THE AMERICAN ARCHITECT AND BUILDING NEWS.

VOL. XI. Copyright, 1882, JAMES R. OSGOOD & CO. No. 338.

JUNE 17, 1882.

Entered at the Post-Office at Boston as second-class matter.

CONTENTS.

WE commend to the attention of our readers the letter of Mr. Dutton, printed in another column, giving a complete history of the various architectural competitions of which the National Library has been the theme. From other sources also we have been favored with information on the subject for which we wish to present our grateful thanks. We hope before long to be authorized to publish the design now adopted, that those interested may judge for themselves of the success with which a problem of extreme difficulty has been solved. Much of the responsibility for the arrangement, such as it now exists, rests with Mr. Spofford, the Librarian of Congress, to whose intelligent and persistent effort the movement for the new structure is mainly due. Ten years ago, in his annual official report, this gentleman presented a scheme for a vast library building which attracted great attention, and was made the basis of the programme to which those who entered the competition of the following year were required to conform, a copy of the report being sent with the schedule of instructions. The time allowed for preparing plans, was, as usual, far too short, three months being practically the limit; and it is not surprising to find that none of the designs proved entirely satisfactory; but as there was no immediate prospect of carrying any of them into execution, Mr. Spofford profited by the delay to renew the good offices of suggestion and criticism to which the Library, if it is ever built, will owe so much, applying, as he probably felt himself bound in honor to do, to the winners of the first competition for advice and assistance. With their co-operation several modifications were made, and the plans thoroughly considered, and the familiarity with the points involved which was thus gained must have contributed materially to the success of the design presented by the same architects in the second close competition which they were rather unnecessarily required to enter.

THIS design, as now adopted, is in plan essentially the same as the prize sketch of 1873, but much improved, we think, by the assiduous study which it has undergone meanwhile. It is said that Mr. Spofford expresses himself as not yet satisfied with the details of arrangement, but the main elements of the disposition which he advocates seem to be ingeniously and effectively secured. Whether this disposition is in itself a judicious one is not perhaps settled. Those of our readers who recollect Mr. Poole's interesting paper on the Construction of Library Buildings, reprinted in this journal (Vol. IX, No. 299), can easily understand that the conception of the National Library as a vast "show building," arranged to form long vistas of lofty halls in all directions, meets with little approval from him or his professional brethren, who have already in the Convention of the American Library Association at Cincinnati protested against the erection of the building in accordance with the proposed scheme; but without venturing to interfere in matters which concern another profession exclusively, we can safely affirm our belief that Mr. Spofford understands the needs of a Congressional Library quite as well as any one else, and that no principle has been, or will be, embodied with his consent in the new structure, without careful weighing of its merits and demerits with regard to all the circumstances of the case: while as far as the architects are concerned, we are equally sure that they are neither ignorant nor careless of the conditions of the problem which they are called upon to solve, and that yielding, as they must in a great degree, to the main outlines of disposition prescribed to them, their skill will be found amply sufficient for the task of arranging and modifying them to form a simple, strong, and coherent whole.

WE advise our younger readers who are sometimes tempted to throw away their time and reputation by entering into second-rate competitions, to read some of the comments copied elsewhere from the San Francisco *Chronicle*, upon the designs submitted for the Garfield Memorial which the people of California are intending to erect. As every one may not have heard of this artistic event, — the most important one in the history of the Pacific Coast, — we ought, perhaps, to premise that some months ago circulars were sent out announcing that it was in contemplation to spend some twenty-five thousand dollars, if we recollect rightly, upon a monument which should do honor at once to our late lamented President and the people of California, and inviting competitive designs for the structure, upon terms the most discreditable to the individuals offering them, and the most degrading to those foolish enough to accept them, which we ever saw in print, except, perhaps, those set forth in the amazing invitations by which State-house Commissioners south of Mason and Dixon's line encourage the fine arts. In brief, all the persons desirous of immortalizing their names in connection with the California Garfield Memorial were required to furnish full working-drawings, specifications and details, the proper value of which should be at least fifteen hundred dollars for each set, and were promised in return that *one* among them *might* be chosen to receive the magnificent sum of three hundred dollars, for which he would be obliged to abandon his drawings, papers, and models absolutely to the Committee, and sign a receipt in full of all claims and demands. Although architects are popularly supposed to have an idiotic passion for doing work for nothing, even the Californians, unaccustomed as they are to such contests, were attracted by the disparity between the service asked for and its reward, and have come by insensible degrees, as the extract well shows, to look upon the competition as a farcical combat between objects of deserved ridicule, whose struggles after a preposterously inadequate prize afford legitimate sport to the more rational lookers-on. To a certain extent their opinion is justified, and although we can pity the folly of those who responded to the almost insulting invitation, we must condemn them as having done what they could, not only to lower themselves and cloud their own future prospects, but to degrade and injure the profession to which they claim to belong; and it will do no harm for the Californians to consider at the same time, while they are laughing at the "Nightmare-Mauresco-Japanese" models offered for their choice, whether the mode which they have adopted for securing a design for their costly monument without paying the designer seems likely to prove entirely successful.

WE have in the later numbers of the German newspapers a full account of the trial of the officials implicated in the negligence which caused the catastrophe of the Ring Theatre in Vienna, and find it necessary to correct as well as amplify our first statement of the result. Of the accused persons, Herr Newald, the ex-burgomaster of the city, who was charged with having neglected to enforce, or even to promulgate, the orders of the council in regard to precautions against fire to be taken in all theatres, was acquitted, it having been shown that his orders were directly disobeyed by the management of the Ring Theatre. Jauner, the director of the theatre, as we have said, was condemned to arrest and fine. Nitsche, the foreman of the lighting department of the theatre, — not the fire-engineer, as we erroneously said, — was convicted and sentenced to rigorous imprisonment for neglect of duty in not interfering to prevent the dangerous, and as it proved, fatal attempt to light the upper border-lights after they had been open, and the gas escaping, for some seconds; in also omitting to put in place the oil-lamps which were stored in the cellar; and finally, in opening and leaving open for some time the great doors by which horses were brought from the outside upon the stage, so that the flames were blown against the curtain and into the auditorium. His assistant, Breithofer, was accused of neglect in

carelessly and recklessly managing the border-lights, and also in shutting off the gas from the building upon the breaking-out of the fire; but the last could not be proved, and he was acquitted on the first count, as having had no discretion in regard to the manner of lighting. Geringer, another employé of the theatre, was convicted of neglect to use the fire-alarm apparatus, or any other of the protective appliances which were within his reach and under his special care. Landsteiner, the chief of police, was accused of omission to use such expedients for saving life as lay within his reach, and of taking measures by which other persons were hindered from making attempts at rescue. It was argued that he, knowing that human beings were in peril, ought to have taken pains to make this known to the fire-engineer without delay, but it was proved that during the time which elapsed between his arrival on the ground and that of the firemen no attempts at rescue could have been made without danger, and he was acquitted.

The contest between manufacturers and workmen in the iron trade which began nearly two weeks ago has increased in seriousness, and the greatest strike known for years is now in full operation. It is impossible to judge of the merits of the dispute, but the iron-workers have so far done themselves little or no discredit by violence, and this is in itself an indication that there is some reason in their demands. The demagogues are flying hither and thither, announcing that the fight will be carried out "to the bitter end;" but they find fewer dupes than usual, and independent action on the part of small bodies of men has already begun. In one case the employés of a certain mill met the order of the Union to strike with a direct refusal, and in several others a new scale, made up in accordance with the judgment of the parties interested, instead of by dictation from Pittsburgh, has been signed, and work continued. Some employers, also, have deserted their organization and signed the Pittsburgh scale, a defection quite as much to be applauded as the other, and we trust that the example will be followed on both sides.

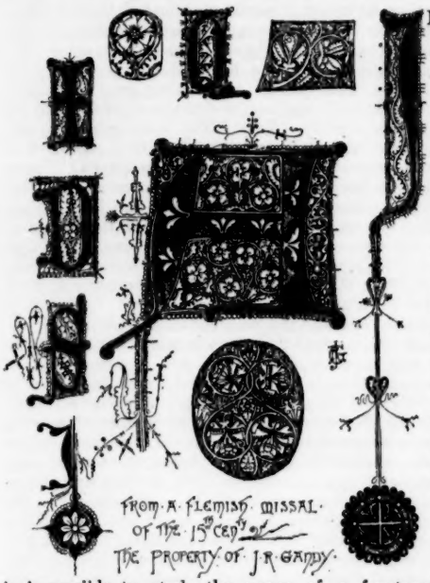
Another electric-light accident, very similar to that which took place at Buffalo some months ago, happened not long since at Pittsburgh. In a certain factory in that city, illuminated by sixteen arc lights, so much annoyance had been experienced from the curiosity of the boys employed in the building, who amused themselves by playing with the electric generator, that an enclosure some four feet high had been put around the machine, and a guard set to keep the boys away. One night the engineer had been making some experiments with the lamps, and had connected the machine with a certain portion of the system by means of a wire carried for some distance along the lower part of the enclosure. Soon afterwards a workman came up to look at the clock, which was placed close to the generator. He carried a lantern in his hand, and leaned for a moment over the railing, letting the lantern hang down inside. Instantly he uttered a cry, turned about, and fell dead into the arms of the engineer who sprang toward him. On examination a purple line was found traced entirely around his throat, while another extended from the thigh to the ankle. It is supposed that as he leaned over the railing the lantern hanging from his hand came in contact with the temporary wire on the inside of the enclosure, forming a short circuit through his arm and body to the ground.

The French technical journals have devoted considerable space of late to the discussion of schemes for rapid transit in Paris, where the need of better modes of locomotion is very seriously felt. The *Revue Industrielle* contained not long ago a description of an elaborate project for a network of elevated railways, which, passing for the most part through the interior of the blocks, would join all the railway stations, the principal theatres, and all the semi-suburban districts within the fortifications, which, like Passy, Batignolles, and Grenelle, although far from the business centre are fast being covered with compact blocks of houses. Besides this, it would connect at ten different points with the "*chemin-de-fer de ceinture*," or belt railway encircling the city, and would be intended to receive trains from this as well as from all the other roads for transfer in any required direction. In support of his plan, the author, M. Louis Heuzé, a well-known architect, presents drawings showing the appearance of the elevated road as contrasted with that of an underground railway, and although no attempt is made to disguise the awkwardness of the elevated viaduct, it certainly suffers nothing by comparison with its subterranean rival. M. Heuzé proposes to construct a platform for foot passengers beside or underneath the railway tracks, and to transport freight over the line; and with these advantages he believes that shops and warehouses will soon be built fronting on the tracks. In estimating the value of such a road to the public he makes the suggestive statement that within thirty years seventy-two miles of new boulevards and streets have been made in Paris, at a cost, principally for land taken, as we learn from another authority, of from two to eight millions of dollars a mile, simply for the sake of gaining more direct or commodious access to certain isolated points, while the space necessary for an elevated road six and a half miles long and forty-three feet wide, connecting all the railway stations, markets, and important business centres of the city, would not only be taken from the least valuable part of the lots, but would amount in all to a less number of square feet than that comprised in three miles of boulevards.

A recent number of the *Deutsche Bauzeitung* gives a plan of the buildings intended for the great Berlin Hygienic Exhibition, which were partially destroyed by fire a few weeks ago. Later advices describe the conflagration, and although they seem to leave it uncertain whether the exhibition will be abandoned or not, the arrangement of the buildings as they were intended to be used is of interest. As in all modern exhibitions, the goods displayed were to be divided among a considerable number of structures, large and small, the latter being arranged in a long crescent around the main hall. The principal access to the enclosure was from the street leading from Berlin to the suburb of Moabit, by a spacious court-yard and double flight of steps ascending to the level piece of highly ornamented ground in front of the main façade. Besides this, a side entrance was provided on another street, and in the rear of the larger buildings a special railway station, like that at Philadelphia, in 1876, served as a vestibule for visitors arriving from a distance. The largest structure was divided into three vast naves crossed by two transepts, in which were to be gathered the general exhibits brought to the spot by means of a system of freight tracks centering in an adjoining building. A panorama occupied what might be called the apse of the principal division, and a place of honor close by was given to a model school-house. Beginning at this end of the enclosure a street of closely-built pavilions extended nearly the whole length of the grounds, containing the official contributions of the Prussian government, agricultural machinery, the Italian exhibit, the house of the Austro-Hungarian Red Cross Society, and various collections of ice-machines, cooking and heating stoves, and certain offices of administration. Behind the crescent, scattered over the enclosure, were kiosks for the sale of water from various mineral springs, besides beer, tea and milk, a washing-machine, two or three model kitchens, a cremation furnace, two gas-works, a cooking-school exhibited by the Berlin Housekeepers' Union, and many town and private pavilions, besides restaurants, a music-hall, and a botanic garden. Altogether the exhibition promised to be a most interesting one, and it is much to be hoped that means will be found for carrying out the plan.

Most of our readers are, we imagine, sufficiently interested in general science to read with curiosity the description which we take from *Le Génie Civil* of a successful attempt at the liquefaction of ozone which was recently made by Messrs. Hautefeuille and Chappuis. It is only recently that oxygen has been liquefied, and hitherto its strange allotropic form has resisted all efforts to change it from its gaseous condition. By subjecting a mixture of ozone and oxygen to a pressure of one hundred and twenty-five atmospheres, or nineteen hundred pounds to the square inch, cooling it at the same time by immersion in a jet of liquefied ethylene to a temperature of at least one hundred and fifty degrees below zero of Fahrenheit's scale, these experimenters succeeded in reducing it to a liquid of a very deep indigo-blue color, which, although obtained under such enormous tension, proved to have a certain amount of stability, and evaporated only slowly when the pressure was reduced one-half. Even under the ordinary pressure of the air some drops of the blackish liquid lingered for a few moments before they were again transformed into an azure vapor, which on returning to its ordinary condition proved to have undergone no chemical change.

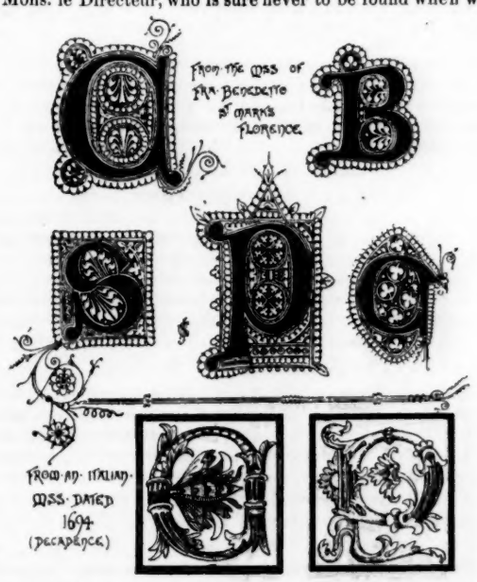
A CHAT ABOUT MISSALS.



ILLUMINATING is one of the first of those flowers of art which, nurtured by the early church, grew up into such holy beauty in the great garden of Christian art. It was one of the first means by which the pious disciples of a new faith endeavored to enshrine some lasting record of their love and devotion, and it has remained to hand down to us centuries of loving toil: toil made glorious by the consecration of it by faith and prayer. It is impossible to study the pages of a fourteenth-century missal without feeling you are in the presence of something holy. There is in its initial letters, its margins, its miniatures, the expression of so much that is the craftsmanship of love that you are conscious at once it is a thing inspired, and not only is your eye delighted by its beauties, but your soul is touched by the lesson which you ever read between its lines: "Behold a labor of love." In the early days of the Christian era, when in some measure the fierce persecution that assailed Christianity had abated, and religious communities were permitted with some security to establish churches and religious orders, it was needful for the churches to make some record of their doctrines and history, and also to take steps to preserve in readable form their sacred writings. At first these were simply written on parchments; but the new religion flourished and became powerful, the rich and great became its devotees, and gave lands and money for its maintenance and use, and the small band of zealous men, poor and obscure and illiterate, swelled its numbers till it gathered into its fold the noblest and most worthy of its age. Stately cathedrals were built, noble abbeys and monasteries were scattered here and there, till every breeze bore the sound of their bells, and their towers and spires became the landmarks of Europe. Then with all this came a new era in art and literature, the like of which the world had never before seen. Everything that was done was done with all the zeal and fervor of a new faith, and whatever could be done for the beauty and glory of it found willing hands and loving hearts to do it. And so every cathedral and monastery had its library of precious manuscripts, which was hoarded from age to age, ever receiving additions at the hands of those who sought the retirements of its cloisters, the pious monks laboring over their parchments with such infinite care and devotion that in this day we can only conjecture what labor such precious works cost. To them such works became part of their religion, and with ready hands they wrought the sacred pages till they were radiant with gold and color, and glowed with the lustre of jewels.

It is unnecessary for our purpose to trace the development of the simple writings on skins to the ornate missal; but going back to the seventh century we find illumination already represented by two strong schools, the Celtic and Byzantine. Both these schools are tinged with Greek influence and have some similar points of style, and, while crude in drawing, exhibit examples of the richest color, the Byzantine in this particular having quite an Oriental splendor. The Celtic is remarkable for its interlaced ornaments, which represent a fertility of imagination in design which has never been excelled; its running borders and frets have a beauty and arrangement which make them worthy of close study, and its initial-letters are often most elaborate in design, and chiefly consist of nondescript animals, with beaked heads so twisted and twirled and interlaced one with another, with great beauty of line and arrangement, that they are perfect labyrinths of ornament. There are some magnificent specimens of this age in the manuscripts of the Trinity College Library, Dublin, and also in the chapter-house at Durham Cathedral. After the Celtic and Byzantine came the Gothic, which we find in the twelfth and thirteenth centuries possessing considerable refinement of drawing and color, and we soon find greater changes, for, as the art became more exclusively cultivated, it rose higher and higher in its conception and execution, till it culminated in the fifteenth century, when came the age of printing, and with the age of printing began the decline of illuminating, till it speedily became a lost art.

As the art of illumination became known its uses were not confined to the church only: it was made use of by Pagans, and many Korans remain to show us how curiously it was stamped by an Oriental people with their peculiar character, and no better instance of the difference of the spirit of Christian and Pagan art can be found than in a comparison of the two styles. Then amongst the groups of retainers, which gathered at the courts of kings and nobles of the Middle Ages, the illuminator became a valuable addition. To him it was permitted to record in pictured stories the deeds of valor sung in many an ancient hall by the bards and minstrels of the age of chivalry. Some of these works like those originating in the monastic cell became very celebrated, and this art became of great historical value, and it is to it we owe our chief information of the manners and customs of the two great powers of the Middle Ages, the Church and the Throne, and many histories of valiant deeds and noble lives have been cherished and preserved for us, which but for this means would have been forever lost. But this is not all: not only do these manuscripts represent a page of history to our gaze, but they give us a very correct record of the costumes, weapons, armor, furniture and architecture of their age; they thus present to us a very complete history, and not only do they cover a wide and most important period in the history of art, but wherever the footsteps of Christianity were planted, there we find the art tinged with the character of the people who fostered and gave to it such poetic expression that we cannot fail to find in it that delicious poetry of life which casts such a glamour over the thousand-and-one legends of saint, and knight, and lady, which these miniatures reveal to us like a dream. To give an instance of what feeling is sometimes found in these works apart from their own ornate character I must tell of a Flemish fourteenth-century miniature of the Crucifixion, which I now have before me. Upon a green little hill-top is erected the cross, on which hangs the sacred victim with a calm, holy, patient face; on the right hand stands St. John looking very very woeful; in a grand red robe on the left, the holy mother with a grief on her face quite inexpressible. There is an atmosphere of profound sorrow about the whole thing, and above hangs a weird, murky sky, heavy with the darkness of despair, and in the background away down in the valley peep up the many embattled towers of the city of Jerusalem, and there over them just in the far-off east is a little patch of glowing gold, — the dawn, — the dawn of a new life and a new hope of an age of light: such a little conceit is quite thrilling. Such works in that age were not rare, and there is not a cathedral city of Europe that does not to-day contain, in spite of the ravages of revolutions and reformations, splendid evidence of the perfection to which this art was carried. It is not, however, my wish to devote all this "chat" to the histories of illuminating: let us look at the purely ornamental side of it and we shall find the richest mine of surface-ornament any art ever gave us. It has often been my wonder in the age of bad ornament that this mine has not been worked, or its features at least more generally studied; but perhaps something is due to the fact that most of the manuscripts in Europe are stowed away in musty old libraries, and it is only with the greatest difficulty the student gets to see them, and then only for a cursory glance. Sometimes one finds a few missals set out in a glass case in some of the museums, but almost before you get out your sketch-book and are making up your mind for a treat, most probably an officious *gendarme* will arrive on the scene and inform you such things are only to be looked at, and permission to sketch them must be obtained from Mons. le Directeur, who is sure never to be found when wanted



By and by perhaps some of the powers that be will wake up and discover their great practical value, and set such things where the student may study them, and then we may possibly see some of their quaint conceits and ornamental spirit employed in the things of daily life. It is very interesting to study the development of ornamentation in illuminated manuscripts, and to trace its progress from the

severe geometric character of the early periods; to watch it gather freedom and power till it reaches that joyous expression of beauty which is found in the manuscripts of the late fourteenth and early fifteenth centuries, and then pass on into the cold and haughty pride of the Renaissance, and finally die out in weakness and sterility. Perhaps the most beautiful expression of pure ornamentation is to be found in the manuscript of Fra Benedetto, in the monastery of St. Mark's, at Florence. This man, the brother of that most glorious painter of angels, Fra Angelico, seems to have set about his illuminating much as his brother set about his painting, and took delight in filling the pages of his manuscripts with initial-letters which are fountains of exquisite ornament which seem to send delicate little rills of beauty all over the pages, to wander about in the most curious manner, to be connected with minor letters round about them, till they become, without any seeming intention, centres of charming ornament, with a constellation of lesser beauties of their own order. To understand such work one must find the key in the surroundings this monk had at the monastery of Fiesole, where he spent part of his life in quiet peace. When one thinks of the old place, with its gardens of flowers, and olive-yard and vineyard, its pomegranates and fruits, its frescoed chapel and quiet shade of its cloisters, one cannot wonder that such work was the outcome of such inspiration.

One of the very remarkable features of the work of this age is the great fertility of design in the fillings of the letters and the letters themselves. After long search in those of St. Mark's, out of many hundreds of initial-letters, I failed to find two alike, and I have in my collection a fifteenth-century Flemish manuscript of very similar character, in which there are over two thousand letters and no two are exactly alike. But the most marked feature of fifteenth-century work is the splendid manner in which the ornament is applied to spaces. Every designer knows the difficulty of filling a given space with good ornament so that it may be evenly covered, well balanced, and graceful in expression. We have in this fifteenth-century work delightful record of the power these men possessed, and evidence that nothing ever baffled the illuminators of this age.

In the initial-letters, I have reproduced with this article some charming illustrations of the ease with which the irregular spaces in the letters have been made beautiful by an endless variety of decoration, so evenly and fittingly applied that I know nothing since the brush works of the Greeks that can approach it. It certainly may be studied to the greatest advantage in this age, when it is almost impossible to find a single building whose surface-decoration is satisfactory or entirely pleasing.

