. Whether it can be considered "fortunate that, having found many of the original cartoons of the mosaics, the ancient designs can be reconstructed," is doubtful. What the motto of the able and intelligent director of the works, Signor Pietro Saccardo, may mean we cannot say: "Nothing but St. Mark is worthy to touch St. Mark"; but some short time ago there was a great outcry in England against the "repairing" which went on. Dr. Robertson, however, is content, and possibly he knows. "There is," says our author, "therefore, thus guaranteed, not only the material preservation, but the textual restoration to something of its original purity and beauty, of our unique and glorious Bible of St. Mark." Something similar was said of St.

Albans Abbey, of Westminster and Peterborough (and a host of other old churches), but yet St. Albans has been rebuilt in Grimthorpean Early English; and as to the late Mr. Pearson's new rose-window in the north transept of Westminster Abbey, with its clumsy tracery, and the rebuilding of the west front of Peterborough, posterity may have a word to say—certainly the rose-window is no likeness of its predecessor.

Dr. Robertson falls into the usual English error when abbreviating Monsieur, by writing it Mons. instead of M.; but otherwise the book is carefully written, although the style is now and then somewhat confused.

RESULT OF THE LUXFER COMPETITION.

THE final award by Messrs. D. H. Burnham, W. L. B. Jenney, William Holabird, Frank S. Wright, architects, and Prof. Henry Crew, of Northwestern University, committee requested to examine designs submitted and award the prizes to the successful competitors in the competition offered to the architects of America by the American Luxfer Prism Company, closes a most interesting competition. The entire matter has been so fairly and honorably conducted as to make it worthy of special comment and a notable example in the line of competitions. Realizing that the science of securing improved daylight illumination for the interiors of buildings is essentially a feature of an architect's work and practice, this company has made a sincere effort to interest the architects in the development of this most valuable feature of the modern building. The names of the successful contestants and the amounts received are as follows:—

1st Prize, \$2,000	Robert Spencer, Jr., Chicago, Ill.
2d " 1,000	Adamo Boari, " "
3d " 500	S. S. Beman, " "
4th " 300	Cartiss Hoffman, " "
5th " 200	Frederick S. Sewall, " "
6th " 100	James E. Fisher, Bloomington, Ill.
7th " 100	Hugo F. Liedberg, Chicago, Ill.
8th " 100	Frederick S. Sewell, Chicago, Ill.
9th " 100	Field & Medary, Philadelphia, Pa.
10th " 100	J. L. Wees, St. Louis, Mo.
11th " 100	J. L. Wees, " " "
12th " 100	Alfred Fellheimer, Chicago, Ill.
13th " 100	Davis S. Williams, Fort Snelling, Miss.
14th " 100	Howard Bowen, St. Louis, Mo.

In its report the committee says:—

"Altogether thirty-nine different designs were submitted. Each design was numbered as received and was discussed always under the title of its number. By a process of exclusion we selected fourteen of these designs as worthy of prizes. Of these fourteen, we have placed the first five in what we judge to be their order of merit; the remaining nine are arranged in alphabetical order.

"Among the designs, your committee did not find more than fourteen deserving of any prize whatever; they have, therefore, awarded but nine of the ten one-hundred-dollar prizes."

ILLUSTRATIONS

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

CHAPEL IN MOUNT AUBURN CEMETERY, CAMBRIDGE, MASS. MR. W. T. SEARS, ARCHITECT, BOSTON, MASS.

[Gelatine Print, issued with the International and Imperial Editions only.]

This chapel, which was completed during the last winter, is built of Potsdam red sandstone.

DETAILS OF THE BUILDING OF THE FRENCH SOCIETY OF CIVIL ENGINEERS.

For a description of these plates, which are copied from *Engineering*, see article elsewhere in this issue.

GATEWAY OF ST. JOHN'S HOSPITAL, CANTERBURY, ENG.

DESIGN FOR A DETACHED STUDIO IN THE SOUTH OF FRANCE. M. GASPARD TOURNIER, ARCHITECT.

This plate is copied from the *British Architect*.

HOUSE, AND LIBRARY IN THE SAME, OF MRS. CHARLES R. LEE, EAST ORANGE, N. J. MESSRS. LUDLOW & VALENTINE, ARCHITECTS, NEW YORK, N. Y.

UNITED STATES GOVERNMENT BUILDING, TRANS-MISSISSIPPI EXHIBITION, OMAHA, NEB. MR. J. K. TAYLOR, SUPERVISING ARCHITECT.

¹ "The Bible of St. Mark's; St. Mark's Church"; The Altar and Throne of Venice. By Alexander Robertson. D. D. 10s. 6d. George Allen, 156 Charing Cross Road, London.

[The following named illustrations may be found by reference to our advertising pages.]

A GROUP OF EDUCATIONAL BUILDINGS.

A GROUP OF FOUNTAINS.

[Additional Illustrations in the International Edition.]

DIE KAISERWORTH, GOSLAR, PRUSSIA.

[Gelatine Print.]

AMONG the civic architecture of the ancient free imperial city of Goslar, about which we wrote but recently in these columns,¹ one of the most noteworthy examples is the so-called Kaiserworth, a quaint building, situated in a prominent location on the market-square of the town. With the old fountain, topped by a gilded heraldic bird, in front of it, it presents a picturesque sight indeed. The Kaiserworth was built A. D. 1494, for the cloth makers and tailors of the town, to serve as a guildhall for these trades, but for some time past it has been used as a hostelry. There is hardly a doubt but that the building, in its original shape, presented a far more harmonious and satisfactory appearance than it does now, as it bears the marks of repeated "restorations." In all probability, the windows of the second story, instead of being square and plain, as at present, were originally framed by similar decorative late-Gothic work, as are the windows in the oriel. The gargoyles over the statues seem to point to the former existence of gables between them, the same as are still seen at the town-hall, not far distant from this building. The four slate-covered dormers of semi-octagonal plan were erected at a later date to replace said gables. Perhaps at the same time, the pretty oriel, which then terminated in a long point, more in keeping with the existing lower part than the top-heavy turret which clumsy hands have put on it, had to submit to being altered too. Whether the round arches of the portico belonged to the building originally, it is impossible to say. The eight curious wooden statues of the emperors which decorate the front do not represent any particular historical personages, — at any rate they lack any special marks of individualization, and are probably mere decorative figures. The two figures of the side-façade represent Hercules and Abundantia respectively. The second story, which is now divided up into a number of small guest-chambers, contained formerly but one room, the large guildhall. It is thought that the wooden statues of the front originally had their places inside the hall, and that the niches outside contained stone figures of smaller size, for the wooden figures are entirely too large both for the corbels on which they stand and for the niches. It can plainly be seen how portions of the Gothic framework have been rudely knocked off in the attempt to gain room for the figures in the niches and to fit the royal robes into them. The latest restoration of the building took place in 1882, when the walls were plastered over and the wooden emperors received a new polychrome dress.

The Marktbecken (Market-basin), in front of the building, consists of a large basin of bronze, about ten feet in diameter, upon a base of sandstone, out of which rises a central shaft, five feet high, carrying at its top another, smaller basin, surrounding another shaft topped with a gilded eagle which bears the imperial crown on its head. These bronze castings, in the Romanesque style, are of interest as being the oldest existing specimens of the highly-developed metal-industry which was carried on in the Harz region centuries ago. The clumsy stone posts encircling the base of the fountain are of modern origin.

DETAIL OF THE SAME BUILDING.

[Gelatine Print.]

SKETCH OF PAIR OF SMALL HOUSES, WHITTON PARK, MIDDLESEX, ENG. MESSRS. COBB & BOTTRILL, ARCHITECTS.

APARTMENT-BUILDING, RUE VERNET, PARIS, FRANCE. M. PAUL SEDILLE, ARCHITECT.



BRITISH MINES AND QUARRIES. — Dr. C. Le Neve Foster's general report and statistics for the year 1897, relating to the mines and quarries in the United Kingdom, has been issued as a Parliamentary Blue-book. It appears that the total number of persons employed at all the mines under the Quarries Act in the United Kingdom and the Isle of Man, during the year 1897, was 852,083, of whom 728,713 were employed in or about mines, and 123,370 in or about quarries. Of the 728,713 persons employed at mines, 578,226 worked below ground, and 150,487

¹ See *American Architect*, No. 1172 (containing description of Goslar half-timbered houses).

above ground, and of the latter 5,074 were females. Compared with the previous year, there was an increase of 1,901 males working below ground, and an increase of 1,049 males and a decrease of 40 females working above ground, making a net increase of 2,910 persons. During the two previous years, a considerable diminution had to be recorded. The number of females working at mines is decreasing gradually. At collieries their work consists principally in "banking the tubs," or drawing mine-wagons from the cages, running these wagons to the weighing machines, screens, and tips, greasing the wagons, cleaning the safety-lamps, picking out any waste rock from the coal, or separating ironstone from shale, attending to offices, and acting as messengers. In the case of ore mines, they are employed for picking, breaking with hammers, and attending to ore-washing machinery and appliances. The work is stated to be healthy in all cases.

Accidents. — It is stated that there were 1,015 separate fatal accidents in and about all the mines and quarries, more than 20 feet deep, in the United Kingdom, involving the loss of 1,102 lives, showing, on comparison with the previous year, an increase of 11 in the number of accidents and a decrease of 86 in the number of lives lost. Eight hundred and ninety-seven of these accidents, involving the loss of 979 lives, occurred in collieries, and 118, involving the loss of 123 lives, in quarries. With one exception no accident in mines caused more than ten deaths, while in 1896 the death-roll was swollen by three great disasters. Dr. Foster draws attention to the fact that the decrease in the death-rates mentioned in the two previous reports continues, and that those for 1897 are, in fact, the lowest hitherto recorded. So far as explosions of fire-damp or coal-dust are concerned, the year 1897 is described as an "annus mirabilis," for the deaths by accidents from explosions formed a smaller proportion of the total number of fatalities than in any previously recorded year, the exact proportion being only 1.9 per cent. An examination of the causes of these accidents brings to light two striking facts: first, that most of them were due to open flame, either of naked lights, of matches, or of safety-lamps illegally opened; and, second, that not a single fatal ignition of gas or coal-dust can with certainty be ascribed to the flame of an explosive in shot-firing. Falls of ground, on the other hand, were responsible for 490 deaths. Dr. Foster suggests that, by a more liberal use of props, many of the fatalities might have been avoided. The roof, he says, should be supported systematically, the maximum interval between two props being laid down by special rules. He calls attention again to the fact that the German Government has appointed a commission to inquire into the question of accidents from falls of ground, and expresses an emphatic opinion that good must necessarily come from a similar inquiry in this country. In spite of the increased number of persons using shafts, the list of the shaft fatalities is smaller than it was in 1896. The number was only 49, as against 68, or only 6 per cent of the total number of fatalities. A lamentable increase is recorded in the number of miscellaneous fatal accidents underground — an increase from 235 in 1896 to 307 — the percentage to the total being no less than 31.4; but a satisfactory diminution in the number of fatal accidents on the surface — 103 as against 129 in 1896 — is shown.

Prosecutions. — During the year 107 prosecutions of owners, managers, etc., for offences under the Mines Acts, were instituted, and convictions were obtained in 88 cases, while proceedings were taken in 521 cases against workmen, in 506 of which the offenders were convicted. In no less than 93 cases, men were found contravening the rules about matches and smoking, and there were 49 breaches of the rules concerning explosives. — *Journal of the Society of Arts.*

PAVEMENTS MADE OF SHELLS. — The shell concrete pavements of Macon, Ga., are attracting considerable attention at present. The material used is a shell limestone similar to the coquina of which buildings were constructed at St. Augustine while it was a Spanish colony. There is a bed of this stone about thirty miles from Macon, which was discovered during the construction of the Georgia Southern & Florida Railroad, some years ago. Part of the roadbed of that railway was made of it, and it hardened into such a durable form that several car-loads were brought to the city and laid about the freight-station, where it resisted the wear of the heavy traffic unusually well. After it had been in service for four or five years, the city paved a street having one of the heaviest grades in Macon with it, and this first street gave such satisfaction that several more have since been paved in the same manner. About 35,000 square yards are now in use, and petitions for 10,000 yards more are on file. The stone is crushed and laid on the subgrade excavated to receive it; the layer is about seven inches deep at first, and is consolidated by a fifteen-ton steam-roller to a thickness of six inches, being sprinkled at intervals. On heavy grades a gutter is formed by mixing cement with the stone. The pavement costs from 50 to 60 cents a square yard, which includes crushing and labor. — *Engineering Record.*

THE TINPLATE TARIFF. — The tinplate-makers in the United States have been encouraged by tariff bounties to keep on building mills, with the expectation of selling their product in a protected market, until they have reached the usual end of the game. They are now enabled to make 25 per cent more tinplate than they sell at a profit either in home or foreign markets. In order to avoid ruinous competition among themselves they are now trying to organize a Tinplate Trust to control output, squeeze the consumers in the home market to the extent made possible by the tariff on imported tinplates, and to ruin any makers who do not come into the combination. This is the natural and inevitable result of the system of building up industries by Government favor at the public expense. The fraud upon the public is more heinous in the case of the tinplate-makers because steel can be more cheaply produced in the United States than anywhere else in the world, and every penny of duty is, therefore, a tax upon the consumer without resultant increase of the public revenue and without benefit to labor. — *Philadelphia Record.*



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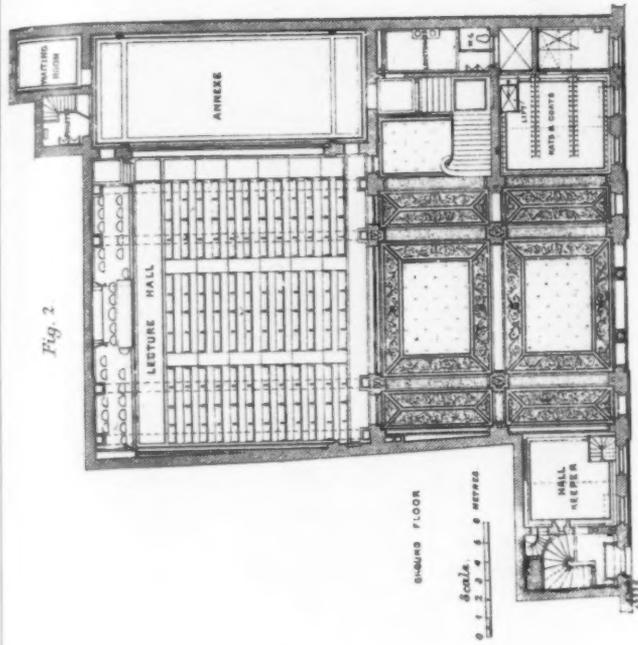


Fig. 2

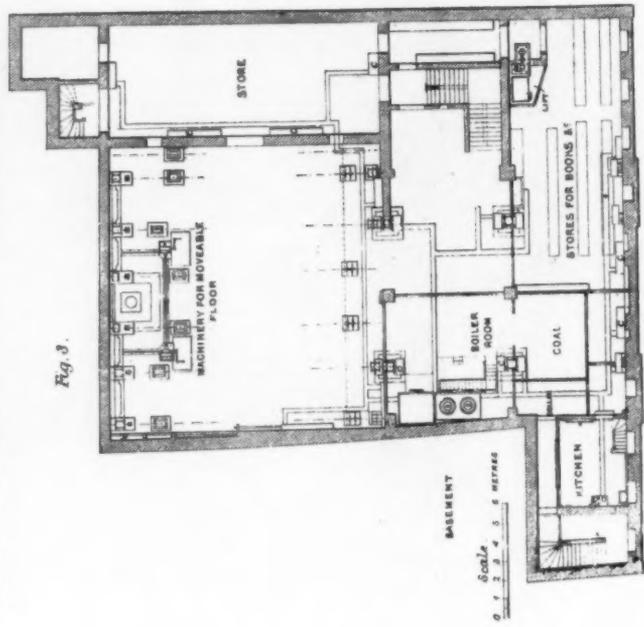


Fig. 3

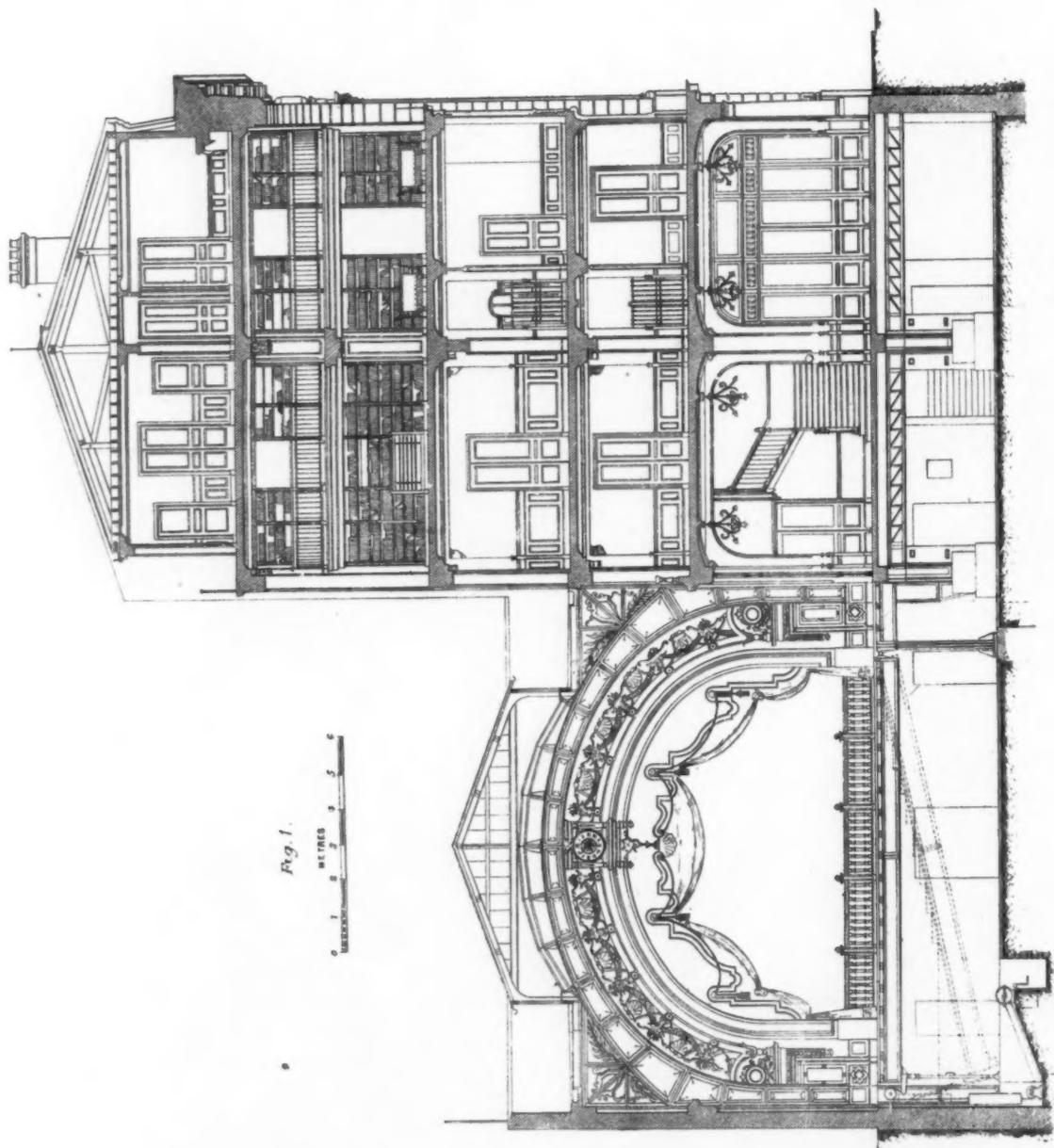


Fig. 1

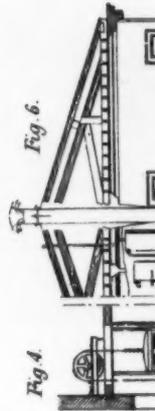


Fig. 4

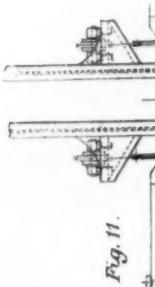


Fig. 6

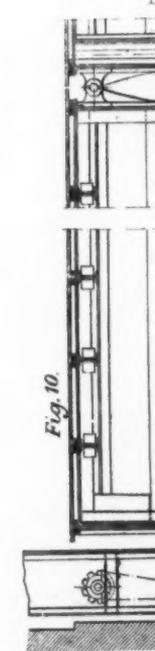


Fig. 10



Fig. 11

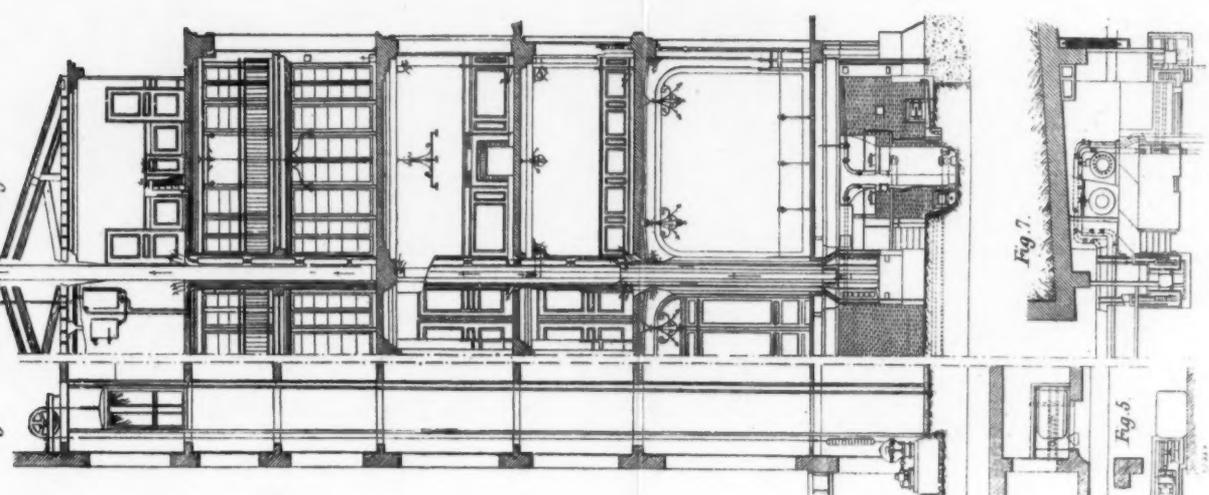


Fig. 5.

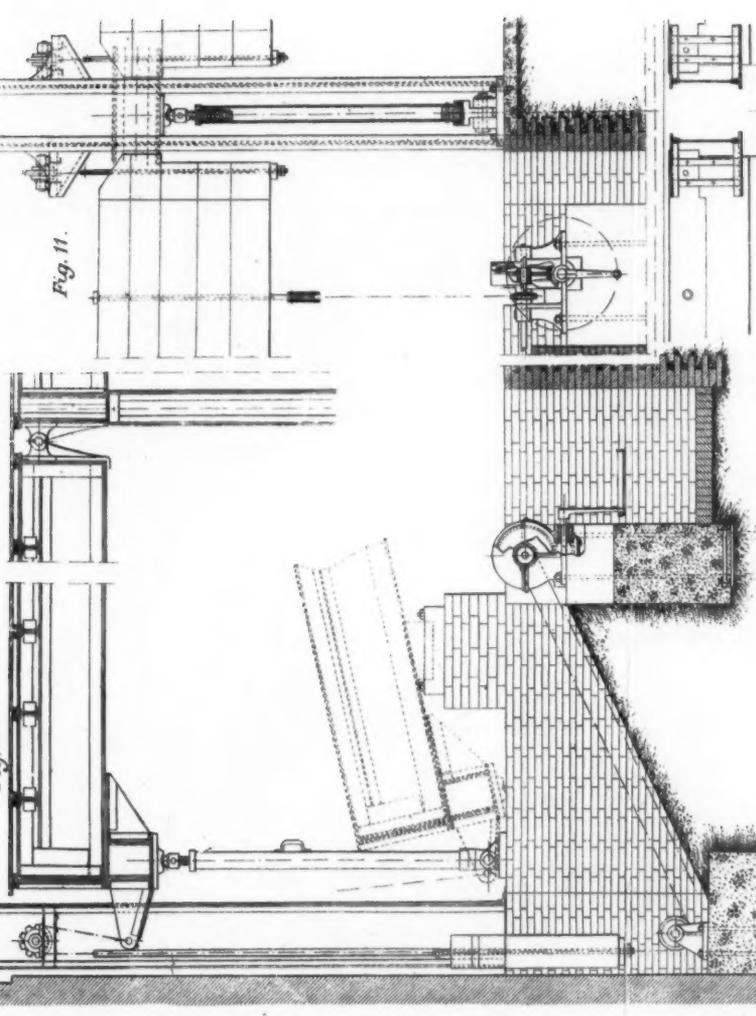


Fig. 8.

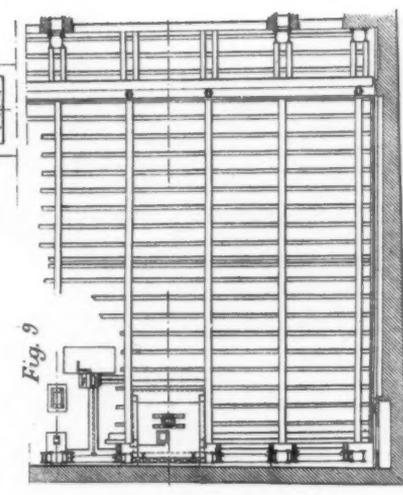


Fig. 9.

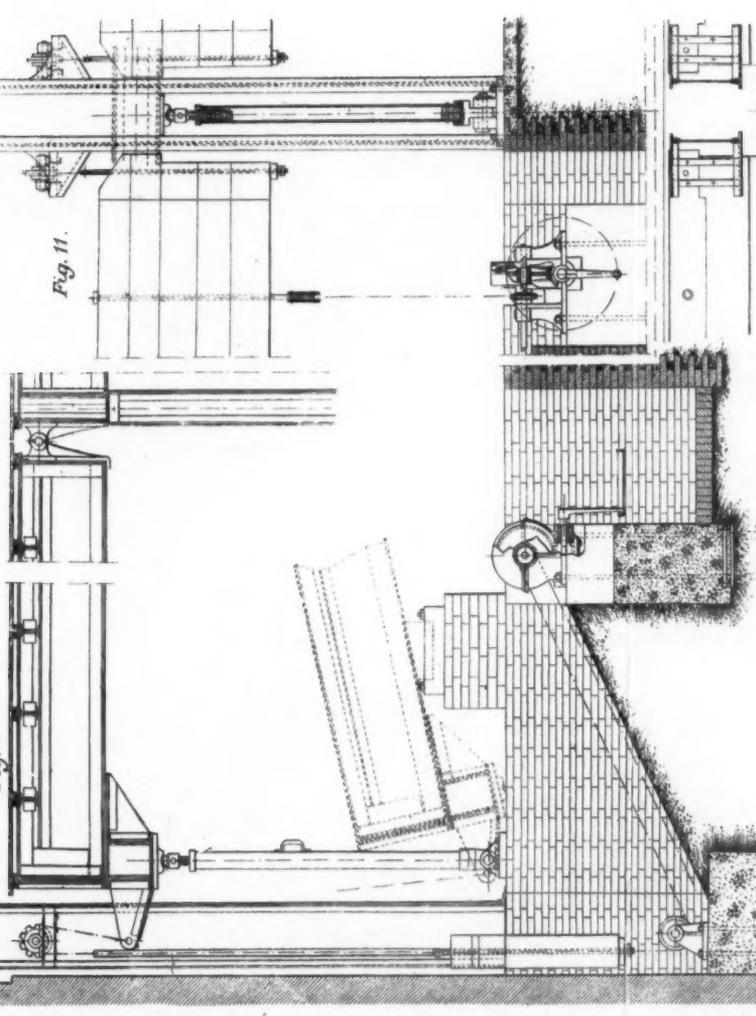


Fig. 11.

