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SUMMARY:—

A Protest against the Scheme proposed for altering the White House.—The "Curved Corridors" and Rounded Angles of the Design.—Some Discrepancies between the Plans and the Perspective Drawing of the Design.—The Rape of Prince Chigi's "Madonna," by Botticelli.—An American said to be the Purchaser.—The Wrong done to Private Owners of Italian Works of Art by the Paca Edict.—A Mighty Electrical Power-plant on the St. Lawrence.—Strife between Painters and Paper-hangers in New York.—The Condition of the Doge's Palace, Venice.	33
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WE trust that we may be allowed, in the name of American architecture, to protest, and to call upon all citizens who care for American art, to join us in protesting, before it is too late, against the carrying out of the present scheme for the alteration of the White House, at Washington. It is evident that a determined attempt is to be made to pass through Congress early in the session an order and appropriation for executing the project originated, we are told, by Mrs. President Harrison, and now being worked up by Colonel Theodore A. Bingham, the Government engineer in charge of the Executive Mansion. From time to time short paragraphs appear in the daily papers, referring to the fine scheme in contemplation; to the interesting history of the White House; its importance as a work of art; the necessity for enlarging it, and so on; and, recently, a long, and beautifully illustrated, article on the history of the building appeared in a magazine of very wide circulation, followed, two or three months later, by another, giving the Harrison-Bingham plans, together with laudations of them as "particularly clever," remarkable for their "preservation of architectural harmony," and other valuable qualities.

PLANS for a public building, appearing in the public prints, are certainly subjects for legitimate criticism, and it may be said at once that the Harrison design, as might be expected of one produced by a person with no proper training, is artistically ridiculous. Mrs. Harrison is said to have had the assistance of a Mr. Owens, "a man of artistic temperament and large experience," in laying out her scheme; but the "artistic temperament and large experience" were either not largely availed of, or had been acquired in other fields than that of architectural designing on a great scale, for the plan bristles all over with the marks of the ignorant amateur. In general, the scheme is to build two wings, at right angles with the present structure, connected with it by what are called "curved corridors." All architects know that to round the corners is the most effective of all means for spoiling an architectural group; but, in the present case, the corridors on each side are not merely curved, but splayed and bent in the most extraordinary manner. Each corridor is furnished with a colon-

nade, corresponding, to a certain extent, with the colonnade of the present portico, and the professional architect, who knows what it is to lay out details of Classical cornices, will best appreciate the circumstance that the entablature of each of the Harrison colonnades comprises, in plan, four straight lines, one circular arc, of about one hundred and fifty degrees, and four angles, not one of which is a right angle. It is hardly necessary to say that the spacing of the columns to support such an entablature is necessarily so irregular as to be the reverse of monumental; and the plan and elevation, as published, are very far from agreeing in regard to the spacing, the draughtsman having, apparently, solved in this simple way the difficulty of reconciling them so as to be presentable in his drawing. This difficulty, it may be remarked, is not likely to have disappeared when the time comes for carrying the scheme into execution, and the public should be permitted to form its judgment from accurate drawings, rather than "fudged" show-pictures.

IN plan, these "curved corridors" are made symmetrical with the palm-houses of a conservatory, an arrangement which will suggest thoughts to the professional architect. Otherwise, the arrangement of the proposed new wings is not unlike that of the present White House, and, although no trained architect in these days would repeat, on such a scale, the close and dark central corridors of the last century, the people of Washington are, perhaps, too much accustomed to them to find them objectionable. It is not so, however, with the ridiculous little porches which we find scattered over the Harrison plan, and which were evidently suggested by the newest fashion of Colonial porch in the wooden dwellings of Indianapolis. Here, again, the draughtsman has come to the rescue of the design, and has lavished on these features in the elevation columns which do not appear on the plan, and which would have the practical disadvantage of standing in the middle of the driveway which is shown passing under some of them. We are informed, in the article which accompanies the plans, that "white marble should be used for the extension." It would be interesting to know how those who have the scheme in charge propose to build with white marble an entablature, the span of which, according to the plan, is more than thirty feet. As our readers know, we are not much disposed to criticism, and, realizing that nothing human is perfect, we should view with forbearance, at least, any scheme which offered a possibility of reasonable artistic success; but we think that the profession will agree with us that such success is hopeless with the Harrison design, or with anything approaching it.

A GREAT deal of interest has been aroused by the application of the Italian laws in regard to the exportation of works of art to a case in which Americans are concerned. It seems that Prince Chigi, who had inherited from his ancestors a collection of valuable pictures, without very much other property, found himself constrained to raise money in such way as he honorably could, and, naturally enough, bethought himself of selling some of the personal property of which he had a superfluity. Among his pictures was a "Madonna," by Botticelli, long familiar to connoisseurs, which easily found a purchaser, in the person of a London dealer, who, after some negotiation, agreed to pay sixty-three thousand dollars for the picture. As the removal of such objects from Italy is forbidden, some ingenuity was needed to secure its delivery to its purchaser; and it is said that an artist was employed to paint over the picture some unmeaning group, in pigments which could be easily washed off later. Thus disguised, the "Madonna" was removed from the Chigi palace, and shipped to London. Not many days afterward, the Government detective, who makes frequent visits to private galleries, to see whether their owners have parted with any of their property, discovered that the Botticelli "Madonna" was missing; and Prince Chigi was summoned to account. He seems to have made no attempt to conceal the transaction, and has been condemned, in accordance with the law, to suffer a short imprisonment, pay a fine, and forfeit the entire sum obtained for the picture; the American purchaser, for whom the London dealer acted as agent, being condemned, in default, to suffer the same penalty, as an accomplice in the crime.

THE identity of the American purchaser is not yet established, some reports assigning him to Philadelphia, and others to Boston; but, whoever he may be, the case is peculiarly adapted to the raising of legal and economical points which will, we hope, be carried to the highest courts in Italy. It is obvious enough to every one that the law, which is a relic of the Papal attempts at civil government, is, in theory, tyrannical and oppressive to the last degree. If there is any property which a man can justly call his own, it is that which his ancestors bought and paid for, held, without opposition or adverse claim, during their lives, and gave or bequeathed to him; and to forbid him to use it to pay his honest debts, or to provide for the support of his family, is simply confiscation by brute force. Even the Italian Government does not deny this, but claims that such violation of the rights of citizens is necessary, in order to prevent the country from losing the works of art which now attract foreigners to Italy, and, in this way, increase the income of hotel-keepers and other persons; just as, in time of war or other public distress, it is held to be allowable to make requisitions on private citizens for property which may be of use in military operations.

IN practice, there is a difference between military requisition and the Italian confiscation of works of art, in that, in the former, there is always, in civilized countries, some attempt at payment for the goods taken, while the Italian law makes no pretence at compensation to the owners of works of art for depriving them of their property-rights in them, the operation being one of pure tyranny; and it is interesting to enquire whether the results have been sufficiently valuable to offset the spectacle of acknowledged oppression and injustice continually displayed before the eyes of Italian citizens. That a good many people go to Italy to see the pictures and statues there is undoubtedly true; and that they spend money there is also true; but nearly all the foreigners who visit Italy and spend money confine their studies to the great galleries, the treasures of which have been honestly acquired by the public, not one in a thousand ever seeing the pictures in the Chigi or any other private collection. The amount of money spent on hotel-keepers and cabmen by foreign visitors to private palaces in Rome and Florence must, therefore, be trifling; probably fifty thousand dollars would cover all the profit which such persons would derive from their visits in a generation; and, in fact, as the proprietors of nearly all the large hotels in Florence and Rome are Swiss or Germans, the greater part of this sum goes beyond the Alps; so that, by preventing Prince Chigi, to take a single example, from selling his Botticelli, his Government keeps out of Italy more money, probably, than has been legitimately spent there by all the foreigners who have ever seen it since Botticelli painted it; and, by condemning the purchaser *in contumaciam*, and thus forever excluding him from Italy for the future, it deprives itself of any benefit from his future expenditure. It is not difficult to foresee that such a course will lead, sooner or later, to the surreptitious exportation of the greater part of the private property which forms the subject of the law, and the removal of which cannot be prevented except by its actual seizure and storage in the public galleries, in return for annuities, or some equivalent which cannot be reached by judicial process, and which will not profit the community, morally and practically, as would the honest payment, for instance, of Prince Chigi's debts, in cash, from the proceeds of the sale of his property. If the Italians wish for light from history on the subject, they need only be reminded that their country has been visited by lovers of art for two thousand years; that the periods in which property-rights were most scrupulously regarded, both in Rome and, later, in the free cities, were those, not only of the greatest prosperity, but of the most brilliant art; and that interference with those rights, under any pretext, has always preceded misery and decay.

AN electrical power-plant, far surpassing that at Niagara Falls, is in process of construction on the St. Lawrence River, at Massena, N. Y. It is hardly necessary to say that the utilization of water-power by means of electrical transmission is now an everyday matter almost all over the world. If we are not mistaken, the first attempt of the kind was that by which power was transmitted from the Rhine Fall, at Schaffhausen, or rather, Neuhausen, to the Electrical Exhibition at Frankfort, not many years ago. Now, millions of electric lamps, hundreds of miles of electric railway, and scores of

huge manufactories, are supplied with current in this way. The original experimental plant at Neuhausen has grown into an immense cluster of establishments, devoted now mainly to the production of aluminium, while the Niagara plant, besides supplying current for making aluminium, carborundum and calcium-carbide, operates the street railways of Buffalo, and furnishes power to multitudes of small motors. As there is no large city near Massena, and transmission of current to a distance has not proved economical, it is probable that the power of the St. Lawrence will be utilized for metallurgical or electro-chemical operations of various sorts. At present, turbines and generators for converting seventy-five thousand horsepower are being installed, while the canal, now in process of excavation, will bring water enough to supply twice that amount.

A NEW sort of strike has been invented in New York. As all architects know, paper-hanging, in New York, is done by the piece, by a small and compactly organized body of men, who easily earn seven dollars or more a day, working eight hours. It appears that the sight of this "plum" has brought water to the mouths of the Amalgamated Painters' Society, whose members are glad to work for three dollars a day, and conceive themselves to be quite capable of doing paper-hanging, as well as painting. In consequence of the emotions excited by the prosperity of the paper-hangers, the Painters' Society has determined, it is said, either to reduce their income to that of the painters, or drive them out of New York, and do their work by means of its own members; and, with a view to this end, the Painters' Society recently demanded, and obtained, the discharge of three paper-hangers who were at work in a building in Seventy-second street, under threat of a strike unless the pay of the paper-hangers was reduced at once to their own standard. The paper-hangers appealed to the Central Federated Union, and the matter will probably be compromised, but the idea of striking to prevent other people from earning more money than is good for them will probably not be lost. In the unions themselves it has long been common to prevent, by threats of strikes, any particularly expert workman from receiving higher wages than the average standard, and it is obvious that the principle is applicable between different unions, as well as between members of the same union.

THE *Builder* makes some observations on the present condition of Venice, as illustrated by the last report of the local Commission of Monuments. This body, which seems to be an efficient one, has taken in hand the case of the Ducal Palace, which is by no means so distressing as has been supposed. The later portion of the building, fronting on the canal spanned by the Bridge of Sighs, seems to have had a bad foundation, and has been settling slowly for many years. Recently, the settlement has attracted more attention, and, to lighten the load on the foundation, the books in the library, and many of the marble statues in that part of the building have been removed. It is interesting to learn that the receipts from the fees paid by visitors for admission to the Palace amount, on an average, to seventy thousand francs a year, a sum which not only pays the salaries of the persons employed in it, but affords funds for the necessary repairs. In fact, as the *Builder* says, strangers are the main financial resource of Venice. Although the population is probably larger now than it ever was before it consists mainly of the poorest class, the great families who once inhabited the palaces on the Grand Canal having so completely disappeared that they are said to be represented now by less than ten persons. The palaces themselves have mostly fallen into the hands of strangers. Many of them are transformed into hotels; others have been taken for Government offices, and the rest are occupied, either as dwellings or manufactories, by German, French, or English people, or by natives of other parts of Italy. Even the serenading, which still goes on vigorously in front of the hotels on the Grand Canal in summer evenings, is said to be done by Neapolitans, and the stately Venetians who sat for their portraits to Titian and Paul Veronese seem to be vanishing. They have not all disappeared, for the visitor to the Lido on Sunday afternoons can still see many specimens of the fair-haired, quiet type which the world considers characteristic of the descendants of the Veneti; but the modern Venetians are poor and hard-working, and the people who display their fine clothes on the Grand Canal are all foreigners.

THE MOVEMENT OF COERCION.

DURING the recent labor troubles in Chicago one party to the controversy, the Building Contractors' Council, disinterred and distributed in the form of a small pamphlet the following interesting discussion on the rights and wrongs of coercion read by Mr. Justice Brewer, of the Supreme Court of the United States, before the New York State Bar Association, in January, 1893.

The matter discussed is of such great and general interest to men of every rank and all callings that a dispassionate discussion of it by a lawyer of the conservative temperament of Mr. Justice Brewer ought to be given the widest possible publicity.

THREE things differentiate the civilized man from the savage—that which he knows, that which he is, and that which he has.

That which he knows: The knowledge of the savage is limited to the day, and bounded by the visible horizon. The civilized man looks backward through all history, and beholds the present limits of the universe. The accumulations of the centuries are his. The logic of Aristotle and Bacon determines the processes of his mind. The philosophy of Plato and Herbert Spencer is his wisdom. Phidias chisels his sculptured beauties, and Raphael paints his pictured splendors before his enraptured soul; while Mozart and Beethoven bring to him an echo from the song on high. All ages pour their thoughts and wisdom into his brain, and he stands possessor of all the beautiful, the true and the good that the ages have wrought or accumulated, and in this he stands secure from human assault.

The beings of the mind are not of clay;
Essentially immortal, they create
And multiply in us a brighter ray
And more beloved existence.

That which he knows he can never be dispossessed of, and he carries its glory and its joy as safe in his soul as the secrets of eternity in the consciousness of omnipotence.

That which he is: All passions riot in the savage. He grovels through things of earth to satisfy the lusts of the body; and the height of his morality is an eye for an eye and a tooth for a tooth. Civilization lifts the soul above the body, and makes character the supreme possession. It reads into human history the glory and value of self-denial. It catches from the Divine One of Nazareth the nobility of helpfulness, and teaches that the externals are not the man; that accumulations and accomplishments only suggest that which makes both valuable; and that the poet's divination,—“a man's a man for a' that,” is the ultimate fact.

That also which a man is, is not the subject of larceny; nor can it be wrested from him by king or mob. The unavailing tortures of the Inquisition, the gloom of the dungeon, the awful silence of the scaffold and the blazing splendors of the martyr's fires attest the words of Him who said, “Fear not them which kill the body, but are not able to kill the soul;” and affirm the inalienable immortality of that which a man is.

That which he has: A hut for a home—a blanket and a breech-clout for his apparel—a bow and arrow for his means of support—a canoe and a horse for his travel—and sea-shells for his jewels: these are the possessions of the savage. But for the child of civilization all continents bring food to his table, and decorations to his home. In a recent number of that pictorial and comic paper, *Judge*, comic even in its name, was a cartoon, the central figure of which was an American girl seated on a throne, and around her were gathered the representatives of every zone and nation, each bearing some typical offering for her adornment;—silks and furs—laces and jewels, and beneath was the motto: “Every part of the earth is ransacked to please her fancy.” That cartoon is the picture of civilization;—the world brings tribute. And the potency of civilization is that it accumulates all that the earth produces, and pours it round and into the homes of its children. In the magnificence and luxuriousness which surround our lives, Solomon's glory is an unnoticed and forgotten splendor; and the fairy revelations of Haroun al Raschid's palace are but the half pictures, the dim foreshadowings of the American home and life.

But that which he has lies within the reach of others. Given power and willingness on the part of those about him, and a man may be stripped of all his material possessions. Hence the Eighth and Tenth Commandments:—“Thou shalt not steal,” “Thou shalt not covet.” Only under their sanction is society possible.

I am not here this evening to defend the Eighth Commandment, or to denounce its grosser violators. I do not propose to discuss the foot-pad or the burglar; they are vulgar and brutal criminals, in whose behalf there has as yet been organized no political party. I wish rather to notice that movement which may be denominated the “movement of coercion,” and which by the mere force of numbers seeks to diminish protection to private property. It is a movement which in spirit, if not in letter, violates both the Eighth and Tenth Commandments; a movement which, seeing that which a man has, attempts to wrest it from him and transfer it to those who have not. It is the unvarying law, that the wealth of a community will be in the hands of a few; and the greater the general wealth, the greater the individual accumulations. The large majority of men are unwilling to endure that long self-denial and saving which makes accumulation possible; they have not the business tact and sagacity which bring about large combinations and great financial results;

and hence it always has been, and until human nature is remodelled always will be, true that the wealth of a nation is in the hands of a few, while the many subsist upon the proceeds of their daily toil. But security is the chief end of government; and other things being equal, that government is best which protects to the fullest extent each individual, rich or poor, high or low, in the possession of his property and the pursuit of his business. It was the boast of our ancestors in the old country that they were able to wrest from the power of the king so much security for life, liberty and property. Indeed, English history is the long story of a struggle therefor. The greatest of English orators, opposing a bill which seemed to give power to the Government to enter the homes of the individual, broke forth in this most eloquent eulogy of that protection and security which surrounded an English home, even against the king: “The poorest man in his cottage may bid defiance to all the forces of the crown. It may be frail; its roof may shake; the wind may blow through it; the storm may enter it; but the King of England cannot enter it. All his power dares not cross the threshold of that ruined tenement!”

