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WE feel that no apology is thought necessary from us on account of the long delay in issuing this, the January number. Believing that the circumstances attending the death of Mr. Root, and a memorial of his life and works, were of paramount importance to our readers, the journal has been held back until these could be collected and properly arranged, the time consumed being longer than was at first anticipated.

Death of
Architect
John Wellborn
Root.

On January 15, 1891, John Wellborn Root died after an illness of four days at his residence in Chicago. While at rare intervals it comes to a people or a nation to write such lines, that bear huge import of change and loss, it is still more rare for a class or a profession to see that light which in its initial brilliancy shone so far, and which seemed pregnant with so much greater power, go out suddenly, and leave the darkness felt. In this darkness, we, who were so close to him, are conscious of nothing but his loss, and while we know there are other lights brilliant and strong, soon to be all-pervading, we can now but record this, leaving others to compute its true effect. In the perfect symmetry of Mr. Root's character—where with that rare quality, genius, was blended all the graces of a gentleman—can be found that strange influence which endeared him to every member of his profession, and made up the sum of that which we call his popularity, and gives to the announcement, "John Root is dead," a shock and sense of personal loss. He walked among us, and with him we deliberated in council, we laughed in the hours of recreation, and without knowing it or thinking about it we loved him. We never thought that it was that rare character combining executive ability, knowledge of men, a pure and honest heart, a fearless nature, a love for all things beautiful, an understanding and sympathy with all art and all music, that drew others to him and makes his loss personal. Tomorrow we will look at his work, and as the years go by we will compare it with that of the day, and we will understand its value and its place in the history of the nation's architecture. Unbound by precedent in design, but always grammatical, we have thought him our greatest architect, both in achievement and promise. Other pages will tell his story as well as such a story can be told. His works are about us, and

"His memory will live alone
In all our hearts, as mournful light
That broods above the fallen sun,
And dwells in heaven half the night."

In Regard
to Mr. Root's
Public
Offices.

Of the offices left vacant by the death of Architect John W. Root, that of secretary of the American Institute of Architects, and consulting architect of the Columbian Exposition, it is too soon to speak definitely. In regard to the former, nothing will be done until the April meeting of the board of directors, when a secretary pro tem will probably be appointed. Meanwhile, the office will remain without change, business being transacted in the secretary's name, under the direction of the Chicago members of the Executive Committee, and the advice of the president. There is no probability that a new consulting architect will be appointed. The work was left so thoroughly outlined by Mr. Root, that with the chief of construction in

an official capacity, and the advice of Mr. Hunt, which is always available by the architectural commission, any appointment would seem to be superfluous, if not positively unadvisable.

**The World's
Progress
in Music
Neglected.**

While those directing the Columbian Exposition have amply provided for what they call the liberal arts, and also for everything mechanical and the products of the soil, there seems to be at least a hesitancy in expending money in the erection of buildings whose purpose will be in the line of exhibiting the history and progress of the fine arts. While it is probable that private capital will step in and rescue one of these, painting, from the oblivion of nonrepresentation, that of equal importance, music, seems to have been given no place. In these practical minds an exhibit of electrical progress is all important, for it is something that will probably return a dollar for every one expended; but when it is proposed to show the state of civilization by exhibiting musical progression the astute mind stops and asks, "will it pay?" It is hoped that this is a mistake. That the directory that has so far shown that it knows the value of art as well as the value of money in many ways, will see the immense importance of placing this country upon the plane in musical matters to which it belongs, and provide a temple of music that will not only be a source of pleasure and instruction to our own people, but show to foreign visitors that this most divine of the arts is not a lost or an ignored art with the people of this continent.

**Columbian
Exposition
Architects
Named.**

The appointment of architects for the Columbian Exposition, outlined in our last issue, has been consummated with exceedingly satisfactory results. It is remarkable, in the light of the past treatment of architects in this country by all public officials, that the directors of this great enterprise should place themselves on record in such thorough opposition to all custom, and recognize the profession as a profession, and establish a precedent that will relegate the board of county, state or national commissioners that refuses to appoint architects, and that propose a general competition, to the ranks of the most ignorant, if not the most vicious. In this the World's Fair officials have done the architecture of the future an incalculable benefit, while insuring success in their own enterprise. It must be understood that to the late consulting architect and the chief of construction is due the credit of placing the plan carried out before the directors, and to their influence largely that it should be carried out so perfectly. In the choice of architects, their thorough knowledge of the requirements and of the ability of the several appointees was of the greatest value, and so recognized, that every suggestion of theirs was carried out. The five architects to whom are intrusted the buildings that group with the central building, devoted to manufactures and the liberal arts, will work them out as one scheme, and largely under the direction of Mr. Hunt. The special building which each firm will design is not announced, but Mr. Hunt will of course design the central building, and probably Mr. Post the agricultural, McKim, Mead & White the electricity, Peabody & Stearns the machinery, while the administration building could be given a most dignified and scholarly effect by Van Brunt & Howe. Of the remainder it is probable that the known ability of Adler & Sullivan to solve the problem of how to best handle a crowd in a

building, has given them the transportation building; the mining interest could not be better subserved than in the hands of Mr. Beman; Mr. Cobb, who does everything well, will design a building for exhibiting the products of the sea that will be as delightful in design as it will be appropriate. In the entrances, one of the most important features from a point of design in the entire work, Burling & Whitehouse will present some interesting compositions; and Mr. Jenney, who, next to Mr. Olmsted, is best known in the line of landscape architecture in this country, will combine this knowledge with his architectural ability, to make the horticultural building one of the chief features of the fair.

**Proposed
World's
Architectural
Exhibit.**

We are glad to note that our suggestion some months since in regard to a discussion by the Illinois Chapter of the American Institute of Architects of the best method by which an exhibit of materials used in building construction might be established in the Columbian Exposition, was immediately adopted, and in another column we print a lengthy address upon the subject presented by Mr. Adler at the December meeting. While it is not probable that a special building can be secured by the chapter for this purpose, ample space would certainly be provided from the twenty-two acres which will be given to the liberal arts in the central building. In his paper Mr. Adler particularizes all that we have said in general in regard to the progress of architecture, a congress of architects, a collection of models of important architectural and engineering works, etc. In fact the exhibition, with proper enthusiasm as an impetus and proper management as a guide, could be made, as we have said before, one of the most important and instructive of all the collections of the works of man to be seen at the exhibition of 1893.

**The N. A. B.
and the
Trade School
Question.**

The National Association of Builders has, since its organization four years ago, inaugurated movements that have for their object the highest good of all labor in the building trades. They have, moreover, it seems, made a selection of that which can be the broadest in its results, and affects most closely the wellbeing of all the rest. This is in the direction of the education of mechanics. New York and Philadelphia contain the best and almost the only trade schools of any magnitude in the country, and the Executive Committee, in preparing a programme for the coming convention at New York, have arranged that a day and a half shall be given to the study of these schools by the delegates. It is in thorough accord with the practical quality of the gray matter that pervades the heads of the members of this association that they should, so early in its history, strike the focal point toward which all the rays of labor affairs converge. The members of the Philadelphia Exchange recognized this, and in building their new quarters they provided liberally for a trade school. Colonel Auchmuty, of New York, has long labored in this field, and has established such a one as has no equal in either continent. It has, moreover, been the conviction of the national association from its inception, that upon the development of the trade school idea depends the salvation of the building trades, and this belief can never be emphasized more completely than by ocular demonstration. It is, accordingly, the policy of the association that each delegate shall go home fully versed in the method of operation and work of trade schools.

John Wellborn Root.

BY HENRY VAN BRUNT.

IT is difficult, while yet our hearts are sore with a sense of bereavement, to review with eyes of cool judgment the unfinished life of a man professionally so conspicuous and personally so well beloved as John Wellborn Root. The stroke, which has deprived us suddenly of the gracious bodily presence and the active human sympathy forever, seems to throw over our memory a spell, through which the story of the bright career now closed is changed to poetry, and the voice now silent becomes a song. This pathos of death converts a memorial into a panegyric, unless the impulse of affection to gild and of admiration to extenuate is carefully corrected and chastened.

"For it so falls out,
That what we have we prize not to its worth,
Whiles we enjoy it; but being lack'd and lost,
Why, then we rack the value; then we find
The virtue that possession would not shew us
Whiles it was ours. * * * * *
The idea of his life shall sweetly creep
Into our study of imagination,
And every lovely organ of his life
Shall come appalled in more precious habit,
More moving, delicate and full of life
Into the eye and prospect of the soul
Than when he liv'd indeed."

It is the fortune of every true artist to have the best, the essential part of himself made visible in his works. His mental development has a concrete, tangible expression, which can be studied and analyzed in the light of his achievements. He who would know Root as he really was—a man of genius and accomplishments, of generous impulse, of quick invention, of inexhaustible zeal—must look for him rather in what he accomplished professionally than in the accidents and incidents of his external career. Sir Christopher's epitaph referred not to his monument alone, but to his whole life. I tell the brief story therefore of the events which occurred between the birth and death of our friend, merely to introduce and explain, so far as they may, the man himself, as he more fully revealed himself in the best architecture of the West, upon which his example has undoubtedly conferred many of its most marked characteristics. To interpret the part which he played in that architecture is to give to the world the portrait of his restless and indomitable genius, and it is with this that I am mainly concerned.

His father, Sidney Root, a native of New England, was a wealthy merchant in Georgia before the war, and his mother was a native of that state. John, the eldest son, was born at her southern home January 10, 1850; but, while he was yet an infant, his parents moved to Atlanta, where he spent his boyhood. When the army of Sherman occupied that city the family, by military necessity, in common with other non-combatants of the place, was compelled to leave, taking refuge in the southwestern part of the state, whence presently the boy was sent to England by a blockade runner from Wilmington, N. C., so that he might secure an education more thorough than the conditions of the South at that time permitted. He attended school for three years at Claremont, near Liverpool, and in 1867 passed the preliminary examinations for entrance to the University of Oxford.

Meanwhile his father, still in good circumstances, had moved, after the close of the war, to New York, to which place John was recalled from abroad in 1867. He entered the university of that city and graduated about 1870 with high honors. At school and at college it seems that he was noted for the ease with which he assimilated knowledge, and for the sureness with which he retained it. He was equally renowned, at this part of his career, as an athlete and a scholar. His architectural tendencies were early developed, and his studies in New York were largely directed toward engineering and other sciences allied to his chosen profession.

At the conclusion of his college course he became a student in the office of James Renwick, the architect of St. Patrick's Cathedral in New York. Later he gained valuable experience in the employ of Mr. Snook, then architect for the Vanderbilts.

At this time, his love for music, which throughout his career exercised a strong influence over the habits of his mind, was developed, and he was recognized as a keen critic and as a skilled performer on the piano and organ.

In the spring of 1872, strongly prepossessed in favor of the neo-gothic of the time, he went to Chicago, being attracted by the opportunity offered to the profession by the rebuilding of the city after the great fire. Here, together with his friend, Daniel H. Burnham, he spent a year in the employ of Carter, Drake & Wight, and in 1873 the two young men entered into the partnership, which, beginning under

the happiest auspices, continued through eighteen years of complete mutual confidence, of high achievement, brilliant enterprise and uninterrupted success.

About the year 1879 he married Mary, the daughter of the late J. M. Walker, but she died within a few weeks after the wedding day. Three years later he married the daughter of Henry S. Monroe, Esq. By this happy union he became the father of three children, and they and his widow survive him.

The peculiar alertness and openness of his mind, his hospitality to every form of intellectual appeal, his wide information, and his quick sympathy with art in all its forms, attracted to him the affectionate interest of the most advanced society of Chicago. He was an active member of its best organizations for the encouragement of literature and art. His clients became his friends, and he had the capacity of so impressing them with his force of character and with the generosity of his zeal in their service, that his work was to an unusual extent relieved from the interference of lay prejudice, and expressed, not a compromise, but the attitude of his mind at the moment of composition. He designed with marvelous rapidity and correctness of touch, reaching his conclusions at a bound. In his office he was the wise counsellor and sympathetic friend of the draftsmen. His recognition by the profession as a leader is evident in the fact that he was the second secretary of the Western Association of Architects, its third president, and for six years a member of its advisory board. Upon the consolidation of the association with the American Institute of Architects, under the latter title, he was appointed to the especially responsible office of secretary, and was reelected for the second term at the last annual convention.

He was, with universal acceptance, appointed consulting architect of the World's Columbian Exposition of 1893, at Chicago. During the exhausting preliminary labors connected with that vast enterprise, and while the commission of his brother architects, called from distant parts of the country, was in daily personal contact with him in laying out the great buildings of the exposition at Jackson Park, he was stricken with pneumonia, and, after an illness of only four days, he died January 15, 1891, five days after he had completed his forty-first year, leaving a void which cannot be filled. His last conscious utterance called attention to strains of unearthly music which seemed to soothe his listening ears, from some sphere beyond the reach of time.

The work accomplished by the firm during the eighteen years of its existence is, numerically, of almost unprecedented magnitude, and in quality always interesting and scholarly, frequently brilliant and original, very rarely commonplace or merely conventional. It is generally understood that in the division of labor in the firm of Burnham & Root, the latter had charge of the department of design. But Burnham's influence throughout their whole joint career was undoubtedly very great and very salutary, not only as a restraint to exuberance, and as a power of especial sanity and force in the combination, but as an organizer, who made possible the efficient conduct of its large and complicated affairs, and brought its work into sympathy with the practical views of the commercial public.

A list of his works has been taken from the books of the firm, and represents, approximately, the order in which they were executed. These include forty-four structures of a public character, such as office buildings, hotels, churches, apartment buildings, schools, railway stations, etc., in Chicago; twenty-five of the same classes elsewhere; eight buildings to cost from \$400,000 to \$1,000,000 each, in course of erection, and one hundred and twenty residences of the first-class.*

I cannot review the more important of the many works enumerated without recognizing the fact that they touch, in importance and in quality, the highest points yet attained in the characteristic architecture of the West. Clearly, they differ essentially from any contemporaneous work in other countries, and exemplify, from the earliest to the latest, in their due order, a consistent progress toward some more or less remote point of ideal perfection. But we have yet to discover whether this point is attainable on the lines which he followed. There are fewer indications in this series of the forcing of structure into archæological or academic molds than can be found in any modern European examples of corresponding buildings. Indeed, it seems evident that no architectural form has been imposed upon these monuments, but that their decorative character has, to an unusually large extent, grown out of their conditions of structure and use. At almost every point this healthy development has been protected from extravagance, affectation, caprice or vagaries of invention by a fine spirit of discipline and self-restraint, and by a delicate feeling for purity of

* See complete list on page 91.

line. Like all the other characteristic work of the West, this is based distinctly on romantic, as opposed to classic motifs, and there are few indications in these examples of any aim to conserve the formulas of the schools in the matter of design, though Root had the true spirit of the Renaissance ever in his mind and on his lips. "No lasting success," he said, "comes to an architect who is not grounded in classics. Life is not long enough for one to himself discover those laws of beauty which thousands of years have evolved for architecture."

Root's mind was of studious habit, and though especially subject to artistic emotions and open to a quick appreciation of beautiful form in every style, he rarely suffered the enthusiasm of the moment to betray him into archaeological masquerades. With a mind so thoroughly equipped with knowledge of the history of art, and a library so full of the most tempting precedents in other styles, he never fell into the student's error of eclecticism, but remained in all his conspicuous works loyal to that essential spirit and range of progress which had its roots in the archaic romanesque of Southern France, and may have its flower, we venture to hope, in that illimitable country of the West which was a wilderness unknown when the craftsmen of Auvergne were carving the grotesques of the porches of Arles and Trophime eight hundred years ago.

If one were asked to define what constitutes a living art, I am mistaken if he would not recite conditions of practice in design not unlike those which I have outlined in this general view of the work executed under the impulse of this bright intelligence. It had opportunity and temptation to express itself in every mood of versatility, by reason of the incessant demands made upon its resources by the exigencies of a large practice. It would be a miracle indeed if, in this public exposition of an artist's inner life, illustrated by hundreds of buildings of every grade, we did not discover occasional evidences of carelessness and haste, of momentary caprice, of indifference begotten of fatigue, when his genius was off its guard. These evidences no one was so prompt as Root himself to point out and condemn. In the recent article on the architects of Chicago, statements were printed concerning Root similar to these; his friends were indignant until they found that it was written by Root himself. A recent minister to England cleverly said, in an after-dinner speech, "The man who does not make mistakes very seldom makes anything." But on the whole, Root's enjoyment of his work was so genuine, his resources of mind were so well ordered, his loyalty to his own ideals was so thorough that he was enabled to keep his record incorrupted by vagaries or disloyalties. In the numerous dwelling houses built by the firm we occasionally see excursions into free classic forms, into reminiscences of Flemish-Gothic or of the transitional era of Francis I, as illustrated in the royal chateaux of the Loire; in some of them we may discover faint reflections of the caprice of the hour, which, before the national architecture had been corrected and put in the line of national development by men of education, had tyrannized over the architectural expressions of the whole country. There is also evident in these minor buildings an occasional straining for novelty at the expense of that secure repose which is indicative of an art confirmed and established, as opposed to an art experimental and progressive. Nowhere, so far as I am aware, did Root give clear evidence of his love for the classic formulas, though the spirit of order and discipline, and the chastisement of refinement, which are the direct result of classic training and which can scarcely be obtained by any other process, are patent in all his works.

Aberrations from purity of type, expressions of personal moods, occasional absence of discipline, experiments in form and in the sentiment and application of ornament, such as I have indicated, are in themselves unavoidable incidents of a condition of vigorous progress and signs of a living art. It advances by errors. If these errors are suffered to bear fruit and to multiply, if they are permitted to create side issues, and to encourage caprices of invention so that the fundamental architectural unit is at length masked by conceits, the art is not advancing, but groping in the dark, and there is no health in it; but if they are dropped as soon as they are found to be destructive or unessential and to interfere with the purity of type, they are a part of progress.

The series of important buildings executed by Burnham & Root from 1880 to 1891, from the Calumet Club to the Temple of the Women's Christian Union at Chicago, or the Mills Building of San Francisco, show a succession of experiments in form, mainly resting on a consistent Romanesque basis. It is easy to see which of these experiments were thrown aside in subsequent buildings as contributing no desirable element to the progressive power of the style, and which of them were retained and amalgamated, so that their accretions were gradually leading the style out of its condition of mere archaeological

correctness into one elastic to all the new and strange conditions of structure, material and occupation. By reason of the very intelligent and spirited manner in which Root improved his vast opportunities, by reason of the serious way in which he attacked these more monumental problems, thoroughly realizing his responsibilities to art, it was his fortune to contribute to the development of this great American-Romanesque experiment nearly or quite as much as Richardson did. The latter introduced the revival, and, through the unexampled vigor of his personality, had already led it on to an interesting point of development, when his career was interrupted by death; the former carried it still further toward the point of its establishment as the characteristic architectural expression of American civilization. The latter conferred upon it power, the former, variety, and both, with their trained coadjutors in the profession, have already proved that the experiment is not merely a revival, barren of results, like the neo-gothic, the free classic or Queen Anne, and other numerous English trials, but the introduction and probable acclimatization of a *basis of design*, established upon Romanesque round-arched elements, which elements had never been carried to perfection, and were, consequently, capable of progression. It seems to have been nearly proved that, in the hands of such men as Root, upon this basis can be built an elastic system, capable of expressing any degree of strength or lightness, simplicity or complexity, force or refinement. It has also been proved, largely by his efforts, that the maintenance of the essential principles of the style does not depend upon the preservation of its peculiar original archaic character in structure or ornament, but that it can amalgamate elements from classic, gothic, Saracenic, or even Indian sources without being diverted from its strong natural growth, and that it is capable of a variety of expression and application which makes it adjustable to the most exacting requirements of that civilization which it is our duty to express.

A careful comparative analysis of the qualities exhibited in Root's first and last more important designs, with a glance at a few intermediate buildings, will serve to illustrate how a trained intelligence in active sympathy with the spirit of his times and loyal to a leading motive of composition, progresses with the progress of general civilization, and creates an art, which is not an exotic but ultimately a flower of our native fields. This analysis will further show that this flower is not an invention but a growth, having its roots in fundamental principles illustrated by historic forms, but varied in the process of development by new conditions of society, material and methods. To this process the persistence and force of one or two strong personalities seems to be absolutely essential. Such plants will become noxious weeds unless subjected to careful culture.

I think no such growth can be detected in any other modern phase of architectural thought either here or abroad. It is high time that it should be recognized, and that the man should be duly honored who, together with the lamented Richardson, availed himself of great opportunities to develop a definite architectural system by processes so logical and reasonable as to bring it within the range of public sympathy and appreciation. Indeed, it seems hardly too much to say that those two men have created a public for architecture.

Among the earliest important works of Burnham & Root, which attracted public attention, are the Grannis, Montauk, Calumet and Insurance Exchange office buildings. In the last named, which of the four seems to have had the most extensive influence over architectural thought in the West, we have a composition of ten stories forced into five for the sake of establishing a harmonic proportion of horizontal divisions. Of these five architectural stories, the first is a basement of two floors with round arched windows; the second, of two floors, is a colonnade of pilasters; the third, of only one floor, is occupied by a row of low segmentally arched windows; the fourth and most important, inclosing four floors, is an arcade with long pilasters, and the fifth, of one story, is a frieze of closely grouped arched windows. The scheme of design is simple, effective and easily understood, and the Romanesque element is plainly confessed. The distribution of ornament is temperate and its archaism is chastened with somewhat of Renaissance feeling. The skyline is accentuated with a round tourette at the two corners. The porch is composed of a low entrance arch, flanked by two round tourettes, corbelled out above the impost line, nearly detached from the wall, with conical finials, and connected by a corbelled balcony as a cornice, the whole inclosing two rows of windows continuous with the order of the second architectural story. This porch has been frequently imitated. The façades are of brick and terra-cotta construction; the spandrels of the basement story are decorated with quiet diapers of terra-cotta, and those of the upper arcade with marked horizontal lines composed of alternately recessed brick courses which are continued in the

frieze above and assist the main cornice of brick corbels in adequately crowning the edifice. The vertical divisions by piers are distinctly subordinated to the horizontal divisions above described. These horizontal divisions are separated by four small string courses, which are carried around the façades continuously. The whole composition is distinguished by great reserve, and many of the experiments tried in it were repeated in subsequent buildings of the firm. To me its most pleasing feature is the interjection of the low story of single windows in the middle, by which there is obtained a strong harmonic or musical contrast with the lofty stories above and below. To the absence or presence of this agreeable feature of proportion by contrast in subsequent works is to be attributed not a little of their failure or success respectively.

The new Calumet Club House, which preceded this building, is less marked as an example of style and far more conventional in general character. We miss in it the simplicity of general outline and the reserved force which Root afterward obtained. The design is crowded and busy with detail, and the skyline is worried without obtaining a satisfactory result of picturesqueness. The building, of course, has some good detail, but it seems to have had no apparent influence over Root's subsequent work. It is a significant mile-stone in his career.

The competitive design for the Cincinnati Chamber of Commerce and the executed design for the Art Institute of Chicago belong approximately to the same era as the Insurance Exchange. The former is an emphatic break from the Romanesque succession, and indicates a mood rather than a conviction. It presents a clever study, in the contemporary English manner, of a mediæval Flemish town hall, with a lofty hipped roof, corner towers with steep conical spires, dormers fantastically crowned with capricious, flamboyant open pediments; it has the carved balconies, the original canopies, and all the other picturesque features of the Low Countries in the fifteenth century, except their chimneys, which, strangely, are not apparent in this design. The design is interesting as an exotic. Many of its features made their appearance afterward in Root's domestic work, but it had no value whatever in the work of establishing the architectural system which was the greatest result of his more serious efforts. The Art Institute, however, takes up the thread of consistent progress much more effectively, and is one of the most successful works of this period of study.

In the Rialto Building, constructed in 1886, we have a design in which the vertical elements are much more strongly accentuated than in any previous trials. Very properly, most of its characteristic features were never repeated. It was a useful lesson. It has three architectural stories, of which the first and second inclose two floors each, and the third four floors. The pilasters or piers in the last story have the expression of buttresses, and their vertical lines are somewhat coarsely interrupted at the top by heavy balconies, which serve as the main cornice, above which is a final attic story through which the pier-lines break and form clumsy pinnacles against the sky.

The office building of the Central Safety Deposit Company, otherwise known as The Rookery, built about 1886, marks another step of progress, with far more adventurous detail. In this we feel the absence of subordination and repose. It was a large field for experiment in Romanesque detail used with an amount of intrepidity which commands respect. Horizontal and vertical divisions have nearly equal value—a fatal error in an architectural composition. There is an immense deal of successful and beautiful invention in these crowded façades, of which much found its way into Root's later, better and more temperate work. The position of this building in the succession shows, I think, into what a state of feverish energy his powers were then stirred, and how large were his resources. Though perhaps the least successful of his more important works, it is one of the most interesting and suggestive.

By this time the organization and training of Burnham & Root's office force must have converted it into an orchestra controlled by a powerful but not tyrannical spirit. In no other way can we account for the immense amount of studious and thoughtful work accomplished at this period. "The Rookery" is not only a noted example of great fertility of design, but there is nothing bolder, more original or more inspiring in modern civic architecture either here or elsewhere than its glass-covered court. Where the work has been committed to such a multitude of new devices in construction and to such a prodigality of invention in ornament, it is not strange that one may find reasonable objection to certain points of detail. One may admire the audacity of the double iron staircase which, supported by ingenious cantilevers, ramps with double curvature out into open space, meeting at a landing in the sky, as it were, from which the straight second run rises soberly backward to the stories above. One may admire this and

wonder whether such an obvious *tours de force* is worth the study which must have been bestowed upon it. Even the imaginative prison visions in the famous etchings of Piranesi, with their aerial ladders and impossible galleries, present nothing more audacious.