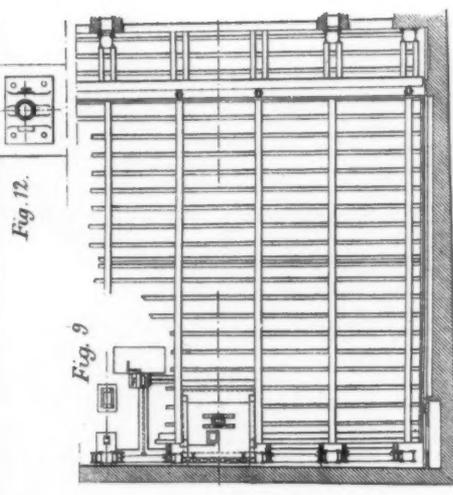


Fig. 12.

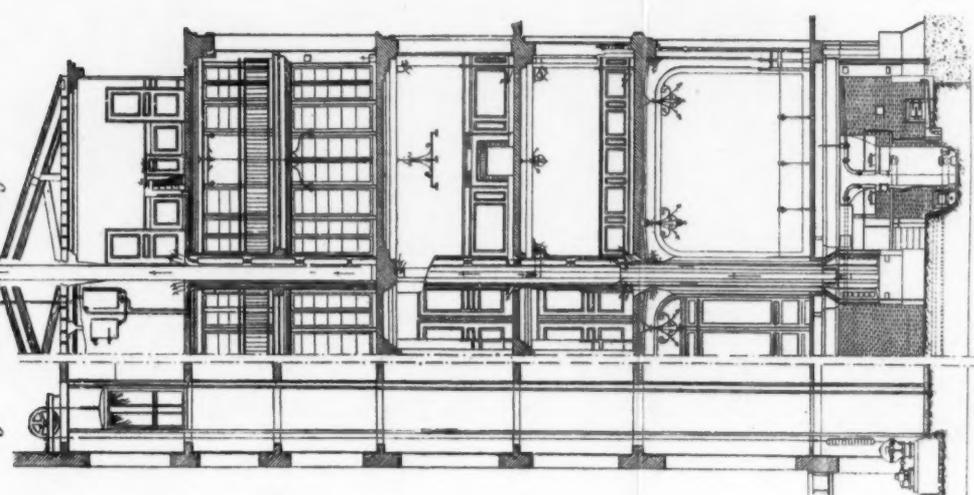


Fig. 7.

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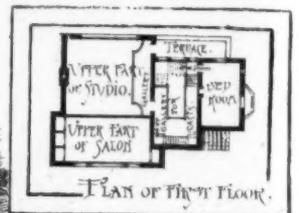
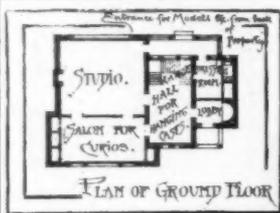
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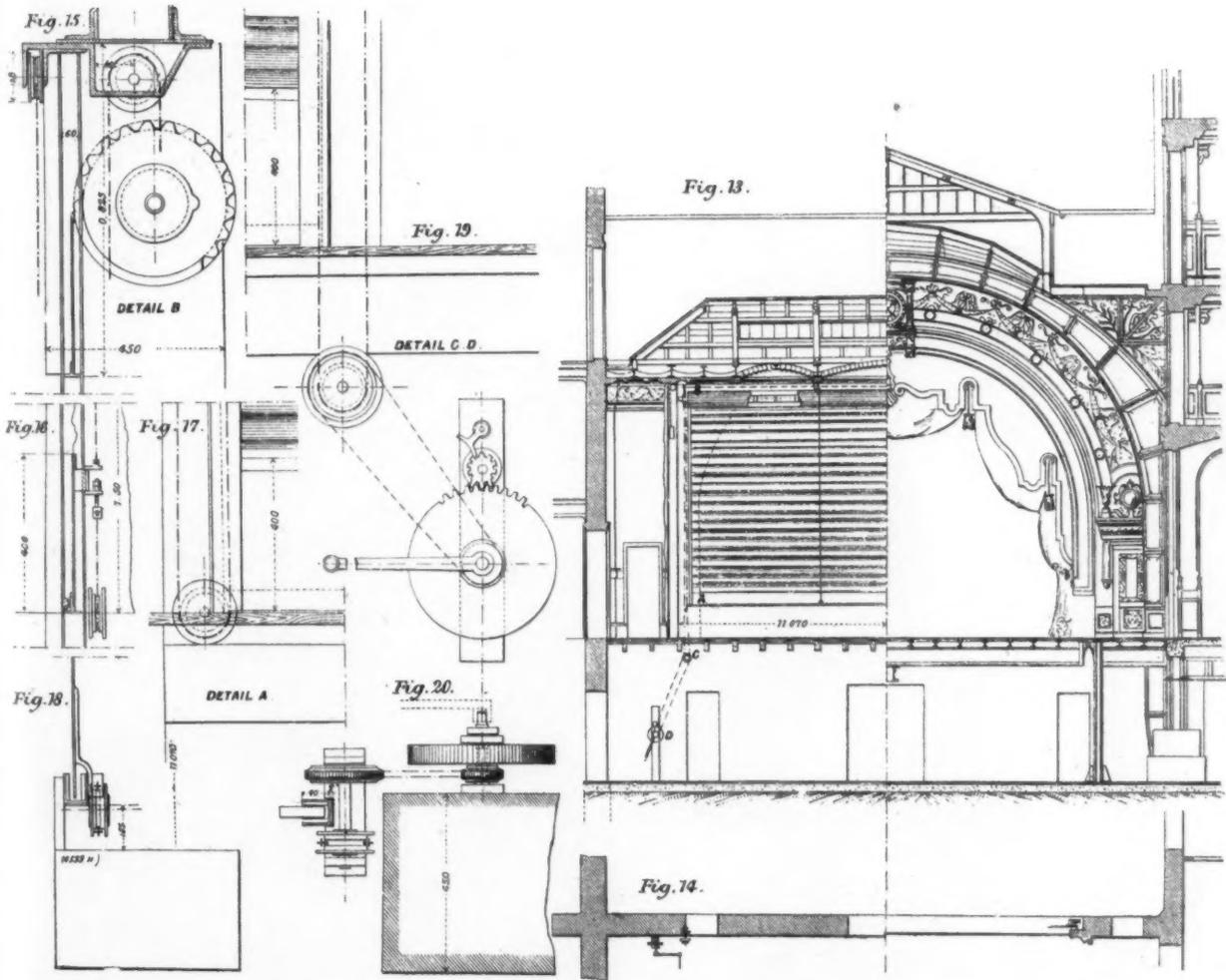
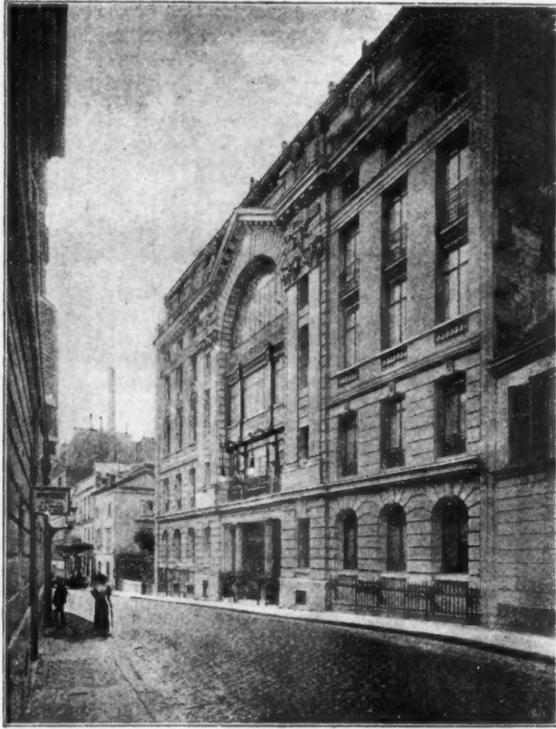


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From British Architect

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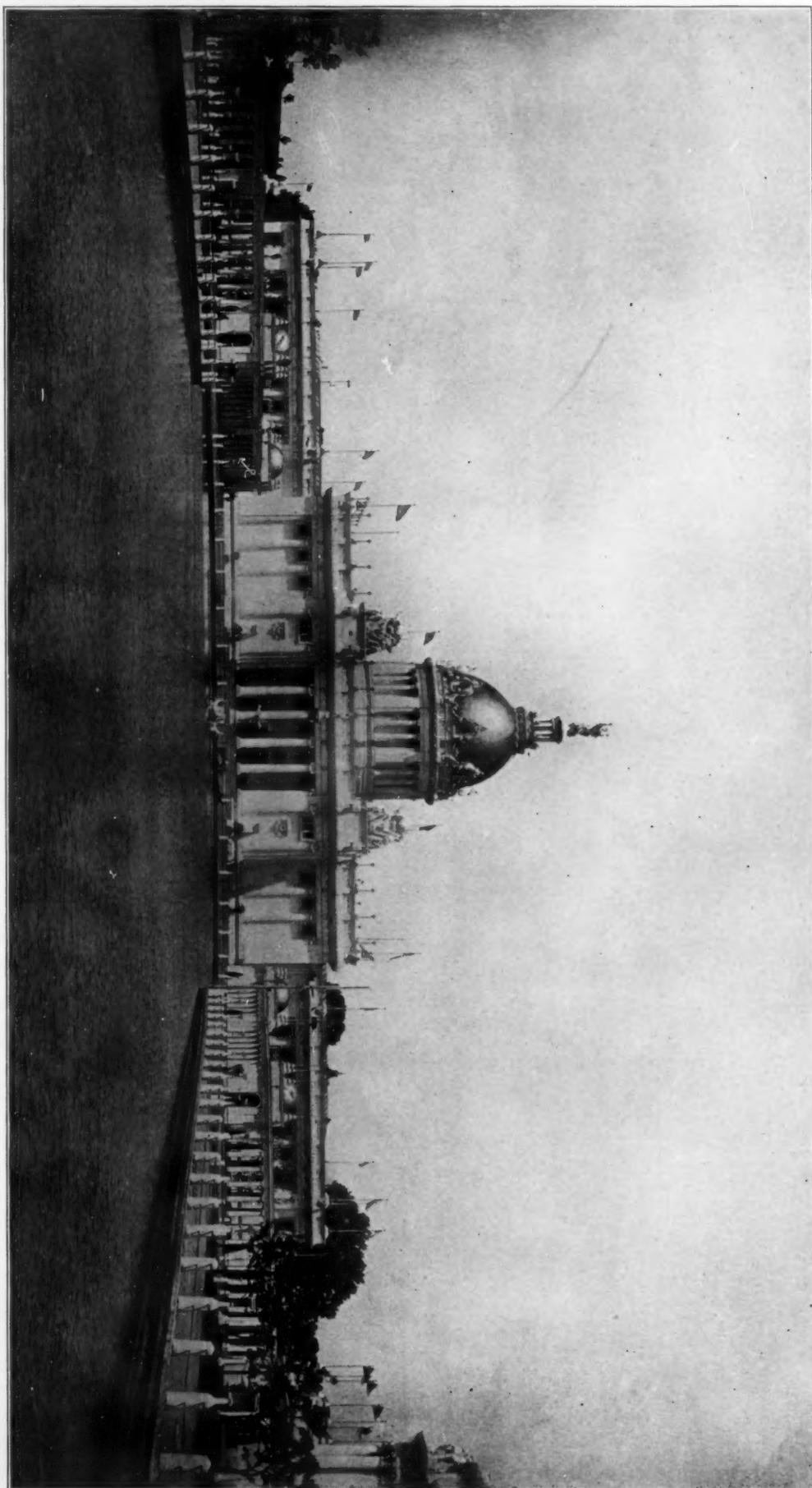
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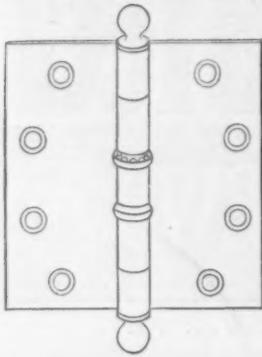
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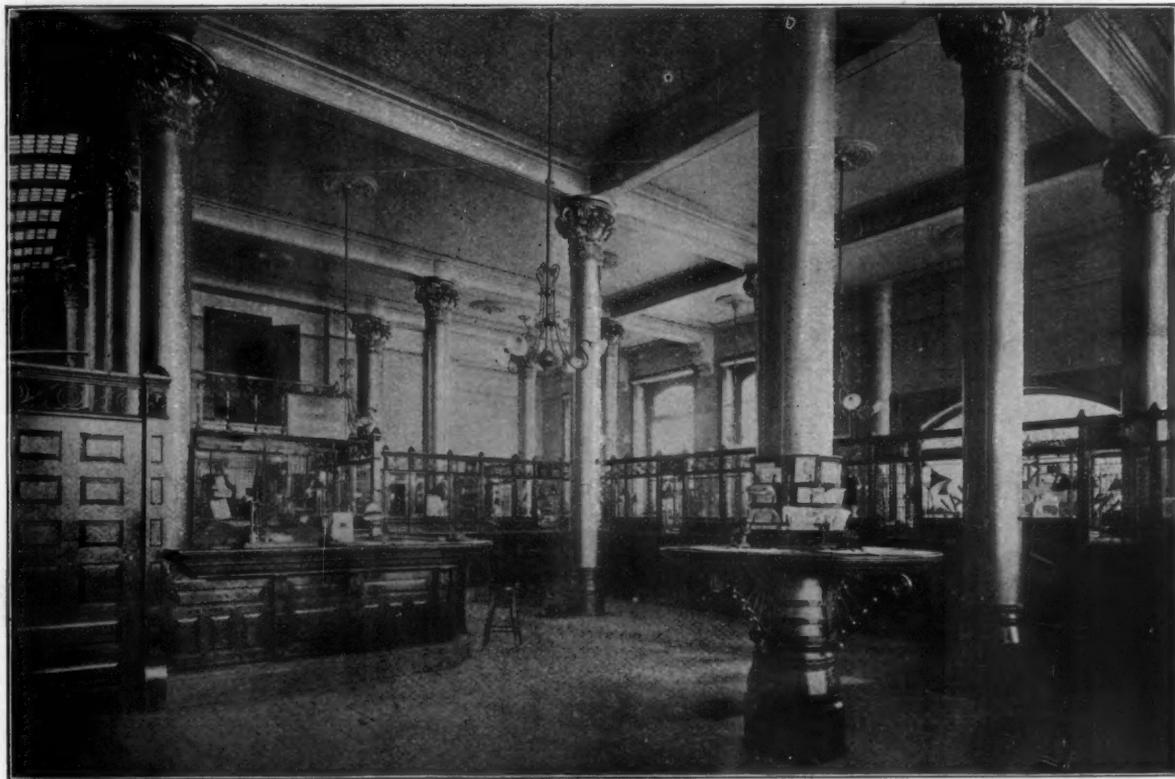
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Foundation:				
Dimension.....	5 00 per ton.	20 @ foot	10 00 @ cord	Conshocken @ 5 00
Block.....	4 00 per perch.	9 00 @ 1 10	9 00 @ "	1 45 @ 2 50
Rubble.....	1 25 @ 1 50			
Sandstone:				
Longmeadow.....	80 @ 90	80 @ 90		95 @ 1 05
Kibbe.....	90 @ 90	90 @ 1 10		
Brown (Connecticut).....	1 00 @ 90	1 00 @ 1 30	1 50 per cub. ft.	1 05 @ 1 25
Amherst Ohio.....	90 @ 95	90 @ 1 00	45 @ 55	85 @ 95
Berea.....	75 @ 1 00	85 @ 90	45 @ 55	55 @ 75
Berlin.....	75 @ 1 00	80 @ 90	45 @ 55	85 @ 95
Belleville.....	80 @ 1 25	25 @ 1 35	45 @ 1 25	1 00 @ 1 10
New Brunswick (Dorchester).....	1 00 @ 1 00	75 @ 90	Not sold.	1 05 @ 1 15
Potdam Red.....	1 30 @ 1 30	1 40 @ 1 40	@ 1 55	@ 1 40
Caen.....	2 00 @ 2 00	2 00 @ 2 00		1 25 @ 1 35
Carlisle, English.....	1 05 @ 1 05	1 05 @ 1 05		95 @ 1 05
Corse Hill (Scotch).....	1 05 @ 1 05	1 05 @ 1 05		95 @ 1 05
Granite: (Maine)			80 @ 1 50	55 @ 65
Limestone:				
Bedford.....	45 @ 1 25	95 @ 1 00	20 @ 40	75 @ 75
Joliet.....	1 00 @ 1 00			Richmond @ 75 @ 1 50
Lemont.....				Perch 4 50 @ 5 50
Serpentine.....		10 50 per ton.		
Bluestone: (Per sq. ft.)				
Sidewalk.....	30 @ 5 00	40 @ 1 75	1 00 @ 1 25	1 in. th. 10 @ 25
Flamed.....	50 @ 6 00	@ 75	1 00 @ 1 25	37 @ 50
Marble: (Per cu. ft.)				
Lee, Mass.....		1 75 @ 2 50	Not sold.	2 00 @ 2 50
Rutland, white and blue.....		@ 3 00	3 50 @ 6 00	2 00 @ 3 00
Sutherland Falls.....	1 25 @ 1 75	@ 2 00	3 50 @ 6 00	1 70 @ 3 00
Glens Falls, black.....			Not sold.	4 00 @ 4 50
Italian, blue-veined.....			@ 4 40	2 50 @ 2 75
" Sienna.....			Not sold.	@ 5 00
Tennessee, red.....			@ 4 40	4 00 @ 6 00
" Knoxville.....			@ 4 40	3 00 @ 4 00
Pennsylvania, blue.....			Not sold.	2 00 @ 3 00
Vermont, white.....			3 50 @ 6 00	2 25 @ 3 00
Slate: Roofing (Per square)				
Green.....	5 00 @ 6 00	4 75 @ 5 25	3 75 @ 5 00	2 90 @ 3 60
" unfading.....	5 00 @ 6 00	5 50 @ 6 50	5 25 @ 6 00	4 25 @ 5 00
Purple.....	5 00 @ 6 00	5 50 @ 6 50	5 25 @ 6 00	4 50 @ 5 50
Red.....	5 00 @ 10 00	10 00 @ 11 00	10 50 @ 12 50	11 50 @ 13 00
Black, Lehigh.....	4 25 @ 4 75		4 50 @ 5 50	4 00 @ 4 35
" Chapmans.....	4 35 @ 5 50	4 75 @ 5 90	5 30 @ 6 15	4 50 @ 5 40
Genuine Bangor.....	6 00 @ 8 50	6 00 @ 8 50	5 25 @ 6 50	4 35 @ 5 50
Unfading black.....	5 50 @ 8 00	5 50 @ 8 00	4 25 @ 8 95	6 50 @ 9 00
".....			5 50 @ 9 20	6 50 @ 9 00
Tiles, Am..... P M.....			Salt-glazed tiles	@ 28 00
N. Peach Bottom, war, unfading			9" sq. per ft.	5 75 @ 6 25
Fire Clay Roof Tile on cars at fac.	8 00 @ 8 00	8 00 @ 8 00	6 00 @ 6 50	8 60 @ 8 60
LUMBER.—P M.				
Boards: (Ordinary dimensions.)				
Pine, 1st quality, clear.....	65 00 @ 75 00	55 00 @ 70 00	50 00 @ 60 00	47 50 @ 60 00
" 2d quality.....	55 00 @ 60 00	42 00 @ 50 00	42 00 @ 50 00	38 00 @ 48 50
" 3d quality.....	18 00 @ 22 00	20 00 @ 40 00	20 00 @ 28 00	27 50 @ 36 50
Spruce.....	@ 25 00	12 00 @ 17 00	Not sold.	15 00 @ 21 50
Hemlock.....	ea134 @ 14	12 00 @ 14 00	10 00 @ 12 00	11 50 @ 13 75
Yellow pine.....	41 @ 40	20 00 @ 35 00	18 00 @ 25 00	14 00 @ 29 00
Cypress.....		28 00 @ 40 00	30 00 @ 35 00	30 00 @ 38 00
Clapboards:				
Pine.....	@	38 00 @ 50 00	25 00 @ 30 00	14 00 @ 25 00
Spruce.....	@	24 00 @ 35 00	Not sold.	Not sold.
Framing Timber:				
Pine.....			15 00 @ 25 00	25 00 @ 37 30
Spruce.....	14 00 @ 18 00	14 50 @ 16 00	Not sold.	15 00 @ 21 50
Hemlock.....	12 00 @ 16 00	12 50 @ 15 00	10 00 @ 15 00	14 00 @ 20 00
Yellow pine.....	18 00 @ 21 00	17 00 @ 25 00	16 00 @ 25 00	22 50 @ 30 00
Laths:				
Pine..... Round Wood	@	2 00 @ 2 50	1 90 @ 2 00	2 75 @ 3 00
Spruce..... Slab.....	1 65 @ 1 75	1 80 @ 2 25	Not sold.	2 30 @ 2 35
Shingles:				
Pine, shaved..... P M.....	5 00 @ 6 00	@	Not sold.	
Pine, sawed..... "	4 00 @ 5 00	@ 4 50	2 60 @ 2 75	
Spruce, sawed..... "	1 50 @ 2 00	1 50 @ 1 75	Not sold.	
Redwood..... P M.....	1 40 @ 1 60	3 00 @ 3 75	4 60 @ 6 00	
Cedar split..... "	@	@ 6 00	Not sold.	
Cypress, sawed..... "	@	3 00 @ 3 25	2 50 @ 2 90	
Cypress, Split..... 7 x 24 "	18 00 @ 20 00	5 00 @ 6 00	@	

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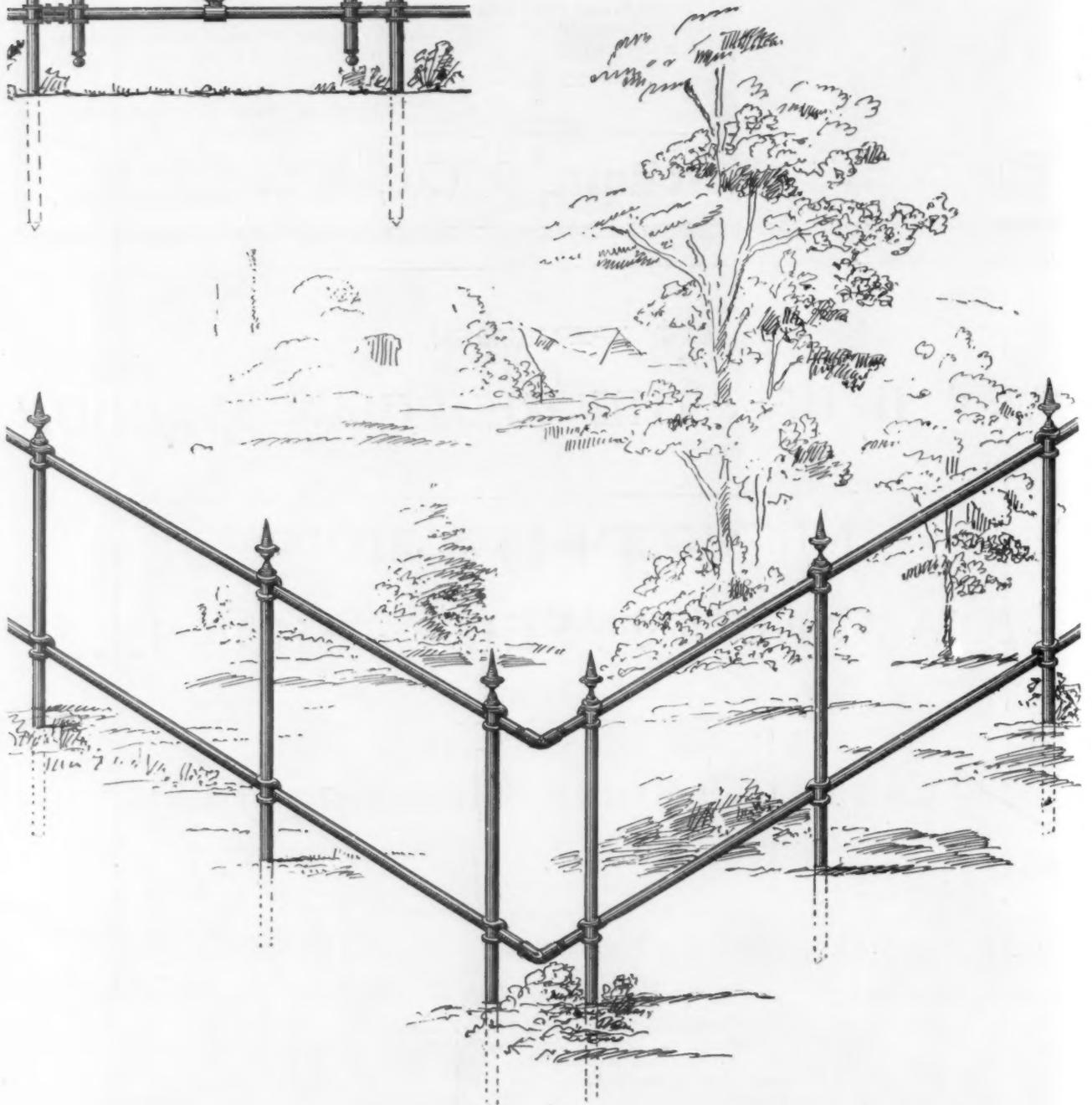
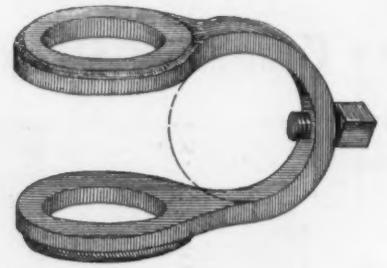
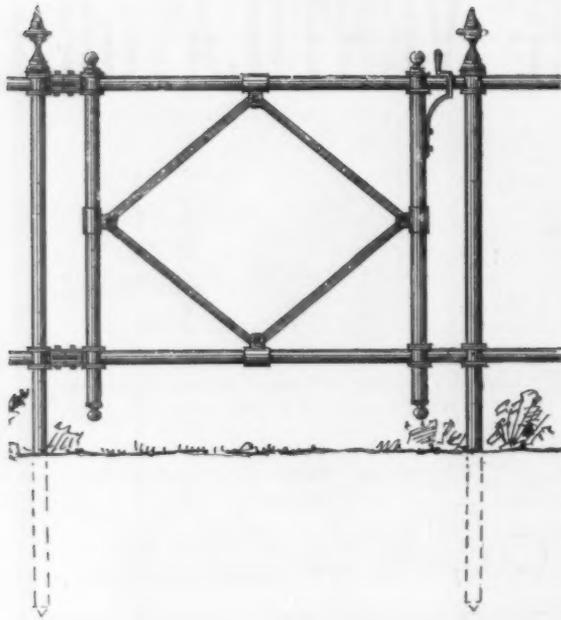
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Fig. 1.

