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THE condition of things in the building-trades in New York is serious. The action of the contractors in organizing for defence against the tyranny of the unions has been accepted as a challenge by the union leaders, and strikes have been ordered on all buildings being erected by members of the Employer's Association. The Parks element in the unions seems to be still in control, and bands of walking-delegates, with Parks at their head, march through the city calling off all union men that they find at work on buildings. Fortunately, the struggle cannot last long. So long as the union leaders were able to attack contractors in detail with an overwhelming force, victory was easy, but to deal with the united power of the employers is a very different matter. It is said that about one hundred and fifty thousand men are now on a strike in the city. This would imply that at least half a million people are without means of support in the best season of the year, with the summer rapidly going by. It cannot be many days before the rank and file of the unions will see that the contest is being carried on, at their expense, solely for the benefit of the union leaders, and, in course of time, they will pluck up courage to assert themselves.

A VERY interesting dispute is going on in New York in connection with the recent enactment in regard to tenement-houses, known as the De Forest Act, the most important section of which is one requiring the substitution of water-closets for the privies which still linger in the back yards of multitudes of tenement-houses on Manhattan Island. The tenement-house owners, or some of them, profess to see in this provision a violation of the Constitution of the United States, which declares that no person shall be deprived of life or property without due process of law, and claim to consider themselves victims of illegal oppression; but it is very unlikely that their representations will have much weight with the courts. The city authorities, of course, order the foul privies abolished, not for the benefit of any particular persons, but for the general good, and the necessity for such action does not admit of any doubt. Every other large city in this country equipped with sewers and water-supply comparable with those of New York, adopted this rule long ago; and even conservative Paris, which has only just completed its sewerage system, requires for every house the abolition of the costly and comparatively inoffensive tight vaults which were universal there until within a few years, and the substitution of water carriage. As we have said before, we are sorry that the De Forest law did not require a water-closet for every family, instead of one for every two families. The additional expense of installation would be comparatively small, and the moral and hygienic advantages would be enormous; but it might have been difficult to carry through such a measure, and the better class of landlords, finding that an additional fifteen or twenty dollars for each tenement will provide all with independent closets, are quite likely, particularly if representations are made to them by the friends of the poor, who are now a great host in New York, to make the improvement themselves, especially as the investment would be certain to bring in an enormous interest.

IT seems to us, in studying the accounts of the enforcement of the De Forest law, that the process is unreasonably and unnecessarily long and expensive for all parties. A suit to compel an owner to pull down a privy and substitute a water-closet involves, as every lawyer knows, an expense much greater than the cost of making the change, while it opens the door for appeals and other dilatory proceedings almost without end. Moreover, a single suit of this kind hardly serves as a precedent for the decision of other cases, inasmuch as an infinity of different issues can be raised by an ingenious lawyer. For example, the De Forest law, as we remember it, does not give a very precise definition of what constitutes a legal water-closet; and every owner who wishes to make trouble for the city, and gain time for himself, can demand a long and expensive trial to determine this point. It would have been much better, as it seems to us, to put the matter frankly in the hands of the Tenement Department, where it already is virtually, and authorize the inspectors of the Department to order every house vacated in which the law, after a reasonable time, is not complied with. The certainty of a loss of rents, even for a month, would have more terrors for the refractory tenement-house owner than the prospect even of an expensive and losing lawsuit; and the more summary proceeding would really save a great deal of money to the tenement owners, as well as to the city, besides preserving the lives of the unfortunate children who would die of cholera infantum, in consequence of exposure to stench and filth, while the suits are going on.

ACCORDING to the New York papers, the prices of real-estate in Manhattan, at least, tend to fall. The speculation in lands in New York has been so wild for the past few years that some reaction was, perhaps, inevitable, and the present building troubles, which, while they prevent the improvement of property, do not interrupt the running of interest on mortgage loans, will undoubtedly lead to some sacrifices. We are inclined to think, however, that these will not be very numerous, or very serious. The prospect is that, if the Employers' Association remains firm, labor will cost considerably less after the strike is over than it did last season. Perhaps the nominal scale of wages will not be materially changed, but the suppression of the interference of walking-delegates, the abolition of "foremen," and of the other useless incumbrances which the walking-delegates have saddled on employers, with the knowledge, on the part of the men, that they were being watched by their employers, to see who did a fair day's work, instead of by a "business agent," to see that they did not do too much, should do wonders for the efficiency of labor, and correspondingly reduce this item of cost in building operations. With this prospect before them, even the speculative builders can well afford to pay a year's additional interest on their mortgages, in the confidence that they will more than make it up in the saving in cost of construction.

THE bricklayers of Boston and vicinity have demanded an increase of pay, which the contractors absolutely refuse to grant, so that even such meagre building operations as are now going on, or in contemplation, in that city are likely to be suspended. How long the suspension will last it would be difficult to predict, but we are disposed to think that it will not be very long-continued. We remember, on the occasion of a previous bricklayers' strike in Boston, that bricklayers from New York soon made their appearance, professing to be non-union men, and were put to work, and, under present conditions in New York, it is very likely that this may happen again. Meanwhile, some of the Boston bricklayers are said to be on their way to New York, with their expenses paid out of the funds of the union, to be ready for the time when building-operations begin again. It is probable that, when they are resumed, the walking-delegate and "business-agent" will have retired to the background; and, judging from the settlements made in nearly every labor dispute this season, all over the

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

country, it is not impossible that the way will be opened for the employment of non-union men. In this case the Boston bricklayers who happen to be there can reciprocate the brotherly attention of the New Yorkers by offering their services in place of them.

MOST people have seen something in the newspapers about the new balloon, with which remarkably successful experiments have been made near Paris. This balloon is the property of two brothers, named Lebaudy, who own and manage an immense refinery. It seems that the director of the refinery, M. Julliot, who is a highly-trained man of science, had taken great interest in the experiments made by M. Santos-Dumont and others in navigating the air, and had amused himself by working out in theory some improvements on the existing systems. His employers heard of this, and with a generosity and sympathy peculiarly French, not only encouraged him to work out his plans, but furnished the money for carrying them into effect in the most admirable manner. Not only did they provide for building the most powerful navigable balloon yet constructed, but, with a forethought worthy of the highest praise, they secured a tract of level land, about two miles long, not far from Paris, enclosed between a bend of the Seine and a circle of hills, which give shelter enough to reduce materially the velocity of the wind at the ground, and thus facilitate the beginning and conclusion of voyages. This tract was fenced in, to keep out idle spectators, and sheds and workshops built within the enclosure. Then the actual construction of the balloon was begun. The most important peculiarity of the Julliot, or Lebaudy, balloon consists in the flat surface formed by the underside of the cigar-shaped aerostat. M. Julliot was convinced that at least one extensive horizontal plane surface was necessary to the proper control of the aerostat, and, for compactness, he decided to make this surface form a part of the balloon itself, stiffening it with cross-pieces, and suspending the car from it, instead of from uncertain attachments to the yielding body of the balloon. In this way he obtained a much more rigid connection between the balloon and the car than has ever been previously secured, and, in consequence, endowed the car with great efficiency as a means of keeping the aerostat horizontal.

IN the details of construction, also, M. Julliot secured a solidity which has never before been seen in balloons of any kind. For the light, but slender, piano wires used for suspension members and braces by other recent experimenters he substituted wire ropes and steel tubes; while the driving helices, of which he employed two, were made of steel plate, about one-twentieth of an inch thick, instead of the silk-covered frames hitherto employed; and were placed close to the car, one on each side, and connected with steel shafts and gearing, instead of being situated far out of reach, as has been the previous practice. The motor itself, a gasoline machine of forty horse-power, was placed under the car, and protected against communication of fire so thoroughly, that, while it was in operation, streams of hydrogen, and of a mixture of hydrogen and air, were directed upon it without effect. The covering of the aerostat itself was also novel, consisting of a thin sheet of india-rubber between two thicknesses of cotton material, varnished over, on the outside, with seven coats of a weak solution of india-rubber in a mixture of benzine and bisulphide of carbon. The material so prepared is very impermeable to hydrogen gas, the balloon, when first inflated, some six months ago, having remained for more than forty days with a loss of only ten per cent in ascensional power; while, for the experiments of this spring, which occupied a period of two months, it was only inflated once, at the beginning of the series of trials, descent being effected by inflating the internal air-balloon which is now used in all flying-machines. To lessen the action of the sun on the india-rubber, which, in thin sheets, is liable to rapid oxidation, M. Julliot painted the aerostat bright yellow, with chromate of lead. This coating, added to the cotton and the india-rubber, made a rather heavy fabric, the weight, complete, being about three-quarters of a pound to the square yard, or nearly a thousand pounds for the entire covering of the aerostat. Possibly, in future experiments, the film formed by evaporating a solution of celluloid in acetone, which is very flexible, and has immense tensile strength, relatively to its thickness, might be employed with advantage. Even with such a heavy aerostat, and with its steel propellers, iron gearing and wire-rope suspensions, the machine has worked wonderfully well. On the eighth day of May it remained in the air an hour and thirty-six minutes, travelling over a course of twenty-five miles, and returning to its starting-place. Seven days later, the balloon started out again, in a wind blowing at the rate of fifteen miles an hour, as measured by the anemometer on the grounds, and sailed about fifteen miles, circling about at pleasure. Some five miles from the experimental ground is a country-place, known as the Château de Rosny. The balloon sailed directly against the wind until it reached the château, taking twenty-six minutes to make the trip. Then, after a pause above the lawn of the château, it started off, and described a circle, coming back to the lawn again. From this point it steered across the Seine, and directed its course for the starting-point, the wind being now behind it. For some reason the balloon began to ascend rapidly, and air was pumped into the interior balloon to keep the machine down. As he did so, a rattle of broken metal was heard, and the valve of the air-pump ceased to work. The aeronaut, who had two passengers with him, decided that it would be safest to descend, without waiting until he reached the experiment-station; and, accordingly, brought the balloon to the ground in a field. There was no one near to seize the anchor-rope, and the balloon, which is furnished with a pointed frame underneath to break the shock of descent, was blown for two or three hundred yards, dragging the point over the ground. Then some laborers caught the rope, and the passengers alighted, without any injury either to themselves or the balloon. Some stakes were set in the ground, and the balloon placed on top of them, and secured until M. Lebaudy's little steam-yacht, which was lying in the river, close by, had towed up a scow, in which the balloon was placed, and brought safe to its shed.

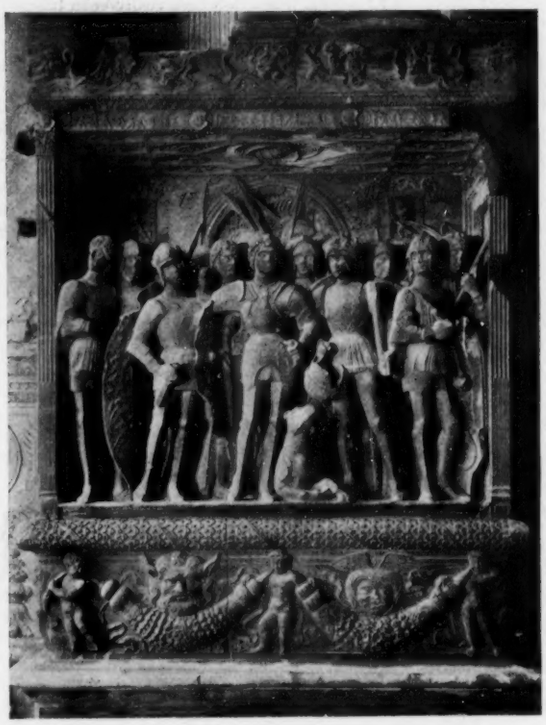
MR. THOMAS D. EVANS, one of the best-known architects in Western Pennsylvania, died at the hospital in Pittsburgh a few days ago from a paralytic shock. Mr. Evans was a Welshman by birth, but had lived in this country since his childhood. He served in a Pennsylvania cavalry regiment throughout the Civil War, suffering a severe wound, for which he was treated in the same hospital in which he died forty years later. After the war, he studied architecture with the firm of Barr & Moser; and, in 1871, began practice on his own account. He was very successful in business, designing many of the principal buildings in and about Pittsburgh, and was, at the same time, highly esteemed by his professional associates. He was for some time President of the Pittsburgh Chapter of the American Institute of Architects, and had been for many years active in the affairs of the Institute. He leaves three young children, doubly orphans, their mother having died about five years ago.

THE mosquito has made his appearance, probably for the first time, in the Massachusetts courts. The New England Brick Company, which has for sixteen years been digging out clay in the town of Belmont, and making it into bricks, recently bought six acres of land adjoining its present property, with the intention of digging additional clay-pits in it. The town authorities, however, brought suit for an injunction to restrain the Company from extending its works, under the statute relative to offensive trades, on the ground that the clay-pits, in which water always stands, will become breeding-places for mosquitoes, and, in consequence, will be the means of spreading malarial disease among the inhabitants. The court in which suit was first brought refused to grant the injunction, on the ground that "if the plaintiff's claim were to be allowed in every case, every quarry and brick-yard in the State would be permanently closed." This does not seem a necessary consequence of granting the petition of the town against the extension of the works complained of; but there is, at least, common-sense in the view of the court. The case is to be appealed, but, meanwhile, a compromise might, perhaps, be effected by means of a contract between the town and the brick company, requiring the latter to keep all its clay-pits, new and old, covered with petroleum during the mosquito-breeding season. This, so far as our present knowledge of the subject extends, would effectually suppress the mosquitoes and such malaria as they might be responsible for from the whole plant; and the town would be better off than it is now. If we were interested in the town government, we should be inclined to add a condition, that all the clay-pits should be fenced around, to prevent children from falling into them, as the water in them is usually deep, and many people, straying on their slippery banks, have been drowned.

THE ARCH OF ALFONSO OF ARAGON, NAPLES.

THE pretty monument which is known under the name of the Triumphal Arch of Alfonso of Aragon is one of the least known at Naples. Immured between the two massive towers of the Castel Nuovo, concealed by structures which surround it and which bury this old castle, constantly hidden by scaffolding, for ruin is ever threatening, it ordinarily escapes the notice of the hurried tourist. And yet to the merit common to all the structures erected during the golden age of Italian art it adds the value of a document which is almost unique in the history of the Renaissance at Naples. Its general lines are harmonious, its style, except some slight details, is of the purest, and the multiplied ornaments with which the architects of the fifteenth century enriched it can be classed among the most beautiful specimens of the sculpture of the time. They bear the purest and clearest imprint of the principles enunciated by the creators of modern art, principles too often abandoned by their pupils.