The American Bank Building and the Exchange Building of Kansas City, which belonged to '87 and '88, fall into the line of steady and wholesome progress. Their fenestration is ample, but they have every desirable quality of refined repose. In these brick structures are emphasized several features which have had great influence over the style. Decorative terra-cotta is built into the brick surface, forming a part of it, with excellent and appropriate effect, and the rounding of the pier angles in brickwork is used with good judgment. The harmonious proportions of both buildings is masterly, and in the high stories the iron mullions, enveloped in brick fireproofing and forming slender colonettes, form a fine note of contrast with the corresponding massive brick pier-jambs. The flat segmental bays, which resulted from the experiment in "The Rookery" building at Chicago, are here used with infinitely greater elegance and success, and the scheme of ornament, largely infused with Saracenic spirit, shows how hospitably the growing style receives such accretions, which enlarge its resources without affecting its essential qualities of dignity and strength. These are beautiful buildings.

The Phenix Building of Chicago strikes another note of variation. Its harmonic horizontal divisions would have been perfect but for the treatment of the attic story, which is placed above the balconied cornice, and overweights the building at the top. The experiment in oriels, of which the vertical members are heavy, round, decorated columns forming the angles, three to each bay, will never be tried again. There is also introduced into this building, with curious and not uninteresting effect, a certain amount of richly carved detail, which would never have been invented in America but for the copious suggestions in certain of the barbaric topos and Buddhist temples of India. The porch of this building is of noble and interesting design.

The current works of Root—momentarily interrupted by the inexplicable providence of his death, but sure to be fruitful in the future, through the spirit which he left behind him and which cannot die—show advances so distinct in all the elements of wholesome growth; they show a mind so capacious and so facile; a spirit which so happily combined conservatism with audacity; a power of progression so marked, that his sudden taking off becomes doubly pathetic, and almost assumes the proportions of a disaster to our beloved art. At all events, in him we have lost a Hotspur, whose gallant example kept the Lamp of Life blazing like a beacon.

The eighteen-storied tower of the Masonic Temple of Chicago, now erecting, is an extreme example of the daring quality of his genius; of his wise conservatism, the great structure now constructing under the auspices of the Woman's Christian Temperance Union of Chicago, and the Mills Building of San Francisco, may stand as final and triumphant witnesses. The former is a departure so fundamental from the traditions of decorative architecture that I hardly know how to characterize it. It is a building absolutely committed to what one may call a perpendicular tyranny of pilasters, resting upon an inadequate open stylobate, and supporting two severe gables, connected by a steep roof and broken by dormers. Thirteen stories of similar use and importance, typical of an industrial hive of democratic industry, find themselves expressed here externally in an absolutely monotonous and unmitigated system of fenestration, separated by vertical piers which rise from top to bottom without incident. It is perhaps the frankest admission of a structural and economical necessity ever expressed in architectural form. Between these pilasters, 160 feet high, rise several oriels equally vertical and equally monotonous. For the interruption of these vertical lines there would be of course only the excuse of design; none are supplied either by structure or use. It is probable that in this experiment, which looks like the apotheosis of the elevator in the modern social system, it was Root's desire to permit an exceptional character of structure to have the fullest and most honest architectural expression once for all. But, as Mr. Fergusson would say, one cannot but wonder why, under this conviction of duty, the stylobate was not made more massive and more evidently capable of the vast labor intrusted to it by the structural conditions above, and why, instead of connecting his pilasters together at the top by arches, he did not finish them with offsets like buttresses, treating the structure above like a group of lanterns recessed behind aerial galleries, the skyline being broken with pinnacles, dormers, gables and chimneys, following the suggestions contained in such spires as Ulm and Freiburg. Doubtless Root could have defended this composition with eloquence which would fascinate, while it might not convince; we are sure that

it was not a caprice, for this would be contrary to the serious habit of his mind when engaged with problems of such magnitude. But his lips are sealed, and we must await with curiosity such revelations and condonations as may be supplied by the total effect in execution.

As for the temple erecting for the Woman's Christian Union, it is a design far more orderly and sane; a vast building in two lofty pavilions, with an open recessed court between, closed at the bottom by a curtain wall continuous with the two-storied stylobate, in which is the main entrance. Architecturally the building is committed to the style of chateaux of the Loire before they had been greatly affected by the Renaissance. The group has twelve stories, two of which are in the stylobate, seven in the walls which arise thence to the machicolated cornice, and three in the battlements and dormers above.

The angles of the pavilions are mighty, round towers engaged in the corners, starting from corbels in the stylobate, finishing with an attic or battlement story above the cornice and crowned with conical roofs. Between are two-storied dormers with steep gables, grouped with noble effect, and the masses of the building behind are carried boldly to the sky with hipped roofs. There is a light and slender but adequate lantern in the center. The skylines of this design are beyond all praise. The serious and noble quality of the building is due to the underlying Romanesque sentiment, which, though not expressed technically, has to my mind clearly served to eliminate the luxury and gaiety which distinguished its prototypes, the royal chateaux of France. It is true that the Romanesque roof is nearly lost in the late gothic expression into which it has flowered, while in the Masonic experiment it is much more frankly retained. Between the two one cannot but admit that the gothic device is far more architectural as the crown for a building composed of the superimposition of numerous equal stories. I think it will be generally admitted that this last adaptation of architecture to structure, or, more properly, this growth of architecture from structure on a heroic scale, is, on the whole, the finest effort of Root's genius. As an expression of strength and dignity crowned worthily by beauty and grace, no nobler example has been given in modern times.

"Great men," said Longfellow, "stand like towers in the city of God." Perhaps the architectural treatment of these structures of unprecedented height, illustrating at once the loftiness of his aspirations, the delicate sensitiveness of his genius, and his high sense of professional duty in preserving for us to the last through many experiments a single consistent basis of design, may be accepted as a fitting expression of one who seems to me to have been one of the most interesting personalities in the history of modern architecture.

John W. Root as a Draftsman.

IN answer to a request to give a short sketch of Mr. Root's life as a draftsman in the period between his arrival in New York and his copartnership with Mr. Burnham, Mr. P. B. Wight contributes the following:

Editors Inland Architect:

In answer to your request that I give you, at short notice, any reminiscences of the late Mr. Root of which I may be possessed, I can only mention the following:

My first acquaintance with him was when he called at my office in New York in the latter part of 1871. He told me that he had attended about three years in the Academic department of the University of New York, and had been about six months in the office of J. B. Snook and the same time in the office of James Renwick, both New York architects. I had a great desire to take him into my office, for he showed me original designs which were entirely in harmony with my ideas of the proper conception of architecture as a fine art, and they were like the designs of a mature scholar. But I had very little to do at that time and did not need assistance.

After my visit to Chicago to see the ruins after the great fire, at which time I had decided to join the firm of Carter & Drake, of this city, I asked him to call at my office in New York, which he did, and then told him I would send for him as soon as there should be an opening. He then showed me sketches he had already made for Reed's Temple of Music in Chicago, and had a great desire to go West, though he did not feel confident to attempt to practice after such a short experience as a draftsman.

I came to Chicago and sent for him in January, 1872. When he came he was made foreman of the office, in which place he remained until the formation of the firm of Burnham & Root about a year later. Mr. Burnham was employed by us during that time, and there they made their acquaintance. Our firm consented that Mr. Root should carry out his design for the Reeds, but they abandoned his

artistic design for the exterior and only built a plain two-story structure. While with us Mr. Root designed the front of one building, without prompting on my part, and it was erected at 24 Lake street. As it is a matter of interest just now, this may be called his first executed architectural design.

Mr. Root was essentially a self-taught man, possessed in his youth of the greatest acquisitiveness I have ever witnessed. His experience in the offices of New York architects cannot be considered in the light of an education, for his early designs showed no evidences of the influence of those he had been with. While the general disposition is to praise the excellence of his designs, I am of the opinion that he was equally an expert in construction and design. I can recall an instance when, at the time that I was employed as consulting architect in conjunction with Burnham & Root in the construction of the Montauk block, he was quick to detect an error I had made in the computation of the weight of one of the front piers. That building, by the way, was the first in which railroad iron was used in the foundations.

I consider that the great excellence in Mr. Root's designs was due to the fact that he was quick in seizing on the capacity of all building materials for architectural expression; that he designed for the materials, and did not have to find materials for carrying out his designs. He was in this a thorough exponent of the principles of Viollet-le-Duc. It was the key note of his great versatility in design. He sought to make everything he touched beautiful rather than architectural. His works have done more than those of any other man to free us from the architecture of the schools and give us an architecture of perfect freedom. But this freedom never led to license, as has been the case with others who did not possess the self-discipline which he practiced, which was all the more necessary in one possessed of such an active imagination. His works have demonstrated, not that we can develop an American style of architecture, but that the best architecture of the nineteenth century is not trammelled by precedents; that the best works of past ages are models for study only, and not for repetition; and that if we only grasp the knowledge of the best architecture of other days, seize upon the capacities of the materials of today and mold them into things of beauty, we will develop an architecture worthy to be associated with the other arts of the nineteenth century.

He has shown that we can have good, true and beautiful architecture without style. In this he was unlike the late Mr. Richardson, in that the latter took an old style and Americanized it. But Mr. Root has done more for architecture than Richardson did. Richardson's early work was crude and it was some time before he fell into the line of thought which brought him his great fame. Root was consistent in his ideas from the time that he first put pencil to paper, and continued to develop them to the end. We would not have seen this had he graduated from an architectural school, for he would have been too much trammelled by precedents, as Richardson was until he emancipated himself. Both were great men, and only great men could have done what they have.

CHICAGO, January 21, 1891.

P. B. WIGHT.

Circumstances Attending the Death of John W. Root.

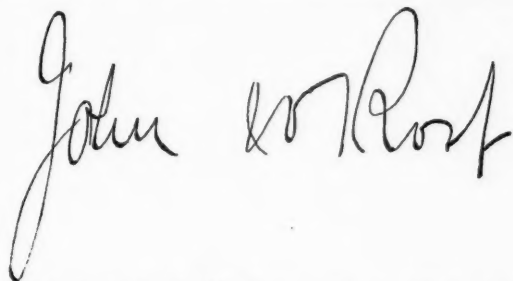
LATE in the afternoon of the last day of the year 1890 the writer found Mr. Root in his office preparing to go to New York on the following day. All the employes had gone and he was alone and looked tired and overworked. He said he was tired and felt inclined to resign the secretaryship of the Institute. This was alarming, as he had never been heard to complain of too much work, and while it only indicated extreme physical exhaustion and before he went home he became cheerful and hopeful again, it has its significance in the light of subsequent events.

On the afternoon of New Year's day Mr. Root went to New York. His plan was to attend the meeting of the board of directors of the Institute on the 3d, attend to some business relating to the World's Fair, and to leave on the 5th for Atlanta, Georgia, to inspect the Equitable building under construction there from his designs, and visit his parents, and return to Chicago on the following Saturday. All of this was carried out as planned, and he arrived at 11 o'clock on Saturday, January 10—his forty-first birthday. The writer met him about 1 o'clock, but all business was deferred until Monday, as he said, "I've got to get out to the house to see how the children are." He was in much the same mood as when he went away, and said he was tired. Mr. Gelert, the sculptor, was anxious for him to visit his studio to inspect some casts, and he promised to call on his way back from home. A friend called, and to entertain him while attending

to some of the many matters that claimed his instant attention, handed him a copy of *America*, with the article written by him reproduced in this number, saying that he wrote it. These were the incidents of his last hour spent at his office. In the evening he attended a dinner given at the University Club to the ten architects on World's Fair work who had just been officially appointed, though their selection had been made before his departure.

On the following (Sunday) evening these architects he entertained at his home, and that evening, his last in health and strength, will long be remembered by those who shared it with him. At 5 o'clock on Monday morning he was taken with a chill, and medical aid being summoned, it was found that he had pneumonia, probably precipitated by a Turkish bath taken the day before, and subsequent exposure, lightly clad, to the evening air.

On Monday evening, at 6 o'clock, the writer called to see him, to, if possible, allay a growing apprehension, and to procure his signature to a charter for the Missouri State Chapter of the American Institute of Architects. He was resting easily, and no serious ending to his sickness was anticipated, and was well enough to affix his signature to the document. This is perhaps his last signature, and



renders this charter invaluable as a memento. It was taken to St. Louis that evening to be presented to the Chapter at its annual meeting the next day. The cut is a reproduction from that signature.

The night of Monday was spent restlessly, and the disease developed rapidly until the end, which occurred at 6 o'clock on Thursday evening, January 15, three days and a half after the first indication of pulmonary affection. His friend Johannes Gelert, the sculptor, took a mask of his face, which will be invaluable to architects and people in the years to come.

Funeral Service of John W. Root.

TO enter a door that has ever opened with hospitality and good cheer—to stand in rooms where every arrangement and drapery breathes of departed social pleasures or the home-like feeling of the chosen guest, and to realize that all this is as a dream, is one of those impressive experiences that lasts through life.

Mr. Root's funeral was private and only his family and the immediate friends of his manhood and his great joyous life gathered about him to say farewell to all that was left on earth.

Besides his father and mother, his brother, his wife and those three children whom he loved and who loved him, here were gathered friends whose names were noted in the city and nation but whose rank was lost in the presence and the occasion. The mayor of the city, the director-general of the great exposition and members of its committees. Here stood Mr. Codman, of the consulting board, and Mr. Ferry, of Milwaukee, who had come many miles to stand one moment in that presence and depart; those who most had loved him in life gathered speechless and listened to the brief remarks of Bishop Cheney, to which every heart responded, and yet felt the great inadequacy of the words of even that silver-tongued divine to tell the story of his life and character.

In the center of the front drawing-room stood the cedar casket the plate upon which bore the simple inscription:

JOHN WELLBORN ROOT.
BORN JANUARY 10, 1850.
DIED JANUARY 15, 1891.

But none of these details were noted until the service was concluded, and now, though it must be recorded, the memory is indistinct, as then no person or detail was observed, the fact shutting out the impression.

The full burial service of the Episcopal Church was used. The scripture lesson was from first Corinthians, fifteenth chapter, beginning with the twentieth verse. At its close the Root quartette, composed of two sons and two daughters of George F. Root, the composer (not related to him whom they were there to honor), sang Cardinal

Newman's beautiful hymn, "Lead, Kindly Light." The singers were not visible and the music of their voices floated out a benediction over the assembly; one voice, clear, strong and flute-like, leading the others as the warble of the thrush is heard above the trill of the song sparrow. The words of that hymn cannot be too often printed.

LEAD, KINDLY LIGHT.

"Lead, kindly light, amid the encircling gloom,
Lead thou me on;
The night is dark, and I am far from home,
Lead thou me on.
Keep thou my feet; I do not ask to see
The distant scene; one step enough for me.

"I was not ever thus, nor pray'd that thou
Shouldst lead me on;
I loved to choose and see my path; but now
Lead thou me on.
I loved the garish day; and, spite of fears,
Pride ruled my will: remember not past years.

"So long thy power has blest me, sure it still
Will lead me on
O'er moor and fen, o'er crag and torrent, till
The night is gone,
And with the morn those angel faces smile,
Which I have loved long since, and lost awhile."

The sermon was brief but impressive. The speaker said it was always sad to see one cut down in the noonday of his life, in the midst of his work. Some fell like the acorn blown from the limb by the passing breeze, and were forgotten as soon as the grass began to grow upon their graves. Others there were who were like the oak itself, whose roots extend deep into the earth and outward in every direction, and whose branches were so interwoven with the boughs of the surrounding forest, that it could not fall without lacerating and injuring its neighbors. If Mr. Root had one attribute that transcended all others, more than his great capacity for work, it was that rare gift, which for want of a better name is called executive ability, the power of putting others at work and directing their efforts effectively. Next marked was the symmetry of his character. He was not only a leader in his chosen profession, but a ripe scholar, a man of finest education, a musician of high attainments, and of the highest social graces. The steadfast pursuit of his profession, continuous and absorbing as it was, did not warp his nature, or leave it undeveloped on its other sides. Of the warmth of his friendship it was unnecessary to speak. He was the kindest of fathers, the tenderest of husbands. He was beloved by all who knew him. When one is taken away thus suddenly, the question is often asked of the minister of the gospel why it was. This is a question no honest minister could answer. It is not given to him, any more than those outside of the ministry, to fathom the purposes of the Almighty. All that can be known is that it was God's will. The sermon closed with an allusion to days of leisure spent by the speaker with him at the seashore, where he learned to know him, and closed with an impressive invocation. The quartette then sang the beautiful "Hymn of the Homeland."

THE HOMELAND.

"The homeland, the homeland; the land of the freeborn;
There is no night in the homeland, but aye the fadeless morn;
I'm sighing for the homeland, my heart is aching here;
There is no pain in the homeland to which I'm drawing near.

"My Lord is in the homeland, with angels bright and fair;
There is no sin in the homeland, and no temptation there;
The music of the homeland is ringing in my ears,
And when I think of the homeland my eyes gush out with tears.

"For those I love in the homeland are calling me away
To rest and peace in the homeland, and life beyond decay;
There's no death in the homeland, there's no sorrow above;
Christ brings us all to the homeland of his eternal love."

The bishop pronounced the benediction. Friends moved forward to take a last look upon that face that, ever responsive to each friendly glance, was responsive no more. Natural as in life, a bunch of marguerites in the hand that had laid down the pencil that drew for earth for the flowers that bloom for heaven, a *boutonniere* of English violets on his breast, his face bearing few traces of the dread struggle that ended that noble life, he looked as he looked but once in life, when he stood in the group of his confrères on the steps of the treasury at Washington for that now historical photograph by Brady. At the head of the casket stood a tall column of flowers, sent by Mr. Root's draftsmen; upon the casket rested a wreath of laurel; and as he was borne to his last resting place a bunch of graceful palms, tied with a ribbon bearing the legend, "Illinois Chapter American Institute of Architects," rested upon the casket. The pallbearers were D. H. Burnham, John Meigs Ewen, C. G. Fuller, Charles C.

Curtis, William Pretzman and C. L. Hutchinson; and when the casket was sealed they bore it from that home he loved so much and had made so lovely to the beautiful cemetery at Graceland, where the burial service was read by the Reverend Mr. Tuckerman, of St. James church.

In Memory of John W. Root.

SOME of the resolutions of regret that have been passed by not only every society with which Mr. Root had connection, but many whose relations were of an entirely personal character, are given below, the most remarkable of which are those passed upon the evening of his death by the Oriental Consistory of the Masonic fraternity, which was assembled in triennial conclave when the death of Mr. Root was announced. This is said to be the only instance in Masonic history when such an honor has been conferred upon a non-member. They are as follows:

Resolved, That the members of the Oriental Consistory in triennial conclave have learned with profound regret of the sudden death of Mr. John W. Root, and join with our citizens generally in the deep sorrow felt at the loss of this prominent citizen, whose personal worth and professional skill brought him in close contact with this ancient fraternity as the designer of the great Masonic Temple, the erection of which had so auspiciously begun under the direction of his master mind.

Resolved, That the kindest sympathy of the Ancient and Accepted Scottish Rite is tendered his bereaved family and mourning friends.

JOHN C. SMITH, 33d°.

NORMAN T. GASSETTE, 33d°.

DE WITT C. CREGIER, 33d°.

The different bodies with which Mr. Root was associated as consulting architect of the Columbian Exposition each passed resolutions, the Board of Directors having two copies of the following engrossed and sent to Mr. Root's family and to his partner, Mr. Burnham:

WHEREAS, John Wellborn Root, consulting architect of the World's Columbian Exposition, has suddenly been taken from us in the complete vigor of his powers and in the full activity of his great genius;

Resolved, That we, the directors of the World's Columbian Exposition, feel that the public has been deprived of one of the greatest of American architects; that the profession to which he belonged has been bereft of one of its brightest ornaments, and that the World's Columbian Exposition has lost the inestimable services of one who, chosen unanimously for the highest position in its power to give, conceived and formulated the general plans for its grounds and buildings with consummate artistic genius, with great executive skill, and with unflinching and unselfish devotion to duty.

That we mourn the loss of an associate and guide in the great work before us, who, by his manly and gentle character, his generosity and unselfishness, and his brilliant social qualities, had endeared himself to each and all of us; and further,

Resolved, That these resolutions be spread upon the records, and that copies thereof be forwarded to his family and to Mr. D. H. Burnham, late his partner, with expression of our deepest and most heartfelt sympathy in their bereavement.

Another testimonial of esteem was rendered by the Committee on Buildings and Grounds, at a special meeting of the committee, as follows:

John Wellborn Root, late consulting architect of the World's Columbian Exposition, is dead. A week ago he was with us in perfect health and in the prime and vigor of a splendid manhood. Today he is in his grave.

The suddenness of his death brings a quick and unexpected burden of grief to us all. With deep and sincere sorrow we deplore this great loss not only to his family and friends but to Chicago, and, indeed, to the whole country; the loss not only of a man of bright social qualities, genial and attractive to all, and especially endearing to those who knew him best, but of one of the most gifted and promising men in the profession in America.

Possessing high genius, exquisite taste and a genuine love for all that is true and beautiful in art, we had looked to him confidently to select with masterly skill the best designs and suggestions presented to us, for the style and arrangement of the many large buildings to be selected by us, combining them with such architectural appropriateness and taste as to produce a complete aggregation of beauty, harmony and grandeur of construction such as we could present with confidence and pride to the criticism of the world.

But the quick intellect, the skilled, unerring judgment of this architect and designer are lost to us forever. It will be difficult, if indeed possible, to fill his place.

Resolved, That we tender to his bereaved family and to D. H. Burnham, late his partner, our profound and heartfelt sympathy.

E. T. JEFFERY,

LYMAN J. GAGE,

R. A. WALLER,

O. F. ALDIS,

C. H. SCHWAB,

E. S. PIKE,

D. C. CREGIER,

GEORGE R. DAVIS.

The lady managers residing in Chicago passed the following resolutions on behalf of the board they represent:

WHEREAS, The late Mr. John W. Root was an earnest and ardent friend of the Board of Lady Managers of the World's Columbian Commission and rendered distinguished assistance in aid of the proposed plans for the Administration Building of the coming exposition; and

WHEREAS, His short life of forty years was distinguished by unusual ability, marked genius and sterling integrity; therefore

Resolved, That we, the Chicago residents of the board, in common with the people of Chicago, feel that in his death the public has suffered a lamentable

loss; and we desire to add our testimonial to his worth, and to express to his family our sincere sympathy in their great and irreparable bereavement.

Resolved, further, That these resolutions be spread upon the minutes of the board and a copy of them forwarded by the secretary to the family of the deceased.

MRS. LEANDER STONE, } Committee.
MRS. G. L. DUNLAP, }

At a session of the ten architects comprising the Bureau of Architects on the World's Fair buildings, the following resolutions were passed unanimously by a rising vote and sent to Mr. Burnham and the Committee on Buildings and Grounds. The resolutions were written by Mr. Van Brunt and Mr. Olmsted:

WHEREAS, The commission of architects and its colleagues, summoned from the various parts of the United States to study the problem of the design of the buildings for the World's Columbian Exposition, are, at the outset of their difficult labors, met by calamity in the death of John Wellborn Root, the consulting architect of the exposition; therefore,

Resolved, That we, his professional brothers and friends, formally put upon record our sense of professional and personal loss in the unexpected catastrophe; professional, because his vigorous genius, his well-trained intellect and his large artistic resources were doing unusual service in advancing the architecture of our country; personal, because his genial and generous disposition had warmly commended him to our affections.

Resolved, That we offer to his family our heartfelt condolence, and to his partner, our friend D. H. Burnham, our warmest expression of sympathy for the sudden breaking off of a mutual alliance of mind and heart which has proved productive of large results in the past, and which was full of the brightest prospects for the future.

Resolved, That to the public in a national sense is due our testimony that in this event a loss has occurred which can hardly be remedied.

R. M. HUNT,

GEORGE B. POST,

VAN BRUNT & HOWE,

By Henry Van Brunt.

McKIM, MEAD & WHITE,

By William Rutherford Mead.

PEABODY & STEARNS,

By Robert S. Peabody.

FREDERICK L. OLMSTED,

HENRY S. CODMAN,

BURLING & WHITEHOUSE,

By Edward Burling.

W. L. B. JENNEY,

S. S. BEMAN,

ADLER & SULLIVAN,

By Louis H. Sullivan.

HENRY IVES COBB,

A. GOTTLIEB.

Among the architectural associations that have passed resolutions the following have been received from the Illinois Chapter and the Michigan Chapter, American Institute of Architects:

The Michigan State Association of Architects have passed the following:

DETROIT, Mich., January 17, 1891.

The Michigan Chapter of the American Institute of Architects, in special session, held this day, desire to place on record our sense of the great loss to the architectural profession and to the American Institute of Architects in the death of Mr. John W. Root, to pay our tribute to his high professional attainments and to express our profound sympathy to his family and associates.

ZACH RICE, Secretary.

GORDON W. LLOYD, President.

At the regular meeting of the Illinois Chapter, January 18, the following was passed and will be signed by every member of the Chapter:

ROOMS OF THE ILLINOIS CHAPTER, A. I. A., 63-65 WASHINGTON STREET.

CHICAGO, January 20, 1891.

Our honored friend and fellow, John Wellborn Root, is no more. His genial goodfellowship, his incisive participation in our proceedings, his sound judgment, his fund of valuable information and his keen wit will no more enrich our meetings, but yet will linger in our memories.

In him our profession has lost a valued and brilliant member and our community a most promising and useful citizen.

That his children may know, when they grow to manhood and womanhood, that their father was highly esteemed by his fellows and contemporaries, we, the members of the Illinois Chapter of the American Institute of Architects, have caused the above to be written, and have affixed our individual signatures and our corporate seal.

