

THE AMERICAN ARCHITECT AND BUILDING NEWS

A WEEKLY JOURNAL OF CONSTRUCTIVE AND DECORATIVE ART

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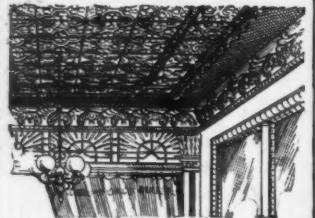
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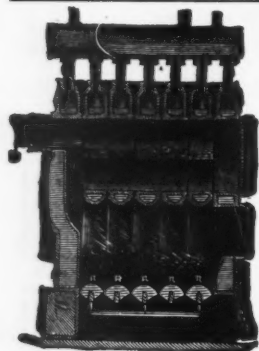
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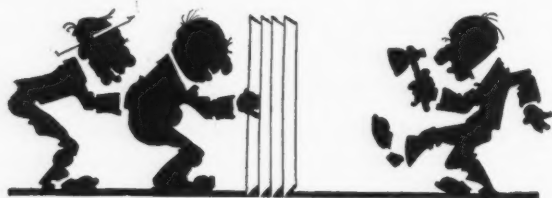
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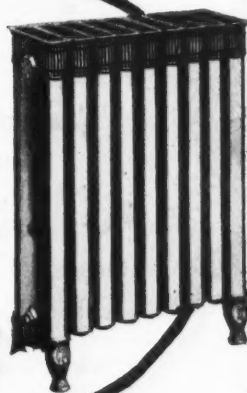
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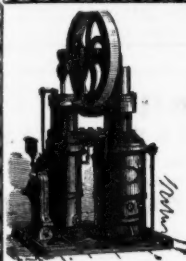
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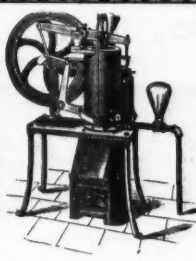
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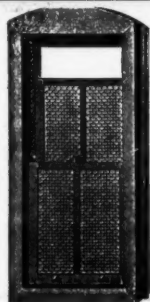
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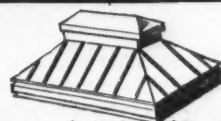
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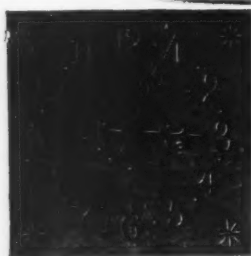
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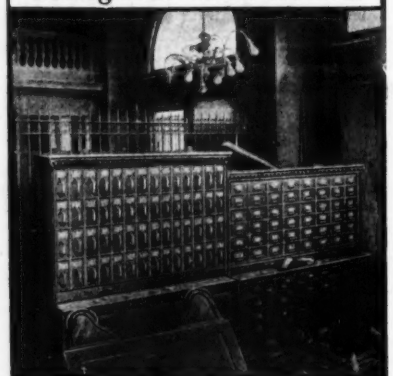
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President.

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WE hardly expected to find ourselves brought to book and publicly chidden as opponents of the general endeavor to perfect methods of fireproofing. Yet Mr. J. W. Fitzpatrick, in a readable communication which will be found in another column, takes a somewhat perverted view of some remarks we made in our issue for April 2, and thereupon reprehends us smartly for their expression. But we must plead not guilty, and, while admitting that our remarks were colorably pessimistic, we think they were justified by the line of argument. How far is it really justifiable for investors to risk large sums of money in high buildings in the belief that they are really fireproof, when there are always left many fatally weak spots in the defensive armor in the shape of unprotected windows glazed with plain glass? It was this question merely that we raised. With little doubt, the architects and the owners of the two Baltimore buildings we referred to tried to build, and probably thought they had built, really fireproof buildings, structures that could protect themselves and certainly would protect the contents which lessees might entrust to them later. One of the stock arguments in favor of fireproof building is that a fire originating in the contents of a building can always be confined to the room, or floor, in which it breaks out. Yet these two fireproof buildings were absolutely gutted and their contents annihilated, while the structures themselves endured fifty and seventy-five per cent of total damage. Probably each of these buildings could safely have resisted any fire originating in itself, although they could not resist the exposure hazard of a general conflagration. We grant that the degree of resistance that these buildings exhibited is encouraging, and it is obvious that, if there had been metal window-frames, cement, metal or stone finish and incombustible upper flooring, the buildings themselves would have sustained less damage. But that such buildings would certainly escape serious injury in a general conflagration is not wholly certain. The heat developed in the Baltimore fire was unquestionably tremendous, but, as we remember the situation in that section of the city, the majority of the buildings ranged between three and five stories in height only. Now if we suppose that the fire had involved structures of the same inflammable character, but averaging eight stories in height, so containing a much larger mass of combustible material, it is apparent that a vastly larger amount of heat would have been produced and the duration of the exposure would have been more prolonged, and who can say what effect might have been produced on the two buildings in question, or upon much better ones, for there always has to be reckoned with, not only errors of judgment on the part of the designer, but those inevitable imperfections of workmanship due to carelessness or accident which heat and flame are likely to discover more surely than can any inspector's eyes.

WHEN a whole city, or a considerable portion of one, is solidly built up with even such fireproof buildings as these two Baltimore ones, that city or section will be safe from the conflagration hazard. But the architect or owner who sets such a building down amongst the ordinary combustible buildings of a city and takes no step to protect all the windows, is gambling most unjustifiably with the possibilities. Greater care should be taken with these pioneer buildings than perhaps would be needful in the case of those that are built about them later. The glass window is the weakest link in the chain, and it is not easy to provide a satisfactory method of protecting it, or to find a substitute for it. The protective methods, so far as we know, are limited to some form of outside shutter or to the water-curtain. As the latter safeguard depends upon human agency for its operation, that factor alone, without regard to other difficulties, makes it a negligible quantity. Shutters are not favored by firemen, — they are disfiguring architecturally and are mechanically difficult of application and operation. At the present time the only material that affords a reasonably satisfactory solution of the difficulty is wire-glass; but until the factories can produce satisfactory polished plate, with a wire mesh of not too great obtrusiveness, the material is hardly likely to find favor for store-fronts or office-windows.

IT happens that Mr. Fitzpatrick is the Secretary-Treasurer, with headquarters at Washington, of an association with an intolerably long name — the International Society of State and Municipal Building Commissioners and Inspectors — that has come into being within a few weeks, or specifically late in February, when its first meeting for organization was held in Washington. The fact that the attendants seem to have numbered less than a score does not detract from the importance of the occasion, since the building officials of sixty-four cities were either present in person or represented by proxy. The objects for which this new society is created are all commendable and several of them are within the reach of possible accomplishment. The collecting of "information relating to building matters, tests, etc., and the dissemination of that information among those forming part of this Society" will but require a diligent reading of the many building and architectural periodicals and a subsequent use of printers' ink, and, if accompanied by a weighing and winnowing process by competent heads, the result should provide a compendium of value. The securing of "more uniform building laws" is a reasonable undertaking, if these uniform laws are to be applied in cities where conditions are identical or closely similar; while "concerted action toward . . . the adoption . . . of means to secure, as far as practicable, the prevention of loss of life and property by fire" is surely a wholly admirable aim. But further than this it appears to be one of the Society's objects, and it is regrettable that it was not included in the preamble to its constitution, to prevent the authorities from "lapsing into inefficient enforcement of passably good laws." This end seems to us one which such an association of officials might easily attain since the enforcement of the laws practically rests in the hands of the members, themselves executive officers of municipal building departments. We believe they can do more real good by directing their efforts to this one end than they can by collecting and disseminating information which is already pretty thoroughly collected and widely disseminated by other agencies. The moral support which this Society can give determined and efficient officials in their efforts to enforce such ordinances as exist should be of real value, and no less should be the personal interchange of views and recounting of successful or unsuccessful attempts at enforcement at the annual gatherings of the body.

IT is said that the attitude of the Justices of the Supreme Court of the United States towards the suggestion that the proposed enlargement of the United States Capitol should be placed in the hands of the Superintendent of that building materially helped to defeat that movement. This being so, architects will have a higher degree of respect for the Court than ever, and will hope that, when the proposed Department of Justice Building is finished, the Justices may find their new home as much to their taste as they have always found the old

Senate chamber in the Capitol. The result of the general protest that has been made and the efficient arguments urged by the Executive Committee of the American Institute of Architects has been that immediate action is deferred, and the question referred for investigation and report to a joint committee of the Senate and House, who are to employ three eminent architects to study the problem and prepare plans, if such course should seem to be advisable. It is believed by many that, since the scheme of Speaker Cannon's favorite cannot be rushed through, there will be no very active attempt made to enlarge the Capitol for some years to come, seeing that the new office-buildings for the House and for the Senate, which are to be built in the neighborhood of the Capitol, will provide all the new committee-rooms that are really needed. To us this is a very happy outcome, as we have never taken kindly to the idea of any serious change in the masses of the east front of the Capitol, which is so much more satisfactory than the west front mainly because of the dominating preponderance of the dome when seen from the east, the structure seeming more nearly to rise from a proper foundation than when seen from the west, where it sets back from that front and seems to rest upon the flat roof of the building. The east front is not a perfect piece of design, but it is far too good to be replaced by any but the most thoroughly studied effort of a competent architect.

WE had supposed that the occupant of the scaffolding suspended up inside the dome of the Capitol at Washington, that we have seen from year to year, was Signor Brumidi, slowly at work on the frieze of historical subjects with which he was seeking to enliven the very bleak interior aspect of the rotunda and dome. But apparently we were at fault, as the papers have just reported the death, at the age of sixty-six, of Signor Filippo Costagini, who for many years has been going on with Brumidi's work and drawing from the Treasury the very acceptable honorarium of ten dollars per day. How many years he had been engaged in this scheduled occupation we cannot tell, but we fancy that hardly any else is any better informed, as few officials probably ever thought of looking up into the dome or realized that the little canvas-covered scaffold hanging there meant ten dollars a day to the occupant. The chances are that it was a case of out of sight out of mind, and the draft on the Treasury might have continued up to this time had not some auditor, or some one else, during President Harrison's administration brought about the suspension of the work. A space of some fifty feet of the frieze is still undecorated and it is not easy to see how all that has happened since the discovery of gold—the last historical incident depicted—can be crowded into so restricted a space. Perhaps the authorities called a halt on the job because they perceived the artist could never keep up with the march of events. As an archaic record that, like the marble groups on the central east steps, declares our status as an artistic people in the nineteenth century, Brumidi's frieze may be worth preserving, but hardly on any other ground.

IT seems as if it must require a Muscovite temperament, that is, one which a large part of the world holds to be more barbaric than civilized, to prefer to sup on horrors, as it were, and devote one's life, as did Vasili Verestchagin—who is understood to have sunk with the torpedoed Russian battleship "*Petropavlovsk*," a short time ago—to the pursuit of the abhorrent and disagreeable. We have often met soldiers who could not be induced to speak of the horrid sights they had been compelled to encounter: they wished to forget, not to recall them; but here was a man who devoted his life not only to pursuing horrors but to preserving them in practically imperishable form for the pleasing, enlightening, warning—who knows just why?—of the many people who happily do not have to look on the face of war. Verestchagin certainly pursued his horrors with diligence, for he garnered his facts in the various Russo-Turkish troubles, the Boer war, the Philippine campaign, the Boxer uprising and, last, the Japanese war. Wherever blood and agony were to be observed thither, like a vulture, this Russian realist seems to have hurried. The notion that the artist was an apostle of peace in disguise, seeking to warn mankind from war by showing how really horrid it is, seems unsubstantial, in view of the fact that his first picture, for which he won a medal at the age of nineteen, depicted the massacre of Penelope's lovers. He was an industrious worker and has left enough of his huge canvasses to furnish a brutal masterpiece of gore and agony to each picture-gallery that cares to have such exhibits.

WHAT might easily have been an accident of a widespread and unusually fatal character was narrowly avoided in Mount Vernon, N. Y., on the night of Sunday last, through the presence of mind and prompt action of some one in charge of the Westchester Lighting Company's gas-plant. Through the breaking of a valve in the main supply-pipe the gas for the entire city was shut off for a few moments and then let on again. It was realized that, as the accident occurred between ten and eleven, many people must have retired and some of them must have left night lights burning. But as it was impossible to know where these open gas-jets were to be found, the situation had to be treated as one of universal danger. The public authorities were notified at once, and they caused the whole police and fire forces of the city to be sent on a house-to-house visitation, and also caused the church bells to be rung and whistles blown. The telephone central station called up all its subscribers and urged them to notify neighbors who had no telephone. Thanks to this general alarm and the better directed efforts of the gas people who, by their meter records, knew the addresses of all gas consumers, no fatality was reported the next day.

EVERY now and then one is amused to read of some more or less important building undertaking held up by the owner of the lease, either of some entire building or some portion of a building which must be removed before the new operation can proceed. Ordinarily, sympathy is with the lessee whose rights are invaded, even in those cases where, as is too often the case, the evident object of the obstructing tenant is to compel the promoters of the new building to buy him out at an unreasonably high figure. Now and then, the obstruction cannot be removed or the obstructor overreaches himself, and then the new building is built quite about the obstacle, as was the case with the Drexel Building in Philadelphia; or, as was the case with the Parker House, in Boston, the operation has to halt until death removes the obstructor. A rather unusual case of this kind recently happened in New York, where certain bankers occupying, as they had for twenty-five years, offices on the ground floor of a Wall Street building which was to be replaced, had to resort to the Appellate Division of the Supreme Court to secure proper protection for the ceiling and foundations of their rooms. Here was a case of obstruction where the good faith of the obstructors could not be impugned. Their unexpired lease had over three years to run, and yet they offered to vacate without penalizing the owners, if they might have the same ground-floor space in the new building; but the owners had other ends in view and tried to carry the matter with a high hand, till the court interfered. At length, when the building operations were nearly at a standstill, a compromise was reached, the bankers were given a handsome bonus and three years' rent of another office; but, as their new premises are not on the ground floor of a Wall Street building, we doubt if they got the best of the bargain which was forced on them.