While writing this many memories of missal-hunting days crowd to my recollection. Ten years ago many beautiful specimens of this art were to be found in the little bric-à-brac shops of France and Belgium: now to find one is a rare occasion. Hundreds have been destroyed by European gold-beaters for the sake of their vellum pages; they have been sadly wasted by ignorant people, used by lawyers who have scribbled out their glories and made them into deeds. I have a fine fourteenth-century Heures D'Eglise, which has been overwritten in a sprawling hand with all sorts of nostrums and recipes for cures of colds and rheumatics, etc., and only last year, when in a little dirty shop in a little dirty town in Northern Italy, I saw on the floor among a pile of old newspapers peeping out a fine initial-letter, after which I dived and which on being disinterred proved to be a fragment of an Italian seventeenth-century antiphonal, which the dirty woman who presided in the dirty shop calmly informed me she had torn up. I rescued what remained and purchased it for a few lira, and some of its initials illustrate this paper.

John R. Gandy.

VILLAGE IMPROVEMENT. — II.

Most to be desired in landscape-gardening, as in everything else, are thoroughness of method and work. If it be merely the planting a single tree, let it be *well* done.

The position of a professional man who has been invited to offer suggestions, plans, or estimates for the improvement of a suburban or country estate is in many respects a difficult and trying one. In the first place his client has probably just undergone a more or less severe experience at the hands of his house-builders, leaving him in a peculiarly sensitive condition as to further expenditures of any kind. A man's house, when completed, almost invariably has cost him more than he originally intended it should. Not perhaps from any fault of the architect or contractor, but simply because the first plan decided on amounted to more than he meant it should, and he has (very wisely, perhaps) seen fit to make certain changes and additions thereto from time to time that in the final account have assumed proportions far in excess of his expectations. But the house is now practically an accomplished fact, and he finds that the surrounding grounds are left in rather unpleasing contrast to the neat architectural edifice that he proposes to occupy immediately. Very likely some grading may have already been done with the material taken from house and barn cellars, and the body of an avenue roughly prepared. These two features may even be considered as probably embracing the larger portion of what would naturally belong to the landscaping of the place, so that our services are required only in the way of a few finishing suggestions as to what trees had best be planted, of *large size*, to immediately screen a few obtrusive objects here and there, with perhaps the addition of some *perfectly hardy* roses and flowers that will not require much attention after first setting.

It requires the utmost courage and patience in the face of such expectations to explain the matter in what we consider a proper light.

The avenue, if wisely located, *may* be left as it is, even though it prove at times miry and liable to bad breaks and washouts, because it is something the material of which can be changed at almost any time without tearing up the whole place, although the expense of removal at a later day may be very considerable. But for a lawn, if one is wanted, and for the general planting, it is absolutely essential that there be a sufficient depth of good loam, say from thirteen to eighteen inches, dependent upon circumstances, and in addition to this a liberal supply of manure, say twelve to fifteen cords per acre. Very few men are ready to acquiesce in all these requirements, and as a result they are apt to be correspondingly dissatisfied with — us. Yet how can we conscientiously or consistently advise otherwise when experience shows us again and again how futile is every attempt to cheat nature into the belief that grass ought to grow on three inches' depth of soil as well as on a depth of thirteen inches? Or that mere loam, well-nigh exhausted of available plant-food, can be made to produce a strong, bright verdure similar in beauty to that grown on a piece of soil well enriched by fine old compost? Human nature may be imposed upon, but old Mother Nature — never.

"But," says a correspondent, "does not your theory and practice entirely prohibit a man of moderate means from attempting landscape-gardening?" Perhaps so. It certainly bids him measure well the length of his purse beforehand. The main difficulty after all is, that people attempt too much. Be moderate: do a little at a time! It belongs only to the really wealthy to seat themselves on their wishing-carpets and bid the desert blossom like the rose. Immense changes may be quickly and successfully accomplished by the expenditure of much money, but "*E nihilo nihil fit*" is even more true in nature than in law. Yet a fine house is not only shorn of all attraction, but becomes painfully wanting in rightful beauty, when its owner fails to accord to it a suitable surrounding. It is like many a half-finished picture, entirely unsatisfactory both to its originator and to the public.

The worst possible mistake that can be made, and one that is after all quite frequently and unconsciously adopted, is to set out *large* trees in *poor* soil. One would suppose from the anxiety of these planters to secure immediate effect that they would take great pains to provide for the nourishment of the fine specimen trees that they are at much expense to procure; yet it seems to be a very generally accepted belief that trees are able to take care of or establish themselves without special provision for their needs. This absurdity is refuted by the simple axiom that no cultivator of the soil expects a fine crop of vegetables without manure and good tillage, any more than a dairyman expects a rich and abundant yield of milk from his favorite cows should their diet be confined to bog-hay and water.

The man who is cruel enough to thus torture nature should be himself tethered out under the leafless branches of his unfortunate trees and fed on bread and water until experience teaches him that all things animate require food in proportion to their animal or vegetable activity. There are, however, a few sceptics left who point confidently to a bit of fifty-year-old native woodland near at hand clothed luxuriantly with stately trees and fringed with bright underbrush. How is this? What becomes here of all your fine talk about the necessity for manure? Are not those maples, oaks and beeches as perfect types of beauty as we need to convince you that trees do care for themselves? It is a weak shaft badly aimed, showing but too plainly that our whilom stout opponents are on the verge of capitulation. Let us see. How did this beautiful bit of nature become established; *i. e.*, how was it planted originally? Probably (at least for the sake of argument it is fair to assume this) it was a small portion of an ancient timber-clearing left to grow up again as it pleased. The native soil was still strong, not having been robbed by numerous crops, the earth absolutely full of roots and seeds struggling for life. Millions of these seeds and roots start into being and millions of them die in the fierce push for the supremacy. The stronger feed upon the weaker just as absolutely as the hawk preys upon the chicken, so that the strong, beautiful trees to-day before you represent in their massive trunks and feathery spray the vegetable sacrifice of countless myriads of their weaker brethren who gradually have been stunted, killed and assimilated in this endless struggle of the survival of the fittest. And we all stand ready to admit that nature has done her work far better than we can hope to imitate it.

To put the case briefly. If any man is willing to wait fifty years, giving nature a fair start at the outset and letting her alone, he can have his fine trees without paying out $5 to $12 per cord for manure.

Will you wait fifty years and let the trees feed each other, or will you anticipate and civilize nature by paying her board and lodging?

Most men desire to enjoy an *immediate* planting effect. They apparently expect to die next year, or year after next at farthest, but the trees generally die first.

It is the aim of the landscape-gardener to assist and improve wild nature. While it is certainly true that nature defies all our endeavor to faithfully reproduce her native wildness, yet it is equally clear that in the development of specimen trees by careful nurture, man is able to outdo nature nine times out of ten if he really tries. A straight-stemmed tree with broad base foliage, flourishing under the protection of an indulgent and sympathizing owner is at once an object of admiration, and compares well with its woodland cousins.

But there has been too much digression from our main idea at starting, which was to show how fallacious it is to expect fine effects and results without a very considerable original outlay of money, labor or patience: perhaps all of these. It is quite possible to suddenly become the possessor of a place whose natural or already acquired advantages are such that you need but to put forth a slight additional effort in the way of yearly maintenance to preserve a constant and perfect effect. And this is the rock upon which the average man splits. He assumes that certain fundamental essentials are existent, whereas they are not, and consequently his plan, as carried out, fails.

It is simply astounding to see how trees and shrubs put on strength and stature when liberally supplied at the root with abundant pabulum, and it is equally astonishing (to us) if a tree chance to do well otherwise. A close examination will generally show the cause, and thus explain the effect.

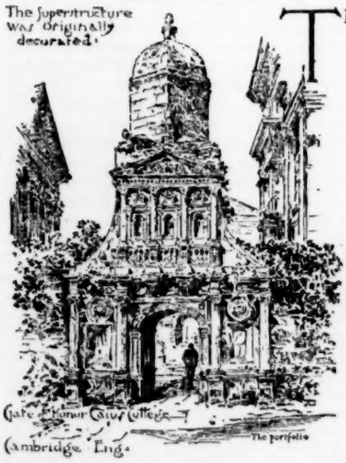
Trees should be planted in *open* ground, not in grass, in order that they may encounter no foes at the outset in making a first push for new life. Grass roots are very inimical at the start, although in later years the tree easily holds its own, at times to the complete exclusion of everything green beneath the drip and shadow of its branches.

A *small* place well kept is infinitely more pleasurable and profitable than a large one, for most people.

It is still held by some New England farmers of the old type that a man should own and largely cultivate at least one hundred acres of land, to farm it to best advantage. Perhaps this may be true occasionally, but it is nevertheless fast becoming a recognized fact that a smaller acreage, well manured and tilled, yields a better per cent on money and labor invested than does the larger area. Years ago here (as now in the far West), before the plant-food in soil was so severely exhausted, the greater area of course yielded a greater revenue; but now there is a very small margin for profit in plowing and planting a field of ten or twenty acres additional, unless it be well manured, and the average farmer of to-day cannot afford to bring up much of his worn-out land in this way. He must either let it lie idle, or, better still, grow it in timber. A single acre of ground bountifully cared for will generally produce as much or more to its owner than two acres upon which is applied the same quantity of manure. The labor is nearly doubled, and the quality of the crops necessarily inferior. If you dare to suggest the purchase of manure or fertilizer to make the second acre crop better, we shall reply: "Then you can afford to put a little of it on your front grass-plot or lawn." If you demur to this, we have only to say that you do not then, after all, *really want* fine grass and trees in your landscape, but prefer to spend your money in some other way. W.

LEGAL NOTES AND CASES.

Fixtures. — Gas-Fixtures. — Sheriff's Sale.



THE ownership of gas-fixtures in certain dwelling-houses as between the merchant selling the gas-fixtures and a judgment creditor whose judgment was entered on bonds given with advance-money mortgages, on which default in the interest was made, was considered by the Supreme Court of Pennsylvania, on April 3, 1882, in the case of *Penn Mutual Life Insurance Company* vs. *Thackara*. On May 31, 1875, one Bliem purchased certain land, and on the same day entered into an agreement with the Penn Mutual Life Insurance Company, by which the company was to advance to Bliem $16,000 to pay for the land, and $34,000 to pay for the erection of houses thereon; and to secure the loan Bliem executed to the company ten advance-money mortgages, with accompanying bonds. The contract was carried out, the money advanced, the houses erected and rented, Bliem having first placed therein the necessary gas-fixtures, purchased from Thackara, Buck & Co., the defendants in the case stated. In 1879, interest falling in arrears on three of the mortgages, the insurance company entered judgment on the accompanying bonds, and in September, 1879, sold the properties at sheriff's sale, bought them in, and took possession of them. The gas-fixtures were on the premises continuously from their first attachment, but were not mentioned in any of the papers, writs, or advertisements, unless included in the term "appurtenances." In 1880, the defendants, having obtained a judgment against Bliem, levied upon the gas-fixtures as his property. The parties agreed that if the court should be of the opinion that the sheriff's sale of the realty passed the title to the gas-fixtures, judgment should be entered for the plaintiff: otherwise for the defendants. The court gave judgment for the defendants, *Thayer*, P. J., delivering the opinion of the court as follows: "The learned and elaborate argument submitted to us by the plaintiff's counsel has failed to convince us that this case differs in principle from *Vaughen* vs. *Haldeman*, 9 Casey, 522 and *Jarechi* vs. *Philharmonic Society*, 29 P. F. S. 403. All the cases in this state decide that, unless there is some special argument to the contrary, gas-fixtures are mere personal chattels, as much so as oil-lamps, candlesticks, candelabra, or gas-stoves. *Vaughen* vs. *Haldeman, supra*, determines the very point upon which the present case turns, that such articles are not fixtures in the proper sense of the term, and do not pass by a sheriff's sale to the vendee of the realty. It can make no difference that in the present case the owner had rented the premises, and was not personally in possession. The possession of his tenant was the same as his possession, and renting the property to a tenant does not alone indicate that the owner intended to alter the character of the personalty any more than if he had agreed to allow the tenant the temporary use of any other chattels left in the house. These things were neither embraced in the plaintiff's mortgage nor their levy, and constituted no part of the consideration paid for the property when sold at the sheriff's sale. In *Jarechi* vs. *Philharmonic Society, supra*, an effort was made to induce the court to reconsider its determination in *Vaughen* vs. *Haldeman, supra*, but the court adhered to the decision, the present chief-justice reaffirming in his opinion the rule laid down in the former case, that unless there is a special agreement on the part of the owner to the contrary, the purchaser of the realty, whether at a private sale or at a sheriff's sale, acquires no title to the gas-fixtures. The result reached by the application of the rule in the present case is eminently equitable, for the plaintiffs have got the property which they relied upon as their security, and the defendants will get the proceeds of the property which they made, but which was never paid for. The plaintiff carried the case up.

PER CURIAM. We are unable to draw a distinction between the facts of this case and *Vaughen* vs. *Haldeman*, 9 Casey, 522 and *Jarechi* vs. *Philharmonic Society*, 29 P. F. S. 403, which settle that gas-fixtures are personal property and do not pass by the conveyance of a house unless by special agreement. *Judgment affirmed.* H. E.

Contract. — Subscriptions to Building Fund. — Consideration.

An action was brought in Iowa to recover the amount of a subscription of $500 to the building fund of the University of Des Moines. The subscription-paper is as follows: "For and in consideration of securing to the Baptist denomination of Iowa the property situate in Des Moines, and known as the University of Des Moines, we, the undersigned, hereby bind ourselves, individually, to pay the sums set opposite our names, when, in the aggregate, $10,000 is so secured, provided, the said amount is pledged by August 1, 1870. Grinnell, March 20, 1869." In this case, *University of Des Moines* vs. *Livingston*, the defendant had judgment and the plaintiff appealed to the Supreme Court of Iowa. Judge Day, in the opinion, in December, said: A written contract imports a consideration. It is, however, competent to show a failure of consideration, to defeat an action upon the contract, the burden of proof being upon the defendant. The question involved in this case is whether the proof shows without conflict that the subscription sued upon was without consideration. In *M. E. Church* vs. *Kendall*, 121 Mass. 528, which is comparatively a recent case, and which contains the latest utterance of the Supreme Court of Massachusetts upon the question of subscriptions, the following language is employed: "The performance of gratuitous promises depends wholly upon the good will which prompted them, and will not be enforced by the law. The general rule is that, in order to support an action, the promise must have been made upon a legal consideration moving from the promisee to the promisor. *Bank* vs. *Rice*, 107 Mass. 37. To constitute such consideration there must be either a benefit to the maker of the promise, or a loss, trouble, or inconvenience to, or a charge or obligation resting upon, the party to whom the promise is made." In this case, most of the Massachusetts cases cited by appellant's counsel are referred to, and it is declared that "in every case in which this court has sustained an action upon a promise of this description the promisee's acceptance of the defendant's promise was shown either by express vote or contract, assuming a liability or obligation, legal or equitable, or else by some unequivocal act, such as advancing or expending money, or erecting a building, in accordance with the terms of the contract, and upon the faith of the defendant's

promise." In this case, the plaintiff did not enter into any undertaking on account of the subscription in suit. The college-building had been purchased, and the debt in question had been contracted before that time. The plaintiff did not even obligate itself to raise the sum of $10,000. The case is, in principle, very like *Stewart* vs. *Trustees*, 2 Den. 403; *S. C.* 1 N. Y. 581, in which it was held there could be no recovery. See *Limerick Academy* vs. *Davis*, 11 Mass. 113. In most of the authorities cited by appellant it will be found that the promisee entered into some undertaking, assumed some liability, or made some promise upon the faith of the subscription sought to be enforced. Nothing of the kind was done in this case. In our opinion the court did not err in directing a verdict for the defendant upon the proof admitted. H. E.

THE ILLUSTRATIONS.

COMPETITIVE DESIGN FOR THE NATIONAL MONUMENT TO VICTOR EMMANUEL, AT ROME, ITALY. MR. HENRY L. GAY, ARCHITECT, CHICAGO, ILL.

IT is a popular feeling in Italy to honor the memory of the late King Victor Emmanuel by the erection of a national monument. To give full expression to such a universal desire, the employment of the various branches of art in a harmonious concourse seems most appropriate. Architecture, sculpture, painting, the decorative arts, and landscape-gardening should each contribute to form a nation's monument. As the conception of such a structure by the people is for the expression of sentiment, so every feature should tend to that result, and in the creation of its outline it should assume a distinctive character. The Star of Savoy, inherited by Victor Emmanuel, and made by him the Star of Italy, seems a most fitting emblem out of which to evoke the nation's memorial of him. The language of such a monument is to express the living patriotism of the people, and to perpetuate the memory of the central spirit of their unity, and to speak of the glorious attainment of his and their struggles, and all should be emblematic of a living spirit. The choice of the style of architecture for such an edifice should be that which can best express and symbolize the spirit which orders its creation.

No servile imitation of a form or style that fails to fully express the liberty, patriotism, and sacred love of country and cause, of which this spirit is born, can adequately answer for such a commemorative structure. The conventional classic memorials of Europe, particularly of Italy, and more particularly of Rome, erected for individual glory, or commemorative of some single achievement, created by a power which would be in no accord with the spirit of to-day, should not be copied, nor ideas borrowed from them with which to clothe a structure for this purpose. The style archi-acute, or better known as the pointed style of architecture, has a language of great resource and multiplicity of form, and adaptiveness to all art. "It not only dares but delights upon the infringement of every servile principle," and it has "a magnificent science of construction and sacredness of expression," and independence of form and action; and the style for this purpose is as appropriate within the walls of classic Rome to-day as the present language of Italy, which proclaims there her grand triumph of national unity and liberty.

The memorial here shown is designed to repose upon a base formed of three sections of circular steps and platforms. The three partitions of steps are significant of three important stages of Italian history, symbolizing the preceding centuries and the gradual advancement of civilization and art up to the present century, which witnesses the complete unification of Italy and the erection of its commemorative monument. Tradition informs us, indistinctly it is true, of the occupancy of Italy by primitive tribe and nations about twenty-six centuries B. C. The cycles of the centuries have rolled on, until to-day we stand within the nineteenth century of the Christian era. The first eighteen steps are indicative of the first eighteen centuries, whose disconnected history and irregular record is symbolized by the interrupted line of steps, irregularly broken and disconnected, the intervals between being filled with rough rock-work in imitation of nature, and by the introduction of plants, vegetation and cascades. A continuous and connected history of events begins with the eighth century before the Christian era, when Rome was founded by Romulus, and therefore a series of eight circular steps will indicate the eight centuries previous to the date of Christianity, while upon the platform of these will arise nineteen other uninterrupted circular steps, which are the nineteen centuries of the Christian era. All of the steps are to be of granite, the first eighteen rough-cut, and above them a gradual approach to perfected finish in approaching the summit.

The monument will be described as to its exterior and as to its interior. Exteriorly the stellate form is preserved to the finishing of the first lower section. Above this rises the principal portion of the structure, having the form of a regular decagon, gradually lessening in its circumference and finally finishing in a spire. In the walls on either side of the five re-entrant angles of the lower section it was designed to insert large bronze bas-reliefs, indicative of important events in the struggle for the unification of Italy. Bronze groups of the Army and Navy are indicated at the five outer points of the structure, in the attitude of guarding and protecting the memorial, while on both sides of the portals bronze statues, representing the cuirassiers of the king, keep guard over the entrance to their lord. Over each of these five doorways of the memorial is a large window containing, in stained glass, the arms of the cities of Italy, with their heraldic emblazonings, while intermediate between these windows are other smaller rose-windows, containing arms and national emblems. Above, within the lantern of the spire, rests a fac-simile of the crown of Italy, so placed signifying the coronation of United Italy as the original crowns its kings. The spire finishes with the lower section of a Gothic finial, upon which rests in horizontal position the Cross of Savoy, while above the cross rises the winged figure of Peace, holding aloft the polar star of Italy, while at the same time extending a hand bearing the olive-branch, in benediction of peace to all the land below.

As the bronze groups are emblematic of the army and navy, which watch over the safety of the nation, which within is in the meantime in the enjoyment of the blessings of peace, so the interior of the memorial was intended more fully to express this idea, by presenting only pacific symbols, and to exalt, by means of the united arts, the inestimable gifts of peace and harmony. The interior consists of a central section of decagonal form, continuously surrounded by an aisle of the same form. A series of columns, arising in double orders, separate these spaces, and sustain groined arched vaults, where in the central section is a circular opening, revealing an upper vault, while concealing its supports from view. The surface of the superior vault is smooth, and was intended for an allegorical painting, which when seen from the floor below would appear as in air, the illusion being made nearly perfect by abundant clear light, thrown in upon five different sides of the concealed space. The lower vaults forming the ceiling proper of the interior are of groined and moulded arches, with elaborate traceries, in panellings, of geometric forms cut in marbles and springing from the central columns and side walls of the edifice. The columns mentioned are united to each other, as well as to engaged columns at side walls, above the first order, by arches ornamented and elaborated by the arms of the "Hundred Cities of Italy" and characteristic emblems. The spaces between the entrances contain large niches, five in number, within which, upon bronze tablets, five of the most important addresses of the great king should be placed, as the most appropriate inscriptions to the purpose of the memorial. Over these niches and under the rose-windows it was designed to insert five glass mosaic paintings in allegory, of Art, Science, Industry, Philosophy, Poetry and Music. The pavement of the interior was to be in Roman mosaic, either of a geometrical design or of allegorical subjects. In the centre of the central section, which is the centre and central point of the whole structure, was to be the grand statue of King Victor Emmanuel. Upon reference to the plan it will be seen that the statue is the central point and conspicuously in view from each of the five entrances. The pedestal of the statue of the king rests upon two separate steps of black marble, and its color shades from the dark of the steps gradually lighter, as each section of the pedestal rises above the other, until the crowning mouldings and the statue above are of pure white. The object of the gradation of color is to put into greater relief the statue and upper part of the pedestal, and it at the same time symbolizes the first dark years of struggle and the gradual rise to the bright and peaceful ones of his reign as king of united Italy.

It is proper to pay tribute to the memory of the "Initiator of Italian liberty" in a national memorial to his son, who always held his memory in reverence, and upon the face of this pedestal, in bas-relievo, is a medallion portrait, in pure white marble, bearing the profile of King Charles Albert, encircled within a crown of flowers of Florentine mosaic. The name of Carlo Alberto, and the date of the stormy period of his life, 1848, are upon the dark base.

Upon one side of the pedestal are the words "Re Galantuomo," and on the opposite side "Padre della patria;" above the medallion, "S. M. Vittorio Emanuele II. Primo Re d' Italia," and on the fourth side of the pedestal are sculptured the arms of United Italy. The design of the statue represents the king seated upon his throne, arrayed in the royal mantle. The crown and sceptre are at his right upon a small pedestal upon which rests his right arm, the hand extended holding the Fundamental Law of Italy. The idea of repose and dignity befitting a king is intended to be conveyed in the sitting posture, and is emblematical of the final peaceful years of his existence. It is preferred to represent him as the constitutional sovereign, rather than a military hero, for the nobility of the first stands high above the last: it is the attainment of his many struggles, and the end for which he fought, and it is the character in which he is the most beloved by his people. "Padre della Patria" stands on a higher and grander elevation than that of mere military renown, and "Re Galantuomo" (the honest king) is crowned with the most precious of crowns, which is the love of his people, and so enshrined within their hearts. It was intended to enshrine his effigy

within a temple which should be symbolic of the patriotic and poetic sentiments of the nation.