S. V. SHIPMAN, President.

GEORGE BEAUMONT, Secretary.

Perhaps no organization of men felt the death of Mr. Root more generally than those who are members of the Chicago Builders' and Traders' Exchange. They, so intimately connected with the execution of his greatest works, were always inspired by his enthusiasm, charmed by his friendliness and instant recognition of their rights. Always alive to the limitations and qualities of a material or a method, they were always ready to second his efforts to completely fill the requirements of his designs. Their expression, voiced at the annual meeting, was brief, and took action in the form of the following resolution:

With feelings of sorrow and regret have we heard of Chicago's great loss by the death of John W. Root. We are deprived of a talented architect, a brilliant designer, a thorough student, and a genial gentleman, and the Builders' and Traders' Exchange does hereby give expression to its grief and sympathy with the bereaved.

W. P. KETCHUM, President.

JAMES JOHN, Secretary.

ARCHITECTS TREAT & FOLTZ, of Chicago, wish to announce that they have removed to their new offices in the Fairbanks building, on the northeast corner of Wabash avenue and Randolph street. This is also the address of the treasurer of the American Institute of Architects.

Buildings Designed by John W. Root.

WHILE the firm of Burnham & Root has been in existence for eighteen years, the larger mass of work executed by the firm and designed by Mr. Root has been done in the past twelve years, and it is fitting to place upon record the principal work accomplished up to the date of his death.

PUBLIC STRUCTURES IN CHICAGO.

Union Stock-Yards Building.	Trader's Building.
Abstract Building.	Art Institute.
Brooks Building.	Academy of Fine Arts.
Bournique's Academy.	A. T. & S. F. Office Building.
Calumet Club House.	Byrne Block.
Montauk Block.	Church of the Covenant.
Calumet Building.	Wittington School, Evanston.
Commerce Building.	Forty-third Street Public School.
Fidelity Bank Building.	Haymarket Monument Pedestal.
Graham School, Town of Lake.	Insurance Exchange Building.
Illinois Bank Building.	Lake View Church.
Lincoln Park Sanitarium.	Grannis Block.
Marquette Block.	McCormick Warehouse.
Michigan Avenue Hotel.	McConnell Building.
Northwestern Safe and Trust Company Building.	Phenix Building.
Sixty-first Street Public School.	The Rookery.
Swimming Academy.	Rand-McNally Block.
C. B. & Q. Office Building.	Pickwick Apartment Building.
Rialto.	St. Lukes Hospital.
	Garfield Park Casino.

PUBLIC STRUCTURES IN OTHER CITIES.

Society for Savings Building, Cleveland, Ohio.	The Atchison Bank Building, Atchison, Kan.
Midland Hotel, Kansas City.	American National Bank Building, Kansas City.
Exchange Building (Board of Trade), Kansas City.	Grand Avenue Depot, Kansas City.
Buena Church and Station, Buena Park.	Y. M. C. A. Building, Kansas City.
Chronicle Building, San Francisco.	Public Library, Creston, Iowa.
Depot, Des Moines, Iowa.	Depot, Clinton, Iowa.
Guaymas Hotel, Mexico.	Depot, Fort Scott, Kan.
Courthouse and jail, Kenosha, Wis.	Union Depot, Galesburg, Station, Kewanee.
Milwaukee Clubhouse, Milwaukee.	Montezuma Hotel, Las Vegas, New Mexico.
Peoria Bank, Peoria.	Railway Station, Ottumwa, Iowa.
Panorama of Gettysburg, Pittsburgh, Pa.	Chamber of Commerce (rebuilt), Peoria.
Tipton Bank, Tipton, Ind.	Sanitarium, Lake Geneva.

APARTMENT HOUSES IN CHICAGO.

Charles L. Hutchinson, residence and flats.	Argyle Flats.
B. Sturges, residence and flats.	Walker Flats.
Kensington Flats.	Waller Flats.

RESIDENCES IN CHICAGO AND ELSEWHERE

E. W. Wilson,	R. A. Waller,	H. R. Wilson,
L. G. Wheeler,	E. C. Waller,	A. L. Warner,
Mrs. Wright,	General Torrence,	Mrs. W. H. Woodyatt,
C. C. Thompson,	A. L. Thomas,	M. C. Stearns,
A. A. Sprague,	Lot Smith,	A. H. Sellers,
J. N. W. Sherman,	J. H. Nolan,	J. H. Pearson,
W. Pretyman,	H. J. Peet,	A. M. Reeves,
N. B. Ream,	P. J. Kaspar,	Thomas Land,
A. J. Leith,	J. H. Leidig,	L. B. Mitchell,
E. W. Morley,	D. W. Mills,	E. K. Morrill,
Charles Hamill,	D. K. Hill,	John Hough,
M. C. Jones,	S. A. Kent,	Dr. C. G. Fuller,
Samuel Fargo,	James Frank,	S. E. Gross,
A. Grossman,	J. H. Dow,	C. B. Carter,
S. Coleman,	James Charnley,	O. W. Clapp,
Charles Counselman,	A. Brosseau,	Dr. M. L. Burnham,
G. B. Baldwin,	W. D. Walker,	H. W. Renn,
C. W. Fullerton,	Owen F. Aldis,	A. J. Kirkwood,
Arthur J. Caton,	H. H. Shufeldt,	G. H. Wheeler,
A. Byram,	E. E. Ayer,	P. Templeton,
C. L. Allen,	O. D. Wetherell,	E. Sturtevant,
J. H. Winterbotham,	H. Willard,	George Scott,
Mrs. Whitfield,	E. H. Valentine,	Robert Patterson,
J. R. True,	V. C. Turner,	J. W. Root,
M. P. Smith,	V. Sands,	J. A. Lynch,
C. W. Needham,	J. F. Parker,	Max A. Meyer,
J. C. Pennoyer,	O. W. Potter,	J. J. Hoch,
P. W. Raber,	E. Ledger,	S. W. Jacobs,
H. W. Leith,	L. Maxwell,	E. M. Fuller,
Dr. J. S. Mitchell,	George E. Marshall,	R. C. Graves,
W. E. Hale,	George V. Hankins,	Elliott Callender,
O. R. Keith,	C. Frost,	W. G. Coolidge,
Henry Field,	Thomas Dent,	Thomas R. Burch,
Rev. J. Goddard,	H. A. Davis,	P. V. Kellogg,
J. M. Chase,	C. C. Collins,	L. J. Lombard, Kansas City,
J. W. Brooks,	W. Barker,	W. C. Scarritt, Kansas City,
George S. Lauret,	J. C. Black,	J. Whittaker, St. Louis,
H. A. Huntington,	Arthur Bingham,	M. M. Farr, St. Louis.
S. E. Egan,	James Sayers,	
W. I. Cobb,	C. E. Baker,	

PUBLIC STRUCTURES IN COURSE OF ERECTION.

Masonic Temple.	Woman's Temple.
Chicago Hotel.	Monadnock Block.
D. O. Mills Block, San Francisco.	Chicago Herald Building.
Chronicle Building, San Francisco.	First Regiment Armory.

Architects of Chicago.

THE last article for public print written by Mr. Root was a contribution upon the architects of Chicago for *America*, a Chicago literary and political weekly, and published anonymously in a "special holiday number" credited to "a prominent architect." Not alone because it is his latest article is it here reproduced, but because it shows a phase of character which is almost as uncommon as the genius that was his, an ability to impartially criticize the works of others; and because it gives his estimate of his own work as none other could. Written in the same "haste of the hour" to which he says his designs were too often subject, it has a gentle, thoughtful and incisive force that much study could hardly have improved, and it now stands as a graceful tribute to his fellow architects.

Some of our older citizens still refer to certain monumental grandeur which existed "before the fire"—which, in Chicago, means what "in the beginning" means in the Scriptures. Crosby's Opera House is a case in point; a building, an audience room beside which, in the memory of the old citizen, the new Auditorium pales its fires. That there was much which was creditable cannot be doubted, for men who had designed old Chicago designed, in the years immediately after the fire, much of new Chicago.

The crudity and self-assertion, the fondness for cheap ornament which always marks the architecture of new and ambitious towns, were characteristic of earlier Chicago work. But we cannot withhold our admiration from the men who, under the tremendous pressure of rebuilding, from October, 1871 to 1873, stood so well between us and architectural abominations.

Taken as a whole, Chicago as represented in these structures compares well with cities in which decades were necessary to accomplish what was here done with inconceivable haste in two years. The older men of the profession, Boyington, Van Osdel, Wheelock, will all tell you that it was not infrequent that foundations were planned and constructed, even up to the level of the sidewalk, before the first and other stories were arranged, and one architect is responsible for the statement that in the rush of his work, one building of four stories was under roof before he "got around" to the design of its façades—the floors being supported at their outer lines by temporary stays.

At the time of the fire, the corps of men who had designed the old town were reinforced by the entrance of a number of men from other cities, especially in the East, who bore no small part of the burden of the day. But the major part was naturally carried by those living here in 1871, and with what steadfastness and enthusiasm no one not then here can ever know.

Older contractors and clients speak today with admiration of the energy, the mental clearness and decision with which, in those days, men like Van Osdel and Boyington carried forward the vast work committed to them, carried it to an extent far more personal than now; for all facilities—educated draughtsmen, superintendents and builders—now existing did not then exist.

Among these men, to whose integrity and ability so much is due, several are with us—some in active practice. Mr. Van Osdel does not now personally undertake much work; Mr. Carter, whom everybody loved, is gone where the materials used in architecture are more splendid than here; but Mr. Boyington and Mr. Wheelock, Colonel Shipman and Mr. Randolph, Mr. Cleaveland, Majors Willett and Jenney, Mr. Drake, Mr. Burling and others take their share of work in these new and less pressing days, and by their ability keep their younger confrères from too great vanity.

Mr. Boyington's career has been in every way remarkable. During all the years of his practice, young men have gone from his office all over the continent remembering him as friend and preceptor. He himself could scarcely realize the extent and variety of the work with which he has been identified. Many a design made under him, seen by him after years of separation, would be as unrecognizable to him as the long-unseen son of a Mormon elder to his papa. As a Nestor in the profession he stands today in one of the happiest positions attainable by men; in the evening of a long and honorable career. Among his works, perhaps the best is the Royal Insurance Building, which well expresses its commercial aim in its solidity, repose and dignity. The Board of Trade by him is not so fortunate. It seems to have been hastily done, and is scarred and defaced by what seems the touch of many inexperienced hands.

Mr. Van Osdel, in his earlier work, exhibited much warmth of imagination, in late years naturally tempered by age. From the Tremont House and the Reaper and McCormick blocks to the Brother Jonathan Building and Grace's Hotel there is shown something of this change. The Tremont House was, for its day, a most remarkable production.

Mr. Cleaveland achieved, some years back, a success equally great in the building in LaSalle street, now occupied by the Merchants' National Bank, where he has employed with singular ability the "Neo-Grec" of the day.

Of Mr. Jenney it can in no sense be said (nor may it be said of several of the gentlemen above mentioned) that he is at the age when he asks concessions of the younger generation. The Portland Block by him was, in its day, the sensation of the town. It was never

finished by his original designs, the two upper stories being by other hands. Grace Church probably raises a smile to his face, as a touching souvenir of younger enthusiasm, which he would not now tolerate. Indeed, there may be a question now whether in such buildings as Mr. Leiter's, on Van Buren street, he has not too far put aside the earlier enthusiasm which still gave charm to the Home Building and Blair Lodge, in favor of a Puritan rigor which certainly does not warm the mind nor kindle the imagination.

Among the highest in all the profession stands Mr. Adler, for some time after the fire a partner of Mr. Burling, and the "designing" member of the firm.

Of late Mr. Adler has passed the artistic crayon to Mr. Sullivan, but work designed by him in earlier days—such as the building opposite the Tremont House, on Dearborn street, that at No. 97 Dearborn street, and Central Music Hall—show a strength, simplicity and straightforwardness, together with a certain refinement, which reveal the true architect. No professional man has pursued a more consistent and dignified course than he, and no man is more respected by his confrères. The Auditorium, a really wonderful building, stands as a monument to his and Sullivan's talent.

Treat & Foltz and Burnham & Root belong to the class imported shortly after the great fire. Mr. Treat was first associated with Mr. Randall, and for him designed the Union Park Congregational Church. Jointly Treat & Foltz have executed much creditable work, rising at times to a high rank, while they have always kept a dignified professional position. The new building on Madison street and Michigan boulevard is theirs, and the fine houses built on Prairie avenue near Twentieth street, for Mr. Moulton, and on the Northwest corner of Thirty-fourth street and Michigan boulevard, for Mr. Libby. The Martin Ryerson house, in Drexel boulevard, by them, is beyond all question one of the very best in town. This firm may perhaps be criticised for a too frequent use of cheap and unenduring material, and generally for occasional indifference to the expression in design of the stable and permanent qualities of building.

Burnham & Root, occupying a high position, have been very uneven in their work. Mr. Root, upon whom has largely devolved their designing, seems to have been too facile always to carefully reconsider his designs, and to have been to a large extent the victim of his own moods. Much work by Burnham & Root—the Phenix, the Insurance Exchange, the Rookery, Rand-McNally's and the Art Institute—is suggestive, and has borne its part in the architectural movement of the day, while much of it reveals crudities begotten of the haste or indifference of the hour. The position occupied by these gentlemen in connection with the Columbian Exposition gives them an opportunity for the welfare of the profession in America, the gravity of which it is hoped they will realize. It may be mentioned in passing, that the partnership between these two gentlemen seems to be admirably adjusted, Mr. Burnham adding to keen artistic perception remarkable executive ability.

S. S. Beman began his career under most favoring auspices. Endowed with fine talents and well equipped in his profession, he was intrusted with the erection of the town of Pullman. How well he carried this out is everywhere known; few things of the sort exist anywhere approximately as good. The Pullman Building is his, the Studebaker Building, the new Wisconsin Central Station with its charming tower, as well as many other successful and interesting structures. Mr. Beman's dwelling houses are often very clever. The weakest points in his designs seem to be a tendency to make his sky-lines too "fussy," and to indulge at times in a certain eccentricity of detail. Both of these qualities are shown in the Pullman Building, and the weak sky-line is the one serious detractor from the merit of the Studebaker Building.

Mr. Silsbee has also built many dwellings, especially of the suburban type, which are in the main thoroughly architectural and interesting.

Mr. Cobb came here from the East to erect the Union Club, which remains one of the most attractive ornaments of the North Side. In his hands also has been the Newberry Library, from which we anticipate so much. His influence for good has been very marked, especially in the great number of dwellings designed by him, whose great charm is their honesty, simplicity and refinement. The Owings Building is his, one of the interesting landmarks down town, in connection with which it is a pity that the north view of the roof is so marred by the necessary thrusting up of the northeast corner. Mr. Cobb has not chosen to employ many different styles for his work; and if it may be criticised it would be in the direction of a certain clumsiness, or lack of grace which it sometimes suggests, as witness, with all their beauty, the Tansill and Cable houses.

One of the most individual personalities, and the author of some of the most characteristic work, is Mr. Sullivan. Cultivated in many directions, with a bold, alert, vigorous and imaginative mind bending its energies into many channels, self-confident and enthusiastic, ideally supplementing Adler his partner, Sullivan has accomplished much admirable work, and will achieve much more. The Ryerson Building in Randolph street, on the river and Adams street, and on Adams street and Wabash avenue, are his; his are the designs for the Auditorium with its decorations, as well as many other buildings, all of which attest the boldness, freshness and ingenuity of his mind. So exuberant is he that he sometimes seems to neglect the larger questions of mass, of light and shade, of sky-blotch in his care for delicacy, beauty and significance of detail, and even in this respect at times forgets that this detail should assume different expressions when executed in different materials.

Holabird & Roche stand very high among their competitors, the Tacoma Building and many others bearing witness to their skill. It is seldom that one meets a professional man so modest, so unassuming and so able as Mr. Roche.

Whitehouse is identified with a large number of dwellings, almost without exception marked by breadth, refinement and home-like quality. The residences of Messieurs Higginbotham, Hutchinson, Cudahy, Yerkes, George Armour and Loomis are a few among many clever designs by him, and among churches St. Pauls in Prairie avenue is, in Chicago, almost unique amid the general paucity of well-designed churches. But of Mr. Whitehouse, no one who had seen certain dwellings of Richardson and McKim, Mead & White, could say that his mind was so self-centered as to be beyond external influence.

Mr. Clay has built a number of houses, showing extraordinary ingenuity and variety in both plans and designs. Spite of its blue girdle, the Partridge house in Prairie avenue, the Wilson and Fuller houses in Michigan avenue near Twenty-ninth street, the Hammer house in Grand boulevard, all show talent of high order, marred at times by too much fussiness and triviality.

Irving Pond and J. K. Cady are two most promising men of the younger class. If you have not seen Pond's Coonley house on the Lake Shore Drive and Division street, you should; it is every way delightful. Cady's work is always good in the sense of being imaginative, simple, refined and dignified.

The gentlemen mentioned above upon the whole confer honor upon the profession; alas, that there should be others of whom this may not be said!

"Unconscious assimilators" of the designs of others which reappear in distorted and mutilated form; worshipers of all the cheap, tin goods of architectural art; coarse and self-assertive in every line and mass of their work; constantly destroying by their monstrosities the beauty of whole streets, and making the end of vistas hideous nightmares, it is a comment upon the large charity of Chicago that they are suffered to exist.

Men like these, however, disgrace all professions, but despite them, the architectural profession in Chicago stands in ability and integrity well abreast of that in any other city, and of any other profession.

Meeting of Board of Directors, American Institute of Architects.

THE first meeting of the Board of Directors of the American Institute of Architects for 1891, was held in the Welles Building, New York, January 3, President Hunt presiding, John W. Root secretary.

There were present fourteen members, as follows:

Richard M. Hunt, John W. Root, R. W. Gibson, Samuel A. Treat, William W. Carlin, Alfred Stone, Levi T. Scofield, Edward H. Kendall, O. P. Hatfield, Emlen T. Littell, J. H. Windrim, William M. Poindexter, D. Adler, George C. Mason, Jr.

The minutes of last meeting being read and approved, a large amount of business was transacted, the major portion being purely executive, and eliminated in this report.

The secretary was authorized to issue charters to the following Chapters: Rhode Island, Western Pennsylvania, Washington, Architectural Club of Cleveland, Missouri, Indianapolis, Philadelphia, New York, Boston, Wisconsin, Western New York, St. Louis, Buffalo, Illinois, Ohio, Michigan, Baltimore, Cincinnati.

Several other Chapters, those of Kansas City, San Francisco, Tacoma, Louisiana, Alabama, Texas, Georgia, either not having applied for charters or not having the required number of Fellows of the Institute (five) among their members, were passed till the next meeting of the directory.

Of the standing committees that upon a Code of Ethics is continued with no change; that upon Clerk of Works same as before, except the change from W. R. Forbush to James W. McLaughlin; that upon Uniform Contract same as before; that upon Education same as before, pending consultation with its chairman.

The Executive Committee of last year was reappointed.

A standing committee upon the Conservation of Public Buildings was appointed, to consist of the presidents of Chapters.

A committee of seven was appointed at the request of the Association of Fire Engineers, to meet a like committee of that body. The committee consists of Napoleon Le Brun, L. H. Sullivan, T. M. Clark, George C. Mason, Jr., Alfred Stone, George W. Rapp, W. W. Carlin.

It was announced by the secretary that the proceedings of the last convention, copies of the revised and amended constitution and by-laws, the Van Rensselaer paper, etc., would be distributed to members about the first of February.

McCULLOUGH & STORCK, a new firm of architects in Chicago, have opened an office at 225 Dearborn street. Mr. Storck has practiced the profession for some time and Mr. McCullough has been for several years connected with the office of J. M. Van Osdel & Co.

J. H. MAHONEY, the sculptor, has opened a studio at Indianapolis and is doing important work there. He is at present engaged upon a statue of Henry Berg to surmount a large drinking fountain for animals, to be placed in front of the city hall at Milwaukee, the total cost of which will be \$15,000. The statue will be cast in bronze, is heroic size, and will be in place and dedicated about May 1.

FREDERICK BAUMANN, of Chicago, deputy architect of the Indiana Soldiers' and Sailors' Monument, has submitted his annual report to the commission, in which he states that satisfactory progress is being made. He reports the lateral wind pressure to be 126,000 pounds balanced by the dead weight of the shaft of 1,800,000 pounds, and estimates the total pressure of the whole monument on the shaft proper to be 416 pounds to the square inch. Mr. Baumann speaks highly of the quality of the cut-stone work.

Progress in Columbian Exposition Work.

THE full text of the report of the chief of construction and advisory board to the Committee on Buildings and Grounds, partially given in last issue, is as follows:

CHICAGO, December 6, 1890.

To the Honorable the Committee on Grounds and Buildings, World's Columbian Exposition:

GENTLEMEN,—Preliminary work in locating buildings, in determining their general areas and in other elementary directions necessary to proper progress in the design and erection of the structures of the Columbian Exposition has now reached a point where it becomes necessary to determine the method by which designs for these buildings shall be obtained.

We recognize that your action in the matter will be of great importance, not only in its direct effect upon the artistic and commercial success of the exposition, but scarcely less upon the aspect presented by America to the world, and also as a precedent for future procedure in the country by the government, by corporations and individuals.

In our advisory capacity, we wish to recommend such action to you as will be productive of the best results and will at the same time be in accord with the expressed sentiments of the architectural societies of America.

The following suggestions relate only to the central group of buildings in Jackson Park, it being the intention, from time to time, to designate other architects for the various important structures that are to be erected in addition thereto.

That these buildings should, in their designs, relationships and arrangement, be of the highest possible architectural merit is of importance scarcely less great than the variety, richness and comprehensiveness of the various displays within them. Such success is not so much dependent upon the expenditure of money as upon the expenditure of thought, knowledge and enthusiasm by men known to be in every way endowed with these qualities, and the results achieved by them will be the measure by which America, and especially Chicago, must expect to be judged by the world.

Several methods of procedure suggest themselves:

First. The selection of one man to whom the designing of the entire work should be intrusted.

Second. Competition made free to the whole architectural profession.

Third. Competition among a selected few.

Fourth. Direct selection.

The first method would possess some advantage in the coherent and logical result which would be obtained; but the objections are that time for the preparation of designs is so short that no one man could hope to do the subject justice, even were he broad enough to avoid, in work of such varied and colossal character, monotonous repetition of ideas. And again, such a method would evoke criticism, just or unjust, and would certainly debar the enterprise from the friendly cooperation of a diversity of talent, which can be secured only by bringing together the best architectural minds of our country.

Second. The second method named has been employed in France and other European countries with success, and it would probably result in the production of a certain number of plans possessing more or less merit and novelty.

But in such a competition much time, even now most valuable, would be wasted, and the result would be a mass of irrelevant and almost irreconcilable material, which would demand great and extended labor to bring into coherence.

It is greatly to be feared that from such a heterogeneous competition the best men of the profession would refrain; not only because the uncertainties involved in it are too great, and their time too valuable, but because the societies to which they almost universally belong have so strongly pronounced on its futility.

Third. A limited and fair competition would present fewer embarrassments, but even in this case the question of time is presented, and it is most unlikely that any result derived through this means, coming as it would from necessarily partial acquaintance with the subject, and hasty, ill-considered presentation of it, could be satisfactory, and the selection of an individual would be open to the same objections made above, as to a single designer. Far better than any of the methods seems to be the last.

Fourth. This is to select a certain number of architects, choosing each man for such work as would be most nearly parallel with his best achievements. These architects to meet in conference, become masters of all the elements of the problems to be solved, and agree upon some general scheme of procedure. The preliminary studies resulting from this to be compared, and freely discussed in a subsequent conference, and, with the assistance of such suggestions as your advisors might make, be brought into a harmonious whole.

The honor conferred upon those selected would create in their minds a disposition to place the artistic quality of their work in advance of the mere question of emolument; while the emulation begotten in a rivalry so dignified and friendly could not fail to be productive of a result which would stand before the world as the best fruit of American civilization.

(Signed)

D. H. BURNHAM,
Chief of Construction.
JOHN W. ROOT,
Consulting Architect.
F. L. OLMSTED & Co.,
Consulting Landscape Architects.
A. GOTTLIEB,
Consulting Engineer.

In compliance with this report the Committee on Buildings and Grounds, upon the recommendation of Consulting Architect Root and Chief of Construction Burnham, on January 6, appointed ten firms of architects, as follows:

Richard M. Hunt,	Adler & Sullivan,
Henry Ives Cobb,	George B. Post,
Van Brunt & Howe,	S. S. Beman,
W. L. B. Jenney,	McKim, Mead & White,
Burling & Whitehouse,	Peabody & Stearns.

These architects assembled in Chicago on January 10, and on January 12 formed a bureau, with George B. Post as chairman and Louis H. Sullivan as secretary. On January 13 the following letter was sent to the Committee on Buildings and Grounds in response to their resolutions, through the chief of construction, he recommending its acceptance:

We state, in reply to your resolution, that the service to be rendered by us is as follows:

1. Attendance at a conference now in session, and at the second conference referred to in paragraph 4 of your resolution.
2. The preparation of preliminary studies to be submitted to said conference.
3. The preparation of one set of full and complete general working drawings of each building intrusted to our professional care, and of full details of all work of an artistic character connected therewith, also making such written description as may be necessary to elucidate fully our views as to the construction and treatment of said buildings. We are not, however, to make calculations of strength and stability, or to furnish detail drawings of structural design except to the extent these may be in any case intimately connected with the general artistic or economic aspects of the design. The engineer's solutions of the problem relating to design are to be submitted to us, and must in each case, as far as their relation to the artistic value of the buildings are concerned, meet the approval of the architects of the respective buildings before execution. In view of the fact that all problems of construction are to be solved by your own engineer, we are not to be held responsible for the structural stability of your buildings. But we are to give sufficient attention to the development and execution of our designs to assure ourselves and your committee that these designs are being carried out substantially in the spirit and on the lines contemplated.