THE suit of Mr. Henry R. Towne against the directors of the Pennsylvania Academy of Fine-Arts, to which we have more than once referred, ought to, and probably will, make directors and trustees of art museums, public libraries and similar institutions extremely chary of accepting bequests which come in the shape of collections, whether of paintings, sculpture, books or any other form of *mobilia*, which are to be maintained by the acceptors in identical form and so installed in perpetuity. The institution of which the directors are ready to accept bequests so conditioned is foredoomed to a shorter term of usefulness than will fall to the share of institutions the guardians of whose interests refuse to fetter their freedom of action. It is not the duty of an intelligent board of trustees to gather its collections in mortmain. If the institution is to be a living force through succeeding generations, the right of alienation or at least displacement, partial or complete, must always be retained. Apart from the desire for self-glorification which is often concerned in these gifts, it is not infrequently the case that collections are given to public institutions mainly because the collector has got tired of "seeing the old things around" and wishes to replace them with others of which he has not yet wearied; but although feeling so himself he is unwilling that the public should be able to secure the same relief for itself and, so, wills that his gift shall remain on view for ever and a day. A person seeking to make a gift to the public with such a condition attached may properly be regarded as a possible enemy of posterity quite as rightfully as a possible benefactor of his own generation.

LEON BATTISTA ALBERTI AND THE TEMPLE OF THE MALATESTA.

IN one of our last articles, we evoked the name of a great Italian artist, who flourished during that happy time when the arts were considered as the parts of an indivisible whole: people saw the brush and chisel accomplish marvels in the same hand; painting, sculpture and architecture were cultivated by the same men, some of whom found enough resources in themselves and leisure enough in their lives to dabble in literature also.

The artist to whom we made allusion was Leon Battista Alberti, the real author of the triumphal arch of Alfonso of Aragon, at Naples, a monument to which we lately devoted some attention. Alberti, one of the most all-around geniuses of the Renaissance, was above all an architect and writer; he wrote the *"Governo della Famiglia,"* a work so learned and so well conceived that for several centuries its paternity was attributed to Brunetto Latini, Dante's master.

Before describing the temple which Alberti erected at Rimini, for perpetuating the name and glory of the Malatesta, a family tragically celebrated, it is necessary to enter on certain biographical details. The life of Leon Battista Alberti is not very well known: what is known of his existence is due to researches of comparatively recent date; and this is rather strange, seeing that this great man had more than enough about him to interest and attract biographers, especially Vasari, the historian of the whole of artistic Italy. Besides his talent, Alberti enjoyed the prestige of high birth, the reputation of exceptional culture, quite universal for the epoch, and the inestimable merit of having restored, after centuries of barbarism, pure art as applied to the construction of monuments and theoretical architecture. In spite of all this, Vasari only contains incomplete notes, while other historians of art, not excepting those of highest repute, are completely dumb on Alberti's account.

He was born at Florence at the end of the fourteenth century, or the commencement of the fifteenth. The date is not known with exactitude: certain chroniclers speak of 1398; while others give our artist as *Florentinus natus . . . anno MCCC.* In 1304, his family was already powerful in Florence: in 1384, according to the chronicles of the time, the Alberti led the life of princes, and we know what sort of a life was led by the rich citizens of Florence at a time when no city in the world equalled in richness, in luxury and in distinction the capital of Tuscany. Alberto Alberti, uncle to Leon Battista, embraced the ecclesiastical career, and became canon, bishop and cardinal. In spite of the wealth of this family and the high position which it occupied, its morals were sound. The infancy of Leon Battista was entirely taken up with study and physical exercises: he himself recounts that his smallest moment was taken up with these occupations; in this way is explained the erudition which, allied to his talents as a gymnast, made him a precursor of the modern sportsman. By his example, Alberti traced out the plan

of rational occupation. In short, we learn, through the memoirs of the time, that he excelled in running, jumping and wrestling; he easily leaped over a man standing upright, while with a javelin he could pierce a cuirass; standing on his left foot, he could throw an apple over the highest roof, and the most fiery horses yielded to his hand. Moreover, unaided, he learned music, singing and playing on the organ. But such as these were only the pastimes of his youth: Alberti quickly consecrated himself to the study of Latin, the sciences and the arts; when twenty years of age, he composed a comedy, imitating the Latin classics; this piece, a century and a half later, fell under the eyes of Aldus Manutius, the great Renaissance printer, who published it, in 1588, under the title "*Lepidi comici veteris philodoxos fabula, ex antiquitate eruta ab Aldo Manutio.*" It was a long time afterwards that a prelate, nephew of Leon Battista, while classifying the manuscripts left by his relative, found the manuscript of this Latin comedy, and consequently could attribute to the grand Florentine architect the real paternity of the composition. We must also note that Leon Battista, whose friendship was sought by the best poets of the time, was the first to construct in the vulgar tongue verses in Latin metre.

He desired, later, to devote himself to the study of civil and canonical legislation, but he did it with such excessive application, working day and night without relaxation, that he fell seriously ill in

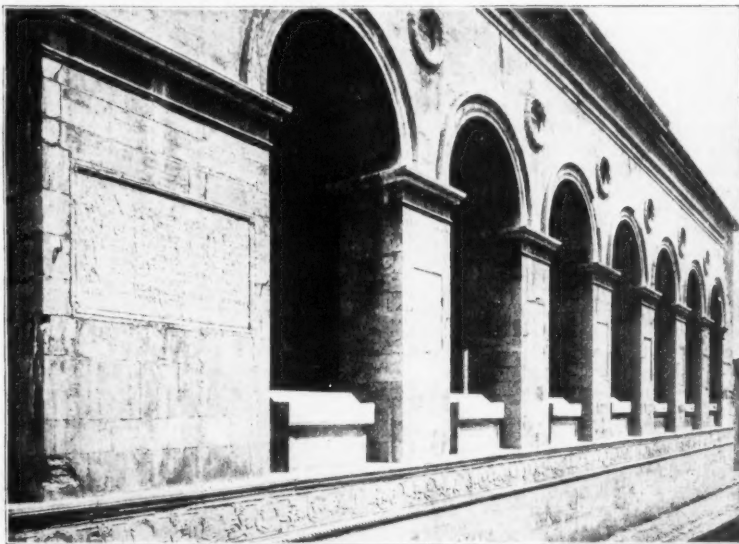
consequence, so the Medici, seeing his constitution was impaired, forced him to take a rest. As soon as he had recovered his strength, he attacked the abstract sciences, philosophy, mathematics, architecture and design. Between times, he took part in memorable conversations in "the woods of Camaldoli," where Lorenzo de' Medici collected about him the greatest men of the time, and philosophers such as Marsilio Ficino and Cristoforo Landini: the latter did not disdain to collect in a volume the dissertations delivered by

Alberti on the philosophy of Virgil.

Leon Battista Alberti has left a treatise on architecture in Latin, consisting of ten books, in which he attempted to make Vitruvius intelligible, and this won for him the surname of the "Florentine Vitruvius." Moreover, the work was awarded universal praise and eulogy for the beauty of its style, the abundance and richness of its Latin quotations, thanks to which he succeeded in treating a matter of such difficulty; in his honor, Latin verses were composed which proclaimed him the equal of Euclid and of Vitruvius. In this connection, it must be remarked that Alberti particularly devoted himself to researches among the monuments

and artistic relics of antiquity: this prevented him from producing as much as one might have expected of him. In 1437, he invented an instrument which enabled the draughtsman to prepare the most complicated perspectives and reproduce drawings at any desired scale, whether larger or smaller. There is also due to him a sounding-line to measure the depth of the ocean, and certain other ingenious instruments.

Here, according to a catalogue of his writings, are the ones which



Left Side: Temple of the Malatesta, Rimini.



An Angel.

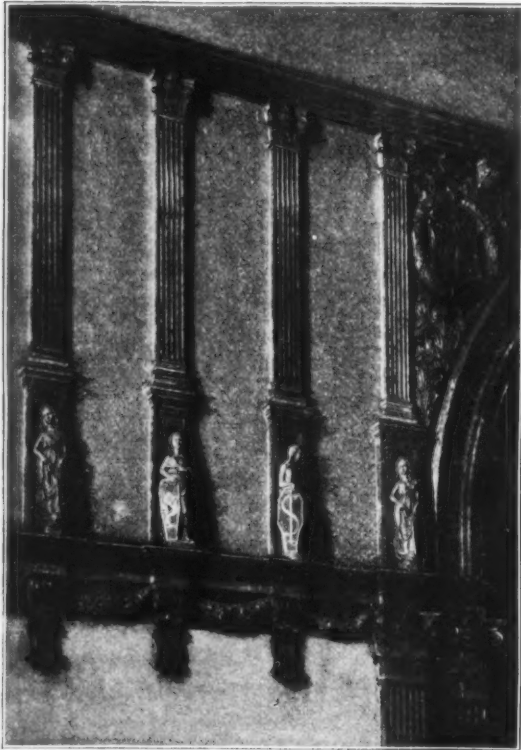
are of most importance: "*De Architectura, seu de re ædificatoria*," a treatise on architecture in ten volumes, published only in 1485; a treatise on painting in three volumes (the oldest known edition bearing date of 1540); several moral dissertations; a Latin comedy, printed by Aldus; the "*Trattato della Famiglia*," or "*Del Governo della Famiglia*," a work on the education of young people, for a long time attributed to Ser Brunetto Latini; and, further, several poems in the vernacular.

As painter, Alberti left only a few works of no particular value, quite lost sight of to-day. Personally, he was considered a man of excellent character, invariably affable, courteous and complaisant with everybody. He was fond of solitude, which, however, did not prevent his having to suffer the persecutions of the envious and having certain quarrels with his relations. "He was," said Vasari, who merely gathered the general opinion, "very polished, of excellent morals, a friend of the virtuous; liberal, courteous with every one, and lived honorably, as the gentleman that he was, throughout his life. And finally, having reached a very advanced age, he passed away, content and tranquil, to a better life, leaving behind him a name than which there could be none more honorable."

We suppose that Leon Battista Alberti died in 1480, but the most thorough investigation has not enabled any one to fix with exactitude the date of his birth. He was buried at Florence, in the church of Santa Croce.

Alberti came to Rome in the reign of Pope Nicolas V, who drew to the Eternal City the best artists of Italy. The Florentine architect with whom we are concerning ourselves produced nothing of his own in the capital of catholicism, but, introduced into the circle of the Pope by Biondo da Forlì, his intimate friend, he became the counsellor of this pontiff, a friend of the arts in everything which directly or indirectly concerned architecture: nothing was done without the approbation or the criticism of Alberti.

Leaving Nicolas V, he repaired to Rimini, a city at that time under the domination of the famous Malatesta. Prince Sigismond-Pandolpho, Lord of Rimini and of the Romagna, gave a warm welcome to the Florentine artist, and entrusted him with the rebuilding, after a new plan, of the church of Saint Francis, erected in the preceding century by architects of the town in the Gothic style, the only one which was then built in his honor. Being unable to destroy it wholly, Alberti had to preserve here and there traces of the Pointed style; but he succeeded in giving to the general effect of the church an air that was purely Classic, and this church to-day



Decoration above Cantoria in the Nave.

is still considered as his chef d'œuvre, and is known under the name of the "Temple of the Malatesta."

From the point-of-view of the history of art in Italy, this chef d'œuvre presents an interest of the first rank: it does not indicate the transition from the Gothic to the Classic style, but constitutes a sudden, prideful and triumphant revelation of the latter style. Brunelleschi had found the Pointed art prevailing masterfully and left architecture radically changed in its principles and its applications,

but it took all his lifetime to bring to a happy conclusion the restoration of Classicism; he, moreover, required many opportunities; Bramante built, in the cloister of San Pietro in Montorio, at Rome, the celebrated Tempietto, of which it has frequently been said that it might be confounded with the relics of the finest epochs of Roman work, if it were found built alongside the Via Appia. Leon Battista Alberti, however, designed, with the finest assurance and the happiest success, at a time when the architecture of the Renaissance had hardly begun to disclose itself, this Temple of the Malatesta, which has nothing, so far as its exterior goes, of the air of a Catholic edifice, for its lines and its proportions are those of a pagan temple of the Roman Forum. One can affirm that there is nowhere in Italy a monument which bears witness to so fine and so great an innovating audacity.

Alberti drew his inspirations solely from the sources of antiquity. He replied to those who insisted, according to Manetto, a great architect and pedant of the times, that domes should have a height double their breadth: "I hold in greater esteem than Manetto those who erected the Baths, the Pantheon and many other admirable things; I believe far more in what is right than in him."

Naturally, it was during his sojourn at Rome that Leon Battista formed his style upon Classic models. Nevertheless, the façade of the Temple of the Malatesta, although it is still unfinished, offers a close analogy with the arch of Augustus, erected at Rimini by the Senate and people twenty-seven years before Christ, at the place where the Via Flaminia leaves the city on the way to Rome. It is to-day still the Porta Romana, but the ancient monument is somewhat damaged and altered in its primitive lines, while Alberti's edifice reproduces and amplifies the beauties of the arch of Augustus as it used to exist.

Sigismond Malatesta, bold by nature and temperament, was himself an ardent admirer of antiquity: he nourished the intention of founding in the city where his forbears had accomplished, while perfecting their power, exploits that were sometimes heroic and sometimes sinister, a sort of Pantheon wherein might be gathered their remains, those of his nearest relatives and descendants, the wise men of his Court and the great men of his States, in order to transmit to the most remote generations the memory of the power and luxury of the line of the Malatesta. Alberti, as we have said above, was charged with this enterprise, less easy in that it concerned the transformation, without destruction, of the beautiful Gothic church of the Franciscans. Happily, the configuration of the structure was that of all Franciscan temples and made the transformation demanded possible, because of the width of its only nave and its apse. A practised eye can still reconstruct, beneath the work of Leon Battista, the primitive basilica.

The works were begun toward the end of the year 1446. A medal struck in 1450 already shows the definitive form which the architect and the prince counted on giving the monument.

The whole exterior of the temple—in its *ensemble* and in its details, in the grandiose simplicity of the design, in the tracing of the arcades and the form of the columns, in the projection of the cornices, in the Classic design of its capitals, in the almost exclusive employment of marble—copies closely Roman monuments. It is only in certain details, as, for instance, in the frieze which crowns the socle, that has been found the grace and lightness of ornamentation which form the characteristic attraction of the works of the Renaissance. On this frieze, cut in the finest of red marble of Verona, stalks and leaves of aquatic plants bind together wreaths, in the midst of which are seen, in alternation, the armorial bearings and the enlaced initial letters of Sigismond Malatesta and Yseult, with the elephant of the Malatesta and the symbolic rose which decorate all the buildings and tombs of this family.