Fig. 2.

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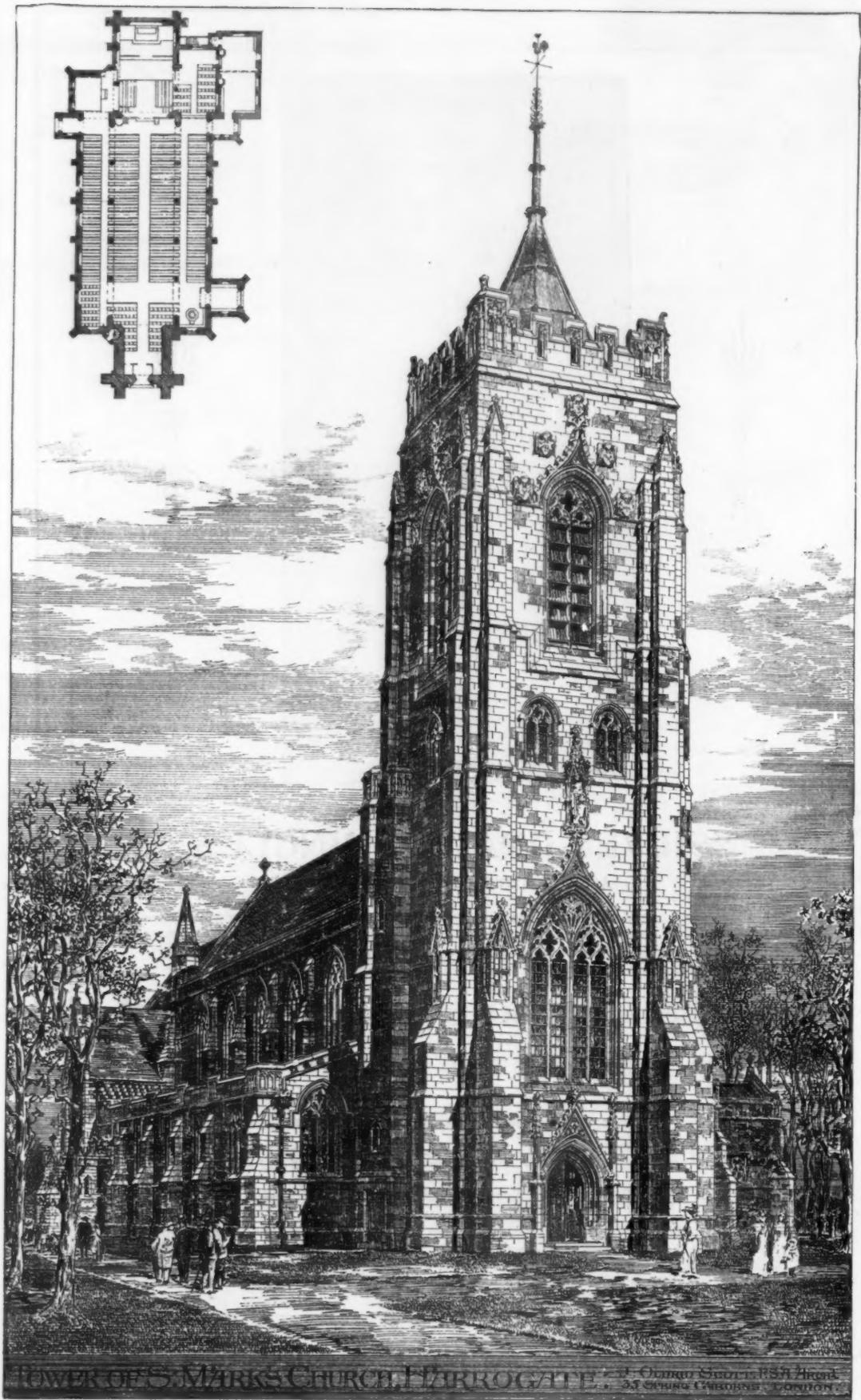
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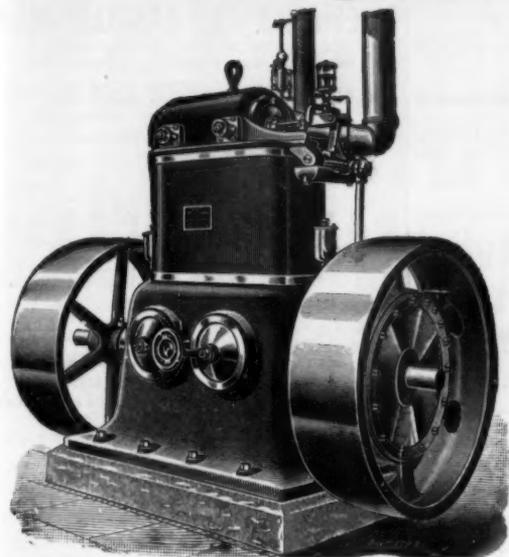
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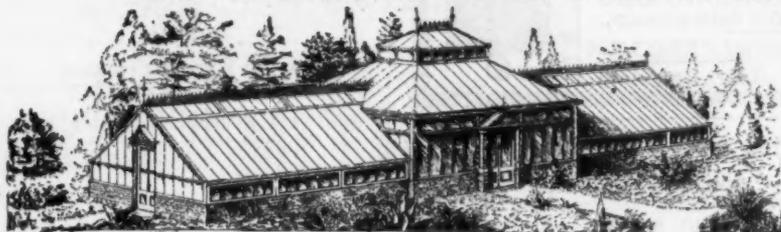
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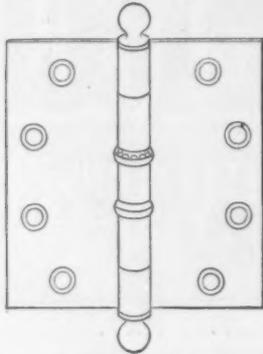
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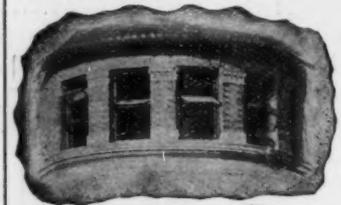
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Hemlock.....	12 00 @ 16 00	12 50 @ 15 00	Not sold.	15 00 @ 21 50
Yellow pine.....	18 00 @ 21 00	17 00 @ 25 00	10 00 @ 15 00	14 00 @ 20 00
Laths:				
Pine..... Round Wood	@	2 00 @ 2 50	1 90 @ 2 00	2 75 @ 3 00
Spruce..... Slab.....	1 65 @ 1 75	1 80 @ 2 25	Not sold.	2 30 @ 2 35
Shingles:				
Pine, shaved..... P M.....	5 00 @ 6 00	@	Not sold.	
Pine, sawed..... "	4 00 @ 5 00	@ 4 50	2 80 @ 2 75	
Spruce, sawed..... "	1 50 @ 2 00	1 50 @ 1 75	Not sold.	
Redwood..... P 125.	1 40 @ 1 60	3 00 @ 3 75	4 60 @ 6 00	
Cedar split..... P M.....	@	@ 6 00	Not sold.	
Cedar sawed..... "	@	2 00 @ 3 25	2 50 @ 2 90	
Cypress. Split..... 7 x 24 "	18 00 @ 30 00	5 00 @ 6 00	@	

30" \$35 @ 40
24" 8 @ 21
20" 35 @ 14
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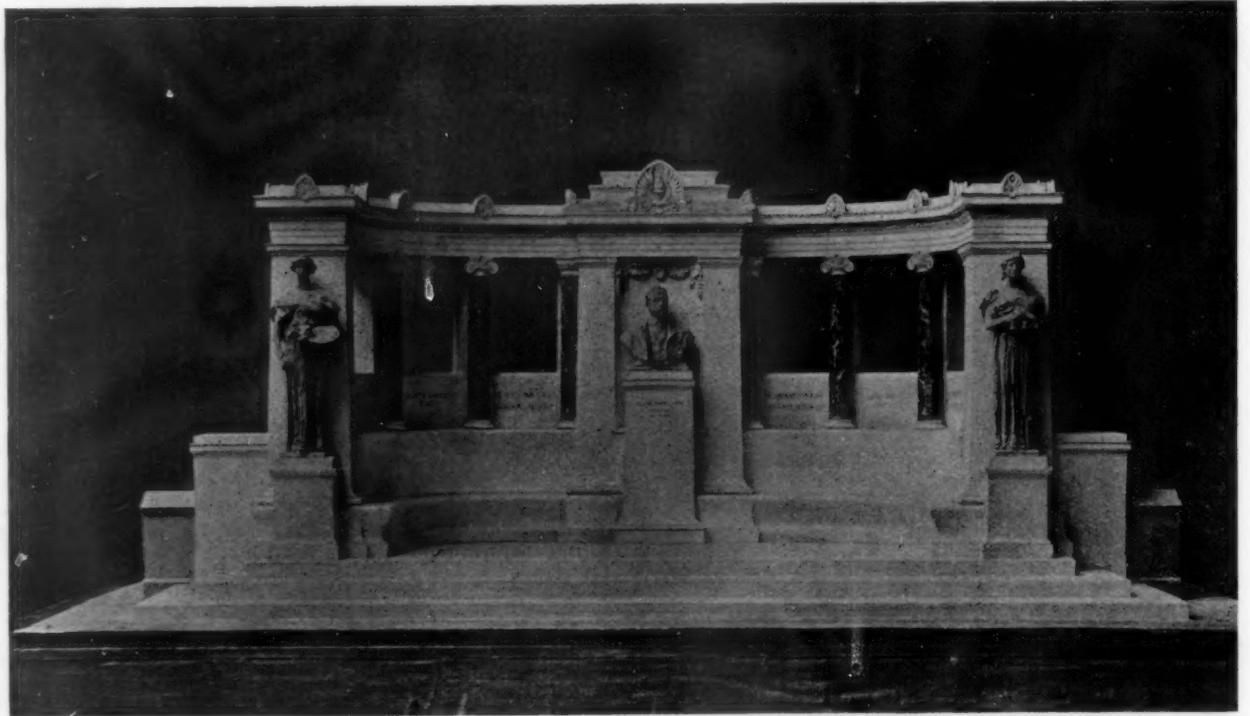
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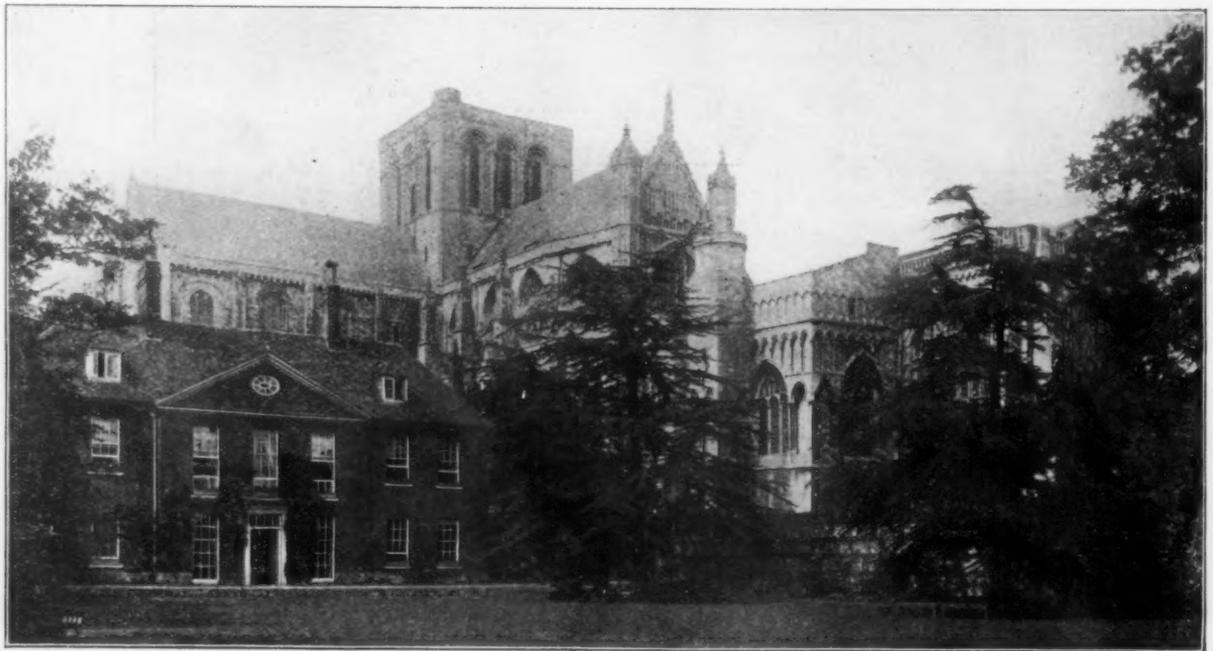
St. Nicholas's Church, Compton, England.



Church at Willey, near Guildford, England.



East View of the Church of Notre Dame, Caudebec, France.

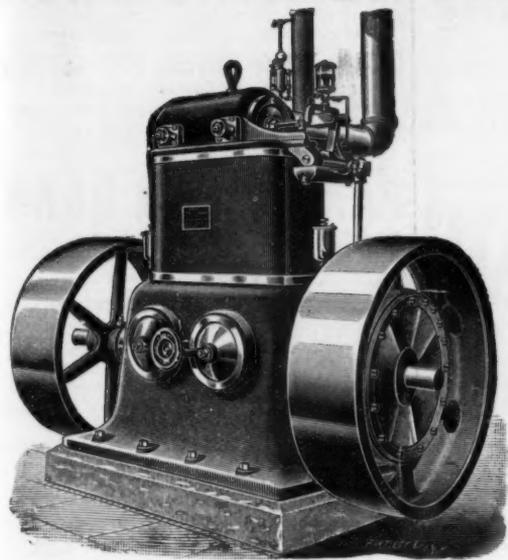


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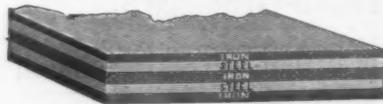
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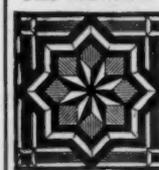
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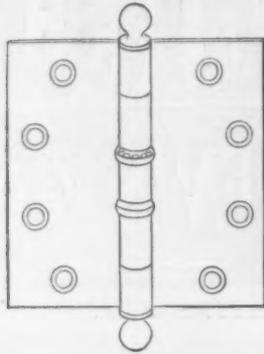
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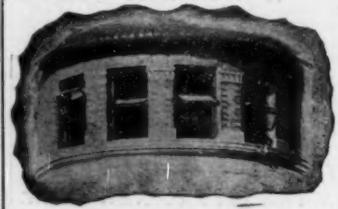
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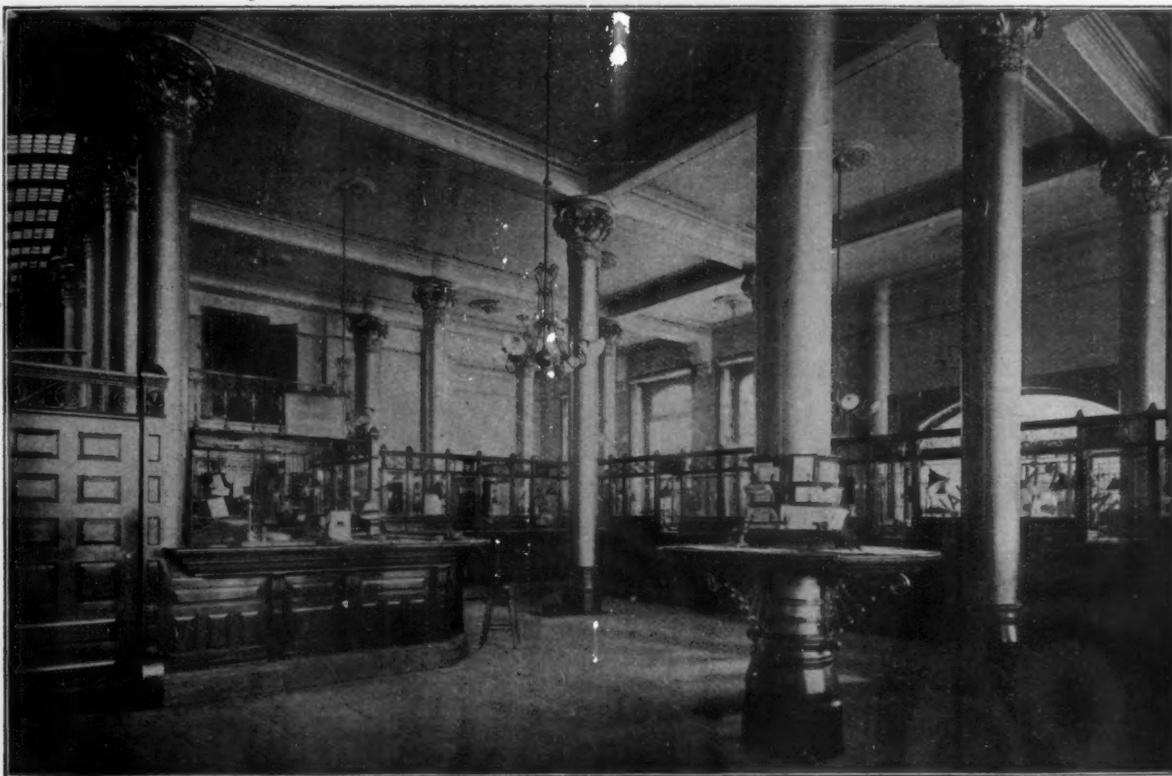
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Block.....	5 00 \$ ton.		20 @ foot	Conshocken
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Longmeadow.....	80 @ 90			
Kibbs.....	90 @ 110			
Brown (Connecticut).....	1 00 @ 1 30			
Amherst Ohio.....	90 @ 95	1 50 \$ cub. ft.		
Berea ".....	75 @ 1 00	45 @ 55		
Berlin ".....	75 @ 1 00	85 @ 90		
Bellefonte.....	80 @ 1 25	25 @ 1 35		
New Brunswick (Dorchester).....	80 @ 1 00	75 @ 90	45 @ 55	
Potsdam Red.....	1 30 @	1 40 @	45 @ 55	
Caen.....	1 05 @	2 00 @	45 @ 55	
Carlisle, English.....	1 05 @	1 05 @	45 @ 55	
Corse Hill (Scotch).....	1 05 @	1 05 @	45 @ 55	
Granite: (Maine)				
Bedford.....	45 @ 1 25	95 @ 1 00	80 @ 1 50	
Joliet.....	1 00 @			
Lemont.....				
Serpentine.....				
Limestone:				
Bedford.....	45 @ 1 25	95 @ 1 00	20 @ 40	75 @ 85
Joliet.....	1 00 @			
Lemont.....				
Serpentine.....				
Slatestone: (\$ sq. ft.)				
Sidewalk.....	30 @ 5 00	40 @ 1 75	1 00 @ 1 25	1 10 @ 25
Flamed.....	50 @ 6 00	75 @	1 00 @ 1 25	37 @ 80
Marble: (\$ cu. ft.)				
Leo, Mass.....		1 75 @ 2 50		
Rutland, white and blue.....		3 00 @		
Sutherland Falls.....	1 25 @ 1 75	2 00 @		
Glen Falls, black.....				
Italian, blue-veined.....				
" Sienna.....				
Tennessee, red.....				
" Knoxville.....				
Pennsylvania, blue.....				
Vermont, white.....				
Slate: Roofing (\$ square).				
Green.....	5 00 @ 6 00	4 75 @ 5 25	3 75 @ 5 00	2 90 @ 3 60
" unfading.....	5 00 @ 6 00	5 50 @ 6 50	5 25 @ 6 00	4 25 @ 5 00
Purple.....	5 00 @ 6 00	5 50 @ 6 50	5 25 @ 6 00	4 50 @ 5 50
Red.....	10 00 @	10 00 @ 11 00	10 50 @ 12 50	11 50 @ 13 00
Black, Lehigh.....	4 25 @ 4 75		4 50 @ 5 50	4 00 @ 4 35
" Chapmans.....			5 30 @ 6 15	4 50 @ 5 00
Genuine Bangor.....	4 35 @ 5 50	4 75 @ 5 90	5 25 @ 6 50	4 35 @ 5 50
Unfading black.....	6 00 @ 8 50	6 00 @ 8 50	4 25 @ 8 95	6 50 @ 9 00
" ".....	5 50 @ 8 00	5 50 @ 8 00	5 50 @ 9 20	6 50 @ 9 00
Tiles, Am..... P M.....				
N. Peach Bottom, war, unfading				
Fire Clay Roof Tile on cars at fac.	8 00 @	8 00 @	6 00 @ 6 50	8 00 @
LUMBER.—P M.				
Boards: (Ordinary dimensions.)				
Pine, 1st quality, clear.....	85 00 @ 75 00	55 00 @ 70 00	50 00 @ 60 00	47 50 @ 60 00
" 2d qual ty.....	55 00 @ 60 00	42 00 @ 50 00	42 00 @ 50 00	38 00 @ 48 50
" 3d quality.....	18 00 @ 22 00	20 00 @ 40 00	20 00 @ 28 00	27 50 @ 36 50
Spruce.....	@ 25 00	12 00 @ 17 00	Not sold.	15 00 @ 21 50
Hemlock.....	ea13 @ 14	12 00 @ 14 00	10 00 @ 12 00	11 50 @ 13 75
Yellow pine.....	20 @ 40	20 00 @ 35 00	18 00 @ 25 00	14 00 @ 20 00
Cypress.....	@	28 00 @ 40 00	30 00 @ 35 00	30 00 @ 38 00
Clapboards:				
Pine.....	@	38 00 @ 50 00	25 00 @ 30 00	14 00 @ 25 00
Spruce.....	@	24 00 @ 35 00	Not sold.	Not sold.
Framing Timber:				
Pine.....	14 00 @ 18 00	14 50 @ 16 00	15 00 @ 25 00	25 00 @ 37 30
Hemlock.....	12 00 @ 16 00	12 50 @ 15 00	Not sold.	15 00 @ 21 50
Yellow pine.....	18 00 @ 21 00	17 00 @ 25 00	10 00 @ 15 00	14 00 @ 20 00
Laths:				
Pine..... Round Wood	@	2 00 @ 2 50	1 90 @ 2 00	2 75 @ 3 00
Spruce..... Slab.....	1 60 @ 1 70	1 80 @ 2 25	Not sold.	2 30 @ 2 35
Shingles:				
Pine, shaved..... P M.....	5 60 @ 6 00	@	Not sold.	
" ".....	4 00 @ 5 00	@	2 60 @ 2 75	
Spruce, sawed..... ".....	1 50 @ 2 00	1 50 @ 1 75	Not sold.	
Redwood..... ".....	1 40 @ 1 60	3 00 @ 3 75	4 60 @ 6 00	
Cedar split..... P M.....	@	@	Not sold.	
Cedar sawed..... ".....	@	2 00 @ 3 25	2 50 @ 2 90	
Cypress, Split..... 7 x 24 ".....	18 00 @ 30 00	5 00 @ 6 00	@	