GEOMETRICAL DESCRIPTION.

The fundamental principles which govern and direct architectural works are based upon geometrical rules. Architecture has been called the daughter of geometry, and the contractors of the most celebrated architectural works both of ancient times and of the middle ages (age of gold for this art), took good heed of angular proportions and of geometrical rules, for the happy completion of their works. The buildings of ancient Egypt, Greece and Rome, as well as the mediæval cathedral, clearly testify to this.

In the present project is embodied the same conception, both in the ground-plan and in the eurythmy of the elevation.

In fact, the angles and lines which determine the structure of the ground-plan are those which determine the entire elevation of the edifice.

This is made clear by the geometrical description which follows.

The principal idea embodied is that of the construction of a chapel or circular temple in whose centre is to be placed the statue of the Great King. From this it follows that its outline should be sufficiently expansive to prevent the statue from seeming suffocated, and to allow it to be easily and agreeably seen. Thus were fixed the arrangement and the dimensions of the plan, based upon a geometrical conception, such that both the internal and the external parts are related to certain fixed points and fixed distances in the interior, the central point of the edifice being the objective point to which all the parts of the work are related.

The description of the schematic plan will suffice to make clear this conception. Imagine a circle in which is inscribed a regular pentagon A B C D E, all of whose diagonals are drawn. We shall thus have within the pentagon five equal isosceles triangles; that is, A D B—B E C—C A D—D B E—E C A. The sides of these triangles form by their intersection the *star* upon which the work is based. The sides of these triangles form, by their intersection, a second pentagon, F G H K L; within this is inscribed a circle which will evidently be concentric with the circle already given. If now there be drawn from the separate vertices of the second pentagon straight lines as F f, perpendicularly to the opposite sides, these lines will determine upon the circumference of the inscribed circle five points of intersection, as the point f, and by drawing the tangents to these points and continuing them to the sides of the pentagon we shall have the decagon M N O P Q R S T V Z circumscribed about the circle. The vertices of this decagon fix the position of the centres of the ten interior columns of the edifices, and the radius of each of these is that of a circle tangent to the inscribed circle in question.

Returning now to the five isosceles triangles, as A D B, and prolonging their altitudes to the points where the tangents to the circumscribed circle at the contiguous vertices meet, there are determined the positions of five points, A′ B′ C′ D′ E′; taking these as centres, with a radius equal to the diameter of the interior circle prolonged to the vertex of the circumscribed pentagon there are described five arcs of circle, limited by these same tangents; the external contour of the lower order of the edifice is thus outlined. It is to be observed that, owing to the uninterrupted symmetry of the figure, these arcs of circle are tangent to the two contiguous sides pertaining respectively to the triangles having their apices at the adjacent points, as A and B. It is to be added that the straight lines, as a b, included between the two successive arcs are equal in length to the lines, as F f′, which form parts of the radii of the arcs of circle which determine the contour of the plan. It is unnecessary to speak further of the value of the different angles which all these lines form among themselves; the simple inspection of the figure is sufficient to show this.

By prolonging the sides of the integral decagon M N O P Q R S T V Z until they reciprocally meet, a new decagon m n o p q r s t v z may be formed, whose vertices, taken two by two, as n - o, determine the position of the centres of the walls of the five entrances, these walls being parallel to the straight lines, as E O, which join the vertices of the pentagon A′ B′ C′ D′ E′ to the centre and which fix the position of the axis of the aperture.

If a circle be described with a radius equal to half that of the exterior circle, its circumference will determine the external contour of the edifice.

Having thus hinted at the geometrical conception which directed the composition of the plan, we turn to that which guided the eurythmy of the elevation.

This is even more simple. Divide into three equal parts the altitude of the work, taken from the upper line of the plinth (this line being exactly the same as that of the circumference of the circle determining the interior of the edifice given in the plan) to the extremity of the spire; draw the horizontal line passing above the first division to the points A and B, centres of the two lateral spires; if from these points perpendiculars be let fall to the level of the plinth, they will evidently meet it at two points C D upon diametrically opposite sides of the circumference which limits it: there will thus be determined a rectangle, A B D C; draw A E and B E to the point E, which is the middle point of the diameter C D and the central point of the edifice; regard the two right-angled triangles, A C E and B C D as halves of two isosceles triangles and upon completing these triangles there will result the figures F A B G, composed of the two isosceles triangles F A E and G B E, having their bases in the line F G and the inverted isosceles triangle A E B, having for its base A B equal in length to the diameter of the internal contour of the edifice. Divide in four equal parts the altitudes of these triangles and through the points of division draw the parallels as far as their sides, and there will be delineated the eurythmic movement, both internal and external, of the lower order.

Taking now A B as the base and the second point of division of the total altitude as the apex we have a second isosceles triangle A 2 B; divide the altitude of this triangle also into four equal parts, and draw through the points of division parallels as far as the sides; there will be shown the eurythmic movement of the middle order, the diameter of whose base is the base of this triangle.

Last of all, imagine a third triangle M 3 N, whose base, equal in length to that of the others, is in the horizontal line drawn through the point 2, and whose apex is at the point 3, summit of the edifice, and we have the eurythmic movement of the upper order or spire, the base of this spire being in the base of the triangle.

Two points H and K, are now to be taken upon the prolongation of the diameter C D at the level of the plinth and in such positions that their distances from the points F and G respectively are equal to the radius C E; these points will be found to be upon the prolongations of the sides 3 M and 3 N respectively of the upper triangle, and upon prolonging these sides to the points in question, we have a large isosceles triangle H 3 K, embracing the entire edifice.

This large isosceles triangle is made equiangular with the triangles, as A D B, which form the fundamental figure of the base. Prolonging the horizontal through the point 1 until it meets the sides of this triangle at the points O and P, and drawing the lines O C, P D, M 1 and N 1, we have within the large triangle a network of nine triangles equal to each other and similar to the large triangle, equiangular moreover with the triangles of the base. This network gives us the eurythmic movement of the entire elevation of the edifice.

It is thus made clear how in the entire work there is strictly carried out a single geometrical conception, based upon two equiangular isosceles triangles, the first of these being one of the equal triangles, as A D B of the plan, the other one of the equal triangles, as F A E, of the network which determines the eurythmy of the elevation.

The triangles of the plan determine the pentagonal star A B C D E; the tangents of the circle circumscribed about this star meet at five points, A′ B′ C′ D′ and E′, forming a new pentagon; the ten consecutive points A A′, B B′, C C′, D D′, E and E′ together with the lines joining them with the centre determine the skeleton of the plan. The star is repeated in the various pentagons which the different internal lines make among themselves, whence it may be concluded that the entire work embodies the geometrical conception of a pentagon which together with its diagonals forms the star which inspires and directs it all.

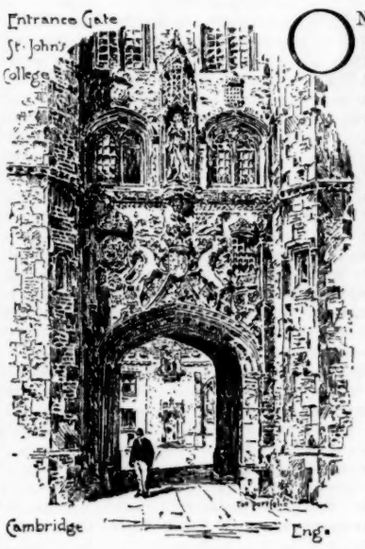
STAINED GLASS WINDOW FOR HARVARD ALUMNI HALL, CAMBRIDGE, MASS. MR. F. CROWNINSHIELD, ARTIST, BOSTON, MASS.

This illustration represents one-half of the memorial window which the class of 1854 is to place in the Dining-Hall. We hope to be able to publish shortly as successful a reproduction of the design for the other half.

DESIGN FOR THE VICTOR EMMANUEL MEMORIAL, ROME, ITALY. MR. WM. EMERSON, ARCHITECT, AND MR. R. ELLIOTT COOPER, ENGINEER.

[From the *Architect*.]

SMOKE ABATEMENT.



ON Saturday last the scientific members of the Priestley Club, Leeds, were engaged in discussing the question of the abatement of smoke in towns. Professor Thorpe was chairman.

Professor Rucker, in opening the discussion, said that those who had paid attention to the earlier history of the introduction of coal in this country must have been struck with the strong language as to the disagreeable nature of coal smoke, which was in all probability partly due to the fact that the people of those days had not become accustomed to the extremely disagreeable atmosphere we now breathe. The fogs that overhung our towns, especially in November, were, it is evident, closely connected with the smoke that was produced, and one curious phenomenon more especially relating to large towns might receive its explanation from the presence of smoke. As a general rule, fog could only exist when the atmosphere was saturated with aqueous vapor, but in London and in other large towns the phenomenon known as dry fog was observed when the atmosphere was not saturated. The question was how it arose that the moisture was not immediately evaporated. Dr. Frankland pointed out the cause of the existence of this dry fog. It was well known that the surface of water could be easily contaminated, and Dr. Frankland tried some experiments in order to ascertain how far a slight fouling of the surface of the water would check evaporation. He began by covering the surface of water placed in pans with thin films of coal-tar, and then compared the amount of evaporation with that which took place under the same circumstances in the case of water not so treated. Having next blown some coal smoke on the pan of water, he placed it side by side with a similar pan of pure water in a bell jar in which there was some strong sulphuric acid. He found that the blowing of even a very small amount of coal smoke on the pan was sufficient to reduce the evaporation. In one case the experiments lasted forty-eight hours, and he found that coal smoke reduced the evaporation 86 per cent, and in another case of twenty-two hours 60 per cent. The remainder of the experiments showed reductions of 92, 88, and 67 per cent: so that here they found that the coal smoke so affected the surface of the water as to reduce the amount of evaporation by quantities varying from 67 to 92 per cent. The result therefore was that the checking of evaporation by the presence of a very small quantity of foreign matter on the surface of water would be sufficient to account for the phenomenon of a dry fog; and we might consequently directly connect that phenomenon with the impurities of the atmosphere.

The next point would be the discussion of the causes of the evil. Here they might say there were two main questions to be considered separately, although on many points they touched one another

closely — namely, the production of smoke in manufacturing operations, and the production of smoke in inhabited houses. A great deal had been said regarding our English love for an open coal fire. Although this mode of warming our houses might be more expensive than others, there was a good scientific reason for the faith that is in us in this respect, and, as a matter of fact, it could be explained why a coal fire was pleasanter than a stove. The stove warmed the air directly, whereas the luminous heat given by the fire passed through the air without warming it to an appreciable extent, fell on the walls of the room, and warmed them. So that, surrounded by warm walls, the occupants of the room lost very little heat, and yet they had breathing air which was comfortable and cool. In the other case the air, being heated first, became unpleasantly hot. On this account, therefore, we might put aside to a great extent many of the questions arising as to the relative expense of a coal fire, for the comfort of it was worth the extra cost. It was hardly necessary to remind them that smoke was produced by imperfect combustion. The two points to which attention must be paid, if perfect combustion was desired, were that, in the first place, there should be a sufficient supply of air, and in the second place that the temperature of the mixed air and inflammable gases should be sufficiently high. Experiments had shown that hydrogen and carbonic oxide would not explode at temperatures below five or six hundred degrees centigrade. Therefore a tolerably high temperature must be maintained in order to have perfect combustion.

There had been a vast number of suggestions for meeting these two requisites for perfect combustion. He would mention the main features of some of these, and no doubt some of the gentlemen present would say how far any of them had within their experience been successful. One plan for destroying the smoke had been to fire from the bottom instead of placing the raw mass of coal on the top of the hot fuel. In the latter case the inflammable gases were cooled, and passed off only half burned, and thus gave off smoke. The person who first invented the plan of introducing the fuel at the bottom of the fire was Watt, who in 1785 applied it to boiler furnaces. In 1815 Cutler introduced the same principle in connection with domestic fires, and his plan was to place the fire on the top of a coal-box, which, as the fuel was gradually consumed, was raised by means of chains and pulleys. But there were obvious difficulties. One was that all the coal had to be placed into the fire at once, and another was that considerable mechanical labor was necessary to raise the supply of coal to the fire. Other plans were introduced, among others Dr. Arnott's stove. He also employed a fuel-box, his plan being to raise the bottom of the fire by means of a poker, which was practically used as a lever. In the South Kensington Exhibition there were a number of similar devices. One of these was to force the fuel in at the bottom by means of screws, and another notion was to introduce fuel through a hole in the floor of the boiler furnace. Another form of apparatus was a close copy of Dr. Arnott's stove, with the exception that a spade or shovel was pushed into the fire, and, being joined to a rod which served as a lever, raised the fire so that when the shovel was withdrawn the burning cinders fell on the top of the fresh fuel. That seemed a tolerably practical plan. Another method for getting rid of the smoke was to fire with great regularity. The first person to do anything considerable in this way was an inventor named Losh, who in 1815 introduced double furnaces, which he fired alternately. Sir William Fairbairn improved on this plan, and an infinite number of mechanical stokers had been invented. Watt appeared to be one of the earliest inventors of these, in 1785. Such plans as revolving bars, which gradually pushed the fuel forward into the hotter parts of the furnace; horizontal bars, which rose and fell and turned, and endless chains had been employed. Many of these appliances had, he believed, been given up on account of the comparative complications they involved.

One of the questions they would probably do something towards settling that night was, whether, after all, the human stoker was not more in fault than the appliances at his command. Besides the methods he had mentioned there were others closely allied to them, which might be summed up in the general description, that in them the supply of air was modified, being supplied at some other than the ordinary point of admission, or broken up into smaller streams so as to mingle better with the fuel, or supplied in irregular quantities, according to the state of combustion required to be produced. Another plan was the use of gas instead of coal. Here, again, there were innumerable forms of apparatus, which he would not attempt to describe separately. It might be sufficient to know that this method was coming into use not only in private houses, but also in manufacturing operations. Gas furnaces were being employed where coal was formerly used. Dr. Siemens had given considerable attention to this subject, and the plan he had suggested, and which would no doubt to a certain extent be carried out in future, was to separate the gas produced in the retorts into two parts, that first given off, being of a high illuminating power, to be used for lighting purposes, and that subsequently given off, being of a high calorific power, to be used for heating purposes. It seemed to be the general opinion that gas-engines would do very much to supplant the steam-engine. At a recent meeting of the Institution of Civil Engineers he heard Sir William Armstrong and other authorities express this opinion strongly. If that was the case, the necessity of using some gas specially prepared for heating purposes would be more strongly impressed on the manufacturing world, and we should thus, perhaps, in future have gas of two kinds — illuminating and heating. One form of the latter of these kinds was indeed being already used — the Dowson gas — and some calculations of Professor Ayrton showed a decrease in cost of 40 per cent for the same amount of work done. One other method of meeting the difficulty was the use of anthracite instead of coal. Another might possibly be found in the use of electricity for transporting power. If the water-power of the country could be used to any large extent, we could then reduce the smoke nuisance to a certain extent; but that might be dismissed as being scarcely immediately practicable. It would be desirable to hear something with regard to the state of the law, namely, as to how far it was possible by using our present laws to reduce the evil. Had we, as a matter of fact, power sufficient to do a great deal to reduce the smoke nuisance, and make the apparatus now in use very much less obnoxious?

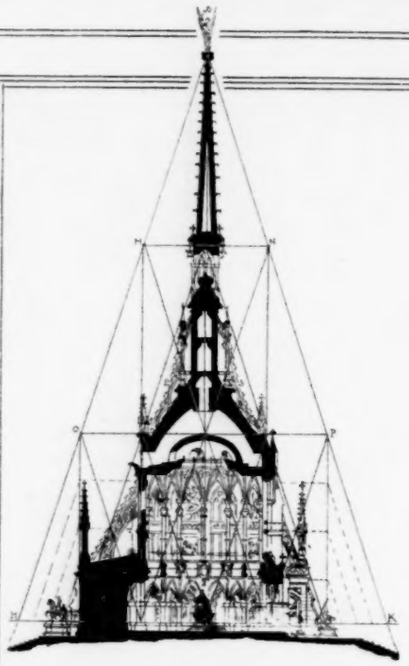
After some discussion, in which several professors of the Yorkshire College of Science and officials of the Leeds Corporation took part, two resolutions were adopted, viz.: "That there are inventions by which smoke may be effectually consumed or effectually prevented;" "That, in the opinion of this meeting, the smoke arising from steam-engine fires and furnaces can be consumed, and that, too, in many cases, without injury to the boilers, and with a saving of fuel." It is remarkable that these resolutions were also adopted at a public meeting held in Leeds forty years ago. — *The Architect.*

A NUISANCE AND A DANGER.

[From the *British Architect.*]

THE telegraph engineer, the spider of modern civilization, is ceaselessly weaving his metallic web above our busiest thoroughfares. Day by day he is adding fresh wires to those which already intersect each other at all imaginable angles, until it promises to be difficult for a Londoner to catch a glimpse of sky except through the meshes of wire. If, as has been remarked, the telegraph-wire represents the nerve of civilization, the time has fully come when it is necessary to insist that the analogy shall be carried a step further, and that civilization shall make her nervous system as invisible as the nervous system of man. In other words, the overhead telegraph-wire is doomed, and the sooner arrangements are made for carrying it underground the better. This, of course, must be taken with some limitations. In country districts and in back streets the necessity for underground wires is not so urgent. But in London, and in all great towns where wires cross crowded streets, the substitution of underground for overhead wires ought only to be a question of time, and of a very short time. In this respect New York has set an example which London will do well to follow. A committee of the State Senate has unanimously reported in favor of a bill making overhead telegraph-wires illegal, and providing for the removal of all posts and overhead wires from the streets of New York within the next two years and six months. The committee declare that the evidence tendered by the most competent authorities in the United States places beyond all controversy the entire feasibility of using subterranean wires for all electrical purposes, and reduces the whole question to one of expense. They therefore recommend that if, after the expiration of two years and six months, any telegraph-poles or overhead wires should still remain in the streets of New York, any individual shall be allowed to cut them down for his own profit or amusement, and that, so far from being regarded as an offender against the law, he shall, on the contrary, be held to have done a valuable public service by the removal of a dangerous and intolerable nuisance.

London has not suffered so much as New York from the telegraph engineer. We have none of those monstrous masts in our main thoroughfares which obstruct locomotion in American streets, and mar the beauty of the finest avenues in American cities; neither do we enjoy the doubtful privileges of unlimited competition in the despatch of telegrams. With us also the telephonic system is but in its infancy. There are, it is said, 26,000 messages spoken along the wires daily in London; but that is mere child's play compared with the development of the telephonic exchange across the Atlantic. In



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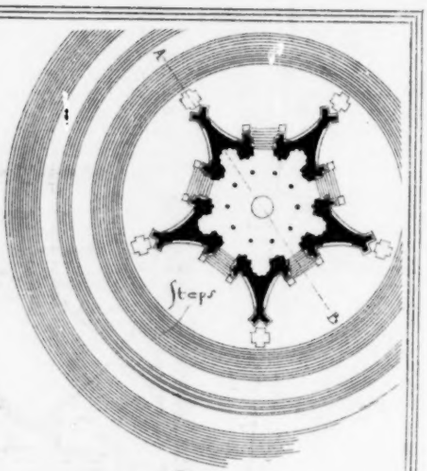