Here, there is no monarch threatening trespass upon the individual. The danger is from the multitudes—the majority, with whom is the power: and if the passage quoted is the grandest tribute to the liberty which existed in England, I would thus paraphrase it to describe that which should prevail under this government by the people. The property of a great railroad corporation stretches far away from the domicile of its owner, through State after State, from ocean to ocean; the rain and the snow may cover it, the winds and the storms may wreck it, but no man or multitude dare touch a car or move a rail. It stands as secure in the eye and in the custody of the law as the purposes of justice in the thought of God.

This movement expresses itself in two ways: First, in the improper use of labor organizations to destroy the freedom of the laborer, and control the uses of capital. I do not care to stop to discuss such wrongs as these—preventing one from becoming a skilled laborer, by forbidding employers to take more than a named number of apprentices; compelling equal wages for unequal skill and labor; forbidding extra hours of labor to one who would accumulate more than the regular stipend. That which I particularly notice is the assumption of control over the employer's property, and blocking the access of laborers to it. The common rule as to strikes is this: Not merely do the employes quit the employment, and thus handicap the employer in the use of his property, and perhaps in the discharge of duties which he owes to the public; but they also forcibly prevent others from taking their places. It is useless to say that they only advise—no man is misled. When a thousand laborers gather around a railroad track, and say to those who seek employment that they had better not, and when that advice is supplemented every little while by a terrible assault on one who disregards it, every one knows that something more than advice is intended. It is coercion, force; it is the effort of the many, by the mere weight of numbers, to compel the one to do their bidding. It is a proceeding outside of the law, in defiance of the law, and in spirit and effect an attempt to strip from one that has that which of right belongs to him—the full and undisturbed use and enjoyment of his own. It is not to be wondered at that deeds of violence and cruelty attend such demonstrations as these; nor will it do to pretend that the wrong-doers are not the striking laborers, but lawless strangers who gather to look on. Were they strangers who made the history of the “Homestead” strike one of awful horror? Were they women from afar who so maltreated the surrendered guards, or were they the very ones who sought to compel the owners of that property to do their bidding? Even if it be true that at such places the lawless will gather—who is responsible for their gathering? Weihe, the head of a reputable labor organization, may only open the door to lawlessness; but Beekman, the anarchist and assassin, will be the first to pass through, and thus it will be always and everywhere.

In the State of Pennsylvania only last year, to such an extent was this attempt of an organization to control both employe and employer carried, that there is now pending in the courts of the State, upon the concurrent advice of all the justices of its Supreme Court, an inquiry as to whether this disturbance of social order did not amount to treason. And this is but one type of multitudes of cases all over the land. This is the struggle of irresponsible persons and organizations to control labor. It is not in the interest of liberty—it is not in the interest of individual or personal rights. It is the attempt to give to the many a control over the few—a step toward despotism. Let the movement succeed; let it once be known that the individual is not free to contract for his personal services, that labor is to be farmed out by organizations, as to-day by the Chinese Companies, and the next step will be a direct effort on the part of the many to seize the property of the few.

The other form of this movement assumes the guise of a regulation of the charges for the use of property subjected, or supposed to be, to a public use. This acts in two directions: One by extending the list of those things charges for whose use the Government may prescribe; until now we hear it affirmed that whenever property is devoted to a use in which the public has an interest, charges for that use may be fixed by law. And if there be any property in the use of which the public or some portion of it has no interest, I hardly know what it is or where to find it. And, second, in so reducing charges for the use of property, which in fact is subjected to a public

use, that no compensation or income is received by those who have so invested their property. By the one it subjects all property and its uses to the will of the majority; by the other it robs property of its value. Statutes and decisions both disclose that this movement, with just these results, has a present and alarming existence. A switching company in Minneapolis had for eight years been operating under charges of \$1.50 a car. With such charges it had not during that time paid off a floating debt incurred in construction, nor a dollar of interest or dividend to those who had invested in its stocks or bonds. Without a hearing before any tribunal the State of Minnesota, through its railroad commission, reduced these charges to \$1 a car. Of what value would the ownership of that property be to its owners? and how soon would all semblance of title be swept away under foreclosure by the unpaid bondholders? Sometimes there is an appeal from a majority, and that effort at confiscation failed. And yet that the effort was made and that it did receive some judicial sanction is but a revelation of the spirit which lies behind and prompts the movement, and of the extent to which it has taken hold of the public mind.

There are to-day ten thousand million of dollars invested in railroad property, whose owners in this country number less than two million persons. Can it be that whether that immense sum shall earn a dollar or bring the slightest recompense to those who have invested perhaps their all in that business, and are thus aiding in the development of the country, depends wholly upon the whim and greed of that great majority of sixty million who do not own a dollar? It may be said that that majority will not be so foolish, selfish and cruel as to strip that property of its earning capacity. I say that so long as constitutional guaranties lift on American soil their buttresses and bulwarks against wrong, and so long as the American judiciary breathes the free air of courage, it cannot.

It must not be supposed that the forms in which this movement expresses itself are in themselves bad. Indeed, the great danger is in the fact that there is so much of good in them. If the livery of heaven were never stolen, and all human struggles were between obvious right and conceded wrong, the triumph of the former would be sure and speedy. Labor organizations are the needed and proper complement of capital organizations. They often work wholesome restraints on the greed, the unscrupulous rapacity which dominates much of capital; and the fact that they bring together a multitude of tiny forces, each helpless in a solitary struggle with capital, enables labor to secure its just rights. So also, in regulating the charges of property which is appropriated to a public use, the public is but exercising a legitimate function, and one which is often necessary to prevent extortion in respect to public uses. Within limits of law and justice, labor organizations and State regulation of charges for the use of property which is in fact devoted to public uses are commendable. But with respect to the proposition that the public may rightfully regulate the charges for the use of any property in whose use it has an interest, I am like the lawyer who, when declared guilty of contempt, responded promptly that he had shown no contempt, but on the contrary had carefully concealed his feelings.

Now, conceding that there is this basis of wisdom and justice, and that within limits the movement in both directions will work good to society, the question is how can its excesses, those excesses which mean peril to the nation, be stayed? Will the many who find in its progress temporary and apparent advantages so clearly discern the ultimate ruin which flows from injustice as voluntarily to desist? or must there be some force, some tribunal, outside so far as possible, to lift the restraining hand? The answer is obvious. Power always chafes at, but needs, restraint. This is true whether that power be in a single monarch or in a majority. All history attests the former. We are making that which proves the latter. The triple subdivision of governmental powers into legislative, executive and judicial recognizes the truth, and has provided in this last co-ordinate department of government the restraining force. And the question which now arises is whether, in view of this exigency, the functions of the judiciary should be strengthened and enlarged, or weakened and restricted. As might be expected, they who wish to push this movement to the extreme, who would brook no restraint on aught that seems to make for their gain, are unanimous in crying out against judicial interference, and are constantly seeking to minimize the power of the courts. Hence the demand for arbitrators to settle all disputes between employer and employes, for commissions to fix all tariffs for common-carriers. The argument is that judges are not adapted by their education and training to settle such matters as these; that they lack acquaintance with affairs and are tied to precedents; that the procedure in the courts is too slow and that no action could be had therein until long after the need of action has passed. It would be folly to assert that this argument is barren of force. There are judges who never move a step beyond what has been; who would never adjudge the validity of the plan of salvation without a prior decision of the Master of the Rolls or the Queen's Bench in favor of the doctrine of vicarious sacrifice; and it is true that proceedings in the law courts do not anticipate the flight of time. But the great body of judges are as well versed in the affairs of life as any, and they who unravel all the mysteries of accounting between partners, settle the business of the largest corporations and extract all the truth from the mass of sciolistic verbiage that falls from the lips of expert witnesses in patent cases, will have no difficulty in determining what is right and wrong between employer and employes, and whether proposed rates of freight and fare are reason-

able as between the public and the owners; while as for speed, is there anything quicker than a writ of injunction?

But the real objection lies deeper. Somehow or other men always link the idea of justice with that of judge. It matters not that an arbitrator or commission may perform the same function, there is not the same respect for the office, nor the same feeling that justice only can be invoked to control the decision. The arbitrator and commission will be approached with freedom by many, with suggestions that the public, or the party, or certain interests demand or will be profited by a decision in one way; but who thus comes near to the court or offers those suggestions to the judge? There is the tacit but universal feeling that justice, as he sees it, alone controls the decision. It is a good thing that this is so; that in the common thought the idea of justice goes hand in hand with that of judge; and that when anything is to be wrought out which it is feared may not harmonize with eternal principles of right and wrong, the cry is for arbitration or commission, or something else whose name is not symbolical or suggestive. I would have it always kept so, and kept so by the very force of the work and life of him who is a judge. It is an Anglo-Saxon habit to pay respect to the judicial office; and it is also an Anglo-Saxon demand that he who holds that office shall so bear himself as to be worthy of respect.

So it is that the mischief-makers in this movement ever strive to get away from courts and judges, and to place the power of decision in the hands of those who will the more readily and freely yield to the pressure of numbers, that so-called demand of the majority. But the common idea of justice is that the judge should be indifferent between the litigants—as free as possible from the influence of either; and no temporary arbitrator or political commission can ever equal in these respects the established courts and regular judges.

And so it is, that because of the growth of this movement, of its development in many directions, and the activity of those who are in it, and especially because of the further fact that, carrying votes in its hand, it ever appeals to the trimming politician and time-serving demagogue, and thus enters into so much of legislation, arises the urgent need of giving to the judiciary the utmost vigor and efficiency. Now, if ever in the history of this country, must there be somewhere and somehow a controlling force which speaks for justice, and for justice only. Let this movement sweep on with no restraining force, and it is the rule of all such movements that, unchecked, they grow in violence, and Carlyle's Shooting Niagara will epitomize the story of the downfall and departure from this Western Continent of government of the people, by the people and for the people.

What, then, ought to be done? My reply is: Strengthen the judiciary. How? Permanent tenure of office accomplishes this. If a judge is to go out of office in a few months, the litigant will be more willing to disobey and take the chances of finally escaping punishment by delaying the proceedings until a new judge shall take the place—one whom his vote may select, and from whom, therefore, he will expect slight, if any, punishment; while if the incumbent holds office for life, the duration of that life being uncertain, whether one or thirty years, no litigant wants to take the risk of disobedience, with a strong probability that a punishment, though it may be delayed, will come, and come with a severity equal to the wrong of the disobedience. A striking illustration of the truth of this is found in the troubles that followed the election of 1876. The three States in which arose contests for the possession of the State Government were Florida, Louisiana and South Carolina. In each of them an application was made to the highest court of the State and a decision announced by such court. In Florida the decision was accepted without question, and the control of the State Government passed safely in accordance therewith. In each of the other States it was an insignificant and a disregarded factor in the strife. In Florida the judges held office for life; in the other States, for only short terms. The party having, or believing it had, a majority was willing in these States to risk a contest with judges whose term of office would soon expire, for it hoped to place its own friends on the bench and thus be secured from all consequence of disobedience; but in the former State there was little safety in entering upon a contest with those who might remain in office for a generation, and who could be disturbed in their position by nothing short of a revolution. So if you would give the most force and effect to the decisions of your courts, you must give to the judges a permanent tenure of office.

Again, it will give greater independence of action. Judges are but human. If one must soon go before the people for re-election, how loath to rule squarely against public sentiment! There is no need of imputing conscious dishonesty, but the inevitable shrinking from antagonizing popular feeling, or the wishes or interests of some prominent leader or leaders, tends to delay or mollify the due decision, while the judge who knows nothing can disturb his position does not hesitate promptly and clearly to "lay judgment to the line and righteousness to the plummet." Let the jury determine, is the motto of one tribunal; the court must decide, is the rule of the other. Cases at law and a jury are favored in the one, equity and its singleness of responsibility is the delight of the other. Far be it from me to intimate aught against the character or ability of that larger number of elective judges in this country who secure continuance in office only through the well-earned confidence of the people. The bulk of my judicial life has been spent in such tribunals and under such experiences, and I know the worth and prize the friendship of

these men. I am simply comparing system with system. It is a significant fact that some of the older States which have the elective system are lengthening the terms of judicial office. The judges of your [New York] highest court hold office for fourteen years, and in the sister State of Pennsylvania for twenty-one years. And this is almost equivalent to a life-tenure, for it will be found that the term of office of a Justice of the Supreme Court of the United States (taking all who have held that office, including the present incumbents) averages less than fifteen years.

It is said that the will of the people would often be delayed or thwarted, and that this is against the essential idea of government of and by the people. But for what are written constitutions? They exist, not simply to prescribe modes of action, but because of the restraints and prohibitions they contain. Popular government may imply, generally speaking, that the present will of the majority should be carried into effect, but this is true in no absolute or arbitrary sense, and the limitations and checks which are found in all our written constitutions are placed there to secure the rights of the minority. Constitutions are generally, and ought always to be, formed in times free from excitement. They represent the deliberate judgment of the people as to the provisions and restraints which, firmly and fully enforced, will secure to each citizen the greatest liberty and utmost protection. They are rules prescribed by Philip Sober to control Philip Drunk. When difficulties arise, when the measures and laws framed by a majority are challenged as a violation of these rules and a trespass upon the rights of the minority, common justice demands that the tribunal to determine the question shall be as little under the influence of either as is possible. Burke says: "Society requires not only that the passions of individuals should be subjected, but that even in the mass and body, as well as in the individuals, the inclinations of men should be thwarted, their wills controlled and their passions brought into subjection. This can only be done by a power out of themselves, and not in exercise of its functions subject to that will and those passions which it is its office to bridle and subdue. In this sense the restraints on men, as well as their liberties, are to be reckoned among their rights." And surely, if the judges hold office by a life-tenure and with a salary which cannot be disturbed, it would seem as though we had a tribunal as far removed from disturbing influences as possible. Though if I were to perfect the judiciary system I would add a provision that they should also be ineligible to political office, and to that extent free from political ambition.

It may be said that this is practically substituting government by the judges for government by the people, and thus turning back the currents of history. The world has seen government by chiefs, by kings and emperors, by priests and by nobles. All have failed, and now government by the people is on trial. Shall we abandon that and try government by judges? But this involves a total misunderstanding of the relations of judges to government. There is nothing in this power of the judiciary detracting in the least from the idea of government of and by the people. The courts hold neither purse nor sword; they cannot corrupt nor arbitrarily control. They make no laws, they establish no policy, they never enter into the domain of popular action. They do not govern. Their functions in relation to the State are limited to seeing that popular action does not trespass upon right and justice as it exists in written constitutions and natural law. So it is that the utmost power of the courts and judges works no interference with true liberty, no trespass on the fullest and highest development of government of and by the people; it only means security to personal rights—the inalienable rights, life, liberty and the pursuit of happiness; it simply nails the Declaration of Independence, like Luther's theses against indulgences upon the doors of the Wittenburg church of human rights, and dares the anarchist, the socialist and every other assassin of liberty to blot out a single word.

While preparing this address I had a dream. I dreamt that I was reading before an association an article which had been prepared by another. When I had nearly finished I came to a page which was written in shorthand. Unable to decipher that, I was forced to extemporize a little. When I awoke from my sleep, and thought of this address, I saw that that dream was not wholly a dream. I realize full well that this subject is old and stale, and that I have added nothing new to what has been so often and so well said; but things may be stale and yet not flat and unprofitable. The tale of love is as old as Adam, and as new and as sweet as to-day's blushing girl of sixteen. All of Christianity is found in "the old, old story of Jesus and his love." And so it has seemed to me that this threadbare story is, as always, in a free country, and to-day in this country more than ever, of living and pressing importance. Who does not see the wide unrest that fills the land? Who does not feel that vast social changes are impending, and realize that those changes must be guided in justice to safety and peace, or they will culminate in revolution? Who does not perceive that the mere fact of numbers is beginning to assert itself? Who does not hear the old demagogic cry—*vox populi vox dei* (paraphrased to-day, "the majority are always right")—constantly invoked to justify disregard of those guarantees which have hitherto been deemed sufficient to give protection to private property?