30" \$35 @ 40
24" 8 @ 21
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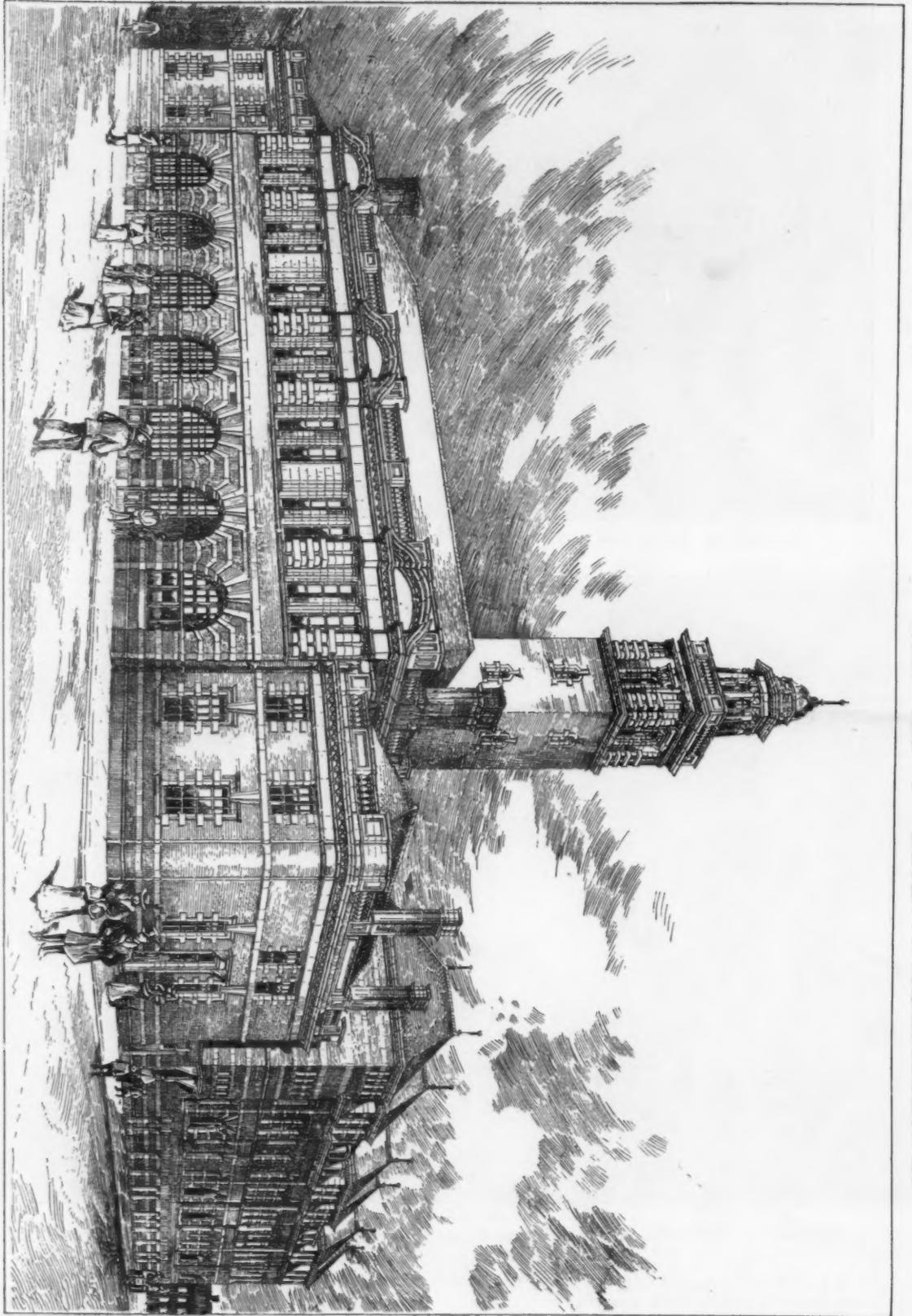
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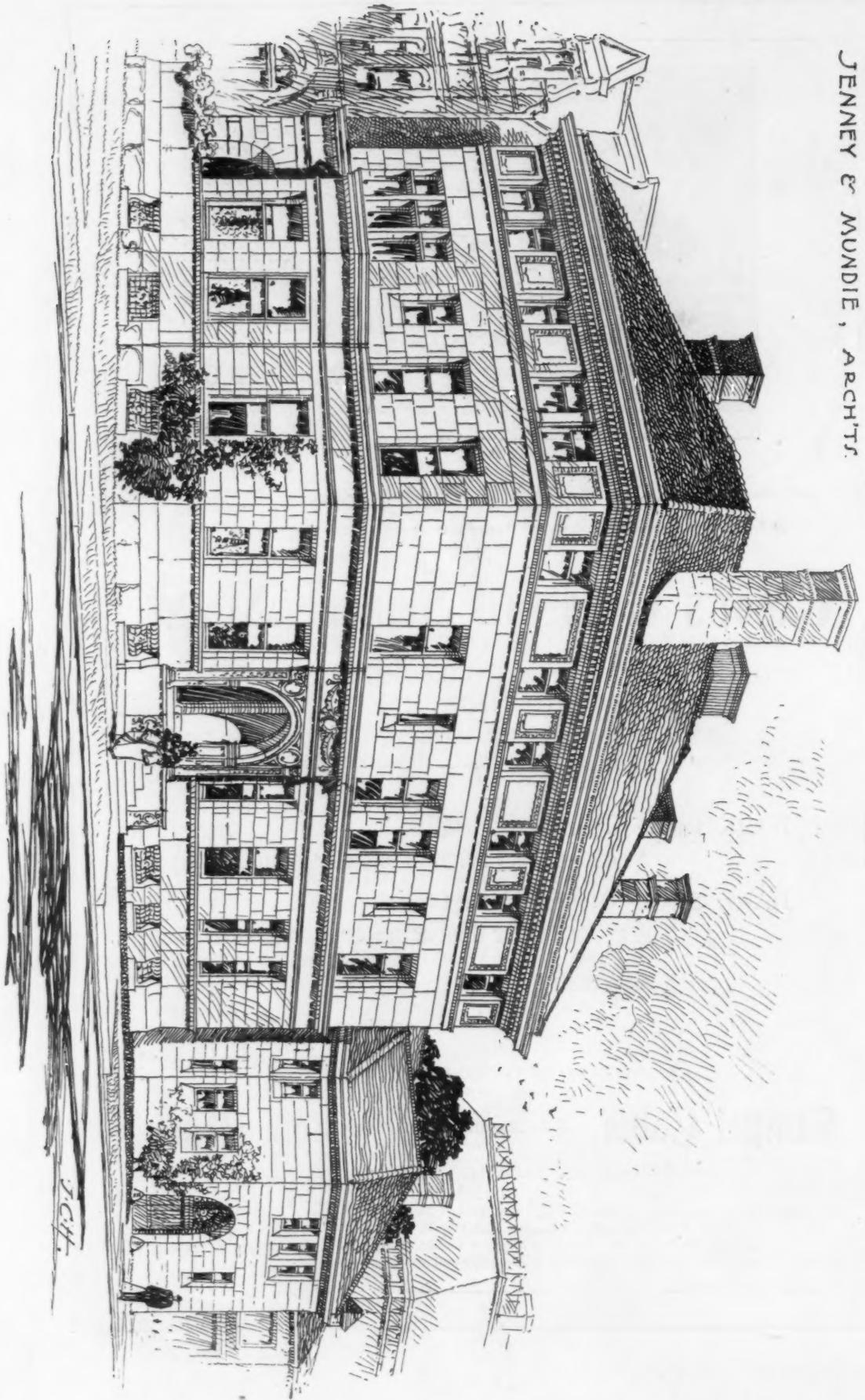
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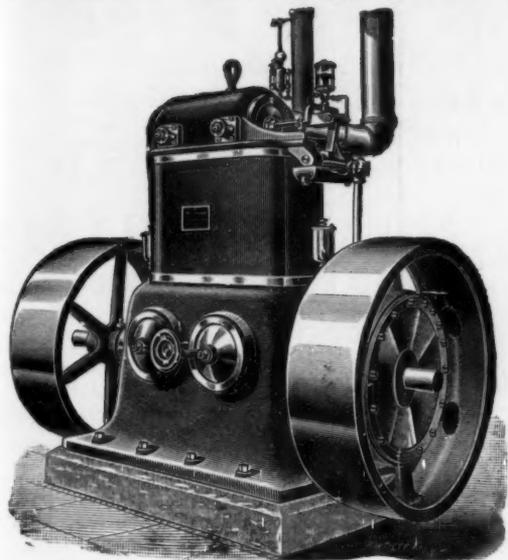
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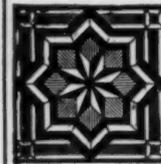
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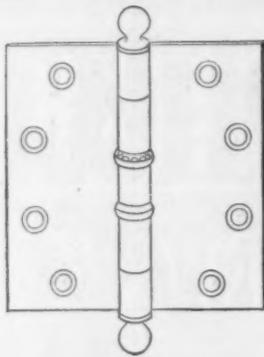
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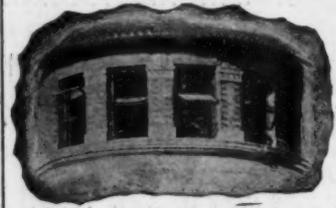
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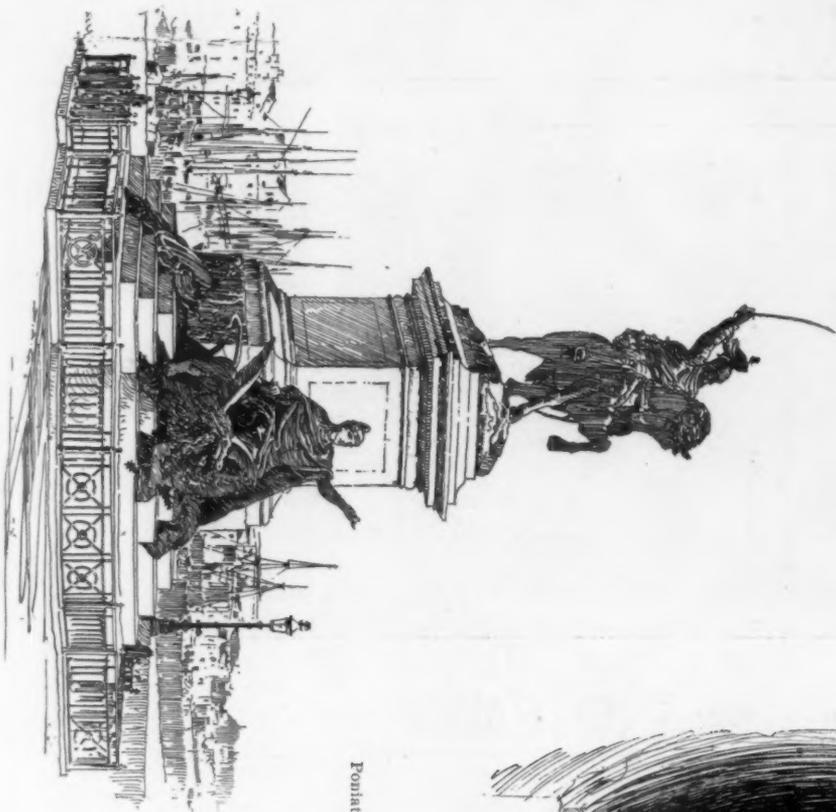
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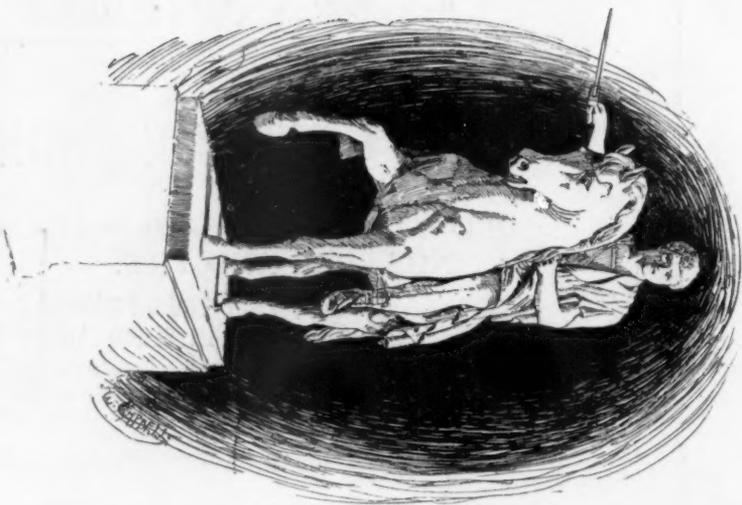
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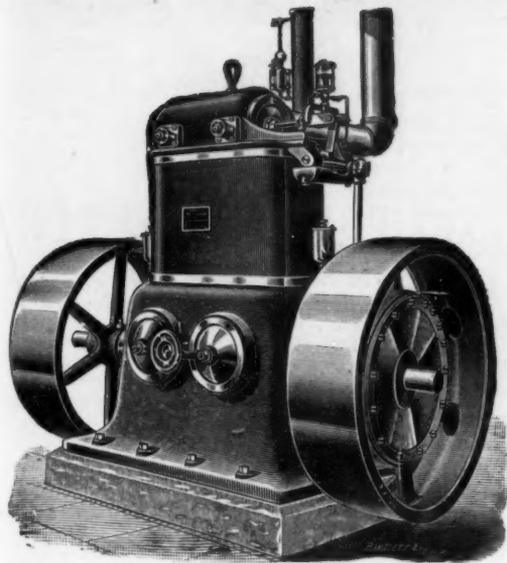


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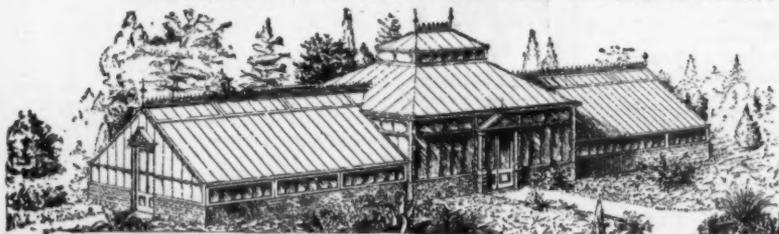
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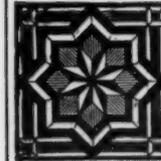
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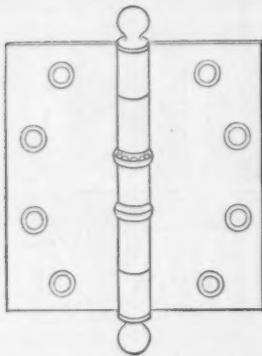
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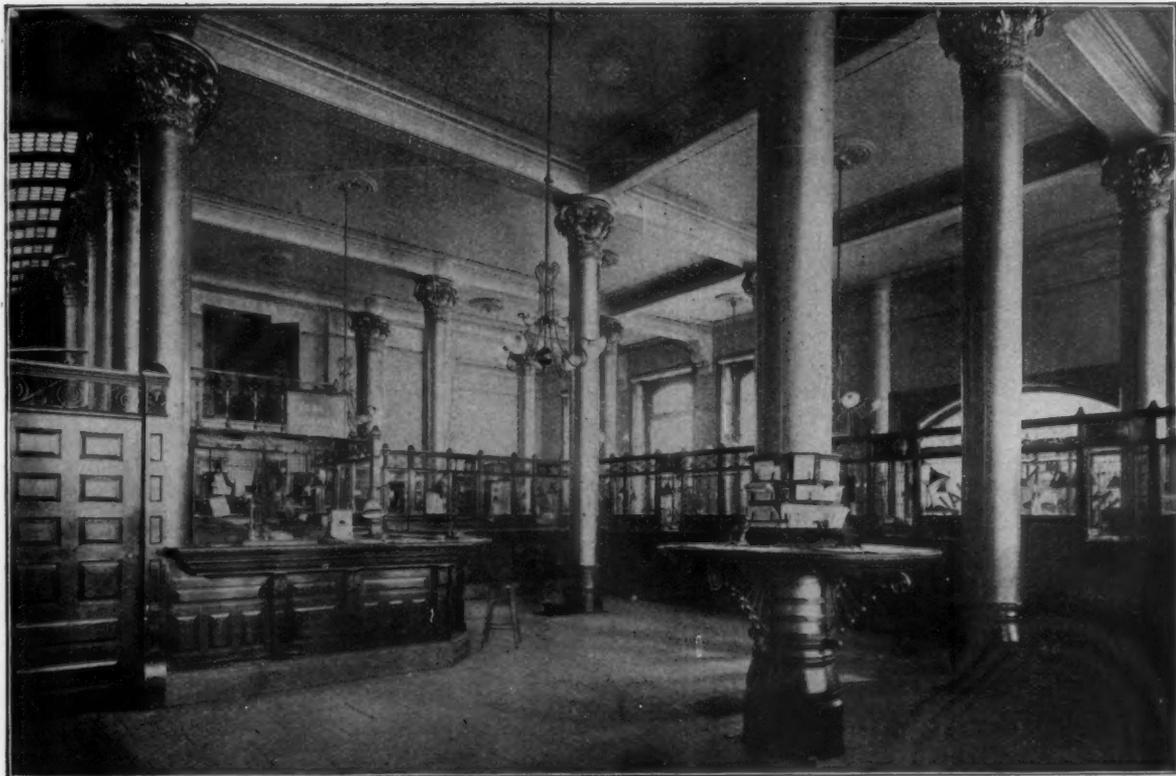
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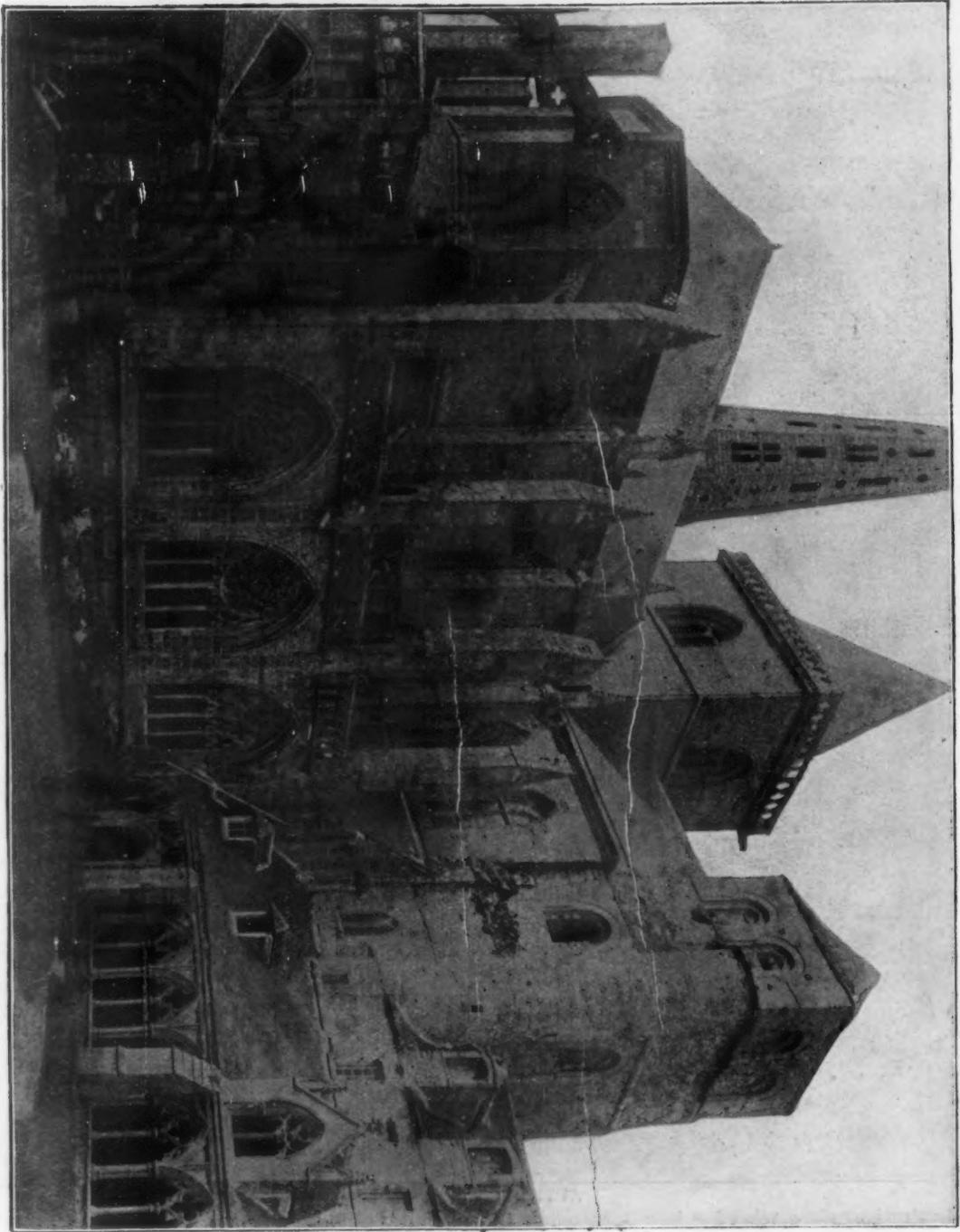
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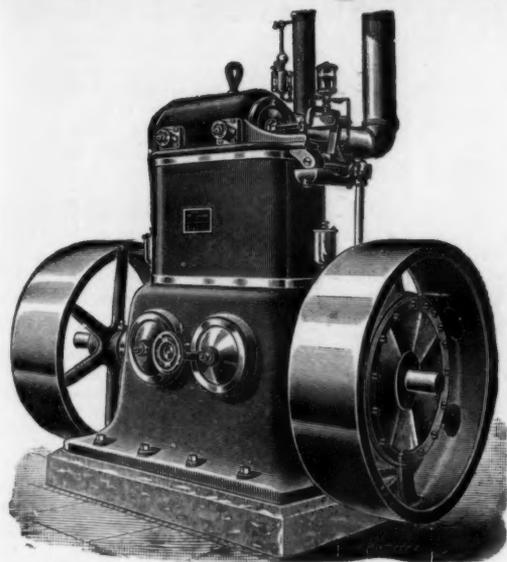
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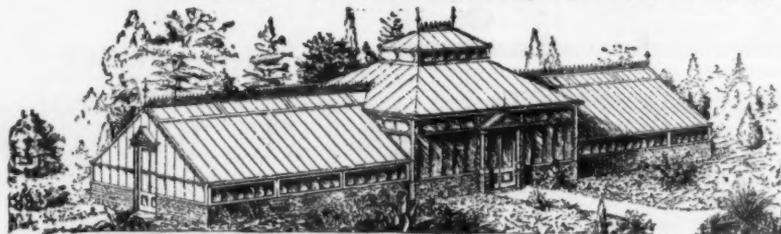
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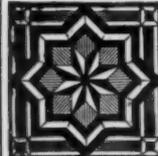
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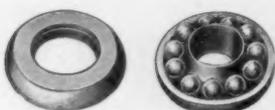
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Berea ".....	75 @ 1 00	85 @ 90	45 @ 55	85 @ 95
Berlin ".....	75 @ 1 00	80 @ 90	45 @ 55	1 00 @ 1 10
Belleville.....	80 @ 1 25	25 @ 1 35	@ 1 25	1 05 @ 1 15
New Brunswick (Dorchester).....	1 00	75 @ 90	Not sold.	@ 1 40
Potsdam Red.....	@ 1 30	@ 1 40	@ 1 55	1 25 @ 1 35
Caen.....	@	@ 2 00	@	95 @ 1 05
Carlisle, English.....	@ 1 05	@ 1 05	@	95 @ 1 05
Corse Hill (Scotch).....	@ 1 05	@ 1 05	@	55 @ 65
Granite: (Maine)			80 @ 1 50	75 @ 85
Limestone:				Richmond
Bedford.....	45 @ 1 25	95 @ 1 00	20 @ 40	Perch 75 @ 1 50
Joliet.....	1 00		@	4 50 @ 5 50
Lemont.....			@	1 in. th. 10 @ 25
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Bluestone: (Per sq. ft.)			1 00 @ cub. ft.	2 00 @ 2 50
Sidewalk.....	30 @ 5 00	40 @ 1 75	1 00 @ 1 25	2 00 @ 3 00
Planed.....	50 @ 6 00	@ 75	1 00 @ 1 25	1 70 @ 3 00
Marble: (Per cu. ft.)				4 00 @ 4 50
Lee, Mass.....	@	1 75 @ 2 50	Not sold.	2 50 @ 2 75
Rutland, white and blue.....	@	@ 3 00	3 50 @ 6 00	@ 5 00
Sutherland Falls.....	1 25 @ 1 75	@ 2 00	3 50 @ 6 00	4 00 @ 6 00
Glens Falls, black.....	@	@	Not sold.	3 00 @ 4 00
Italian, blue-veined.....	@	@	@ 4 40	2 25 @ 3 00
" Sienna.....	@	@	Not sold.	
Tennessee, red.....	@	@	@ 4 40	
" Knoxville.....	@	@	@ 4 40	
Pennsylvania, blue.....	@	@	Not sold.	
Vermont, white.....	@	@	3 50 @ 6 00	
Slate: Roofing (Per square)				
Green.....	5 00 @ 6 00	4 75 @ 5 25	3 75 @ 5 00	2 90 @ 3 60
" unfading.....	5 00 @ 6 00	5 50 @ 6 50	5 25 @ 6 00	4 25 @ 5 00
Purple.....	5 00 @ 6 00	5 50 @ 6 50	5 25 @ 6 00	4 50 @ 5 50
Red.....	@ 10 00	10 00 @ 11 00	10 50 @ 12 50	11 50 @ 13 00
Black, Lehigh.....	4 25 @ 4 75	@	4 50 @ 5 50	4 00 @ 4 50
" Chapmans.....	@	@	5 30 @ 6 15	4 50 @ 5 00
Genuine Bangor.....	4 35 @ 5 50	4 75 @ 5 90	5 25 @ 6 50	4 35 @ 5 00
Unfading black.....	6 00 @ 8 50	6 00 @ 8 50	4 25 @ 8 95	6 50 @ 9 00
" ".....	5 50 @ 8 00	5 50 @ 8 00	5 50 @ 9 20	6 50 @ 9 00
Tiles, Am..... Per M.....	@	@	Salt-glazed tiles	@ 28 00
N. Peach Bottom, war, unfading	@	@	9" sq. per ft.	5 76 @ 6 25
Fire Clay Roof Tile on cars at fac.	8 00 @	8 00 @	6 00 @ 6 50	8 60 @
LUMBER. — Per M.				
Boards: (Ordinary dimensions.)				
Pine, 1st quality, clear.....	65 00 @ 75 00	55 00 @ 70 00	50 00 @ 60 00	47 50 @ 60 00
" " 2d quality.....	55 00 @ 60 00	42 00 @ 50 00	42 00 @ 50 00	38 00 @ 48 50
" " 3d quality.....	18 00 @ 22 00	20 00 @ 40 00	20 00 @ 28 00	27 50 @ 36 50
Spruce.....	@ 25 00	12 00 @ 16 00	Not sold.	15 00 @ 21 50
Hemlock.....	ea13 @ 14	12 00 @ 14 00	10 00 @ 12 00	11 50 @ 13 75
Yellow pine.....	20 @ 40	19 00 @ 35 00	18 00 @ 25 00	14 00 @ 29 00
Cypress.....	@	26 00 @ 40 00	30 00 @ 35 00	30 00 @ 38 00
Clapboards:				
Pine.....	@	35 00 @ 55 00	25 00 @ 30 00	14 00 @ 25 00
Spruce.....	@	24 00 @ 35 00	Not sold.	Not sold.
Framing Timber:				
Pine.....			15 00 @ 25 00	25 00 @ 37 50
Spruce.....	14 00 @ 18 00	13 00 @ 16 00	Not sold.	15 00 @ 21 50
Hemlock.....	12 00 @ 16 00	12 00 @ 15 00	10 00 @ 15 00	14 00 @ 20 00
Yellow pine.....	18 00 @ 21 00	17 00 @ 25 00	16 00 @ 25 00	22 50 @ 30 00
Laths:				
Pine..... Round Wood	@	2 00 @ 2 50	1 90 @ 2 00	2 75 @ 3 00
Spruce..... Slab.....	1 50 @ 1 60	1 80 @ 2 15	Not sold.	2 30 @ 2 35
Shingles:				
Pine, shaved..... Per M.....	5 90 @ 6 00	@	Not sold.	
Pine, sawed..... ".....	4 00 @ 5 00	@ 4 50	2 60 @ 2 75	
Spruce, sawed..... ".....	1 50 @ 2 00	1 50 @ 1 75	Not sold.	
Redwood..... Per 125.....	1 40 @ 1 60	3 00 @ 3 75	4 60 @ 8 00	
Cedar split..... Per M.....	@	@ 6 00	Not sold.	
Cedar sawed..... ".....	@	2 00 @ 3 25	2 50 @ 2 90	
Cypress, Split..... 7 x 24 ..	18 00 @ 20 00	5 00 @ 6 00	@	

30" \$35 @ 40
24" 8 @ 21
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11 00 @ 14 00