Every one knows now under what conditions the Renaissance had its birth in Italy, at the time of emerging from the sterile and mournful period of the Middle Ages; but while, at the closest possible range, the slightest phases of this phenomenon have been studied so far as concerns Tuscany and Umbria, provinces in which the greatest artists of those memorable times had the fortune to be born and find enlightened patrons in the rulers of the smallest of courts, there has not been studied with much care the artistic movement which had its being almost contemporaneously in other parts of the Peninsula. The Kingdom of Naples is one of these sections. Less rich, it is



Detail of Attic Sculptures.

true, than the three grand divisions of Central Italy, Tuscany, Umbria and Latium, in the matter of works of art, its finest monuments do not reach the degree of magnificence, grandeur and perfection which are so frequently encountered in Florence and Rome. The artists who lived on the shores of the Gulf of Naples were not encouraged with the same generosity, nor stimulated by the same currents of admiring popular applause as favored their brothers on the banks of the Arno and the Tiber, but they, nevertheless, produced a large number of remarkable works.

Naples, in Tommaso degli Stefani, of whose paintings a goodly number still exist, had a contemporary and rival of Cimabue's. They tell the story that King Charles of Anjou, who was present in Florence at the time when there broke out the flood of enthusiasm which was produced when Cimabue had finished and exhibited his famous "Madonna" in the Rucellai Chapel, preferred to the Florentine painter his own subject, Tommaso degli Stefani; but to-day Cimabue's superiority is well recognized. Moreover, it was inevitable, fated, as it were, that the fecund inspirations and the new birth must come from Tuscany. The successor of King Charles, Robert of Anjou, about the year 1325, invited Giotto to come and paint in Naples, and here was the point of departure. Giotto left in the capital of the Angevins a line of pupils among whom we find Colantonio del Fiore, a painter still held in honor in our own day, and he, without meaning it, caused Neapolitan painting to make great progress. The matter is so touching that one cannot avoid telling the tale in a few words. A young locksmith had just fallen madly in love with the daughter of Colantonio, and succeeded in inspiring an equal passion on the part of the young girl; but what could sustain an humble artisan in the hope of obtaining in marriage the daughter of one of the greatest artists of Naples, one whom the court itself treated not as a bourgeois, but as a gentleman. Besides, Colantonio had formally declared that he would accept as a son-in-law only a painter of merit, and it was just this demand which bestowed on the Neapolitan school one of its masters, for the locksmith, Antonio Solario, undertook long trips through Italy, sojourning in the studios of the best painters, and applying himself unceasingly to the study of art, and so well that nine years were enough for him to deserve the hand of the daughter of Colantonio and to obscure even the glory of his own father-in-law. Better known under the sobriquet of "il Zingaro," he is to-day still considered as one of the great painters of the fifteenth century.

Let us also mention Filippo Tesauro, whose frescos excited in Luca Giordano, another famous Neapolitan, and in Antonello da Messina, the liveliest admiration. The latter, endowed with exceptional intelligence, as is the case with many Meridionals, had the great merit of having imported into Italy the methods of oil painting which Jean Van Eyck, yielding to his persistency and flattery, at length revealed to him.

But the interior situation of the Kingdom of Naples did not become really favorable to the development of the fine-arts until towards the last half of the fifteenth century. In 1442, the Angevin kings had to abandon their throne to the King of Aragon and Sicily, Alfonso I, whose advent marked the end, or at least the suspension, of the troubles and sanguinary conflicts to which during centuries the succession to the throne of Naples had always given rise. Alfonso, it is true, was a conqueror as sensitive to the voice of ambition as were his rivals, but he considered the acquisition of Naples as his last conquest, and showed himself disposed to inaugurate an era of peace and progress. Besides, he had for this city a marked predilection. He made it his usual place of sojourn in preference to his other residences in Aragon, Catalonia, Sicily, Corsica and Majorca, giving himself up entirely to the cause of order and to the prosperity of his new estates. All this drew towards him the lively affection of his subjects, whose apprehension of becoming simply tributaries of the Kingdom of Aragon had been sovereignly distasteful. So, to allay these apprehensions, Alfonso, on his entry into Naples, obtained from them, for his natural son Ferdinand the title of Duke of Calabria, ordinarily reserved for the heir to the throne.

In the assembly composed of all the nobles of the kingdom, the last traces of disorder caused by the change in dynasty were at length effaced. Yet, perfect calm did not reign until the day when Pope Eugenio IV granted absolution for his conquest to the conquerer of the Angevins, and the fine-arts and letters only definitively took their spring about the year 1447. Alfonso of Aragon in that year had the joy to see ascend the pontifical throne a friend of writers and artists, the Cardinal of Bologna, Parentucelli, a man of a sweet and pacific character, whom the conclave elevated to the supreme dignity of the tiara with the purpose of offering a glorious example of the triumphs of personal merit. This pope, who took the name of Nicolas V, had, among other claims to merit, that of having entrusted to Fra Angelico the decoration of his oratory in the Vatican, the chapel of SS. Stephen and Lawrence, that delicious sanctuary whose painted decorations do not pale under the close vicinage of Raphael's frescos in the halls and galleries which surround it. Nicolas, nevertheless, was only the son of a poor doctor of Sarzana, and had slowly mounted the first steps of the ecclesiastical hierarchy; then, in a single year, he became bishop, cardinal and pope. As he succeeded on the throne of St. Peter a man restless, blundering and quarrelsome, a radical change was at once perceived throughout all Italy; for while he made treaties with the Florentines, the Venetians and the Milanese for the conclusion of peace and succeeded in effacing even the remembrance of a too famous schism by making the anti-pope Felix V his first cardinal, he prepared, by gathering about his throne the best artists of the epoch, the grand artistic movement which made Rome at the commencement of the sixteenth century the centre of the Renaissance.

It is he who, to afford a place for holding the consistoires and pontifical congregations, caused to be built that portion of the Vatican where are found the *stanze* of Raphael; to-day, even, there can be noticed in some of these halls the superposition of the phases which the Renaissance passed through, from the frescos of Angelico and the ceilings of Perugino up to the compositions of Raphael, Michael Angelo and Giulio Romano, from the time of Nicolas V down to those of Julius II and Leo X.

Like the other cities of Italy, Naples wished to have its own artists, and began to enrich itself with monuments: under the direction of King Alfonso and the rich nobles who followed his example, palaces were built in the city and villas in the environs; Gothic styles, so ill adapted to satisfy the local taste and so foreign to the beautiful Neapolitan sky, ceased to inspire the architects. The fear of civil discord having disappeared, we find once more showing themselves the beautiful forms of Classic art; porticos were reared on sites formerly occupied by drawbridges and ramparts; fountains embellished the places which had only seen barricades and bastions. And this movement extended to all the fine-arts and to literature; the impulse which they received was so strong that paganism, resurrected through the restoration of the cult of beauty, succeeded in making a breach in the religious ideal and the physiognomy of the city changed rapidly.

In fact, what can one see here, if it be not the consequence of a radical change in the life and customs, in the transition which substituted wide sculptured porches for the fortified doorways of the mansions of the Middle Ages, which transformed pointed windows and loop-holes into broad rectangular bays surrounded by sculpture,

Detail of the Second Order.

crowned by ornamented cymatia, and surmounted by elegant pediments? The houses took on a hospitable air because men's minds became less rude, because they experienced an irresistible need of peace, and light and air.

We may, perhaps, return to this period which is so interesting in the history of architecture, and tell the story of other monuments which Naples saw arise at this time. It is time, however, to turn to the triumphal arch of Alfonso of Aragon, which we can only study as it deserves after thus running an eye over the times which saw its erection and the causes which determined its construction.

Vasari, who is still the greatest historiographer of the arts of Italy, but who leaves much to desire in the way of exactitude when he deals with other artists than those of Tuscany, especially when he undertakes to trace the biographies of Venetians and Neapolitans — Vasari, I say, names Giuliano da Majano as the author of the Arch of Aragon. Now, this celebrated Florentine sculptor and architect was, in fact, summoned to Naples by King Alfonso, for whom he designed the villa of Poggio Reale, an edifice which the two Donzelli, Neapolitan painters of note, decorated with frescos, and of which the writers of the seventeenth century speak as a most delicious spot, but which now exists no longer. It is equally true, as Vasari affirms, that Giuliano da Majano "designed with beautiful and original invention many fountains for the city of Naples and for the palaces of its nobles," and that there may properly be attributed to him the bas-reliefs of the Porta Capuana; but, as we shall see farther on, there is no evidence that we owe to him "the marble door of the castle, in the Corinthian order, with an infinity of figures, to which he gave the form of a triumphal arch, whereon are represented in sculpture the mighty deeds and victories of King Alfonso."

Several authors, on testimony that is somewhat vague, have asserted that the arch in question was erected toward the end of the fourteenth century, but it appears with sufficient clearness from the little historical digression which we have just been making for the sake of discovering its reason that this hypothesis is incorrect. A certain number of years were needed to prepare for the passage from the archaic style to the modern style, and, moreover, it was only a year after his entry into Naples, June 14, 1443, that Alfonso obtained the investiture from the pope and became in fact a sovereign — for the kingdom which he had conquered was tributary to the pope. Besides, several years were necessary to gather about him the Italian and Greek humanists and artists who were to prepare the Neapolitan Renaissance, a considerable work, for the Spanish and French nobles, who, up to that time, had governed Naples, were conspicuous for their profound ignorance, and would have thought it derogatory to their rank to have devoted themselves to study. So one can assert safely that the Arch of Aragon was not begun before the year 1445.

As we have said above, it is placed between two of the towers of the Castel Nuovo, an ancient edifice which was falling in ruins at the time of the advent of King Alfonso, and which it was necessary to rebuild in large measure. The architects charged with directing these works did not depart in any degree from the rules of Gothic art, but when the elegant façade and delicate arcades of the arch of triumph were seen to be rising it was a real revelation. The new art enraptured Naples; the breath of classicism had dissipated the gloomy inspiration of the ancient architects.

How did any one ever think of imprisoning a work of art so fine and delicate as this in a re-entrant angle of the Castel Nuovo? This is how the Neapolitan historians explain it: On February 2, 1443, the elect of the Neapolitan people, assembled solemnly in the Church of San Lorenzo Maggiore, decided to give proof of their gratitude and exhibit their attachment to the King of Aragon by erecting to him a triumphal arch in front of the cathedral. But, as to do this it would be necessary to tear down the house of a valiant veteran, they were forced to look about for another site, and after much disputation it was decided to transform the heavy portal of the Castel Nuovo into a commemorative monument.

The first impression that one experiences on seeing this arch is one of scorn; one can hardly contemplate without a feeling of chagrin the state in which this monument now is, in a close passage, between two dungeon towers which seem about to crush it, befouled by the contact of a house with leprous walls, and dishonored by vegetation which here and there conceals its cornices. It must also be noted that the crowning portion of the structure, terminated by two masks of clumsy make, bordered by a garland of doubtful taste, and a tympanum in which are enthroned two rivers sculptured by an artist of mediocre talent, is, as a composition, featureless and vulgar, an imitation of the works of the Roman decadence, and "swears at" the rest of the structure. Certain critics consider the upper order of the monument, composed of four niches separated by little fluted pilasters, as a superstructure added in a later epoch, but, in my opinion, they are wrong when they assert it to be of doubtful merit; in reality, it is the neighborhood of these two enormous towers which crush this graceful story, very well placed in its lightsomeness at the summit of the structure.

The Arch of Aragon is built entirely of fine white marble. On carefully examining the general design, a practised eye can perceive certain faults in the disposition, some uncertainty, some mistakes in proportion, which are very pardonable if one thinks of the difficulties which hampered the architects forced to insert their structure in a wall-panel extremely ill-placed, when they had really been imagining that their work was to be erected in an open space before the cathedral; and everybody knows how difficult it is for an architect to adapt his design to conditions so changed as these. One might, also, blame the authors for having made use of ornamental subjects hardly discreet in the golden age of architecture; but it must be recognized that a more beautiful composition could hardly have been designed in so ill-omened a place; so we must agree that they skilfully surmounted their difficulties.

In the first place, they had to break with tradition in order to give their monument enough height, and instead of making it an ordinary triumphal arch convert it really into a façade. The arch proper is composed of two chief orders, of which the first forms the doorway, properly so-called, while the second repeats in less elongated proportions the general lines, the one being separated from the other by an attic consisting of three high-reliefs and an entablature.

The first order is in the Corinthian-Composite style, enriched with sculpture at the base, on the uprights, and on the frieze, on the midst of which are detached in Latin letters the following inscription: "*Alphonsus Rex Hispanus Siculus Italicus Pius Clemens Invictus.*" At the right, the frieze is decorated with a group of dancing children, and, at the left, with children bearing garlands. This order rests on a stylobate whose proportions and ornamental details have been much admired, and of which the illustrations herewith enable one to remark the astonishing perfection of the work, which, as we have already said, must be considered as one of the first works produced in the Renaissance. The necessity of using the least resources to augment the height of the monument suggested to the architect the idea of doubling the stylobate, dividing it into two parts separated by a thick cord representing a garland of oak-leaves and acorns, and placing it upon the contra-sub-basement, which only gives the more relief to the portions of the structure which it supports. Above, the arch of the first order is crowned by the escutcheon of the house of Anjou. The composition of which this escutcheon forms a part, making a centre of it — the remaining space being filled by two griffins, each holding a cornucopia — is admirably conceived.

Detail of the Main Frieze.

The central composition of the attic, in high-relief, has two great merits, the skilful disposition of the figures and the perspective of the background, which would be enough to determine the age of the monument and whose perfection would have been precocious even in the first half of the fifteenth century. This composition represents

the triumphal entry of King Alfonso I of Aragon into Naples. Four mounted trumpeters, in the right-hand lateral panel, open the line of march. We next see groups of dignitaries and nobles, squires and pages. One of the finest groups is that of the nobles and magistrates, treated with infinite care in the least details. Horses harnessed four abreast, guided by a beautiful Victory, who nevertheless reveals the influence of the archaic style, drag a chariot on which the king is seated under a dais. And finally, the rear of the procession is brought up by a group of the populace which fills the left-hand panel. In all this work one can only praise the good arrangement and harmonious *ensemble* of these groups of personages, the sureness of the foreshortening and the perspective. The background of the scene is occupied by a building of the Composite order. All the high-reliefs are in several fragments, in which the architectural lines of the background do not always perfectly agree, a condition of things which proves that they were executed, after the designs of the architect, by several artists.