The façade is composed of three large full-centred bays, flanked by cannelated columns; a central arcade, whose lower portion only has been built, was to rise above the cornice placed over the three lower arches so as to crown the façade. Of the three archways which constitute the present façade, the two at the side are purely decorative, and only fill up the nakedness of the wall with the drawing of their archivolts and the supporting impost. In the great central bay, Alberti inserted, well recessed, an architraved door, crowned by a greatly projecting pediment, and this is the entrance to the temple. The semi-circle above the door, forming, as it were, the background of the central arcade, is decorated with geometrical figures composed of rectangles, squares and lozenges in marble of many colors. It is believed that the execution of this polychromatic composition, as likewise that of the bas-reliefs with which the whole surface of the basement of the grand central arcade is ornamented, could not have been directed by Leon Battista Alberti, seeing that these ornaments are not calculated to enhance the pure and noble design of the façade.

The structure has two lateral façades designed in the same original way which did the greatest honor to the genius of Alberti; there are, on the left, as well as on the right, two rows of five wide arcades, or niches. The lines of these façades are severe, as comports with their destination; in them the architect has successfully imitated the imposing porticos, simple, almost naked, of the first order of the Colosseum. What a contrast with the gloomy Gothic basilica which used to expose itself in the same place, and of which now no one can discover any vestiges! The Classic idea establishes itself still more energetically in the destination of these ten niches: each one contains an urn, or sarcophagus, of simple and massive form; in these, as in a Pantheon, were to be collected the mortal

remains of the Malatestas and their most faithful followers, the remains of all the great men in whom Rimini took pride. Every artist and art critic who has turned his steps toward this city has found himself obliged to admire the ingenious conception of Leon Battista Alberti and to applaud the imposing effect.

The first urns on the right contain the ashes of Basinio Parmense, of Giusto de' Conti, poets; of Gemisto da Bisanzio, philosopher, and of Robert Valturi, who composed for Sigismond the treatise "*De re*



From Tomb of Sigismond Malatesta, Rimini.

militari." These four were the familiar friends of Prince Malatesta. The Riminese have used the other urns for the ashes of their own great men.

Now let us turn to the interior of the Tempietto Malatestiano, which merits a minute and painstaking examination. Everything here is consecrated to the glory of the Malatesta rather than to that of religion; it is the race of Sigismond and his family affections that the artist intended to glorify. The prince of Rimini was, moreover, madly in love with his wife, her whom he delighted to style "the divine Yseult," and in whose honor he became poet in place of the warrior that he used to be. Yseult's initials are multiplied in ornamental motives with a frequency which, knowing what went before, cannot surprise us.

It is said that the prince and his wife, who was extremely well educated for the time, the proof of which is that she consecrated her leisure to philosophy and history, traced for Alberti the general lines of the interior decoration of the Tempietto. Their predilection for symbols is declared in the panels and bas-reliefs in the third chapel on the right-hand side (school of Agostino di Duccio), where are represented, on one side, the signs of the zodiac, and, on the other, Jupiter, Mars, Saturn, Venus, Mercury and Diana. These bas-reliefs are instinct with that ingenuous grace which is found in the works of the early artists of the Renaissance.

The edifice would have been quite perfect if Alberti had been able to finish it under his own direction. We know that, on the contrary, according to the latest researches, he had to entrust it to the hands of artists selected by him as simple executors of his plan, and that, in spite of this, it is still to-day unfinished. It was consecrated in the year of jubilee 1450, but only contained some of the chapels, notably that of St. Sigismond. One of Alberti's letters, dated in 1449, instructed his fellow workmen to paint all the chapels in fresco, which shows that at that time the masonwork had been finished; nevertheless, the lateral façades were only begun, and, according to all probabilities, they were not finished before 1454.

Alberti had formed several schemes which could not be carried to completion, Pope Nicolas V having insisted on his return to Rome; he wanted, among other things, to erect a dome over the temple. His successors carried too far the spirit of independence, neglected a large part of Leon Battista's instructions, and gave free rein to their imagination and personal taste; it is for this reason that the decoration of the temple, particularly in the interior, is a little too rich, too confused, and not a little heavy. This fault follows especially from the system which was then in vogue among artists: each was charged with a distinct piece of work, clearly delimited, but he could within

the limits reserved to his inspiration employ decorative forms according to his pleasure. Matteo da Pasti and Matteo Nuti da Fano, two of the chief successors of Alberti's, multiplied to excess their ornamental details.

The funerary monument of Sigismond Malatesta rises at the right hand of the big door. It was built when the lord of Rimini was still alive, but it is not known to whom it should be attributed; it seems, nevertheless, proper to assume that it is the work of Simone da Fiesole. However it was, this latter sculptor can only have worked a little and for a very short time in the Temple of the Malatesta. Several artists, just as he did, tested their talent there, but the one who occupies the most important place in the history of this monument, to such a degree that the works left by him in different chapels themselves would deserve a long monograph, is Agostino di Duccio. His figures are treated with a technical skill which is quite special; Agostino di Duccio was master of an art that was frankly personal, that, strictly speaking, can only be compared with that of Botticelli. Like that painter, he took pleasure in stylizing the drawing of his figures, and, in full fifteenth century, he sought the presentation of the ideal rather than the exact portrait from nature. His bodies are slight, and draped with grace and ineffable lightness; his faces are poetic, and animated sometimes with a pensive and sometimes with a smiling expression.

All pilasters in the Temple are divided into sculptured panels, each of which encloses an allegorical subject; there are, for example, a series of figures representing the sciences and the arts, and critics attribute to Agostino di Duccio and his pupils those which have for their subjects, grammar, architecture, dialectics, botany, sculpture, poetry, astronomy, geography, medicine, agriculture, education, metaphysics, music, history, eloquence and painting. Certain imperfections visible here and there, nevertheless, give ground for belief that he must have entrusted some of these bas-reliefs to his assistants. In like way, there is attributed to him the signs of the zodiac, the mythological gods of the third chapel and the tabernacle in the first chapel on the right, a work which shows visible traces of Donatello's influence.

We will not delay to enumerate, still less to describe, all the artistic objects, in chief part the work of the best sculptors of the time, with which the Temple of the Malatesta is ornamented. Since it is actually devoted to the Catholic religion, the confessionals, pulpits and other accessories in some degree spoil its lines, which is really a pity.

In these last years, the attention of the historians of art has been turned in a very marked fashion towards this beautiful structure, and so it is that I can testify that the plans of Alberti are far from having been completely carried out—a thing which cannot be too much regretted, as these plans, as we have seen, were worthy of the best artists of the Italian Renaissance. The illustrations which accompany this article will allow the reader to judge of the ornamentation of the Tempietto Malatestiano and make his own appreciation of its good taste and richness. HONORÉ MEREU.

SMOKY CHIMNEYS.¹

THE art of building had advanced a very long way before our ancestors found chimneys necessary. Even then they were content for a century or so with a flue from the kitchen and one from the hall. Modern ideas of comfort, not to mention the Building By-laws, make it necessary to provide every room in the house with a fireplace. We burn coal which produces a dirtier smoke, with a more disagreeable smell, than wood; we have far more curtains, carpets and upholstery to be spoiled by a faulty flue, and yet twentieth-century science can teach very little about building chimneys. It is indeed patent to every one that the more costly an edifice and the more valuable the site on which it stands, the more difficulty is there in getting rid of the smoke. Walk down Castle Street and count the "tallboys," and then walk down one of those tiny byways christened by their owners "avenues," that spring up by the dozen in the suburbs, and you will see that in flue construction architects know just as little as jerry-builders. This ignorance is especially exasperating, because a more accurate knowledge of materials and methods of construction has filled up the pitfalls of a previous generation. Improvements in concrete, in lightning conductors and in damp-courses, are instances; dry-rot is rapidly ceasing to be a bugbear. But no architect can guarantee to build flues that will draw in all weathers and under all circumstances. Lord Bacon commences his delightful essay on "Building" with the sentence: "Houses are built to Live in and not to Look on; Therefore let Use be preferred before Uniformitie; Except where both may be had. Leave the Goodly Fabrickes of Houses, for Beautie only, to the Enchanted Pallaces of the Poets; Who build them with small Cost." But all sufferers will agree that no home is fit to "live in" if the chimneys will not draw. This paper will only recapitulate well-worn theories, and will not provide a patent medicine to prevent or cure that deadly malady, a down-draught.

The principle of a flue is simple. Smoke consists of warmed air charged with particles of matter, either wholly or partially consumed. The warmth makes it lighter than the atmosphere, and, therefore, smoke rises by the easiest way, which should be up the flue. The

¹ A paper by Haswell Grayson, M. A. Cantab, [4.], read before the Liverpool Architectural Society, January 18, 1904, and published in the *Journal of the Royal Institute of British Architects*.

trouble begins when the flue is imperfect, inadequate, or when other forces are at work counterbalancing the natural tendency of the smoke to rise. Failure may show itself in two ways—there may be a steady down-draught, or the upward draught may be so sluggish that puffs descend occasionally. The first is more usual when the fire is just lighted or nearly out. In either case, the nuisance may be accentuated by wind or the absence of it.

The chief cause of smoky chimneys is the lack of air-supply at the base. A cubic foot of fresh air must be provided for every cubic foot of smoke that passes up the chimney. Nature allows considerable elasticity to air, but "abhors a vacuum." The Royal Commission on the Ventilation of Factories, after making experiments, ascertained that an ordinary fire in an ordinary room sent 4,000 cubic feet of smoke up the flue per hour, and that, after hermetically sealing the windows and doors, the same flue drew 3,000 cubic feet per hour. Before seeing this fact quoted I had made some personal observations of the smoke discharged through the chimney-pots above an office-building; it seemed to me that the velocity was 5 feet a second in still weather. As the diameter of the flues was about 7 inches, the volume of smoke discharged would be 4,500 cubic feet per hour, or equal to the capacity of a room 15 feet broad, 25 feet long and 12 feet high. I do not believe that in a substantial building 3,000 cubic feet of air per hour could be produced with windows and doors hermetically sealed, unless the air came down one-half of the chimney and the smoke went up the other half. It is well known that buildings with thick walls and fireproof floors, such as blocks of flats or offices, are most liable to down draught. These blocks have great numbers of fires lighted daily. They have very few outside doors, and a special effort is made in them to keep the windows and internal doors draught-proof. In a comparatively small office-building, with the only entrance protected by heavy swing doors, there may be thirty or forty grates in constant use, every one of which should have its 4,000 cubic feet of air per hour. This supply is impossible unless special means are adopted to provide it. In an airtight building time is often the architect's ally; for every minute settlement and every infinitesimal shrinkage provides an additional air inlet. But buildings specially constructed should have special ventilation. Even then some flues will smoke, because tenants persist in closing up the inlets. Warmed fresh air is almost unprocurable; of all the warm-air stoves in the market I do not think that one can produce twenty-five per cent of the air which it consumes, and most of them dry the air too much and warm it in an inaccessible chamber. Anything in the nature of a plenum system is costly to maintain, and even more costly to instal. Architects, therefore, can only supply fresh air from the outside, and trust that the tenants will use the inlets. But tenants, more often than not, consider fresh air a draught and ventilators an unnecessary fad. Air inlets are least objectionable when near the ceiling, as that position allows the fresh air partially to lose its chill before reaching the occupants of the room; high inlets are also useful as outlets, when the fire is not lighted. The best form seems to me to be a "hit-and-miss" grating (very neat ones can be obtained now, made of aluminium) at the side of a chimney-breast into a flue that finishes just above the roof, with cast-iron gratings on opposite sides. I have several times seen air inlets brought close to the grate—in one case the air was led into a copper curb perforated at intervals; the arrangement was ingenious, but in practice was not a success, as the air whistled out and blew the ashes about the room. Inlets direct through the wall, on the old Sherringham principle, are generally inconvenient, unless the room has two outside walls; otherwise the best lighted and most valuable space becomes the most draughty. Fanlights and ventilators through internal walls are more likely to be used. A contractor who has built many offices once advised me to have doors very close fitting at the floor, but very easy at the top, and with the rebate of the frame cut well back. By doing this a concealed inlet can be provided 3 feet long by $\frac{1}{4}$ inch deep, equal to 9 square inches. This device has extra value when the hall or corridor is warmed.

For years, when opening a front door on a winter evening, it puzzled me to find out what became of the immense volume of chilly air which came rushing in. Two or three hundred feet entered per second, but the house seemed able to absorb it indefinitely. The answer is that the flues drew up a greater quantity, and the cold heavy air from the outside drives the lighter air in the house out by every ventilator and crevice that was acting as an inlet before the door was opened. To repeat, a flue, no matter how carefully constructed, does not have a fair chance unless an adequate air supply is introduced through the ceiling, floor, outside or inside wall.

Given an air supply, the next consideration is the flue. The majority of architects and builders feel certain that a 14" x 9" flue is much too large; and the proportion is stupid. The opening at the junction of the grate and the flue is seldom 36 square inches, and often much less. Chimney-pots vary in area from 40 to 60 square inches. Therefore, why so many by-laws insist on over 120 square inches for the flue is incomprehensible. A 9" x 9" flue can be more thoroughly cleaned, and works well enough in districts where the by-laws permit. A 9-inch flue-liner has an area of about 60 square inches, and a 10-inch flue-liner of 78 square inches; my experience seems to show that they whisk the air away much more quickly than a parged 14" x 9" flue, in spite of its greater area. Liners fail to hold soot, which is continually falling down into the fire; and with no fire they make a down-draught smell very strongly

of soot. The absence of corners seems to invite a down-draught, or else the smoothness tends to make the upward action in some flues so strong that they pull from others. Parging is a non-conductor, but has little value, and is seldom permanent.