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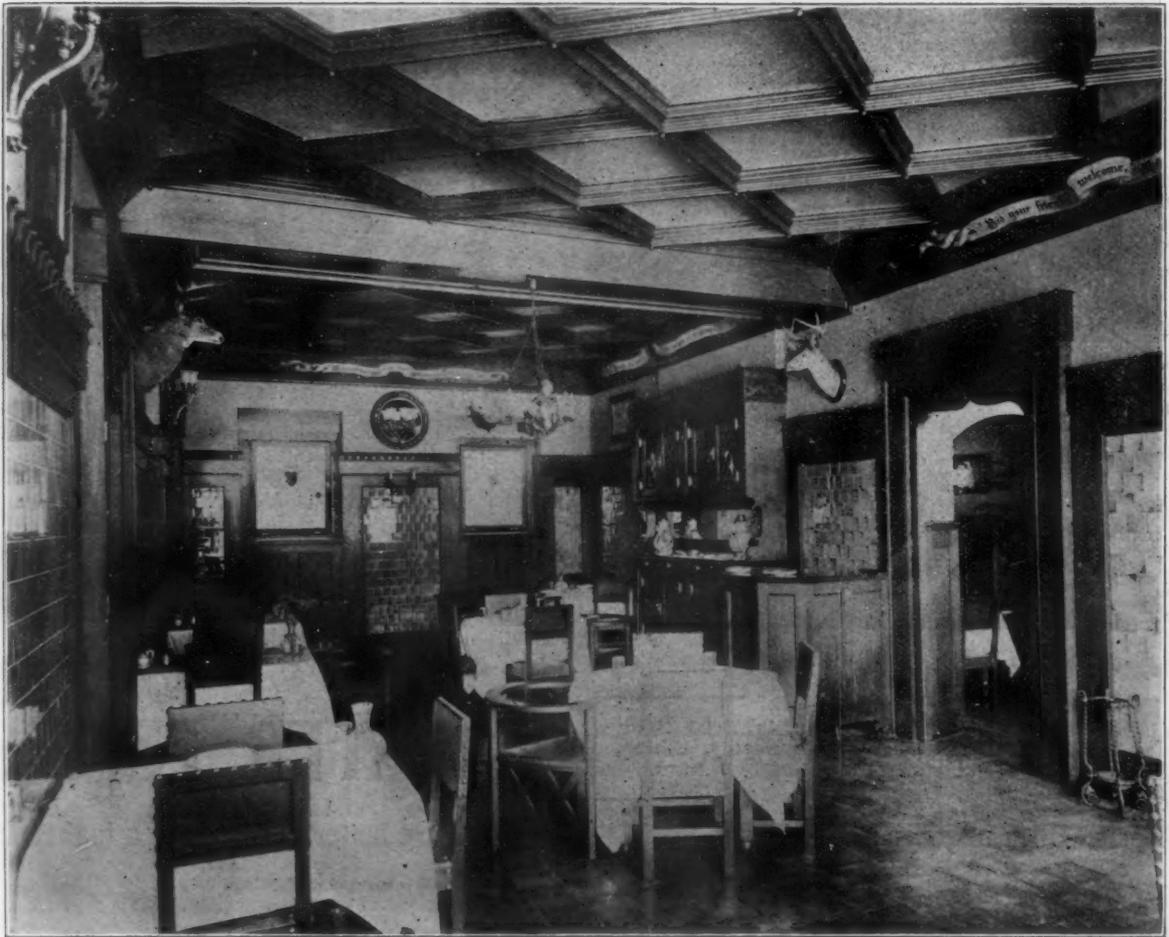
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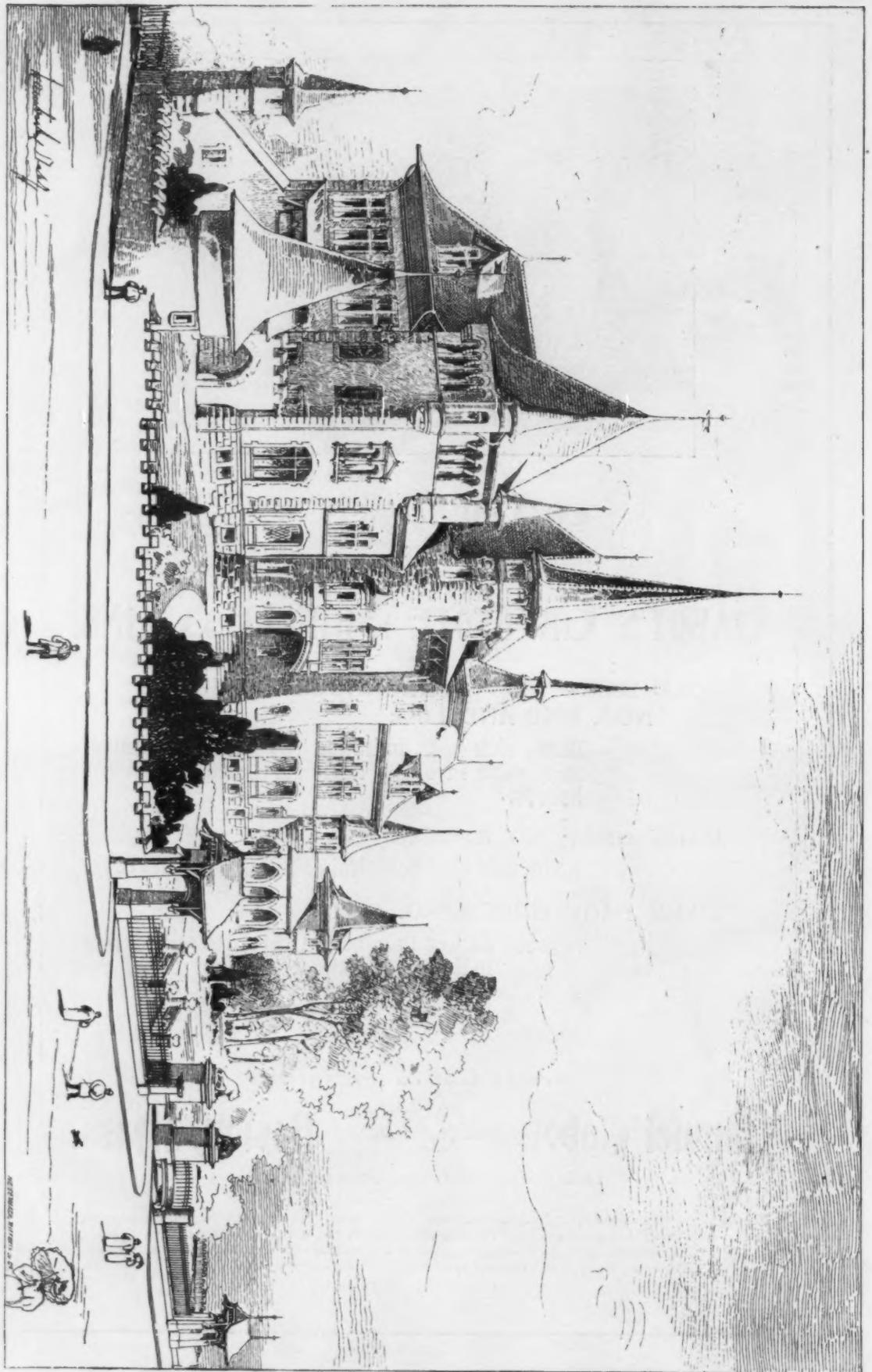
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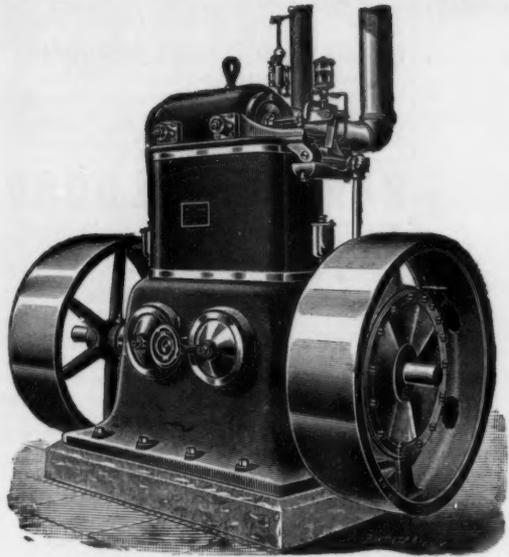


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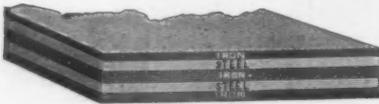


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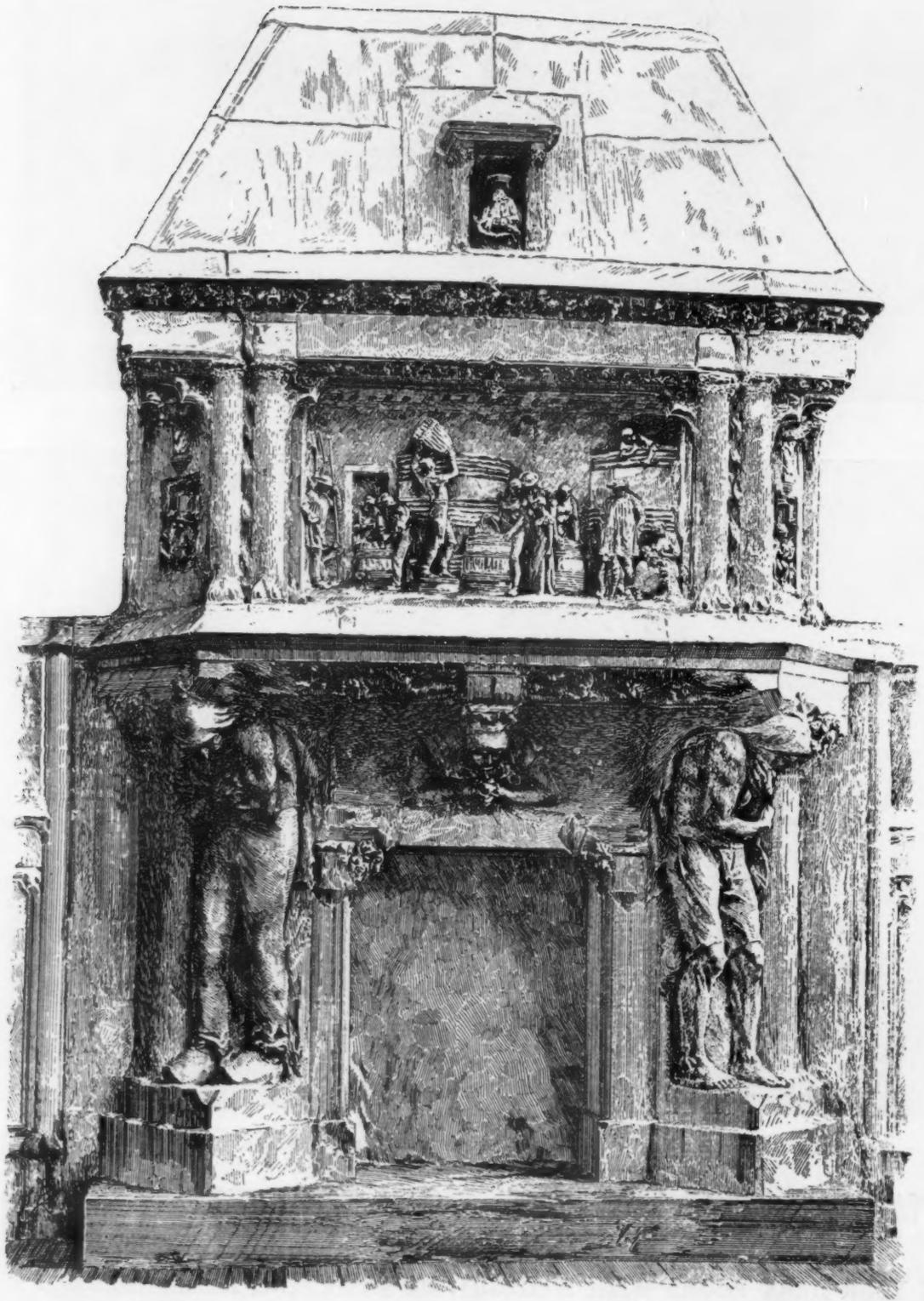
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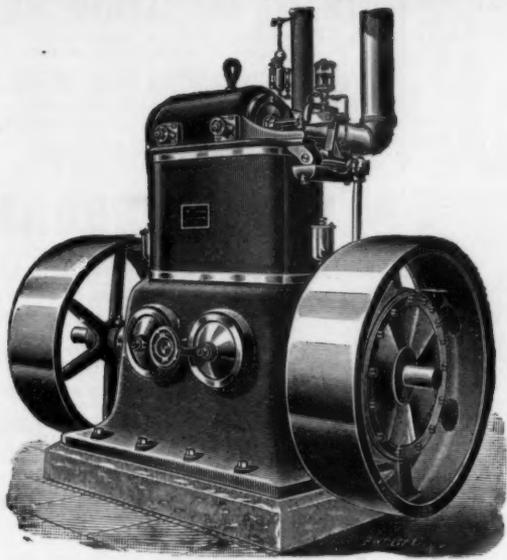
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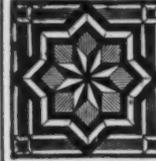
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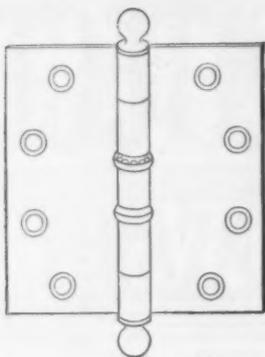
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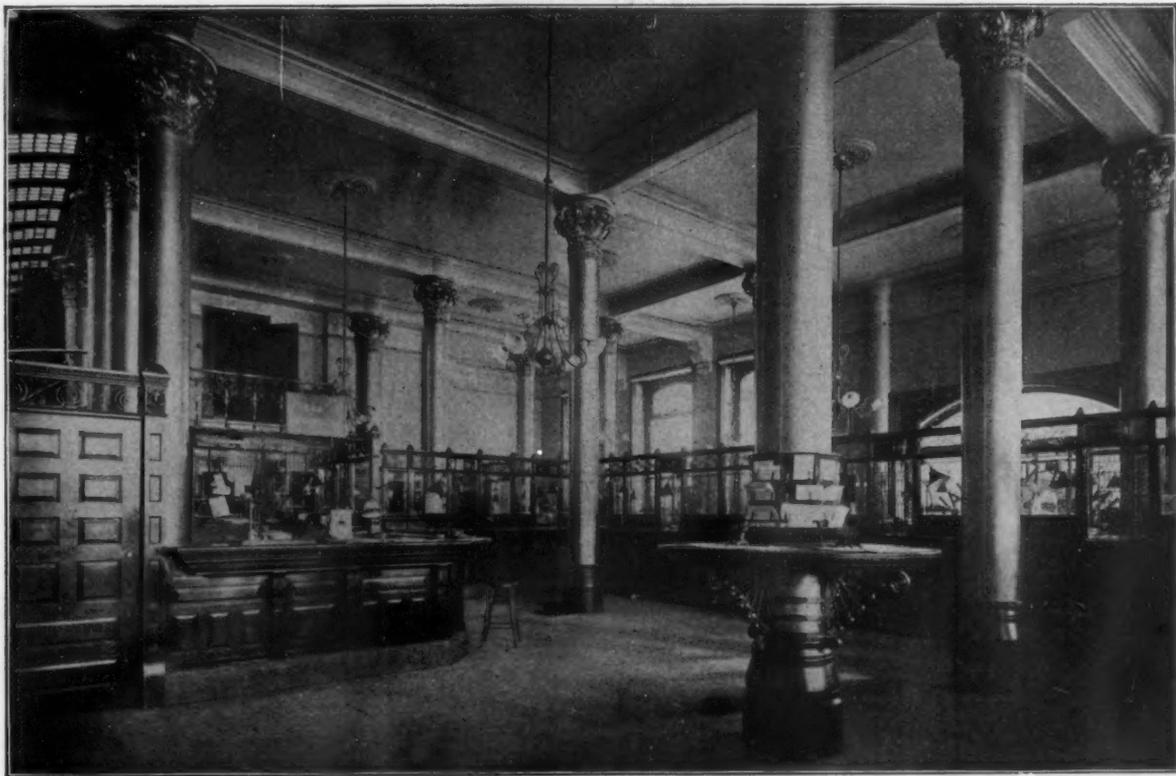
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Foundation:				
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Block.....	1 25 @ 1 50	4 80 P perch.	10 00 @ cord	Conshocken
Rubble.....			9 00 @ "	1 45 @ 2 50
Sandstone:				
Longmeadow.....	80 @ 90	80 @ 90		95 @ 1 05
Kibble.....	90 @ 1 10	90 @ 1 10		1 05 @ 1 25
Brown (Connecticut).....	1 00 @ 95	1 00 @ 1 30	1 50 P cub. ft.	85 @ 95
Amherst Ohio.....	90 @ 1 00	90 @ 1 00	45 @ 55	55 @ 75
Berea ".....	75 @ 1 00	85 @ 90	45 @ 55	85 @ 95
Berlin ".....	80 @ 1 25	80 @ 90	45 @ 55	1 00 @ 1 10
Belleville.....	80 @ 1 25	25 @ 1 35	@ 1 25	1 05 @ 1 15
New Brunswick (Dorchester).....	@ 1 00	75 @ 90	Not sold.	@ 1 40
Potsdam Red.....	@ 1 30	@ 1 40	@ 1 55	@ 1 35
Oslen.....	@ 1 05	@ 2 00	@	1 25 @ 1 05
Carlisle, English.....	@ 1 05	@ 1 05	@	95 @ 1 05
Corse Hill (Scotch).....	@ 1 05	@ 1 05	@	95 @ 1 05
Granite: (Maine)				
Bedford.....	45 @ 1 25	95 @ 1 00	80 @ 1 50	75 @ 85
Joliet.....	1 00			Richmond
Lemont.....				75 @ 1 50
Serpentine.....		10 50 per ton.		Perch 4 50 @ 5 50
Bluestone: (P sq. ft.)				
Sidewalk.....	30 @ 5 00	40 @ 1 75	1 00 @ 1 25	1 in. th. 10 @ 25
Planned.....	50 @ 6 00	@ 75	1 00 @ 1 25	37 @ 50
Marble: (P cu. ft.)				
Lee, Mass.....	@	1 75 @ 2 50	Not sold.	2 00 @ 2 50
Rutland, white and blue.....	@	@ 3 00	3 50 @ 6 00	2 00 @ 3 00
Sutherland Falls.....	1 25 @ 1 75	@ 2 00	3 50 @ 6 00	1 70 @ 3 00
Glens Falls, black.....	@	@	Not sold.	4 00 @ 4 50
Italian, blue-veined.....	@	@	@ 4 40	2 50 @ 2 75
" Sienna.....	@	@	Not sold.	@ 5 00
Tennessee, red.....	@	@	@ 4 40	4 00 @ 6 00
" Knoxville.....	@	@	@ 4 40	3 00 @ 4 00
Pennsylvania, blue.....	@	@	Not sold.	2 00 @ 3 00
Vermont, white.....	@	@	3 50 @ 6 00	2 25 @ 3 00
Slate: Roofing (P square)				
Green.....	5 00 @ 6 00	4 75 @ 5 25	3 75 @ 5 00	2 90 @ 3 60
" unfading.....	5 00 @ 6 00	5 50 @ 6 50	5 25 @ 6 00	4 25 @ 5 00
Purple.....	5 00 @ 6 00	5 50 @ 6 50	5 25 @ 6 00	4 50 @ 5 50
Red.....	5 00 @ 10 00	10 00 @ 11 00	19 50 @ 12 50	11 50 @ 13 00
Black, Lehigh.....	4 25 @ 4 75	@	4 50 @ 5 50	4 00 @ 4 35
" Chapmans.....	4 35 @ 5 50	4 75 @ 5 90	5 30 @ 6 15	4 50 @ 5 00
Genuine Bangor.....	6 00 @ 8 50	6 00 @ 8 50	5 25 @ 6 50	4 35 @ 5 50
Unfading black.....	5 50 @ 8 00	5 50 @ 8 00	4 25 @ 8 95	6 50 @ 9 00
".....	@	@	5 50 @ 9 20	6 50 @ 9 00
Tile, Am..... P M.....	@	@	Salt-glazed tiles	@ 28 00
N. Peach Bottom, war. unfading	@	@	9 P sc. per ft.	5 76 @ 6 25
Fire Clay Roof Tile on cars at fac.	8 00 @	8 00 @	6 00 @ 6 50	8 60 @
LUMBER. — P M.				
Boards: (Ordinary dimensions.)				
Pine, 1st quality, clear.....	65 00 @ 75 00	55 00 @ 70 00	50 00 @ 60 00	47 50 @ 60 00
" 2d quality.....	55 00 @ 60 00	42 00 @ 50 00	42 00 @ 50 00	38 00 @ 48 50
" 3d quality.....	18 00 @ 22 00	20 00 @ 40 00	20 00 @ 28 00	27 50 @ 36 50
Spruce.....	@ 25 00	12 00 @ 16 00	Not sold.	15 00 @ 21 50
Hemlock.....	13 @ 14	12 00 @ 14 00	10 00 @ 12 00	11 50 @ 13 75
Yellow pine.....	20 @ 40	19 00 @ 35 00	18 00 @ 25 00	14 00 @ 29 00
Cypress.....	@	26 00 @ 40 00	30 00 @ 35 00	30 00 @ 38 00
Clapboards:				
Pine.....	@	35 00 @ 55 00	25 00 @ 30 00	14 00 @ 25 00
Spruce.....	@	24 00 @ 35 00	Not sold.	Not sold.
Framing Timber:				
Pine.....	14 00 @ 18 00	13 00 @ 16 00	15 00 @ 25 00	25 00 @ 37 30
Spruce.....	12 00 @ 16 00	12 00 @ 15 00	Not sold.	15 00 @ 21 50
Hemlock.....	18 00 @ 21 00	17 00 @ 25 00	10 00 @ 15 00	14 00 @ 20 00
Yellow pine.....	@	@	16 00 @ 25 00	22 50 @ 30 00
Laths:				
Pine..... Round Wood	@	2 00 @ 2 50	1 90 @ 2 00	2 75 @ 3 00
Spruce..... Slab.....	1 50 @ 1 60	1 80 @ 2 15	Not sold.	2 30 @ 2 35
Shingles:				
Pine, shaved..... P M.....	5 00 @ 6 00	@	Not sold.	
Pine, sawed..... ".....	4 00 @ 5 00	@ 4 50	2 60 @ 2 75	
Spruce, sawed..... ".....	1 50 @ 2 00	1 50 @ 1 75	Not sold.	
Redwood..... P M.....	1 40 @ 1 60	3 00 @ 3 75	4 60 @ 6 00	
Cedar split..... P M.....	@	@ 6 00	Not sold.	
Cedar sawed..... ".....	@	2 00 @ 3 25	2 50 @ 2 90	
Cypress, Split..... 7 x 24 ".....	18 00 @ 20 00	5 00 @ 6 00	@	

(30" \$35 @ 40
24" 8 @ 21
20" 35 @ 14
11 00 @ 14 00

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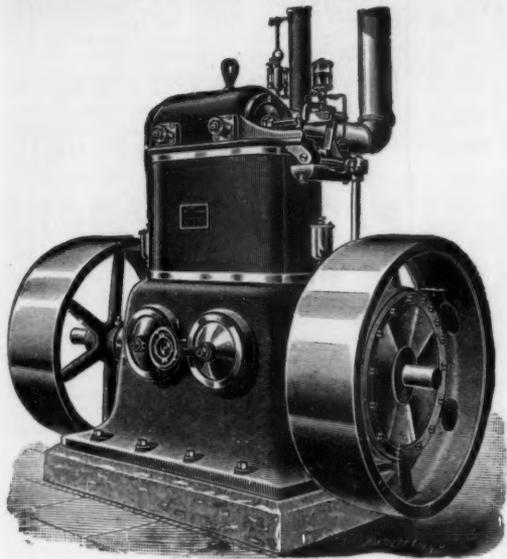