The second order is a lower one, the vertical member of the opening being almost crushed by the superimposed arch, but the general effect is largely corrected by the four elegant fluted columns which support the frieze. It is alleged that the central bay was intended to receive a sculptured group, and it is even alleged that the subject of this group was to have been King Alfonso, crowned and seated upon his throne; but this is far from being satisfactorily proved, without taking into account that the introduction of a vast subject at this spot might have had the effect of overloading and rendering heavy the general aspect of the façade. Doubtless, this hypothesis was suggested on seeing the statue upon the left-hand side which has no corresponding statue to balance it on the right. In the spandrels of the arch are two sculptured Fames bearing wreaths: one of the two has been damaged by a cannon.

The most interesting part of the arch is, from the point-of-view of architectural ornamentation, the interior of the archway of the

Detail of the Stylobate.

lower order. The vault, in the middle of which is reproduced the escutcheon of the house of Aragon sustained by two genii, is divided into octagonal compartments containing alternately the laughing heads of angels and rosettes. Upon each side, we see, below the springing of the vault, a little story composed of two arcades very similar to those which, to the number of four, are strung along the upper portion of the façade, and of which one can only approve the ornamentation, which is as rich as it is delicate. These niches, the arrangement and design of which recall those of the Arch of Janus at Rome, were intended to contain statues, but it seems that the architect's scheme never went any farther than the design. Below these niches come high-reliefs which form, perhaps, the two most beautiful bits of the entire monument. Here, again, the perspective is perfectly treated and the taste displayed is of the purest. Save for a little stiffness in the lower parts of the figures, the attitudes are perfectly easy and have a gracefulness worthy of remark. The faithfulness of the execution of the costumes of the warriors, of which the least details are carefully reproduced in marble, make these two high-reliefs historical documents of great price. That upon the right is attributed to Isaiah of Pisa, while that on the left, the finest one, is credited to Andrea dell' Aquila.

In the lower portion, between the two high-reliefs which we have just spoken of and the sub-basement, the two coupled friezes of the stylobate continue to develop their rich ornaments without repetition. Here are infants of graceful poses and laughing faces, who support garlands on which masks alternate with mythological subjects.

Finally, there must be noted, in the composition which finishes the corner of the stylobate, a circular medallion, placed immediately beneath the cornice, in which is presented in low-relief the head of a man crowned with olive-leaves. The presence of a portrait among the ornamental motives leads us to suspect some allusion to the author of the monument, such as the ancient artists almost always never failed to make, and to see in it the author's own portrait.

Now, who is the architect to whom must be attributed the paternity of this beautiful Neapolitan monument? Vasari, as we have said, mentions it as one of the works of Giuliano da Majano, but this assertion is of no great value, for Giuliano, born in 1439, had hardly reached the age of discretion at the time of its construction. They have even gone so far as to pretend that the architect in question was none other than Giovanni Pisano, who had come from Florence in 1266 in the suite of Charles I of Anjou, but that the monument was actually finished under the oversight of Masaccio. We have already noted that the probable date of erection excluded, *à priori*, the collaboration of Giovanni Pisano and Masaccio.

Several writers have attributed it to a Milanese, Pietro di Martino, who died at Naples in 1470, and upon whose epitaph it was inscribed that he took a part in these works. Certain contemporary documents corroborate this assertion, but prove that the works which were entrusted to him really consisted of certain sculptures, at the time everything else was practically finished; besides, di Martino was working in 1450 on the cathedral at Orvieto; in 1452 and 1454 he was at Rome, and it is only in one document, dated 1458, that he is found mentioned for the first time as being in Naples, in company with Isaiah and Antonio da Pisa, Andrea dell'Aquila and Paolo Romano, all of whom worked upon the sculptures of this arch of triumph.

Quite recently, a new attempt has been made to divine the name of this mysterious architect, and an hypothesis has been formulated which seems destined to be very soon considered as a certainty, and that is that the author of the structure which concerns us was Leon Battista Alberti.

This illustrious Florentine architect, issue of a noble family, flourished at the time when the monument at Naples was built and left a great number of works on fine-art in Latin. Vasari in several places speaks of his studies in perspective and mentions his sojourn at Rome, in the time when Nicolas V, the pontifical friend of the arts, was enriching the Eternal City with many monuments. At Rimini, in 1444–46, he built for Malatesta a temple whose style, imitating antique triumphal arches, affords striking analogies with this Arch of Aragon, made after the same models. One can, besides, remark in almost all Alberti's works that he sometimes made very little of the practical difficulties against which men of his craft often blundered, such little defects as those which we have noted in beginning our description.

But there are even stronger arguments than these simple deductions. Leon Battista Alberti, at the end of one of his works written in 1435 on the subject of painting, a work which he dedicated to his friend Filippo Brunelleschi, besought painters who might have had reason for applying the instructions contained in this volume to paint his portrait upon their compositions. It appears that it was one of his greatest weaknesses, one which he held to enormously, to see his features reproduced in the decorations of the monuments which he caused to be built. At Rimini, in the Temple of the Malatesta, there can be seen a medallion containing Alberti's portrait seen in profile and in front view, surrounded by a crown of olive, a medallion which is almost identical with that which we have noted on the stylobate of the Arch of Aragon.

And, finally, when we recall that eminent architects were very rare in Italy in the middle of the fifteenth century, a period when simple constructors and stone-cutters received the commission for monuments, if we recall that Alberti enjoyed a reputation which could not but have come to the ears of Alfonso, one may very well admit that the arch of triumph erected in honor of the king was his work.

What is the present state of this fine structure? Have not the ages which it has seen succeed one another made any attack upon its beauty? Let us confess at once that it is in a deplorable condition and afflicts all those who have any feeling for the fine-arts. Also, it it is very little known: quite apart from its position, which renders access difficult, it is concealed by scaffoldings, since for a long time ruin has threatened it. When Gonsalvo bombarded Naples in 1515, several shot struck this monument and shattered it seriously: it was then necessary to replace one of the columns of the lower order by a masonry pillar. Earthquakes, which are so frequent at the foot of Vesuvius, the carelessness of Governments which succeeded one another at Naples after the reign of Alfonso I, and certain works of restoration carried out in despite of the recommendations of good sense have resulted in reducing the monument to a pitiable estate. But there is worse yet: the military arsenal, whose work-shops are placed in the immediate vicinity, discharge through numberless smoke-stacks a heavy smoke impregnated with acid gases which the wind bears against the face of the arch, to such a degree that the ornaments are in a great part calcined, as it were, and crumble under the touch.

Is it necessary to insist on how dangerous a condition of things this is and the mournful consequences which may result? The Arch of Alfonso of Aragon is of priceless value for the history of the Renaissance at Naples; it also has importance as an historical monument, seeing that its erection recalls one of the grand events in the history of Italy. But the difficulty is that the country possesses too many artistic treasures; its monumental patrimony is enormous, while its financial resources are limited, hence the impossibility of providing money for a scrupulous safe-guarding of all the treasures scattered about the peninsula.

H. Mereu.

The By-products of Forestry. — In the Prussian State forests the by-products have been as high as seven per cent of the total income. — *Exchange.*

DISCHARGE OF EMPLOYÉ BECAUSE OF MEMBERSHIP IN LABOR ORGANIZATIONS — CONSTITUTIONALITY OF STATUTE.

STATE ex rel. Zillmer, Sheriff, vs. Kreutzberg, Supreme Court of Wisconsin, 90 Northwestern Reporter, page 1098.

This case arose under chapter 332, laws of Wisconsin, 1899, which forbids the discharge of employés because of membership in any labor organization. Louis J. Kreutzberg had discharged an employé because of his membership in a labor organization and was arrested and committed for trial. He sued out a writ of habeas corpus against the sheriff, claiming that this act was unconstitutional, violating the provisions of the constitution of Wisconsin. These provisions relate to the right of individuals to life, liberty and the pursuit of happiness and declares that no person shall be deprived of life, liberty, or property without due process of law, this last provision being also found in the fourteenth amendment to the Constitution of the United States. The Superior Court of Milwaukee County held that the law was unconstitutional as claimed, and ordered the discharge of Kreutzberg from imprisonment, whereupon the sheriff of Milwaukee County and State of Wisconsin brought the case before the Supreme Court on a writ of error. The Supreme Court affirmed the decision of the court below, holding the statute to be in contravention of the constitutional provisions referred to.

From the remarks of Judge Dodge, who gave the opinion of the court, the following is quoted: —

"Free will in making private contracts, and even in greater degree in refusing to make them, is one of the most important and sacred of the individual rights intended to be protected. That the present act curtails it directly, seriously and prejudicially, cannot be doubted. The success in life of the employer depends on the efficiency, fidelity and loyalty of his employés. Without enlarging upon or debating the relative advantages or disadvantages of the labor-union, either to its members or to the community at large, it is axiomatic that an employer cannot have undivided fidelity, loyalty and devotion to his interests from an employé who has given to an association right to control his conduct. He may by its decisions be required to limit the amount of his daily product. He may be restrained from teaching his art to others. He may be forbidden to work in association with other men whose service the employer desires. He may not be at liberty to work with such machines or upon such materials or products as the employer deems essential to his success. In all these respects he may be disabled from the full degree of usefulness attributable to the same abilities in another who had not yielded up to an association any right to restrain his freedom of will and exertion in his employer's behalf according to the latter's wishes. Such considerations an employer has a right to deem valid reasons for preferring not to jeopardize his success by employing members of organizations. A man who has by agreement or otherwise shackled any of his faculties, even his freedom of will, may well be considered less useful or less desirable by some employers than if free and untrammeled. Whether the workman can find in his membership in such organization advantages and compensations to offset his lessened desirability in the industrial market is a question each must decide for himself. His right to freedom in so doing is of the same grade and sacredness as that of the employer to consent or refuse to employ him according to the decision he makes.

"The nearest parallel we have found to the act in question are laws enacted in Missouri and Illinois, nearly identical with our law as it existed before the amendment of 1899, namely, making criminal attempts to coerce employés against membership in labor-unions, by discharge or otherwise. In State *vs.* Julow, 129 Mo. 163, 31 S. W. 781, such law was held unconstitutional, as unduly invading the liberty of the employer to make or refuse to make contracts with whom he pleased. In that case the act committed was merely discharging an employé, and it was contended that it was prohibited by the law. The court said: 'If an owner,' etc., 'obeys the law on which this prosecution rests, he is thereby deprived of a right and a liberty to contract or terminate a contract as all others may. . . . We deny the power of the legislature to do this; to brand as an offense that which the constitution designates and declares to be right, and therefore an innocent act.' And further: 'Nor can the statute escape censure by assuming the label of a police regulation. It has none of the elements or attributes which pertain to such a regulation, for it does not, in terms or by implication, promote, or tend to promote, the public health, welfare, comfort, or safety; and, if it did, the State would not be allowed, under the guise and pretense of police regulation, to encroach or trample upon any of the just rights of the citizens, which the constitution intended to secure against diminution or abridgement.' In Gillespie *vs.* People, 188 Ill. 176, 58 N. E. 1007 [see "*Bulletin of the Department of Labor*," No. 35, page 797], was considered a similar act, claimed to be breached by discharging an employé because he was a member of a certain labor organization. That court also held the act unconstitutional, adopting substantially the views of the Missouri court in the preceding case.

In considering our own statute under which relator is committed, it must first be noted that we are concerned only with that portion added to preëxisting statutes (section 4466b. Rev. St. 1898) by the act of 1899, 'No person or corporation shall discharge an employé because he is a member of any labor organization,' for the relator is not charged with breach of any other of the provisions of that act. Confining ourselves, then, to the act so changed, and the statutory prohibition involved, is it within the legislative power to make criminal the refusal to contract with another for his labor for any reason which the employer deems cogent? We speak of refusal to contract, for, while the act mentions only discharge, it is in no wise limited to situations where there is any contract or other right to continuance of employment, and is obviously intended by the framers to apply generally to the relation of employer and employé, where, as common knowledge assures us, there is usually no term of employment, and each day constitutes a new contract. As each morning comes, the employé is free to decide not to work, the employer to decide not to receive him, but for this statute. That the act in question invades the liberty of the employer in an extreme degree and in a respect entitled to be held sacred, except for the most cogent and urgent countervailing considerations, we have pointed out. Hardly any of the personal civil rights is higher than that of free will in forming and continuing the relation of master and servant. If that may be denied by law, the result is legalized thralldom, not liberty, certainly not to the laboring men of the country. This aspect of the subject is too clear to warrant further discussion. Is there any conceivable reason to warrant such extreme invasion of individual liberty? Can it be necessary to the reasonable liberty of others under the law? The act here charged as criminal clearly does not deprive any other person of any private or civil right. Its utmost effect is to deny privilege of contract, but no right exists to enter into contract with another against his will. As the legislation clearly and beyond doubt invades the natural liberty of the individual, it must be void, unless we can discover both the existence of a public need, and at least tendency of the statute to provide therefore. In the search for such need and purpose we must and do concede to the legislative branch of the Government the fullest exercise of discretion within the realm of reason, and, if a public purpose can be conceived which might rationally be deemed to justify the act, the court cannot further weigh the adequacy of the need or the wisdom of the method. When, however, after all diligence and reflection, we are unable to discover any such public need or purpose, we have no alternative conclusion, save that the legislature has, 'under the guise of protecting public interests, arbitrarily interfered with private business, and imposed unusual and unnecessary restrictions upon lawful occupations,' which it may not do.

"We agree with the trial court that the enactment under consideration exceeded the limitations imposed by the constitution of Wisconsin upon the legislature. It is therefore void, and conferred no power upon the magistrate to make the commitment under which petitioner was held in custody."

BOOKS AND PAPERS

THE survey of London was begun by Sir Walter Besant some years ago, but his death stopped the work. It was, as he said, a "big chapter" to write, and only a part was finished; which part will shortly be published. Meanwhile his publishers have issued four little volumes, christened after a favorite word of the author's relating to the work. "It was fascinating," he said; it "fascinated" him — hence the general title of the series is called "The Fascination of London."[1] It is fascinating, whether we take up the "*Chelsea*," the "*Westminster*," the "*Strand*," or the "*Hampstead*" volume.

Chelsea, for instance, with its Bun House, now no more. Imagine the smart world walking under the Colonnade in the morning eating buns! It was the thing to do, so it mattered not what the thing was. On Good Friday 50,000 people would congregate there, and the consumption of buns reached 240,000! This was in the time of the Georges. The second George went to the Bun House with Queen Caroline and the Princesses, and the third George with Queen Charlotte. Swift, too, writes in 1712 to Stella: "Pray, are not fine buns sold in our town as the rare Chelsea buns?"