"To him that hath shall be given," is the voice of Scripture. From him that hath shall be taken, is the watchword of a not inconsiderable, and through the influx of foreign population, a growing portion of our voters. In such a time as this the inquiry may well

be, what factor in our national life speaks most emphatically for stability and justice, and how may that factor be given the greatest efficiency? Magnifying, like the apostle of old, my office, I am firmly persuaded that the salvation of the nation, the permanence of government of and by the people, rests upon the independence and vigor of the judiciary. To stay the waves of popular feeling, to restrain the greedy hand of the many from filching from the few that which they have honestly acquired, and to protect in every man's possession and enjoyment, be he rich or poor, that which he hath, demands a tribunal as strong as is consistent with the freedom of human action, and as free from all influences and suggestions, other than is compassed in the thought of justice, as can be created out of the infirmities of human nature. To that end the courts exist, and for that let all the judges be put beyond the reach of political office, and all fear of losing position or compensation during good behavior. It may be that this is not popular doctrine to-day, and that the drift is found in such declarations as these—that the employé has a right to remain on his employer's property and be paid wages, whether the employer wishes him or no; that the rights of the one who uses are more sacred than of him who owns property; and that the Dartmouth College Case, though once believed to be good in morals and sound in law, is to-day an anachronism and a political outrage. The black flag of anarchism, flaunting destruction to property, and, therefore, relapse of society to barbarism; the red flag of socialism, inviting a redistribution of property, which, in order to secure the vaunted equality, must be repeated again and again at constantly decreasing intervals, and that colorless piece of baby-cloth, which suggests that the State take all property and direct all the work and life of individuals, as if they were little children, may seem to fill the air with their flutter. But as against these schemes, or any other plot or vagary of fiend, fool or fanatic, the eager and earnest protest and cry of the Anglo-Saxon is for individual freedom and absolute protection of all his rights of person and property; and it is the cry which, reverberating over this country from ocean to ocean, thank God, will not go unheeded. That personal independence which is the lofty characteristic of our race will assert itself, and no matter what may stand in the way, or who may oppose, or how much of temporary miscarriage or disappointment there may be, it will finally so assert itself in this land that no man or masses shall dare to say to a laborer he must or must not work, or for whom or for how much he shall toil; and that no honest possessor of property shall live in fear of the slightest trespass upon his possessions. And to help and strengthen that good time, we shall yet see in every State an independent judiciary, made as independent of all outside influences as is possible, and to that end given a permanent tenure of office and an unchangeable salary; and above them that court created by the fathers, supreme in fact as in name, holding all, individuals and masses, corporations and States—even the great nation itself—unswervingly true to the mandates of justice, that justice which is the silver sheen and the golden band in the jewelled diadem of Him to whom all nations bow and all worlds owe allegiance.

NEW METHOD OF PRODUCING HIGH TEMPERATURES.



THE *Times* recently gave a very full report of a paper on this subject by Mr. E. D. Lange, of Manchester, read at the Paris meeting of the Iron and Steel Institute. The author had seen the system described, the invention of Dr. Hans Goldschmidt, in operation at the courts of the Chemische Thermo-Industrie Company, at Essen, and had concluded that for various metallurgical purposes the engineer and chemist had now at their disposal a new and powerful agent sufficiently cheap and effective and sufficiently under control to justify its existence, both from a practical and commercial point-of-view. The principle underlying the process is not new, being based upon the heat-energy developed by the chemical action of aluminium upon oxygen, or rather that between aluminium

and certain metallic oxides. It is rather the manner in which this action is developed and its product applied which constitutes the novelty of the process.

The author referred to previous experiments made by Wohler, Sainte-Claire, Deville, Claude Vautin, Bunsen, Tissier, Michel Beke-toff, Rose, Percy Greene, Wahl, of Philadelphia, and others. Some very interesting laboratory experiments showing the possibility of producing pure iron by reducing ferrous-oxide with aluminium were brought before the Institute, in 1895, by Robert Abbott Hadfield, whose services to the metallurgy of iron and steel have been of the most valuable kind, and in the same year Sir William Roberts-Austen gave a brilliant demonstration before the Royal Institution upon the "reduction of the rarer metals from their oxides," on which occasion several of the rarer metals were produced in some quantity, by reduction with aluminium, in a manner which appeared almost magical. Among other valuable investigations since then have been those of Moissan, Kupelwieser, Matignon, Helouis, Duboin, Gauthier and Francke.

Dr. Goldschmidt made experiments with the object of discovering a mode of controlling the violent reaction obtained by the heating of aluminium in contact with metallic oxides, and these brought to light the important fact that it was not necessary to heat the whole mass up to the requisite temperature for ignition, but that it sufficed to start ignition at any one time. When combustion once started the reaction proceeded steadily, with more or less speed, throughout the whole mass, thus generating within itself the whole of the heat required. In the case of the refractory oxides, it would have been a difficult matter to apply the requisite heat for ignition at any point had not Dr. Goldschmidt made the still more important discovery that although certain oxides combined with aluminium at so low a temperature that they could be ignited with an ordinary match, yet they nevertheless, in their combustion, developed so much heat that if a small quantity of these oxides was placed upon a mixture of refractory oxide and aluminium and ignited, a reaction was started in the same, which, thus originated, then proceeded automatically as before. The heat developed by the combustion of a mixture of alumina and iron is sufficient to start the reaction between the aluminium and iron-oxide mixture, and as this proceeds more and more of the same is added until within a minute or two there is a crucible containing reduced iron covered by a thick coating of alumina-slag. On pouring off the slag the temperature of the underlying liquid iron can be tried by pouring it on to a mild-steel plate or along the side of a mild-steel bar, when the hot iron cuts its way through with ease. Pyrometer experiments have established the temperature reached in the operation at between 2,900° C. and 3,000° C., that is to say, 1,000° C. more than that reached during the hottest period of the Bessemer blow. In the case of the reduction of chrome from its oxide by this method, the temperature of 3,000° C. is certainly reached—a temperature hitherto obtainable by the electric-arc alone. Aluminium is, therefore, a very powerful source of heat, wonderfully condensed and portable and adaptable to many industrial operations. Aluminium and oxygen are two of the most common of the elements of which the earth's crust is composed, and it can hardly be doubted that the price of aluminium, already low, will be still further reduced in the future. The production of carbonless chrome and manganese on this system was next described.

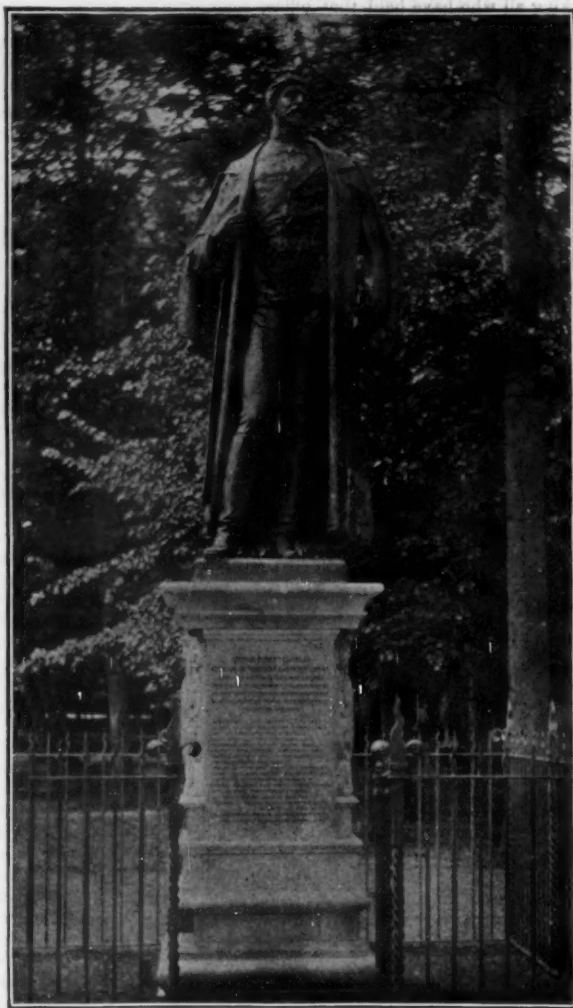
It was explained that welding by means of aluminium mixture is conducted by pressing together the two ends of the bars or pieces to be welded, and then placing round the part to be welded, but separated from it by a fixed distance, a form made of thin iron-sheeting supported by being packed round with moulding-sand. The combustion of aluminium and iron-oxide is then effected in a crucible of fitting size and the contents of the crucible poured into the form. As soon as the part to be welded has taken up sufficient heat the weld is accomplished by pressing the two parts together by means of a suitable clamping arrangement. Raw aluminium of 50 per cent purity made from bauxite has a sufficient effect. It is of no consequence how far the reduced iron is pure or impure. On the other hand, if it is proposed to use the reduced iron to form part of an iron or steel structure, its purity or composition might prove an important matter. With regard to the comparative cost of the joint as compared with a fish-plate joint, Dr. Goldschmidt has prepared some figures in which consideration is given to the cost of the maintenance of the fish-plate joint, and he makes out a favorable case for the welded joint. The reports on this subject have been hitherto of a favorable character.

It appears more than likely that this process will be largely used in the future in order to secure continuity of conductivity in the return current on electric-railways. With regard to the comparative cost of welding by thermit and electricity and of welding by electricity it is hard to find common ground for a comparison, as the number of cases in which electricity is sufficiently available and its use expedient is necessarily limited.

The author concluded by pointing out the unsuspected property of aluminium as a heat accumulator, whereby it is rendered possible to release in the form of heat, everywhere and with the greatest ease, the work which was required for the original production of the aluminium. Another thought is not far removed from this—namely, the possibility of using aluminium not only for the processes described, but to discover a means of turning the heat of combustion of the aluminium back into electricity for the production of power. It

is, indeed, possible that in the future the value of aluminium will lie not only in its properties as a metal, but also in its importance as a power accumulator of the highest efficiency. — *Journal of the Society of Arts.*

STATUES AND PEDESTALS.



Statue of Lord Pembroke. Gilbert, R. A., Sculptor.

IS the pedestal of the statue part of the work of art, and ought it to be designed by the same person?

These questions are the result of reflections made in front of a statue lately erected at Wilton, near Salisbury. The statue is in bronze, by Mr. Gilbert, R. A. Whether, being colossal, the head should not have been on a somewhat larger scale than it is, I do not know; suffice it to say that it appears much smaller in relation to the body than was the case in nature. Lord Pembroke was an exceedingly tall man, but his head appeared of normal size. In the statue, as it is difficult to get at sufficient distance to see it properly as a whole, the main features of the work appear to be the enormous military boots.

But it is of the pedestal that I wish to speak. Instead of entrusting this to the sculptor, the amateur artists of the family conceived the idea of a home-made design. In front we have a very charming inscription translated from the "Song Celestial," by Sir Edwin Arnold. On each side is a shield bearing the family arms, crushed by a narrow bordering. At the back, which is as prominent to public view as the front, there is nothing at all. Now, the old workers in plastic arts took care to ornament the backs of their statues as well as the fronts, unless they were placed against a wall which hid them. This statue is on an open piece of ground, so the unornamented back is very visible in its nakedness. The figure stands upon a small base supported by a moulding, below which are the four square sides for inscription and arms. Below these the base is divided into three portions separated by three mouldings; and the lowest is of the same width as the top. Now, could anything more mean have been devised, and could human vanity have gone greater lengths than for amateurs to invite a sculptor of great reputation to plant his work upon the top of their paltry and shabby pedestal? The work as a whole is spoiled, and is simply an example of how not to do a thing. It is as if the employers and patrons of Sir Christopher Wren had asked him to design a dome to be placed on the top of their church.

The result of that would have been a dire catastrophe; in the case of the Earl's memorial the danger is only (possibly) in appearance.

When these amateurs conceived their great idea, they did not apparently study the beautiful statues of the Renaissance—or they may have desired, perhaps, to be entirely original. In any case the principle, that all parts of a work of art should harmonize, and be equally beautiful, was either unknown to them, or unappreciated by them; and consequently the outside public will credit the sculptor with this despicable pedestal, for it is not signed by its authors.

S. BEALE.

BOOKS AND PAPERS

WHAT Fergusson and Freeman have done for Roman architecture, Professor Wickhoff has undertaken to do for Roman "phonetic" art.¹ Most architects are probably convinced that Roman architecture, as it developed during the Imperial period, instead of being an awkward adaptation of Greek forms, was a living and advancing art, which, at the time of Diocletian, had nearly shaken off the Greek tradition, and was on the way to the evolution of new forms when it was, with all the other arts, overwhelmed by the barbarian invasions, reappearing, later, only with profound modifications; but, in regard to sculpture and painting, the idea that the work done in Rome under the Empire was all due to Greek artists, mostly slaves, who repeated, as best they could, what they had learned at home, is still generally prevalent. If Professor Wickhoff does not quite convince us when he tells us, in speaking of the origin and characteristics of Greek art, that sculpture and painting were introduced into Greece by Phœnician peddlers, who brought there for sale the images which had been removed from the Hebrew temples in consequence of the preaching of the prophets, he, at least, makes some curious observations on the tendency of the Greeks to reduce everything in art to types, as contrasted with the Etruscan passion for individual portraiture, and satisfactorily shows that this Etruscan naturalism, during the Empire, contended with the Greek idealism, and finally gained the upper hand, producing, by the time of the Flavian emperors, works, both in portraiture and otherwise, characterized by an individualism, or, as he calls it, an illusionist tendency, which was unknown to Greek art, but which has continued to be the ruling principle of sculpture and painting in modern Europe. Whether the Greeks conventionalized natural forms through a childish fear of departing from the types to which they were accustomed, or in consequence of a purity of taste which felt that individuality could only be secured by the sacrifice of perfection, is perhaps undetermined; but it is hardly probable that people who maintained such close relations with Egypt would be ignorant of a naturalism which is nowhere more conspicuous than in early Egyptian art. However that may be, there is no doubt that, long after Egyptian sculpture had grown lifeless under priestly influence, the Etruscans, in Italy, practised portraiture with a zeal and success which even now excite our admiration. According to Professor Wickhoff, while the old nobility, at the time of the Cæsars, valued nothing but Greek art, and despised that of their native country, there were in Rome, during that period, just as in the great cities of the present day, multitudes of people who had grown rapidly rich and wished to imitate their aristocratic neighbors in surrounding themselves with works of art, but that these, thrifty and ignorant, finding that the work of Greek artists was expensive, if not entirely unattainable, employed natives, who, if they could not approach in skill their Greek rivals, at least worked more cheaply. Many of these, Professor Wickhoff thinks, must have come from Etruria, where there was still a demand for portraiture, and they would naturally bring with them their habits of studying from nature the individual characteristics of their subjects. As it happened, the thoroughly Italian custom, which imposed upon noble families the duty of preserving in their houses wax effigies of their ancestors, was still maintained; and people who wanted images of their forefathers were pleased at the lifelike expression which the native modellers were able to give them. It became fashionable, even among the great families, to have some of their ancestral effigies in marble, instead of wax, and we probably owe to this fancy a great part of the portrait busts and statues which have come down to us. According to Professor Wickhoff, the taste for lifelike "illusionism," first shown in the portrait-statues, of which he gives some striking examples, soon applied to other objects, and the book illustrates by a series of beautiful photogravures and process-plates, the transformation which took place in ornamental sculpture, during the period which we are accustomed to call one of decadence, from the conventional forms of the Greeks to a decoration as closely studied from nature as that of the thirteenth-century stone-carvers, and, indeed, greatly resembling the mediæval sculpture in many ways. That this new style is entitled to be called the real Roman art can hardly be disputed, for it is found only on Roman monuments, and its derivation from the indigenous art of the Etruscans is tolerably clear; so that Professor Wickhoff, pointing out the similarity between this work

and the early art of the Middle Ages, in Western Europe, seems justified in his claim that the latter descends, not from the Greek, by the way of the Byzantine, or in any other way, but from a true Roman art, developed by the Romans under the Empire from their own native art, and ready, if the barbarian flood had not submerged Italy, to express itself in works as remarkable as those of the corresponding architectural movement in Italy, Gaul and Dalmatia. It is to be observed that Professor Wickhoff does not assert that Roman artists and sculptors superseded the Greeks. On the contrary, the technical skill of the Greeks would always be in demand; but he says, and practically demonstrates, that, after the new naturalistic style had been called into existence by accidental circumstances, it met with such appreciation that the Greek artists in Rome were obliged, in order to retain their customers, to study and practise it. Whether, having done so, they became again the leaders in their art, or whether native Romans continued to maintain their superiority, we may never know; but, whether Greeks or Romans, the sculptors and painters of the first two centuries of the Empire were artists of which no country need be ashamed; and Professor Wickhoff has done a service to art, as well as to the truth of history, by his extremely interesting inquiry into their work, the sources of their inspiration, and their influence upon modern art.