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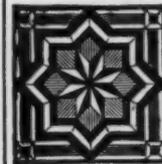
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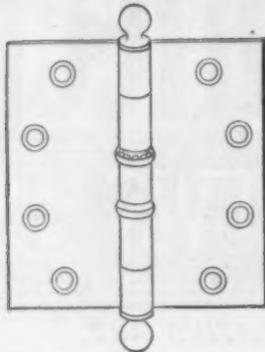
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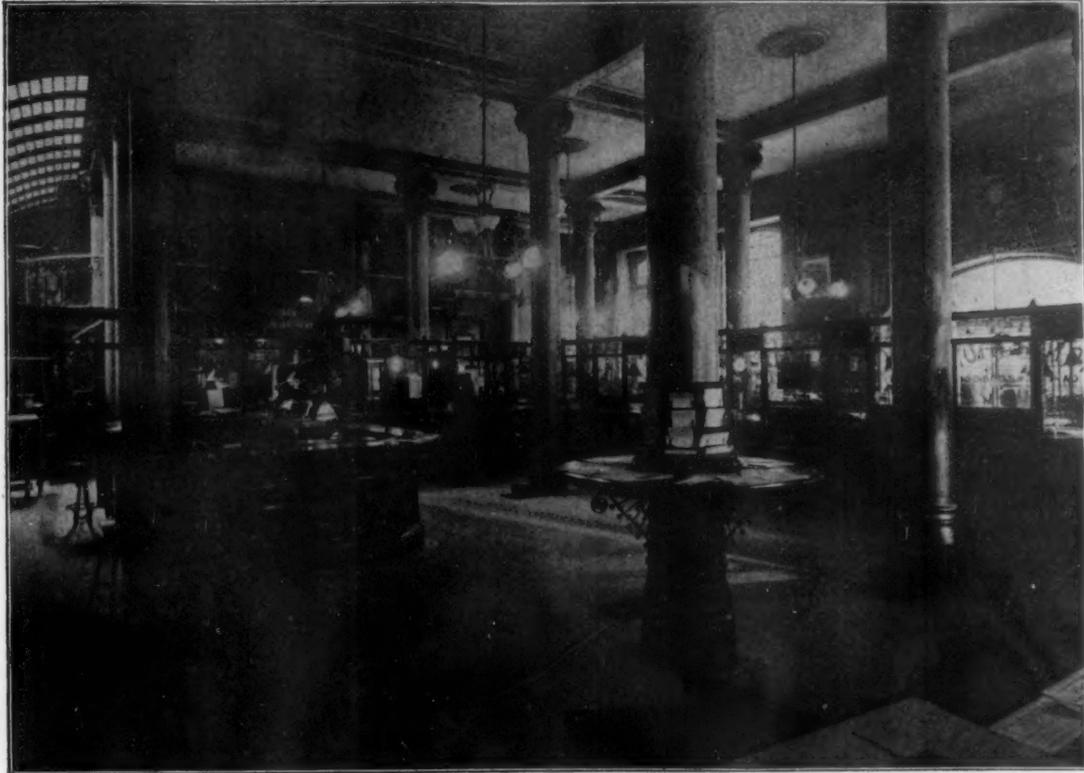
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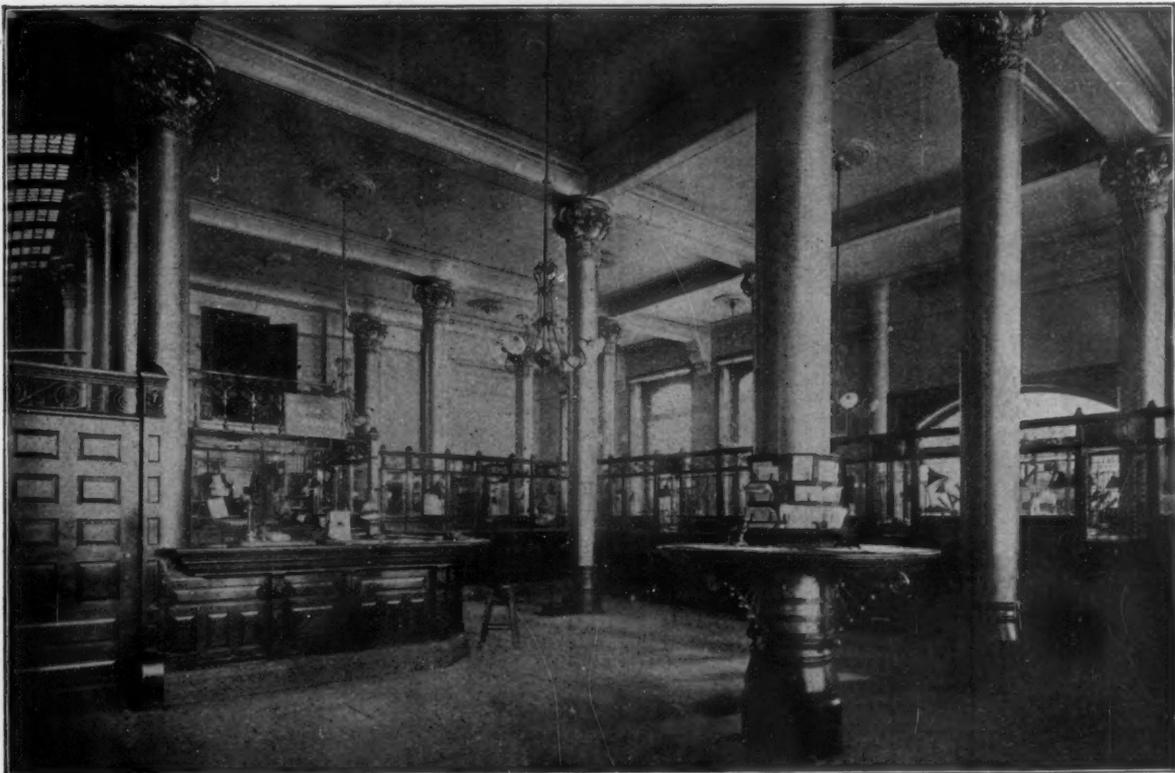
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Block.....	●	4 80 \$ perch.	10 00 @ cord	Conschocken
Rubble.....	●	1 25 @ 1 50	9 00 @ "	1 45 @ 2 50
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Kibble.....	● 90	● 1 10	●	1 05 @ 1 25
Brown (Connecticut).....	1 00 @ 90	1 00 @ 1 30	1 50 \$ cub. ft.	85 @ 95
Amherst Ohio.....	90 @ 95	90 @ 1 00	45 @ 55	55 @ 75
Berea.....	75 @ 1 00	85 @ 90	45 @ 55	85 @ 95
Berlin.....	75 @ 1 00	80 @ 90	45 @ 55	1 00 @ 1 10
Belleville.....	80 @ 1 25	25 @ 1 35	● 1 25	1 05 @ 1 15
New Brunswick (Dorchester).....	● 1 00	75 @ 90	Not sold.	● 1 40
Potsdam Red.....	● 1 30	● 1 40	● 1 55	1 25 @ 1 35
Caen.....	●	● 2 00	●	95 @ 1 05
Carlisle, English.....	● 1 05	● 1 05	●	95 @ 1 05
Corse Hill (Scotch).....	● 1 05	● 1 05	●	55 @ 65
Granite: (Maine)			80 @ 1 50	75 @ 85
Limestone:				
Bedford.....	45 @ 1 25	95 @ 1 00	20 @ 40	Richmond
Joliet.....	● 1 00	●	●	\$ 75 @ 1 50
Lamont.....	●	●	●	\$ Perch 4 50 @ 5 50
Serpentine.....	●	●	●	1 in. th. 10 @ 25
Bluestone: (\$ sq. ft.)		10 50 per ton.	●	37 @ 50
Sidewalk.....	30 @ 5 00	40 @ 1 75	1 00 @ 1 25	●
Planned.....	50 @ 6 00	● 75	1 00 @ 1 25	●
Marble: (\$ cu. ft.)				
Leo, Mass.....	●	1 75 @ 2 50	Not sold.	2 00 @ 2 50
Rutland, white and blue.....	●	● 3 00	3 50 @ 6 00	2 00 @ 3 00
Sutherland Falls.....	1 25 @ 1 75	● 2 00	3 50 @ 6 00	1 70 @ 3 00
Glens Falls, black.....	●	●	Not sold.	4 00 @ 4 50
Italian, blue-veined.....	●	●	● 4 40	2 50 @ 2 75
" Sienna.....	●	●	Not sold.	● 5 00
Tennessee, red.....	●	●	● 4 40	4 00 @ 6 00
" Knoxville.....	●	●	● 4 40	3 00 @ 4 00
Pennsylvania, blue.....	●	●	Not sold.	2 00 @ 3 00
Vermont, white.....	●	●	3 50 @ 6 00	2 25 @ 3 00
Slate: Roofing (\$ square)				
Green.....	5 00 @ 6 00	4 75 @ 5 25	3 75 @ 6 00	2 90 @ 3 00
" unfading.....	5 00 @ 6 00	5 50 @ 6 50	5 25 @ 6 00	4 25 @ 5 00
Purple.....	5 00 @ 6 00	5 50 @ 6 50	5 25 @ 6 00	4 50 @ 5 50
Red.....	● 10 00	10 00 @ 11 00	10 50 @ 12 50	11 50 @ 13 00
Black, Lehigh.....	4 25 @ 4 75	●	4 50 @ 5 50	4 00 @ 4 35
" Chapmans.....	●	●	5 30 @ 6 15	4 00 @ 5 00
Genuine Bangor.....	4 35 @ 5 50	4 75 @ 5 90	5 25 @ 6 70	4 35 @ 5 50
Unfading black.....	6 00 @ 8 50	6 00 @ 8 50	4 25 @ 8 95	6 50 @ 9 00
".....	5 50 @ 8 00	5 50 @ 8 00	5 50 @ 9 20	6 50 @ 9 00
Tiles, Am..... \$ M.				
N. Peach Bottom, war unfading	●	●	Salt-glazed tiles	@ 28 00
Fire Clay Roof Tile on cars at fac.	8 00 @	8 00 @	9" 8c. per ft.	5 76 @ 6 25
LUMBER. - \$ M.			6 00 @ 6 50	8 60 @
Boards: (Ordinary dimensions.)				
Pine, 1st quality, clear.....	65 00 @ 75 00	55 00 @ 70 00	50 00 @ 60 00	47 50 @ 60 00
" 2d quality.....	55 00 @ 60 00	42 00 @ 50 00	42 00 @ 50 00	38 00 @ 48 50
" 3d quality.....	18 00 @ 22 00	30 00 @ 40 00	20 00 @ 28 00	27 50 @ 36 50
Spruce.....	● 25 00	12 00 @ 16 00	Not sold.	15 00 @ 21 50
Hemlock.....	ea 13 @ 14	12 00 @ 14 00	10 00 @ 12 00	11 50 @ 13 75
Yellow pine.....	20 @ 40	19 00 @ 35 00	18 00 @ 25 00	14 00 @ 29 00
Cypress.....	●	26 00 @ 40 00	30 00 @ 35 00	30 00 @ 38 00
Clapboards:				
Pine.....	●	35 00 @ 55 00	25 00 @ 30 00	14 00 @ 25 00
Spruce.....	●	24 00 @ 35 00	Not sold.	Not sold.
Framing Timber:				
Spruce.....	14 00 @ 18 00	13 00 @ 16 00	15 00 @ 25 00	25 00 @ 37 30
Hemlock.....	12 00 @ 16 00	12 00 @ 15 00	Not sold.	15 00 @ 21 50
Yellow pine.....	18 00 @ 21 00	17 00 @ 25 00	10 00 @ 15 00	14 00 @ 20 00
Laths:				
Pine..... Round Wood	●	2 00 @ 2 50	1 90 @ 2 00	2 75 @ 3 00
Spruce..... Slab.....	1 50 @ 1 60	1 80 @ 2 15	Not sold.	2 30 @ 2 35
Shingles:				
Pine, shaved..... \$ M.	5 00 @ 6 00	●	Not sold.	●
Pine, sawed.....	4 00 @ 5 00	● 4 50	2 00 @ 2 75	●
Spruce, sawed.....	1 50 @ 2 00	1 50 @ 1 75	Not sold.	●
Redwood..... \$ 125.	1 40 @ 1 60	3 00 @ 3 75	4 60 @ 6 00	(30" \$35 @ 40
Cedar split..... \$ M.	●	● 6 00	Not sold.	24" 8 @ 21
Cedar sawed.....	●	2 00 @ 2 25	3 50 @ 3 90	20" 35 @ 14
Cypress, Split..... 7 x 24 "	18 00 @ 30 00	5 00 @ 6 00	●	11 00 @ 14 00

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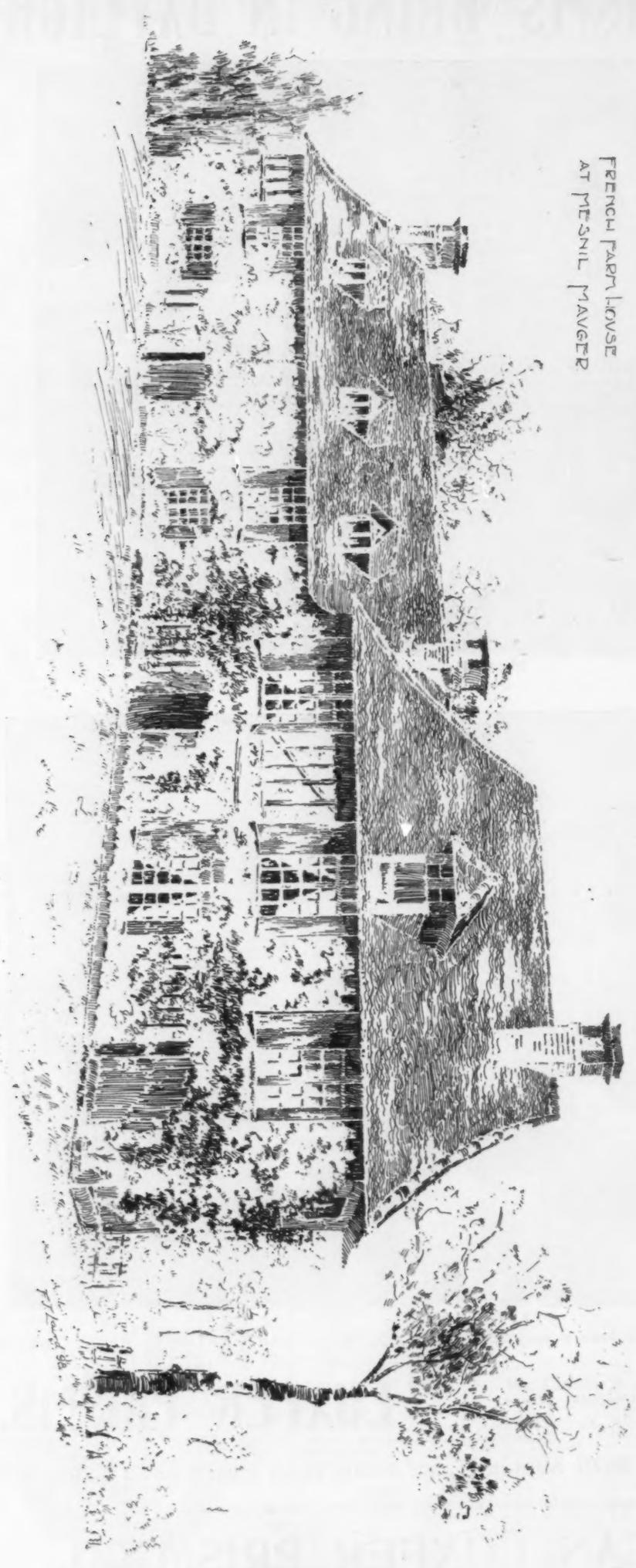
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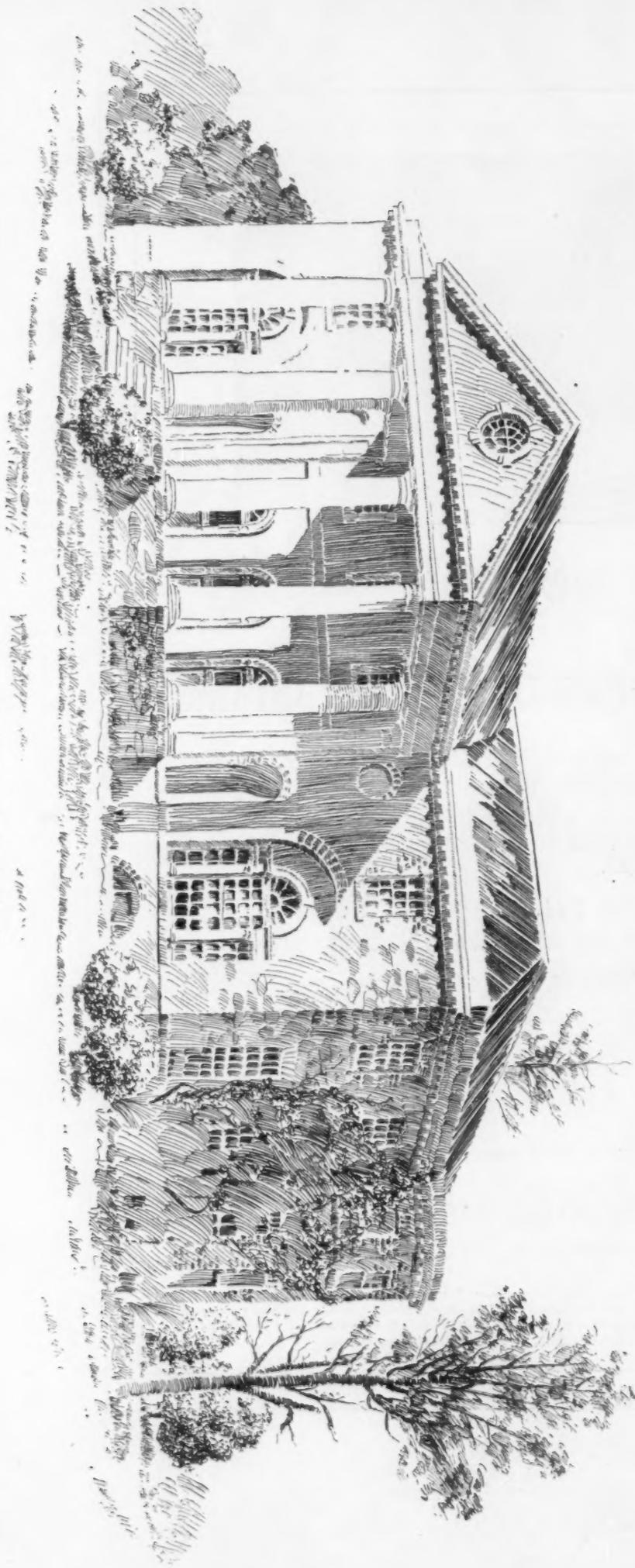
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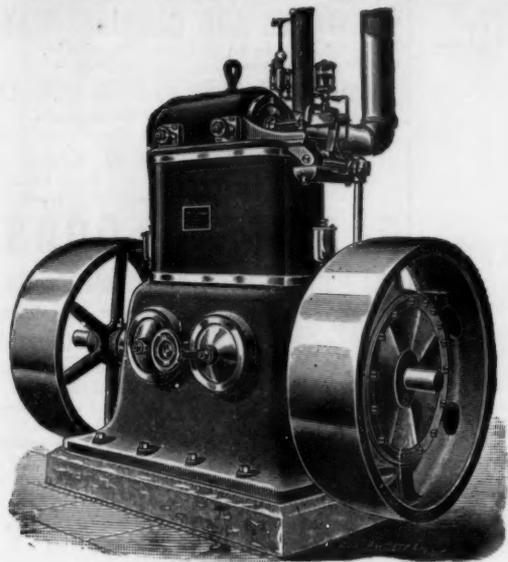
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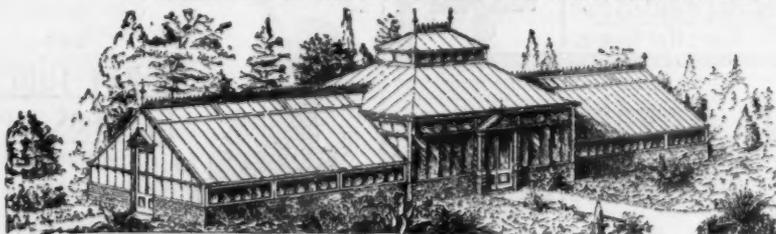


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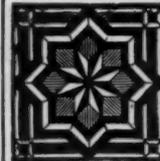
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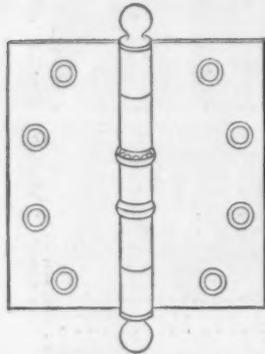
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Block.....	0	4 60 P perch.	10 00 @ cord	Conshocken
Rubble.....	0	1 25 @ 1 50	9 00 @ "	1 45 @ 2 50
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Longmeadow.....	0 80	80 @ 90	0	95 @ 1 05
Kibbe.....	0 90	90 @ 1 10	0	1 05 @ 1 25
Brown (Connecticut).....	1 00 @ 90	1 00 @ 1 30	1 50 P cub. ft.	85 @ 95
Amherst Ohio.....	90 @ 95	90 @ 1 00	45 @ 55	55 @ 75
Berea.....	75 @ 1 00	85 @ 90	45 @ 55	85 @ 95
Berlin.....	75 @ 1 00	80 @ 90	45 @ 55	1 00 @ 1 10
Belleville.....	80 @ 1 25	25 @ 1 35	@ 1 25	1 05 @ 1 15
New Brunswick (Dorchester).....	@ 1 00	75 @ 90	Not sold.	@ 1 40
Potsdam Red.....	@ 1 30	@ 1 40	@ 1 55	1 25 @ 1 35
Oson.....	@ 2 00	@ 2 00	@ 1 55	95 @ 1 05
Carlisle. English.....	@ 1 05	@ 1 05	@	95 @ 1 05
Corse Hill (Scotch).....	@ 1 05	@ 1 05	@	95 @ 1 05
Granite: (Maine)		@ 60	80 @ 1 50	55 @ 65
Limestone:				
Bedford.....	45 @ 1 25	95 @ 1 00	20 @ 40	75 @ 85
Joliet.....	1 00		@	Richmond
Lemont.....			@	75 @ 1 50
Serpentine.....			@	Perch 4 50 @ 5 50
Bluestone: (P sq. ft.)				
Sidewalk.....	30 @ 5 00	40 @ 1 75	100 @ 1 25	1 in. th. 10 @ 25
Planned.....	50 @ 6 00	@ 75	100 @ 1 25	37 @ 50
Marble: (P cu. ft.)				
Lee, Mass.....	@	1 75 @ 2 50	Not sold.	2 00 @ 2 50
Rutland, white and blue.....	@	@ 3 00	3 50 @ 6 00	2 00 @ 3 00
Sutherland Falls.....	1 25 @ 1 75	@ 2 00	3 50 @ 6 00	1 70 @ 3 00
Glens Falls, black.....	@	@	Not sold.	4 00 @ 4 50
Italian, blue-veined.....	@	@	@ 4 40	2 50 @ 2 75
" Sienna.....	@	@	Not sold.	@ 5 00
Tennessee, red.....	@	@	@ 4 40	4 00 @ 6 00
" Knoxville.....	@	@	@ 4 40	3 00 @ 4 00
Pennsylvania, blue.....	@	@	Not sold.	2 00 @ 3 00
Vermont, white.....	@	@	3 50 @ 6 00	2 25 @ 3 00
Slate: Roofing (P square).				
Green.....	5 00 @ 6 00	4 75 @ 5 25	3 75 @ 5 00	2 90 @ 3 60
" unfading.....	5 00 @ 6 00	5 50 @ 6 50	5 25 @ 6 00	4 25 @ 5 00
Purple.....	5 00 @ 6 00	5 50 @ 6 50	5 25 @ 6 00	4 50 @ 5 50
Red.....	@ 10 00	10 00 @ 11 00	10 50 @ 12 50	11 50 @ 13 00
Black, Lehigh.....	4 25 @ 4 75	@	4 50 @ 5 50	4 00 @ 4 35
" Chapmans.....	4 35 @ 5 50	4 75 @ 5 90	5 30 @ 6 15	4 50 @ 5 00
Genuine Bangor.....	6 00 @ 8 50	6 00 @ 8 50	5 25 @ 6 50	4 35 @ 5 50
Unfading black.....	5 50 @ 8 00	5 50 @ 8 00	4 25 @ 8 95	6 50 @ 9 00
Tiles, Am. — P M.....	@	@	5 50 @ 9 20	6 50 @ 9 00
N. Peach Bottom, war, unfading	8 00 @	8 00 @	Not sold.	@ 28 00
Fire Clay Roof Tile on cars at fac.			9 75 @ per ft.	5 75 @ 6 25
LUMBER. — P M.			6 00 @ 6 50	8 00 @
Boards: (Ordinary dimensions.)				
Pine, 1st quality, clear.....	65 00 @ 75 00	55 00 @ 70 00	50 00 @ 60 00	47 50 @ 60 00
" 2d quality.....	55 00 @ 60 00	42 00 @ 50 00	42 00 @ 50 00	38 00 @ 48 50
" 3d quality.....	18 00 @ 22 00	20 00 @ 40 00	20 00 @ 28 00	27 50 @ 36 50
Spruce.....	@ 25 00	12 00 @ 16 00	Not sold.	15 00 @ 21 50
Hemlock.....	ea13 @ 14	12 00 @ 14 00	10 00 @ 12 00	11 50 @ 13 75
Yellow pine.....	20 @ 40	19 00 @ 35 00	18 00 @ 25 00	14 00 @ 29 00
Cypress.....	@	26 00 @ 40 00	30 00 @ 35 00	30 00 @ 38 00
Clapboards:				
Pine.....	@	35 00 @ 55 00	25 00 @ 30 00	14 00 @ 25 00
Spruce.....	@	24 00 @ 35 00	Not sold.	Not sold.
Framing Timber:				
Pine.....	14 00 @ 18 00	13 00 @ 16 00	15 00 @ 25 00	25 00 @ 37 30
Hemlock.....	12 00 @ 16 00	12 00 @ 15 00	Not sold.	15 00 @ 21 50
Yellow pine.....	18 00 @ 21 00	17 00 @ 25 00	10 00 @ 15 00	14 00 @ 20 00
Laths:				
Pine..... Round Wood	@	2 00 @ 2 50	1 1' @ 2 00	2 75 @ 3 00
Spruce..... Slab.....	1 50 @ 1 65	1 80 @ 2 15	Not sold.	2 30 @ 2 35
Shingles:				
Pine, shaved..... P M.....	5 00 @ 6 00	@	Not sold.	
Pine, sawed..... "	4 00 @ 5 00	@ 4 50	2 60 @ 2 75	
Spruce, sawed..... "	1 50 @ 2 00	1 50 @ 1 75	Not sold.	
Redwood..... P M.....	1 40 @ 1 60	3 00 @ 3 75	4 60 @ 6 00	
Cedar split..... P M.....	@	@ 6 00	Not sold.	
Cedar sawed..... "	@	2 00 @ 3 25	2 50 @ 2 90	
Cypress. Split..... 7 x 24 "	18 00 @ 30 00	5 00 @ 6 00	@	

LUXFER PRISMS BRING IN DAYLIGHT.



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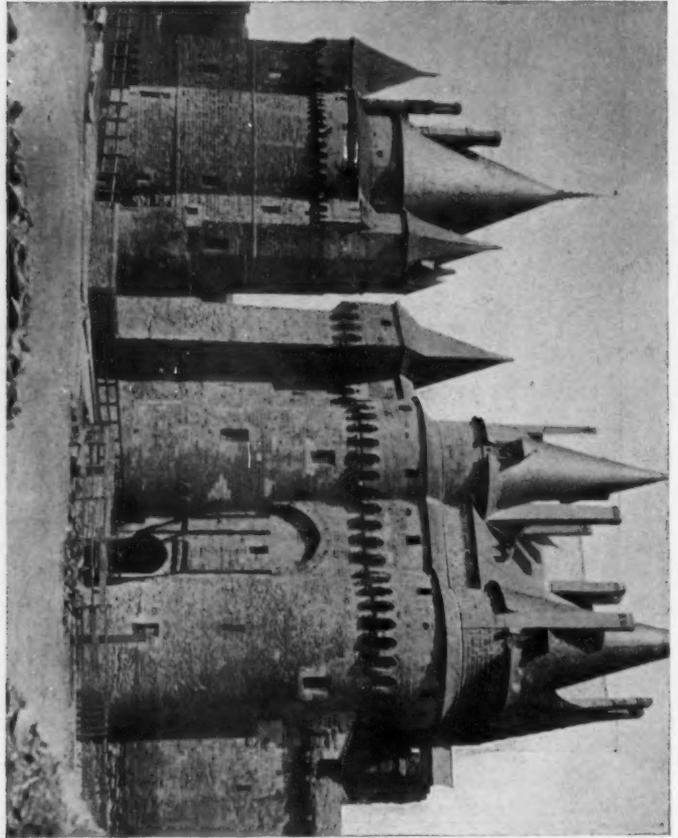
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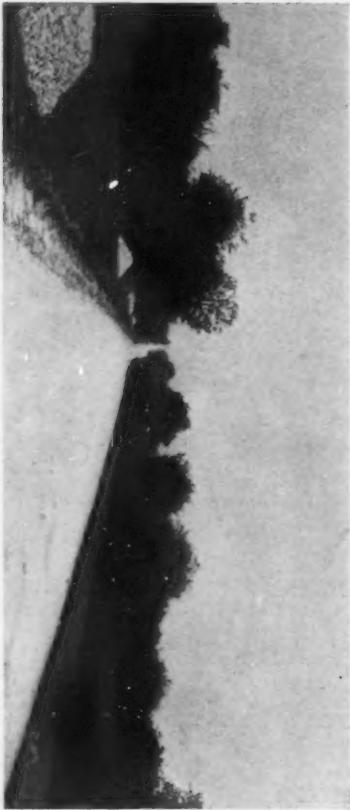
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MAIN OFFICES: - - THE ROOKERY, CHICAGO, ILL.