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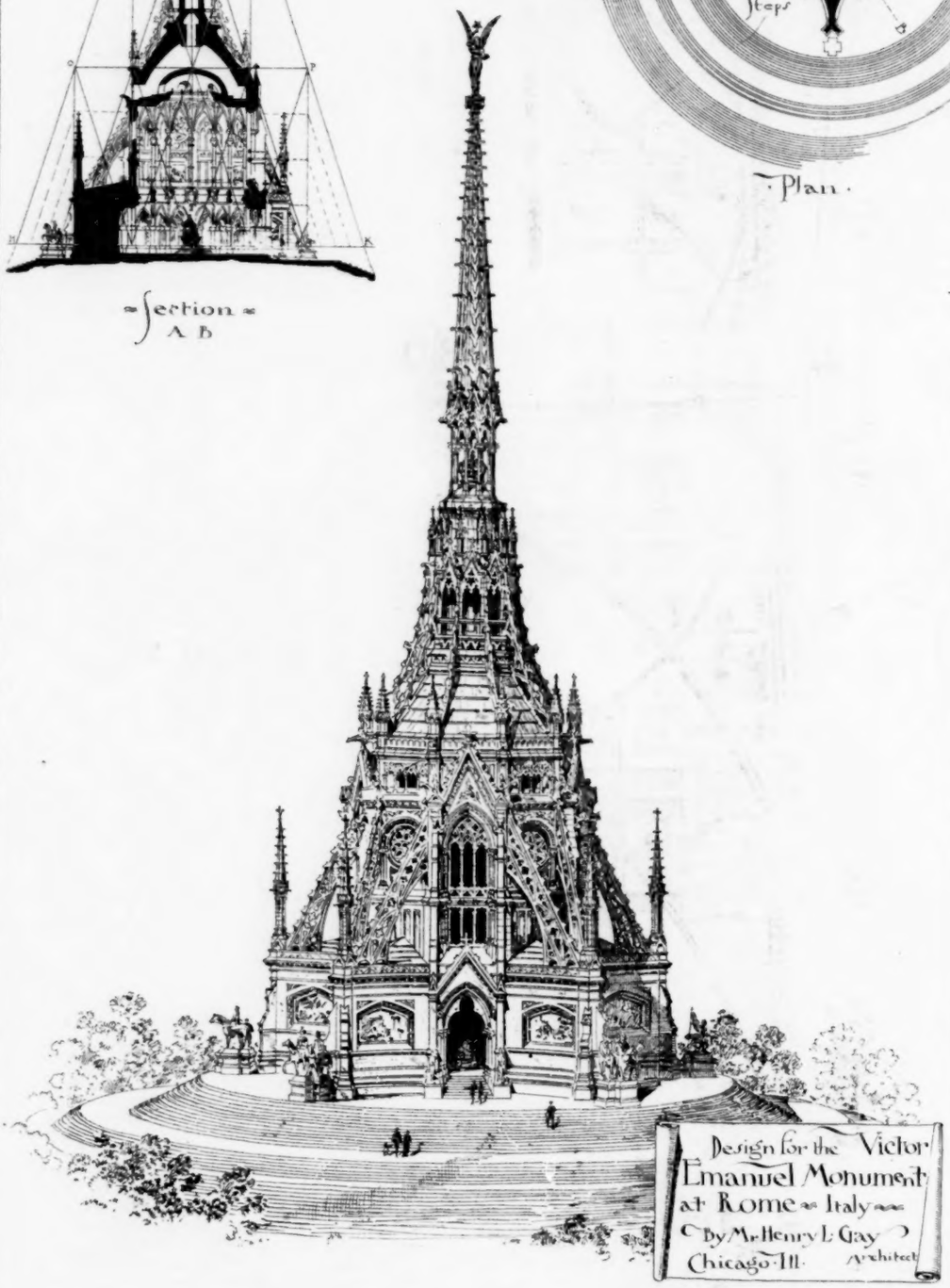
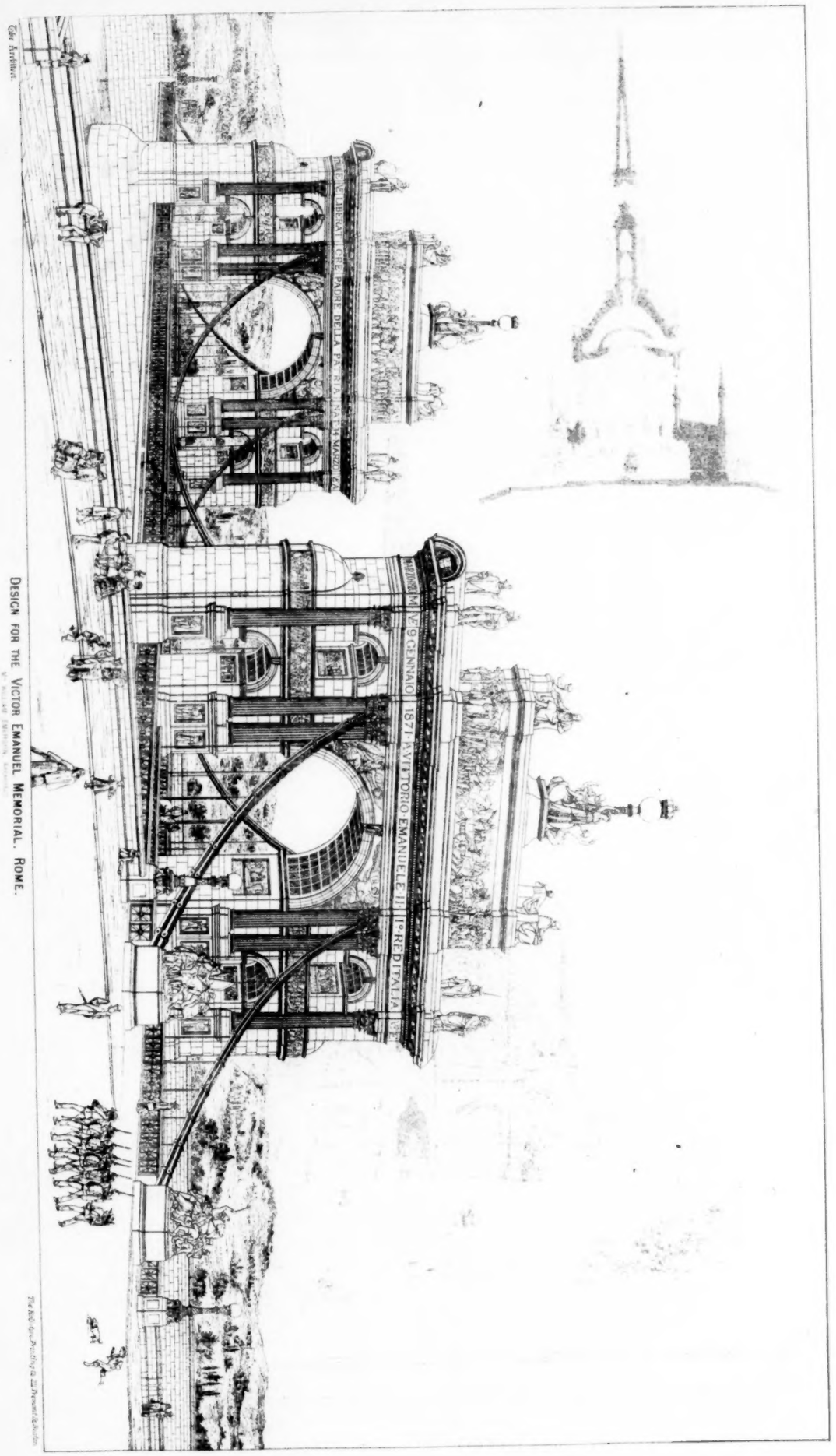


Design for the Victor Emanuel Monument at Rome Italy
By Mr Henry L Gay
Chicago Ill. Architect

The Heliotype Printing Co. Boston.



DESIGN FOR THE VICTOR EMANUEL MEMORIAL, ROME.


ΣΟΦΟΚΛΗΣ

STAINED GLASS WINDOW FOR HARVARD ALUMNI HALL.
Designed by F. Crowninshield.

New York alone there are thirteen exchanges with 6,427 subscribers, to say nothing of 1,300 private telephone lines. In Washington, that city of magnificent distances, not including 100 miles of private and municipal lines, there are 400 miles of overhead telephone lines, carrying 3,360 miles of wire. Another reason which makes the American system more intolerable than that from which we suffer is that their winters are more severe, and the snow-storms which once in two or three years play havoc with the English wires occur every winter with unvarying regularity across the Atlantic. The wires being supported on poles are nearer the ground, and therefore fall with less weight than the lofty lines which are elevated from the roof high above the housetops of London; but, on the other hand, their proximity to the ground renders them an unmitigated nuisance in cases of fires, prevents the rapid transit of fire-escapes, and renders it almost impossible to raise the long rescuing ladders to the upper stories of lofty buildings. But, although we suffer less from the telegraph engineer than the Americans, our position is sufficiently inconvenient to justify a demand that underground wires shall be made the rule in London, as they are already in Berlin and in Paris, and as they are about to be in New York. The post-office theory is that where a large number of wires have to be carried along a street or road it is advisable to take them underground, and this to a large extent has been done. If we had only to deal with the telegraph-wires there would be less reason for apprehension, although their vast multiplication since the first overhead wire in London was planted on the house of Lord Otho Fitzgerald has been sufficiently great to occasion some degree of alarm. But we are threatened with a rapid multiplication of telephone lines, to which, indeed, there is almost no limit. Overhead wires for electric-lighting purposes are almost universally condemned, but they are used and will be used still most extensively, if the Legislature does not interfere. As yet we are spared the electric tram; but in Berlin, where Messrs. Siemens tried to transmit the motive force through the rails, the experiment had been abandoned, and a couple of cables substituted, which are suspended sixteen feet above the level of the ground. A similar abomination may find its way to London, and it is well to be forearmed against the audacity of ingenious inventors. What with wires for telegraphs, telephones, electric-lighting, the transmission of motive force, and the synchronizing of clocks, we seem to be on the eve of a great development of the network of wires which is spreading overhead. If anything is to be done, it should be done at once, and local authorities will do well to take energetic measures to guard against the extension of a system, already objectionable, which threatens to become a serious source of danger.

In Paris the excellent system of drains enables the telegraph engineer to lay his wires in lead pipes fastened to the top of the arch. In Germany the exigencies of war and of climate led to the completion of the underground system of telegraph-wires two years ago; but in Berlin, although the telegraph-wires are subterranean, the telephone lines are carried overhead. In Vienna both telegraph and telephone lines are carried on brackets along the front of the houses. The chief nuisance in London arises from the telephone lines, which are increasing daily. It is cheaper to swing a wire in mid-air than to carry it underground, for three reasons. First, the aerial line need not be insulated; secondly, the cost of tubing and excavation is avoided; and thirdly, the engineer can take short cuts overhead instead of being compelled to follow all the awkward angles of the streets. In addition to the difficulty of cost, there is the further obstacle occasioned by the reluctance of local authorities to sanction the breaking up of streets and the consequent interruption of traffic. Nevertheless these objections are by no means insuperable. The construction of a subway — say under the curbstone of the footway along all the principal thoroughfares — would not involve either an enormous expense or any serious interruption to traffic. According to the evidence given before the New York committee, three hundred telephone-wires can be put into a three-inch pipe, while an eight-inch pipe is sufficient to hold eight hundred wires for telegraphic and telephonic purposes. The difficulties as to the scarcity of gutta-percha, and the troubles arising from induction, retardation, and the other evils said to result from a subterranean system, in the opinion of competent experts such as Edison, are greatly exaggerated. The subterranean system is perfectly practicable, the change is most desirable, and it is to be hoped that local authorities will lose no time in insisting on its adoption before the telephone companies add many more tons to the weight of iron which they are suspending overhead. — *Pall Mall Gazette.*

THE SAN FRANCISCO GARFIELD MONUMENT.

THE designs for the Garfield monument have not yet been exhibited to the public, nor has any announcement been made of the time when the inspection shall be allowed. It is safe to assume that when this new gallery of the fine arts is seen it will excite feelings of wonder and amusement — of wonder, at so little being shown that is absolutely good; of amusement, over so many plans that are actually ludicrous in conception and draughtsmanship. Out of the twenty-odd models and drawings put in competition, six at the most are even worthy of serious consideration, the others being so many caricatures of art. A general, non-critical reference has already been made to the entire collection, but it is the intention in this article to furnish the *Chronicle's* readers with a guide, in the shape of a descriptive catalogue, to the more prominent curiosities of design. Architecture has been called poetry in stone; the fabrics that are here particularly referred to, would, if perpetuated in solid material, be the richest specimens of architectural comic verse extant.

On the panel of design No. 13 are shown two Assyrian women in attitudes of deep dejection, crushed down by the weight of the fifty feet of granite which rises above them. Perched on what looks like the lantern of a light-house is a bronze statue of Guiteau. The assassin stands with his feet far apart, his hands are clasped convulsively over his stomach, a demoniac leer contracts his features, his eyes are thrown together with a frightful squint, and, as a statuesque representation of a man in the agonies of indigestion, the delineation is a success. The same figure is reproduced in the other design by the same artist, No. 13a, and one is forced to the conclusion that some wag has played a trick upon this new Frankenstein, and palmed off on him a portrait of the murderer for the martyr. That the designer has worked in good faith, however, is to be gathered from the inscriptions which ornament the watch-tower, a particularly pathetic one running as follows:

SUFFERED
from the effect of the wound with
most singular and heroic resignation
from July 2d to September 19,
1881.

No 19 is the mammoth copy of a wedding-cake garnishment, and must be over 100 feet high, judging from the insignificance of the surrounding trees. The monument is of the Nightmare-Mauresco-Japanese order. The principal feature of the façade is a colossal bust of Judas Iscariot; a famished vulture keeps watch over the left doorway, on the watch for its mate, which, it is presumed, is perched somewhere on the other side. Two fighting mustangs ornament the upper section of the arrangement, and on its summit is a soldier taming a bronco, badly affected with the string-halt. The same genius contributes an extraordinary pile of much-mixed orders that might be either the design for a factory or a mosque. A heavy group of brick chimneys inclines the amazed spectator to the belief that the manufacturing idea was the first entertained by the designer, but a frieze of nude female figures and the minaret finish of the whole showns that the architect's mind had a Mussulmanic bent.

On the opposite wall, near to the northern window, is a rough pencil and water-color sketch, labelled No. 4. It represents "Pequillo" in the second act of *La Perichole* hiding her face under a wreath and trying hard, but unsuccessfully, to keep straight on a pedestal under a hollow square. A respectable-looking gentleman in a new suit of clothes is walking sadly away from the exhibition of weakness with averted face and dejected mien.

Guiteau figures again in No. 6, and in No. 7 there is to be seen the gradual petrification of Lot's wife in a Phrygian cap below, and the representation of W. E. Sheridan in the character of "Shylock" above. The pedestal supporting these future triumphs of the sculptor's art is enriched with three bas-reliefs reproduced in detail on another plan. Agriculture is represented by a desolate woman hanging onto a moon in a thunder-cloud; Mining is symbolized by two Aztec dwarfs struggling with prehistoric implements, and for Commerce is furnished the device of a lady with a parasol backing up against a strong wind, with the pyramids on a couple of sand dunes in the distance.

A memorial hall is the title of No. 12. Externally it looks like the top story of Charles Crocker's house; internally it reminds one of the art-gallery at Woodward's. Its treasures are a full-length statue and two busts, an unrecognizable trio, the entrance being guarded by a pair of poodles — *couchant.*

A few rude crayon strokes and charcoal smudges make up No. 10. A closer inspection reveals a gentleman in an ulster glowering among the clouds at three petticoated intruders upon his solitude, the first of whom is called History, for no visible reason; the second is chopping a bear in two with her shield, and is styled Eureka; while the third, entitled Art and Industry, must gain her name from the artful and industrious manner in which she is picking leaves from a neighboring willow.

A comfortable, well-fed little man on a pulpit, an Indian with hairy arms, Saturn sitting uncomfortably on a spade, another Indian fighting with a snake, a solitary individual enjoying a walk among the ruins of the Forum, and a boy driving a herd of pigs over a rail-fence, are the salient features in the plans forming No. 9. The originality displayed in the design extends to the inscription on the monument, which, it is said is to be put up "In Memorium." Believing in brevity, the designer would have it stated in graven letters that his work was

Erected by the
Gar Mon Association,

most people being of the opinion that the monument is to be erected by the people of "Cal" and the "Pac" coast. Other fit legends in No. 9's opinion are: "California, America and Columbia," the two last evidently carrying quite distinct ideas to this contributor to the beauties of the "Gar Mon Association." — *San Francisco Chronicle.*

THE CONGRESSIONAL LIBRARY BUILDING.

WASHINGTON, D. C.

TO THE EDITORS OF THE AMERICAN ARCHITECT: —

Sirs, — You call on me to give a history of the Congressional Library competition and designs. To those feeling an interest in the matter who have forgotten the facts, I recommend a perusal

H. R. Report, 164, made by a special commission to the 47th Congress, 1st Session, and accompanying bill H. R., 3,843.

This is the report of a select committee of both houses, appointed under Act of June 8, 1880, (Sen. Bill 1,117), entitled "An Act to provide better accommodations for the Library of Congress."

The following account is made up mainly of excerpts from said document, together with facts not therein stated which have come under my own observation.

There is little room to doubt that the so-called Congressional Library was originally intended for Congressional reference merely, and it originated in the very first act of the Sixth Federal Congress, passed just prior to the removal of the seat of Government to Washington, which provided (Sec. 5, Appr. April 24, 1800), "For the purchase of such books as may be necessary for the use of Congress at Washington," etc., "$5,000 is appropriated;" and after providing for the manner of selection, approval and cataloguing of said books, provided "That said books shall be placed in *one suitable apartment* in the Capitol in said city for the use of both houses of Congress and the members thereof," etc.

This was the first provision for the library, obviously made to provide necessary books for specific Parliamentary reference at the then Utopian Capitol.

Since that time Congress has appropriated every session progressively increasing amounts for the enlargement and preservation of the collection, and from time to time measures have been enacted as to the premises to be occupied by and for the same.

The Capitol, and with it the library, was burned by the British forces, August 24, 1814.

In 1815, Thomas Jefferson's library was bought as a nucleus on which to recommence the collection; and in 1818, an act provided that "suitable apartments be fitted up for its temporary reception in the North wing of the Capitol." In 1824 the library was placed in its new quarters where it continued to augment until 1851, when it contained 55,000 volumes, 35,000 of which were destroyed by fire in December of that year. In March, 1852, $72,500 were appropriated for repairs of the library, and $75,000 for purchase of books. The spacious accommodations resulting from this appropriation were more than adequate at the time and for some years subsequently; but the library augments so rapidly, especially in the Copyright Department, that this space is now long since greatly overcrowded, so much so, indeed, that of the whole number (probably 700,000) of books and pamphlets only 256,000 are shelved, and the remainder together with the numerous works of art, engravings, plates, maps, periodicals, etc., are, owing to want of room, merely stowed away in a hodge-podge fashion wherever an unoccupied nook can be found.

Such grave disadvantages and urgent necessities had been repeatedly and forcibly brought to the notice of Congress by the able librarian; and his report of December 2, 1872, called forth a bill, passed March, 1873, appropriating "For a plan for a new building for a Library of Congress, $5,000, and the selection of a plan together with the location and supervision of the building shall be in charge of a commission, to consist of the chairman of the joint Committee on the Library, the chairman of the Senate Committee on Public Buildings and Grounds, and the Librarian of Congress.

This commission, consisting of Senator (now Post-Master General) Timothy O. Howe, of Wisconsin, Senator Justin S. Morrill, of Vermont, and Ainsworth R. Spofford, Librarian of Congress, duly advertised a *public competition*, and issued a brief specification, setting forth an outline of the size, arrangement, capacity, and general fire-proof nature required in the proposed building, and stating the prizes offered, time, etc. The terms of the competition were accepted by twenty-eight architects, and firms of architects, and as many plans submitted from all parts of the United States and from abroad; and the high standing of many of the competitors assures us that the victor had no "walk-over," but that the plan victorious in such a competition must have been of great merit.

The competitors as officially recorded were: E. G. Lind, of Baltimore, Md.; Thos. U. Walter, Philadelphia, Pa.; Geo. H. Smith, Philadelphia, Pa.; Kastner & Beach, New York; F. H. Bicknell, Somerville, Mo.; Victor C. Klobassa and John B. Brady, Washington, D. C.; F. Gennrich and B. Armitage, Philadelphia, Pa.; Victor Forsberg and P. J. Lauritzen, Washington, D. C.; Schulze & Schoen, and A. Cluss, of New York and Washington; Frank Schuman and Paul C. Lautraup, Washington, D. C.; H. Luedecke, New York; Frederick Hymers, Washington, D. C.; R. P. Spiers and Henry Stevens, London, England; Starkweather & West, Washington, D. C.; E. Williams, Cincinnati, O.; J. P. Rinn and Chas. Crapsey, Boston, Mass.; Samuel Sloan, Philadelphia, Pa.; A. J. Bloor, New York; Chas. T. Davis & Co., Washington, D. C.; F. W. Chandler, Washington, D. C., now of Boston; Addison Hutton, Philadelphia, Pa.; Smithmeyer & Pelz, Washington, D. C.; J. W. McLaughlin, Cincinnati, O.; John Fraser, Washington, D. C.; Leon Blauer, Dayton, O.; A. E. Melander, Boston, Mass; John A. Mitchell, Boston, Mass.

The competition was advertised to close, I think, October, 1873, but was extended by request of ten or twelve competitors to November, 1873, and the prizes were awarded December 22, 1873, as follows:—

First Prize to John L. Smithmeyer and Paul J. Pelz, of Washington, D. C.; style, Italian Renaissance.

Second Prize to A. E. Melander, of Boston, Mass.; style, Corinthian Classic.

Third Prize to Schulze & Schoen, of New York, and A. Cluss, of Washington; style, Renaissance.

After this competition was decided, bills were introduced in Congress at intervals, during the years 1875, '6, '7 and '8; but the terrible financial distress and the political uncertainty of the times prevented definite action.

In the meantime, both before and after the competition, the subject of enlarging the present Capitol so as to accommodate not only the library, but also the overcrowded business of Congress was discussed in all its phases, and designs were submitted for that purpose by Thomas U. Walter, the Supervising Architect of the Treasury, Edward Clark, Architect of the Capitol, and others of less note, and by Messrs. Smithmeyer & Pelz for the enlargement of the Capitol to accommodate the *increased business of Congress and of the courts, merely.*

In the year 1875–6, Wm. A. Potter, then Supervising Architect of the Treasury Department, submitted a design for the library building, Gothic-Byzantine in style (all those previously considered having been Renaissance and Classic). The appearance of this design was very pleasing to those having the matter in charge; but it was deemed that Messrs. Smithmeyer & Pelz were entitled to the work they had won in sharp and honorable competition, and they, by request of the Commission, prepared a design, Gothic in style, which is substantially that urged at present.

In February, 1878, a bill was introduced by Senator Howe, and passed, which appointed a commission of three, consisting of the chairman of the Joint Committee on the Library, Senator D. W. Voorhees, of Indiana; the chairman of the Joint Committee on Public Buildings and Grounds, Representative Geo. W. Geddes, of Ohio, and the Librarian of Congress, Mr. A. R. Spofford. This commission was instructed to investigate the practicability of so enlarging the present Capitol as to accommodate the increased business of Congress and of the courts, and also the library.

This commission again earnestly investigated the subject, consulted numerous architects of reputation, and finally reported that "Notwithstanding the earnest desire of the Commission to keep the library in the Capitol, and in face of several plans submitted to them for accomplishing that object, the Commission concluded that no such plan was practicable, and that the library, if enlarged, could not be made a part of the Capitol without serious detriment to its architectural effect, and other grave disadvantages."

For a year or so the subjects slumbered; but strong necessities soon brought it up again, and in 1880, Senate Bill 1,117, aforesaid, was passed, and in accordance with its provisions a commission of experts was appointed, consisting of Edward Clark, Architect of the Capitol, Washington, D. C.; Alexander R. Esty, of Boston, Mass., Architect of the Post-Office, etc., and John L. Smithmeyer, of Washington, D. C.

This commission in obedience to the instructions of the committee considered the question of accommodating the library within the Capitol, and unanimously reported against any such step. Thereupon, in obedience to the committee, they each prepared a design for a separate building for library purposes, solely. In this competition as in the preceding ones, the design of Messrs. Smithmeyer & Pelz was victorious. All these plans are now on exhibition in the Committee Room at the Capitol.

In the year 1880–81, Messrs. Schulze & Cluss, survivors of the firm winning the third prize in the first competition, voluntarily prepared and submitted plans, perspectives, and a model for a library building.

In the same year a Mr. Seybert submitted a design for enlarging the Capitol so as to accommodate the library, etc., and in 1882, J. H. Merrill, of Washington, submitted a design, and ——— Woodward, C. E., of Texas, submitted a photograph of a façade for the same purpose. To recapitulate:

There were in the first open competition	28 plans.
In the second (close) competition	3 "
Voluntarily contributed	2 "
Ordered by the committee	2 "
Voluntarily contributed for enlarging the Capitol . .	6 "
A total of	41 "

Surely victory in such a crowded first open competition, — in two subsequent close competitions,—and in what, through the willingness of the committee to consider all plans submitted (due to their anxiety to do the very best) has been practically a running open competition of eight and a half years' duration, ought to insure the public the very best talent; and to the successful architects peaceful enjoyment of the spoils of this too-protracted war: and we may safely assume after these eight and a half years of searching investigation, that if the building be intrusted to these architects they will discharge their duties satisfactorily and nobly.

Respectfully yours, Chauncey N. Dutton.

AN ARCHITECTURAL EXCURSION.

To the Editors of the American Architect:—

Gentlemen,— For the past three years the 30th of May has been excursion-day for the Architectural Association of the Massachusetts Institute of Technology. Portsmouth, with her old colonial work; Newport, with her cottages and casino; North Easton, and her new public buildings, each in turn have offered lessons instructive and interesting to a goodly number of its members.

On one of the cheeriest spring mornings this year has brought us we took seats in our private car, and devoted the half-hour's run to North Easton to social converse and cigarettes. Fellows whose acquaintance began at the Institute, chums at the Beaux-Arts, or in foreign travel, joined with the newer members of the A. A. M. I. T. in making the day one of rare pleasure and good fellowship.