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AT a meeting held October 19, 1900, the Memphis Architectural Club was fully organized and the following officers elected to serve the ensuing year: Cyrus Johnson, *President*; W. J. Hanker, *First Vice-president*; H. J. Mackenzie, *Second Vice-president*; M. H. Furbringer, *Secretary*; Walk C. Jones, *Treasurer*.

M. H. FURBRINGER, *Secretary*.

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¹"Roman Art": Some of its Principles, and their Application to Early Christian Painting. By Franz Wickhoff. Translated and Edited by Mrs. S. Arthur Strong, LL.D. (Eugenie Sellers). With Fourteen Plates and Numerous Text Illustrations. London: William Heinemann. New York: The Macmillan Company, 66 Fifth Ave. Price \$8.

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UNITED STATES POST-OFFICE, BUTTE, MONTANA. MR. JAMES KNOX TAYLOR, SUPERVISING ARCHITECT.



THE SACRED PALACE, PEKIN.—The special correspondent of the *Times* gives the following description of the Palace in Pekin, which, hitherto, travellers in China were not allowed to approach: Passing under the central archway, we were at last within the sacred precincts of the Palace of the Son of Heaven, and standing on ground as unapproachable in the past to the ordinary mortal as the sacred soil of Lhasa or Mecca. A spacious courtyard and, across it, again a high triple gateway, led up to by three flights of carved stone steps—this is the Tai-ho Mén. Horses had to be left here, and those of all the mounted men who had preceded us were being held in the courtyard, where never a hoof, I take it, had resounded before. There was plenty of grass for the horses to nibble. Between the stones it had been allowed to grow up unchecked for many a long day. The Tai-ho Mén leads into yet another fine courtyard in front of the Tai-ho-tien, or Hall of Great Harmony. This building is one of the chief features of the palace. Within the hall itself it is customary for the Emperor to sit enthroned, receiving the homage and obeisance of his court on certain great state occasions. There he sits on the Chinese New Year's Day, on his own birthday, at the winter solstice, and when conferring great literary degrees, also at various other times prescribed by the rigid ceremonial of which he is the slave. This hall is over 100 feet high, 200 feet long, and slightly under 100 feet wide. It stands raised on a noble terrace of white stone, 20 feet above the level of the courtyard, and reached by five flights of steps. These are flanked, and the terrace is surrounded, by white marble balustrades. All these steps and balustrades are exquisitely carved in bold designs. They are in a state of almost perfect preservation. A number of huge bronze urns, of very handsome design, and two great bronze tortoises and storks add to the dignity of the approach. Externally the hall is in fair repair, and particularly the tiled roof, but the ornamentation under the eaves is dirty, the pillars outside and the woodwork round the windows and in the walls sadly lack paint, and the general effect is one of shabbiness. Inside the coloring of the once brightly decorated roof is dingy, and the pillars, equally with those outside, lack paint; the carpet (pattern, a giant five-clawed dragon on a ground of Imperial yellow) is filthy, and everything indicated slovenliness and neglect and decay. This holds good of nearly all the great reception-halls—the Hall of Central Harmony, the Hall of Precious Harmony, etc.—through which, pavilion after pavilion, and courtyard after courtyard, the troops marched. The route did not lead through the inner palace, the Emperor's official residence. Opposite the gate, which is guarded by two gorgeous gilt lions—the Gate of Heavenly Purity—we wheeled to the right, and, crossing the courtyard diagonally, entered through a small gateway a passage skirting the east of the inner palace.

AN EIGHT-STORY CONCRETE BUILDING.—A concrete office-building, containing seven stories and a cellar is now being erected in Washington from the designs of Mr. Leon E. Dessez, architect, and, according to an account in *Cement*, possesses numerous interesting features. The building regulations of the city specify that the maximum load on concrete shall not exceed fifteen tons per square foot, and the walls have been designed to comply with this regulation. The basement wall is of solid concrete about 11 inches thick; above this the walls (with the exception of the front wall) are hollow, having an outer skin 3 inches thick, and an inner skin 5 inches thick for four stories, and 4 inches thick for the three uppermost stories. The inner and outer skins are tied together by vertical "withs" 3 inches thick, spaced from 30 inches to 36 inches apart. The walls are fortified by $\frac{3}{4}$ -inch twisted wrought-iron bars on the Ransome system, two horizontal bars being inserted at the level of each floor, window-sill, and window-head, and these are crossed by similar vertical bars running the whole height of the building in the piers between the windows. The front wall is of solid concrete, faced with brick and terra-cotta. The internal partitions, stairs, girders, and floors are also of concrete, with tension-rods of Ransome twisted iron. The partitions vary in thickness from 8 inches in the basement to 5 inches in the top story, and the floors are nearly all 6 inches thick. The twisted rods in the floors are 6 inches apart. Shrinkage-joints are formed at intervals right across the building. The concrete throughout is composed of one part cement, two parts sand, and three parts blue gneiss, broken to pass a screen with $\frac{3}{4}$ -inch meshes. Such a structure as this would not be permitted in any town in England, as it contravenes the by-laws as to thickness of walls, but it is an interesting and instructive example of what can be done with concrete when the designer is allowed a free hand. Whether our building regulations ought to be modified to allow such erections in this country is another matter. —*The Builder*.

MAGNIFICENT STABLES.—Francis J. Carolan has erected stables at his country place at Burlingame, Cal., that are said to be the most magnificent in the world. The stables were dedicated last week by a grand ball given by the Carolans, the great carriage-room under the big dome in the centre of the stable being the ball-room. The stable buildings cover more than half an acre of ground. Besides this space there are big areas given up to courtyards, driveways, and lawns around the stables. The buildings are all of brick with heavy projecting roof-beams showing grotesquely carved ends like Chinese gargoyles. The buildings surround a great quadrangular court, over which the eaves project inwardly, forming a veranda to shelter the heads of the horses when the aristocratic animals thrust their heads out of their box-stalls to pass the time of day with each other, or jealously regard the latest arrival. In the centre of the quadrangle a stone drinking-pond is filled by a spraying fountain, which serves to cool the air of the courtyard. The driveway leading to the quadrangle is bordered by lawns, scented flowering-shrubs, and sheltering trees, and ends at a great iron gate, which opens into the courtyard. Placed around the court, just under the veranda eaves, are large jardinières containing orange-trees, which fill the offices, coach-room, and box-stalls with their perfume. On the right of the entrance to the stables are the quarters of the coachmen, trainers, and footmen; on the left are the offices of the master of the hunt-club. Mr. Carolan is the master of the hunt-club, and his office is fitted up with a library of books relating to hunting and coaching, and on the wall are rare old prints pertaining to the same subject, and along with them are whips, spurs, horns, bits, bridles, and tails and heads of foxes. Beyond the office is the wardrobe-room, where the horses' Sunday clothes are kept, and where heavy embroidered, bright-colored saddle-cloths and stall-blankets with surcingle pipe-clayed to immaculate whiteness are kept. Adjoining this room is the long room, where are placed the stalls for the coach, carriage, and other trotting-horses. The floor is covered with white beach-sand, on which are laid mats of hand-threshed wheat-straw with colored borders. The harness repository is hung on its four walls with jetty leather, while a large glass case in the centre of the room contains the bits and chains and other detachable parts of harness. The principal room in the stable is the great coach-room under the dome. It is as light and lofty as an art-gallery, with a floor of polished hard maple. A large alcove in one corner of the room has a cement-floor with faucets for carriage-washing. In the coach-room is to be found almost every type of useful vehicle, with the single exception of automobile. The sort of wheeled thing that moves independently of the horse is rigorously tabooed at the Carolans' stables. Next to the coach-room is a small room filled with saddles for use on the polo ponies and hunters. In the next room are twelve fine polo ponies and hunters, each in an elaborate box-stall, while there are also twelve box-stalls for the fine trotters. —*Chicago Tribune*.

WINDS IN TOWN AND VENTILATION.—At the recent meeting of the British Association, Mr. J. W. Thomas, F. I. C., of Hampstead-hill, showed a clever model, demonstrating that a gusty wind must produce a down-draught in our chimneys. It is a house with two rooms; in the one a fire burns, in the other is a pressure-gauge in the shape of a counterpoised gas-holder, the interior of the gas-holder communicating with the parlor. On the top of the roof, a fan-blower, worked by hand, sends a current of air just over the top of the chimney. When the fan works, the gasometer goes down, recovering gradually. If, however, the fan is suddenly turned aside, to imitate a gusty wind, the recovery is rapid, and the smoke rushes down the chimney. This was also shown to occur when the wind blew past an open window. If the wind is not naturally gusty, the fact that the air-waves of the lower strata are shorter, but of greater amplitude than those of the higher strata, would lead to the existence of practically stationary points. Mr. Thomas was evidently embarrassed by being tied down to a time-limit, and instead of saying more about the ventilation question, he spoke of the upward currents, eddies, and region of calm forming when the wind is opposed by a cliff, which he had studied at Penarth and elsewhere. These problems are, of course, exceedingly complicated, even to Dr. Larmor. Professor Gray referred to Mr. Shaw's experiments on the proper dimensions of fireplaces. —*Engineering*.

TURF-FUEL.—A report from Consul Hughes, at Coburg, to the State Department contains the following: "At the present price of coal, says a recent German publication, the use of turf for fuel commands our special attention. Hitherto all attempts to use turf as fuel and for the production of gas on a large scale have failed, for the reason that no means existed to dry it cheaply and quickly, nor could it be pressed into a small volume. Turf contains about 75 per cent of water, of which it loses very little in ordinary 'drying.' It is now proposed to reduce turf to pulp and destroy the fibre, after which the mass is easily dried, getting quite hard and furnishing an excellent charcoal. There is no reason why this turf-coal should not be used for electric stoves and in the manufacture of carbide-of-calcium. In distilling the turf-coal, paraffine, ammoniac, and a strong illuminating-gas are found. In using it as a fuel for locomotives a heat equal to that of 93.25 per cent of the best coal has been attained, while it shows only 2.62 per cent of ashes, thus being equal in purity to high-grade Derbyshire coal. The cost of converting turf into coal has been calculated at 61 cents per ton. —*Exchange*.

NEW YORK'S PARK-AREA.—The park-area in Manhattan and Richmond is given as 1,288,287 acres; in Queens and Brooklyn, 1,573,378; in the Bronx, 4,057,880; total area for the city, 6,919,545 acres. During the season of 1898 there were grown in the Central Park green-houses plants valued at \$12,381; 8,050 trees and shrubs were set out, 40,000 herbaceous plants and ferns, besides 4,400 vines and creepers. Two parks in Manhattan were completed in 1898—Hudson Park and Harlem Lane Park; five others were uncompleted at the close of that year. —*N. Y. Evening Post*.

THE AMERICAN ARCHITECT AND BUILDING NEWS

ADVERTISERS' TRADE SUPPLEMENT.

No. 222.

SATURDAY, NOVEMBER 3, 1900.

VOLUME LXX.
No. 1297.

THE MONARCH WATER-HEATER.

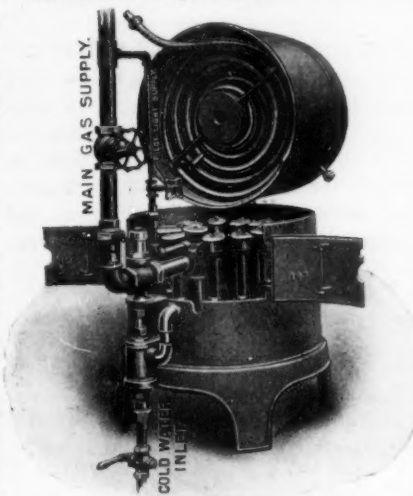
Hot water has become a necessity of modern everyday life. To those who have the responsibility of the care of children or the sick the importance of hot water cannot be over-estimated. In many kinds of sickness it is the best and quickest of all remedies. With a Monarch Heater in the house hot water can be obtained, night or day, by simply turning faucet.

The luxury and convenience of always having hot water when wanted would make the Monarch cheap at five times the cost. Every one has had the experience of wanting a bath when some one else had been before them and used all the hot water. To those supplied with a Monarch this experience is impossible, as it supplies hot water for one or twenty baths just as wanted.

It is not necessary to build a house to have a Monarch Water-heater. It can be placed in any house that has a system of water-pipes. All that is needed is to disconnect the old boiler and attach the heater, and this done no one will willingly return to the old way.

Under the old way, with water-back and boiler, the results were an unknown quantity of warm or tepid water, unless a red-hot fire

becomes available at all times. Heat is confined to heating the water—no radiation—no discomfort. Always ready, day or night. No work, no dirt, no ashes.



The Columbia Automatic Water-heater.

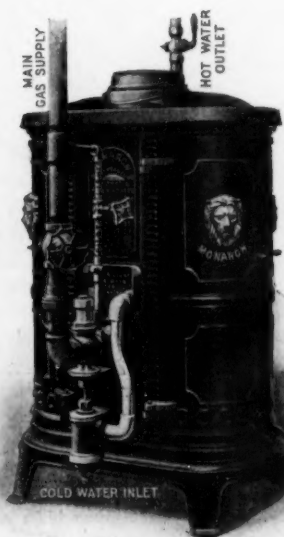
The Columbia dissected, requiring one and one-half minutes to do the work. Ready for inspection or repairs. Monkey-wrench and screw-driver only tools required.

construction or the operation of these heaters. From both a theoretical and practical standpoint they are founded on common-sense lines. As some of our readers may not fully understand why and how certain results which we guarantee can be accomplished, we present the following:—

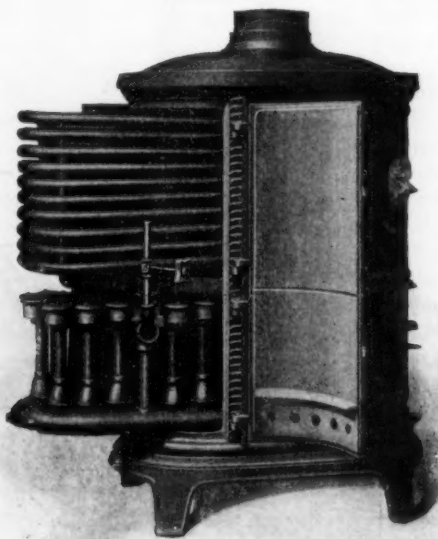
In using gas as fuel, unless complete combustion is obtained, the gas is wasted and carbon formed in the burner, and upon anything to which the heat is applied, thus retarding the effect of that portion of the gas that is properly burned. In our patented Multiple-Effect Gas-burner we obtain complete combustion, so that the full benefit of the gas is obtained and the formation of carbon avoided. We are especially proud of this burner, not only on account of its ingenious arrangement, but also its effective and economical consumption of the gas.

The Monarch Water-heater is made from a long line of copper tubing, coiled inside of an iron jacket. This coil of copper pipe is arranged over the gas-burner in such a manner as to utilize all the heat produced by the burning gas.

Attached to the coil at one end and to the gas-burner at the other is placed our patented



Monarch Heater.



Monarch Heater, dissected.



Columbia Heater.

has been burning for an hour or more. For hot water at night the fire had to be kept up. In summer this meant misery in the kitchen, and waste of fuel.

But under the new way, with the Monarch Water-heater, unlimited quantity of hot water

The heaters are portable and may be removed as readily as a small stove.

The exterior is all of cast-iron coated with black enamel and gold bronze. No asbestos padding necessary.

There is nothing mysterious either in the

Graduating Valve. This is a combined water-and-gas valve, and is so constructed that the flow of water through it raises the gas-valve, which allows the gas to pass into the burner to heat the water in the copper coil. The closing of the faucet shuts off the gas the

instant the water is no longer being drawn. The striking feature of this automatic water-and-gas valve is the graduating of the flow of gas to the flow of water, so that whether there are two gallons or four gallons of water passing through the heater, a proportionate amount of gas is allowed to pass into the burner, and in this way the temperature of the water drawn is always uniform, and economy in the use of gas is effected, as only the amount necessary to heat the water drawn is allowed to burn. This feature is covered by a special patent.

The Pilot Light, also patented, is a clever little arrangement on the burner that is always ready to ignite the gas in the burner when the water turns it on, and is so made that it is almost impossible for it to blow out.

The heater is set up in the cellar or any other convenient place and the water connections made, so that all water desired to be heated must pass through the heater; the gas, either artificial or natural, is connected in the burner; the pilot-light is lighted, and the heater is ready for work. By turning on any hot-water faucet in the house the water is started through the heater. This turns on a supply of gas, which the pilot-light ignites, and within thirty seconds you have hot water flowing from the faucet.

Many people who have been paying for gas used for illuminating purposes are somewhat dubious about using gas for fuel, on account of supposed high cost. While it is true that the units of heat contained in coal are many times cheaper than the same number of units of heat contained in gas, yet, under some conditions, gas is the cheaper fuel. When it is necessary to apply the heat in a large way and for a long time, as, for instance, under a steam-boiler, of course coal is much cheaper; but where the heat is only wanted intermittently and but for a short time and in a small way, gas at any ordinary price will prove the cheaper.