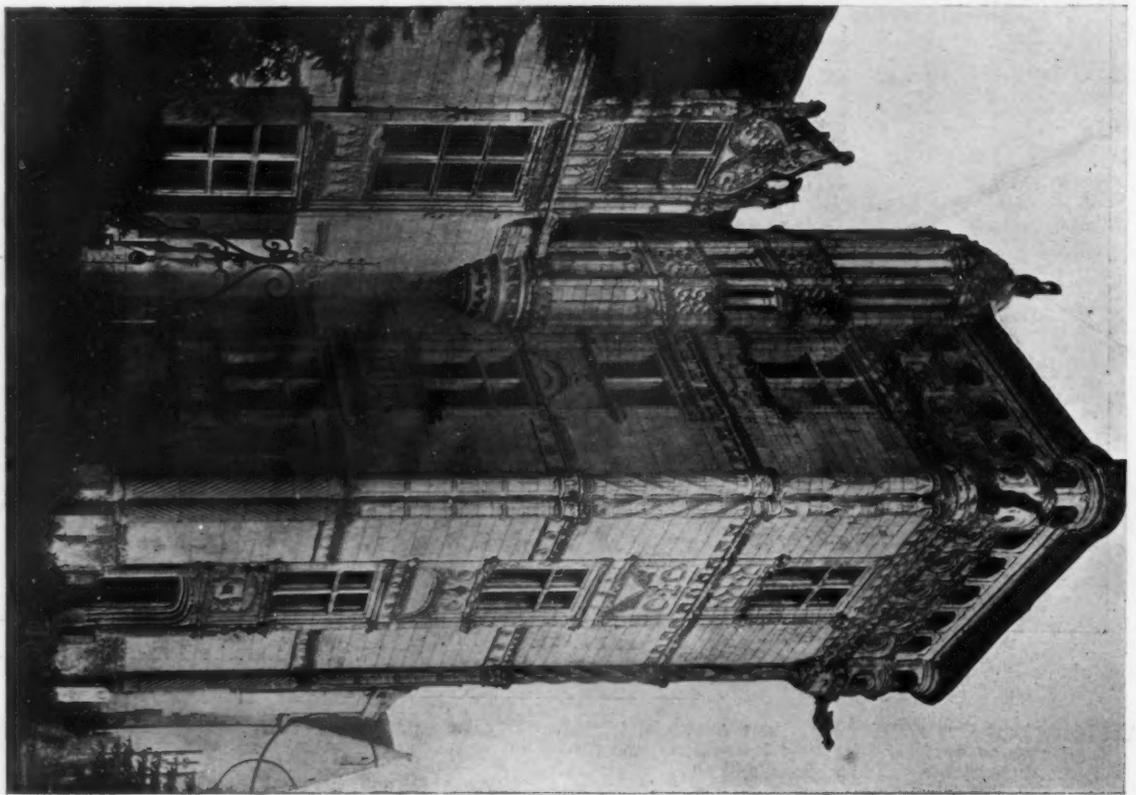
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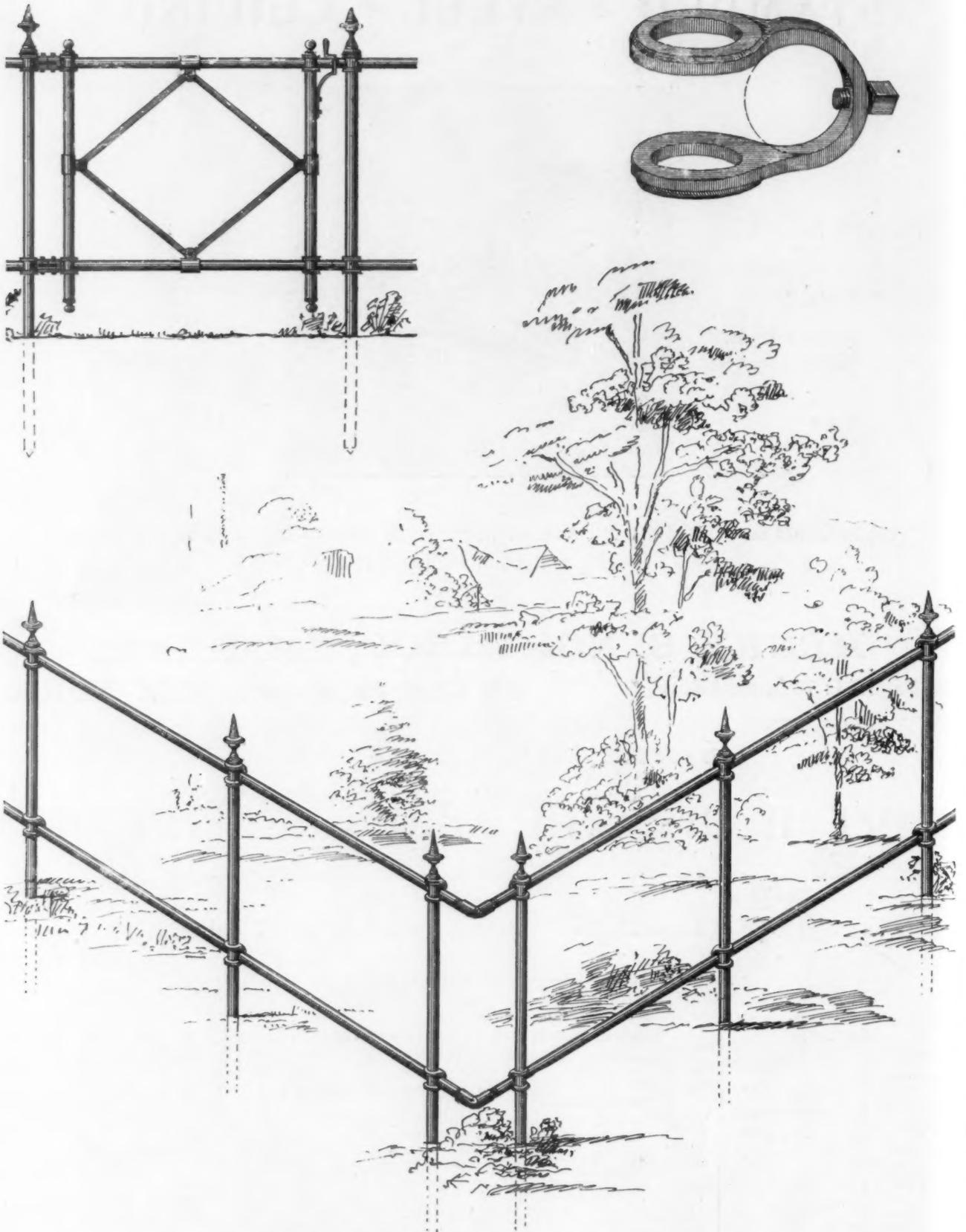
PART II OF "THE GEORGIAN PERIOD."

Topographical Index of Advertisers.

[For pagination, see Alphabetical Index on Cover 2.]

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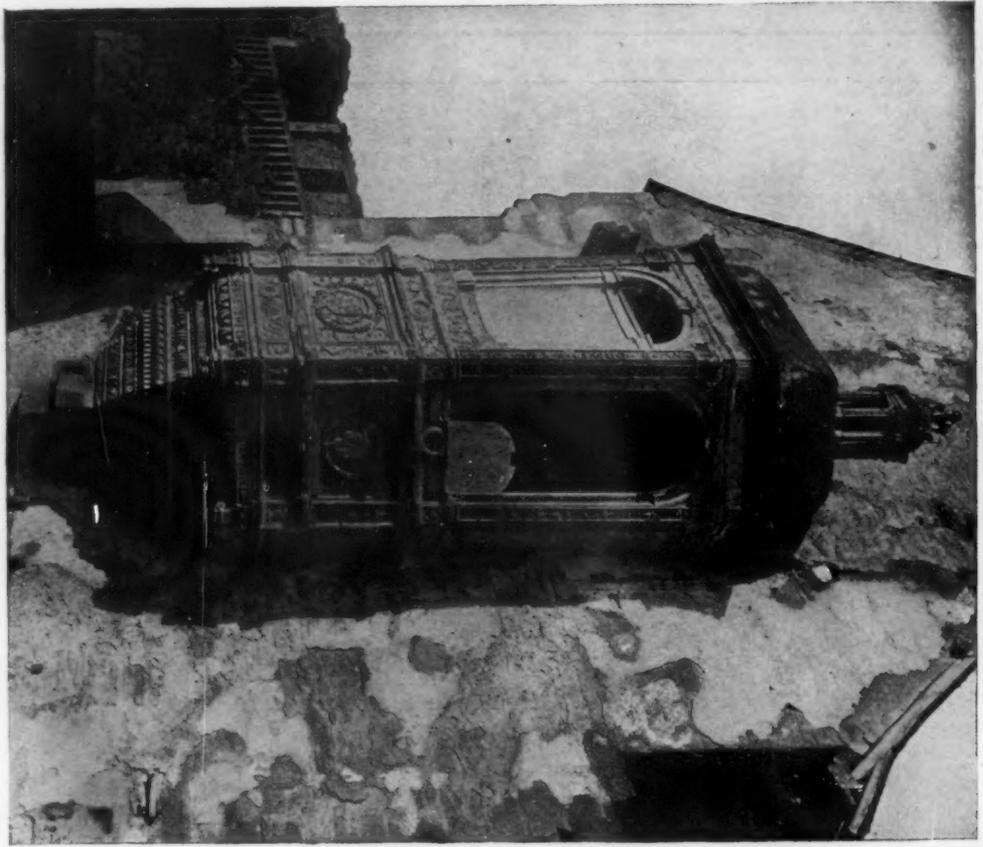
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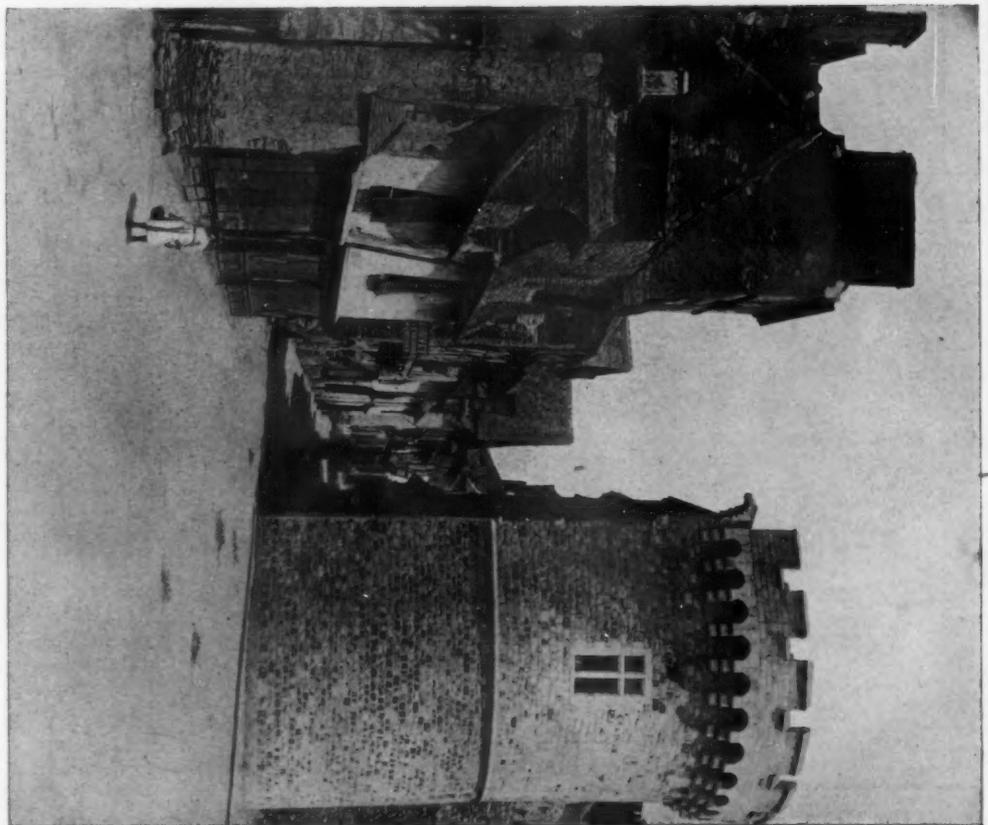
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Oriel in Court of Castle Vitre.

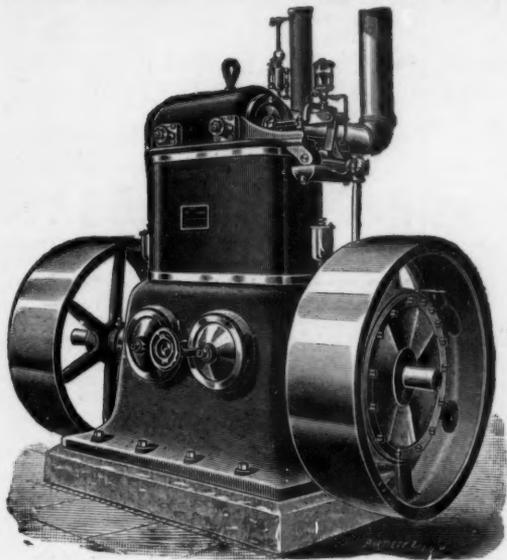


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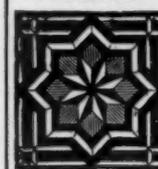
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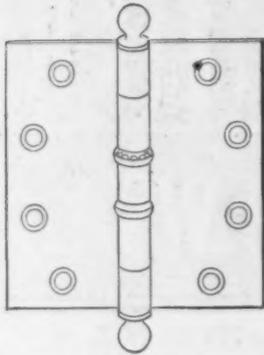
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STONE. (P cubic foot, rough.)	(Wholesale Prices.)	(Prices to Builders and Contractors.)		
Foundation:				
Dimension.....	5 00 P ton.	20 @ foot		@ 5 00
Block.....	4 60 P perch.	10 00 @ cord		Conschocken
Rubble.....	1 25 @ 1 50	9 00 @ "		1 45 @ 2 50
Sandstone:				
Longmeadow.....	@ 80	80 @ 90		
Kilbe.....	@ 90	90 @ 1 10		
Brown (Connecticut).....	1 00 @ 95	1 00 @ 1 30	1 50 P cub. ft.	1 05 @ 1 25
Amherst Ohio.....	90 @ 95	90 @ 1 00	45 @ 55	85 @ 95
Berea.....	75 @ 1 00	85 @ 90	45 @ 55	55 @ 75
Berlin.....	75 @ 1 00	80 @ 90	45 @ 55	85 @ 95
Belleville.....	80 @ 1 25	25 @ 1 35	@ 1 25	1 00 @ 1 10
New Brunswick (Dorchester).....	@ 1 00	75 @ 90	Not sold.	1 05 @ 1 15
Potsdam Red.....	@ 1 30	@ 1 40	@ 1 55	@ 1 40
Caen.....	@ 1 05	@ 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	80 @ 1 50	55 @ 65
Limestone:				
Bedford.....	45 @ 1 25	95 @ 1 00	20 @ 40	75 @ 85
Joliet.....	1 00		@	Richmond
Lemont.....			@	Porch 75 @ 1 50
Serpentine.....			@	4 50 @ 5 50
Bluestone: (P sq. ft.)				
Placed.....	30 @ 5 00	40 @ 1 75	1 00 @ 1 25	1 in. th. 10 @ 25
Marble: (P cu. ft.)	50 @ 6 00	@ 75	1 00 @ 1 25	37 @ 50
Lee, Mass.....	@	1 75 @ 2 50	Not sold.	2 00 @ 2 50
Rutland, white and blue.....	@	@ 3 00	3 50 @ 6 00	2 00 @ 3 00
Sutherland Falls.....	1 25 @ 1 75	@ 2 00	3 50 @ 6 00	1 70 @ 3 00
Glens Falls, black.....	@	@	Not sold.	4 00 @ 4 50
Italian, blue-veined.....	@	@	@ 4 40	2 50 @ 2 75
" Sienna.....	@	@	Not sold.	@ 5 00
Tennessee, red.....	@	@	@ 4 40	4 00 @ 6 00
" Knoxville.....	@	@	@ 4 40	3 00 @ 4 00
Pennsylvania, blue.....	@	@	Not sold.	2 00 @ 3 00
Vermont, white.....	@	@	3 50 @ 6 00	2 25 @ 3 00
Slate: Roofing (P square).				
Green.....	5 00 @ 6 00	4 75 @ 5 25	3 75 @ 5 00	2 90 @ 3 60
" unfading.....	5 00 @ 6 00	5 50 @ 6 50	5 25 @ 6 00	4 25 @ 5 00
Purple.....	5 00 @ 6 00	5 50 @ 6 50	5 25 @ 6 00	4 50 @ 5 50
Red.....	@ 10 00	10 00 @ 11 00	10 50 @ 12 50	11 50 @ 13 00
Black, Lehigh.....	4 25 @ 4 75	@	4 50 @ 5 50	4 00 @ 4 35
" Chapman.....	@	@	5 30 @ 6 15	4 50 @ 5 10
Genuine Bangor.....	4 35 @ 5 50	4 75 @ 5 90	5 25 @ 6 50	4 35 @ 5 50
Unfading black.....	6 00 @ 8 50	6 00 @ 8 50	4 25 @ 8 95	6 50 @ 9 00
".....	5 50 @ 8 00	5 50 @ 8 00	5 50 @ 9 20	6 50 @ 9 00
Tiles, Am... P M.....	@	@	Salt-glazed tiles	@ 28 00
N. Peach Bottom, war unfading	@	@	9" 8c. per ft.	5 75 @ 6 25
Fire Clay Roof Tile on cars at fac.	8 00 @	8 00 @	6 00 @ 6 50	8 60 @
LUMBER.—P M.				
Boards: (Ordinary dimensions.)				
Pine, 1st quality, clear.....	65 00 @ 75 00	55 00 @ 70 00	50 00 @ 60 00	47 50 @ 60 00
" 2d quality.....	55 00 @ 60 00	42 00 @ 50 00	42 00 @ 50 00	38 00 @ 48 50
" 3d quality.....	18 00 @ 22 00	20 00 @ 40 00	20 00 @ 28 00	27 50 @ 36 50
Spruce.....	@ 25 00	12 00 @ 16 00	Not sold.	15 00 @ 21 50
Hemlock.....	ea 13 @ 14	12 00 @ 14 00	10 00 @ 12 00	11 50 @ 13 75
Yellow pine.....	20 @ 40	19 00 @ 35 00	18 00 @ 25 00	14 00 @ 29 00
Cypress.....	@	25 00 @ 40 00	30 00 @ 35 00	30 00 @ 38 00
Clapboards:				
Pine.....	@	35 00 @ 55 00	25 00 @ 30 00	14 00 @ 25 00
Spruce.....	@	24 00 @ 35 00	Not sold.	Not sold.
Framing Timber:				
Pine.....			15 00 @ 25 00	25 00 @ 37 50
Spruce.....	14 00 @ 18 00	13 00 @ 16 00	Not sold.	15 00 @ 21 50
Hemlock.....	12 00 @ 16 00	12 00 @ 15 00	10 00 @ 15 00	14 00 @ 20 00
Yellow pine.....	18 00 @ 21 00	17 00 @ 25 00	16 00 @ 25 00	22 50 @ 30 00
Laths:				
Pine.....	@	2 00 @ 2 50	1 50 @ 2 00	2 75 @ 3 00
Spruce.....	1 69 @ 1 65	1 80 @ 2 15	Not sold.	2 30 @ 2 35
Shingles:				
Pine, shaved..... P M.....	5 00 @ 6 00	@	Not sold.	
Pine, sawed..... "	4 00 @ 5 00	@ 4 50	2 60 @ 2 75	
Spruce, sawed..... "	1 50 @ 2 00	1 50 @ 1 75	Not sold.	
Redwood..... P M.....	1 40 @ 1 60	3 00 @ 3 75	4 60 @ 6 00	
Cedar split..... P M.....	@	@ 6 00	Not sold.	
Cedar sawed..... "	@	2 00 @ 3 25	2 50 @ 2 90	
Cypress, Split..... 7 x 94 "	18 00 @ 20 00	5 00 @ 6 00	@	

{ 30" \$35 @ 40
24" 8 @ 21
30" 25 @ 14
11 00 @ 14 00

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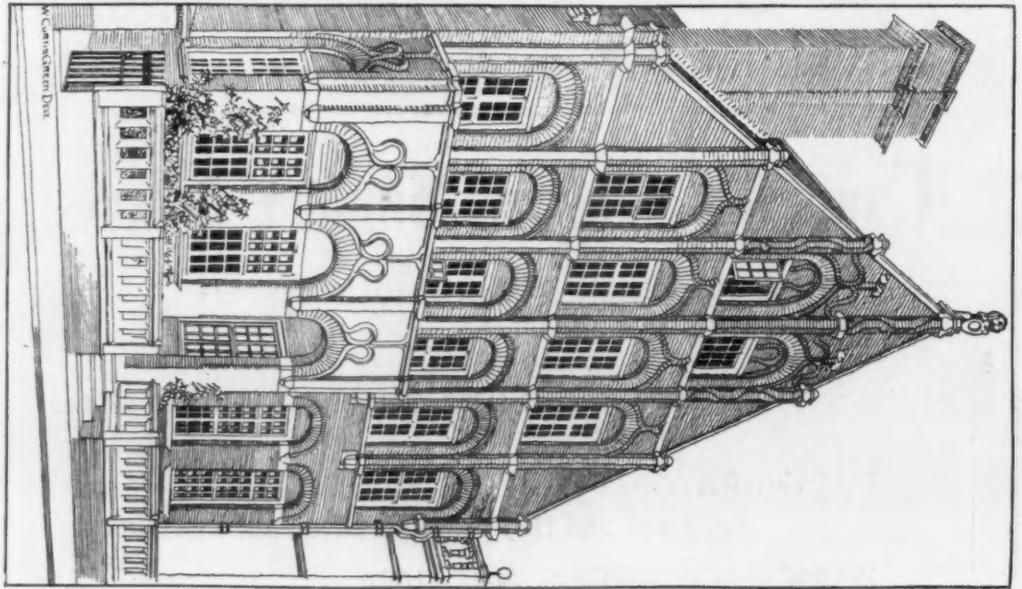
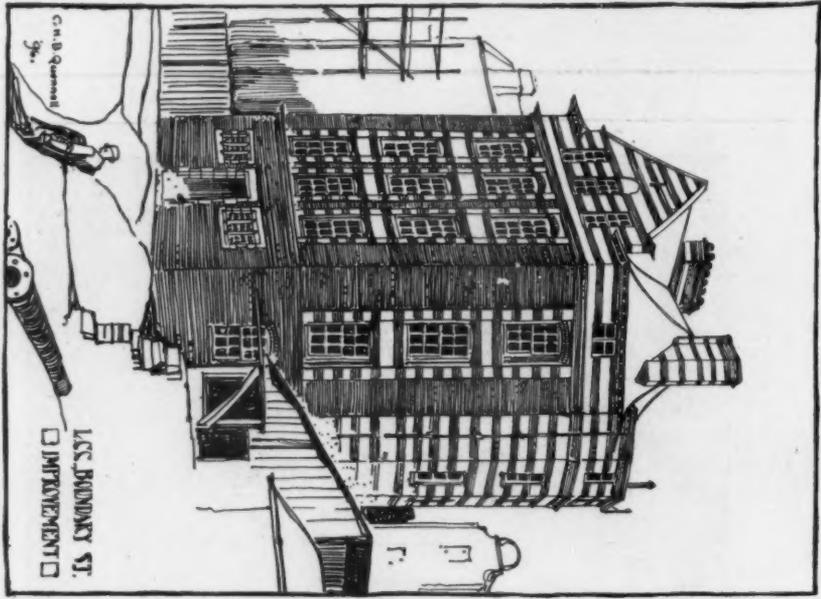
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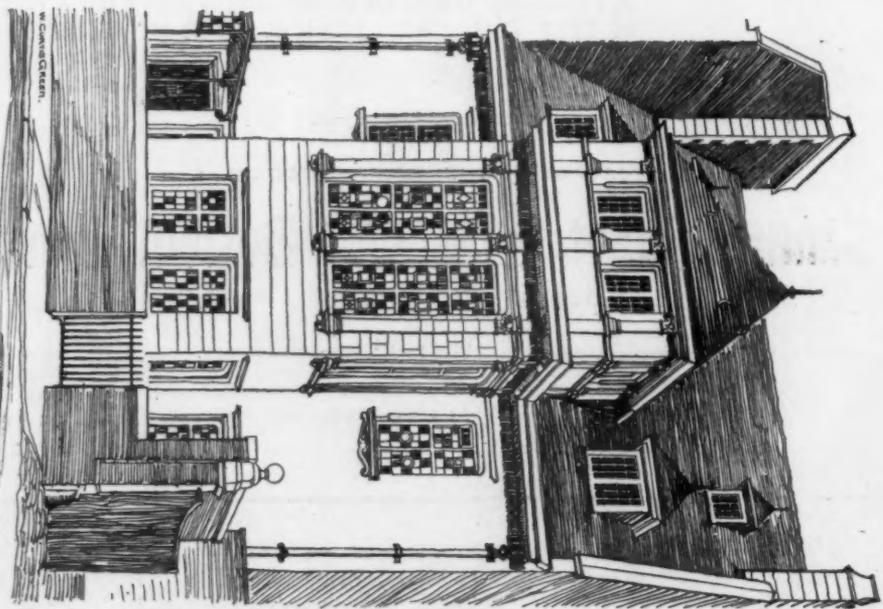
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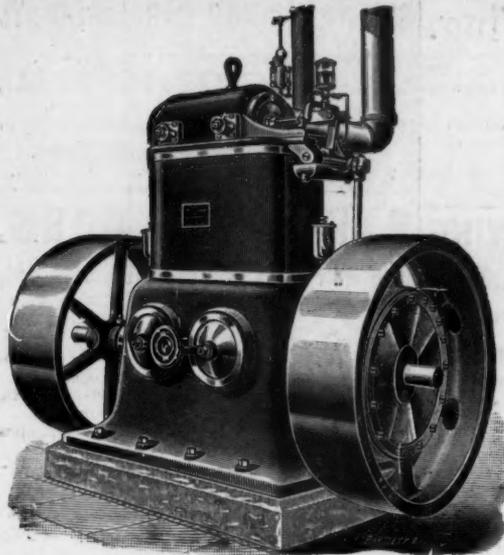