In the old church stands the monument to Sir Thomas More, prepared by himself before his death. It is memorable as showing the use of the word "heretick" in those days, More coupling it with "thieves and murderers"; but Erasmus struck it out of the epitaph. It is told of the great Chancellor, that one Sunday he entered the chapel and, bowing to his wife, said "Madam, the Chancellor has gone." Whether Sir Thomas was buried at Chelsea is disputed; but it is generally held that Margaret Roper, his daughter, removed his body to Chelsea after his execution.

Addison lived in Sandford Manor-house, just across the bridge, and in a letter written to the little Lord Warwick, his stepson, he describes the beauty of the singing-birds thereabouts: "The business of this is to invite you to a concert of music, which I have found in a neighbouring wood. It begins precisely at six in the evening, and consists of a blackbird, a thrush, a robin redbreast and a bullfinch. There is a lark, by way of overture, sings and mounts until she is out of hearing, and the whole is concluded by a nightingale."

The hospital is well described in all its parts. It is a fine building and interesting from many points-of-view. Many are its relics, and

[1] "*The Fascination of London.*" By Sir Walter Besant and G. E. Milton. London: A. & C. Black. 1*s.* 6*d.* per volume.

flags taken from the enemy, and not the least interesting of its monuments is that to the memory of the soldiers on board the "*Birkenhead*," who stood as on parade, while the women and children were saved, going down with the ship without a murmur — surely a finer example of courage than any battle has ever given us.

Westminster is an old-world place in spite of modern improvements. Every street records the past in its name: Orchard Street, Pear Street, Vine Street — these in the Abbey precincts tell of the monastery's gardens. But there are many old nooks to be visited, besides the great abbey church, almshouses and schools with quaint gateways and effigies of Bluecoat or Greycoat boys over the pediments. Emanuel Hospital has gone; and so has the Greencoat School, and many a street, and gate, and wall. But the Abbey is a host in itself.

Perhaps the most interesting of the books is the "*Strand*." In this neighborhood artists congregated in former times. Turner, Reynolds, Cosway, Gainsborough, Kneller, Lely and a host of others lived within a half mile of Covent Garden; and authors and poets not a few. Johnson, Dryden, Pope, Sir Isaac Newton, Coleridge and many another celebrity. The centre of London, now commercial, it was in the eighteenth and early part of the nineteenth century the quarter where wits and gallants lived. Between the Strand and the Thames were all the big houses of peers and bishops a century earlier — you can trace them by the street-names. Another celebrity, the wonderful boy Mozart, aged eight, performed at a concert in Frith Street, then Thrift Street. He could play at sight or make a bass to any music, "which he will write upon the spot without recurring to his harpsichord."

This district contains the long stretch of streets which Nash constructed from Regent's Park to St. James's Park — Portland Place, Regent Street and Circus, Waterloo Place and Carlton Terrace — almost the only complete architectural design in London. St. James Piccadilly is a notable church by Sir C. Wren, St. Martin's is by Gibbs, St. Clement Danes by Wren. Hungerford Market has disappeared, but we remember that Franklin lived there, just where the Charing Cross Station yard is now situated. Buckingham, afterwards York, House has gone with its friends, but the water-gate remains, a relic, possibly, of Inigo Jones's work: it is on the Embankment, lost in a hole; but a little common sense and artistic feeling might make a fine monument of it, by digging out the ground all round, and constructing an ornamental pond into which the steps of the old gate should descend. Were the pond or ornamental water large enough, some pleasure-boats might be added — certainly aquatic birds would give it life. As it is, the gate is senseless and impossible to be seen from a proper distance.

Just off the Strand is a Roman bath, 18′ x 42′. Inigo Jones lived in St. Martin's Lane and there the Royal Academy began its career.

Nor is Hampstead far behind the Strand in interest. In 1735 it is described by Seymour as "one of the Politest Public Places in England" — equal to Bath, Tunbridge and Scarborough, as it, too, had its pump-rooms. Many are its literary memories — Reynolds, Garrick, Sterne, Hogarth and, later on, Coleridge found peace in its country lanes. Fanny Burney (Madame d'Arblay) lived there and made her "Evelina" dance in the rooms of Well Walk.

This volume takes us perambulating round the Regent's Park and what is now St. John's Wood, the home of many artists; and then away we go to Highgate Ponds, and round by the "Spaniards" on the heath, to the Finchley Road artists' haunts.

The series is a compressed guide-book from the artistic and literary point-of-view. It is not dry, but is written in Walter Besant's easy flowing style — that of a man who writes upon what he has at his fingers' ends, as we say. Nor is architecture left out; indeed, the books are excellent up to a certain point — not a too superficial point, but a point from which one can start upon a more serious journey, and which paves the way to more exhaustive works. It shows, absolutely, the "fascination" of London, and would be an excellent companion to the hurried voyager as he perambulates the big city.

A few mistakes of dates do appear; and we may, I hope, be allowed to grumble at the foolishness of rough, irregular edges. The nineteenth century having invented a charming instrument for cutting leaves of books evenly, and thereby saving the reader's time, and defeating the dirt and dust enemies, the twentieth century is going back to the eighteenth, finding the dirty, rough edges more "quaint" and "artistic." Alas, when will art cease to be the high-priest of follies?

THE publishers of the London *Builders' Journal and Architectural Record*, and of *The Architectural Review*, have annually collected a mass of information which was originally scattered through the pages of their several journals and is made of usable permanent value by being collected, indexed and systematically arranged in a single book. The book so prepared[1] can easily be of great value to an English practitioner. There is also a considerable amount of material which is of limited value to the American architect. The idea of putting such material into tangible shape is a most excellent one. The really valuable information in our architectural journals is very often lost, and no system of scrap-books or indexing will be quite as useful as the collection of all the material in a single carefully arranged volume.

[1] "*Specification for Architects, Surveyors and Engineers when Specifying; and for All Interested in Building*": Division I, Professional Practice. Division II, Working Drawings. Division III, Construction. Division IV, Municipal Engineer. No. 6 (1903). Published by the proprietors of *The Builders' Journal and Architectural Record* (weekly); *The Architectural Review* (monthly), 9 East Harding Street, London.

ILLUSTRATIONS

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

LOWELL DISTRICT GRAMMAR SCHOOL, HEATH ST., ROXBURY, MASS. MESSRS. SHEPLEY, RUTAN & COOLIDGE, ARCHITECTS, BOSTON, MASS.

HOUSE AND ENTRANCE HALL OF E. W. SMITH, ESQ., KANSAS CITY, MO. MESSRS. VAN BRUNT & HOWE, ARCHITECTS, KANSAS CITY, MO.

ARCH OF ALFONSO OF ARAGON, NAPLES, ITALY.

For description see article elsewhere in this issue.

DETAILS OF THE SAME.

Additional Illustrations in the International Edition.

LIBRARY IN THE HOUSE OF E. W. SMITH, ESQ., KANSAS CITY, MO. MESSRS. VAN BRUNT & HOWE, ARCHITECTS, KANSAS CITY, MO.

DINING-ROOM IN THE SAME HOUSE.

ENTRANCE TO THE KLOSTERHOF, NEUZELLE; — EAST ENTRANCE TO THE AUDIENCIA, SARAGOSSA, SPAIN.

DIOGENES IN THE SQUARE DU TEMPLE, PARIS, FRANCE. MARIOTTON, SCULPTOR; — A MODERN ANTIQUE.

OLD GATEWAY, DORDRECHT, HOLLAND.

GREENWICH HOSPITAL, GREENWICH, ENGLAND.

NOTES & CLIPPINGS

MEXICAN PREHISTORIC RUINS. — A dispatch to the *Tribune* from Mexico City says that the recent discovery of an ancient city of pyramids in a dense forest in a remote part of the State of Puebla has been found to be of the greatest archæological importance. The Federal Government has commissioned the sub-director of the National Museum, Señor F. Rodriguez, to visit the ruins. Nicholas Leon, an archæologist and ethnologist, accompanied the sub-director to the ruins. Dr. Leon reports that the ruins are such as never before have been known to archæologists, and are so ancient as to require a great deal of time and study to determine in what epoch they were built as well as by what people.

THE PALAIS BOURBON, PARIS. — The Palais Bourbon in Paris is generally considered by visitors from other capitals to be remarkably small for a legislative palace. This arises, no doubt, from the façade suggesting no more than a single story. The history of the building is curious. The site belonged to the abbey of Saint-Germain des Prés, and it was acquired in order to erect barracks for the musketeers; but as there was not enough money the project was abandoned. A Dowager-Duchess of Bourbon obtained the ground and erected a mansion on it from the designs of an Italian architect, Girardini. Her grandson, when he obtained the property, enlarged the palace by the amalgamation of other buildings. At the time of the Revolution it was arranged for the meetings of the Council of Five Hundred. Then under Napoleon the familiar peristyle was constructed by Poyet. Amidst so many changes it would be strange if there was much unity in the buildings. The *salle* where the Legislature meets was constructed in 1832. Of late years the accommodation has proved to be insufficient, and various projects for a transformation have been prepared. A plan by M. Buquet, the architect in charge of the palace, has received approval and a model has been prepared of the proposed hall for the Assembly. Provision will be made for 622 members, and around the amphitheatre there will be twenty-one doors. Two galleries will be introduced, arranged in tribunes. It is proposed to occupy the wall behind the chair for the President and the tribune from which the members speak with three large paintings for which it is expected the commissions will be offered to M. Bonnat, M. Jean-Paul Laurens and M. Cormon. Prior to 1848, when the Government of Louis-Philippe was overthrown, the hall was found to be too small to contain the members who considered it to be their duty to take part in the historic events. It was necessary to set up a supplementary structure of wood and painted canvas. By M. Buquet's arrangements a course of that kind will be unnecessary unless the number of representatives is increased. — *The Architect.*

New Pine Forests in California. — For three months, beginning last November, a squad of from ten to fifteen men, under a competent leader, spent its time reseeding the mountain regions of Southern California, where fires had denuded the surface. The country, alarmed by the decreasing water-supply, asked for this work, and assistance was given by the towns of the section visited in carrying on the replanting. Pine, in varieties suited to the moisture likely to be secured, was generally planted. On March 1, this year, it was announced that the seeds planted in November had begun to germinate, and that there was promise of a successful growth over the areas treated. In a few years the bare mountain sides will be clothed again with green. — *Review of Reviews.*

The Washington University Travelling Scholarship. — Francis S. Swales is announced as the winner of the Washington University Travelling Scholarship, Albert D. Millar receiving Honorable Mention. The competition consisted of three rendered and three sketch problems. The drawings of Mr. Swales were placed first for their uniform excellence and the virility of design and clever draughtsmanship for which his work has been favorably known heretofore. Mr. Swales's natural gifts together with considerable office training under various good men should form an excellent foundation for the term of serious study abroad made possible by his present success. For a special study Mr. Swales has chosen the great theatres of Europe, a subject which he has already become interested in by reason of his employment on a number of the important theatres recently erected. — *Exchange.*

Forestry made easy for Farmers. — A unique way of dealing with forest problems is to illustrate and solve them by means of diagrams, as has been done by Henry S. Graves and R. T. Fisher in a bulletin entitled "The Woodlot," issued by the Bureau of Forestry of the Department of Agriculture. The bulletin is intended for the guidance of farmers and other owners of small timber holdings in southern New England who desire to improve the condition of their timber. In the series of thirty outline drawings every problem in improving woodlots that occurs in southern New England is included. The bulletin gives such specific information that the farmer will know how to go about the task of handling his own forest problem — and that is just the sort of information the farmer has been asking for. The bulletin contains also suggestions for pruning, protection of the woods from fire, grazing, insects and wind, and a general discussion of the character of woodlands of southern New England, and of the practicability of forestry. — *N. Y. Evening Post.*

Forest Fires. — Investigation by the Bureau of Forestry has shown that, in an average year, sixty human lives are lost in forest fires; $25,000,000 worth of real property is destroyed; 10,274,089 acres of timber-land are burned over; and young forest growth, worth, at the lowest estimate, $75,000,000, is killed. The forest fires in the Adirondacks have once more called public attention to the imperative need of precautions. The experience even of those States which have the best forest-fire legislation has shown that legislation alone cannot solve the problem. Pennsylvania, which probably leads in this respect, spends annually $15,000 in checking forest fires, giving the State constables extra pay for their services as fire-wardens in their respective townships. New York has also done something in this direction, especially with regard to the State reserves and parks, but much remains to be done. A great portion of the fires owe their origin to sheer carelessness. Watchfulness is the duty, not merely of the paid official, but also of every private citizen. The origin of the great fires which have been raging in the East is traceable to sparks from locomotives, carelessly managed camp-fires, and, in numerous instances, to incendiaries. The rainless period has made a serious conflagration possible in any unguarded forest where there is much underbrush. — *Fire and Water Engineering.*

The Larch-tree in Scotland. — It is just 165 years ago since the second Duke of Athole, a passionate lover of trees, received from Mr. Menzies, of Culdares, a few young trees from the Tyrol of a species hitherto unknown in Great Britian. It was deemed doubtful whether natives of a region so southerly as the Tyrol would endure the rigors of a Highland winter, so the seedlings were committed to the care of the gardener at Dunkeld House, who bestowed them tenderly in a greenhouse. Moist warmth and close atmosphere were conditions least favorable to the little mountaineers; spindling sadly, most of them died, and the whole were cast out on the waste-heap. Two of them retained enough vitality to revive in the clear, sharp air; they struck their rootlets into the sandy soil, and the Duke probably had forgotten all about Mr. Menzies's gift, when, one April morning, his eye fell upon a couple of dainty saplings, feathered with tender green, and studded with crimson bosses. Such was the haphazard introduction of the larch into Great Britain. The pair of outcasts may still be viewed near the west end of Dunkeld Cathedral, mighty columns clothed with deeply sculptured bark, towering to the height of 100 feet, with far-spreading limbs casting dappled shade upon the greensward. The incident above described marked a notable era in British forestry. The Duke was so well pleased with the grace and vigor of the foreigners that, before his death in 1764, he had planted twenty square miles of his land with larches. For better or for worse, an element had been imported into Highland landscape which, more than any other, has wrought a change upon the aspect of our hillsides and glens. There are but three coniferous trees indigenous to Britain, the Scots pine, the yew and the lowly juniper, all of them evergreen. The larch invasion cannot be reckoned an enrichment of the native woodland, because, lovely as this tree is in spring, when it puts forth its exquisite foliage of malachite green, in winter a larch wood is cold and bare, and the eye draws little solace from the expanse of ashen yellow which has been made to replace the rich velvet mantle of Scots pine, relieved by gleaming, ruddy boughs.