Chimney-pots have this in common: the more efficient the uglier; but the reverse is not as true as potmakers would have us believe. Pots with the ordinary zigzag rim cause an up-draught much as the V in the body of a kite forces it up. Louvres, trumpet-mouths, spirals and many other horrors force up the smoke when the wind blows; but even an Archimedean revolving cowl or a lobster back is useless in still weather. Trumpet-mouth blowers, or drain-pipes with the socket outwards, built into a stack at an angle of 45 degrees a few feet below the pot, will sometimes cure a flue that is only troublesome when the wind is in one particular quarter.

The value of at least two bends is always insisted on in specifications, but in practice the bends are often scamped, and are difficult to provide in the attics, especially when the fireplace comes between other flues. The reason for the undoubted advantage of bends is not obvious. The contraction which is usual in making them may have something to do with it; they may act slightly as baffle-plates, and, of course, the top bend catches the rain and helps to keep the lower part of the flue dry; probably under various atmospheric conditions all these reasons may have some truth in them.

The height of the chimney-stack is of the greatest importance; but again the reason is not obvious. When the wind blows at right angles to the ridge, the velocity must be greater nearer the ridge, and probably steadier. When the wind is not at right angles to the ridge, I cannot see how it can affect the flue. If the straightness of the flues in the chimney-stack above the roof helps the force of the smoke, it is curious that bends should be useful below. There can be no appreciable difference in temperature or atmospheric pressure at the top of two flues, one of which is 5 feet higher than the other; yet we know that 5 feet extra height to a stack may work wonders. That it is advisable to keep a flue warm is more obvious, for as soon as the smoke approximates in temperature to the atmosphere its tendency to rise is lost. All outside stacks should have 9 inches of brickwork between the flues and the weather. Single flues should be avoided, and above the roof it is better to have 9 inches of brickwork on the most exposed side and end, even if there are only 4½ round the rest of the chimney.

The plan of a stack and the direction of the wind seem to have no connection. A chimney much exposed to a west wind is just as likely to be satisfactory with its axis north and south as east and west. It is better to have the middle pots in a long stack raised a little above those at the ends, but the flue at the leeward end is just as likely to draw well as that at the windward.

We frequently hear it stated that on account of other buildings, trees, or mountains, the wind is deflected and rushes down vertically on to some unfortunate flue and drives the smoke back to the grate. That argument, I believe, is generally false. A strong wind acts on the principle of an hydraulic jet pump, or one of those little sprays for fixing a pencil sketch. It drags after it the air on the lee side of an obstruction and tends to create a vacuum. All gardeners know that against a wind a hedge affords more protection than a wall. They believe that the wind swoops straight down onto the beds from the top of the wall. It does nothing of the kind. The wind goes rushing onward and creates a vacuum on the sheltered side, which air whirls eddying in to fill; the eddies destroy the plants. A hedge allows air to pass through the base and the eddies are avoided. It is the same with buildings; a strong wind sucks out the air from the sheltered corners. If the air that replaces it comes from the inside of the building the chimneys will smoke. A vacuum is especially likely to occur in a cul-de-sac, or an area with buildings on all sides. Take an oblong building with an enclosed area, and the block on one side rather lower than the others: if a strong wind blows directly onto the low roof, it will bound onto the high one and create a vacuum in the area. Should the gust be prolonged, air will rush out through the crevices in the walls and windows and transfer the vacuum to the rooms. It was found in an important Liverpool building designed on these lines that the flues on the floor level with the bottom of the area smoked, but none of the others. Most buildings are not so fortunate, as a vacuum generally sucks impartially from all rooms round the area. An air trunk admitting air to the area at the lowest level would probably allow the vacuum in the area to be filled direct from the street and save the down draught.

Architects are frequently asked how it was that the old straight flues seen in the mediæval work carried off the smoke. They were built to act as bacon-curers almost as much as smoke outlets, were perfectly straight, and large enough to be handswept by a grown man. My private belief is that they often did not draw (of course the smoke from a log fire is cleaner and less objectionable to our eyes and nose than coal smoke); but if they did draw we may suppose that in those days people were less sensitive to draughts, and did not stint the supply of air to the grate.

It is a mistake for the public to ask an architect to cure a faulty flue. Alteration at the base is very seldom allowable—in the flue itself impossible; all that can be done is to raise the stack or crown the flue with somebody or other's patent cowl—and that is not architecture. Some day galvanized-iron cowls will be prohibited by the local by-laws. The life of the best and heaviest is not ten years—the stays will not last as long; thin cowls become a source of danger to the neighborhood before three years are out; they are fixed

in such a position that supervision is impossible. Many a fine building is ruined by them. To look at Piccadilly across the Green Park is really distressing. It is almost as bad to walk up South Castle Street and view the skyline of the North and South Wales Bank. But until we become learned in vacuums and acquainted with the science of draughts and air-currents, the cowl-making business will be ever increasing and ever prosperous.

ILLUSTRATIONS

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

HOUSE OF DR. C. W. RICHARDSON, WASHINGTON, D. C. MESSRS. MARSH & PETERS, ARCHITECTS, WASHINGTON, D. C.

DINING-ROOM IN THE SAME.

EXTERIOR AND INTERIOR OF THE TEMPLE OF THE MALATESTA, RIMINI, ITALY. LEON BATTISTA ALBERTI, ARCHITECT.

For description see article elsewhere in this issue.

TOMB OF YSEULT AND DETAIL OF FILASTER: TEMPLE OF THE MALATESTA, RIMINI, ITALY.

ALMSHOUSES ON THE ASHTON COURT ESTATE, SOMERSETSHIRE, ENG. MR. EDWARD GABRIEL, ARCHITECT.

This plate is copied from the *British Architect*.

DOUBLE FIREPLACE IN MISSION ROOM, NEW YORK, N. Y. MR. W. H. DUDLEY, ARCHITECT, NEW YORK, N. Y.

This double fireplace is the central feature in the large exhibition-room of Messrs. Jas. P. McHugh & Co.'s premises in New York. It is built of common brick and the woodwork, together with the heavily beamed ceiling, is of yellow pine stained to a weather gray.

Additional Illustrations in the International Edition.

DETAIL OF THE TERRACE OF THE STATES: LOUISIANA PURCHASE EXPOSITION, ST. LOUIS, MO. MR. E. L. MASQUERAY, ARCHITECT, NEW YORK, N. Y.

THE DAVID CHEST: ARTS AND CRAFTS MUSEUM, HAMBURG, GERMANY.

This plate is copied from *Blätter für Architektur*.

PARLOR AND LIBRARY: HOUSE OF DR. C. W. RICHARDSON, WASHINGTON, D. C. MESSRS. MARSH & PETERS, ARCHITECTS, WASHINGTON, D. C.

WELL IN THE COURTYARD OF THE CHARTREUSE, VILLENEUVE-LES-AVIGNON, FRANCE. SKETCHED BY MR. J. PERCY WADHAM.

This plate is copied from the *Builder*.

COMMUNICATIONS

[The editors cannot pay attention to demands of correspondents who forget to give their names and addresses as guaranty of good faith; nor do they hold themselves responsible for opinions expressed by their correspondents.]

FIREPROOF BUILDING AND THE BALTIMORE FIRE.

TO THE EDITORS OF THE AMERICAN ARCHITECT:—

Dear Sirs,—Just now, for the first time in many weeks, have I had the leisure to glance over the accumulated technical magazines, journals and papers, and, as usual, was I much interested in what the *American Architect* so appetizingly sets before its readers. Methinks, however, that there was one little discordant note in your issue of April 2, your editorial on the "Real Value of Modern Fireproof Buildings." That one editorial seemed to be sadly out of tune; it was evidently thoughtlessly written, for it certainly was not in your accustomed vein and style of well thought out, progressive and up-to-date writing. Its tone was pessimistic in the extreme, a plea, indeed, for retrogression, and is a positive surprise to me.

Your soliloquy, about "people being justified in asking the architects and engineers, who are felicitating themselves upon the triumph of modern fireproof methods, whether, to procure this proof, it was necessary to waste the other half of the cost of the building," is most ill-timed, Mr. Editor, and, I submit, not at all justified, or even in remote consonance with the facts. I understand, of course, that this was brought out by the insurance experts awarding from 75 down to

50 per cent salvage on some of the tall fireproof buildings that went through the Baltimore fire.

Admitting the fairness of these insurance experts—though there be some who question as to their *liberality*, to use a mild term, it is a remarkable showing and one that should make the owners of those buildings felicitate themselves full as much as do we architects and engineers over the vindication of our theories.

The uninitiated, perhaps even the multitude, let us say, have misinterpreted the term "fireproof building" to mean that not only the structure but that everything placed within it, all goods and chattels, however combustible and inflammable, were absolutely immune from fire, from within and from without, by reason of being housed in a fireproof structure, but, really, I hardly expected the editor of the *American Architect*, the leading technical journal of our profession, to have any such misconception.

Structural fireproofing, in the modern sense of the term, is something over twenty years old, or to be more accurate, it is just twenty-one years since the first skeleton iron and fireproof tile structure was erected in the West, the birthplace of the skyscraper. It was the result of evolution and people took to it but slowly. The processes have been improved since then and little by little we have got people to protect their buildings more and more and yet we are a considerable way off from an absolutely undamageable building in all its details, though our structural parts are well-nigh perfectly protected, as the Baltimore fire demonstrated. An absolutely fireproof building is possible, one in which neither the structure nor any of the decoration, or finish, or anything that enters into the completion of that building can possibly be damaged by fire, however terrible the conflagration may be. But people will not pay for such a building and we have had up-hill work, as it is, to get them to the point of spending a little more than they would have to for wood in order to get them to fireproof as much as has been fireproofed, that is, the essentially structural parts, the framing.

In so far as that mode of construction has gone, your editorial to the contrary notwithstanding, it has saved to the commercial world millions and millions of dollars. Have you ever kept tab on the numbers of fires that have originated in fireproof buildings and that have burnt themselves out in one room or been put out with little difficulty before more than the contents of three or four rooms had been damaged? Do you not realize that many and many a city has been exposed to just such an awful fire as that at Baltimore, but was saved by reason of some of these "fireproof" buildings that you sneer at being in the path of what might otherwise have become an unmanageable fire? Yet those buildings were only fireproof as far as the framing, floors and partitions went. The outer walls of most buildings are of granite or stone and other exceedingly perishable materials, from the point-of-view that fire can destroy them; the windows, the glass, the interior trimming, the finished floors, are identically the same in material, as combustible as are used in any ordinary construction. No attempt has been made, save in rare instances, by the people or their architects, to take our advice—we so-called "cranks" on fireproofing—to render those materials less perishable or substitute something for them that cannot be destroyed by fire any more than can the steel frame in its tile protection.

Those tall buildings in Baltimore were built just as I have described above. They were ordinary commercial structures built as economically as they possibly could be and some, even in their structural parts, very imperfectly constructed. While we know the advantage of and have preached perfect construction, we realize that it is impossible to get the people into it at one fell swoop. They have to be guided by easy stages. That Baltimore fire, instead of proving, as you seem to imagine, the folly of fireproofing, is going to be the greatest lesson people have had and the greatest incentive to better construction and a more complete fireproofing of all the parts of a building. Those buildings were built for ordinary purposes, as I say, and yet those structures so successfully withstood the attack of one of the most awful fires that the world has witnessed that they rendered the entire building, according to your own figures, 75 per cent immune [No. The adjusters were said to have accepted 75 per cent of damage. Eds.], and undoubtedly stayed the progress of the fire in that direction where it would have done still greater damage!

Stop and think of it for a minute. In every other particular those buildings were built just exactly as were the ordinary structures all about them, of which nothing remained but a few brick piers, "silent monuments to man's folly in erecting unto himself abodes of perishable material." The steelwork of those buildings cost on an average of 7 per cent of their total cost. The tile covering to the steel, the tile floor arches and partitions, averaged up about 5 per cent more of the total cost. A bare 12 per cent of the total cost of the building was represented in the fireproof parts of these structures that, nevertheless, not only saved themselves but effected a saving of from 50 to 75 [25] per cent of the total cost in passing through an ordeal that few foresaw and that fewer still would be, even now, willing to pay the adequate price of protection to secure immunity from just such a possibility. Better yet: supposing that those tall buildings had been of ordinary construction, just for the sake of argument, the cost of such construction would have been at least 63 per cent of what the steel and tile did cost, so you see what a very narrow margin of additional cost the owners of these skyscrapers paid to secure 50 and 75 [25] per cent immunity where the owners, or to be accurate, the insurance companies, suffered total loss in the form of building you seem to favor.

You "seriously question whether much of real substantial worth has been accomplished by all the vast outlay of money and ingenuity (in fireproofing) when the result is merely a patent fraud as far as the contents of a building go." A most astonishing statement is this. From the view point of the tenant I grant you that in Baltimore he suffered as complete a loss as did his neighbor in the ordinarily constructed building. He was unlucky in that one instance. But by reason of dwelling in a structurally fireproof building he has been practically immune from all ordinary fires, and will continue to be so, and is exposed to the possibility of a great conflagration, such as that at Baltimore, once in about thirty years, in one city out of a hundred and twenty, provided he be in as congested a neighborhood and with as narrow streets as Baltimore's thoroughfares in the fire district! Surely a rather remote contingency for the average tenant to provide against.

I grant you that as far as the tenant is concerned the fireproofing question has not received the prayerful attention from the owners of buildings that it ought to. As we have noted in the preceding lines it has been quite a task to get those owners to make their buildings structurally fireproof and it takes just about such a lesson as that which was taught at Baltimore to demonstrate to the people that our preachings were not mere theories, vagaries. It will also demonstrate to them the necessity there is of making all the parts of a building of non-combustible materials. No, Mr. Editor, there was not a waste of 50 per cent in the Baltimore skyscrapers. The steel and fireproof tile structure is a success; it has been so perfect, imperfect as it is, that it was never even moderately tested until the great ordeal of Baltimore and there we saw that something that cost but 5 per cent succeeded in saving 75 per cent in a test that swept all else away as completely as if it had never existed. The trouble, Sir, is not with the engineers, the teachers, but with the refractory pupils. In so far as the theories we have preached and practised have been applied in these structures that have so successfully passed through that awful test, are we fully vindicated in our beliefs and have we just cause for exultant jubilation.

F. W. FITZPATRICK.

[Our correspondent hints that the insurance adjusters were illiberal in conceding only 75 per cent of damage to one of the buildings we mentioned. Had they called the loss total, would it have strengthened his argument or weakened ours? So far as our remarks are concerned, our correspondent seems to have lashed himself into a noble rage quite needlessly. — EDS. AM. ARCHITECT.]