In a surprisingly short space of time the spire of North Easton church was in sight, and we were walking up the village street to see the new library. This building, erected by the public-spirited gentlemen whose industries have developed the place, stands back from and above the street in a location most favorable. The building is so well known from the drawing published in the *American Architect* a description is superfluous. However, the heliotype didn't tell the story of the color. The combination of Longmeadow stone, Easton granite, and Akron roof-tiling is rich and pleasing. As in the churches of Auvergne, so here first of all the building is noticeable as a composition in color; and a very important lesson it teaches. With a fine sky-line and a broad massing of color the dignity of the structure is assured. The detail follows to emphasize the construction and hold the attention already gained. The building is vigorous and cheerful, and proclaims itself a library. It suggests snug reading-rooms and all the food intellectual a hungry mind could wish. Passing under the richly-moulded arch we entered the hall, where to the right we found the reading-room with its monumental fireplace, wainscotted walls, and timber ceiling. On the left is the book-room, whose wagon-roof in wood is visible through a twisted grille above the delivery-desk. The arrangement is convenient and simple. Above the hall and reading-room are apartments for the librarian. We lingered about the building for some time, enjoying particularly the treatment of the principal façade.

Just above, on the rocky hill, is another building in the Romanesque style. This is the new Town-hall, a gift to the town from the generous founders of the Public Library. Here again is a work of originality, vigorous and bold, designed with the freedom characteristic of the architect whose handiwork it is. The approach by a grand staircase in stone is worthy of the imposing building it leads up to. The massive arcade, picturesque roof and stair-tower are of particular interest to the architectural student. Within, we found below a small hall and the usual offices and conveniences of a town building. Above, in the second story is the main hall, a large room, occupying nearly all the floor. It is quietly treated. Above, again, is the Masonic Hall, whose door from some inscrutable reason was not ajar. We climbed into the roof over a somewhat unsteady step-ladder, and then came down again, leaving to its own mysterious silence the hall of the mighty order.

The new gate-lodge next claimed our attention. It is built of pasture boulders projecting almost as boldly as do the stones in the Pitti palace. The roof is covered with red tiles. Above the ridge a quaint chimney-cap projects. A great arch spans the roadway; beyond this is the plant house. The lodge proper, in the second story, is arranged with sleeping-rooms and a cosy sitting-room having a notable chimney-corner.

From this room we passed to the balcony, a paradise of a summer's evening. Beyond is a well-house built up in stone from the first story, that forms a feature novel and interesting. Here are some delicate reliefs executed from models by Mr. St. Gaudens, and a gigantic frog who seems about to utter a characteristic remark. Quaint, cosy, and picturesque, are adjectives that convey but a faint idea of this interesting building. At length our enjoyable day drew to a close. Arrived in town, a company of soldiers with a band descended from our train. They formed by fours and began to march to inspiriting music. Thinking it better to follow their example than to separate then and there, we chose our captain and fell into line. Our battalion excited considerable interest among the lookers on, particularly among the urchins of the street, who seemed inclined to deride. However, we tried to do ourselves credit, until we disbanded at Bromfield Street. Yours respectfully, R.

IMPROPER TESTS OF PORTLAND CEMENT.

NEW YORK, June 10, 1882.

TO THE EDITORS OF THE AMERICAN ARCHITECT: —

Dear Sirs, — The impression of your paper of the 3d of June reaches me rather late. In reading "Tests of the Strength of Brick Piers, laid with Various Mortars," on page 258, I notice with amazement that Pier No. 2 had been constructed of bricks laid in a mortar composed of one part Portland cement and three parts lime-mortar.

One of the essential properties of a true Portland cement, strength, being principally due to a certain careful and exact apportioning of lime and clay, it follows that Portland cement should never be mixed with lime, as described in test No. 2. It being impossible to upset the laws of nature, the idea of such a mixture should appear rather ludicrous to every mind; in fact, there is no better way of wasting money and of producing a most dangerous binding material, liable to total disintegration.

The strength of the brickwork in Pier No. 2 was accordingly 200,000 lbs. (or 290,000 lbs., as per table on same page ?) whilst the brickwork of Pier No. 3, laid with a mortar composed of one part of Newark and Rosendale cement and three parts lime-mortar, showed an ultimate strength of 245,000 lbs.

The result of a test based on wrong principles can only have a misleading influence. I am, dear sirs,

Yours obediently, GUSTAV GRAWITZ.

THE STRENGTH OF PHILADELPHIA FACE-BRICK.

BOSTON, June 12, 1882.

TO THE EDITORS OF THE AMERICAN ARCHITECT:

Dear Sirs, — Having read Mr. McArthur's communication in your issue for the 10th inst., I will give what seems to me the probable reason for the low results obtained for the crushing strength of Philadelphia face-brick. As far as one can judge from appearances the samples tested were perfect bricks, and as good as could be found in Boston; but they were very soft bricks, and I think that they are made in that way in order to secure a perfect shape, with no cracks or irregularities. Of course a soft brick is not as strong as a hard-burned brick. The bricks mentioned by Mr. McArthur are "ordinary straight hard bricks," but the bricks I tested were not such bricks, as we would use the terms here, and I have no doubt but that the common Philadelphia hard-burned bricks are stronger than the face-bricks. In my report I stated only the actual results, and made no remarks about them whatever. I am surprised that one of the bricks quoted by Mr. McArthur is nearly fifty per cent stronger than the other. There must have been considerable difference in the quality of the bricks. The greatest variation in the strength per square inch of the three bricks tested by me, was only about four per cent, and as the bricks were rubbed so as to fit between the plates of the machine quite accurately, I think the results may be considered as representing the strength of what is known here as Philadelphia face-brick. Very respectfully,

F. E. KIDDER.

FILLING THE BORE-HOLES IN WOODEN POSTS.

ST. JOSEPH, MO., June 9th, 1882.

TO THE EDITORS OF THE AMERICAN ARCHITECT: —

Sirs, — In a large store-building here we have used oak posts to support beams carrying floors, and had them bored through the centre with a two-inch augur to prevent checking.

The owner now insists upon having these holes filled. Will you kindly inform us what material it would be best to use? We thought of using salt. An early reply would greatly oblige.

Yours truly, G. R. M.

[SALT is, we believe, sometimes used in this way to prevent rotting, but in its ordinary impure form it would absorb moisture from the air and keep the interior of the posts damp, so as to increase the tendency to check. Mineral wool would be free from this objection and would answer a good purpose. If remedying the loss of fire-resisting property, which, we suppose, is what the owner fears from the boring of the logs, sifted cinders would be nearly as good. — EDS. AMERICAN ARCHITECT.]

NOTES AND CLIPPINGS.

A SILVER LAMP THREE HUNDRED YEARS OLD. — While engaged in improving the ground around the old Catholic Church in Ysleta some parties dug out of the ground a large silver lamp. Investigation and research proved that it had been brought over to this country from Spain about 1543 by Cordovan, the well-known prospector and settler. The lamp is of the very finest silver and very heavy and valuable. It was sent to Santa Fé, N. M., where it was cleaned and burnished, and returned to the church, an object of curiosity as well as a valuable relic and ornament. This church was constructed in the year 1630 under the auspices of the Franciscan friars. — *El Paso Times.*

THE CATHEDRAL OF ST. ISAAC, ST. PETERSBURG. — The celebrated Cathedral of St. Isaac, at St. Petersburg, which was finished in 1859 at a cost of $25,000,000, is giving indications of sinking into the ground. As is well known, the Russian capital is constructed on a marsh, and the site of the cathedral was selected in one of the softest portions of it. Upon the foundations, at the outset, $1,000,000 were spent in driving piles; but at no period has the building maintained a rigid attitude, and at present it manifests a disposition to topple over at one corner altogether. A short time ago an examination revealed that on one side of the structure the columns had parted from the architrave and left a space of three inches between, which the application of tests has shown to be regularly increasing. In consequence of this discovery, the advice of engineers was taken as to lightening the roof, and workmen were engaged to remove the heavy corner bronzes, but as the work proceeded fresh fissures displayed themselves, and the engineers grew so alarmed that they gave up the undertaking as a bad job. Since then nothing has been done except hold consultation after consultation, with no result but the expenditure of a deal of talk and the rejection of a number of fancy projects of improvement, more or less impossible to carry out. — *Boston Transcript.*

COLORING CEMENTS. — The pigments employed to color hydraulic and other cements, and obtain the shades common in trade, are, according to the *Bauzeitung*, the following, the proportions used being those used by R. Dyckerhoff, of Amoeneburg:

For black, pyrolusite	12	per cent.
" red, caput mortuum	6	"
" green, ultramarine green	6	"
" blue, ultramarine blue	5	"
" yellow / brown } ochre	6	"

The strength of the cement is rather increased by the addition of ultramarine pigments, but somewhat diminished by the others. The ill effects of the latter may be somewhat removed by grinding the cement again after the pigment has been added, whereby it gains in fineness, and the strength is so much increased that no difference is observable between this and the ordinary cement. The black and red cements made in Dyckerhoff's works for making tiles and artificial stone show a strength by normal tests after twenty-four hours' drying of 20 kilos per square centimetre, or about 275 pounds per square inch, a very respectable strain for such work.

The Washington Monument "Memorial Stones." — The memorial blocks which were stowed away during the thirty years' work was suspended have been brightened up and are ready to be put into position. Between forty and fifty stones have been put in the wall, and in passing up and down in the elevator are studied to advantage by the aid of a lantern. About ninety more are in the lapidarium yet to be put in the walls. Some of these have been mutilated by vandal hands. The most seriously defaced is that which was presented by the Temple of Honor and Temperance. Some of the carved emblems are badly broken — done before Superintendent McLaughlin took charge. Conspicuous among the stones that will be put in the shaft this year is the one from the Temple Æsculapius, on the Island of Paros; a block from the original chapel of William Tell, built in 1388, on Lake Lucerne, where he escaped from Gessler; and a large square of marble from the Grecian Archipelago, sent as a tribute from the islands of Paros and Naxos. A finely-polished piece of marble, which was presented by J. A. Lehman, has also been set aside. Imbedded in its face is a head which was carved 2,000 or 3,000 years ago by the ancient Egyptians for the temple erected in honor of Augustus, on the banks of the Nile. The head is of a hard, dark-brown rock of granitic grain, and from its irregular appearance was apparently broken in its removal from its original resting-place. The stones from the Swiss Confederation, Turkey, and China, will, it is said, take precedence of the many fine pieces of carved work that have been presented by the secret societies and other organizations. The latest block sent to the lapidarium comes from Nevada, having been received but a short time ago. It is 3′ x 1′ 6″, and is cut from granite. Its face, which is polished, bears the inscription: "All for our country — 1881," in gilt letters. The line "Nevada" extends across the middle in plain six-inch letters of solid silver. It is one of the most attractive stones in the collection, and the only one that has been received for a number of years. — *Washington Post.*

Monolithic Churches in Abyssinia. — At the last sitting of the Paris Academy of Inscriptions and Belles Lettres, M. Raffrey, who has recently returned from his travels in Abyssinia, gave an interesting description of a number of churches he had seen there which are hewn out of the solid rock. These unique structures he found in the town of Lalibeba, the capital of the province of Lasta. The place lies in a remote and out-of-the-way region, and is situated on the side of a rocky mountain. It is regarded as a holy city by the Abyssinian Christians, and is visited by numerous strangers who come to pray near the sacred relics there preserved. There are ten churches in the city, but they are not conspicuous to the eye of the traveller, inasmuch as they form integral portions of the mountain. The mode in which their architect had proceeded in constructing them was, in the first place, to have the stone quarried away in such a manner as to leave an immense solid block of rock in the middle. This block, of course, still continued to form part of the mountain. The next step was to give this mass of rock externally the form of a church. It is, in fact, so finished that it is made to appear as if built of ordinary cubes of stone masonry, the junctions of the different stones being imitated very plainly. Finally, the block was hollowed out, the apertures being so made as to serve for doors and windows. The interior exhibits pillars, vaulted roofs and arches, all being executed in a neat and workmanlike manner. These churches are, accordingly, a species of monolith, and appear to be almost unique amongst works of architecture. M. Raffrey, in his paper, gave a special description of each of the chapels. He stated that the architect and builder of them was a certain Sidi Meskal, who had constructed them with the assistance of a body of Egyptian and Syrian workmen, the chief implement used being the pickaxe. The tradition of the place is that all these churches were constructed within a period of twenty-three years. — *The Builder.*

The Electric Railway in the Bleachfield. — The operation of collecting cloth from bleachfields is generally long and tedious. A novel way of facilitating it has been recently introduced at the large linen-bleaching works of M. Duchesne-Fournet at Le Breuil-en-Ange (Calvados) by the managing engineer, M. Dupuy. From the account in *La Nature* we learn that each piece of cloth is 100 metres long (say 333 feet), and about 37 acres of ground may be covered. M. Dupuy had long thought of constructing a railway with special mechanism for bringing in the cloth, but a steam-engine in a bleachfield is very objectionable on account of the smoke and cinders. The objection does not apply to electricity, and M. Dupuy has had a small line made along the meadows, crossing the ends of the lines of cloth, with a Siemens dynamo-electric machine and collecting apparatus in one vehicle, a set of Faure accumulators, giving the motor force, in another (the tender), and a series of trucks for the cloth. The line is 500 metres in length and has twenty-one branches. The train goes to the fields empty. On stopping the machine is set to actuate the collecting apparatus, to which one end of a piece of cloth is brought. The pieces are previously connected end to end, so that the work goes on continuously. The cloth passes into the locomotive truck, and thence, over rollers, to a truck attached, in which a man sits to guide it. Thus one man will collect 5,000 metres of cloth in half an hour, an operation formerly taking eleven hours. The train, when loaded, carries 10,000 metres (over 33,000 feet) of cloth. The machinery is very easily worked. Moving a lever one way or the other varies the speed of travelling; a second lever serves for reversal; and a third to connect the dynamo either with the locomotive or the collecting apparatus. The Faure accumulators in the tender (which are of the Regnier type, large model) are arranged on three shelves, and in hampers containing two each. They are sixty in number, and the weight is 500 kilogrammes (1,250 pounds). They are charged with the current of the Gramme machine, which has been used since 1879 in lighting the works. With a commutator on the tender, the number of accumulators employed may be increased by successive additions of six up to sixty. The time of action is about three hours. The system, which has been in work about two months, has given entire satisfaction. — *London Times.*

Proposed Bridge over the English Channel. — There comes from France another plan for uniting the two countries by rail, but it provides not for a tunnel, but for a bridge, and instead of the Dover-Calais route has selected the one a few miles westward, from Folkestone to Cape Grisnez. One M. Verard de Sainte-Anne is the author of it, and he appears to have made considerable progress on bristol-board with its elucidation and completion. His office in Paris is said to be a little picture-gallery of plans and specifications. Some parts of his design call for a tubular structure, others for an open iron frame-work, and still others for viaducts of stone. He would build the great bridge (its length would be twenty-three miles or so) high enough to permit of the passage beneath it of ships, both large and small, and the pictures in his office represent them bearing proudly away below the roadbed, with the union-jack spread in the flying breeze. Sometimes his arches might rest safely on the bottom of the sea, at others the foundations would need to be of stone, while at still others there are submarine islands conveniently placed in the way on which he might build. — *New York Times.*

Lost Treasures. — Much antique statuary, rare and admirable, remains to us, but where does that Gnidian Venus lie hidden, the matchless handiwork of Praxiteles, with which a certain youth was so love-stricken that he lost his very senses? The Colossus of Rhodes was seventy cubits high, the masterpiece of Chares of Lindum It stood upright for sixty-six years, and then fell in mighty ruin, caused by the shock of an earthquake. Having been consecrated to the sun, the brass of which it was founded was held sacred, and so it remained until the Mohammedan conquest of Rhodes, when nine hundred camels were loaded with the brazen spoils of the famous image and quietly carried them all away. In the Golden House of Nero, at Rome, hard by the Colosseum, was his own Colossus, one hundred and twenty feet high, and modelled to resemble him. Some say that a huge hand is still extant at Rome, the sole remnant of this mighty statue. When the library of Constantine was burned by Leo the Isaurian, at Constantinople, there is said to have perished the intestine of a dragon (?), one hundred and twenty feet long, on which was written the whole of the Iliad and the Odyssey in letters of gold. — *All the Year Round.*

Lake Mœris. — The theory of Linant Bey in regard to Lake Mœris, which was adopted by Lepsius, has been accepted without question by the scientific world. According to this view the dimensions of the famous lake were grossly exaggerated, and it had less than a tenth of the circumference and depth ascribed to it; but Mr. Whitehouse, having shown, by a critical examination of the text, the extreme improbability of such a series of errors, has now proved that the facts and inferences of Linant are equally destitute of foundation. A vast depression does, in fact, exist, which is, in many places, over 150 feet below the level of the Mediterranean, and would fulfil all the requirements of the ancient authors. It is a question of great interest, not only from an archæological standpoint, but also because the Khedival Government has expressed its intention of continuing these researches and restoring in part that vast work, which even in the Augustan age was conceded to be the greatest engineering triumph ever accomplished by man. — *Galignani's Messenger.*

Tilhet's Method of Copying Drawings. — Tilhet's method of copying drawings in any desired color is thus described in the *Polytechnisches Notizblatt:* The paper on which the copy is to appear is first dipped in a bath consisting of 30 parts of white soap, 30 parts of alum, 40 parts of English glue, 10 parts of albumen, 2 parts of glacial acetic acid, 10 parts of alcohol of 60 degrees, and 500 parts of water. It is afterward put into a second bath, which contains 50 parts of burnt umber ground in alcohol, 20 parts of lampblack, 10 parts of English glue, and 10 parts of bichromate of potash in 500 parts of water. The papers are now sensitive to light, and must therefore be preserved in the dark. In preparing paper to make the positive print another bath is made just like the first one, except that lampblack is substituted for the burnt umber. To obtain colored positives the black is replaced by some red, blue, or other pigment. In making the copy, the drawing to be copied is put in a photographic printing-frame, and the negative paper laid on it, and then exposed in the usual manner. In clear weather an illumination of two minutes will suffice. After the exposure the negative is put in water to develop it, and the drawing will appear in white on a dark ground; in other words, it is a negative or reversed picture. The paper is then dried and a positive made from it by placing it on the glass of a printing-frame, and laying the positive paper upon it and exposing as before. After placing the frame in the sun for two minutes, the positive is taken out and put in water. The black dissolves off without the necessity of moving it back and forth.

Marshes and Malaria. — The opinion formerly so prevalent, that malaria exists only, or chiefly, in marshy soil, appears to be successfully combatted by Professor Tommassi, who cites as evidence not only that the Campagna of Rome is not really marshy, but that, speaking roughly, two-thirds of the malaria-stricken districts of Italy are situated on heights. He refers to the well-known fact, that sometimes the surface of these districts is completely dry during the summer, but the production of malaria in them goes on just the same, provided they are kept moist below the surface by special conditions of the subsoil, and the air can reach the moist strata by pores or crevices in the surface. The investigations made by M. Tommassi and others further show, that the direct action of the oxygen of the air is so necessary to the development of the microscopic plant to which the malaria is due, that the most pestilential marshes become innocuous when the soil is completely covered by water; pavements, buildings, and the like, may act in the same way, and arrest the development of the plant by cutting off the necessary supply of oxygen; but if, even after the lapse of years or of centuries, communication with the outer air is restored, while the other conditions remain the same, the soil recovers its noxious properties. — *New York Times.*

BUILDING INTELLIGENCE.

(Reported for The American Architect and Building News.)

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

BUILDING PATENTS.

[Printed specifications of any patents here mentioned, together with full detail illustrations, may be obtained of the Commissioner of Patents, at Washington, for twenty-five cents.]

258,874. BRUSH. — James F. Bartlett, Cleveland, O.

258,900. FLOOR. — William L. Dolbeare, West Newton, Mass.

258,918. HEATING-SYSTEM. — Benjamin R. Hawley, Chicago, Ill.

258,922. FIREPLACE. — Charles Holland, Chicago, Ill.

258,929. JAIL, PRISON, AND GRATING BAR. — Geo. Kinsey, Wyoming, O.

258,960. DIE-STOCK. — Benjamin L. Walker, Sing Sing, N. Y.

258,971. REED-PLANE. — Frederick V. Yeager, Philadelphia, Pa.

258,975. PAINT. — Edwin Bennett, Hornellsville, N. Y.

258,978. TURRET FOR SKYLIGHTS. — Adam Bickelhoupt and George Bickelhoupt, New York, N. Y.

258,980. VISE. — John A. Blake, Watertown, N. Y.

258,982. CHIMNEY-CAP. — Joseph Borland, Valencia, Pa.

258,986. LOCKING-LATCH. — Richard Burk, Schwenningen, Wurtemberg, Germany.

258,988. BENCH-PLANE. — William S. Case, New Britain, Conn.

259,000. MORTISING-MACHINE. — William H. Doane and George W. Bugbee, Cincinnati, O.

259,030. WOOD-PRESERVING COMPOSITION. — John C. Marshall, Oakland, Cal.

259,035. AIR-INJECTING VENTILATOR. — Patrick Mihan, Chelsea, Mass.

259,037. FIRE-EXTINGUISHER. — Wm. Morrison, Toronto, Ontario, Canada.

259,059. MANUFACTURE AND LAYING OF COMPOSITE PAVEMENTS. — Peter Stuart, Edinburgh, County of Mid-Lothian, Scotland.

259,074. WASH-BOWL AND STAND. — John B. Atwater, Chicago, Ill.

259,080. REVERSIBLE WINDOW. — Henry Becker, New York, N. Y.

259,104. AUTOMATIC FLOOR FOR ELEVATOR-SHAFTS. — Ellen L. Demorest, New York, N. Y.

259,155. SASH-CORD PULLEY. — Cassius Holton, Reading, Pa.

259,164. CALIPERS. — George W. Jopson, Meriden, Conn.

259,165. BRICK AND MORTAR ELEVATOR. — William A. Jordan, New Orleans, La.

259,191. COMBINED SHUTTER-WORKER AND BLIND-SLAT OPERATOR. — Bela G. Merrill, Geneva, Wis.

259,211. WORK-BENCH ATTACHMENT. — Jonathan B. Richards, Wager, Ark.

259,220. DOOR-HANGER. — Alfred L. Scranton, Rochelle, Ill.

259,228. READY-MADE ROOFING-FELT OR OTHER MATERIAL. — Uzias A. Smith, Atlanta, Ga., and Frederick L. Kane, Brooklyn, N. Y.

259,256. SINK OR HYDRAULIC TRAP. — John F. Withey, Lynn, Mass.

259,279. FIRE-ESCAPE. — Max L. Rose and E. Whitfield South, Anderson, S. C.

SUMMARY OF THE WEEK.

Baltimore.

BENNETT MEMORIAL M. E. CHURCH. — The corner-stone of this building was laid on the corner of Fremont and Warner Sts., on June 7th, last: the structure is to cost from $10,000 to $12,000; it together with the site are gifts of Mr. B. F. Bennett, a Baltimore builder, and wife, as a memorial for Allen Bennett, a son. The church will be 41′ x 63′, with a Sunday-School side building 37′ x 42′, and an infant-class room, 22′ x 24′; the main auditorium and other departments are to be so arranged as to permit of being thrown into one large room when desired. Material, local granite, with white marble finish.

BUILDING PERMITS. — Since our last report thirty permits have been granted, of which the more important are as follows: —

Simon R. Small, 2 two-st'y brick buildings, Green Ct., rear of Williams St., bet. Hamburg and Cross Sts.

Dr. Thos. Baxley, two-st'y brick building, rear of s e cor. Madison Ave. and McMechen St.

Ely Roberts, two-st'y brick stable, rear of Wolf St., bet. Orleans and Jefferson Sts.