In burning coal for domestic purposes it is estimated that nine-tenths of it is wasted, *i. e.*, goes up the chimney, heats up the range and the tile in the range, heats up the kitchen, and to some extent the entire house. This waste of fuel when heating with coal is most marked when heating the water with an ordinary water-back and kitchen boiler. The water-back and boiler came into general use about thirty years ago. Since that time there has been no improvement to speak of in this plan of heating water.

The storage boiler is a wasteful device, as quantities of coal are consumed to heat the water it contains, when the chances are that this water will have cooled off before it is wanted. With any storage system of water-heating this alternate heating and cooling keeps up day and night, so that every gallon of hot water used has been heated and reheated some half dozen times, becoming stale and flat, totally unfit for the bath.

The ordinary sized kitchen boiler contains forty gallons of water. The average range water-back, to heat this water, has 108 square inches of heating-surface.

The Monarch Water-heater, No. 1, has 3,078 square inches of copper heating-surface, and contains just two and one-half gallons of water at one time.

When you compare these figures do you not see why it is cheaper as well as more convenient to heat water with gas in a Monarch Heater than with coal in the old-fashioned way?

When tested at the factory before shipping, $3\frac{1}{2}$ cubic feet of gas will heat four gallons of water. To be on the safe side,

however, in counting cost of heating water with gas, we figure that 1 foot of gas will heat one gallon of water; therefore, with gas at \$1 per thousand cubic feet, it will cost five cents per day to heat fifty gallons of water, which quantity should be sufficient for an ordinary family, and is more than can usually be obtained from a kitchen boiler. With natural gas, at twenty cents per thousand feet, it will cost just one cent per day to heat seventy-five gallons of water.

We guarantee all heaters to be perfectly constructed, and delivered in perfect mechanical condition, ready to work.

We guarantee that with artificial gas testing 700 heat-units, 1 foot of gas will heat one gallon of water from a temperature of 55 to 130 degrees.

A heater set up in accordance with the furnished directions is guaranteed to do the work. If, after a 30-days' trial, it does not heat the desired quantity of water with the consumption of the amount of gas as stated above, it may be returned and the full price paid will be refunded.

MONARCH WATER-HEATER CO.,
306 WOOD ST., PITTSBURGH, PA.

AUTOMATIC SCUTTLE-OPENER.

If architects always had on the job a foreman such as we had on several jobs, a "natural-born" genius who delighted in nothing so much as in doing things no one else could do, getting out from an awkward position not only with credit but really with glory, and making constant displays of unsuspected me-



Automatic Scuttle-opener.

chanical ingenuity, their lives would be far pleasanter.

We remember regarding with unbounded admiration the device our foreman invented for opening an unusually heavy scuttle in a deck-roof, for it seemed as if only one versed in conic sections could have done the trick in so simple and elegant a fashion; the result being that even a child, standing on the steep

ladder with head against the scuttle, could with the turn of a hand throw back the heavy weight.

But architects do not always have heaven-born geniuses for foremen or their jobs, and as they are always getting into trouble over roof-scuttles, it is worth while to call their attention to a scuttle-opener now put on the market by G. Bickelhaupt, 243-5 West 47th Street, New York City.

This new device does not obstruct the opening, and the sash can be easily opened from the floor below, and will remain open.

It is operated with one rope, which both opens and closes the scuttle.

When closed, it is self-locking, two bolts making it impossible to open it from the roof.

In case of fire there is no climbing of ladder to unlock scuttle. One pull of the rope opens bolts and scuttle, which remains open, allowing an escape by way of the roof.

It can be partially opened (for ventilation) without the inconvenience of climbing up the ladder to unfasten bolts.

It is made of wrought and malleable iron, and constructed so that it will not break or get out of order.

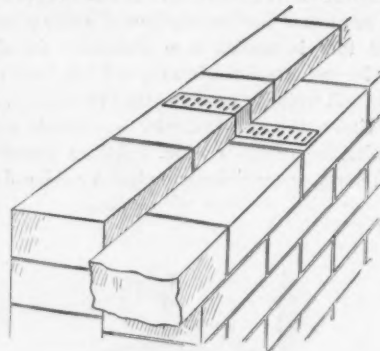
And, finally, it is simple in construction, and can be placed on present scuttle by any person at small cost.

G. BICKELHAUPT,
NEW YORK, N. Y.

PATENTED SPECIALTIES.

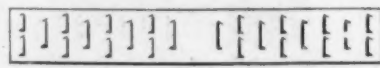
MESSRS. HURD & Co., of 570-576 West Broadway, New York City, are introducing a few new patented specialties, in conjunction with their patented wire form of New York Wall Tie, for the building trade.

They have recently brought out a sheet-metal wall-tie which is shown here in the accompanying illustration. In the rougher and



Wall-tie.

cheaper construction of brick walls where wall-ties have been used, a growing need has developed for a wall-tie which is readily bent in order to conform to the unevenness of the brick wall. The top of one brick may set from $\frac{1}{4}$ to $\frac{1}{2}$ an inch below the adjoining brick to be bonded, and this new sheet-metal wall-tie has been brought out to meet this condi-



Wall-tie.

tion. The strip of metal has been sheared and formed so that inwardly directing projections ensure a perfect grip. These sheet-metal wall-ties are $8\frac{1}{2}$ inches long, $1\frac{1}{4}$ inches wide, and are made from .025-inch cold-rolled steel. It is known as the New York Sheet Metal Wall Tie. They can be made any length desired, and the above-named firm will be pleased to send samples and quotations on application.

Atlas PORTLAND CEMENT

The
Standard
American Brand.

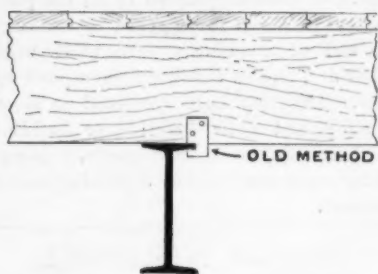
Used Exclusively in the Following New York Buildings:

HAVEMEYER STORES	SINGER BLDG.
ST. PAUL BLDG.	UNIVERSITY CLUB
AMERICAN SURETY BLDG.	N. Y. LIFE INS. BLDG.
BANK OF COMMERCE	STANDARD OIL BLDG.
JOHNSTON and PRESBYTERIAN BLDGS.	
AND MANY OTHERS.	

Atlas Portland Cement Company

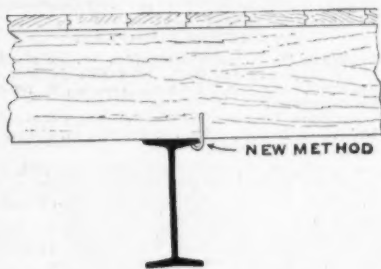
143 LIBERTY STREET
NEW YORK

Another specialty which they are bringing out is a sleeper-clip, made of $\frac{3}{8}$ -inch steel wire. The accompanying illustrations show the old method of accomplishing the same purpose, and also the application of the New York Sleeper Clip. It will be clearly seen that there was not only the labor of holding



OLD METHOD

the large piece of sheet-iron in place, but there was additional labor in driving two nails. By the new method, the New York Sleeper Clip is all in one piece and it merely has to be driven into the sleeper, the sheared point allowing it to drive as readily as a nail.



NEW METHOD

They are more convenient to handle and are more readily driven to place than by the old method. They are much cheaper than the old style, and can be ordered any size or length. These sleeper-clips are carried in stock by Messrs. Hurd & Co., and samples and quotations will be given on application.

HURD & CO.,
NEW YORK, N. Y.

METAL CEILINGS.

METAL ceilings are suitable for churches, schools and colleges, hospitals, armories, court-rooms, libraries, theatres, assembly-halls, auditoriums, hotels, restaurants, cafés, banks, offices, lodge-rooms, etc., as well as for residence-buildings.

They are applicable to old plaster or wood; hence can be introduced not only in new structures, but also in old ones.

They are easy to handle and apply.

They are safe. Their weight is but a fraction of that of plaster; thus the strain on the trusses is greatly reduced. There is no danger of their loosening and dropping off. (The liability of plaster to fall makes it ex-

ceedingly dangerous and a menace to life, limb and property.)

They protect the woodwork and greatly retard the spread of flames, and for this reason they are heartily endorsed by underwriters.

They are thoroughly sanitary. The joints are dust-proof. The ceiling is non-absorbent, easily cleaned, and easily kept clean.

They are durable and permanent. They are not injured by water; a leaky roof or water-pipe will not do them the damage it would other kinds of ceiling. They are not loosened by jar or vibration. They do not shrink, warp or crack and are not affected by the ordinary wear and tear that proves so disastrous to other ceiling materials.

They are economical. Their moderate first cost and superior lasting qualities make them the most economical ceilings in existence.

They are highly decorative and ornamental. This is especially true of Berger's Classified Designs, which have an elegance and artistic harmony of treatment exclusively their own.

THE BERGER MFG. CO.,
CANTON, O.

NOTES.

EVEN when one knows where there is to be found, by mail, a well-stocked drawing-materials establishment the information is only half useful unless the dealer knows how to catalogue his goods properly, and keep his catalogue revised to date.

The Keuffel & Esser Co., 127 Fulton St., New York, do both of these things, and have just issued an enlarged and revised edition of their catalogue, so that it now bulks up to nearly five hundred pages, fifty of which contain fresh matter descriptive of new varieties of goods.

Little by little architects, draughtsmen and contractors are finding out how labor-saving and time-saving it is to acquire a good working knowledge of the mysteries of the slide-rule. This particular line of goods the Keuffel & Esser Co. have greatly enlarged, and they now carry slide-rules in many sizes, varied shapes and different materials, useful either for office use or in such compact form as not to incommode even the most crowded pocket.

Like good business-men, the Keuffel & Esser Co. know that little business can be procured through a slovenly and ill-printed catalogue and they have taken this opportunity to replace many a worn cut with a fresh electrotype, so that even with the brand-new additions the catalogue does not suggest an old cloak with new patches.

By itself, even when cast in ornamental

form, a brick is not a particularly imposing article, and taken by itself can at all times be held hardly more than an "unconsidered trifle." Yet, being practically imperishable, it is worthy of all the care and skill that the manufacturer can bestow upon it, and it is because American brickmakers of to-day have bestowed so much care and skill in the mixing, moulding and burning of their bricks that the modern brick buildings are so interesting from the point-of-view of color and texture.

Amongst these painstaking brick-makers is the Columbus Brick & Terra Cotta Co., of Columbus, O., whose new catalogue is before us. The catalogue, which shows many good and interesting "shapes," is illustrated on alternate pages by large half-tone cuts of buildings in which the Company's product has been used.

Incidentally these illustrations furnish an interesting commentary on the position assumed by manufacturers of all kinds, who decline to place their advertising in what they are pleased to call an "Eastern publication," on the plea that their goods are of such a kind that it does not pay to meet freight-charges in placing them in other than their local market. These illustrations show that the weighty and bulky product of the Columbus concern finds a use and welcome as far away from home as Washington, Minneapolis, New York, Brooklyn, Detroit, Windsor, Nova Scotia, etc.

SINCE Harrison Bros. & Co., Inc., Philadelphia, New York and Chicago, began making Varnishes on an extensive scale, the demand for them has steadily increased; so that now their facilities for producing them are taxed to the utmost. The quality of these goods is of the same high standard as their White Lead, Paints and Colors, and it is hardly necessary to say that no effort will be spared to maintain it. The best material, the highest degree of varnish-making skill, the most approved processes and the most modern apparatus, form a combination the resulting product of which cannot be equalled by any other manufacturer.

Strict attention has been given to the elimination of the various deviltries to which varnishes are addicted. The advantages of using the "Harrison" Varnishes are clearly set forth in the leaflet "Why You Should Use Harrisons' Varnishes," which will be sent, on request, together with descriptive price-list.

THE American Bridge Company have commenced making very large shipments on account of the steel-work for the Subway in New York City. Already about 2,000 tons have been shipped, and the material is now being sent in at the rate of about 100 tons

ALSEN'S PORTLAND CEMENT

Highest Quality, Most Reliable, Best Color, Most Enduring Surface, Greatest Bulk to the Barrel.

NOTABLE INSTANCES WHERE ALSEN'S CEMENT HAS BEEN USED BECAUSE OF ITS SUPERIOR QUALITY.

CATHEDRAL OF ST. JOHN THE DIVINE, N.Y.
WASHINGTON LIFE INSURANCE CO.'S BUILDING, N.Y.
MANHATTAN LIFE INSURANCE CO.'S BUILDING, N.Y.
AMERICAN SURETY CO.'S BUILDING, N.Y.
THE U. S. NAVAL OBSERVATORY, WASHINGTON, D. C.

ELECTRIC R.R. SUBWAY, BOSTON.
METROPOLITAN SEWERAGE WORKS, BOSTON.
SEA WALL, LAKE FRONT, CHICAGO.
BRIDGES OVER HARLEM RIVER, N.Y.

Alsen's Portland Cement Works, New York Office, 143 Liberty Street.

AGENTS AT BOSTON: WALDO BROS., 102 Milk Street.

per day. The total contract comprises about 80,000 tons of structural material, and is being manufactured at the Keystone plant of the American Bridge Company.

THE Holophane Glass Company beg to state that they have removed to their new offices, No. 15 East 32d Street.

CALIFORNIA REDWOOD.

BOSTON, MASS., October 30, 1900.

TO THE EDITORS OF THE AMERICAN ARCHITECT:—

Gentlemen,—Enquiries are constantly coming in as to whether California Redwood is proving satisfactory in this climate. The best answer we can give is to let those who have been using it speak for themselves, and we herein enclose copies of some letters from customers who are using Redwood.

BOSTON, MASS., October 30, 1900.

BARTLETT LUMBER CO., Boston, Mass.

Gentlemen,—Regarding California Redwood, would say that we have handled doors made of that wood very extensively, and are prepared to say that it gives the best satisfaction of any wood we ever handled. Our customers like it for its rich color, standing qualities, and for the fact that it can be finished in the wood, stained or painted, with equally good results.

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Our New York office is having a good many enquiries, and we expect to place a large number in that market soon.

Yours respectfully,

(Signed) E. A. CARLISLE, POPE & CO.

170 SUMMER ST., BOSTON, MASS., October 2, 1900.

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Gentlemen,—I think it but fair to you and the goods you represent, to say that the Redwood Shingles I have been using for the last three years have in every case given perfect satisfaction. I am so well satisfied with their merits, that I specify "Redwood Shingles" al-

most exclusively, and never hesitate to recommend them to my friends.

Very truly,

(Signed) HERBERT W. COLBY.

LAWRENCE, MASS., August 13, 1900.

BARTLETT LUMBER CO., Boston, Mass.

Gentlemen,—In regard to California Redwood Shingles I wish to say that I am more than pleased with the way they are proving. I have been in the business over thirty years and I think they are the best shingles I ever used. The hot sun or wet weather does not seem to affect them. They make a first-class job, and I shall recommend them to everybody.

Very truly yours,

(Signed) J. H. STEVENS.

WEST SOMERVILLE, MASS., October 12, 1900.

LEXINGTON LUMBER CO., Lexington, Mass.

Gentlemen,—Regarding California Redwood Shingles, would say I have used a good many of them, and intend to use them on the house I am about to build, as they cover so much more surface than other shingles. On my last house I tried Washington Red Cedar Shingles and found that it took fifteen thousand to cover the same surface that thirteen thousand Redwood Shingles covered.

Yours truly,

(Signed) G. F. COOK.

It will be seen by the above letters that California Redwood is without question the coming wood for many purposes, in fact, all purposes where pine, whitewood and cypress are now being used, and many where oak and the more expensive hardwoods are used. It is a case where each customer gets other customers, and the call is increasing fast.

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South Orange, N. J.—Extension & repairs to st. church; \$7,000; o., Church of the Holy Communion; a., Stephenson & Greene, 5 Beekman St.

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Saratoga Ave., cor. Bainbridge St., 2 three-sty bk. stores & flats, 25' x 70'; \$20,000; o., Spaeth & Senger; a., W. Debus.

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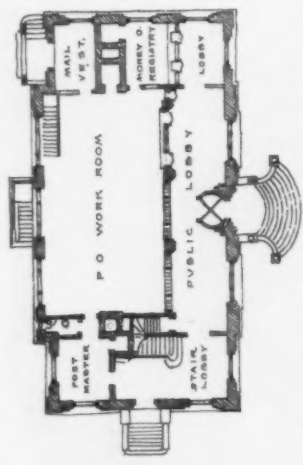
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New York, N. Y.—One Hundred and Sixty-sixth St., Boston Ave., Jackson Ave., five-sty bk. & st. school, 171' x 307'; \$400,000; o., City of New York; a., C. B. J. Snyder, 59th St. & Park Ave.