NOTES AND CLIPPINGS

PRECOCIOUS ARTISTS. — Artistic Paris, we learn, is raving over the phenomenal cleverness of a Polish boy, Thaddeus Styka, who is doing big things both in painting and sculpture for the coming Salon Exhibition at the very immature age of thirteen. It was at this age, one is reminded, that Landseer exhibited his first picture at the Royal Academy; though as a child of six he had won more than family fame as a draughtsman. Millais was four years older when his "Pizarro Seizing the Inca of Peru" startled London from the Academy walls; and at seventeen, too, Mr. Briton Riviere qualified as a Royal Academy exhibitor with two canvases — "Sheep on the Cotswold" and "Tired Out." But half a dozen years earlier than this, when he was a very junior boy at Cueltenham College, two of his paintings were shown at the British Gallery; and before he had emerged into the dignity of teens he actually added £20 to his pocket money by the sale of a single picture "Robinson Crusoe." Mr. Riviere's precocity laurels are not endangered by this Polish prodigy. — *Westminster Gazette*.

REAL-ESTATE DEAL IN ROME. — Comparisons of high-priced real-estate are familiar enough. Not often, however, are the prices of lots in Rome analyzed by the local real-estate experts or theorists. The following from a correspondent to the *Record and Guide* is of interest: The Farnese Palace in Rome has just been sold to the French Government for \$158,000, to be used as a residence for the French embassy. All travellers will remember it as one of the finest pieces of architecture in that city. It was begun by Pope Paul III, while cardinal, and was finished by his nephew, Cardinal Farnese, in 1526, under the direction of the great Michael Angelo; the façade, however, toward the Tiber, with its loggia, was added in 1580. This modern real-estate transaction recalls to our mind another famous deal some 1900 years ago, when Julius Caesar, who was then campaigning in Gaul, where he had secured large plunder, wrote to his brother in the Imperial City, who was no other than Cicero [sic], giving him carte blanche to buy a proper site for a forum to be erected in his honor; and Cicero, with commendable judgment, picked out a plot about 300 by 300 in the most densely populated district of the city, between the Capitol and the Palatine, where heretofore unsuccessful attempts had been made to widen and improve the street. Shortly after, when Caesar returned to Rome, the old buildings were torn down, and within three years the new Forum and a splendid Temple to Venus were erected on the spot; and possibly it may interest your readers to know the price of this plot, which was about two acres in extent, was reported as one hundred million sesterces, which in round numbers would be \$5,000,000, which would amount to about \$55 per square foot, or about \$138,750 per lot. American history does not tell us whether Cicero received full commission on the transaction; it is fair to presume that he did. Caesar was not a man to haggle much over a small transaction as that. The price for this bit of Roman real-estate, sold 1900 years ago, compares favorably

with prevailing figures on the less important streets in the financial section of New York, or on some parts of lower Fifth Avenue or lower Wall Street. The northeast corner of Wall and Pearl Streets, for instance, was sold last week at the rate of \$59 per square foot. — *Boston Transcript*.

LE CHATEAU DE MAISONS. — The Palais Maison, near Saint Germain, a masterpiece of architecture and sculpture of the seventeenth century, has been bought by a Parisian real-estate speculator, and will be torn down. Mansart built it for René de Longueil, a millionaire broker of the posts and mails, between 1642 and 1651; the cost is said to have been 6,000,000 livres. Louis XIV was often a visitor there until de Longueil was removed from his office by the jealous courtiers. It remained in the hands of his descendants until 1732. Successively owned by Marquise Soyecourt and the Count of Artois, brother of Louis XVI, it was bought later by Marshal Lannes and the banker, Lafitte. There is a large room in the upper story where Voltaire once lived. It is beautifully decorated with mythological wall and ceiling pictures. Efforts are being made in Paris to prevent the destruction of this historic palace, one of the masterpieces of Mansart. — *N. Y. Times*.

THE TWO-HEADED EAGLE. — The symbol of the two-headed eagle is considered by some heralds to be merely the result of the heraldic practice of "dimidiation," which crept into English heraldry during the reign of Edward I. Dimidiation was simply a child's way of impaling two coats-of-arms on the same shield by the primitive method of cutting each in half and taking the dexter half of one and the sinister half of the other and placing them back to back, as it were. Strange two-headed beasts naturally resulted, as, for instance, when a lion and an eagle were halved and joined together, and the griffin is supposed to have been evolved from two lions rampant by dimidiation. It robs the two-headed eagle of half its terrors to know that it owes its origin to this sort of child's play. The gryphon and mock turtle that went out to sea with the whiting are far more serious creations. — *London Daily Chronicle*.

THE BIG ARCHSTONE OF SOUTHWARK BRIDGE. — At first sight there appears nothing romantic about Southwark Bridge, whose reconstruction is now being debated. But there is a wonderful little story behind it, after all. There was the inevitable fight over its construction. Street traffic and the necessities of pedestrianism might go hang, so long as the traffic of the river was not interfered with; and it was to get over the opposition of the corporation and conservators that the Rennies had to make such enormous spans — the largest ever attempted in the history of engineering up to that period. This necessitated the use of blocks of granite greater in extent than had ever been quarried since the days of the ancients. It could not be done, masons declared. Sir John Rennie on his part swore that it could and should. He went to Aberdeen, and at Peterhead found a block of granite weighing twenty-five tons. That he would have whole, he said. By excessive wages and unprecedented largesse of the native wine, men were got to cut and detach the mass from its moorings. But then it had to be taken four miles along the road to port. Such a thing had never been heard of. Sir John managed to fake up a carriage, and after a journey of a day and a half, part of which time was spent in digging the monster out of collapsed roadways, twelve or fourteen horses got it to the vessel which, after extraordinary difficulties, the engineer had succeeded in chartering. There were no cranes to lift such a weight. They had to build a scaffolding in the bed of the harbor to get the block aboard. Eventually the thing was accomplished, and although every mariner save the one who had undertaken the commission believed that the enterprise would send the vessel to the bottom, the granite was safely brought to London, and a new era in engineering inaugurated. One curious feature in the history of Southwark Bridge is that it was opened at dead of night. As the clock of St. Paul's chimed midnight it was declared free to the public. — *St. James's Gazette*.

BEGINNINGS OF THE INCANDESCENT LAMP. — Thomas A. Edison, writing for the *Electrical World and Engineer*, tells of his experiments with the incandescent electric lamp, which will celebrate its twenty-fifth birthday this year. He began trying to subdivide the electric light in the fall of 1877, and continued until July, 1878, when he broke down under the strain of a number of years of ceaseless work, and he took a rest. Little was done with the lamp, however, in the first six months of that year, owing to the exhibition and trials of the completed phonograph. In August, Mr. Edison began again upon his experiments with carbon filaments. Trials were continued until October, 1879, when lamps were made of paper carbon, and with carbons of common sewing thread, placed in a receiver or bulb made of glass with the leading-in wires sealed by fusion. The whole thing was then exhausted by the Sprengel pump to nearly one-millionth of an atmosphere. Mr. Edison then continues: "These filaments of carbon, although naturally quite fragile, owing to their length and small mass, had a smaller radiating surface and higher resistance than we dared hope. We had virtually reached the position where the carbons were stable. In other words, the incandescent lamp as we still know it to-day, in essentially all its particulars unchanged, had been born." He then tells of his experiments with bamboos and other vegetable substances to get the best carbon filaments, and the final use of cellulose. He says in conclusion that upon a moderate computation the production of incandescent lamps in the country since his first success has reached a total of 250,000,000 lamps, or not less than 10,000,000 a year for each of the twenty-five years. The lamp has remained structurally the same since 1879, in the elements then demonstrated to be essentially vital and necessary to commercial success.



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Marsh & Peters, Architects.*

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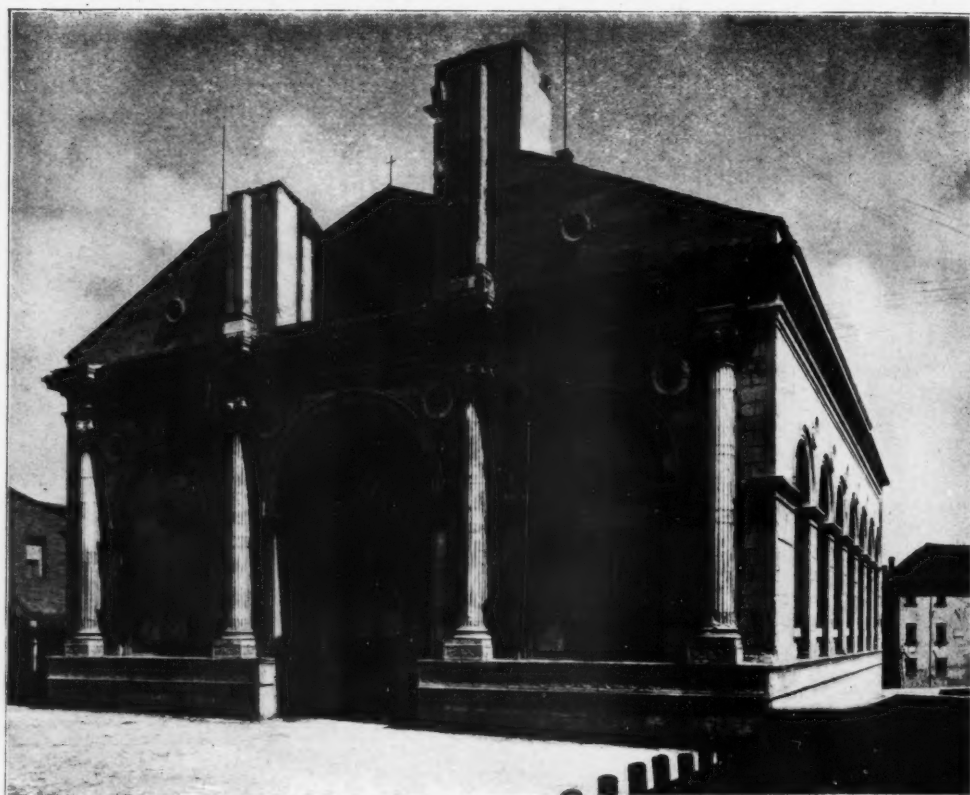
The American Architect
April 23, 1904
No. 1478



The Dining-Room: House of Dr. C. W. Richardson, Washington, D. C.
Marsh & Peters, Architects.

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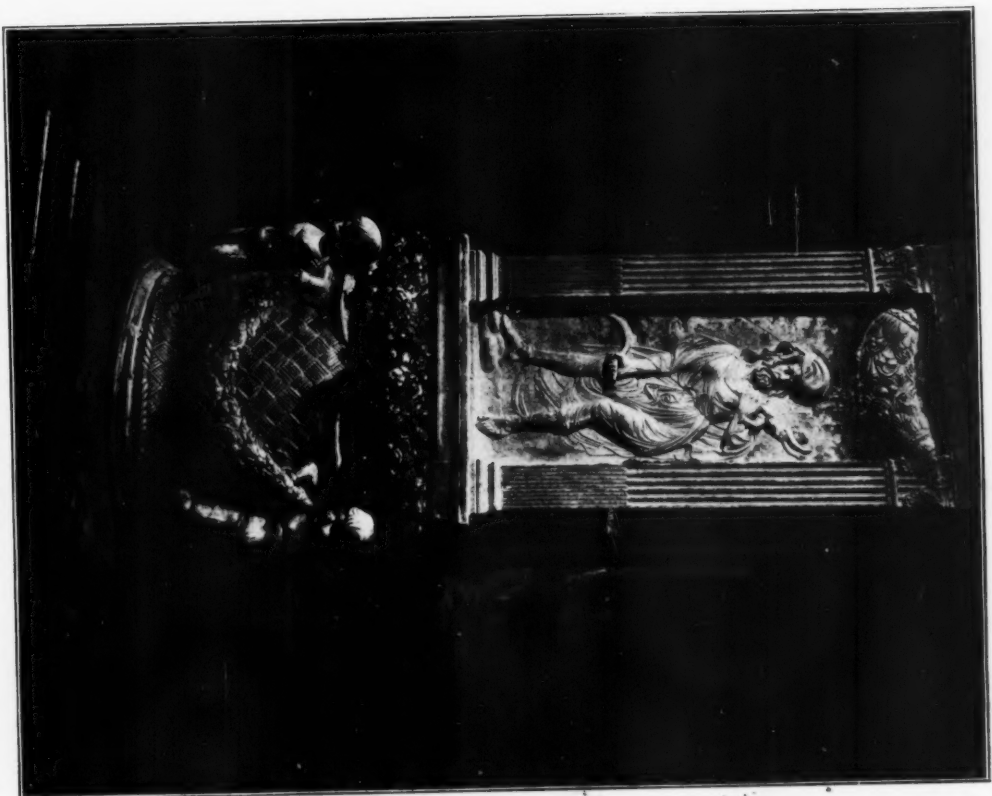
The Temple of the Malatesta, Rimini, Italy.
Leon Battista Alberti, Architect.

The American Architect
April 23, 1904
No. 1478

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Jesuit's Tomb.