Wm. Santer, 2 three-st'y brick buildings, Fayette St., bet. Arch and Pine Sts.

George Ran, 3 two-st'y brick buildings, n w cor. O'Donnell St. and Harris Alley.

John Hopkins University, three-st'y stone and brick building, with mansard roof, Eutaw St., bet. Little Ross and Franklin Sts.

John Hopkins University, three-st'y building, with mansard roof, rear of Howard St.

An Irew Reiter, three-st'y brick building and two-st'y brick stable, Pratt St., bet. Chapel and Wolf Sts.

Geo. C. Hershman, 3 two-st'y brick buildings, Madeira Ct., bet. Bank and Gough Sts.

G. Rosenstock, one and two st'y building, s e cor. Wolf and Thames Sts.

Victor D. L. Gelston, 3 two-st'y brick buildings, s w cor. Front and Plowman Sts., fronting on Front St.

George M. Lamb, two-st'y brick stable, on alley, in rear of Fulton St., s of Mosher St.

Magdalene Huffman, three-st'y brick building, Greenmount Ave., bet. Eager and Madison Sts.

M. Corcoran, one-st'y brick building, 28′ x 70′, Hughes St., bet. Johnson and Williams Sts.

Chs. Struth, two-st'y brick stable, in rear of Camden St., bet. Hanover and Sharp Sts.

Luther M. Reynolds, 2 two-st'y brick buildings, in rear of Chestnut St., bet. Fayette and Douglass Sts.

Boston.

WAREHOUSE. — A four-st'y brick warehouse, measuring 100′ square, is to be built on Eastern Ave., from plans of Henry J. Preston, architect, Boston; Mr. N. S. Wilbur, of Boston, contractor; cost, about $35,000.

BUILDING PERMITS. — *Brick. — Fairfield St., No.* 21, cor. Commonwealth Ave., Ward 11, for Nathaniel Thayer, Jr., four-st'y dwell., 47′ 2″ x 82′; D. Connery & Co., builders.

Washington St., Nos. 985-991, Ward 16, for Robert Treat Paine, Jr., five-st'y club and store, 52′ x 112′; Geo. W. Pope.

Commonwealth Ave., cor. Exeter St., Ward 11, for Nathan Matthews, four-st'y mansard dwell., 30′ 9″ x 74′ 6″; H. McLaughlin, builder.

Green St., opposite Brookside Ave., Ward 23, for Patrick Meehan, two-st'y and mansard Hotel Meehan, 41′ 6″ and 45′ x 62′; Thomas J. Tobin, builder.

Columbus Ave., near Berkeley St., Ward 11, for People's Church Society, people's church, 94′ x 114′; Sampson, Clark & Co., builders.

Marlborough St., No. 188, Ward 11, for J. E. Peabody, four-st'y dwell., 32′ x 73′ 2″; A. Anderson builder.

Avon St., No. 18, Ward 10, for Jordan, Marsh & Co., mercantile building, iron and brick, 23′ 9″ x 77′, one st'y, and six st'y, 40′ x 76′; T. E. Stuart, builder.

Chestnut St., Nos. 138-140, Ward 9, for Riverside Club, three-st'y club stable, 68′ 4″ x 70′; Geo. G. Nichols, builder.

Beach St., No. 135, cor. South St., Nos. 168-170, Ward 12, for James Collins, four-st'y mercantile building, 26′ 9″ x 88′ 10″.

Brookside Ave., rear of, near Chemical Ave., Ward 23, for Cable Rubber Co., boiler-house, 26′ x 36′; H. W. Leach, builder.

Gloucester St., near Newbury St., Ward 11, for Chas. A. Morss, 2 dwells., 22′ 3″ x 50′, and 2 two-st'y and mansard dwells., 22′ 9″ x 50′; Samuel T. Ames, builder.

Wood. — Border St., rear of No. 296, Ward 1, for John F. Slattery, carriage-house, 15′ x 22′; John F. Slattery, builder.

Unnamed St., near Covey St., Ward 23, for Chas. B. Botsford, two st'y dwell., 30′ and 33′ x 37′ 9″; W. S. Mitchell, builder.

Washington St., rear, near Keyes St., Ward 23, for M. D. Ross, storage of flax, 50′ and 56′ x 56′; Wm. Carpenter, builder.

Euclid St., near Withington St., Ward 24, for Joseph M. Pike, two-st'y dwell., 21′ and 28′ x 29.

Quincy St., near Columbia St., Ward 24, for Daniel Seavey, two-st'y dwell., 25′ x 35′.

Highland Ave., near Cambridge St., Ward 21, for James Bauer, two-st'y dwell., 21′ x 30′; Jacob Luippold, builder.

Rutherford Ave., nearly opposite Lincoln St., Ward 4, wagon-shed, 36′ x 71′, for G. M. Scott and Edmund Bridge; Mark Leighton, builder.

Walnut Ave., near Dale St., Ward 21, for Wm. Donaldson, two-st'y dwell., 22′ x 32′; Wm. Donaldson, builder.

Lamartine St., near Wyman St., Ward 23, three-st'y dwell., 22′ x 36′, for John Spelmon; John Spelmon, builder.

A St., rear of, near Richards St., Ward 13, for Wm. H. Dale, storage fertilizing materials, 20′ x 100′; Chas. Flemming, builder.

Melville Ave., rear, near Washington St., Ward 24, for Edward C. Wheeler, stable, 28′ x 36′; Edw. McKechnie, builder.

Cottage Ave., rear of, near Centre St., Ward 23, for Israel G. Whitney, stable, 24′ x 50′; George A. Spear, builder.

Maple St., rear of, cor. Schuyler St., Ward 21, for James A. Houston, stable, 28′ x 42′; McNeil Bros., builders.

Anawan Ave., near Central Station, Ward 23, for Peter Swaaben, two-st'y hip dwell., 22′ and 27′ x 33′; W. J. Mitchell, builder.

West Sixth St., near D St., Ward 13, for Patrick Gorham, three-st'y dwell., 22′ x 40′; Wm. Glynn, builder.

Brooklyn.

REMOVAL. — The Building Department of the City of Brooklyn has been removed to its new quarters in the basement of the old City-Hall, on the Court Street and Joralemon Street corner.

CHURCH. — The corner-stone of the new Memorial Presbyterian Church, at the cor. of St. John's Place and Seventh Ave., was laid June 1.

BUILDING PERMITS. — *Quincy St.*, s s, 200′ w Tompkins Ave., 6 three-st'y brick dwells.; cost, $6,000; owner, John P. Hudson, 189 Montague St.; architect, Amzi Hill; builders, P. Sullivan and Francis Weeks.

Third Ave., s e cor. Fifty-fifth St., three-st'y brick store and tenement; cost, $5,000; owner, Patrick Murtagh, Third Ave. and Seventeenth St.; architect, Thomas F. Houghton.

Berkeley Pl., s s, 150′ e Seventh Ave., 2 three-st'y brownstone dwells.; cost, $8,500; owner, architect and builder, John Magilligan, 56 Berkeley Pl.

Putnam Ave., n e cor. Nostrand Ave., 4 four-st'y brick tenements; cost, $5,000; owner and builder Thos. Ell on; architect, P. M. Smith.

Quincy St., n s, 153′ 3″ w Lewis Ave., 4 three-st'y brick tenements; cost, $5,570; owner, John P. Hudson, 189 Montague St.; architect, F. Weekes; builder, P. Sullivan and F. Weekes.

Van Buren St., s w cor. Throop Ave., 3 two-st'y brownstone dwells., and 1 three-st'y brownstone store and dwell.; cost, $3,000 each; owner and builder, P. Concannon, 156 Wythe Ave.; architect, J. D. Reynolds.

Bushwick Boulevard, n w cor. Vandeveer St., two-and-a-half-st'y frame hotel; cost, $5,500; owner, Franz Steinbacher, Hopkins St., near Sumner Ave.; architect, John Platte; builder, John Rueger.

Nostrand Ave., n e cor. Kosciusko St., three-st'y brick store and flats; cost, $5,000; owner and builder, M. J. McLaughlin, 100 Kosciusko St.; architect, R. B. Eastman.

Franklin Ave., s e cor. Butler St., 11 two-st'y brick dwells.; cost, $3,500 each; owner and carpenter, E. Hatch, 16 Court St.

Adams St., e s, between Myrtle Ave. and Willoughby St., four-st'y brick factory; cost, $20,000; owner, James Howell, 8 South Portland Ave.; architect, Wm. A. Mundell; builder, P. J. Carlin and W. C. Booth.

Quincy St., s s, 200′ e Nostrand Ave., 2 three-st'y brownstone dwells.; cost, $11,000 each; owner, Calvin Potter, Quincy St., near Van Nostrand Ave.; architect and builder, Edward Van Voorhis.

Monroe St., n e s, 19′ 6″ s e Reid Ave., 5 two and three st'y brownstone dwells.; cost, each, $3,500; owner, W. G. Browning, Poughkeepsie, N. Y.; architect, W. W. Browning; builder, G. F. Chapman.

Reid Ave., n e cor. Monroe St., two-st'y brownstone dwell.; cost, $4,000; owner, architect and builder, same as last.

Douglass St., s w cor. Gowanus Canal, 2 one-st'y frame buildings; cost, $3,500; owner, P. G. Hughes, on premises; builder, P. F. O'Brien.

Lorimer St., w s, 70′ s Norman Ave., 7 frame dwells.; cost, total, $14,000; owner, architect and carpenter, David Atkin, 90 Diamond St.; mason, B. R. Sturges.

Evergreen Ave., n e cor. Myrtle Ave., three-st'y frame store and tenement; owner and builder, Henry Loefler, 192½ Stockton St.

De Kalb Ave., intersection Myrtle Ave., three-st'y brick store and dwell.; cost, $6,000; owner, S. Brandeccha, 19 Cumberland St.; architect, J. D. Reynolds.

Hancock St., No. 704, three-st'y brick dwell.; cost, $4,000; owner, Mrs. Wornier, 702 Hancock St.; architect, J. E. Dwyer; builders, Nolan & Morrison.

Hicks St., e s, 150′ s Joralemon St., 4 two-st'y brick coach-houses and stables; cost, each, $5,000; owner, R. F. Bush; builders, H. O'Brien and W. Durm.

Stockholm St., s s, 275′ e Evergreen Ave., three-st'y frame dwell.; cost, $3,000; owner, Wm. Walsh, 62 Elm St.; architect and carpenter, Robert Ford; mason, C. Collins.

Van Buren St., s s, 180′ e Stuyvesant Ave., 15 three-st'y dwells; cost, each, $1,700; owner, Richard Lee, Gates Ave.; architect, B. T. Robbins; builders, E. K. Robbins and J. M. Sager & Sons.

Stagg St., n s, 450′ w Waterbury St., three-st'y frame tenement; cost, $5,000; owner, Mrs. Schneider, Bushwick Ave. and Stagg St.; architect, John Platte; builders, Ulrich Maurer and John Frey.

ALTERATIONS. — *Grand Ave.*, cor. Graham Ave., raise one st'y; cost, $2,450; owner, Mrs. Finnegan, Graham Ave., near Grand Ave.; architect, W. B. Ditmars; builders, J. Dunn and O. H. Doolittle.

President St., No. 286, raised one st'y; also, three-st'y brick extension; cost, $3,400; owner, C. Bosher, on premises; architect and builder, Eli Osborn.

Myrtle Ave., No. 681, one-st'y addition; cost, $2,000; owner, N. Evans, 391 Bedford Ave.; architect, S. Harbison; builders, J. Rule and J. Hough.

Joralemon St., No. 95, add one st'y and new three-st'y brick extension; cost, $8,000; owner, Thomas E. Stillman, on premises; architect, R. B. Eastman; builders, Thos. B. Rutan and Long & Barnes.

Marcy Ave., s w cor. Keap St., one-st'y addition; cost, $10,000; owner, Reformed Episcopal Church.

Chicago.

STRIKE. — The strike of the brickmakers has finally come to an end. Prices of brick have declined, and in consequence building operations have been resumed, and the outlook is good for an active season.

BUILDING PERMITS. — Third Swedish M. E. Church, brick basement, 20′ x 70′, 3259 Fifth Ave.; cost, $5,000.

J. J. Curran, three-st'y and basement brick dwell., 48′ x 48′, 530 and 532 West Jackson St.; cost, $5,000.

R. W. Prendergast, three-st'y and basement brick dwell., 24′ x 74′, 534 W. Jackson St.; cost, $4,000.

J. Koutmick, three-st'y and basement brick dwell., 21′ x 56′, 557 Nineteenth St.; cost, $4,000.

Frank Kreice, two-st'y brick dwell., 846 North Ashland Ave.; cost, $2,500.

J. Kotowsky, two-st'y brick dwell., 21′ x 50′, 474 Twentieth St.; cost, $2,500.

Merchants' Parcel Delivery Co., one-st'y brick building, 16′ x 70′, 98 Jackson St.; Geo. G. Garnsey, architect; Wm. Goldie, builder; cost, $2,300.

E. H. Bessa, two-st'y brick flats, 21′ x 52′, 28 North Elizabeth St.; cost, $3,500.

E. J. Lehman, four-st'y and basement brick store and flats, 23′ x 38′, 9 Polk St.; cost, $5,000.

N. Johnson, two-st'y and basement brick shop and dwell, 32′ x 52′, 270 Townsend St.; cost, $2,500.

G. P. Adams, to put mansard roof, 23′ x 56′, on dwell., No. 2118 Indiana Ave.; cost, $3,000.

Ezekiel Morrison, two-st'y brick dwell., 24′ x 64′, 3722 Lake Ave.; cost, $4,000; W. H. Drake, architect.

Board of Education, two-st'y basement and attic brick school-house, 75′ x 85′, Twentieth St., bet. Johnson and Halsted Sts.; cost, $40,000.

Board of Education, two-st'y basement and attic brick school-house, 75′ x 85′, Central Park Ave. and Twenty-fifth Sts.; cost, $40,000.

J. Russell Jones, two-st'y brick addition, 19′ x 30′, 2408 Michigan Ave.; cost, $3,500.

F. Stamek, two-st'y and basement brick dwell., 21′ x 50′, Loomis and Nineteenth St.; cost, $3,850.

Wm. Kern, four-st'y and basement brick dwell. and store, 25′ x 84′, 292 Milwaukee Ave.; cost, $8,000.

Charles Brockman, two-st'y and basement brick dwell., 20′ x 40′, 306 Jenta St.; cost, $2,200.

F. H. Seymour, store, irregular shape, 303 and 305 Jackson St.; cost, $13,000.

W. H. Higgins, three-st'y brick, with stone trimmings, 23′ x 33′, 155 Douglass Ave.; cost, $4,000; L. D. Cleveland, architect.

N. Oleson, two-st'y and basement brick dwell., 86 Park Ave.; cost, $4,000.

John Ruddy, three st'y brick flats, 22′ x 70′, 28 Weston St.; cost, $4,500.

A. Klatz, two-st'y brick dwell., 22′ x 70′, 23 Samuel St.; cost, $3,500.

J. F. Wischbeck, two-st'y brick dwell., 22' x 44', 166 Seminary Ave.; cost, $3,000.

John Schneider, two-st'y brick dwell., 22' x 50', 63 Goethe St.; cost, $4,500.

Wm. Hancox, two-st'y and basement brick dwell., 22' x 46', 16 Evergreen Ave.; cost, $3,000.

C. L. Fredrick, two-st'y flats, 48' x 68', 382 and 384 Fulton St.; cost, $13,000.

R. S. Shepard, six-st'y and basement brick store, 73' x 80', Adams and Market Sts.; cost, $60,000.

B. L. Anderson & Co., two-st'y brick office and dwell., 3828 Laurel St.; cost, $4,500.

G. E. & F. W. Farrell, three-st'y dwell., 24' x 50', 2705 Indiana Ave.; cost, $9,000.

A. Lehn, two-st'y brick dwell., 22' x 46', 642 West Fifteenth St.; cost, $2,500.

Mrs. Wilson, two-st'y and basement brick dwell., 21' x 40', 627 North Roby St.; cost, $4,500.

J. J. Bufton, two-st'y and basement brick flats, 25' x 55', 236 Irving Pl.; cost, $3,500.

College of Physicians and Surgeons, three-st'y basement and attic brick college-building, 70' x 100', Harrison and Honore Sts.; cost, $60,000.

A. Rogerson, two-st'y brick dwell., 25' x 69', 68 Lincoln Ave.; cost, $5,000.

W. Peters, one-st'y brick cottage, 20' x 35', 148 Osgood St.; cost, $3,000.

Thos. Maloney, two-st'y brick dwell., 21' x 50', 3530 Dearborn St.; cost, $2,200.

C. F. Bulkly, two-st'y dwell, and barn, 881 Washington St.; cost, $6,400.

C. P. Kimball, two-st'y and basement brick dwell., 44' x 50', Ontario St.; cost, $10,000.

Cincinnati.

Printing Office.—Messrs. Russel, Morgan & Co. are having plans prepared for a new printing house on Eggleston Ave.; the building will be brick, 80' x 220', six st'y, and cost about $50,000; Mr. Henry Bevis, architect.

Hotel.—The Carlisle Estate is to build another large addition to the St. Clair Hotel, cor. of Mound and Sixth Sts.; Mr. A. C. Nash, architect.

Houses.—Mr. Jas. W. McLaughlin is preparing plans for a wooden house for Mr. E. W. Cunningham, on Mount Auburn; cost, $15,000.

Building Permits.—Since our last report the following building permits have been issued:

C. W. Agin, two-st'y frame, Kenton St.; cost, $4,000.

E. W. Cunningham, two-st'y frame dwell., Auburn Ave.; cost, $10,000.

John Riching, one-st'y frame dwell., Calhoun St.; cost, $1,600.

P. Hoyle, two-st'y frame dwell., Donahue St., near Hammond St.; cost, $2,500.

Sam'l Jones, 2 one-st'y frame dwells., Sixth St., near Gilbert Ave.; cost, $3,000.

Sam'l Hoffmeir, two-st'y brick dwell., Seventh St., bet. Linn and Bay Miller; cost, $6,000.

Chas Wichmann, three-st'y brick, Rachel St., near Third Ave.; cost, $7,000.

Ahreus Mfg. Co., addition to brick factory, Webster St., near Main; cost, $3,500.

25 permits for repairs; cost, $12,000.

Total permits to date, 302.

Total cost to date, $765,700.

Denver, Col.

Street R. R. Car-Stables. — Brick car-stables, 101' x 119', Thirty-third St.; cost, $8,000; R. S. Roeschlaub, architect.

Business Blocks. — F. J. Bancroft, three-st'y brick business block, 51' x 100', Sixteenth St.; cost, $29,400; R. S. Roeschlaub, architect.

Jas. E. Bates, two-st'y brick business block, 50' x 60', Blake St.; cost, $6,000; F. Edbrooke, architect.

Moritz Barth, four-st'y brick business block, 50' x 125', Blake St ; cost, $26,000; F. C. Eberly, architect.

E. P. Block, two-st'y brick business block, 25' x 40', Arapahoe St.; cost, $3,460; E. P. Brink, architect.

Davis, Creswell & Co., four-st'y brick business block, 100' x 125', Blake St.; cost, $26,000; Edbrooke & Co., architects.

Elizabeth M. Byers, three-st'y brick business block, 50' x 100', Arapahoe St.; cost, $27,000. J. H. Littlefield, architect.

Conrad Walbrach, three-st'y brick business block, 50' x 125', Sixteenth St.; cost, $24,000; Mr. Quayle, architect.

Dwellings. — Geo. F. Shutz, two-st'y double brick dwell., 32' x 55', Glenarm St.; cost, $5,000.

C. Hager, two-st'y brick dwell., 23' x 55', South Fifteenth St.; J. H. Littlefield, architect.

Chas. L. Dow, two-st'y brick dwell., 22' x 40', East Seventeenth St.; cost, $3,200.

Conrad Walbrach, two-st'y brick dwell., 34' x 65', Sherman St.; cost, $6,000; F. C. Eberley, architect.

John Ray, 2 one-st'y dwells., 23' x 50', Champa St.; cost, $4,500.

Erastus Bennett, 6 brick tenement-houses, 31' x 127', California St.; cost, $9,550.

Mrs. Wormington, two-st'y double brick dwell., 34' x 43', Curtis St.; cost, $5,000.

Martha E. Pendegast. two-st'y brick dwell., 25' x 50', Champa St.; cost, $3,500.

W. A. Rhodes, two-st'y brick dwell., 28' x 44', South Fifteenth St.; cost, $4,000.

J. G. Moore, two-st'y brick dwell., 36' x 100', Welton St.; cost, $16,000; J. H. Littlefield, architect; also, two-st'y brick dwell., 53' x 57', Twenty-second St.; cost ,$9,000.

David Allen, two-st'y brick dwell., 20' x 50', Stout St.; Nichols & Canmann, architects; cost, $4,000.

John Milheim, two-st'y double brick dwell., 44' x 70'; cost, $14,000.

M. W. Howard, 2 one-st'y brick dwells., 22' x 46', Grant Ave.; cost, $4,000.

Mrs. Mary C. Bliss, three-st'y brick dwell., 26' x 125', Blake St.; cost, $10,000; Nichols & Canmann, architects.

Mrs. Claire M. Parker, two-st'y brick dwell., 37' x 50', Champa St.; cost, $9,000; also dwell., 30' x 50'; cost, $8,000,

Detroit.

Houses.—A. C. Varney, architect, has the following work on hand: —

Brick dwell., No. 130 Alexandrine Ave.; cost, $15,000.

Brick dwell., No. 575 Cass Ave.; cost, $12,000,

2 frame dwells., East Fort St.; cost, $4,000.

Frame dwell., Alexandrine Ave.; cost, $2,400.

Frame dwell., No. 625 Second St.; cost, $4,700.

Frame dwell., No. 61 Jay St.; cost, $3,200,

In General.—Very few buildings of importance are in contemplation for the coming season and there is an eagerness and close competition among contractors in consequence.

Building Permits. — Honey & Sheridan, frame house, No. 53 Joy St.; cost, $2,500.

M. A. Adams, double brick house, No. 50 Spencer St.; cost, $4,000.

John Holmes, frame house, East Fort St.; cost, $2,100.

Martin Scholl & Son, brick house, No. 96 Alfred St.; cost, $10,000.

J. Fairbairn, addition to brick house, Nos. 90 and 92 East Columbina St.; cost, $2,500.

Theo. Otjen, double brick dwell., No. 21 Twenty-second St.; cost, $4,000.

W. G. Vinton, frame house, Third Ave.; cost, $2,400.

W. G. Vinton, 5 brick houses, Park St.; cost, $20,000.

Joseph Taylor, brick house, Davenport St.; cost, $11,500; Gordon W. Lloyd, architect.

Minneapolis, Minn.

Houses.—C. G. Vanstrom has the foundation in for an $8,000 house on Chicago Ave., near Franklin, and Chas. A. Holmberg is building on the adjoining lot.

O. C. Larson is building a double house on s s Ninth Ave. and Twenty-second St., to cost abt. $3,500.

G. Peterson has commenced a $9,000 house on Cedar Ave., near Layman's.

Chas. Layman is building a $3,500 house on Cedar Ave., bet. Twenty-eighth and Twenty-ninth Sts., and Cobb & McLean are building two $1,800 houses on lots adjoining.