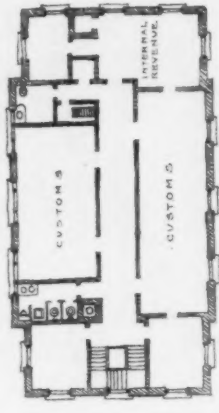
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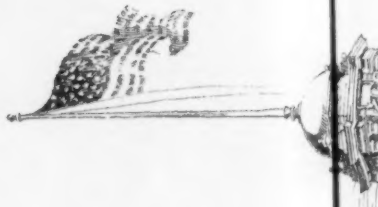
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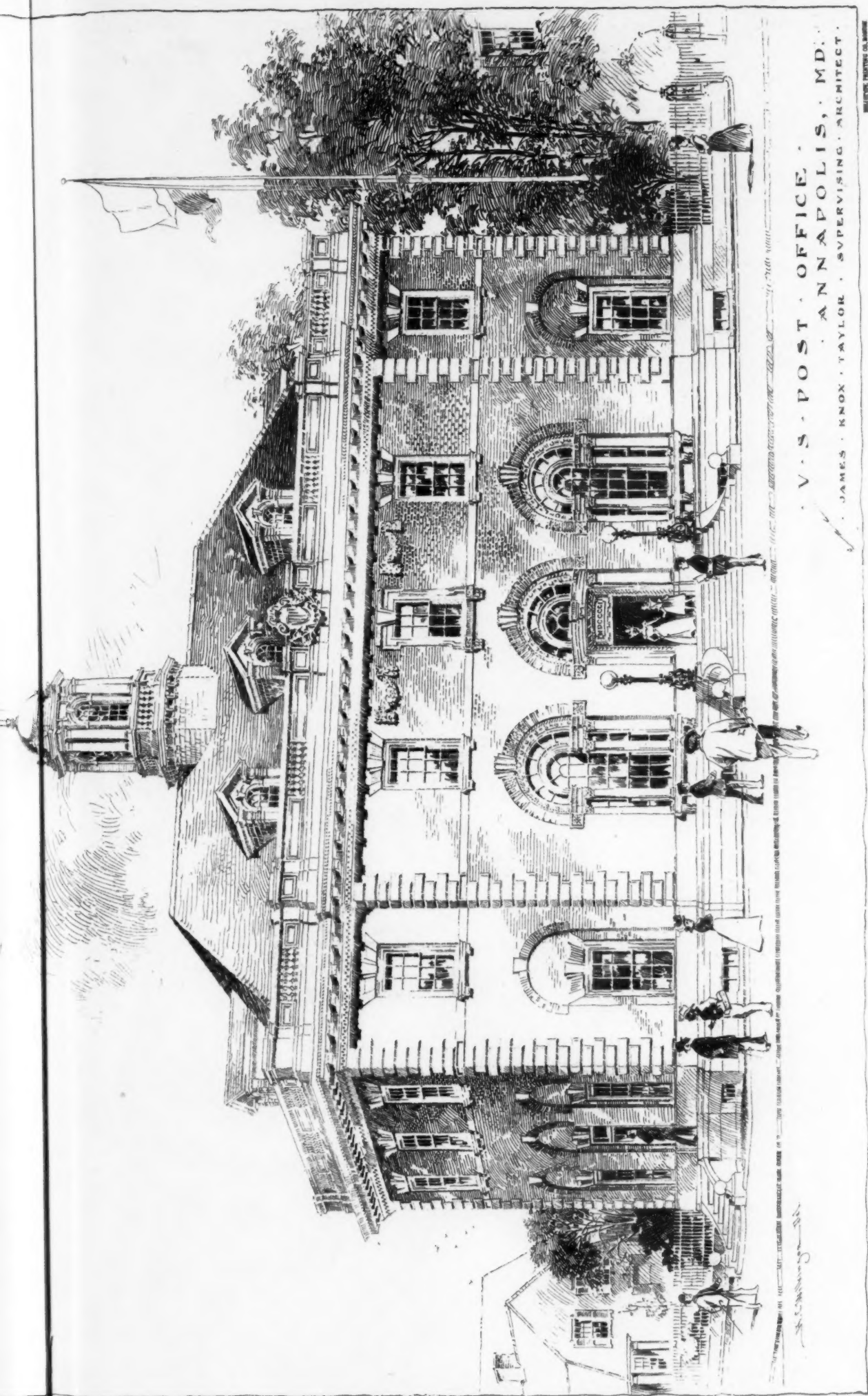


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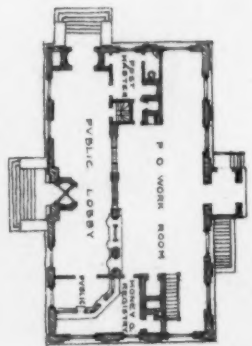
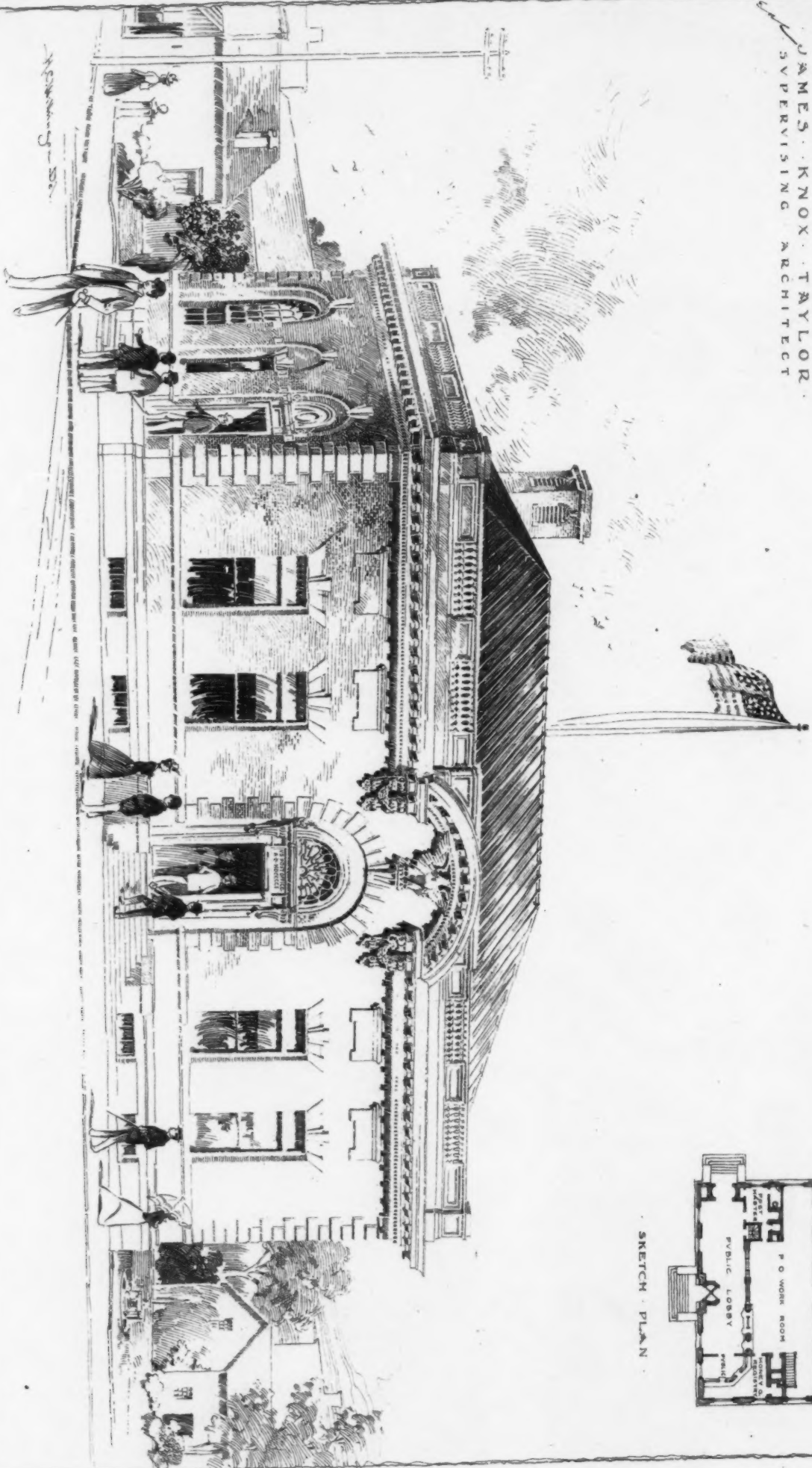