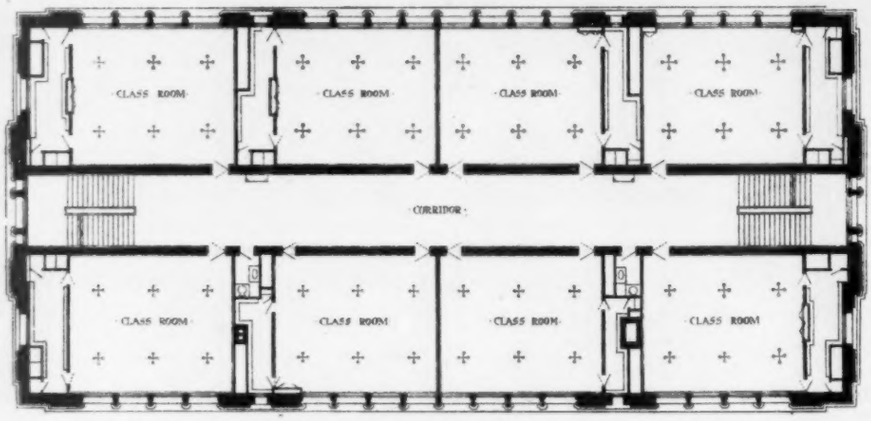
> As I did stand my watch upon the hill,
> I look'd toward Birnam, and anon, methought
> The wood began to move.

Birnam Wood has long since been felled, and has either come up again in the form of stool-grown oaks, never so free as the original trees from seed, or has been replanted with spruce and larch. But still there stands between Birnam Hotel and the river a giant oak, reputed to be the last survivor of Macbeth's "moving grove." It girths 22 feet at 4 feet from the ground, giving a diameter of 7 feet 4 inches. Hard by stands a formidable rival to the native, in the shape of a huge sycamore, which is not a tree indigenous to Britain. This monster has swelled to a girth of 24 feet at 4 feet from the ground, while, measured round the exposed part of the trunk at the ground level, it gives a dimension of upward of 50 feet. Birnam Hill itself is still clothed in part with forest, but the trees are nearly all exotic — larch and spruce — save where the birch has sprung up thickly in the glades rent by storms. This pass of Birnam, of old the main portal to the Highlands of Breadalbane and Blair Athol, is the choicest ground in all Scotland for the lover of trees. For many centuries the forest wealth of North Britain received ruthless, spendthrift handling. Generation after generation cut and came again for their hand-to-mouth wants, without a thought, apparently, for those who should come after them; until, at the beginning of the eighteenth century, Scotland had assumed that dispiriting nakedness which was to justify Dr. Johnson in his gibe that in all his Scottish travels he never saw but three trees big enough to hang a man upon. Dunkeld and Birnam got a good start in reafforestation through the rare prescience of the aforesaid Duke of Athole. Much of the ground about Dunkeld is so steep as to be quite inaccessible for ordinary planting operations; so that one wonders how exotic trees like larch, spruce and silver fir obtained their foothold on these cliffs which they do so greatly adorn. The tradition runs that Napier the engineer, being on a visit to the planting Duke, and sympathizing with his host's desire to restore the woodland, caused tin canisters to be filled with tree-seeds and fired out of cannon against the heights. The canisters, bursting against the rocks, scattered the seeds bravely, so that now every ledge, every cranny on Craig-y-Barns and Craig Vinean, bears noble timber. — *Pall Mall Gazette.*

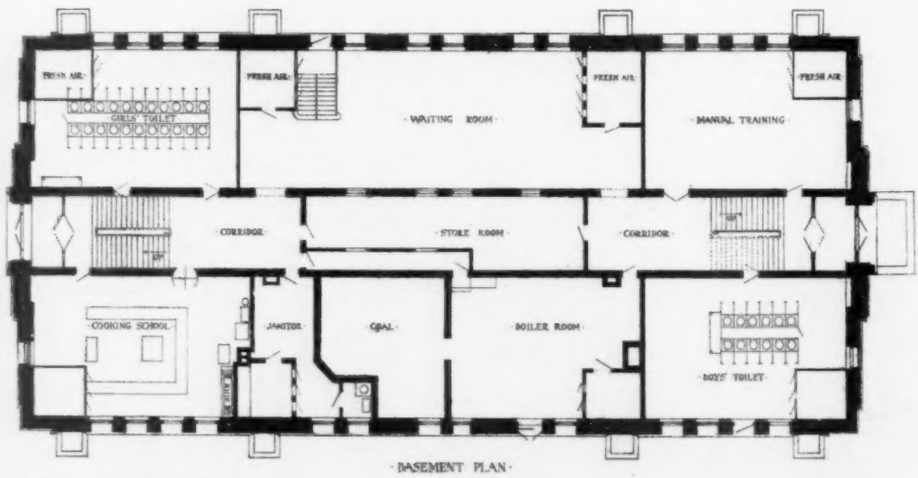
Direct and Indirect Underpinning. — Not less than four distinct modes of underpinning are exemplified in a description recently given by the *Engineering Record.* The foundations of a wall, 75 feet long, forming one side of a six-story building, had to be removed and carried down several feet to the sandy bottom of a new excavation, rendered necessary by the erection of an adjoining building. The wall was temporarily carried by needle-beams, resting at one end on sills laid on the cellar floor, and supported at the other by a series of posts, inserted after the wall had been lifted bodily by screw-jacks. Brick piers were next built up between the needles from new footings to take the weight of the old wall, and after removal of the needles the remaining brickwork was added, the whole being wedged up and thoroughly grouted. The corner of the front wall was supported entirely from the inside by a horizontal timber cantilever, of which one end was inserted and wedged into a recess cut in the brickwork, and the other end reacted against a post wedged across the underside of several joists in the basement floor, while the fulcrum was furnished by a set of the needle-beams already mentioned. At the opposite end of the building the corner was similarly supported. Another ingenious piece of work in the same building was the support of a heavily-loaded stone pier, 4 feet square, by means of two cantilevers, the short arms of which were secured to the pier by steel pins, and the reaction of the long arms was taken by posts wedged up against distributing beams across the underside of the floor above. In this manner the pier was safely supported so as to permit the removal of the footing and the building of a new foundation. At one part of the side wall a stone pier, 2 feet square, had to be underpinned with the wall. It was difficult to secure bearings for temporary supports, and unsafe to cut away material for the insertion of a needle-beam. Therefore, a pair of steel pins were inserted horizontally to take bearing upon one of the main needles, and the other side was supported by the aid of a cantilever placed below the foot of the pier in a notch cut into the foundation, the long arm of the cantilever reacting through a post wedged against the basement floor-beams. By these simple devices one side of the building was rendered independent of the old foundations, and it naturally follows that if any subsidence had been feared it would have been perfectly easy to guard against injury by jacks acting between the posts and the various supporting beams. — *The Builder.*

Connecticut Forest Preservation. — The experimental legislation which was enacted two years ago with reference to forestry has been broadened by a bill which Governor Chamberlain has just signed, and which has attracted much interest among the advocates of forest preservation. The maximum of $2.50 per acre which the State forester was originally authorized to pay for barren woodland for a State forest has been enlarged to $4. The original amount was not large enough to secure satisfactory land. The State forester is authorized to sell wood and timber from the State forest at his discretion and to apply the proceeds to the maintenance and care of the forest. A State forest has already been established in Middlesex County. The purpose of the forestry legislation is to supply object-lessons in the scientific manipulation of woodlands and to determine by experiment the kind of trees best adapted to the various soils of the State. — *Exchange.*

S. J. Parkhill & Co., Printers, Boston, U. S. A.



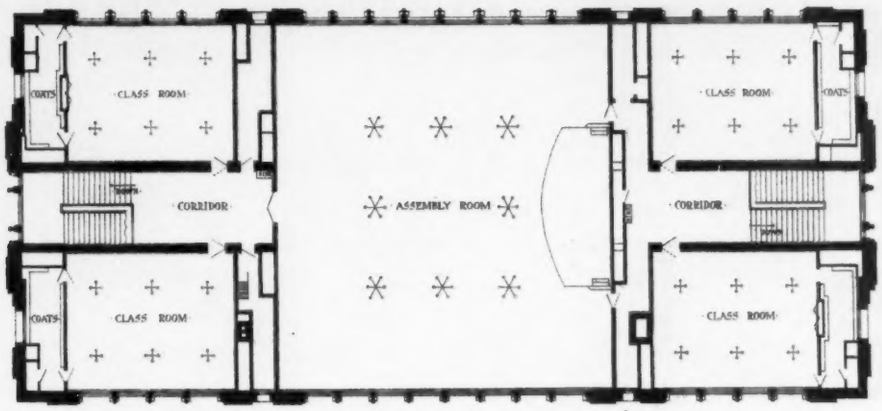
SECOND FLOOR PLAN



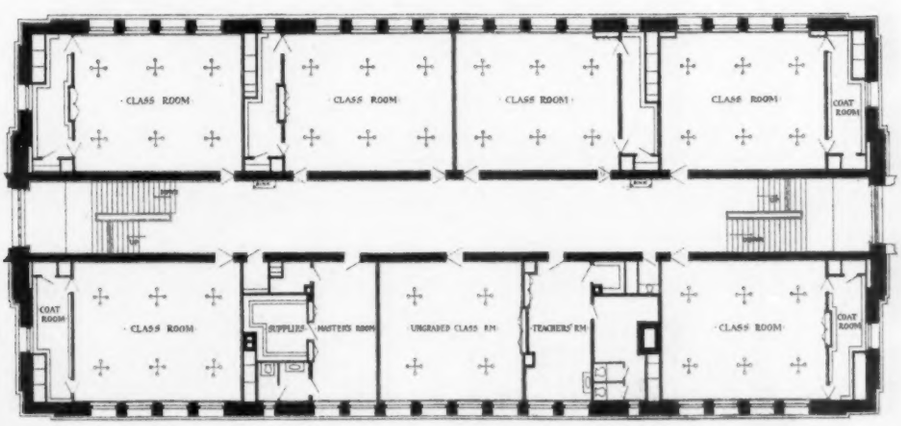
BASEMENT PLAN

LOWELL DISTRICT GRAMMAR SCHOOL

SHEPLEY, RUTAN & CO



THIRD FLOOR PLAN



FIRST FLOOR PLAN

HELIOTYPE CO., BOSTON.

SCHOOL, HEATH STREET, ROXBURY, MASS.

TAN & COOLIDGE, ARCHITECTS.

The American Architect
July 4, 1903.
No. 1436.

ENTRANCE HALL.

HELIOTYPE CO., BOSTON.

HOUSE OF E. W. SMITH ESQ., KANSAS CITY, MO.

VAN BRUNT & HOWE, ARCHITECTS.

TRIUMPHAL ARCH OF ALFONSO OF ARAGON, NAPLES, ITALY

DETAIL OF THE STYLOBATE.

DETAIL OF THE INTRADOS.

DETAILS OF THE ARCH OF ALFONSO OF ARAGON, NAPLES, ITALY

The American Architect.
July 4, 1903.
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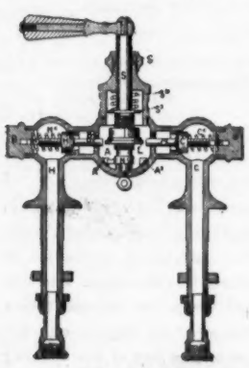
The American Architect and Building News

ADVERTISERS' TRADE SUPPLEMENT

No. 254 SATURDAY, JULY 4, 1903 VOLUME LXXXI No. 1436

THE SODERLUND TWIN FAUCET.

THE Soderlund Twin Faucet is designed for use where hot and cold water is used and a thorough mixture of the two at a temperature of any degree between the two extremes is required. The two valves, one for the hot and one for the cold, are entirely free and work with the pressure horizontally, and are so arranged that it is impossible for them to rattle. The handle is attached to a cam, which, as it is turned, comes in contact with one of the valve-stems, opening it gradually against the pressure. When the first valve is open to its fullest extent, the cam will, by turning the handle a little farther, come in contact with the stem No. 2, and a mixture of the two waters is obtained, and as one keeps turning the handle the chamber receives a larger flow from valve No. 2 and less from valve No. 1 until the same comes to its seat and No. 2 is wide open; then as one continues to turn handle to a stop, gradually allowing valve-stem No. 2 to come to its seat with the pressure, both are closed.



"Soderlund Twin Faucet."

In operating this faucet, a half turn only is made with the handle by simply turning it from one side to the other.

These fixtures are made in different styles and sizes for lavatories, bath-tubs and shower-baths. The simplicity of their construction, the readiness with which any temperature of water may be obtained by the one handle; the ease with which the washers may be replaced (by simply taking off the end nuts) and the combining of durability with attractiveness have placed the Soderlund Fixtures at the head in the line of combination faucets.

The Soderlund Non-scalding Shower-valve is without question the safest and best device of its kind upon the market, the danger of scalding being wholly eliminated by its use. This fixture is so made that the supplies may enter the top, bottom or back as may be required, for ceiling, floor or wall connections.

These fixtures are now in use in many of the leading gymnasiums, colleges, hospitals, asylums, and public and private institutions throughout the country.

The entire line of Soderlund Fixtures is protected by United States and Foreign Patents; is manufactured only by the Union Brass Works Co., 7 Sherman Street, Charlestown, Mass., and for sale by the leading jobbers of plumbers' supplies.

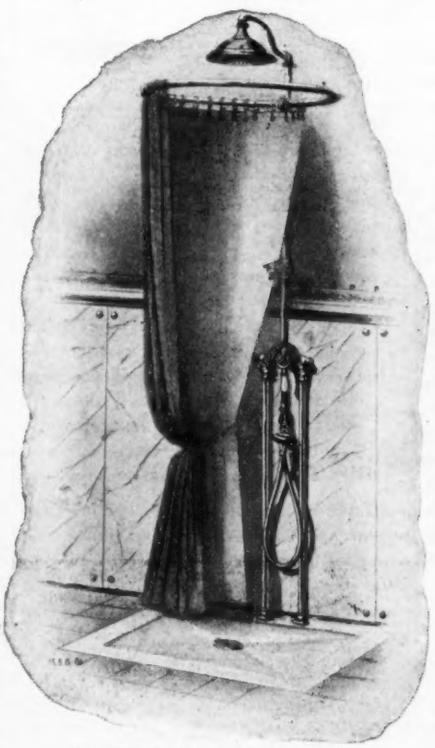
Illustrated catalogue of these goods may be had upon request to the manufacturers.

THE QUESTION OF JOINTS.

NOWADAYS the question of an absolute and positively air-tight joint is of great importance.

Wisconsin Graphite Pipe-joint Paste solves the problem and is the only solution.