Geo. A. Hanson is building 10 small houses at the cor. of Twenty-eighth St. and Twenty-eighth Ave., and Brown & Patten 5 houses on Twenty-seventh St., near the Milwaukee shops.

J. Lange is building a double tenement-house on the s cor. of Fifth St. and Nineteenth Ave.; cost, $4,000.

Thos. Dunn is building a $3,000 house on Seventh St., below Nineteenth Ave.

J. B. and W. L. Bassett are to build a double house with a cut-stone front, cor. of Tenth St. and s s Seventh Ave.; cost, $20,000.

John Worman is to build, cor. s s Sixth Ave. and Eighth St., 8 fine residences, cost abt. $32,000.

M. B. Koon is to build a $10,000 house on Eighth St. and Seventh Ave.

Dr. C. E. Rogers is to build a block of 4 tenements of stone, and three stories, on Nicollet St., Nicollet Ave.

J. W. Winslow is to build 2 double houses; cost, $10,000; after plans by E. S. Stephens, on Seventh Ave. and s of Fourth Ave.

Henry B. Beard is to build 25 houses in the Lincoln St. supplement to the East Side addition.

Kees & Fisk have drawn plans for a $2,000 house.

Henry Rodelsteadt is building a double house on Fourth St., bet. Fifth and Sixth Aves., n, to cost, $3,000.

Charles Young is building a $2,500 house on Hawthorne Ave. opposite E. M. Wilson's.

J. W. Miltmer is building a house on Seventh St., bet. Fifteenth and Sixteenth Aves., n; cost, $3,500.

H. M. Leighton is building a house on the cor. of Twelfth Ave., n, and Eighth St.; cost, $3,500.

Stores.—Martin Bufferding is building a store, cor. of Sixth St. and Plymouth Ave.

John Schoekwaller is building a two-st'y frame store, with a front of 47' on Hennepin Ave., bet. Fourteenth and Fifteenth Sts.

W. Knight is building a two-st'y frame store on Washington Ave. bet. Fourth and Fifth Ave., n.

Mrs. Shubeker is building a store on Washington Ave. bet. Fourth and Fifth Aves., n.

Railway Stables.—Work has begun on the stables for the Monroe St. extension of the street railway. The barn will be 80' x 100', and will cost, $8,500.

The *Pioneer Press* reports th s following: —

Business Buildings.—W. W. Parker is to build a two-st'y building on Fourth St., near the s cor. of Second Ave.

Robert Kalphoff is to build a two-st'y store building on the cor. of Franklin and Minnehaha Ave.; cost, $5,000.

Frank J. Mackey is to build a seven-st'y building at the cor. of Fifth St. and Nicollet Ave.

Warren B. Dunnell has prepared the plans for a three-st'y frame building on the triangular piece of ground on s s Sixteenth Ave. and Cedar Ave.

C. H. Rittel and A. F. Kenyon are to build 4 stores on Sixth St.

New York.

Apartment-House. — Another magnificent apartment-house is to be built on Fifth Ave., which is to be fire-proof throughout. It is to cost $800,000.

Residence. — Plans have been prepared for a residence for Mr. Russell Sage, to be built on the n w cor. of Eighth Ave. and Ninetieth St.

Church. — A new church is to be built by the Society of the Broadway Tabernacle, at Nos. 455, 457 and 459 Sixth Ave. The building will be 74' wide and 100' deep.

Alterations. — Mr. H. E. Fisk's residence, No. 2017 Fifth Ave., is to receive improvements, including a bay-window, to cost $2,500, and Mr. Theron S. Strong's house, on West Fifty-second St., is to be extensively decorated, both from designs of Messrs. J. C. Cady & Co.

Building Permits. — *Eldridge St., No.* 163, four-st'y brick factory; cost, $4,000; owner, Cornelia A. Kip, 326 Pleasant Ave.; builder, James M. Seaman.

East Fifty-seventh St., Nos. 220 *and* 222, 2 two-st'y brick and granite stables; cost, each, $8,500; owner, William B. Baldwin, 145 West Fifty-fifth St.; architect, Geo. B. Pelham; mason, D. Kennedy.

One Hundred and Twenty-fifth St., s s, 125' e Seventh Ave., 2 five-st'y brownstone flats; cost, each, $15,000; owner, Catharine Fettretch, 112 West One Hundred and Twenty-fifth St.; architect, D. J. McRae; builder, John Fettretch.

Eighty-seventh St., s s, 62' e Lexington Ave., 2 four-st'y brownstone dwells.; cost, $14,000; owner, Patrick McQuade, 157 East Eighty-second St.; architect, A. B. Ogden.

One Hundred and Fourteenth St., s s, 80' w Lexington Ave., four-st'y brick double flat; cost, $17,000; owner, Thomas F. Treacy, 50 East One Hundred and Twenty-third St.; architect, R. Rosenstock.

East Eightieth St., No. 169, four-st'y brick and freestone stable; cost, $18,000; owner, Wm. P. and A. M. Parsons, 184 East Sixty-fourth St.; architect, Wm. Baker.

East Thirty-third St., No. 251, five-st'y brick cigar-factory and stable in rear; cost, $12,000; owner, Berhard Metzger, 627 Second Ave.; architect, Rd. Wirth, Jr.

One Hundred and Twenty-ninth St., s s, 125' e Eighth Ave., 6 four-st'y Ohio-stone apartment-houses; cost, each, $18,000; owner, Jas. Fretrer, Brooklyn; architect, Chas. Baxter.

West Fifteenth St., No. 158, five-st'y brownstone tenement; cost, $20,000; owner, Christopher Mooney, 220 West Forty-eighth St.; architect, C. F. Ridder, Jr.

Eighth Ave., s e cor. One Hundred and Twenty-ninth St.; 5 four-st'y brick apartment-houses; cost, each, $14,000; owner, Wm. K. Forster, 760 Lafayette Ave., Brooklyn; architect, S. M. Styles.

Delancey St., s w cor. Chrystie St., five-st'y brownstone tenement; cost, $12,000; owner, Henry R. Mount, 359 Pearl St.; architect, Jas. E. Ware.

One Hundred and Nineteenth St., s s, 163' e Fourth Ave., four-st'y brick dwell.; cost, $8,500; owner, Mrs. Mary McKargney, No. 224 West One Hundred and Twenty-fourth St.; architect, M. L. Ungrich; builder, Patrick McKargney.

West Sixty-third St., Nos. 302 *and* 304, three and two st'y sandstone stable; cost, $60,000; owner, Frank Work, 13 East Twenty-sixth St.; architect, G. E. Harding.

Broadway, w s, 50' n One Hundred and Thirty-ninth St., three-st'y brick dwell.; cost, $15,000; owner, Thomas Loughran. Broadway and One Hundred and Forty-first St.; architect, D. J. MacRae.

One Hundred and Thirty-ninth St., n s, 75' w Broadway, two-st'y brick stable; cost, $8,000; owner and architect, same as last.

First Ave., No. 1119, four-st'y brick stable; cost, $4,200; owner, P. T. Wier, 17 East Fifty-eighth St.; architect, A. De Saldern; builder, Jno. Fitzpatrick.

Madison Ave., n e cor. One Hundred and Twenty-third St., 5 three-st'y brownstone dwells.; cost, each, $9,500; owner and builder, H. M. Edmundstone, 64 Pulaski St., Brooklyn; architect, James E. Ware.

One Hundred and Twenty-third St., n s, 76 e Madison Ave., 4 three-st'y brownstone dwells.; cost, $8,500 each; owner and builder, same as last.

Sixty-second St., s w cor. Park Ave., seven-st'y brick apartment-house; cost, $175,000; owner, Wm. Van Antwerp, 11 East Fifty-fifth St.; architect, Wm. H. Cauvet; builders, G. P. Broas and Cooper & Weed.

West Fifty-fourth St., No. 147, two-st'y brick stable; cost, $8,000; owner, William B. Baldwin, 145 West Fifty-fifth St.; architect, Geo. B. Pelham; mason, David Kennedy.

Lexington Ave., e s, from Sixty-sixth to Sixty-seventh St., on rear of southerly side, two-st'y brick hospital; cost, $10,000; owner, Mt. Sinai Hospital, on premises; architects, H. J. Schwarzmann & Co.; builders, Alexander Brown, Jr., and T. J. Duffy.

One Hundred and Fourteenth St., n s, 270' e First Ave., 3 four-st'y brick tenements; cost, $12,000 each; owner, James O'Shea, 2312 First Ave.; architect, Andrew Spence.

Wall St., foot of, on East River, one-st'y frame ferry-house; owner, Union Ferry Co.; architect, George W. Wright.

East One Hundred and Fourteenth St., Nos. 322 *and* 324, 2 four-st'y brick tenements; cost, each, $9,000; owner, William Fernchild, Spring Valley, N. J.; architect, John McIntyre; builder, George J. Fernchild.

Fourth Ave., e s, 20' n Ninety-first St., 4 three-st'y brownstone dwells.; cost, each, $9,000; owner, John Sullivan, 1365 Lexington Ave.

East Thirty-first St., No. 121, rear, four-st'y and basement brick carriage-repository; cost, $5,000; owner, R. M. Stivers, 142 East Thirty-first St.; architect, Geo. M. Huss; builders, Geo. W. Moore and F. Schuler.

Monroe St., No. 130, 2 five st'y brick tenements; cost, $7,500 each; owner, Isabella Harrison, 354 West Twenty-ninth St.; builder, David H. King.

One Hundred and Twenty-eighth St., n s, 175' e Seventh Ave., four-st'y brick apartment-house; cost, $20,000; owner, Chas. H. Fenton, 158 East One Hundred and Twenty-fourth St.; architect, Chas. Baxter.

Seventy-second St., n s, 100' e Tenth Ave., seven-st'y brick apartment-house; cost, $150,000; owner, Wm. V. A. Mulhallon, 15 East Fourteenth St.; architect, Wm. H. Cauvet.

Twelfth St., s s, 82' 2" e Seventh Ave., four-st'y brick hospital; cost, $150,000; owners, Sisters of Charity, St. Vincent's Hospital, West Eleventh St., near Seventh Ave.; architect, William Schickel; mason, Marc Eidlitz.

Seventy-eighth St., n s, 219' w Ave. A, four-st'y brick tenement; cost, $7,500; owner and builder, John Goerlitz, 338 East Sixtieth St.; architect, Julius Boekell.

Seventy-fourth St., n e cor. Fifth Ave., four-st'y brick dwell.; cost, $120,000; owner, Wm. Van Antwerp, 11 East Fifty-fifth St.; architect, Wm. H. Cauvet; builders, G. P. Broas and Cooper & Weed.

Fifty-third St., s s, 500' w Fifth Ave., 4 four-st'y and basement brick dwells.; cost, $40,000 each; owners, etc., McCafferty & Buckley, 810 Fourth Ave.

Eighty-fifth St., n s, 100' w Second Ave., 5 four-st'y brownstone apartment-houses; cost, $20,000 each; owner, William Henderson, 351 East Eighty-fifth St.; architect, John C. Burne.

Pearl St., No. 544, five-st'y brick and iron store; cost, $27,000; owner, Charles S. Smith, 25 West Forty-seventh St.; architect, J. Morgan Slade.

One Hundred and Twenty-fifth St., n s, 381' w Sixth Ave., four st'y brownstone tenement; cost, $14,000; owner, architect and builder, Wm. M. Wilson, Mt. Vernon, N. Y.

Alterations. — *Fifty-second St.*, s w cor. Third

Ave., four-st'y brick extensions; cost, $4,500; owner, H. M. Livingston, Saratoga Springs; builder, Robert Bowne.

West Fifty-sixth St., No. 32, three-st'y brick extensions; cost, $5,000; owner, Sheppard Knapp, 118 West Twelfth St.; architect, Geo. E. Harding.

Lexington Ave., e s, from Sixty-sixth to Sixty-seventh St., two-st'y brick extensions; cost, $10,000; owner, the Mt. Sinai Hospital, on premises; architect, H. J. Schwarzmann & Co.; builders, Alexander Brown, Jr., and T. J. Duffy.

Ave. A, s e cor. Twenty-first St., raised 9' 2", second story removed, peak roof; cost, $3,000; owner and mason, New York Gas-Light Co., 157 Hester St.; architect and carpenter, Thos. F. Rowland.

West Thirteenth St., No. 2, front alteration, ironwork; cost, $2,500; owner, A. Rigney, on premises; architect, A. Craig.

East Seventy-fourth St., No. 40, interior alterations, etc.; cost, $5,000; owner, Joseph Liebmann, 493 Bushwick Ave., Brooklyn; architect, G. L. Morse.

East Fourteenth St., No. 107, vault under Fourteenth-street sidewalk, buildings front and rear connected by a one-st'y extension, etc.; cost, $6,000; owner, Steinway & Sons, on premises; architect, W. Schickel; builders, C. Eberspacker and W. A. Vanderhoff.

East Twenty-first St., No. 107, one-st'y brick extension, etc.; cost, $3,000; owner, James A. Scrymser, 107 East Twenty-first St.; architect, E. T. Littell.

East Fifty-third St., No. 116, remove mansard and carry up front wall; also, six-st'y brick extension, interior alterations; cost, $35,000; owner, Mary M. Drake, 451 West Fifty-seventh St.; architect, G. E. Harney; builder, not selected.

Sixteenth St., rear of n w cor. Fifth Ave. and Sixteenth St., raised one st'y; also, three-st'y brick extension; owner, F. Martinelli, 110 Fifth Ave., on premises; architect, Wm. Shears.

West Twenty-third St., No. 62, two-st'y brick extension, interior alterations, etc.; cost, $20,000; owner, Charles Lowther, 104 West Forty-fourth St.; architect, M. N. Cutter; builder, not selected.

Philadelphia.

CHURCH.—To be erected at Broad and Wharton Sts., "Church of the Atonement" (Presbyterian), to be built of Trenton brownstone, with finish of Hummelstown brownstone; inner walls to be built of English buff bricks, relieved by Peerless red brick; roof to be open-timber construction, 45' x 70'; cost, $15,000; Hazlehurst & Huckel, architects.

BANK.—The Pennsylvania National Bank is to build a new bank building at the s w cor. of Seventh and Market Sts.

BUILDING PERMITS.—*Longshore St.*, e s, bet. Keystone and Tulip Sts., two-st'y store and dwell., 16' x 62'; Amos. W. Linn, contractor.

Front St., e s, s of York St., four-st'y factory, 36' x 95'; Eldridge & Stewart, contractors.

Catharine St., No. 116, three-st'y dwell., 18' x 55'; Chas. J. Crosson, contractor.

Sixth St., e s, w s of Fairhill St., 6 two-st'y dwells., 16' x 42'; F. Heffling, contractor.

Fifth St., e s, s of Lehigh Ave., three-st'y dwell. and two-st'y dwell., 16' x 40'; F. Lambech, owner.

Front St., e s, s of Cumberland St., three-st'y store and dwell., 17' x 50'; Henry Gill, contractor.

Canal Bank, M'y'k, third and fourth st'y addition to factory, 28' x 38'; Jas. M. Preston.

Sixth St., e s, s of Oxford St., 5 three-st'y dwells., 18' x 60'; Keely & Brownback, owners.

Longshore St., e s, bet. Tulip and Garden Sts., two-st'y store and dwell., 20' x 58'; Amos Linn, contractor.

Seventh and Marriott Sts., s w cor., three-st'y factory, 24' x 40'; A. M. Green & Co., contractors.

Nineteenth St., w s, bet. Dickinson and Tasker Sts., 3 two-st'y dwells., 16' x 42'; D. S. McClure, contractor.

Fortieth St., e s, n of Hutton St., 4 two-st'y dwells., 15' x 42'; Furman Bros. contractors.

Diamond and Thouron Sts., n w cor., three-st'y building, 50' x 70'; H. M Markin, contractor.

Twenty-fourth and Wood Sts., n e cor., three-st'y addition to shop, 36' x 100'; F. B. Mills, owner.

Ogden St., No. 1322, 4 three-st'y dwells., 14' x 35'; L. H. Eckhardt, contractor.

Second St., w s, n of Cumberland St., five-st'y factory, 43' x 169'; S. Humphries, contractor.

Ninth St., w s, n of Diamond St., 28 two-st'y dwells., 14' x 42'; Jno. S. Smith.

West Girard Ave., No. 127, three-st'y building, 14' x 42'; Jno. Kramer, contractor.

Fifth St., w s, s of Mercy St., 4 two-st'y dwells., 16' x 42'; O. P. Fisher, contractor.

Twenty-sixth St., w s, s of Columbia Ave., three-st'y dwell., 18' x 48', and two-st'y stable, 18' x 40'; Geo. W. Allen, contractor.

Thompson St., n s, e of Nineteenth St., three-st'y dwell., 20' x 70'; Jno. McDowell, contractor.

Thirty-fifth and Market St., three-st'y coach factory, 40' x 65'; D. M. Lane & Son, owners.

South Broad St., No. 507, three-st'y dwell., 30' x 120'; Roydhouse & Atkinson, contractors.

McClellan St., No. 223, two-st'y stable and shed, 16' x 50'; R. W. Strode, contractor.

Poplar St., s s, bet. Fortieth and Forty-first Sts., 2 two-st'y dwells., 15' x 42'; Lewis Smith, contractor.

Eustis St., s s, bet. Fourth and Fifth Sts., 18 two-st'y dwells., 15' x 39'; A. M. Green & Co., contractors.

Venango St., n s, w of Eight St., 3 two-st'y dwells., 16' x 40'; Job Rutty, owner.

Germantown Ave., No. 1902, two-st'y brick building, and three-st'y dwell., 16' x 62'; three-st'y store, 12' x 30'; J. F. Green, contractor.

Master St., No. 1220, three-st'y dwell., 16' x 58'; W. D. Carter, contractor.

St. Louis.

BUILDING PERMITS.—Sixty-three permits have been issued since our last report, but 24 of which are for unimportant frame houses. Of the rest those worth $2,500 and over are as follows: —

E. Ahlendorf, two-st'y dwell.; cost, $4,400.

Albert Hausmann, 3 two-st'y dwells.; cost, $9,000.

John Studdart, two-st'y dwell.; cost, $3,000.

Theo. Bumiller, two-st'y dwell.; cost, $3,000.

R. F. Heitkamp, four-st'y addition to hotel; cost, $8,500.

Washington University, two-st'y addition to University; cost, $9,000.

Patrick McGrath, two-st'y tenement; cost, $5,500.

D. Rueckert, two-st'y dwell.; cost, $2,800.

Jefferson Ave., Railway Co., two-st'y stable; cost, $8,000.

St. Alphonsus Church, three-st'y school; cost, $35,000.

L. L. Ashbrook & Co., two-st'y pork-house; cost, $3,000.

James Stewart & Co., 8 two-st'y dwells.; cost, $14,000.

R. F. Fosburgh, two-st'y dwell.; cost, $5,000.

James Stewart, two-st'y dwell.; cost, $5,000.

Mrs. Wm. McKee, two-st'y dwell.; cost, $20,000; C. E. Illsley, architect.

C. C. Weaver two-st'y dwell.; cost, $2,500.

J. Vincent, three-st'y dwell.; cost, $5,200.

Hermann Koch, two-st'y dwell.; cost, $2,800.

Louis Lyman, two-st'y dwell.; cost, $2,750.

French Silvering Co., two-st'y shop; cost, $5,400.

Central Turner Society, two-st'y hall; cost, $5,000.

August Meier, two-st'y dwell.; cost, $4,900.

Thos. Halpin, three-st'y store and dwell.; cost, $10,000.

Mrs. Mary Shore, two-st'y dwell.; cost, $3,000.

James Halpin, two-st'y dwell.; cost, $8,500.

George P. Whitelaw, four-st'y store building; cost, $20,000.

Eugene Amour, two-st'y dwell.; cost, $2,900.

Charles McGrievy, two-st'y dwell.; cost, 3,800.

St. Paul, Minn.

A. D. Hinsdale, architect, has the following work in hand:

HOSPITAL. — Addition to county and city hospital, two-st'y and cellar of brick, 40' x 50'; cost, $8,000.

STORES.—Block of 2 stores, 50' x 70', three-st'y brick, and Ohio sandstone, on Wabasha St., near Ninth St., for Mr. A. Winters; cost, $15,000.

Block of 5 stores, 90' x 150', for William Constans, cor. Wacouta and Seventh Sts., three-st'y, fronts to be of St. Louis press brick and Ohio sandstone; cost, $45,000.

PACKING HOUSE.—Pork packing house of brick and stone, three-st'y, cor. of Minnesota and Eighth Sts., 50' x 100', for T. J. McMillan; cost, 18,000.

TENEMENT-HOUSES.—Block of brick tenements, cor. of Market and Fourth Sts., 50' x 100', three-st'y, of press brick, sandstone and terra-cotta, for Dr. J. H. Stewart; cost, $25,000.

Block of two tenements of brick, 50' x 80', three-st'y, brick and Ohio stone for fronts, for Drs. Stewart & Wheaton, on Washington St.; cost, $15,000.

COTTAGES.—Cottage residence of wood, two-st'y-and-a half on Tenth St., for Mr. T. J. McMillan; cost, $7,000.

Cottage of wood, on Holly Ave., for J. Brand, 32' x 52'; cost, $4,100.

Cottage for C. Hall, on Dale St., 28' x 42', of wood; cost, $3,200.

Cottage for R. C. Munger, on Dayton Ave.; cost, $3,000.

Also a block of 4 houses for R. C. Munger, on Dayton Ave., three-st'y and cellar, 50' x 85', of wood, cost, $14,000.

HOUSES.—Block of 5 brick houses, three-st'y, for Mr. Wm. Constans, on Jackson St., cor. of Tenth St, 50' x 100'; cost, $16,000.

Also for Wm. Constans, on Tenth St., 3 houses, 30' x 50', two-and-a-half-st'y and cellar, of frame, cottage style; cost, $12,000.

House for Mr. J. C. Terry, cor. of St. Paul and Somerset Sts., two-and-a-half-st'y, of brick, 30' x 50'; cost, $4,000.

TENEMENTS.—Block of 4 brick tenements, 50' x 80', for J. A. Weide, on Tenth St., three-st'y; cost, $15,000.

Three blocks of double wood tenements, three-st'y, cor. St. Paul and Somerset Sts., for Mr. P. Rogers; cost, $16,000.

ARMORY.—St. Paul Armory, on Sixth St., 90' x 104'; two-st'y; cost, $8,500.

Toledo, O.

IN GENERAL.—There has been nothing flattering to chronicle regarding building matters in Toledo nor its vicinity, so far as '82 can yet show.

The bulk of work has been a very cheap class of cottages and a few "pasteboard" store buildings. Yet carpenters are not plenty: certainly *skilled* workmen never seemed more scarce. But of botches, or, more properly, poor, ignorant men who never learned a trade, and who are never surprised at being "shipped" at any hour in the day, and whose "kit" is a dull hatchet and a bent square, there are a plenty; indeed a surfeit. Pitiable indeed the position of the poor architect who so far forgets himself as to consent to superintend a piece of work for an owner so deluded as to believe that the building will be produced to him "according to plans and specifications," or that such a thing is possible under the present regime.