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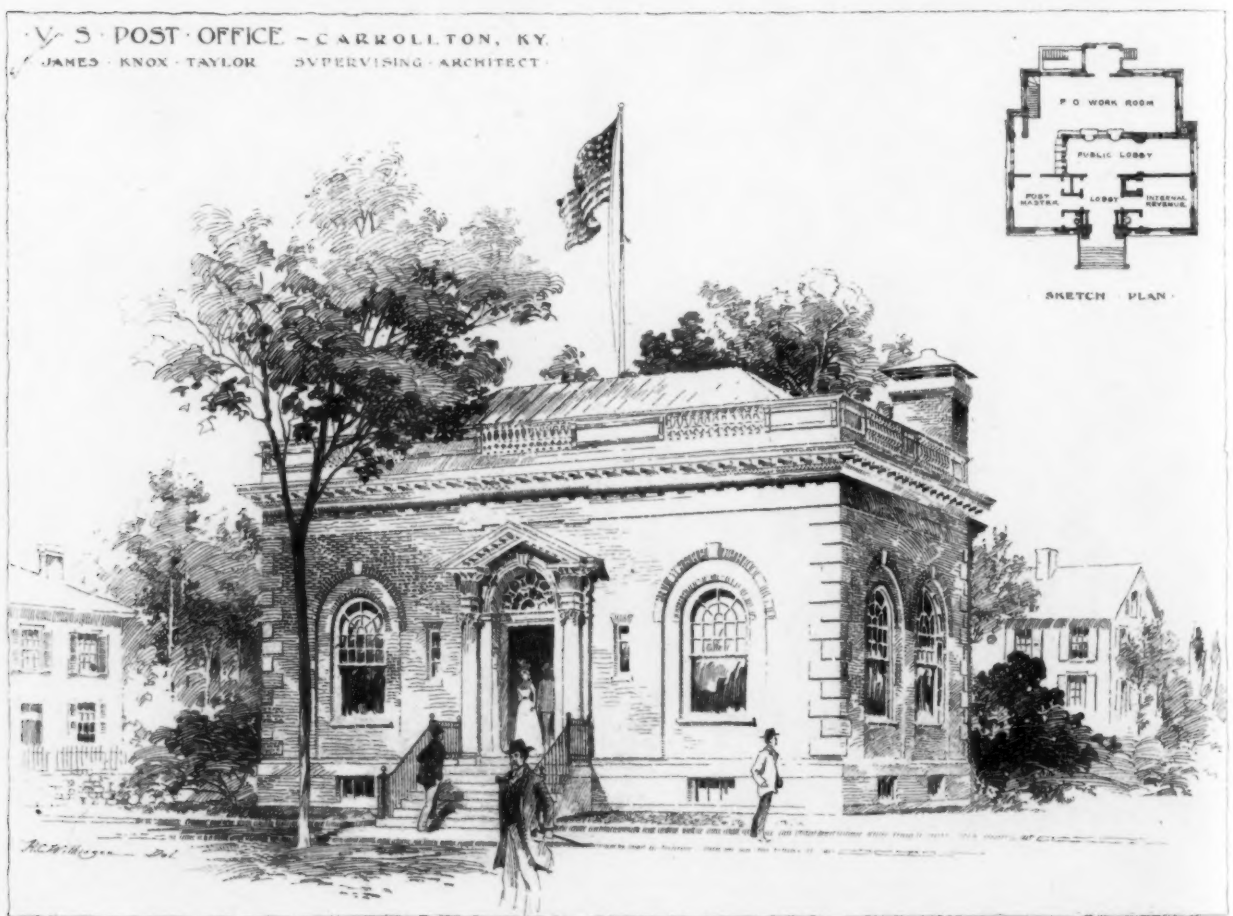
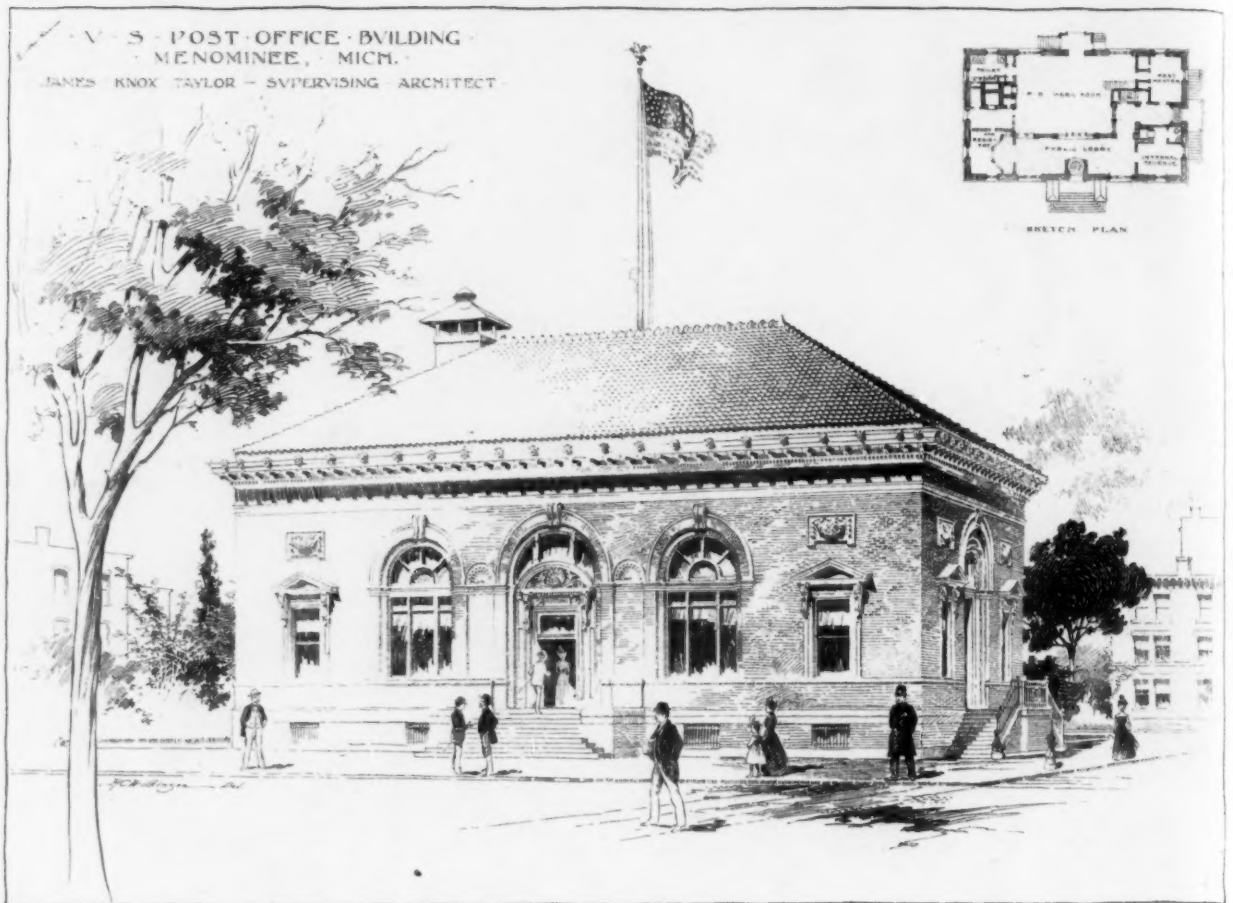
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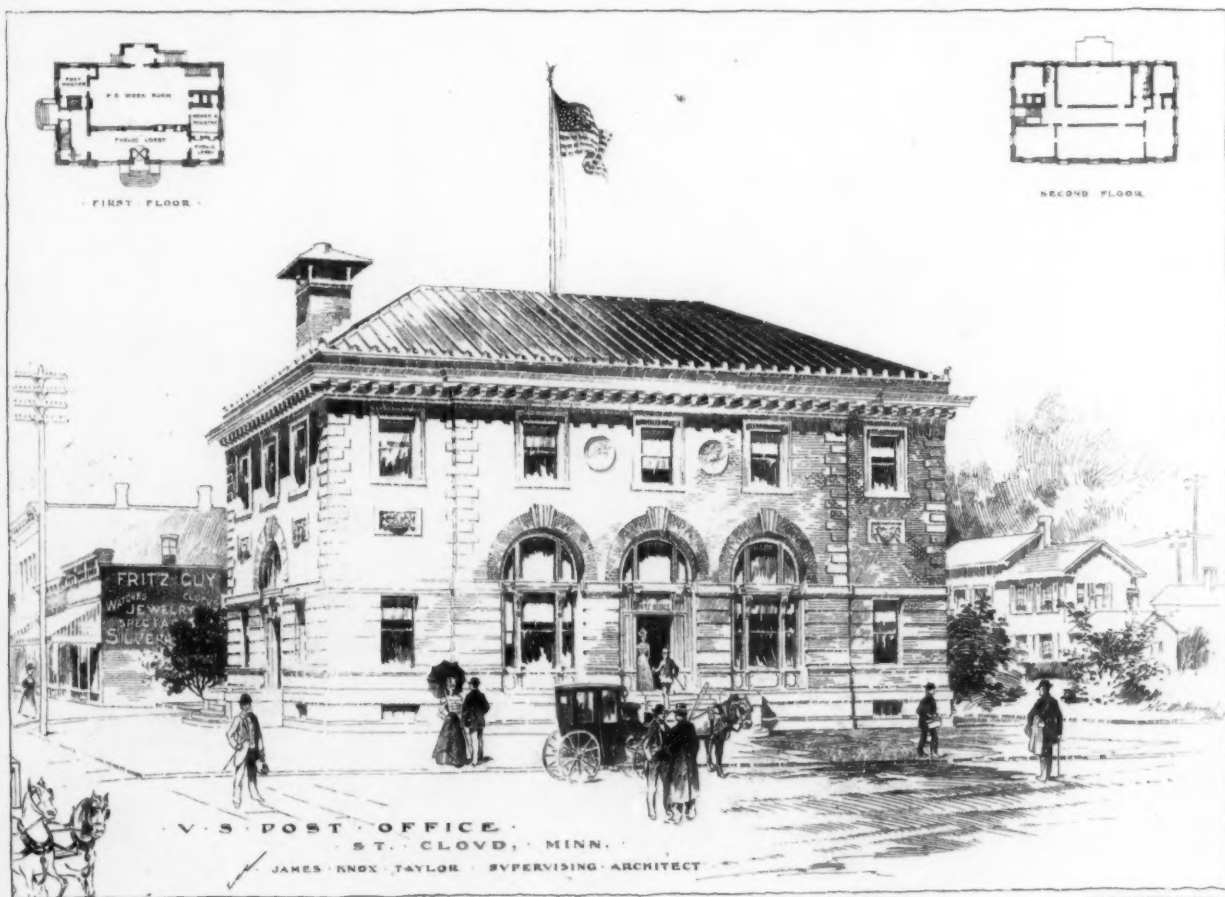
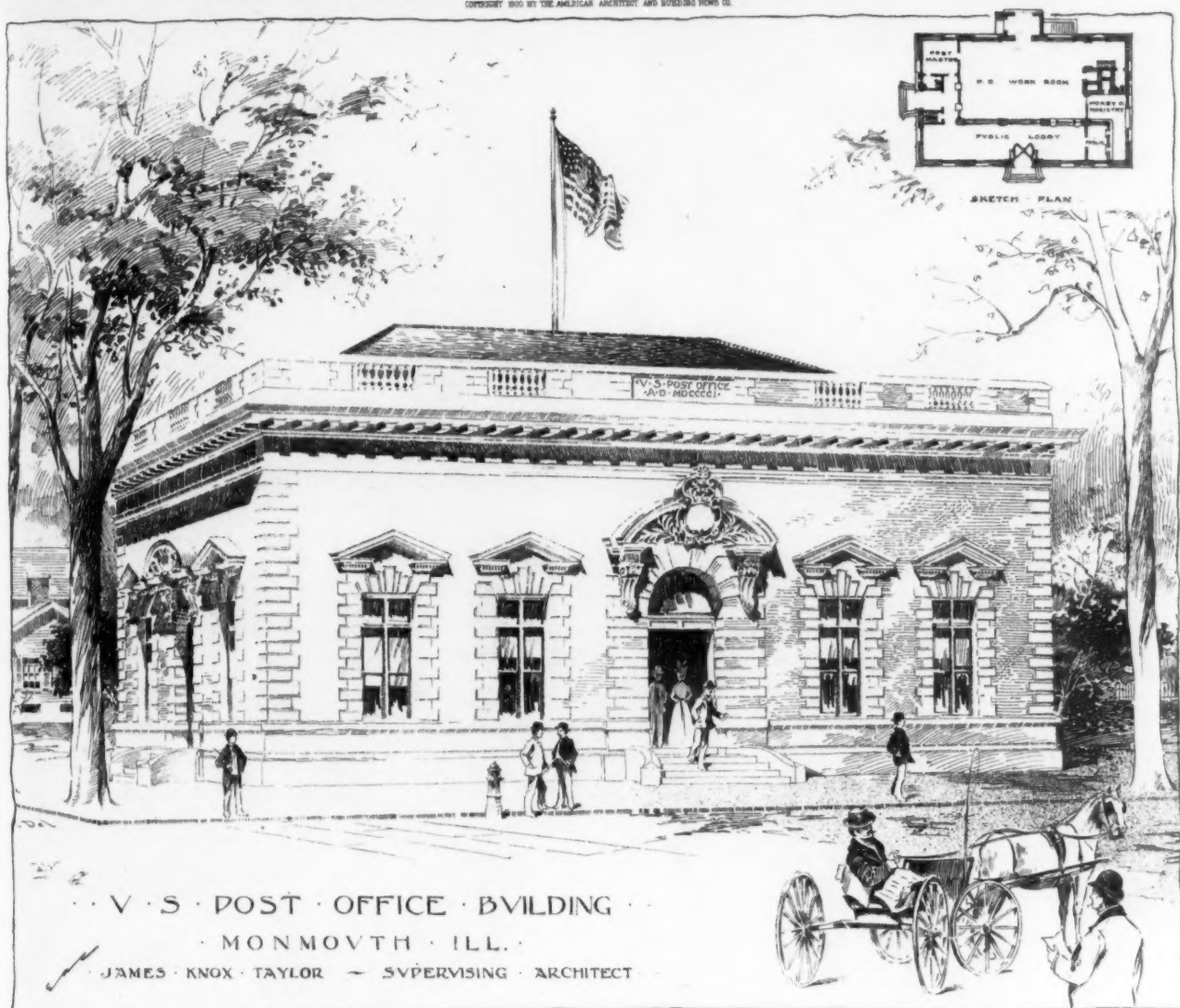
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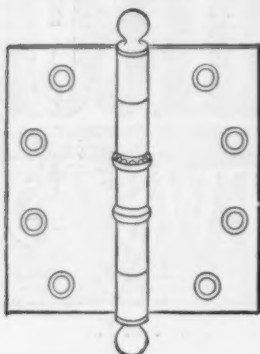
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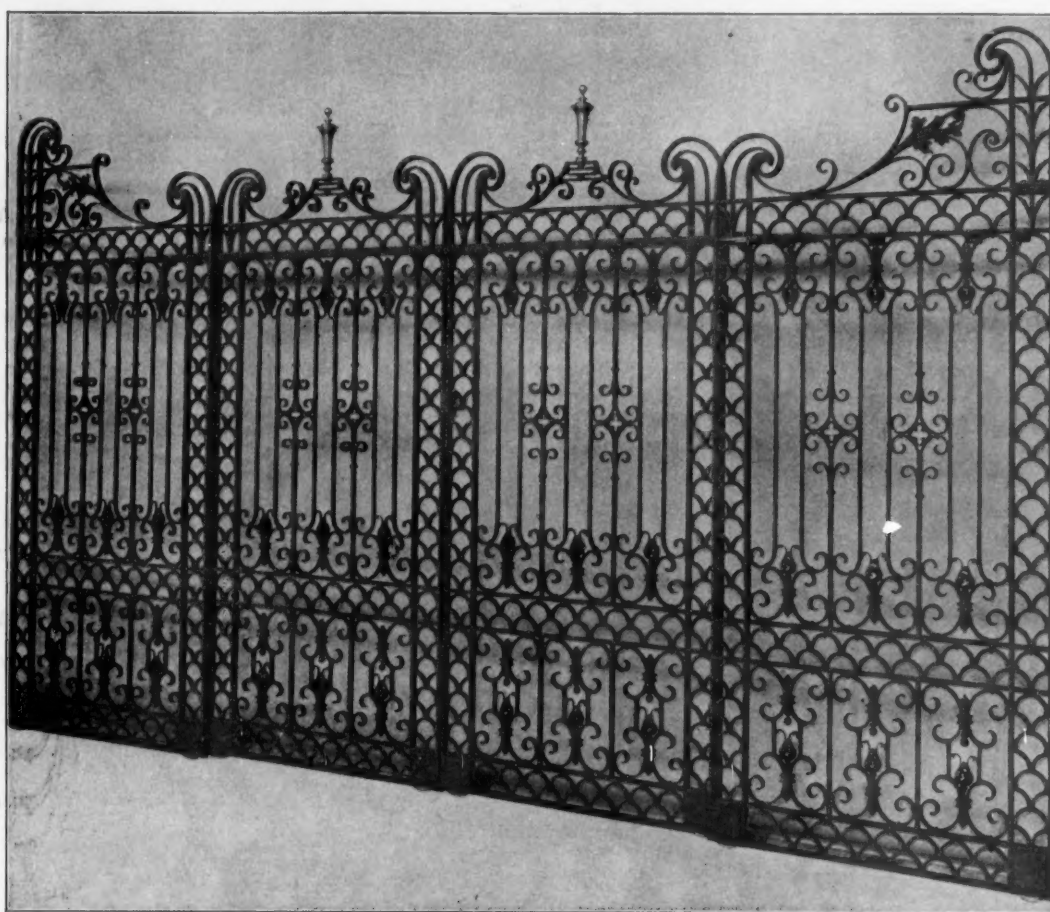
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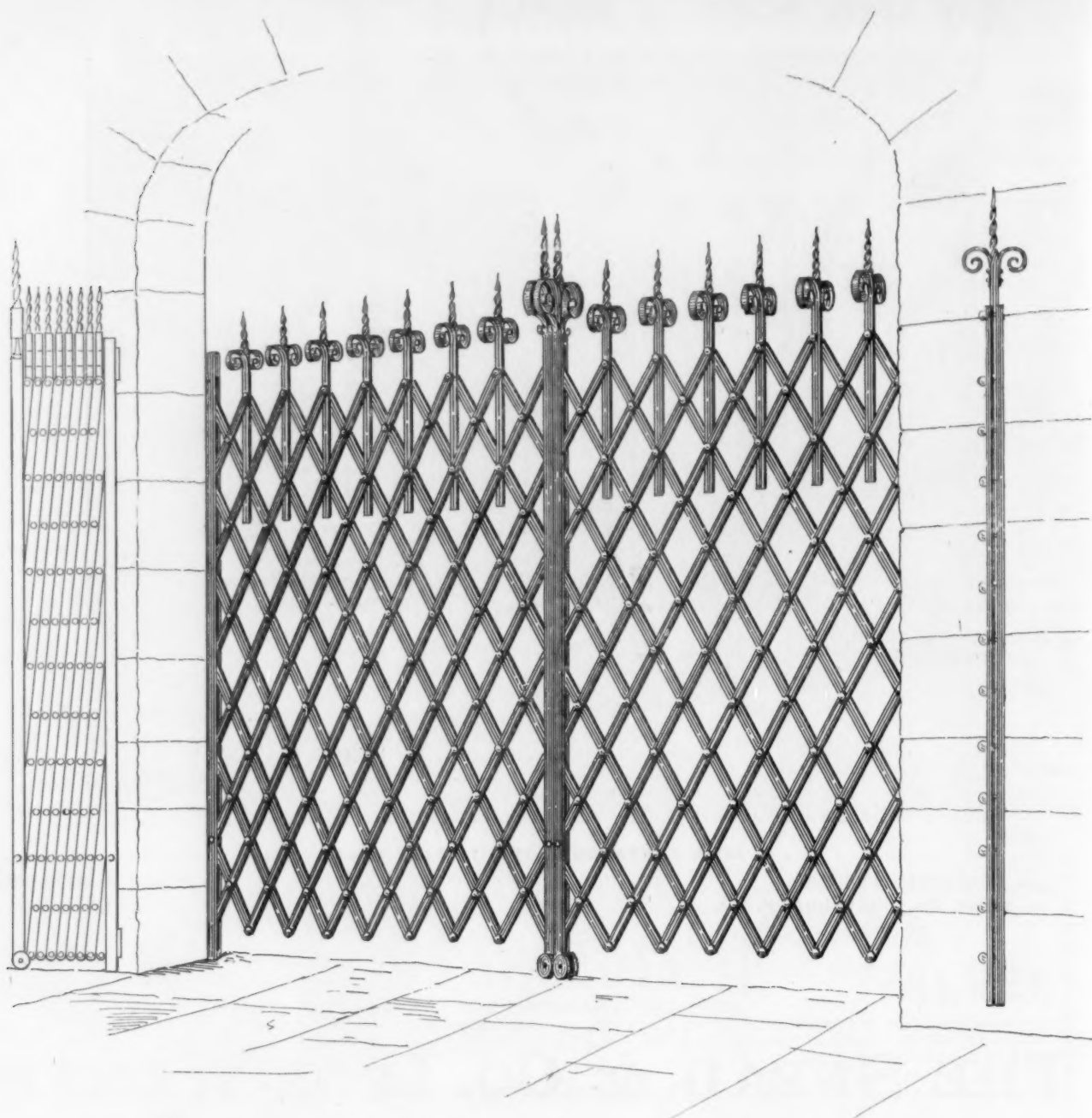
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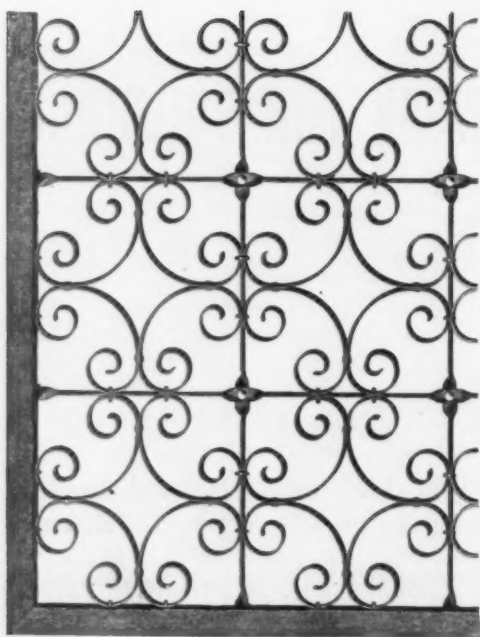
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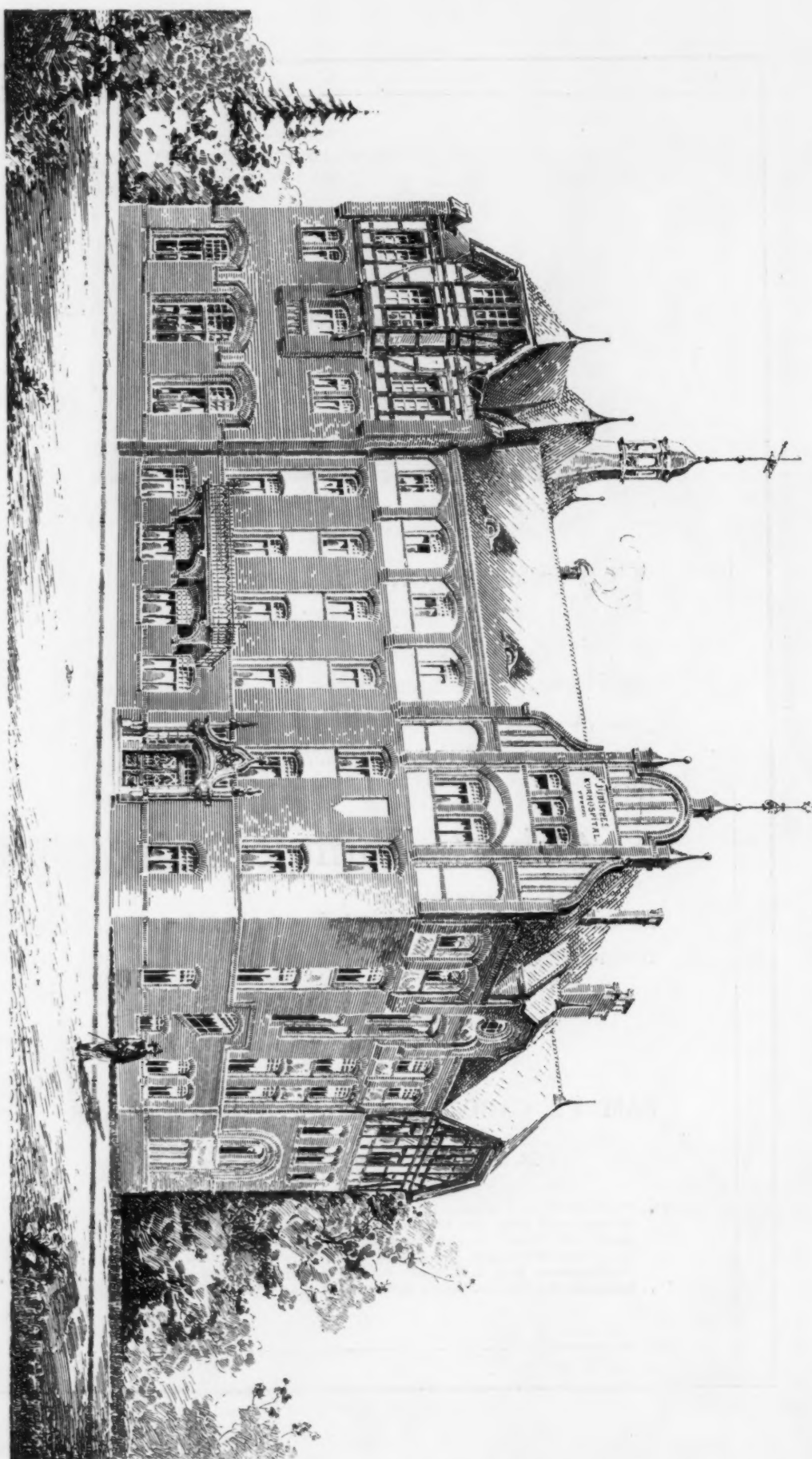
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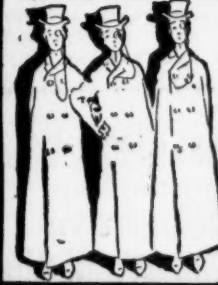
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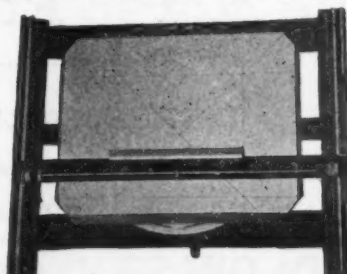
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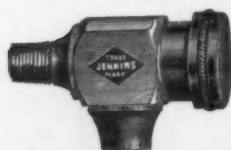
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Hanover, N. H.—Prof. H. E. Barton, of Dartmouth College, is to erect a \$15,000 residence on Webster Ave. Occom Ridge.