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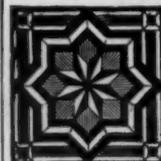
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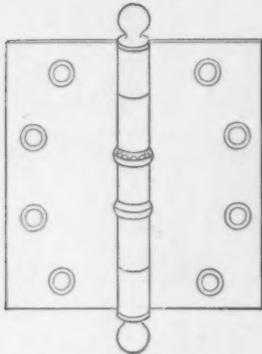
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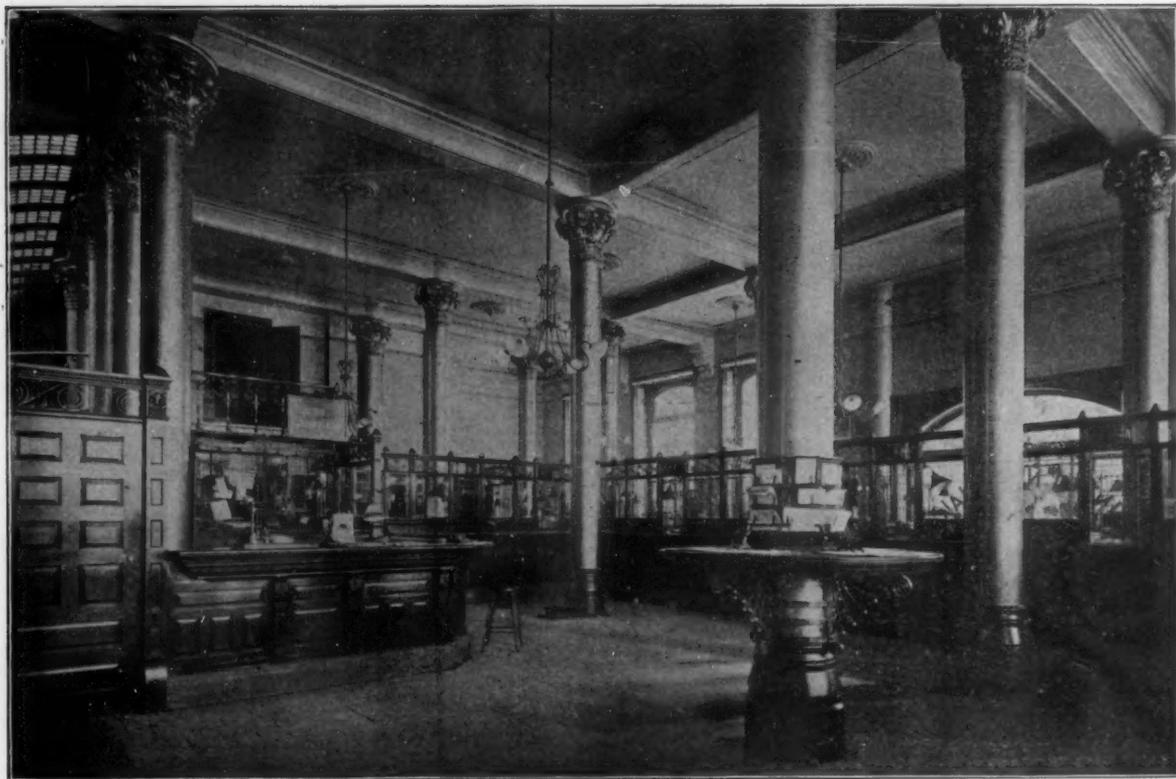
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Dimension.....	5 00 @ ton.		30 @ foot	5 00 @
Block.....	4 60 @ perch.		10 00 @ cord	Conshecken
Rubble.....	1 25 @ 1 50		9 00 @ "	1 45 @ 2 50
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Longmeadow.....	80 @ 90			
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Berea ".....	75 @ 1 00	85 @ 90	45 @ 55	85 @ 95
Berlin ".....	75 @ 1 00	80 @ 90	45 @ 55	55 @ 75
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New Brunswick (Dorchester).....	1 00 @ 1 30	75 @ 90	@ 1 25	1 00 @ 1 10
Potadam Red.....	1 30 @	@ 1 40	Not sold.	1 05 @ 1 15
Caen.....	@ 2 00	@ 2 00	@ 1 55	@ 1 40
Carlisle, English.....	@ 1 05	@ 1 05	@	1 25 @ 1 35
Corse Hill (Scotch).....	@ 1 05	@ 1 05	@	@ 1 05
Granite: (Maine)		@ 60	80 @ 1 50	95 @ 1 05
Limestone:				55 @ 65
Bedford.....	45 @ 1 25	95 @ 1 00	20 @ 40	75 @ 85
Joliet.....	1 00 @		@	Richmond
Lemont.....			@	Perch 75 @ 1 50
Serpentine.....		10 50 per ton.	@	Perch 4 50 @ 5 50
Bluestone: (Per sq. ft.)				
Sidewalk.....	30 @ 5 00	40 @ 1 75	1 00 @ 1 25	1 in. th. 10 @ 25
Flamed.....	50 @ 6 00	@ 75	1 00 @ 1 25	37 @ 50
Marble: (Per cu. ft.)				
Leo, Mass.....	@	1 75 @ 2 50	Not sold.	2 00 @ 2 50
Rutland, white and blue.....	@	@ 3 00	3 50 @ 6 00	2 00 @ 3 00
Sutherland Falls.....	1 25 @ 1 75	@ 2 00	3 50 @ 6 00	1 70 @ 3 00
Glens Falls, black.....	@	@	Not sold.	4 00 @ 4 50
Italian, blue-veined.....	@	@	@ 4 40	2 50 @ 2 75
" Sienna.....	@	@	Not sold.	@ 5 00
Tennessee, red.....	@	@	@ 4 40	4 00 @ 6 00
" Knoxville.....	@	@	@ 4 40	3 00 @ 4 00
Pennsylvania, blue.....	@	@	Not sold.	2 00 @ 3 00
Vermont, white.....	@	@	3 50 @ 6 00	2 25 @ 3 00
Slate: Roofing (Per square)				
Green.....	5 00 @ 6 00	4 75 @ 5 25	3 75 @ 5 00	2 90 @ 3 80
" unfading.....	5 00 @ 6 00	5 50 @ 6 50	5 25 @ 6 00	4 25 @ 5 00
Purple.....	5 00 @ 6 00	5 50 @ 6 50	5 25 @ 6 00	4 50 @ 5 50
Red.....	5 00 @ 10 00	10 00 @ 11 00	10 50 @ 12 50	11 50 @ 13 00
Black, Lehigh.....	4 25 @ 4 75	@	4 50 @ 5 50	4 00 @ 4 35
" Chapmans.....	@	@	5 30 @ 6 15	4 50 @ 5 00
Genuine Bangor.....	4 35 @ 5 50	4 75 @ 5 90	5 25 @ 6 50	4 35 @ 5 50
Unfading black.....	6 00 @ 8 50	6 00 @ 8 50	4 25 @ 8 95	6 50 @ 9 00
".....	5 50 @ 8 00	5 50 @ 8 00	5 50 @ 9 20	6 50 @ 9 00
Tiles, Am..... P M.	@	@	Salt-glazed tiles	@ 28 00
N. Peach Bottom, war. unfading	@	@	9" 8c. per ft.	5 76 @ 6 25
Fire Clay Roof Tile on cars at fac.	8 00 @	8 00 @	6 00 @ 6 50	8 60 @
LUMBER.—P M.				
Boards: (Ordinary dimensions.)				
Pine, 1st quality, clear.....	65 00 @ 75 00	55 00 @ 70 00	50 00 @ 60 00	47 50 @ 60 00
" 2d quality.....	55 00 @ 60 00	42 00 @ 50 00	42 00 @ 50 00	38 00 @ 48 50
" 3d quality.....	18 00 @ 22 00	20 00 @ 40 00	20 00 @ 28 00	27 50 @ 36 50
Spruce.....	@ 25 00	12 00 @ 16 00	Not sold.	15 00 @ 21 50
Hemlock.....	ea13 @ 14	12 00 @ 14 00	10 00 @ 12 00	11 50 @ 13 75
Yellow pine.....	20 @ 40	19 00 @ 35 00	18 00 @ 25 00	14 00 @ 29 00
Cypress.....	@	26 00 @ 40 00	30 00 @ 35 00	30 00 @ 38 00
Clapboards:				
Pine.....	@	35 00 @ 55 00	25 00 @ 30 00	14 00 @ 25 00
Spruce.....	@	24 00 @ 35 00	Not sold.	Not sold.
Framing Timber:				
Pine.....	14 00 @ 18 00	13 00 @ 16 00	15 00 @ 25 00	25 00 @ 37 30
Hemlock.....	12 00 @ 16 00	12 00 @ 15 00	Not sold.	15 00 @ 21 50
Yellow pine.....	18 00 @ 21 00	17 00 @ 25 00	16 00 @ 25 00	14 00 @ 20 00
Laths:				
Pine..... Round Wood	@	2 00 @ 2 50	1 90 @ 2 00	2 75 @ 3 00
Spruce..... Slab.....	1 55 @ 1 65	1 80 @ 2 15	Not sold.	2 30 @ 2 35
Shingles:				
Pine, shaved..... P M.	5 00 @ 6 00	@	Not sold.	(30" \$35 @ 40
Pine, sawed..... "	4 00 @ 5 00	@ 4 50	2 60 @ 2 75	24" 8 @ 21
Spruce, sawed..... "	1 50 @ 2 00	1 50 @ 1 75	Not sold.	20" 35 @ 14
Redwood..... P 125.	1 40 @ 1 60	3 00 @ 3 75	4 60 @ 6 00	11 00 @ 14 00
Cedar split..... P M.	@	@ 6 00	Not sold.	
Cedar sawed..... "	@	2 00 @ 3 25	2 50 @ 2 90	
Cypress, Split..... 7 x 24 "	18 00 @ 20 00	5 00 @ 6 00	@	

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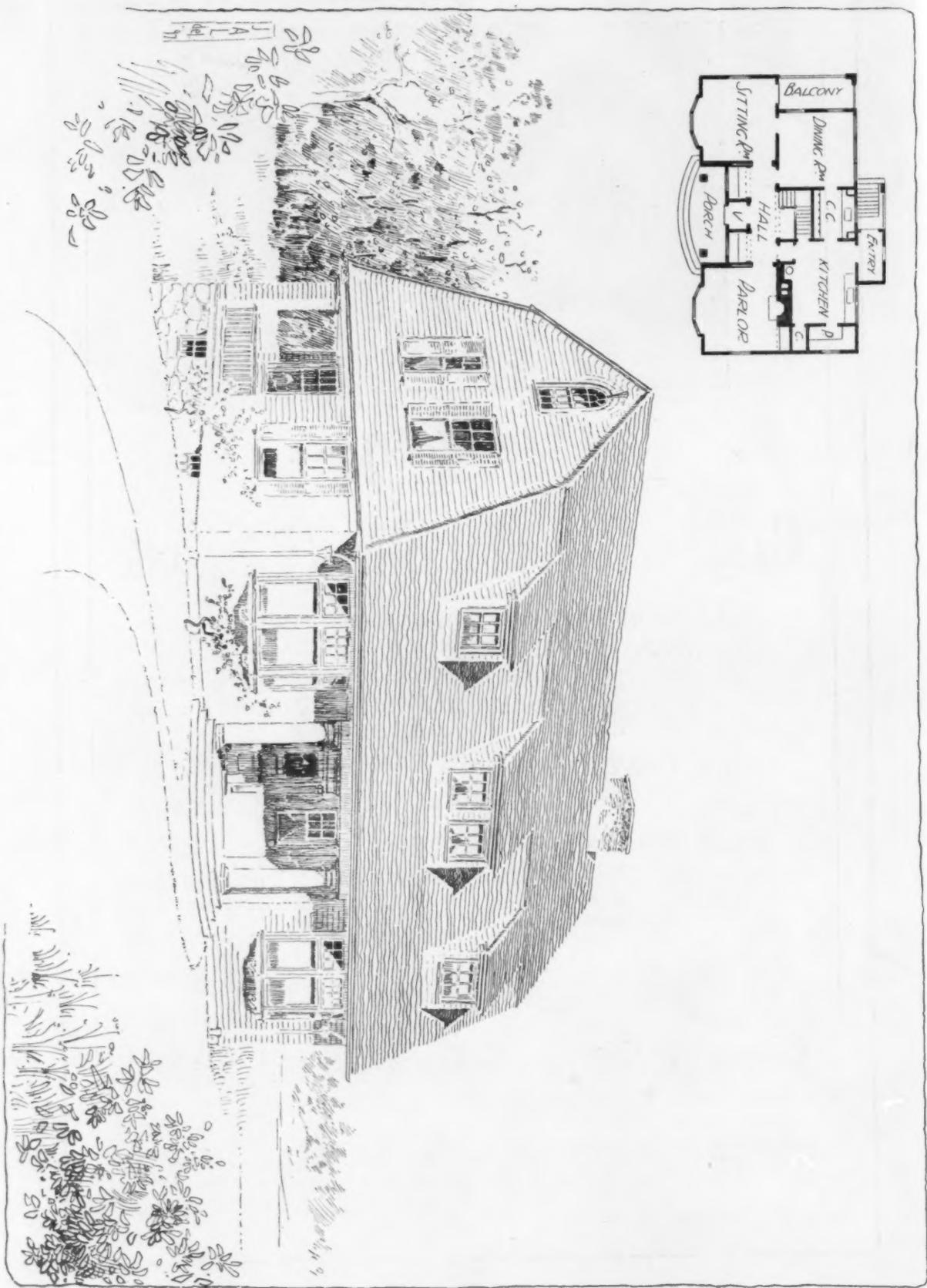
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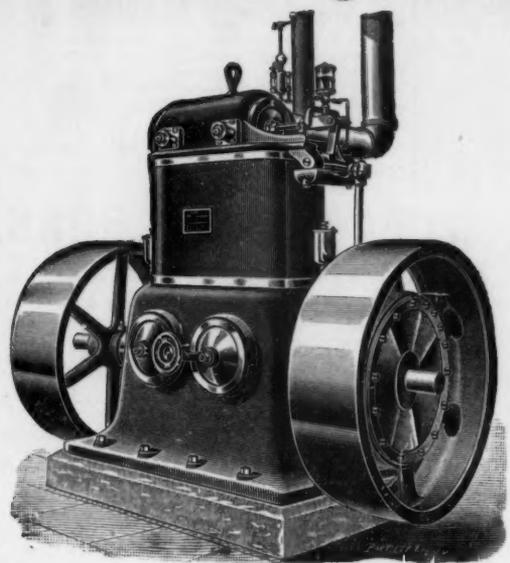
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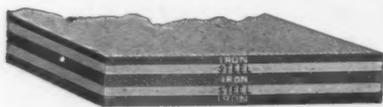
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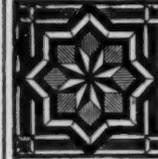
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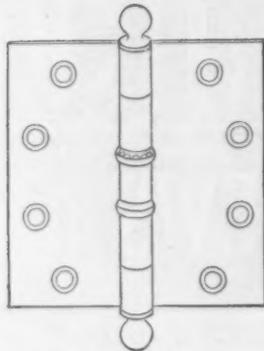
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Dimension:.....	5 00 P ton.	20 @ foot		Conshoeken @ 5 00
Block.....	4 60 P perch.	10 00 @ cord		1 45 @ 2 50
Rubble.....	1 25 @ 1 50	9 00 @ "		
Sandstone:				
Longmeadow.....	80 @ 90	80 @ 90		95 @ 1 05
Kibble.....	90 @ 1 10	90 @ 1 10		1 05 @ 1 25
Brown (Connecticut).....	1 00 @ 1 30	1 00 @ 1 30	1 50 P cub. ft.	85 @ 95
Amherst Ohio.....	90 @ 95	90 @ 1 00	45 @ 55	55 @ 75
Berea ".....	75 @ 1 00	85 @ 90	45 @ 55	85 @ 95
Berlin ".....	75 @ 1 00	80 @ 90	45 @ 55	85 @ 95
Belleville.....	80 @ 1 25	25 @ 1 35	@ 1 25	1 00 @ 1 10
New Brunswick (Dorchester).....	1 00 @ 1 00	75 @ 90	Not sold.	1 05 @ 1 15
Potadam Red.....	1 30 @ 1 30	@ 1 40	@ 1 35	@ 1 40
Oaen.....	@ 1 05	@ 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)			80 @ 1 50	55 @ 65
Limestone:				
Hedford.....	45 @ 1 25	95 @ 1 00	20 @ 40	75 @ 85
Joliet.....	1 00		@	Richmond P 75 @ 1 50
Lemont.....			@	Perch 4 50 @ 5 50
Serpentine.....		10 50 per ton.	@	
Bluestone: (P sq. ft.)				
Sidewalk.....	30 @ 5 00	40 @ 1 75	1 00 @ 1 25	1 in. th. 10 @ 25
Planed.....	50 @ 6 00	@ 75	1 00 @ 1 25	37 @ 50
Marble: (P cu. ft.)				
Leo, Mass.....	@	1 75 @ 2 50	Not sold.	2 00 @ 2 50
Rutland, white and blue.....	@	@ 3 00	3 50 @ 6 00	2 00 @ 3 00
Sutherland Falls.....	1 25 @ 1 75	@ 2 00	3 50 @ 6 00	1 70 @ 3 00
Glens Falls, black.....	@	@	Not sold.	4 00 @ 4 50
Italian, blue-veined.....	@	@	@ 4 40	2 50 @ 2 75
" Sienna.....	@	@	Not sold.	@ 5 00
Tennessee, red.....	@	@	@ 4 40	4 00 @ 6 00
" Knoxville.....	@	@	@ 4 40	3 00 @ 4 00
Pennsylvania, blue.....	@	@	Not sold.	2 00 @ 3 00
Vermont, white.....	@	@	3 50 @ 6 00	2 25 @ 3 00
Slate: Roofing (P square).				
Green.....	5 00 @ 6 00	4 75 @ 5 25	3 75 @ 5 00	2 90 @ 3 80
" unfading.....	5 00 @ 6 00	5 50 @ 6 50	5 25 @ 6 00	4 25 @ 5 00
Purple.....	5 00 @ 6 00	5 50 @ 6 50	5 25 @ 6 00	4 50 @ 5 50
Red.....	@ 10 00	10 00 @ 11 00	10 50 @ 12 50	11 50 @ 13 00
Black, Lehigh.....	4 25 @ 4 75	@	4 50 @ 5 50	4 00 @ 4 35
" Chapmans.....	@	@	5 30 @ 6 15	4 50 @ 5 00
Genuine Bangor.....	4 35 @ 5 50	4 75 @ 5 90	5 25 @ 6 50	4 35 @ 5 50
Unfading black.....	6 00 @ 8 50	6 00 @ 8 50	4 25 @ 8 95	6 50 @ 9 00
".....	5 50 @ 8 00	5 50 @ 8 00	5 50 @ 9 20	6 50 @ 9 00
Tiles, Am..... P M.				@ 28 00
N. Peach Bottom, war. unfading				9 76 @ 6 25
Fire Clay Roof Tile on cars at fac.	8 00 @	8 00 @	6 00 @ 8 50	8 00 @
LUMBER.—P M.				
Boards: (Ordinary dimensions.)				
Pine, 1st quality, clear.....	65 00 @ 75 00	55 00 @ 70 00	50 00 @ 60 00	47 50 @ 60 00
" 2d quality.....	55 00 @ 60 00	42 00 @ 50 00	42 00 @ 50 00	38 00 @ 48 50
" 3d quality.....	18 00 @ 22 00	20 00 @ 40 00	20 00 @ 28 00	27 50 @ 36 50
Spruce.....	@ 25 00	12 00 @ 16 00	Not sold.	15 00 @ 21 50
Hemlock.....	ea13 @ 14	12 00 @ 14 00	10 00 @ 12 00	11 50 @ 13 75
Yellow pine.....	20 @ 40	19 00 @ 35 00	18 00 @ 25 00	14 00 @ 29 00
Cypress.....	@	26 00 @ 40 00	30 00 @ 35 00	30 00 @ 38 00
Clapboards:				
Pine.....	@	35 00 @ 55 00	25 00 @ 30 00	14 00 @ 25 00
Spruce.....	@	24 00 @ 35 00	Not sold.	Not sold.
Framing Timber:				
Pine.....	14 00 @ 18 00	13 00 @ 16 00	15 00 @ 25 00	25 00 @ 37 30
Spruce.....	12 00 @ 16 00	12 00 @ 15 00	Not sold.	15 00 @ 21 50
Hemlock.....	18 00 @ 21 00	17 00 @ 25 00	10 00 @ 15 00	14 00 @ 20 00
Yellow pine.....	@	@	16 00 @ 25 00	22 50 @ 30 00
Laths:				
Pine..... Round Wood	@	2 00 @ 2 50	1 90 @ 2 00	2 75 @ 3 00
Spruce..... Slab.....	1 50 @ 1 60	1 80 @ 2 15	Not sold.	2 30 @ 2 35
Shingles:				
Pine, shaved..... P M.	5 00 @ 6 00	@	Not sold.	
Pine, sawed..... "	4 00 @ 5 00	@ 4 50	2 60 @ 2 75	
Spruce, sawed..... "	1 50 @ 2 00	1 50 @ 1 75	Not sold.	
Redwood..... P 125.	1 40 @ 1 60	3 00 @ 3 75	4 00 @ 6 00	
Cedar split..... P 125.	@	@ 6 00	Not sold.	
Cedar sawed..... P 125.	@	2 00 @ 3 25	2 50 @ 2 90	
Cypress, Split..... 7 x 24 "	18 00 @ 20 00	5 00 @ 6 00	@	

30" \$35 @ 40
24" 8 @ 21
20" 35 @ 14
11 00 @ 14 00

LUXFER PRISMS BRING IN DAYLIGHT.



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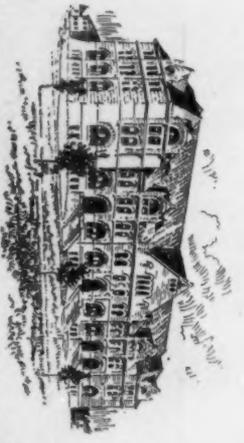
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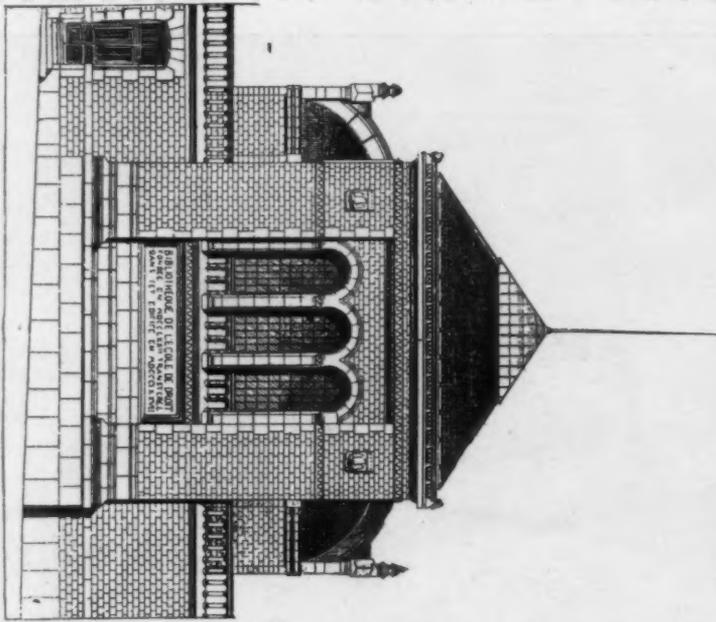
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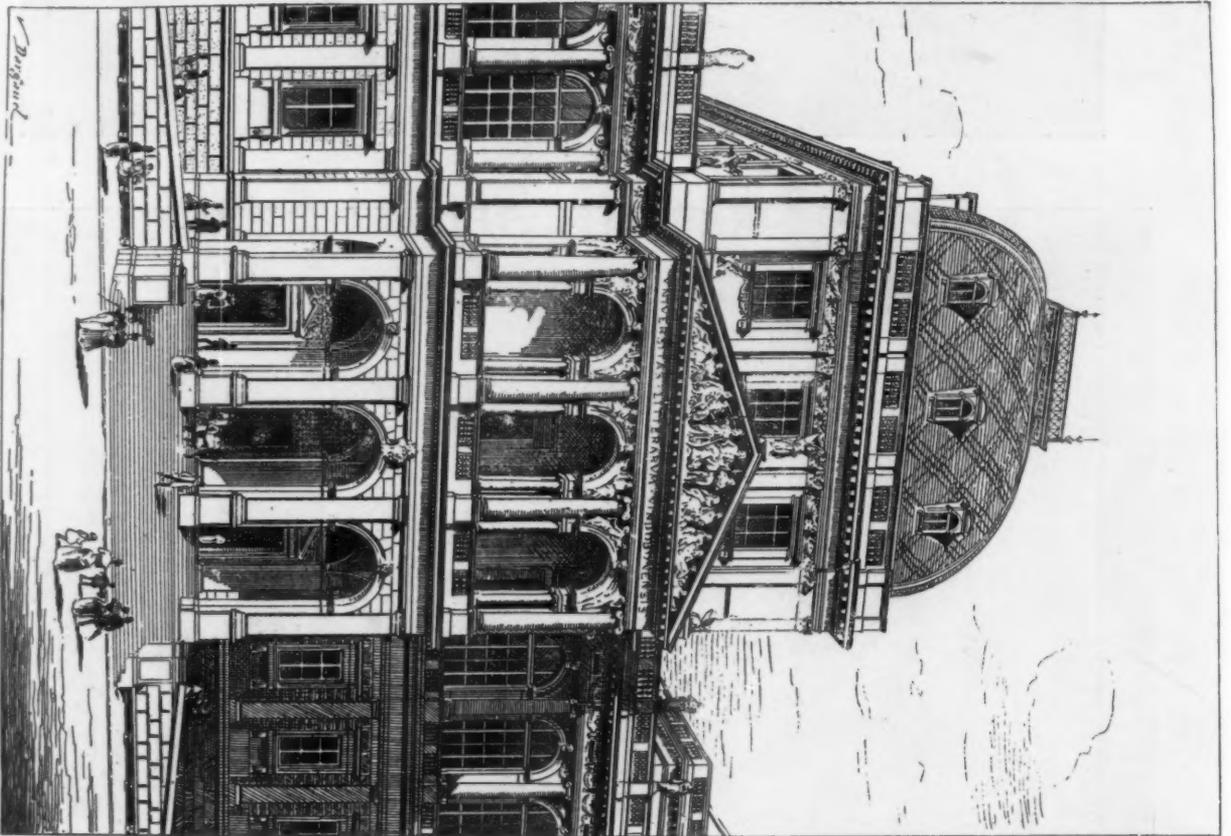
New York City, Mohawk Bldg., 160 Fifth Ave.	Boston, Equitable Building.	Philadelphia, 904 Chestnut Street.
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Arts and Science Building, Tulane University, New Orleans, La.

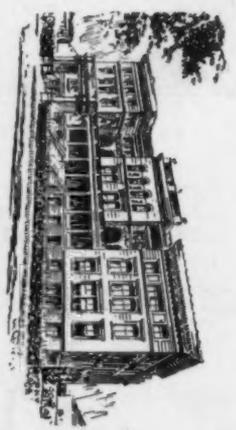


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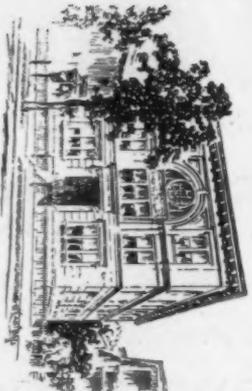
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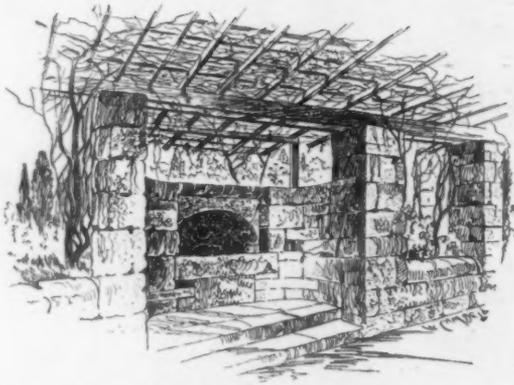
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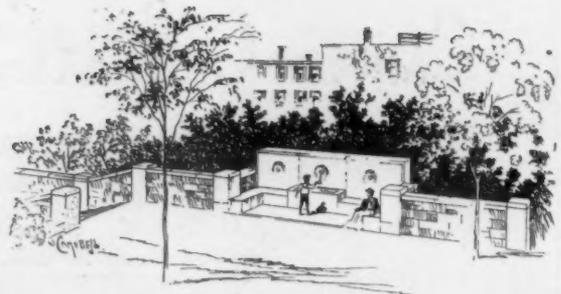
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