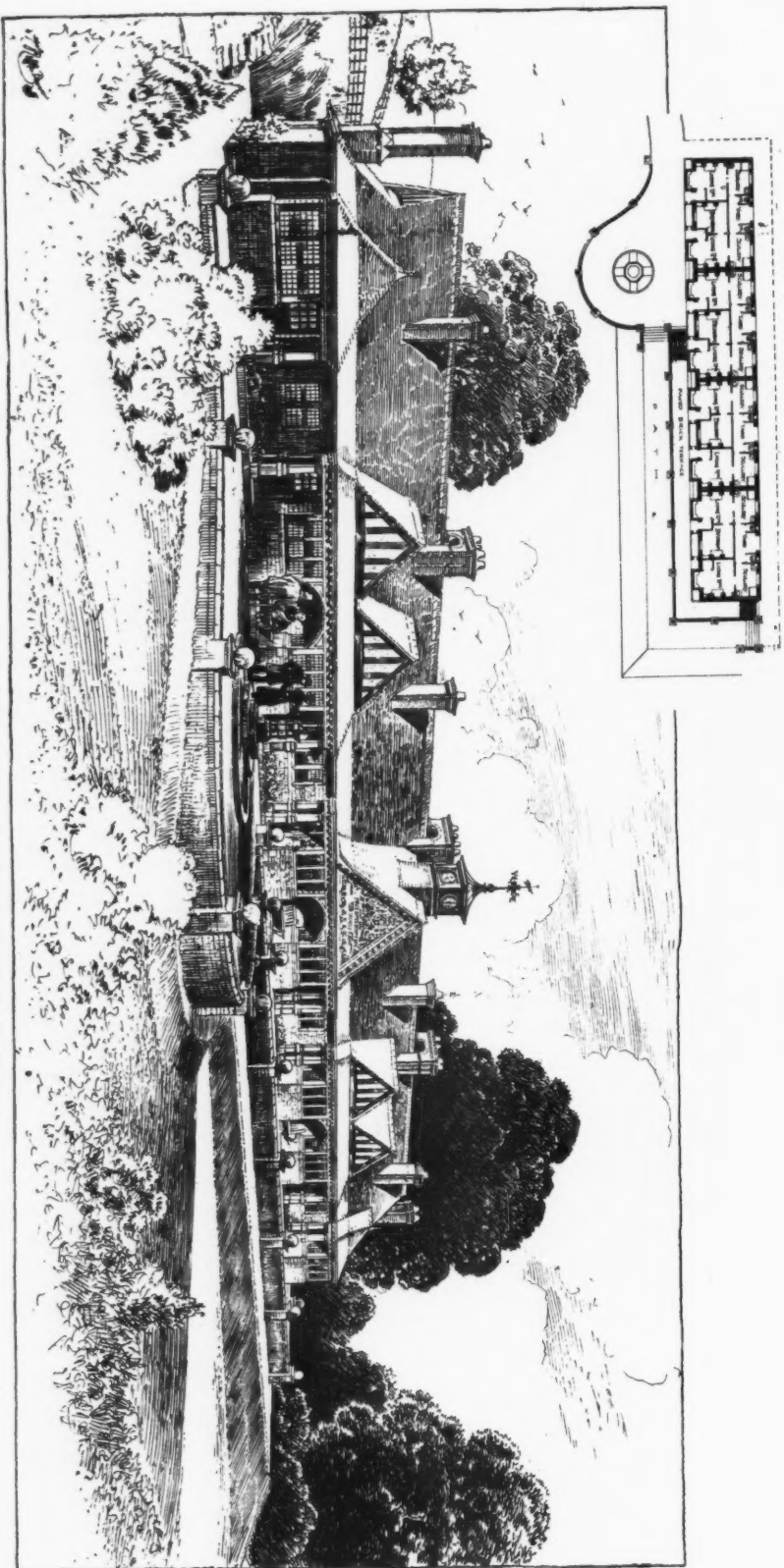


Plaster in Third Chapel.

Details from the Temple of the Malatesta, Rimini, Italy.

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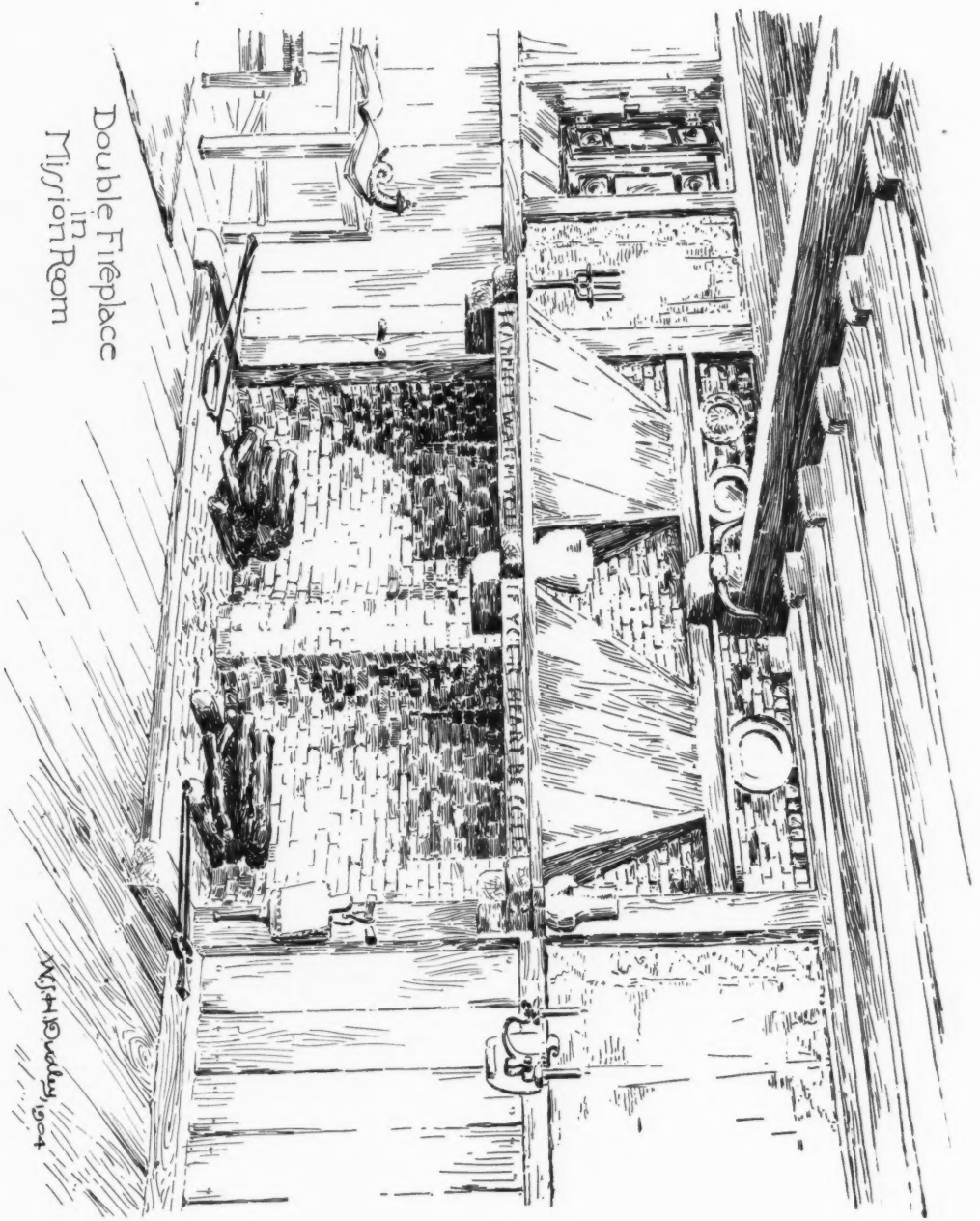


*Almshouses on the Ashton Court Estate, Somersetshire, Eng.
Edward Gabriel, Architect.*

From The British Architect.

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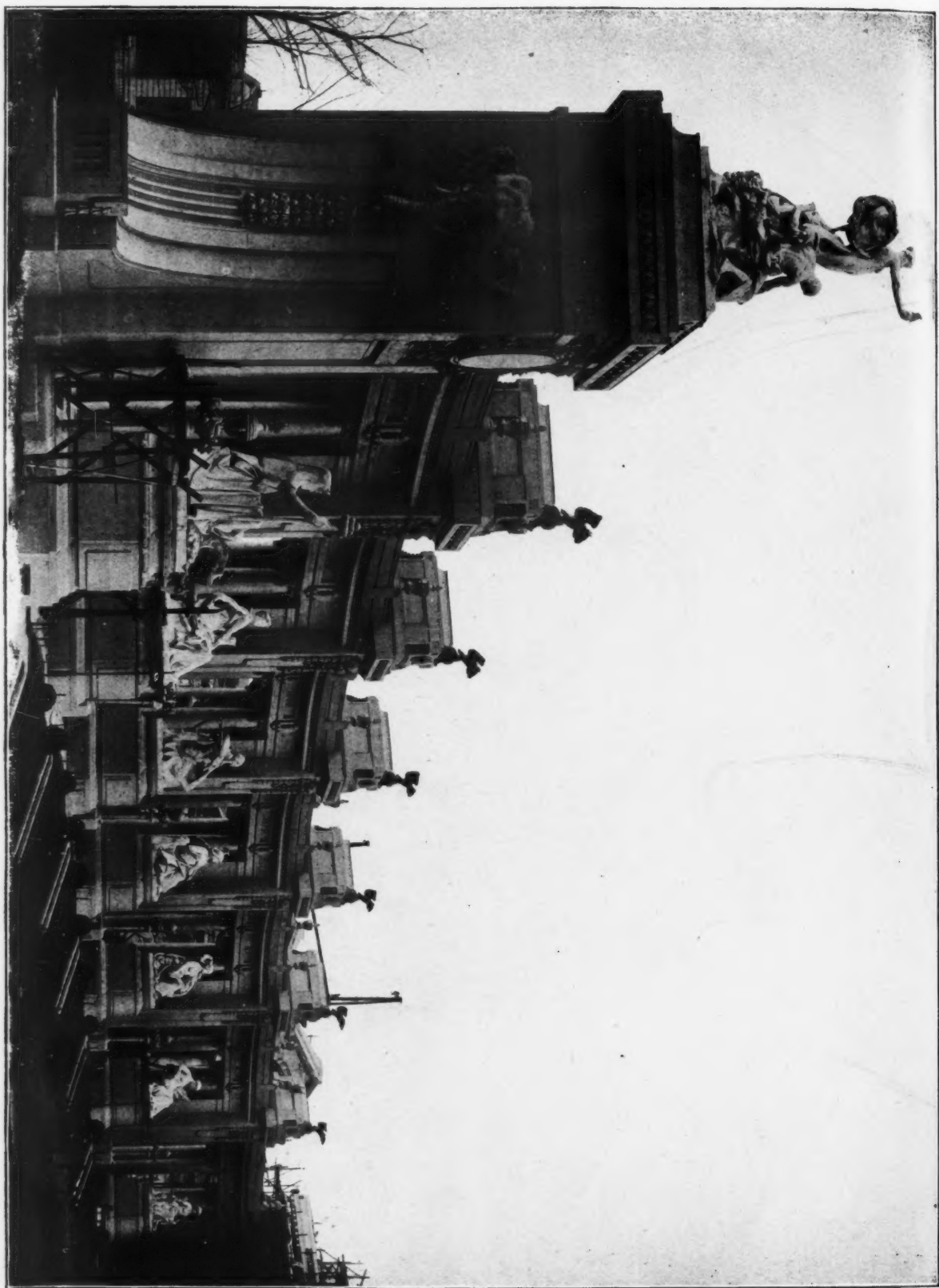


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Mission Room

W. H. Dudley, 1904

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Detail of the Terrace of the States: Louisiana Purchase Exposition, St. Louis, Mo.
E. S. Masqueray, Architect.

The American Architect
April 23, 1904
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[About 1580.]

From *Blatter fur Architekten*

The David Chest, in the Arts and Crafts Museum, Hamburg, Germany.

The American Architect
 April 23, 1904
 No. 1478



The Parlor.



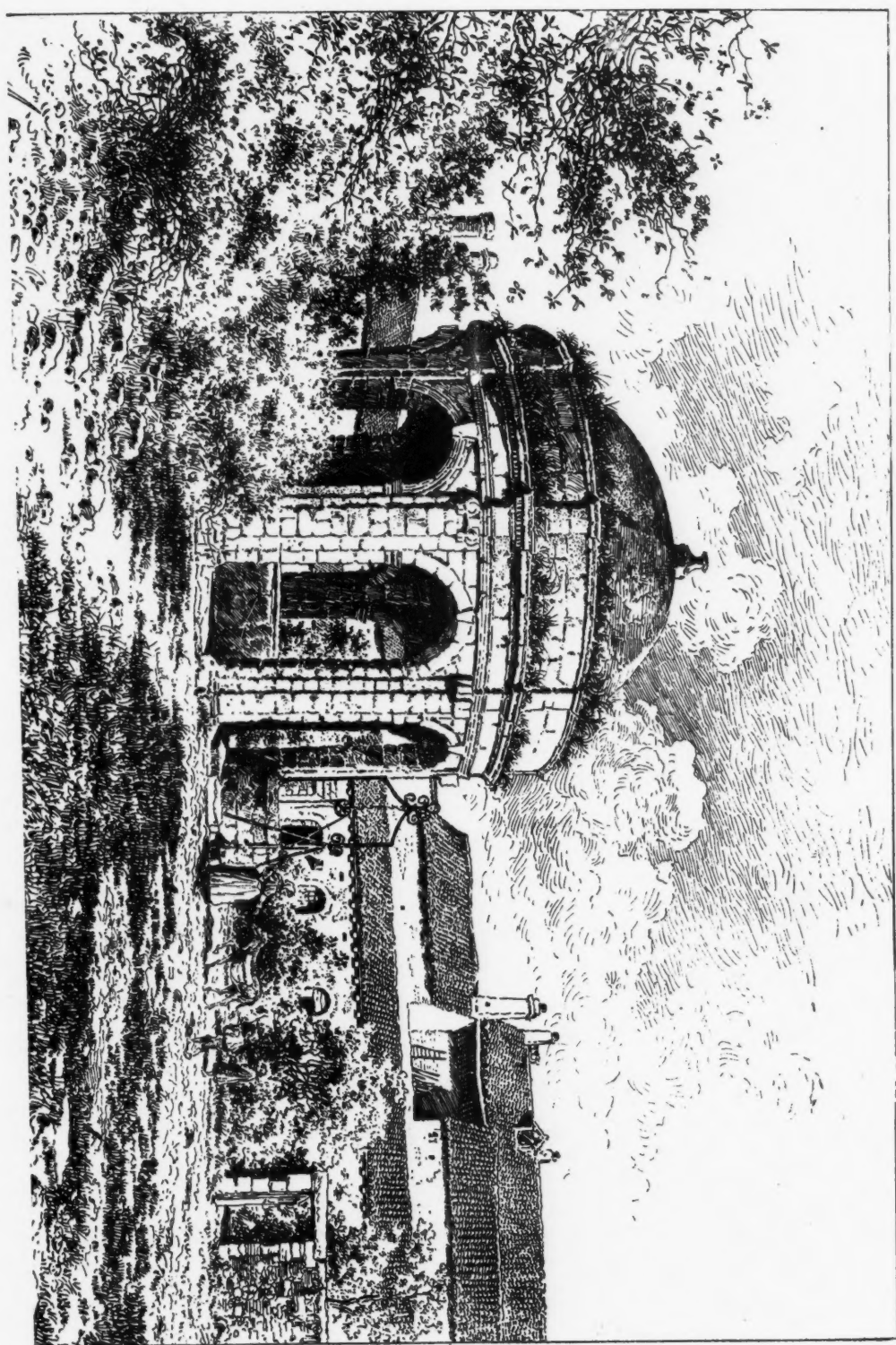
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The American Architect
April 23, 1904
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From the Builder



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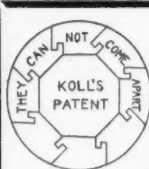
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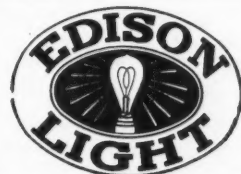
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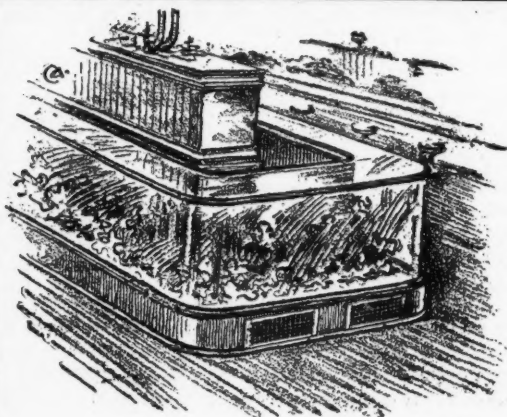
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New Advertisements.