The non-resident architects may, if they deem it necessary for the purpose of insuring certainty of execution of their designs in full accord with their

intentions, make six additional visits each to the buildings under their charge, at such times as may seem to them most appropriate.

For the before mentioned services we are to be paid as follows:

First. All expenses of every kind incurred by us in making the drawings required, as also our necessary traveling expenses. Each of us shall keep an exact and regular account of all such expenses, which account up to the 25th day of each month shall be submitted to the chief of construction on or before the last day of said month and shall be paid before the 15th of the following month.

Second. The sum of \$10,000 to each of the architects selected by you, payable as follows: \$5,000 when the preliminary sketches are completed, \$6,000 when all the drawings are completed, and \$1,000 when the buildings shall have been completed.

In formulating these charges for our services we have given full consideration to the high and distinguished honor conferred upon us by your board, and believe that in fixing upon this scale of compensation we are not only dealing equitably and justly with ourselves, but, considering the circumstances and limitations of our employment, are acting in accordance with our general practice and with the usages of our profession. Respectfully submitted.

LOUIS H. SULLIVAN, Secretary.

GEORGE B. POST, Chairman.

The acceptance of this report from the architectural bureau was recommended by Chief of Construction Burnham, and was instantly adopted unanimously.

The apportionment of the work next occupied the attention of the Committee on Buildings and Grounds, and the following general action was taken by the committee and the chief of construction in reference to the work:

Resolved. That the architects selected will be required in general—

First. To confer together with the chief of construction and his assistants in reference to the general grouping and arrangements of certain buildings for the purpose of eliciting any suggestions which may be of benefit.

Second. To suggest in general designs for various main structures, so that they may be in harmony with one another and of a desired high type of excellence.

Third. To furnish specific designs for different buildings, as they, or each of them, may be requested by the chief of construction.

Fourth. To make such suggestions, at a subsequent meeting, to be held at a time to be designated by the chief of construction, as may then seem necessary in view of the designs to be submitted.

The intention of the foregoing is to secure for the exposition management advice and services from architects in different portions of the country, with a view of presenting upon the exposition grounds types of architecture in every way suited to the requirements of the state of the art in this country.

The work was at this meeting also apportioned to the ten architects appointed in response to the following resolution:

Resolved. That the chief of construction be authorized to notify the ten architects selected of their appointment, and to assign to them individual buildings and notify them of such assignment at his discretion.

The work was therefore apportioned to the architects, each with a view to his special fitness for the work. Architects Hunt, Post and McKim, Mead & White, of New York, Peabody & Stearns, of Boston, and Van Brunt & Howe, of Kansas City, were given a group of five buildings to work out as one scheme. These buildings include a central building for manufactures and liberal arts, covering twenty-two and one-half acres; the agricultural, covering nine and one-half acres; machinery, covering eleven and one-half acres; electricity, covering six acres, and administration buildings. Of the five Chicago architects, Adler & Sullivan will design the transportation building, covering seven acres; S. S. Beman, mines, covering six acres; Henry Ives Cobb, fisheries, covering three acres; W. L. B. Jenney, horticultural, covering eight and one-half acres; Burling & Whitehouse, entrances.

Architects Adler & Sullivan were appointed to design the temple of music, but pending an uncertainty that it will be built they have been apportioned other important work.

This appointment and apportionment leaves yet many large buildings and groups and many scattered smaller buildings and features, which will undoubtedly be very soon assigned, and probably entirely among Chicago architects not already recognized but known to be equal to any of those selected. The chief of construction found it extremely difficult to draw a line where he felt none existed, but he has pursued that course deemed most wise at this juncture to expedite business and push the work with dispatch. The active designing will now go rapidly forward, and meantime the grounds at Jackson Park are being prepared for reception of buildings.

The bureau of architects sent to the Committee on Buildings and Grounds, upon adjournment, January 16, the following communication:

The commission has been embarrassed by want of definite information with regard to the exact requirements of space for the exhibits under each department of the classification, and it cannot learn that any specific facts have been or can be gained to establish exact dimensions for the various buildings.

The commission is therefore of the opinion that the buildings should be reduced in size to the smallest estimate of possible requirements, and that such provisions should be made for their extension as may become necessary by the construction of additions of comparatively economical character, and that these additions should be provided for in the original design as parts of each building rather than as separate annex structures. The commission is of the opinion that this system will avoid unnecessary expenses in the outset, or the ultimate construction of architectural deformities.

In the opinion of the commission the plan which they have the honor to submit herewith shows that arrangement of buildings in relation to each other and to the grounds which will best serve as a final arrangement and as a basis for the design for the separate buildings.

It is considered by the commission to be a matter of vital importance that there be constructed no important buildings south of Sixtieth street and that the island should be free from all buildings used for exhibition purposes.

In the opinion of the commission the device of inter-communication by means of waterways not only forms a very original and beautiful feature of the general design, but will prove of great practical value.

The commission is of the opinion that great additional interest will be added to the exposition if the exhibit of marine transportation is removed from the building for general transportation and located as indicated on the plan.

The commission recommends the construction, at the intersection of the main pier in the lake and the breakwater pier, of a structure several open docks in height, which may serve as a refreshment saloon, and also serve to give a bird's-eye view of the grounds and buildings on the line of one of the main axes of the design.

No attempt has been made to establish the exact size of any one of the buildings, but the plan submitted is intended to show a scheme by which their size may be made practically elastic.

The commission desires to state that its members have spent a considerable amount of time, individually and collectively, in roughly laying out different schemes for general arrangements of Jackson Park for the proposed exposition, and that, with the modifications of detail which it now proposes, it believes that

the plan submitted to them for consideration forms a perfect solution of the problem.

The commission desires to call your attention to the fact that until a definite scheme is adopted and until the exact dimensions of the various buildings are fixed by the proper authorities, its members cannot even make preliminary sketches for the work assigned to them.

In conclusion, the commission desires to express its satisfaction with the present condition and prospects of the World's Columbian Exposition, the wisdom of the general arrangements as far as they have come under its consideration, and its confidence in the success of the undertaking.

LOUIS H. SULLIVAN, Secretary.

GEORGE B. POST, Chairman.

The committee decided to let contracts for dredging and filling Jackson Park in accordance with the plan. New bids will have to be called for, and when they are in work will immediately begin.

National Association of Builders.

THE approaching fifth annual convention of the National Association of Builders, which will be held in New York February 9, 10, 11, 12, has been fully arranged for by Secretary Sayward and the Executive Committee, circulars having been issued containing special information preparatory thereto.

The Chicago Builders' and Traders' Exchange appointed a special committee on transportation to arrange for those attending the National Convention of Builders. After these were perfected the following special circular was issued, and concerns not only those who propose attending from Chicago, but all exchanges west of that point and those east upon the line of the Michigan Central Railroad. A time-table is also attached.

The next annual meeting of the National Association of Builders will be held at Masonic Hall, on Twenty-third street, in New York, February 9 to 13, for which occasion the Michigan Central—"The Niagara Falls Route"—will make a rate of one fare and one-third for the round trip, on the certificate plan, i. e., you pay \$20 Chicago to New York and receive a certificate which will enable you to purchase a return ticket at \$6.75.

The cost of sleeping-car berth each way will be \$5. These rates will apply to delegates, members of their families, or friends who desire to accompany them.

The Chicago delegation from the Chicago Builders' and Traders' Exchange, after a careful consideration of the advantages offered by the various lines, have selected the Michigan Central and will start from Chicago on their "North Shore Limited Express," leaving at 12:20 noon, Saturday, February 7, which train is due to arrive in New York, at the Grand Central depot, at 4 o'clock the next afternoon.

The service on this train is unsurpassed, it being a solid vestibule train equipped with buffet, library, dining and sleeping cars, and in fact, every convenience that the most exacting traveler could wish, thus insuring us a most enjoyable trip.

Delegates from western cities are cordially invited to come to Chicago to join the Chicago delegation.

A postal card is inclosed herewith addressed to Mr. L. D. Heusner, passenger and ticket agent, Michigan Central Railroad, on which please state if you will join us to go on that train; also please give the number of persons in your party, so that sufficient sleeping-car accommodations may be reserved.

Certificates to enable you to secure the reduced rates will also be sent to you. While the committee are very anxious to have you join them and go on this train, it might be well to state that the tickets at this rate will also be accepted on any of the other trains of the Michigan Central and New York Central & Hudson River railroads, as shown in the time-table below.

Awaiting your early reply,

M. B. MADDEN,
WM. GOLDIE,
ROBT. C. VIERLING.

Trans. Com. Chicago Builders' and Traders' Exchange.

MICHIGAN CENTRAL AND NEW YORK CENTRAL & HUDSON RIVER.	No. 20. North Shore Limited.	No. 6. New Yk. Vestib.	No. 10. Fast Atlantic Express.	No. 12. New Yk. and Bost. Express.
Lv. CHICAGO, Lake Street.....	*12:20 pm	* 3:10 pm	*10:10 pm	§ 9:25 pm
Lv. Chicago, 22d Street.....	12:28 pm	3:18 pm	10:18 pm	9:33 pm
Lv. Kalamazoo.....	4:00 pm	7:04 pm	3:35 am	2:17 am
Lv. Battle Creek.....	4:30 pm	7:37 pm	4:29 am	3:04 am
Lv. Jackson.....	5:38 pm	8:52 pm	6:25 am	4:45 am
Ar. Detroit.....	7:30 pm	10:45 pm	9:20 am	7:30 am
Lv. Detroit.....	* 7:40 pm	10:55 pm	9:50 am	†12:30 pm
Ar. St. Thomas.....	10:55 pm	2:00 am	12:45 pm	4:00 pm
Ar. Falls View.....		5:57 am	4:37 pm	
Ar. Niagara Falls, N. Y.....	3:30 am	6:40 am	5:20 pm	9:05 pm
Ar. Buffalo.....	4:10 am	7:25 am	5:55 pm	9:30 pm
Ar. Rochester, via N. Y. C. & H. R.....	* 6:00 am	* 9:55 am	* 8:10 pm	*12:25 am
Ar. Syracuse.....	8:00 am	12:15 pm	10:10 pm	2:30 am
Ar. Utica.....	9:37 am	2:05 pm	11:54 pm	4:10 am
Ar. Albany.....	12:00 m	4:50 pm	2:30 am	6:40 am
Ar. NEW YORK, Grand Cent. Depot....	4:00 pm	8:50 pm	7:00 am	10:55 am

Eastern time shown for points east of St. Thomas. *Daily. †Except Sunday.
§ Except Saturday.

"Sugar Mortar."

OCASIONAL notices have appeared in the technical press of experimental tests of lime mortar to which small quantities of sugar have been added, with the result of largely increasing its tenacity and hardness. Recipes are also given for adding molasses and iron filings to lime mortar for the same purposes. Neither method seems to have come into general use, however, perhaps from inadvertence or from some practical difficulty not encountered by the experimenters. The Vienna *Bau Industrie Zeitung* mentions the process with approval, stating that it gives to common lime mortar a strength superior to that of cement. It says there is no novelty about it, as it has been practiced in India for hundreds of years with the best possible success. The fortifications of Madras, built near the close of the eighteenth century, were laid in mortar mixed with cane sugar, which mortar acquired a hardness and strength equaling that of the rock itself. The removal of portions of this masonry in 1859 was attended with the utmost difficulty and large expense, it being almost impossible to separate the mortar from the rock even by the most violent explosives. The solidity of the celebrated Cunham walls in Madras is also credited to the "sugar mortar." In the recent construction of the Museum of Natural

History in Berlin highly satisfactory experiments were made with such mortar, it proving equal to the best cement. Molasses was also tried in a similar manner but without perceptible advantage.

Our Illustrations.

Portrait (photogravure) of the late John Wellborn Root. Wholesale Store Building, Minneapolis, Minn. L. S. Buffington, architect.

Palm House and Conservatory, Lincoln Park, Chicago. J. L. Silsbee, architect.

Court House for Wayne County, Indiana. Jas. W. McLaughlin, architect, Cincinnati, O.

Residence for Mr. F. D. Turner, Rogers Park, Ill. W. L. B. Jenney, architect, Chicago.

Wainwright Office Building, St. Louis, Mo. Adler & Sullivan, Chicago, and Chas. K. Ramsey, St. Louis, associated architects.

Seattle Opera House Building, Seattle, Washington. Adler & Sullivan, architects, Chicago. Perspective view and floor plans are shown.

Rochester Architectural Sketch Club Competition for a brick and terra-cotta clock tower for a railway station; first place, R. A. Greenfield; second place, W. H. Barnes.

Cincinnati Architectural Club Competition for a wrought iron bracket lamp; first and fifth places, John Zettel; second place, David Davis; third place, Bernard Wisenall; fourth place, Arthur Stedman.

PHOTOGRAVURE PLATES.

(Issued only to subscribers for the Photogravure edition.)

Stable building, Edgewater, Ill. J. L. Silsbee, architect, Chicago. Evanston Club House, Evanston, Ill. Holabird & Roche, architects, Chicago.

City Library, Cambridge, Mass. Van Brunt & Howe, architects, Boston and Kansas City, Mo.

Building for Scroll & Key Society, New Haven, Conn. Richard M. Hunt, architect, New York.

Building for Southern New England Telephone Co., New Haven, Conn. L. W. Robinson, architect.

Residence of Mr. James Mullen, Kenwood, Chicago, Ill. Irving K. Pond and Allen B. Pond, architects.

Fowler Hall of McCormick Theological Seminary, Chicago. A. Page Brown, architect, New York City.

Association Notes.

CHICAGO REAL ESTATE BOARD.

The annual election of the Chicago Real Estate Board took place January 13. All the vacant offices were filled. The result of the election was as follows:

President, Josiah L. Lombard; vice-president, Edwin F. Getchell; treasurer, Samuel E. Gross; secretary, Robert P. Walker. Executive Committee—Wyllis W. Baird, two years; Byron A. Baldwin, F. A. Henshaw (holding over).

Membership Committee—D. M. Erskine, Jr., two years; L. J. Swift, J. V. Hair. W. F. Lubeke, Dunlap Smith, J. H. Trumbull, Wm. P. Harrison, C. W. Pierce, V. H. Surghnor (holding over).

Reference Committee—M. R. Barnard, two years; A. B. Meade, John B. Knight (holding over).

Valuation Committee—Joseph Donnersberger, Eugene H. Fishburn, Willis G. Jackson, George M. Bogue (holding over), Frank R. Chandler (holding over).

Call Board Committee—Nelson Thomasson, two years; C. L. Bonney, F. M. Elliott, Charles E. Rand, C. L. Hammond (holding over).

Public Service Committee—South Side, William R. Kerr, B. R. De Young; North Side, E. S. Dreyer, two years; James L. Houghteling; West Side, John Wain, A. J. Stone, George Birkoff Jr.

CHICAGO BUILDERS' AND TRADERS' EXCHANGE.

A special meeting of the exchange was held on December 12 to nominate and elect delegates to the fifth annual convention of the National Association of Builders, which will be held in New York February 9, 10, 11 and 12. For the first time in this exchange delegates were nominated upon the floor, and the result was that the names of over sixty candidates were proposed, and in the balloting but seven similar ballots were cast. The following is the result:

Delegate at large, George C. Prussing. Delegates—W. P. Ketchum, George Tapper, Joseph Downey, John Rowle, W. H. Alsip, C. W. Gindele, M. B. Madden, R. Vierling, F. E. Spooner, William Goldie, D. V. Purington, P. B. Wight. Alternates—George A. Fuller, H. Martin, C. B. Kimbell, John Angus, C. C. Bishop, W. M. Crilley, J. B. Simpson, E. H. Humprey, J. G. McCarthy, D. Freeman, E. Kirk, Jr., W. G. Oliver.

ST. LOUIS MECHANICS' EXCHANGE.

The annual meeting of the Mechanics' Exchange of St. Louis was held January 13 for the purpose of electing delegates to the national convention and to nominate officers for the ensuing year. The principal business discussed before the election of delegates was upon a resolution presented by Henry Feurbach instructing the delegates to advocate the reduction of the three dollar per capita tax of the national association to one dollar. This was opposed by Mr. Anthony Ittner (second vice president of the national association) and others and was finally lost by an almost unanimous vote.

Messrs. Ittner and Delegate-at-Large Kelly were elected by ballot by the secretary to represent the exchange, and subsequently five other

delegates were elected—Messrs. J. B. Legg, William Anderson, W. A. Rutter, W. J. Baker, P. Mulcahy. No alternates were elected.

Mr. J. N. Daues made a statement that the Missouri measurement law as now on the statute books contradicted itself, and therefore moved that a committee composed of a bricklayer, painter, stonemason and plasterer be appointed. The following gentlemen were then named: J. H. Daues, Stephen O'Connor, Daniel Cavanaugh, James S. Dowling and P. Mulcahy. These gentlemen were instructed to visit Jefferson City and seek to secure the proper legislation.

Obituary.

On January 7, the well known hardwood lumber dealer, Mr. Charles H. Hayden, died in Chicago, after many years of active business life, in which honesty, integrity and sound business principles and judgment made him respected and loved.

At a special meeting of the Chicago Hardwood Dealers' Association the following resolutions of respect and regret were passed:

The members of the Chicago Hardwood Lumber Dealers' Association received the announcement of the death of Charles H. Hayden with profound sorrow, deepened by the suddenness with which he, one of their most active and appreciated associates, has been called to swell the large list of those gone before.

His many years of active life in the lumber trade in this city brought him in contact with all of us, making his loss more keenly felt by each, added to the pain and sorrow of seeing one more vacancy made in our ranks.

Possessed of unbounded energy, ambition and honesty, conscientious and prompt in all business matters, he was, as a business man, a success, which these qualities command, and his death has cut short a career that must have been a pattern for young men as the legitimate results of honesty, integrity and sound business principles faithfully applied.

A large number of friends will feel the loss keenly in that social circle of which he was so important a factor.

To his family, to whom he was so deeply devoted, his fellow members of the Chicago Hardwood Lumber Dealers' Association offer their heartfelt sympathy, in their loss of a faithful husband and a true father, unsparring of himself, with loyalty and fidelity to every tie and duty.

Resolved, That these resolutions be spread upon the minutes of the Chicago Hardwood Lumber Dealers' Association, and a copy sent to the family of our deceased brother, and to the press of this city.

GEORGE E. WHITE, President.
E. E. HOOPER, Secretary.

Suitable resolutions were also passed by the Chicago Lumberman's Exchange.

Personal.

COPE & STEWARDSON, architects, of Philadelphia, have removed to 320 Walnut street.

CHARLES D. STICKNEY, formerly of Philadelphia and favorably known in Milwaukee and Chicago, has opened an office in Evansville, Indiana.

RICKON & THOMPSON, architects and civil engineers, of Little Rock, Arkansas, are sending a neatly designed souvenir to their friends announcing their copartnership.

ARCHITECTS BAUER & HILL, of Chicago, have removed from the offices they have so long occupied at 94 La Salle street to the Marine Building on the northeast corner of Lake and La Salle streets.

BEERS, CLAY & DUTTON is now the style of a new firm of Chicago architects formed by the consolidation of the offices of the well-known architects, Myron L. Beers and W. W. Clay, Mr. Dutton having for the past year been connected with the latter firm under the style of Clay & Dutton. If Mr. Beers has a specialty it is schoolhouses, if Mr. Clay, it is residences, and Mr. Dutton is a designer of exceptional ability, the combination making a strong firm.

ARCHITECTS TREAT & FOLTZ, of Chicago, have removed to the Fairbanks Building, southwest corner of Randolph street and Wabash avenue. As this firm have occupied offices at 80 Dearborn street for so many years and the building to which they removed is a new office building, Mr. Treat is sending his friends a sketch of that portion of the city, showing the location of prominent buildings such as the city hall, and the old offices of the firm and that of the new.

FROM January 1, 1891, the Chicago Hydraulic Press Brick Company becomes successors to Messrs. Lockwood & Kimbell for the sale of St. Louis, Collinsville, Findlay pressed brick, and all lines heretofore handled by them. The active management of the company will be in the hands of Messrs. S. S. Kimbell, general manager, and J. J. Lockwood, assistant secretary and treasurer, and the same prompt attention will be given to customers in the future as they have received in the past from the retiring firm.

Building Outlook.

OFFICE OF THE INLAND ARCHITECT,
CHICAGO, Ill., January 10, 1891.

Business people are apprehensive of a continued stringency in money. Commercial failures last year were two and one-half times greater than for the previous year. The volume of business as represented by bank clearings foots up over sixty thousand million dollars. The production of crude and manufactured products last year was considerably in excess of the year 1889. Enormous investments were made throughout the year in all directions and in all avenues, but the recent stringency has arrested the fever in that direction for the time being. Money is being tied up and hidden for the present lest the stringency should become deeper and more general, but the business interests generally believe that congress will recognize the necessity of taking whatever steps can be taken to improve the financial situation. A country doing a business of sixty thousand million dollars is presumably in need of a greater volume of currency than when its volume of business is one-half that amount. Manufacturers everywhere are resuming operations after the holidays with a fair amount of work. Buyers are pursuing a very conservative course, believing that existing productive capacity is fully able to protect them against an advance. The

advancing tendency in prices which recently manifested itself will not probably continue, but rather decline because of the evident purpose of manufacturers to crowd production. Lumber, coal, iron, steel machinery of all kinds and building material of every character has been run down to a rather low ebb by the extraordinary demand which was kept up all through the past year. Present indications point to great activity in the early spring. In the first place, there is no accumulation of stocks; then prices are low. An enormous amount of new work is projected. Railroad companies will do much new work. House and mill and shop building will be entered upon with zeal unless something of an unusual character develops itself. The masses of the people have been busily employed at good wages, and there is no reason for anticipating any other condition. All sections of the country are prosperous. The South has been making steady advances. The West is filling up with a thrifty people. Railroads are contributing their share to the great work of interior development. The car and locomotive and ship, boat and general machinery builders are all busy. In fact, there is no statistical reason for anticipating any decline in activity in any branch of industrial activity. House building has not been overdone, nor will be as long as there are good conditions among the manufacturing and farming interests. The country is strong politically and financially, and the people are maintaining a close and intelligent supervision over their public servants. Labor agitations are not seriously threatened, except among coal miners. Wages have been declining here and there, and it is probable further reductions will be made at the opening of spring in several branches of industry. The country has made permanent gains during 1890, and every indication points to a healthy growth during the current year.

Synopsis of Building News.

Baltimore, Md.—The Fidelity & Deposit Company are considering plans for their new office building to cost about \$300,000. The company intend to make their building one of the finest in Baltimore and second to none in the country. It will be eight stories high and equipped with all modern conveniences.

The St. Mary's Seminary Committee are having plans prepared for a six-story brick addition to their building.

Chicago, Ill.—Architect E. H. Turnock has completed plans for two three-story residences to be erected on Forty-fifth street and Vincennes Avenue. They will have fronts of buff Bedford stone; hardwood interiors, furnaces and all the improvements, and cost \$13,000.

Architect Frederick W. Perkins: For M. Donnelly, a three-story stone front residence, to have hardwood interior, furnace, stained, plate and beveled glass, etc.; cost \$10,000; to be erected on Woodlawn Avenue near Fifty-first street.

Architect George Grussing is making plans for six two-story flat buildings to have Tiffany pressed brick and Bedford stone fronts, bathrooms, closets, mantels, stained glass, electric bells, speaking tubes, etc. They will cost \$18,000 and will be built on Troy street near Chicago Avenue. He is also taking bids on three two-story flat buildings of Tiffany pressed brick and stone, to have all the improvements and cost \$12,000, to be built on Sacramento Avenue near Lake Street.

Architect F. L. Fry: For Wm. Thomas, finished plans for a four-story flat building 33 by 72 feet, to cost \$16,000, to have a rock-faced stone front, hardwood finish, all the sanitary and modern improvements. It will be erected on Calumet Avenue and Twenty-fourth street.

Architect W. L. Carroll: For Hugh R. Ross, a two-story residence, stone basement, frame, hot water heating, etc., to be built at 17 & 19 Hinman street, Evanston.

Architect J. L. Merriam: For Fred B. Clark, a two-story store and flat building, corner of Cypress and Kendal streets, of pressed brick, stone and galvanized iron, bathrooms, closets, mantels, etc., cost \$20,000.

Architects I. K. & A. B. Pond: For the Chicago City Missionary Society, a chapel 46 by 103 feet, to be built on Ewing street, near Halsted; to be of pressed brick and stone, with slate roof, pine finish, stained glass windows, furnace, and chairs to accommodate six hundred people.

Architect F. R. Schock: For Frank Johnson, at Austin, making plans for a two-story basement and attic frame, stone basement residence, to have stained glass and all the improvements. For W. S. Gould he is planning a two-story basement and attic residence; to be of frame and bowlders, have steam heat, hardwood finish, stained, plate and beveled glass, etc.; to be erected at Riverside. For Charles Wolf, at Elgin, a two-story basement and attic frame and stone basement residence. For S. W. Chapman, at Elgin, a two-story basement and attic frame, and bowlders, furnace, bathrooms, closets, mantels, stained glass, etc.; making plans. For M. Reiman, on Drexel boulevard near Forty-third street, taking figures on a two-story basement and attic residence, to have a blue Bedford stone front, hot water heating, hardwood interior, and the best of sanitary and modern improvements; the cost will be about \$18,000.