It is infinitely cheaper than red or white lead and vastly superior. It saves money, time and trouble. It forms a perfect joint, successfully resisting heat, cold, acids and alkalies. It lasts indefinitely, but is plastic and the joint can be disconnected at any time without injury to thread or pipe. For all purposes Wisconsin Graphite Pipe-joint Paste is without an equal.



The Soderlund Non-scalding Shower-valve.

When ordering valves, pipe-fittings, or supplies of any kind, don't fail to include an order for Wisconsin Graphite Pipe-joint Paste.

WISCONSIN GRAPHITE CO.,
PITTSBURGH, PA.

HEATING AND VENTILATING TELEPHONE EXCHANGES.

THE New England Telephone & Telegraph Co., of Boston, Mass., possesses one of the most completely equipped exchanges in the country. Not only are the electrical and telephone appliances the products of the best engineering skill and attention, but the building itself has been especially designed with a view to both successful operation and the comfort and convenience of the employés.

One of the first requisites of the telephone exchange building, because of the large number of employés and their constant and sedentary labor, is a proper system of heating and ventilating. The ventilation is especially important, and arrangements should be provided by which it can be maintained constant in volume independently of the amount of heat required or the state of the weather. Any natural means of ventilation is impracticable, since it is very difficult to maintain a proper circulation of air when the densities of the inside and outside air are nearly equal. With the fan-system, however, all these points are easily taken care of.

In the present plant, the fan, which is direct-connected to a vertical engine, forces the air through a steam-heater composed of pipe-coils, enclosed within a steel-plate housing. The heater, however, is by-passed, so that a greater or less proportion of the air may be forced into the distributing-pipes without passing through it, and this by-pass is fitted with a special hot-and-cold damper arrangement which is automatically controlled by Johnson thermostats located in the several rooms of the building. The B. F. Sturtevant Co., by whom the fan and heater were installed, also supplied the galvanized-iron piping, elbows, fittings, registers and screens, together with the direct steam-heating work, automatic control and the boiler and boiler setting. The steam is delivered to the engine at twenty-five pounds pressure, and the exhaust passes into the heater.

A somewhat similar equipment was furnished by the above Company to the Twin

City Telephone Co., of St. Paul, Minn., some time ago. In this case special precaution was taken to purify the air-supply. It has been demonstrated that about ninety per cent of the trouble caused by imperfect contact in the switch-board connections can be prevented by thoroughly cleansing the air as it enters the building. Many experiments have been tried in the way of dry cleaning by filtering through screens of wire and cheese-cloth or cotton-batting, but all such devices require frequent renewal, sometimes at considerable trouble and expense. By continued use any filter of this character must deteriorate and eventually become clogged, and in order to avoid the results of neglect it ought to be practically automatic. This point is essential in an air-cleaning system.

The action of the air purifying and cooling apparatus adopted by the Twin City Telephone Co. consists in thoroughly saturating the air with water by passing it through a fine spray and afterwards precipitating the moisture with the collected impurities and discharging it into the sewer. The water, which is taken up at high velocity and held in mechanical suspension, is extracted by centrifugal force by passing it through a series of tubes in which spirals are so placed as to give the air a whirling motion, causing the suspended particles, which are heavier than the air, to be thrown outward and brought in contact with the tubes, from which they flow through perforations to a drip-pan below.

The washing process imparts about seventy per cent humidity at a temperature of 70 degrees Fahr. in the operating-room. This is considered the most desirable for health and comfort and avoids the excessive dryness resulting with other systems of heating and ventilating which often require a humidostat to correct the defect. Moreover, in the summer time, with the outside temperature at 80 degrees Fahr. and with the normal temperature of the city water, the air delivered to the rooms can be readily reduced to 70 degrees.

The air after being tempered, washed and dried is blown by the fan through the reheating coils into the tempered air-chamber. A mixing damper is placed with connections to both, so arranged that the hot or tempered air, under the control of the Powers thermostat in the operating-room, is mixed automatically to the proper degree, maintaining throughout the year a constant temperature in the room with uniform air delivery and humidity.

While such a system is practically a necessity in a modern telephone building, especially in cities where soft coal is burned, it is equally applicable to all public buildings, particularly in large cities where the air is laden with impurities and where the summer heat is almost unbearable. The time is probably not far distant when the marked advantages of such a system will be fully recognized and people will insist that they should be kept cool in summer as well as warm in winter.

The United Engineering & Foundry Co., of Pittsburgh, installed last year a complete heating and ventilating equipment in the roll-shop of the Lincoln Foundry Department. The apparatus, which was furnished by the B. F. Sturtevant Co., consists of a steel-plate exhauster direct-connected to a horizontal, side-crank engine. The exhauster draws air from out of doors through a large steam-heater built up in sections of 1-inch pipe, one of the sections receiving the exhaust from the fan-engine.

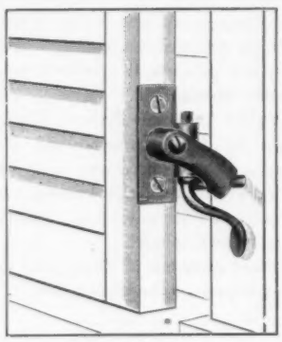
THE JORUTH BLIND FASTENER

Is a simple device for securing a blind when open without the use of a spike catch or spindle driven into or otherwise attached to the side of the house. It is attached to the lower hinge of the blind, as shown in the cut below, by removing the middle screw and using the long screw which is furnished with the fastener.

Its use avoids the cracking of the clapboard and it can be operated without the danger and inconvenience of leaning out of the window.

Owners of brick houses are saved much expense by their use and owners of old wooden houses upon which the old-fashioned spike catches have worked loose through the rotting of the wood, due to the creeping in of moisture, find in this invention help out of a difficulty which no other device offers.

It holds the blind firmly against the side of



The Joruth Blind Fastener.

the house, preventing the wind from getting behind it or raising it from the brackets.

Any one who can turn a screw-driver can apply it in a few moments.

The following testimonial from one of Boston's best known architects is worth considering: —

Boston, Mass., June 1, 1903.

The Joruth Manfg. Co.,
Wollaston, Mass.: —

Dear Sirs, — Unsolicited, I desire to express my appreciation of the many desirable qualities possessed by your blind fastening.

Some of its good qualities consist in its cheapness of cost, its durability and ease of application to new and old blinds. It can be applied by any person who knows what a screw-driver is when they see one.

But its great merit lies in the very efficient manner in which it holds a blind securely, and prevents that common fault of slamming.

Respectfully yours,
Henry J. Preston.

RUFUS, THE ROOFER, SAYS —

"There is one thing you ought to know by now, and that is that you've got to treat even good tin respectful like. I've seen some metal-workers use a good heavy-coated terne plate in a way that would make a macadamized road shrink up.

"When your tin roof is down keep off it as much as possible. A tin roof is not a driveway for speeding steam-shovels on. Neither is it a place to try hobnailed boots.

"Don't let the masons dump brick and mortar on it, or the carpenters throw planks with nails in them upon it. That is, not if you want a good tin roof.

"You've got to use a roof as well as a tin roof should be used if you want a good roof, no matter what tin you put upon it. The man that expects a tin roof to take anything that comes in the way of rough usage while the roof is going on would use a grand piano to keep his potatoes in and then wonder why it didn't sound well.

"The better the tin the better care you should give it putting it on.

"A good roofing-paper should go under every tin. Use the best solder you can get, and paint the tin as soon as it is laid. It doesn't do any tin good to paint the rust that has settled on it over night.

"You want to do all of these things, but you want to be sure first that your tin is 'Taylor Old Style.'

"There are architects and builders who have an idea that there are a good many 'Taylor Old Styles,' or at least a good many tins like it. They do not come right out square and say 'Taylor Old Style.' They say, '"Taylor Old Style" or equal,' or 'an extra heavy roofing terne,' or 'old-style, hand-dipped tin.' They beat about the bush and in the end they do not get 'Taylor Old Style,' and they do not get anything just as good. It is always best to have the name with you. You cannot get away from the name."

In the June *Arrow*. Published by

N. & G. TAYLOR CO.
(Manufacturers of Tin Plate),
Philadelphia, Pa.

IN JAPAN.

The Bridgeport Wood-finishing Co., of New Milford, Conn, New York, Philadelphia and Chicago, is exhibiting its Wheeler Patent Wood Filler, stains and other specialties at the Osaka Exposition, Osaka, Japan, and has just received word from its representative there that the Emperor of Japan was his guest at the exhibit on the day of the opening ceremonies.

PUMP-VALVES.

Considerable care should be used in the selection of pump-valves in order that the proper valve for a certain kind of work may be procured. A leak in a flanged or other exposed joint is easily seen and soon remedied, but pump-valves are enclosed, and leaks occurring from their defects are not visible and often go for a long time unnoticed, causing considerable loss of power. Leaks caused by defective pump-valves are frequently due to the fact that but one class of valve is manufactured and sold for use in all kinds of service. Our experience has proved that no one class of valve can be made that is suitable for all the various kinds and conditions of service in which pumps are used.

Jenkins Brothers' Pump-valves are made from various compounds, each of which is best adapted for a particular kind of work. Our many years of experience have enabled us to so perfect these compounds and the process of manufacture that we can confidently recommend our pump-valves as the very best obtainable.

They are guaranteed, and unless used in service for which they are not intended we will always replace such as fail to give satisfactory or reasonable service.

We make grades suitable for cold, warm or hot water, either high or low pressure, also for naphtha, mild acids, ammonia, or for very muddy and gritty water and other destructive fluids, which will give entire satisfaction where other makes of valves have failed. For mining or high-pressure service, or for elevator service, where the water is often slightly oily, Jenkins Brothers' No. 88 Pump-valves prove

equal to every requirement. Our soft-rubber valves for condenser air-pumps are unequal for such work.

For air-compressors our No. 80 Pump-valves have been very successful. While extremely hard, they possess sufficient elasticity to ensure absolute tightness under various conditions of pressure.

We use only the very best grades of Para rubber in the manufacture of our pump-valves and other specialties, and no substitutes for rubber are ever employed.

When ordering, to secure the best results, state the kind of service the valves are to be used in, the kind of fluid handled, pressure or head pump is working against, etc., also give diameter, thickness and size of hole.

JENKINS BROS.,
NEW YORK, N. Y.

A REFRESHING SHOWER AND ITS ADVANTAGES.

THE shower or rain bath has long been recognized as one of the most pleasant and exhilarating adjuncts of the bath-room, and many eminent physicians and sanitarians pronounce its use most beneficial, claiming that it has an invigorating effect on the system unknown to the tub bath alone; that the effect of falling water given by the shower stimulates the surface circulation and produces a healthy glow that is not only refreshing, but counteracts the enervating effect produced by the tub bath; this is a feature highly appreciated by women. It affords a splendid means for rinsing the body and closing the pores of the skin, gives the bather a delicious sense of cleanliness and renewed vitality.

Thousands of purchasers of "Standard" Portable Showers have become shower-bath enthusiasts, many of whom, living in rented houses, or apartments, have heretofore refrained from installing expensive permanent fixtures. This shower will last a lifetime; is high grade in every respect and gives as good results as the more expensive permanent fixtures.

The curtain is of best soft, white rubber, or white duck, and folds back in small space when not in use.

The frame is made of seamless brass tubing, nickel-plated, substantially made and well braced.

No difficulty will be experienced in placing them in position, a couple of nails or screws driven into the wall over the tub at the height desired being all that is necessary.

The rubber supply-tube is made with patented "holdfast," allowing the shower to be readily attached to any regular bath-tub faucet.

Write for illustrated booklet, entitled "*For Beauty's Sake.*"

Price complete, with rubber or white duck curtain, $15.

STANDARD SANITARY MFG. CO.,
PITTSBURGH, PA.

ROUND-HOUSE HEATING AND VENTILATION.

THE twenty-stall round-house of the Norfolk & Western Railway, at Portsmouth, Ohio, has been equipped with the "hot blast" system of heating, the apparatus consisting of a large exhaust-fan direct-connected to a horizontal engine and drawing air through a steam-coil heater built up of 1-inch steam-piping on cast-iron sections. From this apparatus air is distributed throughout the round-house by brick flues and galvanized-iron piping, so arranged that heated air may be delivered into each engine-pit. It will thus serve to melt off snow or ice from incoming locomotives when that is required. From the pits the heated air rises vertically, so that there is no trouble from smoke or steam in the inhabited zone of the building. On account of the dry character of the air supplied by the system, all moisture due to the melting of snow or ice is quickly evaporated, making it possible to work on air-engines without discomfort within a very short time after it enters the building. During warm weather it is possible to operate the fan without steam in the heater and in that manner provide a very thorough ventilation of the building, which is rarely accomplished in round-houses equipped with the ordinary direct system of steam or hot-water heating. Other advantages, as compared with the direct system, are that there is no piping scattered about the building to freeze or burst in cold weather, there are no joints to leak, and there is no danger of fire from the proximity of steam-pipes to inflammable materials. Since the piping is all concentrated in a steel-plated housing, where the velocity of the air passing over it is very high, much less length of pipe is needed than would otherwise be necessary. The above described equipment has been designed and installed by the

B. F. STURTEVANT CO.,
BOSTON, MASS.

BLUE-PRINTING.

WE have already taken the initiative in making two radical changes in the blue-print business in Boston, viz:—

(1) Publicly announcing a price of two and one-half cents per square foot for blue-prints, and (2) advertising to make electric-light prints at the same price.

Herein we announce our latest proposition, which already is becoming popular with those to whom it has been explained.

At present a few of the largest firms are

getting blue-prints at two cents per square foot, but our system makes it possible for both large and small concerns to get prints at the same low price, by using one of our tickets after it has been signed.

Our selling these tickets places the business on a cash basis; all the benefits of this are used to lower the retail price of our work, which is two cents for blue-prints on medium heavy paper. Prices on other kinds of prints are proportionately low.

For those who do not wish to purchase tickets, we shall continue our present reasonable price of two and one-half cents for sun and electric prints.

Our workrooms are equipped with the latest apparatus, thus enabling us to turn out first-class prints in the shortest possible time.

PARKS & JEEVES,
BOSTON, MASS.

NOTES.

Redding, Baird & Co., of Boston, were instructed by a unanimous vote of the class of 1903, Phillips Exeter Academy, to build their class window. It was quite a task to get it done in time before graduation, but it was done all right, and it will probably be accepted as one of the most beautiful windows in New England.

The centre is a mass of blue iris with their leafage, the blossoms in violet-blue variegated with gold. This is the class flower, and is emblematic of chivalry. It certainly is a most effective piece of work.