ALGONQUIN RED SLATE Co. (Worcester, Mass.), Paint. Page 7.
ART METAL CONSTRUCTION CO. (Jamestown, N. Y.), Metal Furniture. Page vi.

See last or next issue for the following advertisements:—

Chicago & Alton Railway.
Cudell, F. E.
Charles J. Jager Co.
Kearney & Mattison Co.
Morse, Williams & Co.
W. M. Ostrander.
Standard Sanitary Mfg. Co.
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Ryan, William Curtis.
E. Thiele.
Tyler Co., The W. S.

ARCHITECTS' REMOVALS, Etc.

LUDLOW & VALENTINE, architects, at present located at 100 Broadway, will remove their offices on May 1st, to 1 E. 27th St., New York City.

MR. RICHARD KEELER MOSLEY, architect, begs to announce the removal of his offices from Produce Exchange Building to No. 1 Nassau St., New York City. Telephone 2900 Cortlandt. May 1, 1904.

HUGH ORR has opened an office for the general practice of architecture at 101 Tremont St., Room 411, Boston. Catalogues, samples, etc., desired.

WANTED.

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A NEW Williams Typewriter, never been used, \$100 machine, will sell for \$70 cash. Address "Type," American Architect office.

BUILDING INTELLIGENCE.

(Reported for the American Architect and Building News.)

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

ADVANCE RUMORS.

Akron, O.—The plans and specifications for the re-modelling of the Masonic building on E. Market St. will be supplied by Henry & Son, of Akron.

Baltimore, Md.—The Baltimore Stock Exchange will build at once on their old site, on German St. a five-story steel fireproof structure, to cost \$150,000. The upper stories will be devoted to offices and the

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BUILDING INTELLIGENCE.

(Advance Rumors Continued.)

front of the building will be of brick and stone. It is expected that the building will be ready for occupancy in six months.

The Woodruff-McLaughlin Co., a large engineering and architectural firm, is preparing plans for three modern warehouse buildings at 413, 415 and 417 Exchange Pl. for William Kleinle. The warehouses will be five stories high and will have all modern improvements and conveniences. The buildings will be constructed of brick, with light pressed brick fronts, trimmed in cut stone. Cost, \$50,000.

Boston, Mass.—An apartment-house, to cost \$40,000, is to be erected at the corner of Inman and Harvard Sts. in the near future. A permit has been granted the Union Real Estate Trust Co. to do the work. It will accommodate 16 families.

Brookline, Mass.—A well-known Boston business man has purchased land at the corner of Corey and Windsor Roads and will erect a fine residence for his own occupancy.

Canton, Mass.—Winslow & Bigelow have drawn plans for a residence to be erected on Elm St., near the Hooick-Whiskie Club for Samuel Cabot. Work of erection to begin at once.

Chicago, Ill.—The Chicago & Northwestern has begun the erection of a fourteen-story office-building here, estimated to cost \$1,000,000. The Frances E. Willard Temperance Hospital is to have a new home costing \$75,000. The building will be five stories high.

Clinton, Ia.—Clinton is to have a new \$200,000 hotel, to be called the Cromwell.

Concord, N. Y.—Plans for erecting a new building were discussed at the semi-annual meeting of the Temple Society of Concord. It was unanimously voted to raise \$50,000 for that purpose. The Women's auxiliary of the society has already subscribed \$5,000. The new building will not be erected on the site of the old one, but will probably be put up in the vicinity of Forman Park.

Cripple Creek, Col.—Architect A. J. Smith, of Colorado Springs, has drawn plans for a new court-house to be erected at the corner of 2d St. and Bennett Ave. within eighteen months. Cost, \$55,000. Ground will be broken for the building not later than July 1.

Detroit, Mich.—H. W. Chamberlin is preparing plans for the Salvation Army's new building to be located corner Michigan Ave. and 2d St. Cost, \$30,000.

F. A. Schilling has completed plans for Park Commissioner Bolger for the new casino on Belle Isle. The commissioner has an appropriation of \$100,000 for the building.

The City Council have allowed estimates for five new public schools, each to cost \$60,580; and \$100,000 for a public hospital for the treatment of contagious diseases.

The city fire commission have been given \$18,000 for a new fire station.

Stevens & Blume have prepared plans for a three-story brick apartment-house to be erected at Brush St. and the Boulevard for M. W. Beecher. The building will contain nine apartments, and the exterior will be trimmed with stone.

L. W. Teller has drawn plans for a four-story apartment building for himself, to be erected on the corner of Woodward and Lothrop Aves. The building, which will be known as "The Valencia," will be of colored Bedford stone for the first story, and the other three stories of red pressed brick. The trimmings, frieze and balustrade will be of white pressed brick.

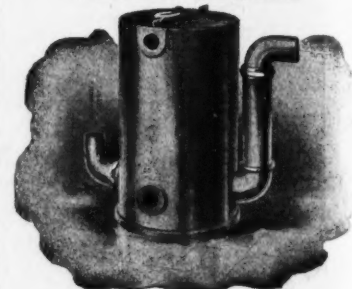
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(Advance Rumors Continued.)

Donaldson & Meier have prepared plans for a brick addition to the Detroit Cabinet Co.'s factory, 985-1004 Ropelle St. The addition will be three stories high and 54' x 75' in dimensions.

Malcomson & Higginbotham have drawn plans for an additional factory for Frederick Ingram & Co., manufacturing chemists, corner of Lafayette Ave. and 10th St. It will be four stories high, 30' x 40'.

Plans are being drawn by Malcomson & Higginbotham for a large factory for Durant Dort, the well-known Flint carriage manufacturer. The structure will be 125' x 130' in dimensions and of heavy mill-construction. Work will be commenced as soon as the plans are completed.

Raseman & Fisher have completed plans for a factory on Franklin St., just east of Rivard St., for the new Commercial Vehicle Co. Upon this two-story brick building, 25' x 100', will be built. It will be of mill construction and will be completed about June 1. As soon as the business of the concern warrants it a similar building will be erected on the Woodbridge St. side.

H. A. Vanderhorst, of Kalamazoo, has been awarded the contract by E. C. VanLeyen, architect, for the \$40,000 building of the Kalamazoo Hospital Association. The building will be of fire-proof construction, with steam fan heating and ventilation systems, hardwood finish, mosaic floors on the corridors, and a very complete operating department.

Stratton & Baldwin have prepared plans for a summer home for Capt. Frederick M. Alger, to be erected at Grosbe Point, near the Country Club. The building will be frame with cement outer walls.

Roland C. Gies has completed plans and specifications for buildings, 44' x 92', designed for an undertaking establishment, dwelling and stable, to be built on the northwest corner of Canfield and McDougall Aves., for Col. C. H. Schulte. The building will be two stories high, with basement, the exterior being of brick veneer and stained shingles.

Dorchester, Mass.—Two lots of vacant land on Standish St., near the corner of Harvard St., have been sold by Henry P. Boutelle to Donald J. McKay. The new owner will erect three frame apartment-houses, to cost above the land about \$5,500 each.

Thomas J. Griffin has just sold a lot of land on Romsey Circle containing 2,700 square feet of land to A. Chisholm. The new owner will improve the property at once by the erection of a frame dwelling.



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AMERICAN SHEET & TIN PLATE CO., Frick Building, Pittsburg, Pa.

BUILDING INTELLIGENCE.

(Advance Rumors Continued.)

Dunkirk, N. Y.—Frank L. Kolpien has been awarded the contract for erecting a handsome brick church for the congregation of St. John's Lutheran Church at the corner of 4th and Leopard Sts. The entire cost of the church will be \$20,000.

Halifax, N. S.—Mr. J. N. Purcell, of New York, and others, will erect a large hotel here. From the plans, the hotel will be an imposing structure, six stories high and will cost \$250,000. It will be fire-proof with steel frame.

Haverhill, Mass.—Ground has been broken for the erection of a new Catholic Church at Mosher, Ely and Summer Sts. for the Perpetual Help Society. The new structure will be in the Romanesque style. It will be built of brick, but only the high basement will be completed for the present. This will be roofed over and will cost between \$15,000 and \$20,000. When funds will warrant, the remainder of the edifice will be built, the total cost figuring probably between \$50,000 and \$60,000. The plans are by G. P. B. Alderman & Co.

Ira, Mich.—Peter Dederichs has drawn the plans for a brick church for the Roman Catholic congregation. It will be of brick, with slate roof and stone trimmings, 45' x 100' in dimensions.

Indianapolis, Ind.—Work on the new dormitory for the Blind Institute on N. Pennsylvania St. has begun and will be pushed to early completion. The new building when completed will be an artistic addition to the buildings now standing. It is being erected in the rear of the present structure and will be three stories in height. Gray brick and Indiana limestone will be used. Adolph Scherrer is the architect. William F. Junglaus is the contractor. It is thought the new dormitory will be ready for occupancy by the beginning of the next term in September. It will cost \$40,000.

At a meeting of the congregation of the First Baptist Church it was decided to abandon the site of the old church and rebuild on the old Mansur property at the northeast corner of Meridian and Vermont Sts. The new structure will cost, probably, a little over \$100,000.

Larchmont, N. Y.—A short time ago in the presence of a few friends, Jackson Gourand laid the corner-stone of his new \$150,000 mansion, which he calls "La Hacienda," on Crocker Point, on the Sound. It will be built after the style of an English country house, partly of red brick, with terra-cotta finish, and will match the \$50,000 English coaching stable.

Lawrence, Mass.—The directors of the Bay State National Bank have awarded the contract for building the new seven-story store and office-building at the corner of Lawrence and Common Sts., to the corner of Essex and Lawrence Sts. Some of the buildings on the location have been razed and it is expected that excavation will begin on the ground in about two weeks.

Lenox, Mass.—Plans for the remodelling of the old Eggleston cottage on Main St. have been completed by Pittsfield architects for Mr. Archibald Mackay, of New York, and the old house is to be made one of the handsome country places of Berkshire. The house was built by Gen. John Paterson, a commander in the revolutionary war, in 1783.

BUILDING INTELLIGENCE.

(Advance Rumors Continued.)

Lowellville, O.—Lowellville will erect a \$30,000 school-building. Plans have been approved.

Lynn, Mass.—The estate numbered 68 Broad St., consisting of a two and one-half story dwelling of 10 rooms and about 6,500 feet of land has been purchased by John F. McCarty. Mr. McCarty buys for investment and will remove the present building and erect a first-class modern apartment-house.

Another Catholic Church is to be erected here by the Polish Catholics of this city. The site is on Summer St., near Cottage, and contains about 14,000 square feet. The society expects to begin building about July 1, and subscriptions are being solicited.

Marlboro, Mass.—"The building commission having in charge the erection of the new municipal building has arranged to obtain plans by means of a competition among the four following invited architects: Charles E. Barnes, South Framingham; Everett & Meade, Boston; Warren, Smith & Biscoe, Boston, and Allen, Collins & Berry, Boston, and have secured the services of Prof. Francis W. Chandler of the Institute of Technology to aid them in deciding upon the merits of the various sketches."

McKeesport, Pa.—St. Mary's Catholic congregation has decided to erect a fine edifice on its property at the corner of Locust and Olive Sts., directly opposite the new \$75,000 structure of the First Baptist Church. Plans are now in preparation. Another new Catholic church to be erected here is that of the St. Pius congregation, which recently organized from St. Peter's Church. The home of the new congregation will be erected at the corner of 9th and Evans Aves. One church will cost \$35,000 and the other \$100,000.

Middlebury, Vt.—The graded school-building, a three-story brick structure built in 1870 at an expense of \$60,000, was destroyed by fire recently. The property carried insurance of \$35,000, and this will be used toward rebuilding.

Milton, Mass.—A large tract of vacant land has been sold by Samuel Shaw, of Montana, to Mrs. Hazel B. Sprague, who will cut the land up into house lots and improve for investment. The total area comprises 300,000 square feet, and is situated on Highland St.

Mrs. Mary T. Tucker has sold a tract of 10 acres of land on the corner of Brush Hill and Bradlee Roads to Mrs. Elizabeth W. Burgess. The property has a street frontage of about 1,000 feet on Bradlee Road. The purchaser will begin to build immediately a residence and stable from plans of Charles K. Cummings, architect.

Montreal, P. Q.—The Sovereign Bank will on May 1st begin the erection of a ten-story office-building on a lot recently purchased by it on St. James St. It is also reported that the government will in the near future either build a large extension in the rear of the present post-office or construct new government buildings for Montreal on another site.