Architects McCullough & Strock: For Vernon Lee, a two-story flat building, 44 by 60 feet, to be built on Sixty-first street, Englewood. The front will be of St. Louis obsidian brown pressed brick, with Bedford stone trimmings; they will put in stained glass and all the sanitary improvements.

Architect O. W. Marble: For himself, a three-story residence on Grand boulevard south of Forty-third street. It will have a handsome buff Bedford stone front with carved ornamentation, hardwood interior, hot water heating, electric light, gas fixtures, consols and sideboards, cement floor in basement, etc.; cost, \$15,000. The same architect is working on plans for a four-story and basement apartment house, 100 by 100 feet in size, to be erected on the South Side. It will have a stone front of very handsome design in the French Renaissance style of architecture. It will be finished in hardwood throughout, have marble wainscoting and stairs, mosaic and tiled floors, steam heat, electric light, elevators, stained, plate and beveled glass, and the best of modern sanitary arrangements; the cost will be upward of \$150,000.

Architects G. Bloedner & Co.: For William Clusman, a two-story flat building of brownstone and pressed brick, to be built at 444 South Paulina street. For H. Rudolph, on West End boulevard and Nineteenth street, eight two-story flat buildings, of pressed brick and stone, and all the modern improvements; to cost \$33,000.

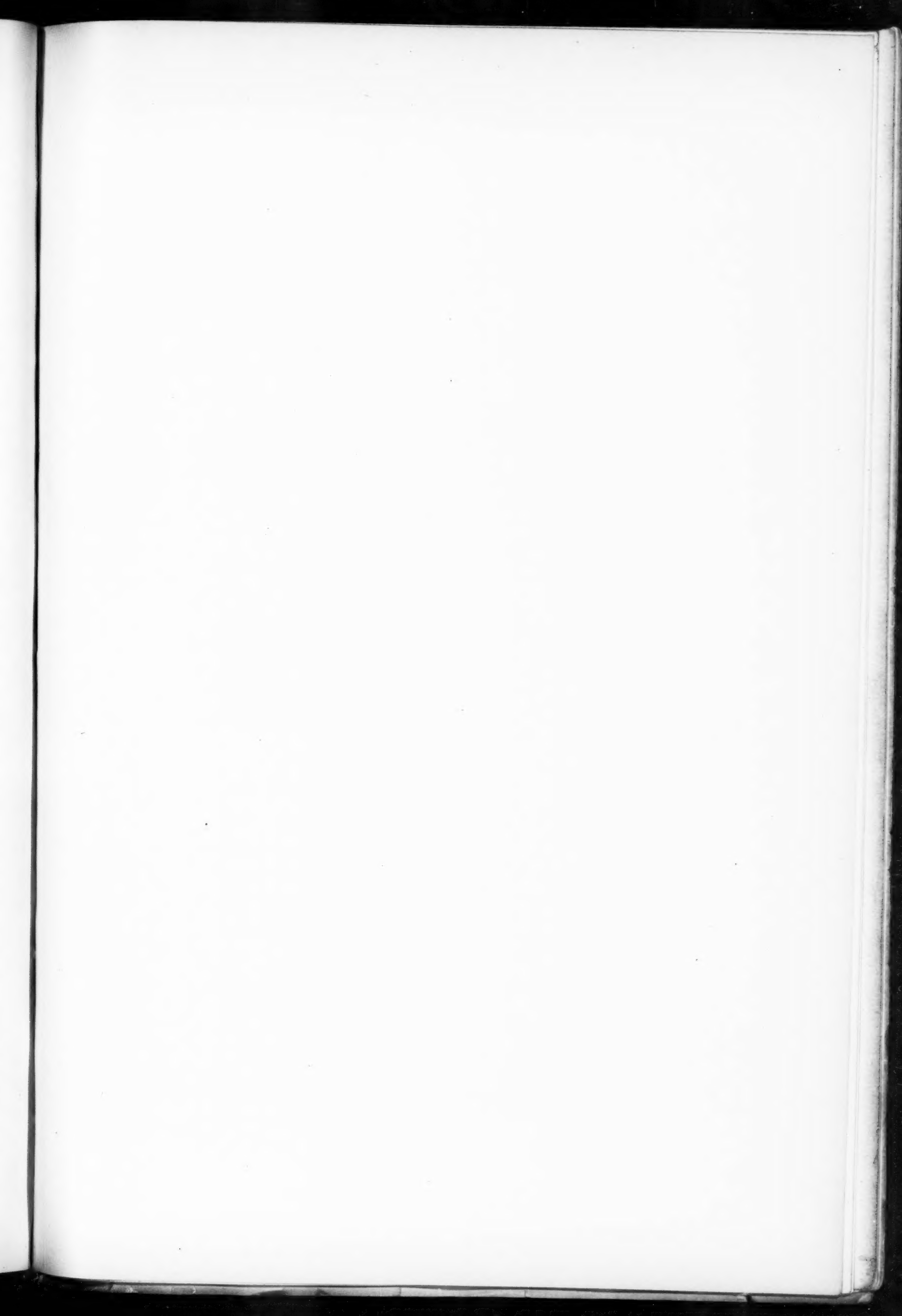
Architect J. H. Huber: For M. Marks, making plans for a three-story store flat and hall building, 25 by 105 feet in size, to be erected at 3030 State street. It will have a stone and iron front, stained and plate glass, hardwood finish, elegant lodge and banqueting rooms, etc.

Architects J. M. Van Osdel & Co.: For Robert Law, a four-story warehouse, 80 by 100 feet; to be built on the river front and Market street; it will be of common brick, mill construction and have freight elevator, steam heat, etc., and cost \$40,000.

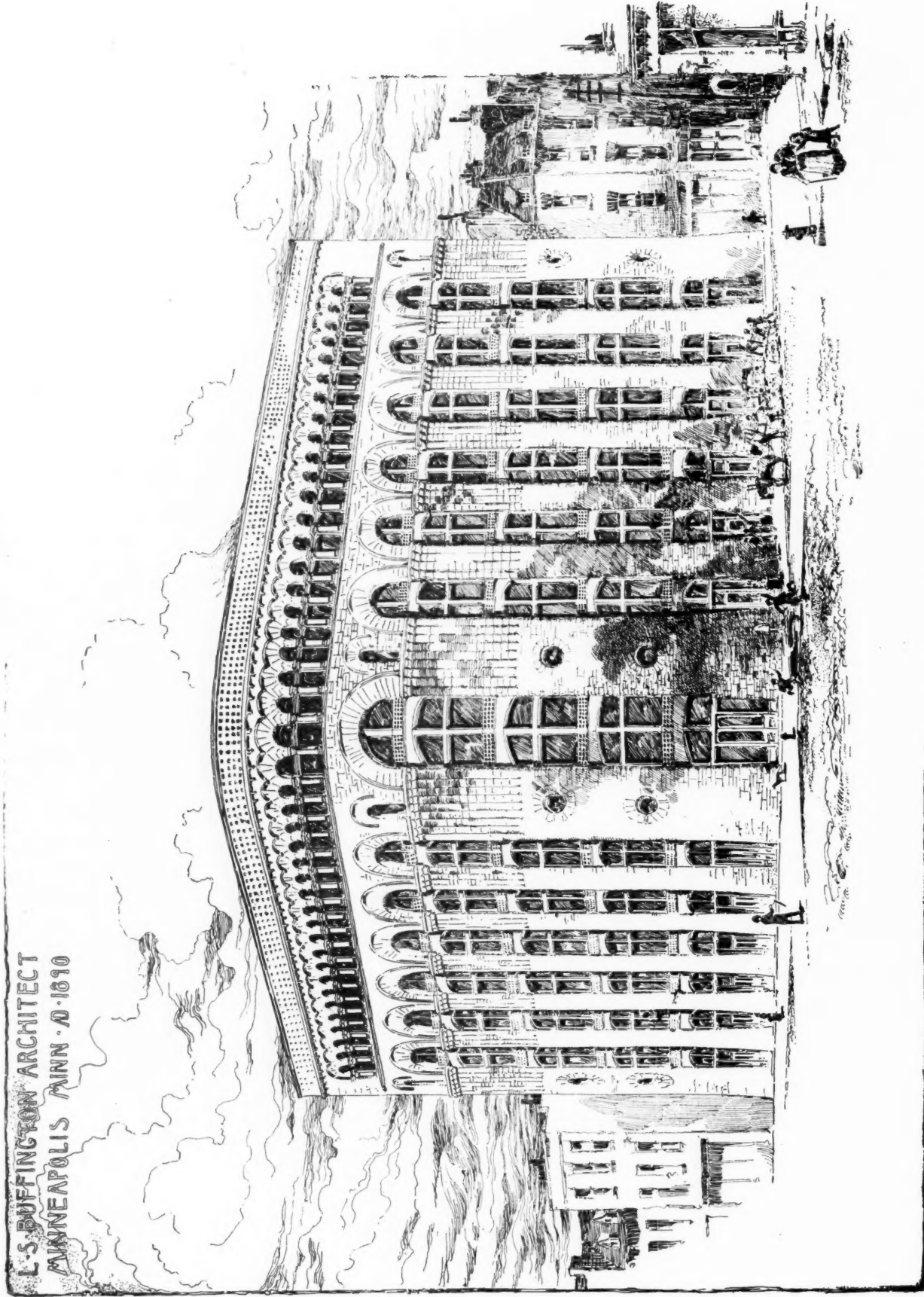
Architects Bettinghofer & Hermann: For Rev. Pirmin Koumly at Nemaha County, Kansas, planning a Catholic church, 60 by 130 feet, with square tower 160 feet high.

Architect A. Druiding: For East Saginaw, Michigan, a Catholic church to cost \$48,000. For Glencoe, Minnesota, a church to cost \$23,000. For Jersey City, New Jersey, making plans for a large Catholic church. For St. Andrews Cathedral, Little Rock, Arkansas, a two-story school building.

Architect C. L. Stiles: For B. B. Boecker, at Naperville, Illinois, just finished plans for remodeling residence; will put in hot water heating, hardwood finish, slate roof, etc. For James Howe, on Harrison street, near Centre Avenue, a buff Bedford stone front, four-story store and flat building; all the modern improvements will be put in. He has also just finished sketches for the Magnolia Inn to be erected at Mobile Bay, about thirty miles from Mobile, Alabama; it will be 40 by 126 feet, two stories high, all finished in Georgia pine; the first floor will have a dining room 40 by 48 feet in size, parlors, billiard room and office. A main feature of the Inn will be immense verandas extending round the building and facing the bay. The heating will consist of old-fashioned fireplaces about eight feet wide in red pressed brick or terra-cotta. In addition to this, they will

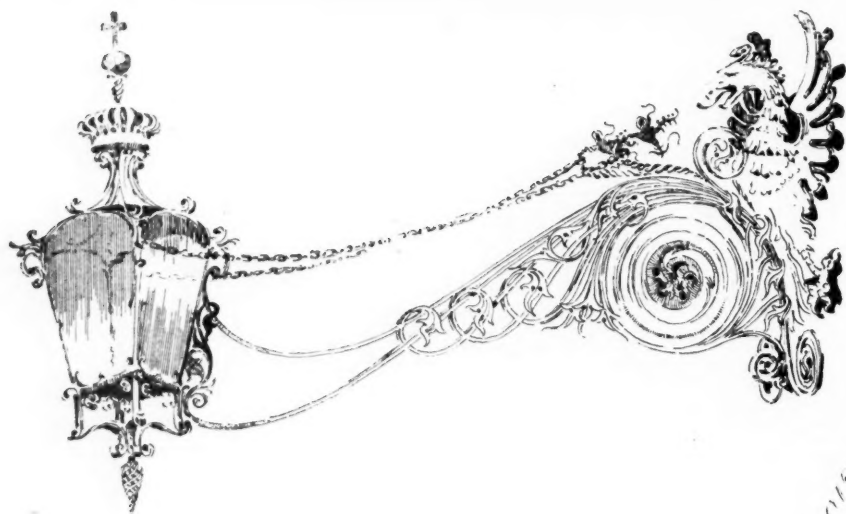


L. S. BUFFINGTON ARCHITECT
MINNEAPOLIS MINN. A. D. 1890

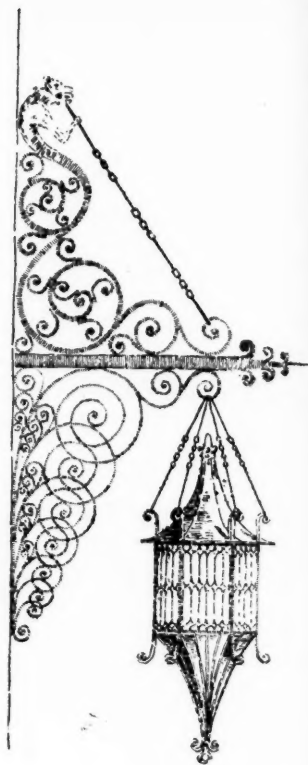


WHOLESALE STORE BUILDING, MINNEAPOLIS, MINN.

L. S. BUFFINGTON, ARCHITECT.

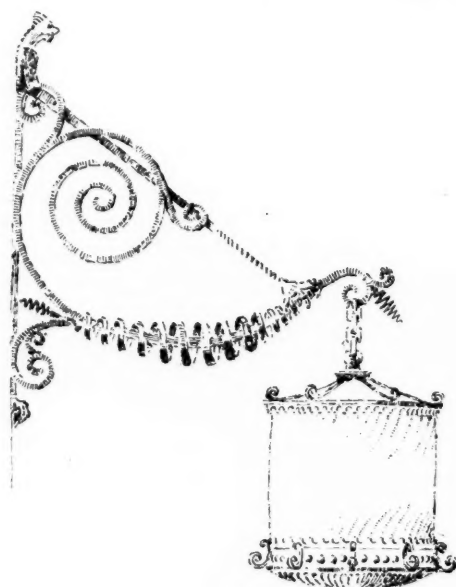


WROUGHT-IRON BRACKET LAMP
C.A.C. COMPETITION
DESIGN SUBMITTED BY



FIRST PLACE—JOHN ZETTEL.

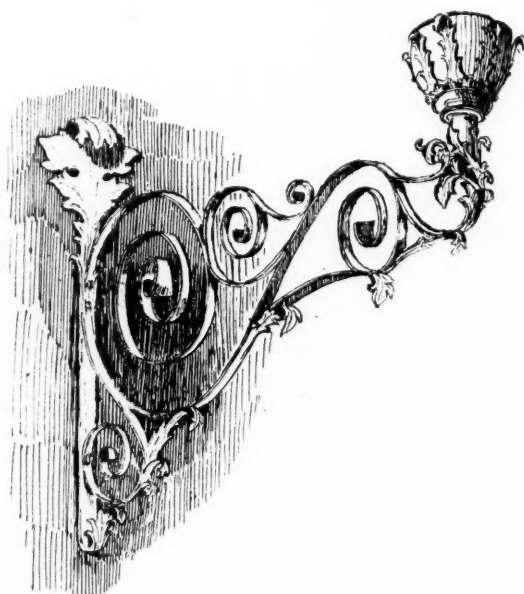
THIRD PLACE—BERNARD WISENALL.



FOURTH PLACE—ARTHUR STEDMAN.



FIFTH PLACE—JOHN ZETTEL.



SECOND PLACE—DAVID DAVIS.

CINCINNATI ARCHITECTURAL CLUB COMPETITION FOR A WROUGHT-IRON
BRACKET LAMP.

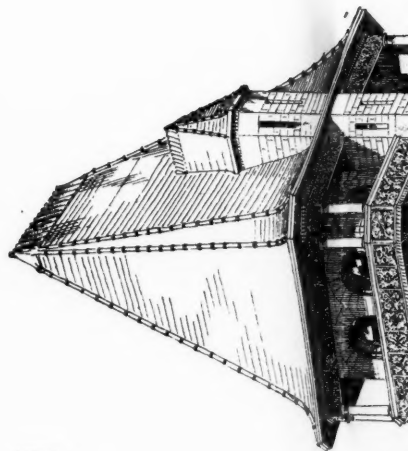
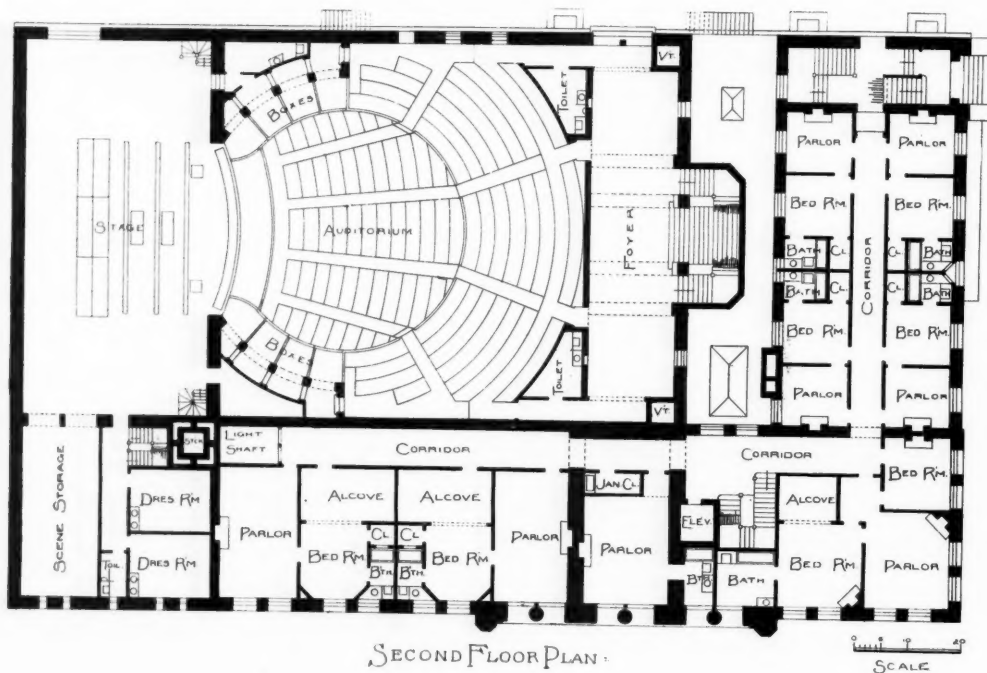
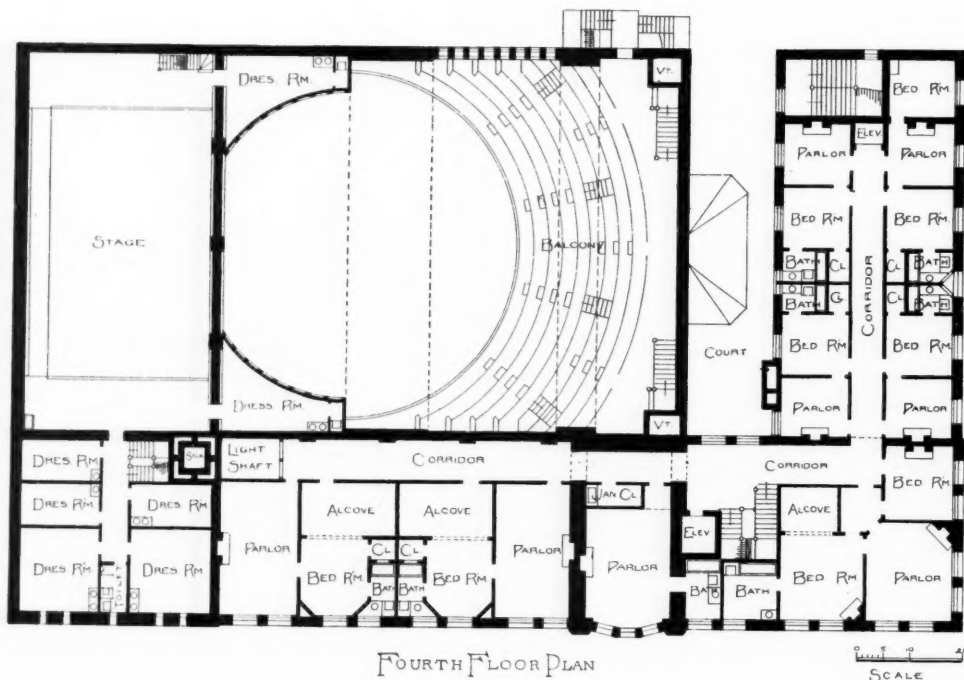
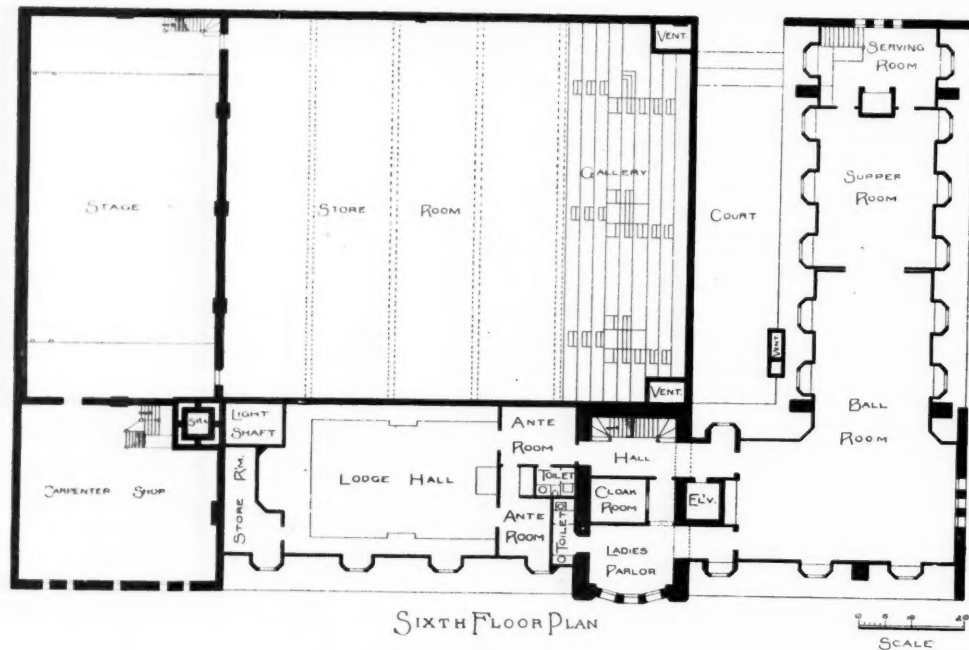
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ALL



*Picture House and Cemetery
Linneth Hill, Chicago, Ill.*

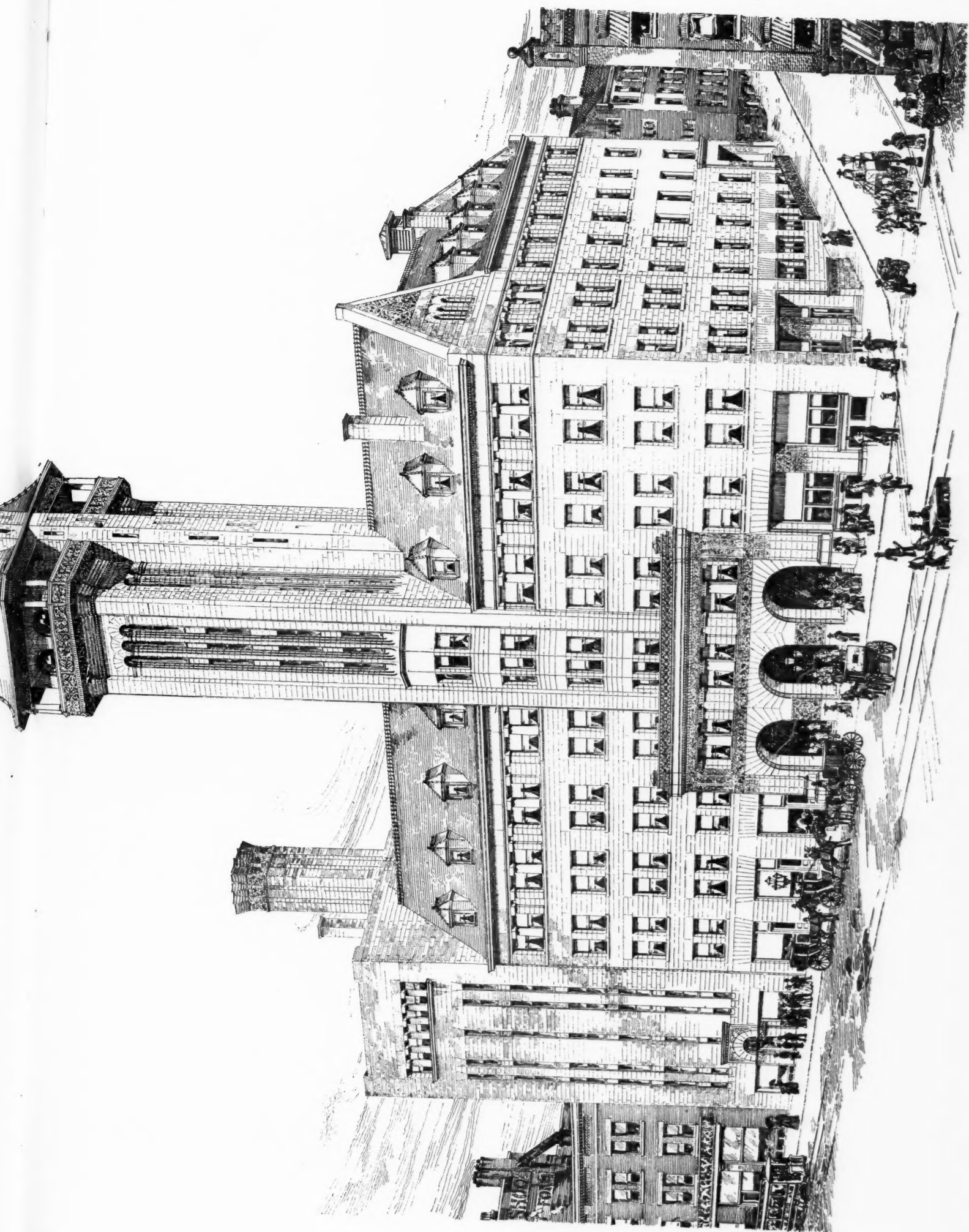




SEATTLE OPERA HOUSE BUILDING

SEATTLE, WASHINGTON

ADLER AND SULLIVAN, ARCHITECTS
CHICAGO ILLS.