In the past few years this firm has been making many class windows and a good many windows for schoolhouses, allegorical and otherwise.

The works of the National School Slate Company, of Slatington, Pa., have been equipped by the B. F. Sturtevant Company with complete heating and ventilating apparatus, using the hot-blast system. The air is drawn through a steam-pipe heater by a fan, direct-connected to a horizontal, side-crank engine. The heater is built in five sections, one of which is designed to use the exhaust steam from the engine.

Our readers will be pleased to learn that the well-known firm of Blodgett Bros. & Co., 141 Franklin Street, Boston, has been incorporated under the name of the Blodgett Clock Co., a step which became necessary to properly care for the large amount of new business coming to this enterprising house. Among their recent Clock contracts are the Woodward Institute and Washington Schools, in Quincy, Mass., Dana Hall School, Wellesley, Mass., Edison Illuminating Co., Chase & Sanborn's New Building and Thompson's Spa, in Boston.

Their system of Self-winding Clocks certainly seems well adapted for every place where accurate time, with or without automatic programme signals, is desirable. Their success is entirely due to the old well-tried principle of square dealing and furnishing the best of apparatus at reasonable prices, which is good business policy in any line.

The Duke of Marlborough, following the example of other progressive members of the British aristocracy, has ordered two electric-elevators, with push-button control, from the Otis Elevator Company. These are to be installed in his city home, Blandford House, Curzon St., London.

The N. & G. Taylor Co., of Philadelphia, are sending out once a month a series of illustrated blotters, referring to the "Taylor Old Style" roofing-tin.

David Craig, of Boston, was elected Vice-president of the National Association of Plumbers at the San Francisco Convention just closed.

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

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See last or next issue for the following advertisements: —

Chicago & Alton Railway.
Crawford Specialty Co.
Cudell, F. E.
Charles J. Jager Co.
Grant Pulley & Hardware Co.
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Morse, Williams & Co.
Northern Engineering Works.
J. C. Pearson Company.
Redding, Baird & Co.
Standard Sanitary Mfg. Co.
Thorn Co., J. S.

ARCHITECTS' REMOVALS, Etc.

MR. C. F. LONGFELLOW, architect, having completed his term of office as Commissioner of Public Buildings, has taken offices at 411 Olive St., St. Louis. 1436

WANTED.

POSITION.—Wanted, position as assistant or first-class draughtsman by architect graduate with 10 years' experience, mostly detailing, designing and estimating steel for buildings. Best New York references; moderate salary. Address "Designer," care *American Architect*. 1436

WANTED.

PARTNERSHIP.—Thoroughly trained and experienced civil, electrical and mechanical engineer and architect desires to associate himself, as partner or assistant, with an architect of high standing, who feels the need, in his work, of technical assistance, and who appreciates broad and exact architectural and engineering knowledge and ability. "A. E." care *American Architect*. 1437

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.

Allegheny, Pa.—The Pressed Steel Car Co., Cass Ave., will build a $25,000 addition to their plant.

Andover, Mass.—The seventy-fourth anniversary exercises at Abbott Academy included the laying of the corner-stone of the McKeen Memorial Building, which will be erected during the summer, to be ready for occupancy when the new school year opens in the fall. The building will cost $60,000.

Anna, Ill.—Plans have been drawn by Robert Bruce Watson for a $50,000 building to be erected for the Southern Hospital for the Insane, also a $15,000 barn for the same institution.

Appleton, Wis.—Lawrence University is to have a new heating plant. There will be a building in which will be installed a plant capable of supplying heat by a system of underground pipes.

Asheville, N. C.—Plans have been drawn by R. H. Hunt, of Chattanooga, Tenn., for an edifice for the Central Methodist Society; estimated cost, $50,000.

Baltimore, Md.—It is said that E. R. Holden, 20 Bond St., New York, is interested in the American Smelting & Mining Co., recently incorporated for the erection of a $2,000,000 plant here.

A seven-story office-building, 40′ x 130′, will be erected at Charles and Mulberry Sts., at a cost of $97,000. For particulars address W. T. Levering.

Bellaire, O.—A $30,000 school-house, two stories, will be erected here after plans by W. B. O'Neill, Marietta.

Boston, Mass.—A nine-story brick and stone warehouse will be erected by the Boston Wharf Co. in Summer St., near Melcher St., South Boston, to cost $140,000. It will be 75′ x 120′ in dimensions.

A building to cost $75,000 will be erected by the Walworth Manufacturing Co. at the corner of E. 1st and O Sts., South Boston. It will be six stories high, constructed of brick and stone, 104′ x 136′ in size.

Brookline, Mass.—Henry A. Frost has purchased a lot of land on Corey Hill containing 6,000 square feet. He will at once commence the erection of a fine residence.

Brickwork has been started on the new building at Corey Hill Hospital, in Lancaster Terrace and Lauriat Ave., to cost $100,000. This structure will be three and one-half stories high, 36′ x 109′, in general dimensions, and built of brick and stone. The work will be under the supervision of the architects, Kendall, Taylor & Stevens, of Boston.

Brooklyn, N. Y.—The competition for the new municipal building to be erected on the site of the present municipal building, which is to be razed, has been limited to thirteen architects of prominence. The city has appropriated $1,000,000 for the building, which will be eight stories high, modern and fireproof. Following are the names of the architects selected to draw competitive plans: H. C. Anthony, Stephen W. Dodge, R. L. Daus, Frank Freeman, Washington Hull, Woodruff Leeming, Lord & Hewlett, George L. Morse, Parfitt Brothers, Schickel & Ditmars, William B. Tubby & Brothers, Daniel E. Waid, Wilkinson & Magonigle.

Carnegie, Pa.—J. E. Keirn, Lewis Building, Pittsburgh, is drawing plans for the Masonic Temple to be erected on Main St. and Beechwood Ave. Cost, $75,000.

Chicago, Ill.—A three-story apartment building will be erected by Mrs. Minnie Hecht on Addison St., east of Wilton Ave., at a cost of $46,000. It will be 65′ x 75′, and contain 9 five and six room suites.

Twenty-one cottages will be built by Sherman T. Cooper on N. Albany and Pierce Aves., at a total cost of $48,000.

A store, office and hall building will be erected by John Hamilton on the site of the old Gossage residence at the corner of Lake Ave. and 47th St. The building will cost $75,000.

Extensive residence building along the Metropolitan Elevated Road in the district bounded by W. 40th and 46th Aves. and Jackson and 14th Sts. is to be undertaken by S. E. Gross, who is contracting for the construction of 113 houses at an aggregate cost of $300,000.

A twelve-story office-building will be erected at 175-77 Jackson Boulevard, at a cost of $500,000.

Mr. Robert B. Watson, who is the county architect, has completed preliminary plans for a hospital for contagious diseases to be built in connection with the county hospital. The new structure will

BUILDING INTELLIGENCE.

(Advance Rumors Continued.)

BUILDING INTELLIGENCE.

(Advance Rumors Continued.)

BUILDING INTELLIGENCE.

(Advance Rumors Continued.)

be four stories high, 45′ x 154′, and contain room for 116 patients. It will be built on the Lincoln St. front of the hospital grounds, and cost about $75,000.

Claremont, N. H.—Plans have been drawn by H. M. Francis, Fitchburg, Mass., for a $15,000 library building to be erected here.

Cleburne, Tex.—A union depot is to be erected at a cost of about $100,000. It is stated that the depot for the Trinity and Brazos Valley railroad will be located across the street from the Santa Fe's passenger station.

Cleveland, O.—The Baptist Society expect to build a $75,000 edifice in East Cleveland.

Clinton, Ia.—It is stated that a $60,000 Y. M. C. A. building will be erected here.

Coatsville, Pa.—Plans have been prepared by Architect Charles Farnan, 114 E. 18th St., Chester, for the erection of a $25,000 parochial school for St. Cecilia Catholic Society.

Columbus, O.—Plans for the Carnegie Library building have been completed by A. R. Ross, of New York. Bids will be advertised for after July 1.

It is stated that Daniel Thomas will erect a $40,000 four-story brick and steel business block on N. High St. after plans by Stribling & Lum.

Creston, Ia.—A new church will be erected for the Methodist congregation in place of the one destroyed by the recent storm. Work will be begun as soon as plans are approved, and will cost between $35,000 and $50,000.

Davenport, Ia.—A $75,000 seven-story building, 44′ x 159′, will be erected by T. Richter & Sons.

Denver, Col.—A hospital building, to cost $50,000, will be erected at W. 7th Ave. and Evans St., after plans by F. E. Edbrooke, Opera-house Block.

Store and apartment building will be erected by J. S. Flower, costing $45,000.

Des Moines, Ia.—It is reported that $75,000 will be expended by W. L. Bush, 239 N. Clark St., Chicago, for the erection of a music temple.

BUILDING INTELLIGENCE.

(Advance Rumors Continued.)

Devil's Lake, N. D.—Plans have been completed by Harding & Upman, 1136 G St., N. W., Washington, D. C., for a weather bureau station here.

Dryden Springs, N. Y.—A $150,000 hotel building will be erected here by H. L. Chandler, 421 Chestnut St., Philadelphia, Pa.

Duluth, Minn.—An 8-room weather bureau station will be built here. Plans have been prepared by Architects Harding & Upman, 1316 G St., Washington, D. C.

Elkhart, Ind.—A $25,000 Y. M. C. A. building will soon be erected here.

Faribault, Minn.—Plans have been drawn by C. H. Johnston, St. Paul, for a stone building at the School of the Deaf. Cost, $25,000.

Flatbush, L. I., N. Y.—It is the intention of St. Mark's M. E. Society to erect a handsome edifice, to cost at least $50,000, and a site has been purchased at the northeast corner of Ocean Ave. and Beverly Road. A committee will visit different churches in New York and vicinity before having the plans drawn.

Franklin, Ind.—All bids for the construction of the new Franklin College Library have been rejected. New bids will be submitted and the building will be erected at a cost not to exceed $20,000.

Plans and specifications have been adopted for remodelling the Franklin College building at a cost of $13,000 and a new library at a cost of $25,000 and for a heating plant connected therewith. Bids will be received until July 10. Address Samuel M. George.

Gainesville, Ga.—G. H. Cutting & Co., of Worcester, have been awarded the contract for rebuilding the cotton-mill here, which was demolished by a tornado several weeks ago. Thompson & Co., an engineering firm of Birmingham, Ala., has been awarded the contract for the rebuilding of Clifton Mills Nos. 1 and 2. During this week a large wrecking force will begin the work of clearing the way for the permanent construction, and every means will be employed to push the work to early completion. The rebuilt mills will conform to the old plans so far as possible. The estimated cost of the reconstruction will be $180,000.

BUILDING INTELLIGENCE.

(Advance Rumors Continued.)

Harrodsburg, Ky.—Plans have been prepared by R. H. Hunt, Chattanooga, Tenn., for a city-hall and I. O. O. F. building to be erected at a cost of $20 000.

Henniker, N. H.—H. M. Francis has prepared plans for a brick library building, with stone trimmings, to be erected at this place. Cost, $15,000.

Hobson, Tex.—Report states that a new passenger station will be erected here by the San Antonio and Arkansas Pass Railroad Co.

Huntsville, Ala.—Cowell & Lowe have drawn plans for a $150,000 addition to the Lowe & Eastern Manufacturing Company's mill.

Indianapolis, Ind.—Plans for the proposed Herron Art Museum building, corner 16th and Penn Sts., by Vonegut & Bohm, architects, have been received by the building committee of the Art Association. Estimated cost, $150,000.

The Physio. Medical College is having plans made for a new building at corner Ala and North Sts., to cost $105,000. Address building committee Physio. Medical College.

Iowa City, Ia.—Dean L. G. Weld, of the University of Iowa, has completed the plans for the new school of applied science.

Kalamazoo, Mich.—A two-story and basement brick building for the Michigan Seminary will be erected.

Kenosha, Wis.—It is reported that the Thomas B. Jeffrey Co. has purchased a site for new buildings for the manufacture of automobiles.

La Crosse, Wis.—The La Crosse Theatre Co. will rebuild at a cost of $30,000.

Little Rock, Ark.—Work on the $100,000 office-building for Dugan & Stewart will be started at once.

Madison, Wis.—John T. W. Jennings, University

BUILDING INTELLIGENCE.

(*Advance Rumors Continued.*)

of Wisconsin, has drawn plans for a new three-story chemistry building to be located on University Ave. at a cost of $100,000.

Madisonville, Ky.—A new $25,000 school building will be erected at this place with all modern conveniences.

Manchester, Mass.—T. Jefferson Coolidge, Jr., has had plans drawn for a marble house which he intends to build this summer at Coolidge Point.

Mansfield, O.—It is stated that Andrew Carnegie's gift of $35,000 for a library building has been accepted. For particulars address D. S. Koontz, clerk.

McKeesport, Pa.—The National Trust Co. will improve its building on 5th Ave., expending about $230,000.

Memphis, Tenn.—About $100,000 will be spent for the erection of a new carnival building by the Memphis Carnival & Exhibit Co.

Milwaukee, Wis.—The trustees of the Washington Avenue Methodist Episcopal Society have decided to build a new church on Grand Ave. to cost $50,000.

The congregation of the Summerfield Methodist Episcopal Church has secured a site on the corner of Cass St. and Juneau Ave. upon which to erect a new $65,000 church building.

The University Club will purchase a site for a three-story brick club-house on Jefferson, between Oneida and Riddle Sts.

Minneapolis, Minn.—At the corner of 2d Ave. and 6th St., a three-story brick building will be erected costing $35,000, for William Deering, of the Deering Harvester Works. Plans by Ernest Kennedy.

Mt. Oliver, Pa.—Plans have been prepared by Architects Ernst & Hanselmann, House Building, Pittsburgh, for a $35,000 brick addition and alterations to the Roman Catholic School.

LIBRARIES.

New York, N. Y.—*Thousand Island Park*, fr. library building, 25′ x 50′; $5,000; o., Mr. E. R. Holden; b., Otis Brooks; a., Augustus N. Allen, 571 Fifth Ave.

STABLES.

Brooklyn, N. Y.—*E. Twenty-sixth St.*, nr. Voorhies Ave., one-st'y & loft fr. stable, 19′ x 32′, shingle roof; $1,200; o., C. Fellows, on premises; a., A. R. Koch, 26 Court St.

New York, N. Y.—*One Hundred and Thirty-fourth St.*, nr. Willow Ave., rear, two-st'y bk. stable & shed, 50′ x 106′ 9½″; $2,000; o., Mary A. McBride, 469 E. 150th St.; a., Anthony F. A. Schmitt, 604 Courtlandt Ave.