Newark, N. J.—Contracts for several large structures, which were designed six months ago, as well as for many buildings more recently planned, have been awarded.

BUILDING INTELLIGENCE.

(Advance Rumors Continued.)

The School-house Committee of the Board of Education has received bids for the erection of additions to six school-buildings and for a new structure in the 13th Ward. For the entire work, including the furnishings of the class-rooms, \$200,000 has been appropriated.

New Castle, Pa.—The directors of the New Castle Masonic Association have decided to begin at once the erection of its handsome \$40,000 Masonic Temple, for which land was purchased some time ago. The contract has been let and the ground will be broken for the foundation in a few days.

New Haven, Conn.—Plans will be completed soon for several of the large buildings which are to be erected in the city during the summer. In the matter of the national headquarters of the Knights of Columbus, plans drawn by about 40 leading architects of the country will be submitted to the Board of Directors at the regular quarterly meeting. The present appropriation of \$250,000 is only enough for four stories and the walls will be made of sufficiently heavy construction to allow the raising of the roof for two stories, when thought advisable. The building will be erected upon the Day property at 956 Chapel St.

Drawings for the new office-building of the Winchester Repeating Arms Co. will soon be completed. It is said that work will be started on the building as soon as possible.

The architects have on the tables plans for several buildings for Sargent & Co., but these are held up with details because of the high price of building materials, it is said.

Brown & Von Beren have drawn plans for a new church to be erected at the corner of Dwight St. and Edgewood Ave. for St. Stanislaus Polish Society, the building now on the site to be removed. The new structure will be 60' x 80' of brick, with slate roof. The cost will be about \$25,000.

A new edifice for the First M. E. Society is contemplated. \$35,000 has been pledged for the purpose.

Yale gymnastic authorities are preparing to tear up both of the rowing tanks and in their place put a large and modernly equipped swimming pool. The cost of this change would be about \$10,000. It is further intended to build an addition in the lot to the rear of the building and build the indoor tanks and crew quarters there. The cost of the entire work, it is estimated, will be \$25,000.

New Marlboro, Mass.—Dr. Everett M. Culver, of New York City, the divorced husband of the daughter of Senator W. A. Clark, of Montana, has engaged Edward Whitney, of New Marlboro, to superintend the erection here of a \$150,000 mansion to replace the one destroyed by fire in the fall of 1902.

Newport, R. I.—One of the old historic landmarks here is the building known as the Central School-house, which has stood for over three-fourths of a century. It is soon to be repaired and made ready for the use of some fraternal society or for renting purposes as a hall.

New York, N. Y.—The United States Express Co. is to erect at Rector St. and Trinity Pl. a large office-building which will be occupied jointly by



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BUILDING INTELLIGENCE.

(Advance Rumors Continued.)

that corporation and the Interborough Rapid Transit Co. The building will be twenty stories high. On the second floor there will be an elevated railroad station connecting the 6th and 9th Ave. lines. The property along the south side of Rector St., between Trinity Pl. and Greenwich St., has been purchased from Grace Church. The buildings on this plot will be allowed to remain as they are as a protection to the light and air of the tall building to be built on the block to the north.

Plans have been filed with the building bureau for a three-story theatre to be erected at No. 228 to No. 231 W. 126th St. for Arthur Brisbane, editor. The new building will cost \$150,000.

Plans for the pavilion to be built for St. Luke's Hospital by the Plant estate have been filed by Ernest Flagg, the architect. The building is to be ten stories high and will adjoin the great hospital building crowning Morningside Heights, opposite the cathedral site. It is to be fireproof, fully equipped for general hospital purposes, and will have a large roof garden. It will have a frontage of 126 feet and a depth of 80 feet and will have facades of marble and granite at the two lower stories and ornamental brick above. Estimated cost, \$400,000.

William K. Vanderbilt has purchased the property 668 Fifth Ave. from the Coe estate. The house adjoins the similar dwelling No. 666, which Mr. Vanderbilt bought about five years ago, and which in turn, adjoins Mr. Vanderbilt's mansion, at the northwest corner of 5th Ave. and 52d St. It is said to be his intention to extensively alter these two houses into one dwelling with exterior conforming to his own, when the property will be turned over to his son, W. K. Vanderbilt, Jr., who will make it his home.

Plans have been filed for three important structures—the new hotel to be erected by Charles F. Rogers, on 27th and 28th Sts., just east of 5th Ave., at a cost of \$980,000; the Central Park Studios, at 11 to 15 W. 67th St., to be built by William J. Taylor, and costing \$285,000, and the nine-story hotel at the southeast corner of Gramercy Park and 21st St., to be put up by Charles Buck at a cost of \$210,000.

John Innes Kane purchased, some months ago, the property at 610 Fifth Ave., from Cornelius Vanderbilt. He has now purchased the adjoining dwellings at 612 and 614 Fifth Ave., thus making a plot 75' x 125'. He will tear down the buildings now there and erect a splendid new home, expending at least \$200,000.

Announcement has been made that Mrs. Edward King, of No. 991 Fifth Ave., has given \$100,000 for the erection of a new chapel as a part of the Cathedral of St. John the Divine, on Cathedral Heights. It is to be called the Huguenot Chapel and will be the second in a series of seven.

Hon. William T. Wardwell has donated a building site, valued at \$125,000, to the Red Cross Hospital.

Penn Yan, N. Y.—A new and modern school-building will soon take the place of the present Penn Yan Academy, erected in 1859.

Philadelphia, Pa.—Felix Isman, the real estate broker, has contracted for the erection of a new theatre in West Philadelphia. The house will, it is expected, be ready for occupancy at the beginning of next season. The site is at 52d St. and Lancaster Ave.

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BUILDING INTELLIGENCE.

(Advance Rumors Continued.)

Contracts have been signed and Chas. P. Dillingham, the well-known theatrical manager, will erect a new theatre at the corner of Broad and Cherry Sts. It will be known as the Penn Theatre, and will cost \$400,000. It will have a steel curtain and the side walls, which will consist almost entirely of steel pillars and folding doors, can be thrown open automatically by a single electric button.

J. E. & A. L. Pennock have begun the erection of a \$30,000 addition to the Philadelphia National Bank, 421 Chestnut St.

Pittsburgh, Pa.—Warren P. Laird, professor of architecture at the University of Pennsylvania, will be invited to serve as the advisor on architecture to the Committee on Carnegie Technical Schools, Pittsburgh.

The Diamond National Bank, which has occupied its present quarters at 5th Ave. and Union St. for 30 years, is to have a handsome new home. The new building will be 18 stories high eventually, although but 12 stories will be erected at present. The building will furnish a permanent home for the Diamond National Bank and the Diamond Savings Bank, also will have offices for renting purposes. For the first three stories it will be constructed of a light-colored granite, and from this point to the twelfth floor it will be of gray brick, and the top story and cornice will be of terra-cotta.

Portland, Me.—This city is to have three new buildings, located at the different forts, and to be used by the soldiers in each case as a gymnasium, library and recreation building. Each will cost about \$40,000. Work will probably not begin this year.

Providence, R. I.—At a meeting of the common council a resolution was passed looking to the purchase of sites and the erection of five new school-buildings. These include the following: One in the 10th Ward, a 12-room grammar-school building near the line of Ward 6 and 7, an 8-room primary-school building in Ward 2, a 10-room primary-school building in Ward 9, and a 12-room grammar-school building in Ward 8, and for that purpose the city treasurer was authorized to borrow \$225,000.

Quincy, Mass.—The Citizens' Gaslight Co., of this city, has purchased two acres of land from the Adams Real Estate and Trust Co., on which it intends to build a modern plant. The new site is at South Quincy, just beyond the old pumping-station of the Quincy Water Co., and adjoins the tracks of the N. Y., N. H. & H. R. R.

Richmond, Ind.—The plans of the Supervising Architect for the proposed public building at Richmond call for a one-story structure suitable for post-office. \$66,200 is available for the construction, \$13,800 having been spent for a site.

Richmond, Va.—A syndicate of Richmond capitalists will erect here a new apartment-house, twelve stories in height, with all the modern conveniences, to cost from \$300,000 to \$400,000.

Rochester, N. Y.—It is reported that the Rochester Armory bill has passed the Assembly at Albany. It carries an appropriation of \$300,000 for the erection of an armory on the site approved by the State Armory Commission, namely, the Palmer Property on Main St. East.

Roxbury, Mass.—The lot of vacant land on the corner of Blue Hill Ave., Ingleside and Adrian Sts., has passed to the ownership of Mary E. Duclos. The new owner will improve the land by erecting a

BUILDING INTELLIGENCE.

(Advance Rumors Continued.)

number of houses for investment, to contain all the latest improvements.

The proposed new school-building to be erected at Ambrose and Orchard Park Sts. will cost \$163,995. It will be three stories high and built of brick with stone trimmings, and will contain 21 classrooms.

Salem, Mass.—It is reported that the Salem Emergency Hospital has leased the estate Nos. 291-3 Cabot St. and will establish a branch there.

Dr. Emil Forier has plans in preparation for a three-story brick block to be erected on his property at the corner of Harbor and Lafayette Sts.

Shrewsbury, La.—A building permit has been issued for the erection of the new St. Mark's Episcopal Church, work upon which will begin at once. It will be of brick and stone, costing more than \$40,000.

Somerville, Mass.—The directors of the Y. M. C. A. are devoting all their energy to the raising of the \$35,000 for their proposed new building on Highland Ave. Already \$26,000 has been pledged, but \$35,000 is needed before the work of building can begin.

Springfield, Mass.—Daniel B. Wesson, the mill-laire devoting all their energy to the raising of the \$100,000 to the Hampden Homeopathic Hospital. The money will be used for the erection of new buildings on the present hospital site on High St. The new hospital, which will be five stories in front and seven stories in the rear, will be built of granite and gray pressed brick.

St. Louis, Mo.—The property on the southwest corner of Longfellow Boulevard and Lafayette Ave. has been sold to Rev. Edward J. Shea, rector of St. Kevin's Catholic Church, Park and Cardinal Aves. Rev. Father Shea has plans under consideration for the erection of a beautiful stone Gothic edifice to accommodate the large congregation. The estimated cost is about \$100,000 and work will be commenced in the near future.

A large auditorium is to be erected at once on the property of the Christian Endeavor hotel and auditorium company on Oakland Ave., south of the World's Fair grounds. F. C. Bousack is the architect of the auditorium and Nicholson Bros., the builders.

Work on the proposed new auditorium of the Third Baptist Church is about to begin. The structure will cost in the neighborhood of \$70,000.

Swampscott, Mass.—Work on the new Catholic church on Humphrey St. will soon be begun. An old dwelling that has stood on the place for years has been sold by auction to Bernard J. Noon, sexton of St. Joseph's Church of Lynn, to be removed within ten days, when excavating for the foundations of the chapel will be begun. Mr. Noon will remove the building to Phillips St.

Temple, Tex.—Architect Watson, of Austin, is figuring on some fine residences to be erected here. The building fever has struck Temple this spring and in all directions may be seen new buildings under construction, and especially in the residential portion of the city.

Tilton, N. H.—Tilton Seminary has voted to proceed at once to raise \$50,000 to be expended upon a new up-to-date gymnasium, heating plant and recitation hall.

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BUILDING INTELLIGENCE.

(Advance Rumors Continued.)

Waterbury, Conn.—The contract for the complete work of building the Margaret Croft school was awarded by the Board of Education to James F. Kaffney of this city, his bid being not only the lowest but the only one within the \$55,000 appropriation allowed for the work.

Wellesley, Mass.—The fund for the rebuilding of the convalescent home of the children's hospital now reaches \$96,166. It is desired to raise \$100,000 before beginning operations.

Wichita Falls, Tex.—A Catholic sisterhood of Lockport, N. Y., has entered into a contract with the citizens of this place for the construction of a large school and convent for this city. The sisterhood agrees to expend from \$35,000 to \$75,000 on the school and convent, and the people of the city will donate a building site. It is hoped to have the school ready for occupancy on September 1st next.

Winchester, Mass.—Two lots of land on Sheffield Road, containing about 25,000 feet, has been purchased by Capt. P. A. Nickerson, who will build thereon in the immediate future.

Worcester, Mass.—One of the most important measures pending before the Massachusetts Legislature is that relating to a new union passenger station here, and to the abolition of grade crossings in these.

A prominent firm of Chicago architects has been selected to draw plans for the costly edifice to be erected in this city for the First Baptist Church Society. The site of the building will be at the corner of Main St. and Mower Ave. The structure will have a frontage of 120 feet and a depth of about 200 feet, and will cost between \$175,000 and \$200,000 above the land.

EDUCATIONAL.

Brookline, Mass.—Prospect St., two-st'y bk. primary-school house of 12 rooms; \$52,000; o. Town of Brookline; c. B. F. Carroll, mason, B. W. Neal, carpenter; a. J. A. Schweinfurth, Boston.

Wellesley, Mass.—Two four-st'y bk. & st. dormitory buildings; \$175,000; o. Wellesley College; c. Angus McDonald; a. J. A. Schweinfurth, Boston.

HOUSES.

Brookline, Mass.—Prescott and Mountfort Sts., 24-st'y fr. dwell., 45' x 90', pitch roof, with fr. stable, 34' x 64'; \$40,000; o. Mrs. Carry L. Curtis; a. Prescott & Sidebottom.

Detroit, Mich.—Townsend Ave., bet. Waterloo & Hendricks Aves., two-st'y fr. dwell.; \$5,000; o. F. A. Merritt.

Buchanan and Fourteenth Sts., three-st'y fr. dwell.; \$9,000; o. William D. Riggs.
Fourteenth St., bet. Magnolia & Linden Sts., two-st'y fr. dwell.; \$6,000; o. Wm. E. Riggs.

PROPOSALS.

Treasury Department, Office of the Supervising Architect, Washington, D. C., April 16, 1904. Sealed proposals will be received at this office until 3 o'clock P. M. on the 25th day of May, 1904, and then opened, for the construction (except heating apparatus) of the U. S. Post-office and Court-house at Grand Forks, North Dakota, in accordance with the drawings and specification, copies of which may be had at this office, or at the office of the Postmaster at Grand Forks, N. D., at the discretion of the Supervising Architect. JAMES KNOX TAYLOR, Supervising Architect.

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