WAINWRIGHT BUILDING.

ST LOUIS MO

ADLER AND SULLIVAN CHICAGO
CHAS K RAMSEY ST LOUIS ASSOCIATED ARCHITECTS

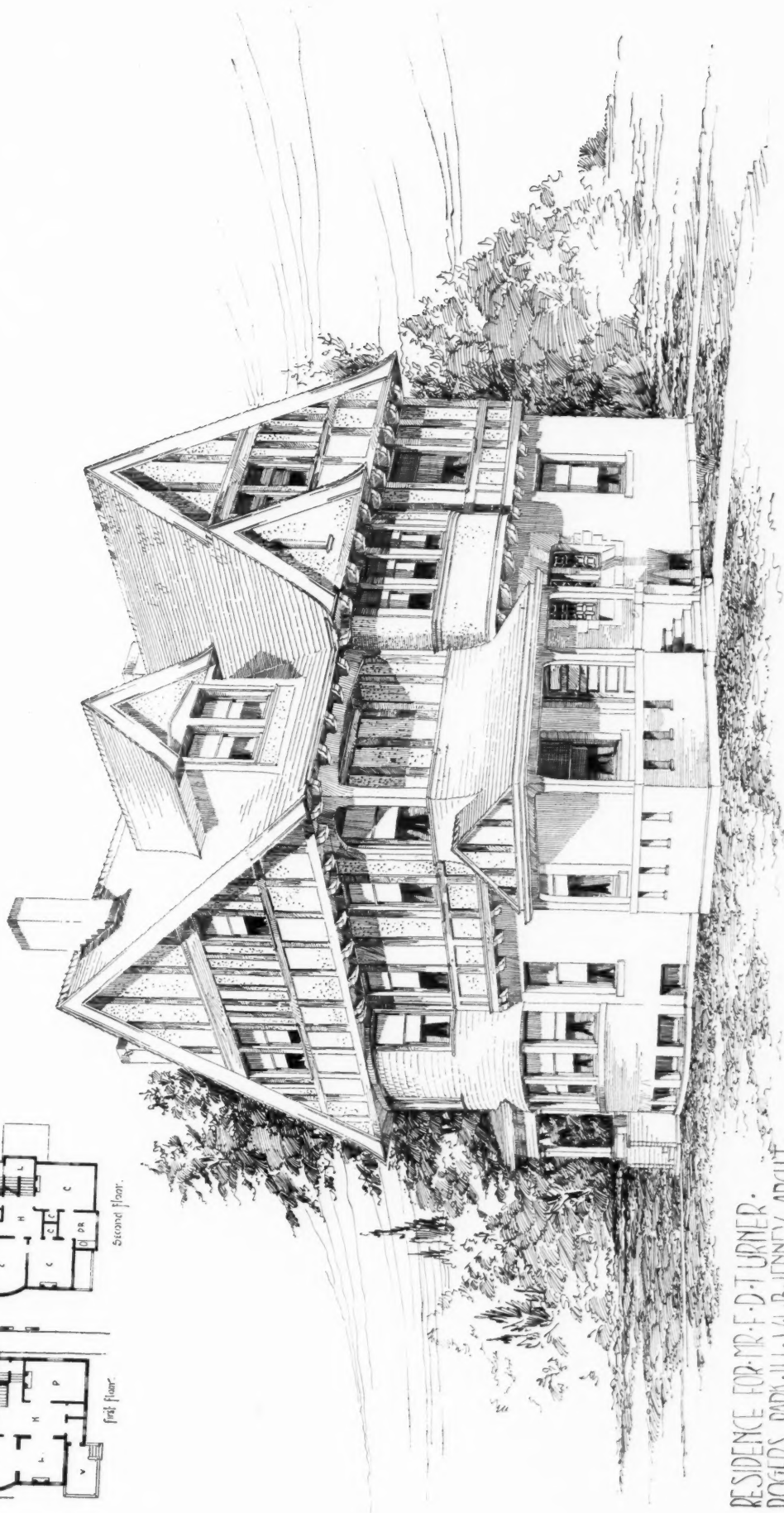
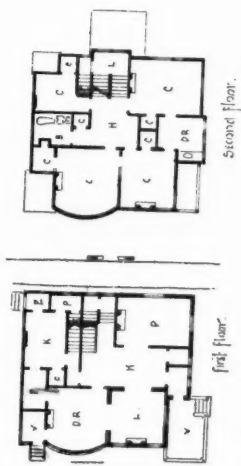




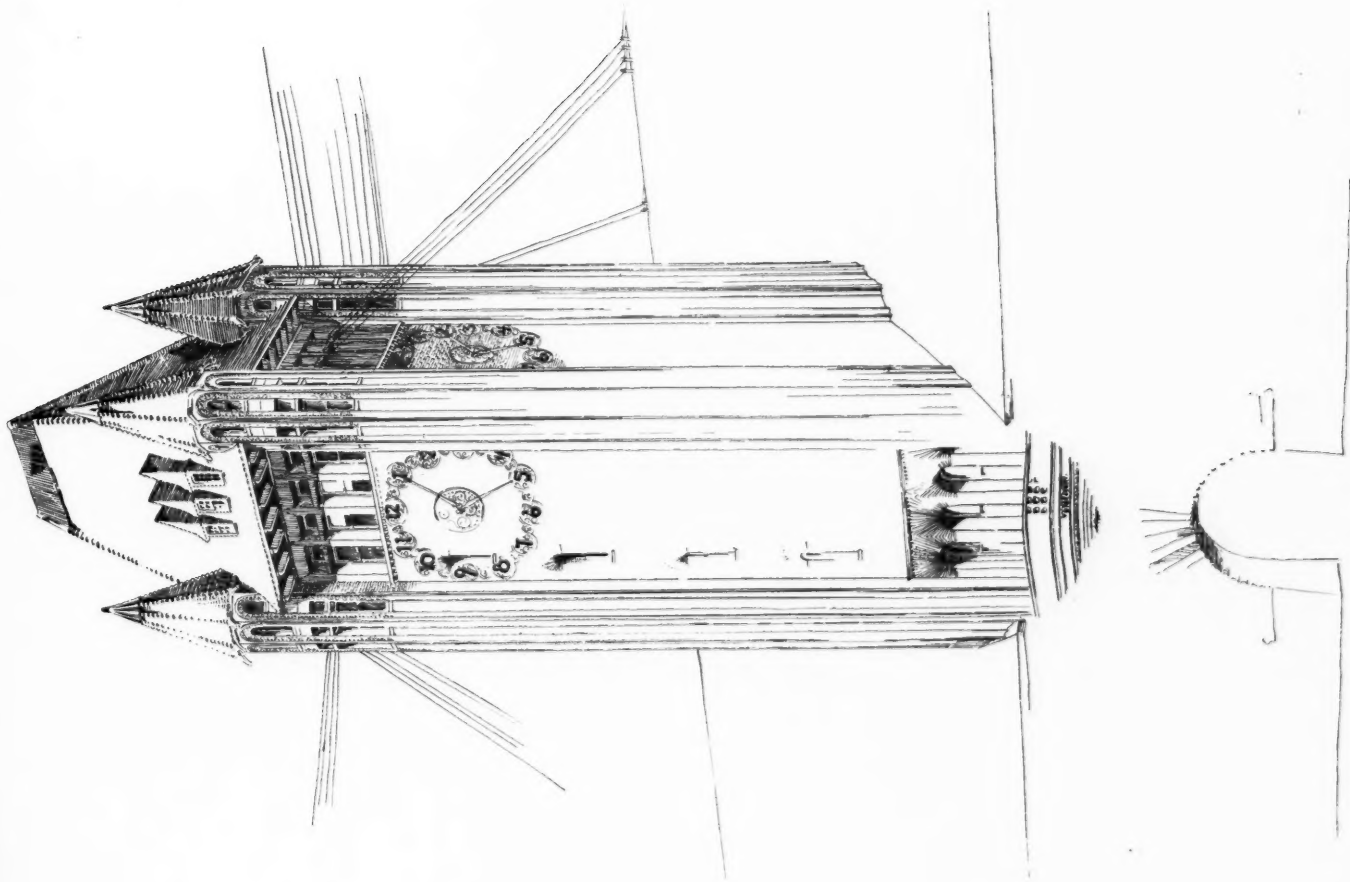


INLAND ARCHITECT PRESS.

John W. Root

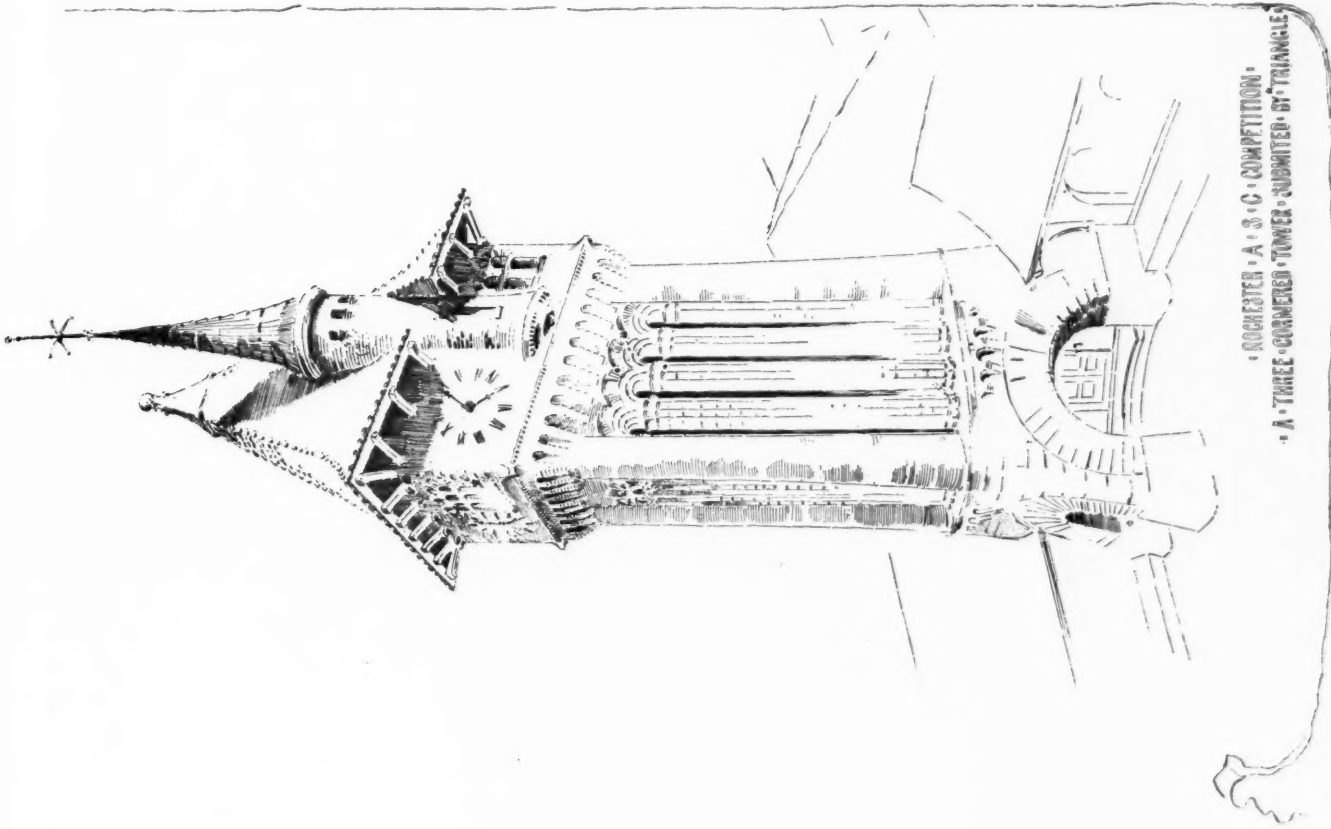


RESIDENCE FOR MR. F. D. TURNER.
ROGERS PARTN. L. W. B. JENNEY ARCHT.



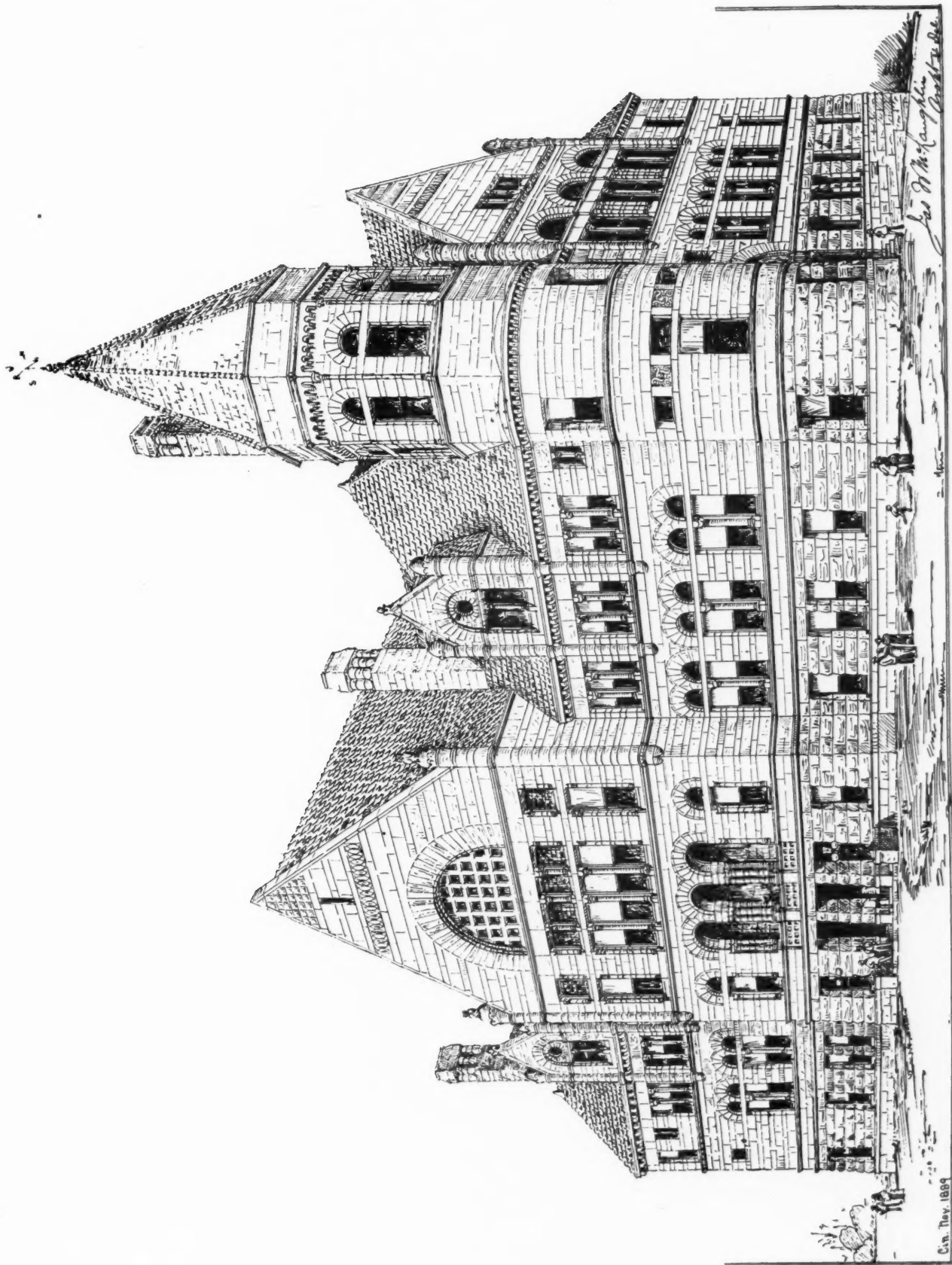
FIRST PLACE—R. A. GREENFIELD.

ROCHESTER ARCHITECTURAL SKETCH CLUB COMPETITION, BRICK AND TERRA-COTTA CLOCK TOWER FOR RAILWAY STATION.



SECOND PLACE—W. H. BARNES.

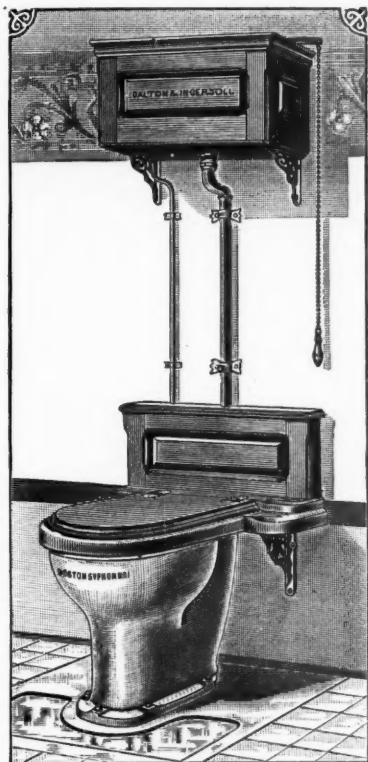
ROCHESTER A. S. C. COMPETITION.
A THREE-CORNERED TOWER SUBMITTED BY TRIANGLE.



COURT HOUSE FOR WAYNE COUNTY, INDIANA.

JAS. W. McLAUGHLIN, ARCHITECT, CINCINNATI, OHIO.

BOSTON SIPHON WATER CLOSET.



TRADE MARK.

THIS Closet is almost noiseless in operation, and the valve which supplies it is automatic in action, insuring a positive flushing of the closet at the slightest pull. It has two traps above the floor, guaranteeing perfect protection from sewer gas, and not needing a complication of traps and vents to gain this result, we are enabled to secure a neat and attractive shape.

The siphonic action being very quick and strong, all matter is instantly and positively discharged from the traps without an undue waste of water.

Send for circulars.

ALSO SOLE MANUFACTURERS OF
THE BOSTON HOPPER AND BOSTON LAVATORY.

Illustrated in other numbers of this paper.

DALTON & INGERSOLL,

Branch Office and Sample Room,
64 Gold Street, NEW YORK.

WHOLESALE DEALERS IN PLUMBERS' SUPPLIES,

171, 173 and 175 High Street (Fort Hill Square),

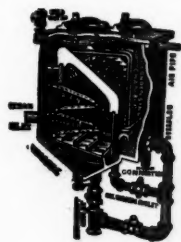
55, 57 and 59 Purchase Street,

BOSTON, MASS.

DAVID REED, QUARRYMAN

And Wholesale Dealer in Block and
Sawed Bedford Oolitic Limestone.

OFFICE,
344 WABASH AVENUE,
CHICAGO, ILL.



WEBSTER'S VACUUM
Exhaust Steam Economizer is the most perfect device known for heating and purifying feed water for steam boilers, and for heating buildings of any description, without back pressure on engines, returning condensation to the boiler.

WARREN WEBSTER & CO.,
PROPRIETORS,
159 and 161 La Salle Street,
CHICAGO.
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WARNING! MUNROE'S PATENT INGRAIN WALL PAPER.

In order to protect our customers and ourselves against parties offering and selling a wall paper similar in appearance to our Patent Ingrain, but inferior in quality and weight, we stamp every double roll of our paper as follows:

Ingrain Wall Paper,
PATENTED JUNE 4, 1878,
MANUFACTURED SOLELY FOR
JAMES S. MUNROE & CO.
— BOSTON. —

Barrett's Sewer and Tide Trap.



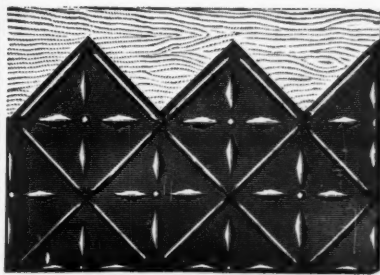
IRON SEWER & TIDE TRAP.

Over 9,000 now in use. Indorsed by the Leading Architects, Engineers and Plumbers. We guarantee them to work at all times. Over 700 in use in Chicago. Will cheerfully furnish references.

URINAL TRAPS AND SUPPLIES OF
EVERY DESCRIPTION.

Send for illustration of
Barrett's Recessed Bowl, etc.

BARRETT'S SANITARY DEPOT, 193 TREMONT STREET,
BOSTON, MASS.



NEW METALLIC TILE or SHINGLE

Made from the Garry Refined Roofing Iron and Steel, also from Galvanized Iron and Tin.

The sheets are 12 x 12 inches, and stamped in such form as to make them impervious to rain, wind and snow. One hundred will lay a square, and any one can apply them. Send for Circular and Price List No. 97.

Garry Iron and Steel Roofing Co.
CLEVELAND, O.

Please mention THE INLAND ARCHITECT when corresponding with Advertisers.

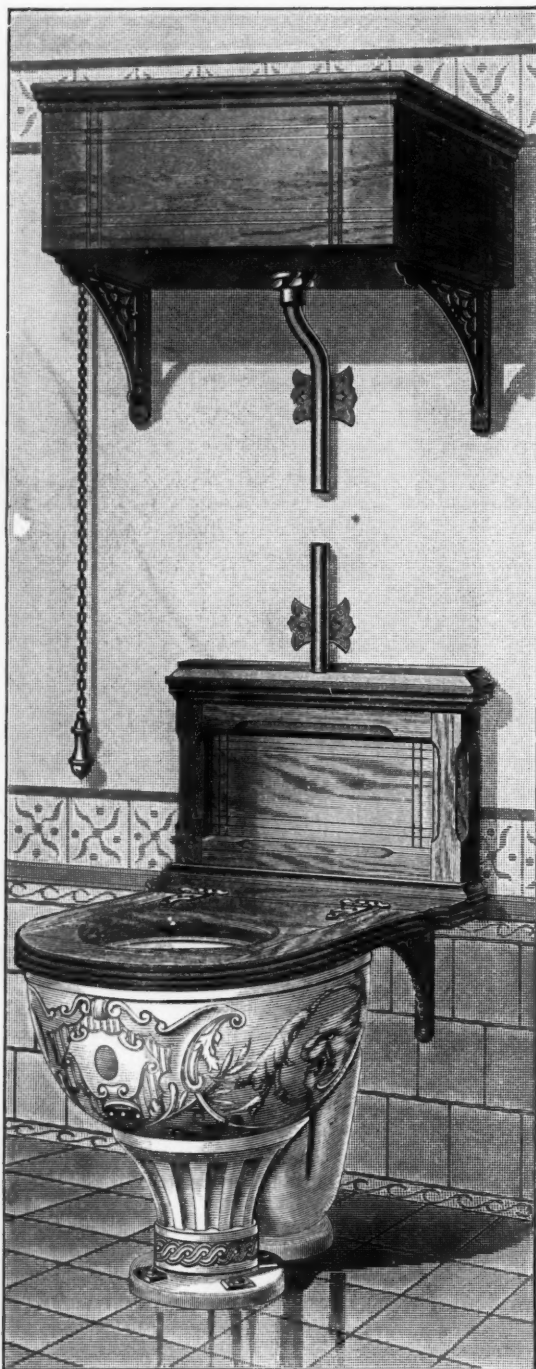


Plate 908. No. 85.

L. Wolff Manufacturing Co.

GENERAL OFFICES:

93-123 West Lake St., CHICAGO.

FACTORIES:

Carroll and Hoyne Avenues and Fulton Street,
93-119 West Lake Street.

EXHIBIT ROOMS: 79 Dearborn Street.

Fine Plumbing Fixtures

THE "DELTA" EMBOSSED,

— WITH —

Wolff's Patent Improved Noiseless Siphon Tank.

The "Delta" Embossed is especially adapted to exposed work. The earthenware is best quality of

IMPORTED PORCELAIN AND WILL NOT CRAZE.

IT IS ABSOLUTELY NOISELESS

— AND —

POSITIVE IN ITS OPERATION.

A momentary retention of the pull at once starts the siphon, when the contents of the service box descends and thoroughly flushes the closet and trap.

The quantity of water to be discharged can be regulated as desired.



FOR ARCHITECTS
Is conceded to be one of the best and most artistically conducted journals now published.

FOR ADVERTISERS
There is no question but that space in its columns yields better returns for the money invested than will any other publication.

PUBLISHED MONTHLY BY

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EACH NUMBER WILL CONTAIN A

LARGE PHOTOGRAPHIC REPRODUCTION SUPPLEMENT SHEET of some new and prominent building.

Besides which there will be four or more Full Page Plates of Cottages, Country Houses, Beautiful Residences, and other New and Original Designs, Portraits of Representative Architects, and other features of interest.

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The Eureka SPECIFICATION BLANKS

Are the Best and Most Complete yet issued. Published in **Four Classes**, making them applicable to any style of building.

Price, 25, 30, 40 and 50 Cents Each.

SEND \$1.00 FOR SAMPLE COPY OF EACH.

SPECIAL OFFER!

Send 50 cents in stamps for a sample copy of THE ARCHITECTURAL ERA; Portfolio No. 1 (containing 25 Full Page Designs of Cottages and Fine Residences), and a sample set of the Eureka Specifications; the whole costing at usual retail price \$2.50.

D. MASON & CO., SYRACUSE, N. Y.

INTERIOR DECORATION.

By ARNOLD W. BRUNNER } ARCHITECTS.
AND THOMAS TRYON, }

One quarto vol., cloth. Price, \$3.00.