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BUILDING INTELLIGENCE.

(Advance Rumors Continued.)

La Crosse, Wis.—The La Crosse Brewing Co. are having plans prepared for a new plant to be established here at a cost of about \$250,000.

Larchmont, N. Y.—Architect F. A. Rooke, 573 Fifth Ave., New York, has prepared plans for a two and a half story brick and frame residence to be erected for Mr. Hugh E. Wakemann, care architect.

Los Angeles, Cal.—The Union Ice Co. is making preliminary arrangements for an ice and cold storage plant with a capacity of 80 tons to be built on Alameda St.; cost, \$70,000.

Magnolia, Mass.—Alonzo D. Wright, 40 State St., is preparing plans for a one and one-half story stable, 71' x 82', to be built for L. J. Knowles, Worcester; cost, \$6,000.

Mason City, Ia.—The Grand Lodge of Odd Fellows has voted to establish the Odd Fellows State Orphans' Home in this city. The building will cost about \$120,000.

Minneapolis, Minn.—Architect E. P. Overmire has completed plans for a three-story brick mill-construction building, 40' x 120', to be erected at 3d St. and 3d Ave. S., for the National Brass & Metal Works; cost, \$18,000.

Monroe, Wis.—Architect A. D. Conover, Fond du Lac, is preparing plans for the proposed brick armory; cost, \$10,000.

Northampton, Mass.—Architects Gardner, Pyne & Gardner, Springfield, have prepared plans for the proposed brick armory to be erected at a cost of \$14,000.

Omaha, Neb.—The Board of Education contemplate the erection of a high school, to cost complete, about \$80,000.

Poughkeepsie, N. Y.—Architect Percival M. Lloyd furnished successful plans for a brick and limestone school to be erected by the city; cost, \$12,000.

South Hadley, Mass.—Geo. F. Newton, Tremont Building, Boston, is preparing plans for a two-story brick and stone building for Mt. Holyoke College to be used as an art school-building; cost, \$60,000.

BUILDING INTELLIGENCE.

(Advance Rumors Continued.)

St. Joseph, Mo.—A new jail will be erected here at a cost of \$100,000.

Syracuse, N. Y.—Architect Geo. F. Pelham, 503 Fifth Ave., New York, is preparing plans for a modern brick, stone and iron apartment-house to be erected for Mr. John Moore; cost, about \$150,000.

Taunton, Mass.—Architect Geo. L. Smith has prepared plans for a two-story frame residence, 24' x 50', and a two-story frame stable to be erected on Field St., for L. A. Field; cost, \$7,000.

Trenton, N. J.—Messrs. Hoopes & Townsend, of Philadelphia, Pa., have contracted with the American Bridge Co. to build a bar mill building, 70' x 500', on the line of the Trenton cut-off of the Pennsylvania R. R.

HOUSES.

Boston, Mass.—*Glenway St.*, cor. Harlem St., 2½-st'y fr. dwell., 31' x 50', pitch roof, furnace; \$5,000; o., a. & b., Victor Wolmer.

Parker Hill Ave., nr. Hillside St., 2 bk. dwells., 24' x 52', flat roofs, stoves; \$10,000; o. & b., C. J. Jacobs; a., S. J. Rantin & Son.

Florida St., nr. Mallett St., 2 bk. dwells., 23' x 48', flat roofs, stoves; \$9,000; o. & b., Isaac Schurman; a., W. D. Smith.

Erie St., Nos. 91-93, two-st'y bk. dwell., 20' x 39', flat roof, stoves; \$10,000; o. & b., Geo. M. Fernald; a., E. M. Fernald.

Coolidge St., No. 22, 2½-st'y fr. dwell., 40' x 60', pitch roof, hot water; \$6,500; o., J. A. Ryan; b., J. P. Cantwell; a., J. A. Butler.

Chilton St., No. 72, fr. dwell., 27' x 50', flat roof, stoves; \$5,500; o., a. & b., David H. Nugent.

Barry St., No. 50, 2½-st'y fr. dwell., 25' x 51', pitch roof, furnace; \$5,000; o., a. & b., M. J. Grady.

Silloway St., nr. Melville Ave., 2 fr. dwells., 27' x 45', 28' x 37', pitch roofs, furnaces; \$11,000; o., Joseph A. Foster; a. & b., K. S. De Witt.

Greenwood St., nr. York St., 2½-st'y fr. dwell., 35' x 44', pitch roof, furnace; \$6,000; o., Jennie Davis; b., G. L. Davidson; a., Charbot & Co.

Darting St., nr. Hillside St., fr. dwell., 25' x 55', flat roof, stoves; \$5,000; o., Mary E. Regan; a., C. J. Regan.

Bowdoin St., nr. Greenbriar St., 2 bk. dwells., 25'

BUILDING INTELLIGENCE.

(Houses Continued.)

x 55', flat roofs, hot water; \$14,000; o. & b., James F. Haddock; a., C. A. Russell.

Silloway St., nr. Melville Ave., 2½-st'y fr. dwell., 29' x 37', pitch roof, furnace; \$5,500; o., Louisa S. Galloupe; b., K. S. De Witt; a., W. H. Smith.

Dorchester Ave., No. 863, fr. dwell., 30' x 41', flat roof, stoves; \$5,500; o., Mary A. Gorham; b., James F. Flaherty; a., W. H. Smith.

Cambridge, Mass.—*Broadway*, cor. Hancock St., 2½-st'y fr. dwell., 32' x 50', hot water; \$7,000; o., Ella A. Woodbury; a. & b., J. S. McLean.

Malden, Mass.—*Loren Park*, 24-st'y dwell., 30' x 40' 6", pitch roof, furnace; \$5,000; o., Lorenzo D. Baker; a., O. A. Ford.

Newton, Mass.—*Highland St.*, two-st'y dwell., 35' x 42', furnace; \$9,000; o., C. G. Robinson; b., W. Keller; a., E. D. Chase.

(Continued in Supplement.)

COMPETITIONS.

SCHOOL. [At Natchez, Miss.]
Sealed plans and specifications will be received at the city clerk's office until November 15 for a new modern school-building. W. G. BENBROOK, mayor.
1298

JAIL. [At Shreveport, La.]
Plans and specifications will be received for a parish jail to cost \$60,000. J. M. FOSTER, pres.
1298

SCHOOL-HOUSES. [At Birmingham, Ala.]
Competitive plans will be received until November 5th for the erection of 3 new school-houses. BOARD OF EDUCATION.
1297

ASYLUM. [At Weyauwega, Wis.]
Sealed bids will be received until November 15 for the erection of an insane asylum for Waupaca

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COMPETITIONS.

County. VAN RYN & DE GELLEKE, Merrill Building, Milwaukee. 1298

PROPOSALS.

Treasury Department, Office Supervising Architect, Washington, D. C., October 27, 1900. Sealed proposals will be received at this office until 2 o'clock P. M., on the 17th day of November, 1900, and then opened, for the installation of a wiring system for the old U. S. Court-house and Temporary Court building adjacent thereto at Baltimore, Md., in accordance with the drawing and specification, copies of which may be obtained at this office or at the office of the Custodian at Baltimore, Md., at the discretion of the Supervising Architect. JAMES KNOX TAYLOR, Supervising Architect. 1298

Office of the Engineer, Third Light-house District, Tompkinsville, N. Y. Sealed proposals will be received at this office until 12 o'clock, noon, Friday, November 30, 1900, and then opened, for furnishing the material and labor necessary for building an extension to the office-building at the Light-house Depot, Tompkinsville, N. Y. Specifications, forms of proposals, and other information may be had on application to D. P. HEAF, Lieut.-Colonel, Corps of Engineers, U. S. A., Engineer Third Light-house District. 1299

SCHOOL-HOUSE.

[At Lockland, O.]

Sealed proposals will be received until November

PROPOSALS.

9th for erecting an addition to the school-building on W. Farrer St. JOHN BLOCKWOOD, clk. bd. education. 1297

HIGH SCHOOL.

[At New York, N. Y.]

Sealed proposals will be received until November 5th by the committee on buildings of the board of education for erecting new building for high school of commerce, 65th and 66th Sts. RICHARD H. ADAMS, et al., commissioners. 1297

COURT-HOUSE.

[At Waco, Tex.]

Sealed proposals will be received at the office of county clerk until December 3 for the erection of a court-house for McLennan County. CHAS. E. MOORE, county clerk. 1299

COURT-HOUSE.

[At Pipestone, Minn.]

Sealed proposals will be received until November 27th for the erection of a court-house for Pipestone county. WILLIAM DAUS, chmn. co. com. 1299

STORAGE BUILDING.

[At Portsmouth, N. H.]

Bids will be received December 1 for constructing a cold-storage and handling plant of about 10,000 tons capacity, and a quay wall, at the navy yard. MORDECAI T. ENDICOTT, ch. bureau yards and docks, Navy Department, Washington, D. C. 1298

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PROPOSALS.

SCHOOL-HOUSE.

[At Kearny, N. J.]

Bids are wanted November 12 for building a school at Halsted St. and Belgrove Drive. JOHN DAVIDSON, JR., sec. bd. educ. 1297

HIGH SCHOOL.

[At Syracuse, N. Y.]

The board of high school commissioners will receive bids until November 15 for erecting a high school at Warren, Adams and Linden Sts. DONALD DEY, president of board. 1298

SCHOOL-HOUSE.

[At Cincinnati, O.]

Sealed bids will be received November 19 for erecting a 12-room school at Edwards and Observatory Roads. JACOB E. CORMANY, chmn. com. on bldgs., bd. educ. 1298

COURT-HOUSE.

[At Atlanta, Ga.]

Bids will be received by the commissioners of roads and revenues until December 5th for material and labor for completing addition and alterations to Fulton County Court-house. H. M. WOOD, clk. 1297

Treasury Department, Office Supervising Architect, Washington, D. C., October 18th, 1900. Sealed proposals will be received at this office until 2 o'clock P. M. on the 20th day of November, 1900, and then opened, for the completion of the interior finish, plumbing, gas-piping, etc., for the U. S. Post-office, Court-house and Custom-house at St. Paul, Minn., in accordance with the drawings and specification, which will be furnished at the discretion of the Supervising Architect on application at this office, or at the office of the Superintendent at St. Paul, Minn. JAMES KNOX TAYLOR, Supervising Architect. 1297

Treasury Department, Office of Supervising Architect, Washington, D. C., October 19, 1900. Sealed proposals will be received at this office until 2 o'clock P. M. on the 24th day of November, 1900, and then opened, for the installation of a wiring system for the U. S. Custom-house at Portland, Oregon, in accordance with the drawings and specification, copies of which may be obtained at this office, or at the office of the Superintendent of Construction at Portland, Oregon, at the discretion of the Supervising Architect. JAMES KNOX TAYLOR, Supervising Architect. 1297

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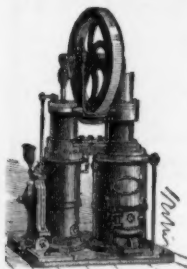
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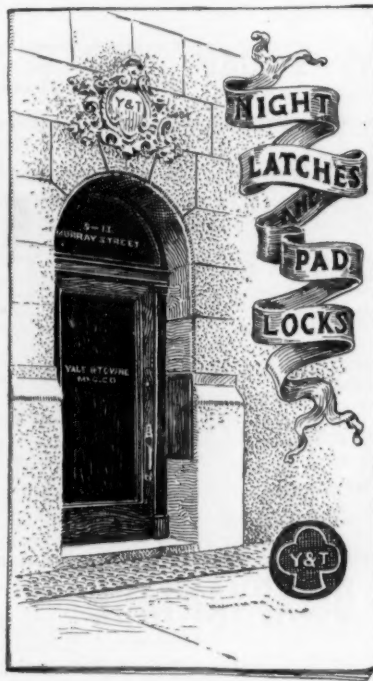


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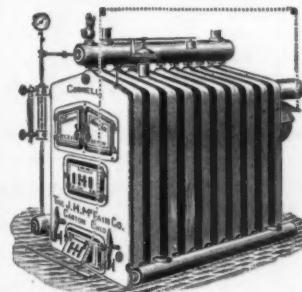
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at this office, or at the office of the Superintendent of Construction at Topeka, Kansas, at the discretion of the Supervising Architect. **JAMES KNOX TAYLOR**, Supervising Architect. 1297

Treasury Department, Office Supervising Architect, Washington, D. C., October 20, 1900. Sealed proposals will be received at this office until 2 o'clock P. M. on the 21st day of November, 1900, and then opened, for the excavation, foundations, basement walls and structural steel for the U. S. Custom-house, New York, in accordance with the drawings and specification, copies of which may be had at the discretion of the Supervising Architect on application to this office or the office of the architect, Cass Gilbert, 111 Fifth Ave., New York. Applications must be accompanied by a certified cheque for \$100 which will be held at this office until the return of drawings and specifications. **JAMES KNOX TAYLOR**, Supervising Architect. 1297

PROPOSALS.

COURT-HOUSE.

[At Linton, N. D.]
The board of county commissioners will receive bids until January 10th for the erection of a court-house for Emmons County. **EDWARD BRADDOCK**, county auditor. 1298

STATE-HOUSE.

[At Jackson, Miss.]
Sealed proposals will be received by the Capitol commission until December 8th for the construction of the proposed \$1,000,000 state-house for

PROPOSALS.

the State of Mississippi. **GOV. A. H. LARGINO**, chairman. 1298

Treasury Department, Office Supervising Architect, Washington, D. C., October 20, 1900. Sealed proposals will be received at this office until 2 o'clock P. M. on the 22d day of November, 1900, and then opened, for the installation of a wiring system for the U. S. Court-house and Post-office building at Topeka, Kansas, in accordance with the drawings and specification, copies of which may be obtained

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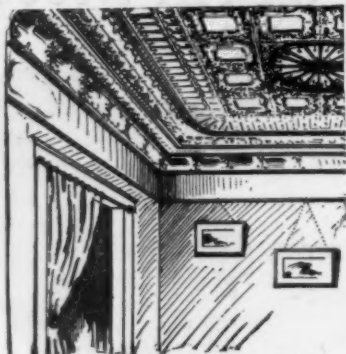
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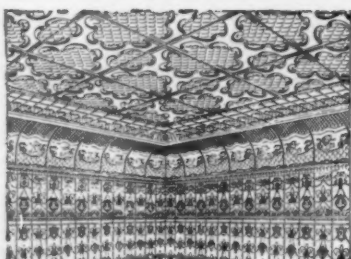
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