STORES.

Brooklyn, N. Y.—*Blake Ave.*, cor. Osborne St., five-st'y bk. tailor shop, 45′ x 90′, gravel roof; $20,000; o., H. Silberstein, on premises; a., L. Danancher, 256 E. New York Ave.

BUILDING INTELLIGENCE.

(*Stores Continued.*)

Chicago, Ill.—*Leland Ave., Nos.* 1237-43, 4 one-st'y bk. stores, 67′ x 77′; $10,000; o., Henry Howell; a., John E. Youngberg, 218 La Salle St.; b., F. O. Johnson, 728 Rascher Ave.

New York, N. Y.—*First Ave.*, cor. 93d St., five-st'y bk. workshops & stores, 50′ 8″ x 95′; $30,000; o., Adam Happel, on premises; a., Kurtzer & Rentz, Spring St. & Bowery.

MISCELLANEOUS.

Delray, Mich.—Three-st'y bk. manufacturing plant, 100′ x 410′, comp. roof, steam; $50,000; o., Det. Sulphite Fibre Co.; a., John Scott & Co., 67 Moffatt Building.

PROPOSALS.

SCHOOL.

[At Boston, Mass.]

The School-house Commissioners of Boston invite proposals for erecting and completing primary school, Eliot and Hancock District, N. Bennet and Tileston Sts., Boston, Mass. Only proposals obtained at the office of the Commissioners, 120 Boylston St., and left **before July 9, 1903**, at said office, will then and there be publicly opened and read. R. CLIPSTON STURGIS, FREDERIC O. NORTH, JOSEPH J. CORBETT, Commissioners. 1436

PUBLIC BUILDING.

[At Dedham, Mass.]

Sealed proposals for the construction at Dedham, in the County of Norfolk and the Commonwealth of Massachusetts, of a building for the Registries of Deeds and of Probate and for the Probate Court for said County will be received by the County Commissioners of said County at the County Court-house in said Dedham, **until the 7th day of July, 1903.** All bids must be made upon blank forms, copies of which may be obtained upon application to the architects. No proposal will be considered that does not conform to the conditions contained in the Notice to Contractors, a copy of which, together with the copies of the contract, plans and specifications, may be seen by prospective bidders at the office of the County Commissioners of said County in the County Court house in said Dedham on any week day, except Saturday, between the hours of 9 A. M. and 5 P. M., and on any Saturday between the hours of 9 A. M. and 1 P. M. THOMAS BLANCHARD, JAMES HEWINS, MARSHALL P. WRIGHT, County Commissioners of Norfolk County, Mass. Peabody & Stearns, architects, 919 State Street Exchange, Boston. 1436

PROPOSALS.

MOTORS, MACHINE TOOLS, ETC.

[At Norfolk, Va., Boston, Mass., New York and Portsmouth, N. H.]

Proposals will be received at the Bureau of Supplies and Accounts, Navy Department, Washington, D. C., **until July 14, 1903,** and publicly opened immediately thereafter, to furnish at the navy yards, Norfolk, Va., Boston, Mass., New York and Portsmouth, N. H., a quantity of motors, machine tools, condenser, cranes, power plant, hoisting engine, pumps, winches and valves. Blank proposals will be furnished upon application to the navy pay offices, New York, Norfolk, Va., Portsmouth, N. H., and Boston, Mass. A. S. KENNY, paym. general, U. S. N. 1436

TUNNEL SECTION.

[At Boston, Mass.]

Sealed bids for constructing Section F of the East Boston Tunnel, from the westerly end of the Old State-house across Washington St. and along Court St. to near Tremont St., including a station in Court St. and underpinning the Sears Building, etc., will be received by the Commission at its office, 20 Beacon St., Boston, Mass., **until July 7, 1903.** Plans can be seen and specifications and forms of contract can be obtained at 20 Beacon St., fifth floor. George G. Crocker, Chairman. Charles H. Dalton, Thomas J. Gargan, George F. Swain, Horace G. Allen, Boston Transit Commission. Howard A. Carson, Chief Engineer. B. LEIGHTON BEAL, Secretary. 1436

COURT-HOUSE.

[At La Grange, Ga.]

Proposals for the erection of a court-house will be received by the county commissioners **until July 13.** 1436

SCHOOL-HOUSE.

[At Springfield, O.]

Sealed proposals will be received at the office of the clerk of the Springfield Township School Board, Clark County, O., for furnishing all the materials and constructing a four-room school-building in Subdistrict No. 9 (Rockaway School-house, about two miles west of Springfield, O.), according to plans, specifications and details on file at this office and at office of Robert C. Gotwald, architect, Springfield, O. All bids must be on file with the clerk of the Springfield Township School Board **by July 18, 1903,** to be opened and read at the next meeting of the Springfield Township School Board thereafter. By order of the Springfield Township School Board. JOHN S. BIRD, Township Clerk. 1437

PROPOSALS.

ORDNANCE SUPPLIES. [At Watertown, Mass.]

Watertown Arsenal, Watertown, Mass. Sealed proposals for furnishing iron, steel, hardware, lumber, paints, oils, etc., during year ending June 30, 1904, will be received here **until July 13, 1903.** Information furnished on application to LIEUT.-COL. JOHN G. BUTLER, Ord. Dept., Comdg. 1436

CEMENT. [At Charleston, S. C.]

U. S. Engineer Office, Charleston, S. C. Sealed proposals for furnishing and delivering about 17,000 barrels American Portland cement at Charleston, S. C., will be received here **until July 21, 1903.** Information furnished on application. G. P. HOWELL, capt., engrs. 1437

RETAINING WALL. [At League Island, Pa.]

Bureau of Yards and Docks, Navy Department, Sealed proposals will be received at the Bureau of Yards and Docks, Navy Department, Washington, **until July 18, 1903,** for constructing a retaining wall about the reserve basin at the Navy Yard, League Island, Pa. Appropriation available, $50,000. Plans and specifications can be seen at the Bureau, or will be furnished by the Commandant of the navy yard named. MORDECAI T. ENDICOTT, chief of bureau. 1437

BUILDINGS. [At Forts Miley and Baker, Cal.]

San Francisco, Cal. Sealed proposals will be received here **until July 22, 1903,** for construction of frame buildings, including plumbing, wiring and heating at Fort Miley and Fort Baker, Cal. Information furnished on application to J. McE. HYDE, deputy quartermaster general, chief Q. M. 1437

Treasury Department, Office of the Supervising Architect, Washington, D. C., June 25, 1903. Sealed proposals will be received at this office until 3 o'clock P. M. on the 29th day of July, 1903, and then opened, for the construction (except heating apparatus, electric conduits and wiring) of the U. S. Post-office at Lawrence, Massachusetts, in accordance with the drawings and specification, copies of which may be had at this office or the office of the Postmaster, Lawrence, Mass., at the discretion of the Supervising Architect. JAMES KNOX TAYLOR, Supervising Architect. 1437

BUILDINGS. [At Hot Springs, S. D.]

Sealed proposals addressed to Moses Harris, General Treasurer National Home for D. V. S., in care of Thomas R. Kimball, architect, 503 McCague Building, Omaha, Neb., will be received at the above address, **until 12 o'clock M., Tuesday, July 28, 1903,** and then opened, for furnishing materials, labor, etc., for the construction of the main group of buildings at the Battle Mountain Sanitarium, at Hot Springs, S. D. Plans may be seen, and copies of instructions and specifications together with blank proposals had upon application to the architect, Thomas R. Kimball, 503 McCague Building, Omaha, Neb.; to the Builders' and Traders' Exchange, 138 Washington St., Chicago, Ill.; to John F. Daggett, Secretary, Denver Building Contractors' Council, 203 *Times* Building, Denver, Col; to the Builders' Exchange, St. Paul, Minn.; to E. S. Kelley, Banker, Hot Springs, S. D.; and to the office of the National Home for D. V. S., 346 Broadway, New York, N. Y. Address all inquiries regarding drawings and specifications to the architect as above. 1438

SCHOOL. [At Cleveland, O.]

Bids will be received at the office of the clerk of the Board of Education, Rose Building, **until July 13** for the construction of what will be known as the South High School. Plans on file at the office of the superintendent of buildings, Rose Building. STARR CALDWALLADER, School Director. 1436

(*Continued on page* xiv.)

PROPOSALS.

Treasury Department, Office of the Supervising Architect, Washington, D. C., June 22, 1903. Sealed proposals will be received at this office until 3 o'clock P. M. on the 27th day of July, 1903, and then opened for the construction (including heating apparatus, and electric wiring and conduits) of the U. S. Post-office at Centerville, Iowa, in accordance with the drawings and specification, copies of which may be had at this office or at the office of the Postmaster at Centerville, Iowa, at the discretion of the Supervising Architect. JAMES KNOX TAYLOR, Supervising Architect. 1436

CONSTRUCTION. [At Fort Des Moines, Ia.]

Bids will be received until July 15 by Major R. B. Turner, quartermaster, Des Moines, Ia., for construction, plumbing, heating, gaspiping and electric wiring at Fort Des Moines. 1436

PUBLIC BUILDINGS. [At Portland, Me.]

Office Constructing Quartermaster, U. S. A., 185 Middle St., Portland, Me. Sealed proposals will be received at this office until July 20, 1903, for the construction of two barrack buildings, five sets officers' quarters, and two sets N. C. O. quarters and one quartermaster's storehouse at Fort McKinley, Great Diamond Island, Portland Harbor, Me. Information, specifications and blanks on application. CAPT. A. W. YATES, Quartermaster, U. S. A. 1437

FIRE HYDRANTS. [At Washington, D. C.]

Office of the Commissioners, D. C., Washington. Sealed proposals will be received at this office until August 8, 1903, for furnishing three hundred (300) high pressure fire hydrants. Award to be made after comparative tests of sample hydrants submitted. Specifications, blank forms of proposal and all necessary information may be obtained at this office. HENRY B. F. MACFARLAND, HENRY L. WEST, JOHN BIDDLE, Commissioners, D. C. 1437

BANK BUILDING. [At Hazleton, Ind.]

Bids for the $35,000 two-story brick building for the Citizens' State Bank will be received until July 20. W. F. CASSIDY, Chairman Building Committee. 1437

DRY DOCK. [At Norfolk, Va.]

Sealed proposals will be received at the Bureau of Yards and Docks, Navy Department, Washington, until July 25, 1903, for constructing a concrete and granite dry dock, exclusive of pumping plant and caisson at the Navy Yard, Norfolk, Va. Limit of cost of entire work $1,200,000. Plans and specifications can be seen at the navy yard named, or will be furnished by the Bureau upon deposit of $100 to secure their return. MORDECAI T. ENDICOTT, chief of bureau. 1438

NEW ENGLAND MATERIAL-MEN AND CONTRACTORS.

BLUE PRINTING.

B. L. MAKEPEACE, 345 Washington St., Boston, Mass.
CHAS. E. MOSS, Rapid Printing Papers. 38 Broad St., Boston.
PARKS & JEEVES, 34 Merchants Row, Boston, Mass.

BUILDINGS TORN DOWN.

A. A. ELSTON & CO., 166 Devonshire St., Boston, Mass.

CONTRACTORS & BUILDERS.

McKAY & WOOLNER, 19 Harvard Place, Boston, Mass.
WILLIAM L. RUTAN, 1016 Tremont Bldg., Boston.

DOORS, WINDOWS, ETC.

E. A. CARLISLE, POPE & CO., 2 Sudbury St., Boston, Mass.

ELECTRICAL CONTRACTORS.

ERICKSON ELECTRIC EQUIPMENT CO., 280 Devonshire St., Boston.

FIRE-ESCAPES.

STANDARD FIRE-ESCAPE & MFG CO., 120 Milk St., Boston, Mass.

FLAG POLES.

BOSTON FLAG POLE CO., 169 Broadway Exten., Rm. 2. Tel. 112.2. So. Boston, Mass.

MARBLE DEALERS.

COLUMBIAN MARBLE QUARRYING CO., (L. M. Glover, Agent) 220 Devonshire St., Boston, Mass.

MASONS AND BUILDERS.

MORRILL & WHITON CONSTRUCTION CO., 35 Federal St., Boston, Mass.

MEMORIAL WINDOWS.

HARRY ELDREDGE GOODHUE, 23 Church St., Cambridge, Mass.

MODELLING AND ORNAMENTAL PLASTER.

SLEEP, ELLIOT & KING CO., 351 Cambridge St., Boston.

ORNAMENTAL PLASTERING.

HERBERT FOWLE, 43 Bristol St., Boston, Mass.

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ROBEY-FRENCH CO., 34 Bromfield St., Boston, Mass. Cameras.

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N. L. STEBBINS, 132 Boylston St., Boston, Mass.

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Professional Ethics.

The following . . .
. . . CODE OF ETHICS . . .
Prepared in Conformity with the Best Standards of Practice, and Recommended to its Members by the Boston Society of Architects, was . . . . . .

ADOPTED BY THE SOCIETY, FEBRUARY 1, . . 1898. . .

SECTION 1. No Member should enter into partnership, in any form or degree, with any builder, contractor, or manufacturer.

SECTION 2. A Member having any ownership in any building material, device or invention, proposed to be used on work for which he is architect, should inform his employer of the fact of such ownership.

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

SECTION 4. No Member should guarantee an estimate or contract by personal bond.

SECTION 5. It is unprofessional to offer drawings or other services "on approval" and without adequate pecuniary compensation.

SECTION 6. It is unprofessional to advertise in any other way than by a notice giving name, address, profession, and office hours, and special branch (if such) of practice.

SECTION 7. It is unprofessional to make alterations of a building designed by another architect, within ten years of its completion, without ascertaining that the owner refuses to employ the original designer, or, in event of the property having changed hands, without due notice to the said designer.

SECTION 8. It is unprofessional to attempt to supplant an architect after definite steps have been taken toward his employment.

SECTION 9. It is unprofessional for a Member to criticise in the public prints the professional conduct or work of another architect except over his own name or under the authority of a professional journal.

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

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

SECTION 12. The American Institute of Architects' "schedule of charges" represents minimum rates for full, faithful and competent service. It is the duty of every architect to charge higher rates whenever the demand for his services will justify the increase, rather than to accept work to which he cannot give proper personal attention.

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

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

SECTION 15. The assumption of the title of "Architect" should be held to mean that the bearer has the professional knowledge and natural ability needed for the proper invention, illustration and supervision of all building operations which he may undertake.

SECTION 16. A Member should so conduct his practice as to forward the cause of professional education and render all possible help to juniors, draughtsmen and students.

[*See Alphabetical Index on Cover 2 for Pagination.*]

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