Containing, besides Introductory Remarks, Chapters on The Hall, The Staircase, The Library, The Parlor, The Dining-room, The Study, The Bedrooms.

INLAND PUBLISHING COMPANY,

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A MANUAL OF

INDUSTRIAL DRAWING

FOR CARPENTERS AND OTHER WOOD-WORKERS.

By W. F. DECKER,

Instructor in Drawing, University of Minnesota.

176 pages, 29 plates and numerous other illustrations
One 8vo volume, cloth.

PRICE, \$2.00.

INLAND PUBLISHING COMPANY,

19 Tribune Building, Chicago, Ill.

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The "Automatic" Compression Faucet

(PATENTS PENDING.)

Washers and Packings may be Replaced and Repairs Made without Shutting Off the Water. The Best Improvement ever put on Faucets.



SEND FOR CIRCULAR AND PRICE LIST.

MANUFACTURED ONLY BY

H. A. WILLIAMS MANUFACTURING CO.

Main Office, 22 Milk Street, Boston, Mass.
Works, Boston, Mass.

Branch Office, 55 Fulton Street, New York, N. Y.

SIMPSON BROTHERS, ASPHALT PAVERS.

NEUCHATEL AND SEYSEL ROCK ASPHALT

— FOR —

Stables, Stores, Basements, Laundries, Breweries,
Mills, Fireproof Roofs, etc.

Callender's Pure Bitumen Damp Course
FOR FOUNDATION WALLS.

704 Chamber of Commerce Building, CHICAGO, ILL.

TELEPHONE 883.

SAVES TIME AND MONEY.

THE STANDARD CONTRACT

SAVES TIME IN WRITING CONTRACTS.

SAVES TIME IN READING CONTRACTS.

SAVES TIME LOST IN LITIGATION.

Saves Money for Owner, Architect and Contractor.

\$1.10 per 100, \$4.50 per 500, \$8.00 per 1,000, free by mail or express.

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19 Tribune Building, CHICAGO.

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Union Brass

Architectural Works,

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BRASS AND BRONZE ARTIFICERS.

CORRESPONDENCE SOLICITED

IN RELATION TO

STRUCTURAL AND ORNAMENTAL METAL WORK.

CONTRACTORS' AND BUILDERS'

Protection against claims made against them on account of

ACCIDENTS

To their own or other contractors' workmen and the outside public, by insuring with the

EMPLOYERS' LIABILITY ASSURANCE CORPORATION, L'D,
OF LONDON, ENGLAND.

Managers for U. S.: ENDICOTT & MACOMBER, 71 Kilby St., Boston.

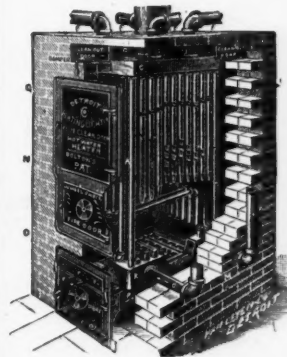
GENERAL AGENTS:

GEO. A. GILBERT, 226 and 228 La Salle Street, Chicago.
F. D. HIRSCHBERG & BRO., 120 North Third Street, St. Louis.
J. McC. BELL, Milwaukee, Wis.

AGENTS IN ALL PRINCIPAL CITIES.

BOLTON Hot-Water Heater.

Best Record for the Longest Time in the Coldest Climates.



CANNOT LEAK, having no bolted, packed or flanged joints.

CANNOT CRACK, being made of Wrought Iron.

BEST FIRE SURFACE, All directly exposed to the fire. Best proportion to grate surface.

DROP TUBES. No other known device gives such extensive heating surface, combined into vertical circulation.

BRICK CASING PREVENTS LOSS OF HEAT IN CELLAR.

DETROIT HEATING & LIGHTING CO.

88 Lake Street, CHICAGO.
42 Pearl Street, BOSTON.

353 Wight Street, DETROIT.
508 North Fourth Street, ST. LOUIS.

MANUFACTURERS ALSO OF THE

COMBINATION GAS MACHINE,
BEST INDEPENDENT LIGHTING APPARATUS

For Country and Suburban Residences, Churches, Schools,
Stores, Hotels, etc.

OVER TWENTY YEARS IN USE, WITH NEVER AN ACCIDENT. Average cost of gas, 1/2 cent per hour per burner.

DE GOLYER'S ROCK FINISH,



FOR FINISHING AND PRESERVING NATURAL WOOD.

Presenting a very hard surface of **PERMANENT ELASTICITY**, impervious to moisture or Alkali. The **ONLY** material suitable for varnishing hardwood floors.

No. 1 EXTERIOR. For Outside Doors, Vestibules and Store Fronts, in rubbed or polished finish.

No. 1 INTERIOR. For Finest Cabinet Finishing, Hardwood Floors and Bathrooms.

No. 2. Standard Medium-Priced Grade for all Interior rubbed or polished work.

MANUFACTURED ONLY BY

THE WATTS De GOLYER COMPANY, CHICAGO.



POPPERT'S Patent Weight Sliding Blinds

Are superior to all others on account of their being a **WEIGHT BLIND**, the same as any ordinary window. They can be applied to any Old or New House.

Send for Catalogue.

AGENTS WANTED.

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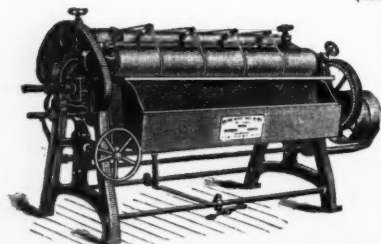
418 Poplar Street,

MILWAUKEE.

TROY LAUNDRY MACHINERY CO.

(LIMITED.)

New York. Troy. Chicago. San Francisco.

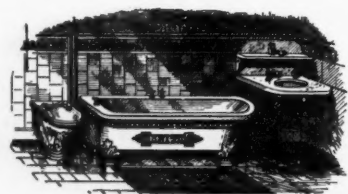


Our line of Laundry Machinery has all the Latest Improvements, and is the best for Laundering all kinds of goods.

Factories: { 648 and 650 Fulton Street, Troy.
 { 395 to 401 Fifth Avenue, Chicago.
Salesrooms: { 15 Warren Street, New York.
 { 581 Mission Street, San Francisco.

SEND FOR SPECIAL CATALOGUE K.

The Celebrated SANITAS SYSTEM of Plumbing.



Embodying Science, Simplicity and Safety, combined with the finest workmanship, and in accord with the most advanced professional opinions. In use in prominent Residences and Institutions throughout the country.

Above cut shows an ideal Bath-room with some of the Sanitas appliances. Architects who wish to secure a maximum of Sanitary protection for their clients will write for our descriptive circulars and name of nearest agency and exhibit.

SANITAS MANUFACTURING CO.

48, 50, 52 and 54 Union St., BOSTON, MASS.

54 Gold St., NEW YORK.

219 Lake St., CHICAGO, ILL.

SMITH & ANTHONY STOVE CO., Sole Proprietors.

H.W. JOHNS' ASBESTOS LIQUID PAINTS

SEND FOR SAMPLES AND DESCRIPTIVE PRICE LIST.

H. W. JOHNS MANUFACTURING CO.,

Sole manufacturers of H. W. Johns' Asbestos Roofing, Sheathing, Building Felt, Asbestos Steam Packings, Boiler Coverings, Roof Paints, Fireproof Paints, etc.

VULCABESTON. Moulded Piston-Rod Packing Rings, Gaskets, Sheet Packing, etc.

Established 1868. 87 MAIDEN LANE, NEW YORK. CHICAGO, PHILADELPHIA, LONDON.

Please mention **THE INLAND ARCHITECT** when corresponding with Advertisers.

THE GREAT IMPROVEMENT IN ROOFING.

We are now ready to supply the product of entirely new machinery and processes just completed, by which we not only have greatly improved the strength and durability of our well-known **ASBESTOS ROOFING**, but have also secured a degree of uniformity never before attained in any similar fabric. We offer this as the **PERFECTED** form of the portable Roofing which we have manufactured with continued improvements during the past thirty years, and as the most desirable Roofing for general purposes.

The important features of our recent improvements, for which patents have been allowed in this Country and in Europe are described in our new circular, which, with samples will be sent free by mail.

Our Asbestos Roofing is now in use upon Factories, Foundries, Cotton Gins, Chemical Works, Railroad Bridges, Cars, Steamboat Decks, etc. in all parts of the world.

It is supplied ready for use, in rolls of 200 square feet, and weighs with Asbestos Roof Coating, ready for shipment, about 85 pounds to 100 square feet.

It is adapted for steep or flat roofs in all climates, and can be readily applied by unskilled workmen.

There are inferior imitations of our Asbestos Roofing, purchasers are cautioned.

Samples and Descriptive Price List free by mail.

H. W. JOHNS MANUFACTURING CO.,

SOLE MANUFACTURERS OF

H. W. Johns' Asbestos Liquid Paints, Fire-Proof Paints, Building Felt, Steam-Pipe and Boiler Coverings, Asbestos Steam Packings, Caskets, etc. Vulcabeston Moulded Rings, Washers, etc. 87 Maiden Lane, New York.

BLUE PROCESS PAPERS

FRENCH SATIN NO. 1 3 & 4 WIDTHS 12 & 22 LARGEST, BEST & MOST COMPLETE ASSORTMENT

PHILA BLUE PRINT CO.

910 FILBERT ST. PHILADELPHIA PA.
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SHUMAN & DEMPSEY, Sole Agents for Chicago,
84 and 86 Washington Street.

HARDWOOD. :: ::

P. G. DODGE & CO.,

426 LUMBER STREET.

SPECIALTIES:

Lumber for Interior Finish, Oak, Ash, Maple, Hickory, Walnut. Telephone 9033.

THE INLAND ARCHITECT AND NEWS RECORD.

Vol. XV.

ADVERTISERS' TRADE DEPARTMENT.

No. 1

The New "A. D." Syphon Closet.

The manufacturers, Fred Ade & Co., of New York, claim for the new "A D" syphon water-closet that its peculiar construction includes improvements which secure the following very important results:

First. The air contained between the two traps is positively prevented from finding its way into the room.

Second. In the event of the lower trap being partly syphoned, the air from the sewer cannot escape into the room through the pipe leading from the cistern or through the opening into the bowl, the supply pipe itself being thoroughly trapped.

Third. The vents are so arranged that the flow of water is from instead of toward the opening, thus preventing the vent-pipe from clogging, as is frequently the case in other closets, so that the lower trap cannot be even partially emptied.

Fourth. The vents are the same on both sides, making it convenient to vent on the right or left side, and giving the closet a symmetrical appearance.

Fifth. The operation of the closet is instantaneous and perfect.

Sixth. The depth of water contained in the bowl (6 inches) is sufficient to immerse the excreta, thus preventing the diffusion of offensive odors.

Seventh. The cistern, which, furnished with a very superior ball-cock, is a model of simplicity, durable in construction, reliable in its operation, and of sufficient capacity, (namely, 26 by 14 by 15 inches) to insure at least three discharges.

A close examination of the article as shown by cuts, see advertising page 32, would seem to indicate that we think Messrs. Fred Ade & Co. do not claim too much.

A Proof Positive.

The following is a personal experience of one of the members of the well-known house of Dexter Brothers, manufacturers of Shingle Stains:

Mr. George B. Dexter, of Boston, entered an architect's office out west a short time ago and the conversation between the architect and Mr. Dexter drifted on to the subject of shingle stains.

"Will your stain wash off?" the architect asked.

"No, sir; but you can try it yourself," and taking a glass of water Mr. Dexter placed the bunch of Dexter Brothers' English Shingle Stain samples in the water.

These remained in the glass for twenty-four hours.

Four other architects were present when Mr. Dexter came in the following day, and on examination the water in which the Dexter samples had soaked was as clear as crystal.

Mr. Dexter looked pleased when one of the architects remarked, "How do we know that some chemical has not gone out of your samples and injured the water without showing it?"

Mr. Dexter was equal to the occasion and taking up the glass of water in which his samples had stood for twenty-four hours, drank it, and said, "Gentlemen, I hope you are satisfied."—*Architecture and Building.*

De Golyer's Rock Finish.

This finish, manufactured by The Watts De Golyer Company, is a valuable article for all wood finishing, and is of superior hardness and toughness. It dries on wood like a cement, and will produce a smooth and very durable surface. Great wearing property and perfect working and drying qualities have not been found wanting in this finish, as its excellence has been demonstrated by the practical use and increasing demand for it in the building and railway trade. The company's products are railroad varnishes, coach varnishes, cabinet varnishes, and varnishes for all other purposes, japans and shellacs. Their customers are the wise men who desire best results, and realize

that such results can be obtained only with the best goods. Their facilities for the production of such goods are superior particularly in the all important matter of storage for ripening. Their position in the trade is in the front rank, although it might be said that they are in the A B C class, as they so grade their goods. Their success has been due to close study of the requirements of the user of varnishes, intelligent selection and skillful use of material, employment of mechanical and scientific improvements, perfect factory system, liberal use of brains and patient and persistent effort to excel.

At the Exposition at St. Louis.

The Webster "Vacuum" Exhaust Steam Economizer, now feeding the 1300-horse power boilers of the Exposition Building, has achieved a record of which its proprietors, Warren Webster & Co., of Philadelphia, may well feel proud. Its achievements are best told in a testimonial which Mr. Joe Bell, chief engineer at the Exposition, has cheerfully given.

TESTIMONIAL.

"The Exposition steam plant has two standard pressure heaters, the combined size of which is five or six times that of the Webster Economizer. The pressure heaters were tested, obtaining a maximum temperature of 170 degrees Fahrenheit, and an average of 165 degrees. After a run of seven hours, during which time the conditions were frequently noted, the work was cut off of the pressure heaters and given to Webster's 'Vacuum' Exhaust Steam Economizer. After a few minutes the mercury in the column seemed inspired with the ambitious resolution to rise in the world, 170 degrees was reached and passed, ditto 175°, 180°, 185°, 190°, 195°, 200°, 205°, 210°, and then seemed satisfied to stop and rest awhile. But under the hardest work of the boilers, when they were making heavy drafts on the pump for supply, the mercury stuck loyally to the highest point with a determination worthy of such a noble work. This is the result of the test. Joe Bell, chief engineer St. Louis Exposition."—*Age of Steel, St. Louis, October 19, 1889.*

A Photographic Novelty.

Rapid as has been the progress in all branches of photography, the problem of seizing and reproducing the varied colors of nature seems as far from solution as ever. That achievement is still the dream of the ambitious photographer, and some day perhaps chemistry may help the experimenter with her subtle secrets to make the dream a reality. Apart from this supreme problem, however, photography is making daily extraordinary advances. The latest novelty—and a charming one it is—is the Kodak camera, brought out by the Eastman Dry Plate Company, of Rochester, N. Y. This consists of a small oblong box no longer than an ordinary cigar box. A roll of prepared paper stands behind the lens, which is covered by a revolving shutter. The box is presented to the object to be photographed; a little stud is pressed with the forefinger of the left hand; snap goes the shutter; the exposure has been made, and a turn of the handle on the top of the box brings a fresh portion of the roll behind the lens ready for the next picture. The roll is large enough for a hundred pictures, and a child can manipulate it.

The pictures thus taken are necessarily small, but they are perfect little gems. So sensitive is the prepared surface, that although the exposure is only the fraction of a second, the amount of detail in the picture and the clearness and sharpness with which it comes out is amazing. For broad landscape effects the Kodak is, of course, not intended. Its strongest point is in reproducing those choice bits of nature which abound in every locality. For the tourist or the overworked business man spending a few weeks' vacation in the country, the Kodak, when known, will be indispensable. It takes up little room and can be carried in a small satchel slung over the shoulder, and is always ready for use.—*N. Y. Tribune.*

Railroad Notes.

QUICKEST TIME TO ALL POINTS IN TEXAS.—The Chicago & Alton Railroad, with its connection, the Iron Mountain Railway, at St. Louis, Missouri, now makes the quickest time of any route from Chicago to Galveston, Houston, San Antonio and the City of Mexico. The only line running Pullman buffet sleeping cars. For further information, and tickets, sleeping car reservations, etc., call at city ticket office, Chicago & Alton Railroad, No. 195 South Clark street, Chicago, Robert Summerville, city ticket agent.

THROUGH CARS WITHOUT CHANGE FROM CHICAGO TO PORTLAND, ORE.—The Wisconsin Central and Northern Pacific lines are now running through Pullman vestibuled sleepers and free colonist cars between Chicago and Tacoma, W. T., and Portland, Ore. To those familiar with the agonies of "changing cars," little need be said of the advantages possessed by a through line. To enter a car at Chicago and keep the same seat by day and the same berth by night until the journey's end is reached is a point that cannot be underrated. The colonist cars are a special feature of the through service, affording conveniences to the home seeker that are second only to those enjoyed by the traveler in his luxurious Pullman. With his own bedding brought with him or purchased in Chicago the colonist makes up his bed at the starting point and retires each night a "king in his own domain," until he reaches the far Northwest. The train known as the "Pacific Express," leaves the Grand Central Passenger Station, at the corner of Fifth avenue and Harrison street, at 10:45 P. M., daily. For tickets, berths in Pullman or colonist sleepers, etc., apply to George K. Thompson, city passenger and ticket agent, 205 Clark street, or to F. J. Eddy, depot ticket agent, Grand Central Passenger Station, near Harrison street bridge.

Trade Notes.

T. C. MOSELY has laid before us a neat little catalogue of sixteen pages, illustrating and describing in full the Goodrich Self-Heating and Folding Bath Tub, which will be mailed to anyone free on application. This tub needs no commendation to architects as they will notice at once the saving of expense and room, and their patrons will appreciate it fully. We understand that real estate men are looking with a view of putting it in all their new cottages this season. It will be a "drawing card" for their new homes.

THE Maxton Building Company, lately incorporated, is a stock company with limited liabilities, composed of one member of each trade, whose sole purpose it is to take whole contracts for large buildings. While the individual members will not necessarily execute the work themselves in all instances (seeing it is the privilege of the company to sublet), yet the company, as a whole, will assume the responsibility of the whole contract in all of its individual parts. There are several other very important and advantageous features connected with the direct organization of this company, which it would not be pertinent to set forth at the present time.

IMPROVEMENTS will never cease so long as the needs and the genius of humanity exist. Every day something or other is projected to fill a long felt want. The Hansen Salt Glazed Terra-Cotta Weather-Protecting Chimney Topping, for the proper protection of chimney masonry from the usual easy destruction by action of rain and frost, present the cheapest, most practical, ever ready and lasting material for bricklayers' use in topping out chimneys. Saves annoyance, repairs and expense, the usual and too frequent experience of owners. Indorsed by architects throughout the country. Architect J. W. Root, secretary of the American Institute, writes, "Your circular advertising the patent chimney tops was forwarded to me by the ex-secretary of the Institute; I think well of them." D. W. Millard, St. Paul;

ADVERTISERS' TRADE DEPARTMENT—Continued.

John Gash, San Francisco; E. A. Bond, Lansing, Mich.; T. D. Evans, Pittsburgh; Warren H. Hayes, Minneapolis; L. J. Swett, St. Albans, Vt.; Charles D. Martin, New York City; Bullard & Bullard, Springfield, Ill.; Stoltze & Schick, La Crosse, Wis., all speak of it as admirably adapted for such usages and designed to replace the common brick-corbeled chimneytop, and will last as long as the building stands. No destruction from rain or frost. Write manufacturers for sample and terms.

THE INLAND ARCHITECT is in receipt of a handsome calendar for 1890, issued by the Bicknell Advertising Bureau, 115 Broadway, New York, which would be an ornament to any office. It is illuminated with a chromatic heliograph of Trinity Church, Boston. By the way, this agency makes a specialty of "trade" advertising pertaining to building and building supplies.

To the draftsman, engineering, mechanical or architectural, a well-devised and properly proportioned drawing instrument, well made, is a *sine qua non* in his profession, and what everyone, who is not provided with such, is in search of. Theodore Altender, of Philadelphia, a long-time manufacturer of draftsmen's tools, has issued a handsomely illustrated pamphlet, entitled, "Points about drawing instruments," wherein draftsmen may find some invaluable hints. Send for one.

THE Norwalk Lock Company have issued a splendidly gotten up book, quarto size, bound in muslin, giving illustrations of the company's late designs in locks and kindred house trimming hardware—all in the Italian Renaissance style—which will be appreciated by all lovers of the artistic and beautiful. The company makes this class of goods a specialty and gets them out in bronze and brass as well as iron. The architect or contractor in architectural trade work, who has not this handsome book among his trade literature, should hasten to fill the vacancy and can do so by addressing the New York office, 82 Chambers street.

THE open fireplace is such an attractive object in a room, and there has been such a loss of heat accompanied with other objections in the past, that much ingenuity has been exercised to perfect the grate. The latest improvement is a blower introduced by the Page

Mantel and Grate Company, of Chicago. The advantages claimed, and which the device seems to sustain, are its use as a blower when starting a fire by bringing to front of basket, which compels the air to enter from below and pass through the fuel. When the fire is well started the blower is passed back, carrying the smoke back with it, and not out into the room as is the case with portable blowers upon taking them away. Cold air and soot are prevented from entering the room when the fireplace is not in use, and ashes when raking down. There are no locks, springs, or complicated parts to get out of order. It can be attached to any mantel at small expense. The use of the blower is claimed to be a radical and permanent cure for smoky chimneys. Mr. Charles L. Page, the president of the company, through his years of experience in the mantel and grate business, understands the requirements of a perfect-working fireplace and believes this new blower solves the problem. He invites examination and investigation.

PROPOSAL.

NOTICE TO CONTRACTORS AND BUILDERS.

Bids will be received for the construction of a court house for Montgomery county, in Red Oak, Iowa, to February 25, 1890, at 12 o'clock M. The bids will be for furnishing all material and work and completing the building in accordance with the plans of H. C. Koch & Co., architects. The bids will be marked "Bids for building Montgomery County Court House," and addressed to E. S. Rogers, auditor of the county. Each bid, to be entitled to consideration, must be accompanied with a certified check of one thousand dollars, payable to said auditor, or a bond in the penal sum of three thousand dollars, conditioned in either case that the bidder will execute a contract with sufficient bond provided said contract is awarded to him. The Board reserves the right to reject any or all bids.

Plans and specifications will be on file with the auditor in Red Oak, Iowa, and at the office of H. C. Koch & Co., architects, New Insurance Building, Milwaukee, Wis., on and after February 10, 1890.

J. F. MOATES,
Chairman Board of Supervisors.

COMPETITION.

SCULPTURAL COMPETITION NO. 1,
STATE SOLDIERS' AND SAILORS'
MONUMENT OF INDIANA, U. S. A.

OFFICE STATE SOLDIERS' AND
SAILORS' MONUMENT COMMISSION,
INDIANAPOLIS, Ind., January 30, 1890.

In response to questions from prospective competitors for designing and making "Liberty," the crowning figure of the Monument, the following additional instructions are given, supplementary to the Instructions and Code issued from this office, November 25, 1889:

1. The Commissioners will act as a Board of Judges in the selection of the figure "Liberty," calling to their aid such experts as they may choose.
2. It is an American monument, and it is the desire of the Commissioners that everything connected with it shall be representative of American ideas, customs, products and history; that it shall symbolize our times and our civilization.
3. Competitors will be permitted to submit drawings and propositions for a bronze figure of "Liberty," in addition to those for a hammered copper figure, if they desire to do so.

GEO. J. LANGSDALE, President.
GEO. W. JOHNSTON, Secretary pro tem.



Designs with Estimates Furnished and Original Work Solicited from Architects.

Norwalk Lock Co.

MANUFACTURERS OF

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BETWEEN

Chicago and Chattanooga, Atlanta, Macon, Savannah, Jacksonville, Fla., and all Points in the Southeast.

Elegant Parlor Cars on Day Trains.
Pullman Sleepers and Luxurious Reclining Chair Cars on Night Trains.
Pullman Sleeping Cars through, without change, from Cincinnati to Jacksonville, Florida.

For detailed information get the maps and folders of the Kankakee Route at your nearest Ticket Office, or address

J. C. TUCKER, Gen. N.-W. Pass. Agt.,
121 Randolph St., CHICAGO.

JOHN EGAN, Gen. Pass. and Tkt. Agt.,
CINCINNATI, OHIO.

THE INLAND ARCHITECT AND NEWS RECORD.

Vol. XV.

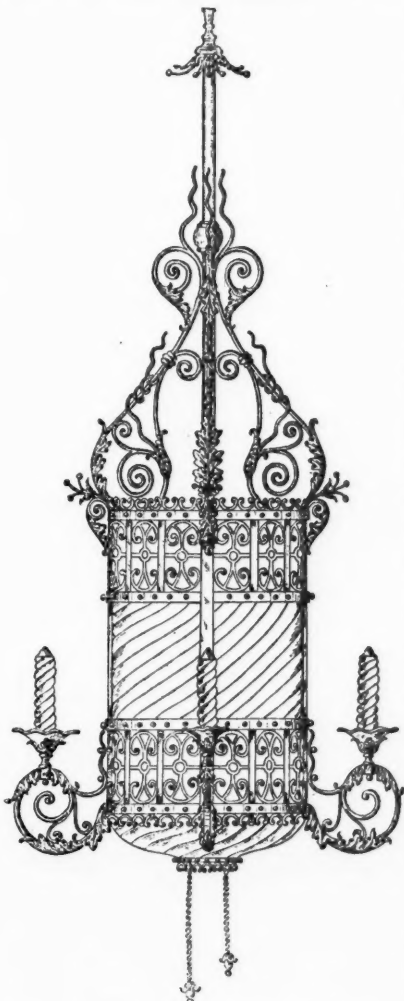
ADVERTISERS' TRADE DEPARTMENT.