BUILDING MATERIAL is rather high still, and will probably so rule. Some have concluded to defer building till there's a decline, which can't come unless it is wished to repeat the horrors of '73 to '80. The fact is, the prices now are healthy, where before they were far the other way. All will come right in time.

DEPOT. — A two-st'y passenger-depot, 50' x 100', for Wheeling & Lake Erie R. R., is to be built on Cherry and Champlain Sts.; also a frame freight-house; cost to aggregate about $25,000; work to begin in June; contract to be let.

HOUSE. — A two-st'y frame dwell., 27' x 55', is to be built on Nineteenth St., for Mr. Samuel Betts, at a cost of $3,000; Mr. N. B. Bacon is the architect; work to begin in June; bids being made.

SCHOOL-HOUSE. — A two-st'y brick school-building, about 80' x 80', is to be built on Warren St., for City of Toledo, at a cost of $18,000; Mr. E. O. Fallis is the architect; work to commence the present season.

Washington, D. C.

BUILDING PERMITS. — The following are the permits issued since last report: —

John A. Stephenson and George White, 6 two-st'y brick dwells., 15' x 30', cor. Tenth and E Sts., s w; cost, $12,000.

James Robbins, brick dwell., 21'6" x 33', three-st'y and cellar, Q St., between Fourteenth and Fifteenth Sts., n w; cost, $4,500.

F. H. Plummer, brick dwell., 20' x 33', three-st'y and basement, H St., between Nineteenth and Twentieth Sts., n w; cost, $5,500.

John H. Mattingly, brick dwell., 20' x 40', three-st'y and cellar, Sixth St., between D and E Sts., s w; cost, $5,500.

Charles Liberman and R. I. Fleming, 2 brick dwells., 21'3" x 40', three-st'y and basement, L St., between Fifteenth St. and Vermont Ave., n w; cost, $14,000.

Mrs. Mary Lawler, two-st'y brick dwell., 20' x 40', cor. Nineteenth and R Sts., n w; cost, $2,549.

Gen. A. A. Humphrey, brick dwell., 25' x 84', three-st'y and basement, Connecticut Ave., between M and N Sts., n w; cost, $19,000.

Mrs. I. Higgins, brick dwell., 20' x 38', three-st'y and cellar, Massachusetts Ave., between Twelfth and Thirteenth Sts., n w; cost, $8,000.

J. T. and T. H. Harlin, 2 brick dwells., 36' x 40', two-st'y and cellar, Seventh St., between East Capitol and A Sts., s e; cost, $5,600.

W. H. Goddard, brick dwell., 27' x 64', three-st'y and basement, cor. Connecticut and Hillyer Aves., n w; cost, $20,000.

Chas. E. Foster, three-st'y brick office, 22' x 60', F St., between Ninth and Tenth Sts., n w; cost, $4,500.

W. O. Dennison, brick office, 22' x 75', three-st'y and cellar, F St., between Ninth and Tenth Sts., n w; cost, $5,000.

Wm. Cissell, 2 two-st'y brick dwells., 16' x 32', Fourth St., between B St. and Maryland Ave., n e; cost, $3,000.

Christian Church, one-st'y brick church, 64' x 71', Vermont Ave., between N St. and Iowa Circle, n w; cost, $38,500.

George S. Beall, brick dwell., 20' x 50', two-st'y and cellar, M St., between Twelfth and Thirteenth Sts., n w; cost, $3,300.

Jerome Bonaparte) two-st'y brick stable, 44' x 46', rear of residence, K St., between Sixteenth and Seventeenth Sts., n w; cost, $4,700.

Mrs. Mary Ashford, two-st'y brick dwell., 21' x 32', Dunbarton St., between Green and Montgomery Sts., Georgetown; cost, $1,900.

In addition to the above, 55 permits have been issued for minor repairs, amounting to $11,870.

General Notes.

ABINGDON, VA.—Two semi-detached three-st'y basement brick dwell., 34' x 86' each, Main St., for Messrs. Jas. C. Greenway and Thos. Preston Trigg; Mr. Jackson C. Gott, Baltimore, architect.

ALEXANDRIA, MINN. — Proposals for building a school-house for Douglas County were received June 10; L. S. Buffington, architect, Minneapolis, Minn.

ANDOVER, O. — School-house; S. W. Foulk, architect, Greenville, Pa.; cost, $9,000.

ASTORIA, ORE. — Justus Krumbein, architect, Portland, Ore., has prepared plans for a school-house, to cost $10,000.

Plans have also been prepared for a two-st'y residence for Mr. Hoydt; cost, $6,000.

BANGOR, PA. — A two-st'y public school building, to be built of brick with Sutherland Falls trimmings; cost, $10,000; Fitzgerald, contractor; T. I. Lacey, architect, Binghamton, N. Y.

BATH, L. I., N. Y. — Two-st'y cottage for W. W. Rhodes; cost, $3,000; Palliser, Palliser & Co., architects, Bridgeport, Conn.

BEMENT, ILL. — F. E. Bryant, one-and-a-half-st'y house, 30' x 60'; cost, $3,000; Palliser, Palliser & Co., architects, Bridgeport, Conn.

BINGHAMTON, N. Y. — Hotel building for H. J. Crandall; cost, $12,000; brick, with limestone finish; T. I. Lacey, architect.

BRAINERD, MINN. — The Commissioners of Crow Wing County received bids for a new court-house and jail June 15; Kees & Fisk, architects, Minneapolis, Minn.

BRISTOL, R. I. — Mr. S. C. Earle, of Worcester, has submitted plans for the new town-hall.

BRUNSWICK, ME. — Brunswick is to erect a town-building and soldiers' monument combined, the cost not to exceed $40,000.

BUFFALO, N. Y. — Work has been commenced on the Fitch Institute, a fire-proof building, cor. of Michigan and Swan Sts., 61' x 200', four stories above basement, to be of brick with terra-cotta gables and ornaments; to cost $130,000; Rummel & Rupp, of Buffalo, contractors; Alden & Lassig, of Rochester, the iron-work; Jas. G. Cutler, of Rochester, being the architect.

CAMBRIDGEPORT, MASS. — The Union Baptist Society (colored) proposes to build a new church, to cost $10,000, on Main Street, near the First Universalist Church.

CAIRO, ILL. — A United States marine hospital is to be built here.

CAREY, O. — A brick and stone dwell., 53' x 65', is to be built on Main St., for Mr. David Straw, at a cost of $15,000; Mr. N. B. Bacon is the architect; work to begin in June, '82; bids being made.

CEDAR FALLS, IO. — The Board of Directors of the Iowa State Normal School, not finding the bids of contractors, opened May 27, 1882, on new building as within the limit of the appropriation of the State for that purpose, adjourned till Tuesday, June 20, 1882, asking for further bids until that time.

CENTREVILLE, ORE. — The contract for a new school-building has been let to Messrs. Gerking & Larking; cost, $6,850.

COLUMBUS, O. — Proposals for building a chemical laboratory for the Ohio State University were received June 7; J. T. Harris & Co., architects.

CRAWFORDSVILLE, IND.—Residence for I. C. Elston; cost, $10,000.

Single residence for W. S. Lafayette; cost, $7,000; C. A. Wallingford, architect.

DANVILLE, ILL. — On June 10, Milton M. McNeil received proposals for building the Kimber M. E. Church, at the cor. of Franklin and Seminary Sts.

DEDHAM, MASS. — The Building Committee on the new High School-house have voted to purchase the

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Marsh lot on Washington Street, near the Catholic church, as the site for the new building.

DEFIANCE, O. — Brick two-st'y and tower cottage, 30' x 40', for F. W. Le Sueur; cost, $3,000; Palliser, Palliser & Co., architects, Bridgeport, Conn.

ESCANABA, MICH. — A court-house is to be built here for Delta County.

EVANSTON, ILL. — Proposals for the erection of a one-st'y six-room school-building at Evanston, Ill., to be completed by August 15 next, as per plans and specifications of Edbrooke & Burnham, architects, 184 Dearborn St., Chicago, were received May 20.

FERGUS FALLS, MINN.—Proposals for building a hotel of 100 rooms were received June 1, by Miller & Macmaster; cost to be $23,000.

FORT HOWARD, WIS.—The Milwaukee and Northern Railroad is to build a car-shop at a cost of $4,500.

GREENVILLE, PA. — Mr. S. W. Foulk, architect, has the following work in hand: —

Brick dwell. for T. C. Gibson; cost, $7,000.
Brick dwell. for Sam. Porter; cost, $3,000.
Storeroom, for Wm. Paden; cost, $2,000.
Dwell., for J. G. McFate; cost, $2,000.
Dwell., for Chas. Beechler; cost, $3,000.

GROTON POINT, CONN. — General W. A. Aiken is building a two-st'y summer cottage, 40' x 40'; cost, $2,500; Palliser, Palliser & Co., architects, Bridgeport, Conn.

HARTFORD, CONN. — The county commissioners have decided to call for no bids for erecting the new county building, but the work will be done by Messrs. John R. Hills and John C. Mead, under the direct supervision of the commissioners, all purchases and expenditures to be made by them.

HIAWATHA, KAN.—The Missouri Pacific Railroad is to build a large union depot and machine shop here.

INDIANAPOLIS, IND.—The Supreme Court has decided that the $2,000,000 appropriated by the Legislature for the new State-House does not cover incidental expenses of any kind, but that the full sum may be expended in the construction of the building.

Mr. C. A. Wallingford has on hand as follows:
Residence for Geo. W. Wesley; cost, $5,000.
Residence for Chas. Martindale and Fred. Gregory; cost, $5,000.
Residence for Thos. Litenberg; cost, $3,000.
Residence for M. Taylor; cost, $2,000.

ITHACA, N. Y.—The trustees of Cornell University have appropriated $20,000 for a new building to be called "the Armory." It is to be of brick, 60' x 150'. An annex will contain swimming-tanks, bath-rooms, a gymnasium, etc.

JERSEY CITY, N. J.—A residence, 30' x 85', to be built of brick, with terra-cotta finish, is to be erected for Mr. Jno. F. Ward; from designs of Mr. F. C. Withers, of N. Y.

KINGSTON, IND. — Brick house for Everett Hamilton, 40' x 40', is being built from designs of Palliser, Palliser & Co., architects, Bridgeport, Conn.

KINGSTON, N. Y.—The academy is to be raised one st'y in height, and a tower of brick and stone erected at a cost of about $25,000 from designs of Mr. C. W. Romeyn, of N. Y.

LAKEVILLE, CONN. — The corner-stone of St. Mary's convent will be laid June 18.

LAKEWOOD, N. J.—A winter hotel, 50' x 200', is to be built by a party of New York capitalists; from designs of Mr. H. Edwards Ficken, of N. Y.

LANCASTER, WIS. — A. H. Barber, a two-st'y and tower frame cottage, 28' x 40'; Palliser, Palliser & Co., architects, Bridgeport, Conn.

LAWRENCEBURG, O. — The contract for the new Presbyterian Church has been let to Martin Tittle.

LEXINGTON, ILL. — DR. C. S. Elder, two-st'y frame cottage house; cost, $3,000; Palliser, Palliser & Co., architects, Bridgeport, Conn.

LONDON (EAST), ONT. — Proposals for a hall for the Ancient Order of Foresters are received June 10; Wm. Joanes, architect.

LONG BRANCH, N. J.—A cottage, adjacent to that of Gen. Grant, is to be built at a cost of about $15,000; from designs of Mr. C. W. Romeyn, of N. Y.

LOUISVILLE, KY.—The following building permits have been issued since last report:

Cooper & Bro., brick store and dwell.; cost, $8,000.
S. Grabfelder, brick dwell.; cost, $8,500.
J. Comstock, brick dwell.; cost, $2,000.
W. H. Bolling, brick store and dwell; cost, $6,000;
H. P. McDonald & Bro., architects.
Nancy McHatten, brick dwell.; cost, $2,000.
N. L. Johnson, brick dwell.; cost, $2,000.
C. M. Slocum, brick flour-mill; cost, $6,000.
German Protestant Orphanage, brick dwell.; cost, $4,000.

LYNN, MASS.—The Lynn hospital corporation committee has awarded the contract for remodelling the Hawthorne mansion for hospital purposes to Joseph Breed, 2d, & Sons, for $13,000.

MEXICO, MO. — Ex-Gov. Charles H. Hardin has just given to Hardin College $19,000, to build a new wing to the edifice.

MINNEAPOLIS, MINN. — The Common Council has appropriated $30,000 for a site and are building a work-house.

MONTEVIDEO, MINN.—Proposals for building a court-house and jail for Chippewa County were received by J. Haley, architect, on May 29.

NEW BRIGHTON, STATEN ISLAND.—Six frame cottages to cost from $6,000 to $7,000, are to be built for Mr. J. C. Henderson; from designs of Messrs. Lamb & Rich, of N. Y.

NEW CONCORD, O. — J. J. Best is having built an artistic cottage, 30' x 35', of brick and wood; plans by Palliser, Palliser & Co., architects, Bridgeport, Conn.

NEW HAVEN, CONN. — The corner-stone of Humphrey-Street Congregational Church, formerly East Church, was laid last week.

NEW LONDON, CONN. — House for Lieut. A. C. Taylor; cost, $25,000; Mr. J. B. Goodwin, architect, Norwich, Conn.

NEWPORT, R. I.—A cottage is to be built for Mr. Boutelle Noyes, at the cor. of Rhode Island Ave. and Francis St.; from designs of Mr. F. C. Withers, of N. Y.

NORWAY, ME.—$10,000 have already been taken in the stock of the proposed town-hall.

BUILDING INTELLIGENCE.

NORTH ADAMS, MASS. — The North Adams Woollen Company have begun building a ten-tenement house, and others are to be built.

NORWICH, CONN. — Wooden house and barn, for F. S. Osgood, Esq.; cost, $30,000; Mr. J. B. Goodwin, architect.

House for Frank A. Mitchell, Esq.; cost, $8,000; J. B. Goodwin, architect.

Mr. Chas. Barg's residence is being greatly improved, remodelled, and decorated, after designs by Palliser, Palliser & Co., architects, Bridgeport, Conn., and under their direction.

OSTERVILLE, MASS.—A two-st'y frame cottage is to be built for Mr. T. H. Tyndale, 52' x 45'; W. G. Preston, of Boston, architect.

OSHKOSH, WIS. — An association of subscribers to the new opera-house has been formed, the capital being represented at $30,000. Plans for a new building were presented, showing a building 60' x 120', with a seating capacity of 1,017. The building will be of brick.

OSWEGO, N. Y. — Sheriff's residence and jail; cost, $20,000; the jail to be of limestone, with iron floor and cells; the residence brick with limestone finish; John Cerchran, contractor; T. I. Lacey, architect, Binghamton, N. Y.

OYSTER BAY, L. I.—A frame house with stable is to be built for Mr. W. L. Vandewirt; Messrs. Lamb & Rich of N. Y. are the architects.

(Continued on page xv.)

PROPOSALS.

CITY-HALL.

[At Nashua, N. H.]

Sealed proposals will be received by the Committee on City-Hall Repairs of the City of Nashua, N. H., **until 12 o'clock M., July 1st, 1882,** for certain alterations and additions to the City-Hall.

Plans and specifications can be seen at the City-Hall from June 16th to June 23d, both inclusive, and can be seen at the architects' office, from June 24th to June 30th, both inclusive.

Proposals must be indorsed "Proposals for Alterations and Additions to the City-Hall Building, Nashua, N. H.," and addressed to Hon. Benj. Fletcher, Jr., Mayor.

The right to reject any or all bids is reserved.

Per order of the Committee.

WAIT & CUTTER, Architects,
338 7 Exchange Pl., Boston, Mass.

CITY-HALL.

[At San Francisco, Cal.]

OFFICE OF THE SECRETARY OF THE BOARD OF NEW CITY-HALL COMMISSIONERS, SAN FRANCISCO, CAL., May 20, 1882.

Sealed proposals for the following work and materials will be received by the Board of New City-Hall Commissioners, for the City and County of San Francisco, in the room of the Board of Supervisors, in the new City-Hall, City and County of San Francisco, Cal., between the hours of nine and ten A. M., **on Wednesday, the 28th day of June, 1882:**

First.—Completing the internal work of part of the Larkin Street front to be completed within twenty weeks from date of contract.

Second.—Supplying all the Portland Cement required between June 1 and November 30, 1882.

Third.—Supplying all the Lime required between June 1 and November 30, 1882.

The above work to be performed and materials to be delivered in accordance with drawings and specifications, and conditions of contracts, to be seen at the office of the Secretary, where forms of proposals and bonds will be furnished to intending bidders.

No bids will be entertained unless made on blanks furnished by the Secretary of the Board, and accompanied by a bond with two or more good and sufficient sureties, in a sum equal to ten (10) per cent of the total sum of the tender, conditioned for the due entering into the contract by the party to whom it may be awarded.

The bids must be indorsed for the work proposed to be done (or materials to be furnished), and addressed to the Board of New City-Hall Commissioners, and be delivered to the Board while it is in session, and within the hours above named.

The Board reserves the right to reject any and all bids.

Payments on account of contracts will be made in audited demands on the Treasury of the City and County of San Francisco, payable in gold and silver coin, and in the manner provided for in the specifications and conditions of contract.

M. C. BLAKE,
H. BRICKWEDEL,
J. F. COWDERY.
Board of New City-Hall Commissioners for the City and County of San Francisco.
338 H. BARTLING, Secretary.

COURT-HOUSE.

[At Wyandotte, Kan.]

Sealed proposals will, **on the 20th day of June, A. D., 1882,** and up to the hour of 12 M., on said day be received at the office of the County Clerk of the County of Wyandotte, in Wyandotte City, Kansas, for the furnishing of material and the erection of a Court-House for said Wyandotte County, Kansas, in accordance with the plans and specifications, which may be seen at the office of said County Clerk, and at the office of E. T. Carr, in Leavenworth city. Each bid must be accompanied by a deposit of $300 in cash or a certified check for that amount, as a guaranty that the party bidding will, within ten days, if his bid be accepted, enter into a contract for the completion of said work, and give a satisfactory bond for the faithful performance of the work thereby awarded to him. Each bidder will be required to make a separate bid for the erection and inclosing of the building as per instructions to bidders, and for the full completion of the building as per plans and specifications. The right to reject any and all bids is hereby reserved.

By order of the Board of County Commissioners.
337 D. R. EMMONS, County Clerk.

PROPOSALS.

IRON FURRING AND LATHING.

[At Boston, Mass.]

OFFICE OF SUPERVISING ARCHITECT, TREASURY DEPARTMENT, WASHINGTON, D. C., May 26, 1882.

Sealed proposals will be received at this office **until 12 M., on the 26th day of June, 1882,** for furnishing and fixing in place complete all the iron furring and lathing, etc., required for the U. S. Post-Office and Sub-Treasury extension at Boston, Mass., in accordance with drawings and specification, copies of which and any additional information may be had on application at this office or the office of the Superintendent.

JAS. G. HILL,
338 Supervising Architect.

ROSTRA.

OFFICE OF NATIONAL CEMETERIES, WASHINGTON, D. C., May 20, 1882.

Sealed proposals, in triplicate, with a copy of this advertisement attached to each, will be received at this office **until Tuesday, June 20, 1882,** for the construction of a rostrum at each of the following named national cemeteries: Marietta, Ga.; Stone's River, near Murfreesboro, Tenn.; Mound City, Ill.; Fort Leavenworth and Fort Scott, Kan.

Copies of plans and specifications may be seen, and blank forms of proposals procured at this office and at the Quartermaster's offices at Newport Barracks, Ky.; Louisville, Ky.; St. Louis, Mo., and Fort Leavenworth, Kan.; at the cemeteries above named, and at the Chattanooga, Nashville, Memphis and Knoxville, Tenn., national cemeteries.

Proposals should be indorsed "Proposals for Rostrums," and addressed to the officer in charge of National Cemeteries, Washington, D. C.

They will be opened at noon on the date specified, when bidders are invited to be present.

338 BENJ. C. CARD, Q. M., U. S. A.

SHOPS.

[At Columbus, O.]

Sealed proposals will be received **until 12 o'clock, June 26, 1882,** in the office of the Superintendent, at the Institution for Deaf and Dumb, in Columbus, O.

A.

For the excavation.
For the brick and brickwork.
For the stone and stone-masonry.
For cut stone-work and material.
For carpenter-work and hardware, including material.
For tin, galvanized iron and slating.
For painting and glazing necessary for the shop improvement at the above institution.

B.

For the excavation.
For the brick and brickwork.
For piping, plumbing and sewerage, including material necessary for the heating-apparatus of the above shops.

Plans and specifications can be seen at the office of Julius A. Kremer, architect, 64 North High St., Columbus, O.

The trustees reserve the right to reject any or all bids, and a sufficient bond must be furnished with the bid for entering into the contract if the same is awarded.

F. C. SESSIONS,
338 Resident Trustee.

SEWER.

[At Hyde Park, Ill.]

Public notice is hereby given that the undersigned village clerk of the village of Hyde Park, Cook Co., Ill., will receive **up to 6 o'clock,** P. M., **of Monday, June 19, 1882,** at his office in the village hall in said village, sealed proposals for the construction of a brick sewer on Forty-fifth St., Woodlawn Ave., and Forty-fourth Pl., from Grand Boulevard to Lake Michigan. The internal diameter of said sewer to be four feet between Lake Michigan and the centre line of St. Lawrence Ave., thence to the east line of Grand Boulevard, to be 3 75-100 feet, according to the plans and specifications now on file in the office of the village engineer. Payments for said work to be made in certificates drawn against Special Assessment Fund No. 134, on the back of which said certificate the village shall be released from all liability. All bids shall be accompanied with a certified check for the sum of five hundred dollars, which check shall be held until said work is completed.

The village reserves the right to reject any or all bids.

EDWARD W. HENRICKS,
337 Village Clerk.

HYDRAULIC ELEVATOR.

[At Washington, D. C.]

OFFICE OF BUILDING FOR STATE, WAR AND NAVY DEPARTMENTS, WASHINGTON, D. C., June 1, 1882.

Sealed proposals for furnishing and erecting in place complete a Hydraulic ash-lift or elevator in the area of the North Wing of the Building for State, War and Navy Departments, in this city, will be received at this office **until 12 M., June 20, 1882,** and opened immediately thereafter, in presence of bidders.

Specifications, general instructions to bidders, and blank forms of proposal will be furnished to established builders of hydraulic elevators upon application to this office.

THOS. LINCOLN CASEY,
337 Lt.-Col. Corps of Engineers.

SCHOOL-HOUSE.

[At Boston, Mass.]

Sealed proposals will be received at the office of the city architect, **until Tuesday, June 20, at 12 o'clock,** M., for the excavating, grading and laying the foundation-walls of a grammar school-house, to be erected for the city of Boston, on Kenilworth St., Ward 21. The stone for the foundation will be furnished by the city. Proposals to be addressed to the undersigned, and indorsed "Proposal for excavating grading and foundation-walls, grammar school-house, Kenilworth St." The committee reserves the right to reject any or all proposals received. For plans and specifications apply at the office. For the committee.

338 WILLIAM WOOLLEY, Chairman.