No. 2

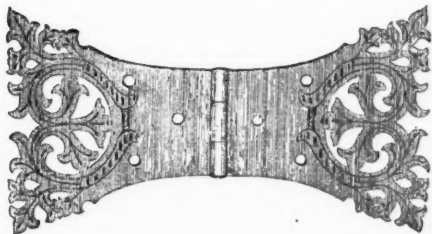
Artistic Wrought-Iron.



In the last few years in the United States there has been a growing appreciation of good wrought-iron work. Books have been published with numerous illustrations of the best character of work, and these have been an educating influence. More and more ornamental wrought-iron is being designed by the architects for use in buildings, and there are fine examples of such work by the late H. H. Richardson, McKim, Mead & White, and others of the profession. To meet

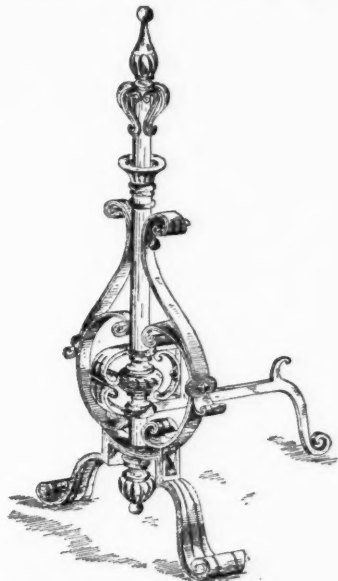


the growing demand for artistically designed and skillfully executed wrought-iron there are concerns entirely devoted to this art. Prominent among the number is the Philadelphia Wrought Iron Company of that city, some of



whose designs are here shown. The company make fine door grilles, ornamental railings and cellar window guards; and have recently put some especially fine work in this line into banks. Their electric, gas and oil fixtures of special and appropriate designs for dwellings,

churches and banks are attractive and noteworthy, as are artistic specialties in banqueting and floor lamps, onyx top tables, mirror frames, fire screens, andirons, candelabras, etc. The company guarantee perfect satisfaction in the carrying out of architects' special



designs, to which class of work most careful attention is given. So sure are they of suiting their customers in every way that they invite builders and architects to send plans and specifications at the company's expense for estimate, and promise to return such plans within twenty-four hours after the receipt of them. The company are well established in their new quarters and have unusually good facilities for a high standard of work. A good idea of their class of work can be formed from their illustrated catalogue, sent on application.

Trade Notes.

T. C. MOSELY, United States Agent for the Goodrich self-heating bath tub, has removed to roomy quarters at 42 Madison street, ground floor, where he occupies a store with the rubber company of Wilson & Plant. He has on display all the different styles of heaters and tubs, and will be pleased to receive calls from all interested.

WARREN, WEBSTER & CO., 491 North Third street, Philadelphia, Pennsylvania, proprietors of Webster's "Vacuum" exhaust steam economizer, offer to send to every "architect subscriber" of THE INLAND ARCHITECT a beautiful Bohemian glass paper weight, bound in Morocco leather, on receipt of 17 cents in postage stamps, to pay the postage.

THE Samson Cordage Works of Boston have just sent to architects' offices sample cards of their solid braided window-sash cords, together with a neat circular, setting forth the merits of the "Samson" sash cord. This is made in linen, Italian hemp or cotton, though the cotton is by far the favorite with builders and architects. This company manufactures its own cotton yarns, so that the stock of which the cord is composed is assured as to quality and uniformity of strength, and they intend to maintain the reputation which these goods have obtained as being first quality in every respect.

THE following has been received from Samuel Cabot: "Twice within the last month or two we have caught painters adulterating our stains. We are happy to say that the perpetrator of the last fraud has now over 45,000 shingles so stained on his hands. In this case three parts of crude petroleum were added to about one of our stain, and the owner of the house has had the good sense to refuse to receive the shingles. We wish to caution

our friends against allowing any adulterant in our stains, and we believe that several cases which escaped detection has been perpetrated in the neighborhood of Chicago. We shall be greatly obliged to our friends if they will notify us of any such frauds."

THE partnership heretofore existing between T. H. Bakewell and W. H. Mullins, under the firm name of Bakewell & Mullins, has been dissolved, T. H. Bakewell retiring, having sold his interest, including dies, stock, tools, machinery and property of every description, to W. H. Mullins, who will hereafter carry on the business at Salem, Ohio. Mr. Mullins wishes to call attention of cornice makers and builders to the fact that hereafter he will carry in stock a full and complete line of all catalogued work, and be prepared to fill orders promptly from store, thereby avoiding the hitherto annoying delays caused by waiting until ornaments could be made before being able to fill orders. Mr. Mullins employs a corps of skilled artists and modelers, and is prepared at all times to submit designs and prices on special work, guaranteeing low prices and artistic workmanship.

MR. I. P. FRINK, 551 Pearl street, New York City, has received the following most complimentary letter:

"DEAR SIR,—I could give you no more satisfactory evidence that the massive reflecting chandelier, with its 150 gas burners, lighted by electricity, and 126 incandescent electric lamps, you put in my Newark theater, two years ago, has given entire satisfaction, than by ordering another exactly like it for the Fifth Avenue Theater, New York City. I expect to make this one of the handsomest theaters in the city, and, as I considered your fixture one of the chief attractions in my Newark theater, I desire it also to be the same in this. Yours is the only proper method of lighting a theater, and sooner or later will be adopted by all. You may take your time in making it, as I do not take possession of the theater until May 1, 1890. Respectfully yours, H. C. MINER."

C. A. BLESSING, proprietor of the Plumbers' Metal Works, Montgomery avenue, Sixth and Randolph streets, Philadelphia, manufactures a very extensive line of plumbers' goods. In the iron foundry forming part of the works, many tons of plumbers' castings are turned out daily, including soil-pipes and fittings, sinks, tanks, coppers, traps, washstands, etc. Mr. Blessing claims for his soil-pipe and fittings very smooth surfaces both inside and outside. In the brass closet department he makes a full line of apparatus, including tanks of all kinds and plumbers' work. A special feature of the works is an extensive cabinet shop, equipped with the latest improved machinery, where ornamental woodwork for fittings or bathrooms is turned out. A new article recently put on the market by Mr. Blessing is a pure nickel bathtub and pantry sink. This metal is susceptible of a high polish and does not readily tarnish. It is furthermore very durable. The iron foundry of the works is located on the top floor of the building, which arrangement is said to be particularly convenient, as all the departments are under one roof.

THE mail brings to THE INLAND ARCHITECT table a copy of a report of Professor H. Rietschel, of the Royal Technical High School of Berlin, Germany, on the Johnson Heat Regulating Apparatus, made by order of the Royal Prussian Minister of Public Works. It appears from the report that the technical attaché of the German legation at Washington had this ingenious, simple and practical device for regulating the temperature from home heating apparatus brought to his notice, and was so impressed with its usefulness that he reported it to the home government. The result was that one of the devices was procured from the manufacturers at Milwaukee and sent to Germany and placed in the hands of the government expert for a crucial test. The

ADVERTISERS' TRADE DEPARTMENT—Continued.

report of the professor is interesting reading. The trial lasted uninterruptedly, day and night, from November 16 until the middle of March, and, as the report says, "during the entire test did not fail a single time," and "preserved the desired temperature with only occasional fluctuations of one degree Celsius." The building where the test was made was unfavorable, owing to the site and character of the steam heating apparatus; besides, the professor states, he purposely placed the thermometer of the device in an unfavorable position, and is satisfied that even more satisfactory results will obtain from a more satisfactory heating plant, and a closer adherence to juster placing of the regulator. The report is a high testimonial because of its very practical nature and disinterestedness. It is well known among architects that this heat regulator is an electro-pneumatic self-regulating device; simple in construction, comparatively inexpensive, and scarcely perceptible in cost of maintenance, and that it can be one of the ornamental adjuncts of interior finish. The wonder is that it is not more generally used in this country than it is, when it is equally applicable to steam, hot water or hot air heaters. Certainly, no architect can allege truthfully the every-day allegation in regard to the appliances planned for the better class of modern houses "and all modern conveniences," who has not specified among the details "Johnson's Heat Regulating Apparatus."

As interior decoration has become a very important matter in the planning of the better class of buildings, both public and private, any new material that provides novelty with beauty and durability in combination, must be of interest to architects, not that any one thing can fill the bill of necessities in this direction in its entirety, but if it holds out great possibilities in combination with other decorative material it is surely a *desideratum* that cannot fail of being very generally utilized. After an examination of numerous specimens of onyx and mosaic agate, taken from the quarries of Messrs. Chapin & Cooper, of Esperanza, Mexico, we think everyone who has had the same privilege will agree that these quarriesmen are introducing just such a novelty in the building material market, particularly as it can be furnished in dimensions equal to any architectural emergency and in unlimited supply. Onyx is not so rare a stone as to be unfamiliar, but heretofore it has been used, chiefly in the decoration of household articles, such as clocks, vases, jewel boxes, etc., seldom, however, in house construction, owing, no doubt, to its heretofore expensive and comparative scarcity. The onyx of these Mexican quarries, however, as before said, afford an unlimited supply, and while wonderfully beautiful in its varied markings, is also susceptible of an exquisitely high polish. But the marvel of these quarries is a recent discovery termed mosaic agate, differing from the other only in its motley of rich colors, and which can truthfully be called "precious stones." Its coloring takes its hues from the oxides of precious and other metals, gold, silver, copper, iron, zinc, tin, etc., and hence is to be found purple, yellow, green, violet, white, etc., with all the tints derivable from the original colors and their admixtures.

It is this latter stone which suggests so much in the way of interior embellishment, combined with the former, that commends it to the marked attention of architects whose clientele look to them for beauty and novelty in the interior of their homes. It is needless to suggest where the material can be utilized, as ceilings, wainscoting, panels and tessellated floors are sure to loom up when its application becomes the question of the hour. The quarries where these rare stones are gathered are located in the volcanic mountain Zempoaltepetel, and the product of the agate is supposed to be the result of seismic action. Whoever can visit the office of A. M. Davis, who represents Messrs. Chapin & Cooper for a large part of the United States, which will be found at 245 Wabash avenue, Chicago, will find a revelation of beauty in these stones that no words can describe, and they will learn, too, that, beautiful and rare as they are, the cost of them is not beyond their general introduction.

Railroad Notes.

BURLINGTON ROUTE TO THE WEST, NORTHWEST AND SOUTHWEST.—No other railroad has through car lines of its own from Chicago, Peoria and St. Louis to St. Paul and Minneapolis, to Council Bluffs and Omaha, to Denver and Cheyenne and to Kansas City and St. Joseph. Tickets via the Burlington Route can be obtained of any ticket agent of its own or connecting lines.

QUICKEST TIME TO ALL POINTS IN TEXAS.—The Chicago & Alton Railroad, with its connection, the Iron Mountain Railway, at St. Louis, Missouri, now makes the quickest time of any route from Chicago to Galveston, Houston, San Antonio and the City of Mexico. The only line running Pullman buffet sleeping cars. For further information, and tickets, sleeping car reservations, etc., call at city ticket office, Chicago & Alton Railroad, No. 195 South Clark street, Chicago, Robert Summerville, city ticket agent.

TRAVELERS from Chicago or St. Louis to the Indian Territory or Texas will find the Missouri, Kansas & Texas Railway a very direct and comfortable route. It combines a train service of the best description with speed and punctuality; it runs through the most charming section of the Indian Territory, and makes reliable connections with other roads. A fine new hotel of fifty rooms has just been completed at Muskogee, where morning and evening trains stop for meals, and where a table is set which is not surpassed at any of our best city hotels. Under the liberal management of Mr. Gaston Meslier, general passenger agent, this line is enjoying a high degree of popularity.

THROUGH CARS WITHOUT CHANGE FROM CHICAGO TO PORTLAND, ORE.—The Wisconsin Central and Northern Pacific lines are now running through Pullman vestibuled sleepers and free colonist cars between Chicago and Tacoma, W. T., and Portland, Ore. To those familiar with the agonies of "changing cars," little need be said of the advantages possessed by a through line. To enter a car at Chicago and keep the same seat by day and the same berth by night until the journey's

end is reached is a point that cannot be underrated. The colonist cars are a special feature of the through service, affording conveniences to the home seeker that are second only to those enjoyed by the traveler in his luxurious Pullman. With his own bedding brought with him or purchased in Chicago the colonist makes up his bed at the starting point and retires each night a "king in his own domain," until he reaches the far Northwest. The train known as the "Pacific Express," leaves the Grand Central Passenger Station, at the corner of Fifth avenue and Harrison street, at 10:45 P. M., daily. For tickets, berths in Pullman or colonist sleepers, etc., apply to George K. Thompson, city passenger and ticket agent, 205 Clark street, or to F. J. Eddy, depot ticket agent, Grand Central Passenger Station, near Harrison street bridge.

PROPOSALS.

NOTICE TO CONTRACTORS.

Sealed proposals will be received until 12 o'clock, noon, of the 15th day of March, 1890, at the city clerk's office, at Escanaba, Michigan, for the erection of a city building at the same place. Plans and specifications may be seen at the city clerk's office, and also at the office of the architect, D. Fred Charlton, First National Bank Building, Marquette, Michigan.

Each proposal to be made on printed forms, as will be furnished, and must be accompanied by a certified check to the amount of \$250, payable to the city of Escanaba, to guarantee the signing up of contract according to the said proposal, should such proposal be accepted, checks to be returned to each bidder after bids have been opened, except in the case of the accepted proposal (if any) the check to be returned on the signing of the contract.

Acceptable bonds will be required to be given on the signing of contract. The right to reject any or all bids is reserved by the council.

PAT H. TORMEY, City Clerk.
Escanaba, Michigan, February 24, 1890.

NOTICE TO ARTISTS.

STATE SOLDIERS' AND SAILORS' MONUMENT COMMISSION,
INDIANAPOLIS, IND., U. S. A., Nov. 25, 1889.

Sealed drawings of designs and proposals for the erection of a statue, "Liberty," upon the State Soldiers' and Sailors' Monument, now being built in Circle Park, this city, will be received at this office, room 51, State House, until 2 o'clock P. M., May 1, 1890. The right is reserved to reject any or all designs and proposals, without cost to this commission. The official Instructions and Code for competing artists will be forwarded upon application.

GEO. J. LANGSDALE,
GEO. W. JOHNSTON, President.
Secretary, pro tem.

WANTED.

Two (2) competent draftsmen at once.

Apply to 32 METROPOLITAN BLOCK.

SITUATION WANTED—Superintendent.

By the 1st of May, an experienced Architect would like a position as Superintendent. Thoroughly understands the construction of all classes of building, capable of calculating the strength of materials, etc., etc.

Address, "ARCHITECT,"
879 Cauldwell Ave., NEW YORK CITY.

DRAFTSMEN WANTED.

Two first-class Draftsmen can find steady employment at the office of the undersigned. Salary from \$3.50 to \$4.50 per day. For information apply to

R. KLETTING, Architect,
SALT LAKE CITY.

STAINED GLASS

In all forms for church or household work. Figure subjects a specialty. Special designs submitted upon request. Address

J. & R. LAMB,
59 Carmine St. NEW YORK.



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THE INLAND ARCHITECT AND NEWS RECORD.

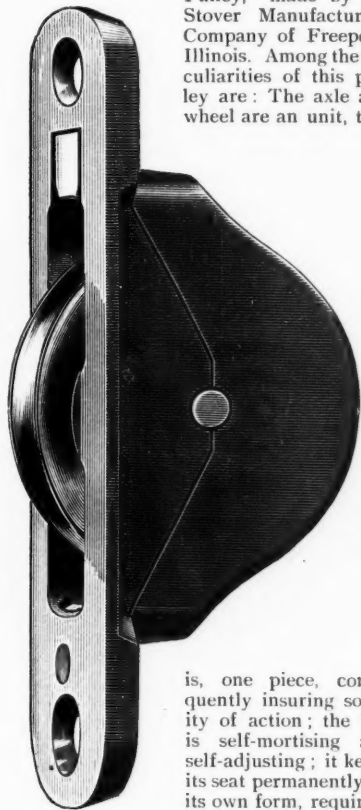
Vol. XV.

ADVERTISERS' TRADE DEPARTMENT.

No. 3

The "Ideal" Sash Pulley.

The accompanying cut represent a very ingenious invention, namely, the "Ideal Sash Pulley," made by the Stover Manufacturing Company of Freeport, Illinois. Among the peculiarities of this pulley are: The axle and wheel are an unit, that



is, one piece, consequently insuring solidity of action; the box is self-mortising and self-adjusting; it keeps its seat permanently by its own form, requiring neither screws, nails nor

any of the ordinary fastenings; it is easy and noiseless in operation. Send for a descriptive leaflet to the firm's address, 129 River street.

Pressed Brick Illustrated.

The most unique trade publication of the day that has so far reached THE INLAND ARCHITECT table, has just arrived, namely, the Catalogue of the St. Louis Press Brick Company for 1890. It is unique in the manner taken to present a complete and comprehensive exhibit of the magnitude of this giant corporation's nine mammoth plants, which are located in four different states, namely: At St. Louis and Kansas City, Missouri; Collinsville, Illinois; Findlay, Ohio, and Waterloo, Virginia, the entire combination having a capacity of turning out annually an output of 71,500,000 front and ornamental, and 129,500,000 common brick. The presentation of these several plants is by photo-gravure plates executed by THE INLAND ARCHITECT press, and are up to the standard of the photo-gravure illustrations of this journal. In addition to the above illustrations, the catalogue is embellished with fac simile designs of molded and ornamental bricks, etc., also views of many prominent and noted buildings constructed of the company's product. Beside the above, the catalogue contains other matter of interest to architects and builders, and forms in its entirety a *vade mecum* of this indestructible building material.

Important Consolidation.

The Sanitas Manufacturing Company, manufacturers of Sanitas plumbing appliances, have sold their entire business to the Smith & Anthony Stove Company, of Boston, and given them the exclusive right to manufacture and sell the Sanitas specialties in the United States, with the exclusive right to use the firm name, trade marks, etc., of the Sanitas Manufacturing Company. Their ample resources will be devoted to pushing the Sanitas goods to a greater extent than heretofore, and the

increased facilities thus acquired will be a guarantee that all orders will be filled with promptness and satisfaction. The Smith & Anthony Stove Company have one of the finest brass and iron foundries in the country, and the present high standard of the Sanitas specialties will be fully maintained. Under the above consolidation the past management of the Sanitas Manufacturing Company will retain an active connection with the business, and solicit a continuance of the good will and trade of all former patrons.

Roofing Tin.

The merits of a good metal roof on buildings are so well understood and appreciated as not to need any elaboration. Architects and owners everywhere have been studious observers and experimenters in this direction, and the only qualification named, in giving it preference, is that the material must be good and well put on. There are several noted brands of roofing tin on the market, each claiming excellence, and each having their exponents in the building profession. Prominent among these brands are those of The N. & G. Taylor Company, of Philadelphia, and their popularity is evidenced in the roofing of hundreds of prominent buildings in the great cities and towns of the country. The title given to this particular manufacture is "Old Style," and no expense is spared to make it as perfect in every respect as good material and workmanship is capable of producing. The result is standard weight and coating in every box of this tin, no imperfect plates getting by the critical examinations to lower the acknowledged uniformity of the output. The company claim to be the originators of stamping on every plate the name of the firm, style of brand and weight of the sheets; the whole a guarantee of the impressed facts. Some time ago THE INLAND ARCHITECT had occasion to call attention to a 250-page book issued by the company, entitled, "Proof Positive," and again call attention to it and suggest to those who have not perused it that it will be a good idea to send to the company for a copy, as it contains valuable information in regard to metal roofs that cannot fail to be of benefit to everybody connected with house building.

Trade Notes.

MESSRS. MERCHANT & CO., of Philadelphia, Chicago, New York and London, England, manufacturers and dealers in the celebrated "Merchants' Roofing" tin, have just issued a little brochure giving the particulars in regard to laying tin roofs to have them perfect and durable. The object of this timely little book is to give architects and owners a pointer on this important subject, which cannot fail of appreciation. Application to either of the above-named headquarters will be rewarded by a copy gratuitously.

MESSRS. DALTON & INGERSOLL, of New York and Boston, have placed on the market a very fine line of plumbing specialties for bath rooms, toilet rooms, school houses and public buildings, most of them being entirely new ideas. Their Boston Lavatory Bowl, Boston Siphon Water Closet and Boston Hopper Water Closet deserve special mention. They have beautiful show rooms in both Boston and New York City, and have also issued a catalogue of 200 pages, containing illustrations of their many specialties and much valuable information to the trade, which they mail on application.

GRILLE work in rattan is a new departure in the field of decorative art, but it has already reached a degree of beauty and perfection which will be a revelation to those who have not previously known of or examined it. The work is susceptible of an endless variety of design, and the uses to which it may be put are almost without number. Some of these designs shown on one of our advertising pages will amply repay inspection, as they give some idea of the beauty of the work. It is a very important point to note that the cost is from twenty-five

per cent to fifty per cent less than the same effect produced in grille work in the finest woods. The grille work in rattan is manufactured by the Chicago Rattan & Reed Works, 155 Superior street, who will furnish prices on application and make special designs to order when required.

THE arrangement of the electric lights that the executive committee of the Metropolitan Museum of Art, New York, has determined to place throughout the entire building has caused the committeemen a great deal of bother and worry. There were different opinions as to the best arrangement of lights for the galleries of paintings. The question was settled by having the electricians arrange lights according to different methods in different rooms for inspection. At the meeting of the full committee I. P. Frink's system of reflectors was unanimously adopted. With these reflectors the paintings will be evenly covered with a light without glare, and throwing the interior of the room into the shade. Now that this is settled upon, the work of lighting every gallery in the Museum is being rapidly pushed by Mr. Frink, and very soon the Museum will be thrown open on Tuesday and Friday nights.

Railroad Notes.

BURLINGTON ROUTE TO THE PACIFIC COAST.—It is the only line by which from Chicago, Peoria or St. Louis you can reach the Pacific coast, either via St. Paul or Minneapolis, via Denver, via Council Bluffs or Omaha, or via Kansas City or St. Joseph. Tickets via the Burlington Route can be obtained of any ticket agent of its own or connecting lines.

QUICKEST TIME TO ALL POINTS IN TEXAS.—The Chicago & Alton Railroad, with its connection, the Iron Mountain Railway, at St. Louis, Missouri, now makes the quickest time of any route from Chicago to Galveston, Houston, San Antonio and the City of Mexico. The only line running Pullman buffet sleeping cars. For further information, and tickets, sleeping car reservations, etc., call at city ticket office, Chicago & Alton Railroad, No. 195 South Clark street, Chicago, Robert Summerville, city ticket agent.

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SITUATION WANTED—Superintendent.

By the 1st of May, an experienced Architect would like a position as Superintendent. Thoroughly understands the construction of all classes of building, capable of calculating the strength of materials, etc., etc.

Address, "ARCHITECT,"
879 Cauldwell Ave., NEW YORK CITY.

PROPOSAL.

NOTICE TO CONTRACTORS.

The Board of Commissioners of Wayne county, Indiana, will receive bids and proposals for the erection of a new court house at the City of Richmond. Building to be 22 by 12 feet, to be built of stone and iron, and to be a fireproof building. Bids will be received, on entire work or in classes, to 12 o'clock A. M. on May 2, 1890, at the auditor's office of said county. Plans and specifications (prepared by James W. McLaughlin, architect, Cincinnati, Ohio) adopted by the Board, are on file in said auditor's office and in the office of the architect, Cincinnati, Ohio.

For particulars address
FINLEY NEWLIN, Auditor,
Richmond, Wayne county, Indiana.

THE PAST SHOWS OVER A THOUSAND YEARS WITH NO IMPROVEMENT IN WALL PLASTER!

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THE PAR EXCELLENCE OF PLASTERING MATERIALS.

SOME OF ITS ADVANTAGES.

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| 1. ALWAYS READY. | 5. VERY ADHESIVE. | 9. KEEPS OUT DAMPNES. |
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NO MORE FALLING CEILINGS OR BATTERED WALLS. — MEDAL OF EXCELLENCE AMERICAN INSTITUTE OF NEW YORK.

OPINIONS OF THE PRESS.

[From the Northwestern Architect.]

MINNEAPOLIS, MINN.

"As is compatible with this progressive period, even wall plaster has succumbed to inventive genius, and 'the day is nearly done' when our handsomely decorated walls and ceilings shall be ruined by reason of the utter unreliability of the old style mortar. To meet this demand for a non-porous plaster, Adamant has appeared on the market and is now being manufactured in nearly every State in the Union."

[From the Scientific American.]

"Some of the advantages Adamant possesses above the other plaster is the extreme hardness of the wall. It will neither crack nor crumble. It is a strong support to a building. It does not swell timbers by an

absorption of the moisture, as the material itself absorbs most of it. It dries so quickly, after it is applied to the wall, that in a few hours frost will have no effect on it. We are convinced that this Adamant is destined to revolutionize the business of house plastering."

[From the Leader and Herald.]

CLEVELAND, Ohio, March 22, 1889.

"The problem has been to provide a substitute that would not only produce a perfect wall, but be comparatively cheap and easily applied as well."

"Repeated tests, under the most exacting conditions, clearly prove that such a happy combination has at last been secured in the plastering material called 'Adamant,' now being so extensively introduced in this city."

[From the Builder and Decorator.]

PHILADELPHIA, PA.

"Nothing in house building has so long withstood the 'march of improvement,' notwithstanding it has failed to give a substantial wall, while many houses become defaced and old in a few months on account of broken walls and ceilings. 'Adamant' obviates all this, and is the coming wall plaster."

[From the New York Commercial News.]

"There is not the least doubt about 'Adamant' wall plaster. It will last as long as the building upon which it is used."

[From the Baltimore Commercial.]

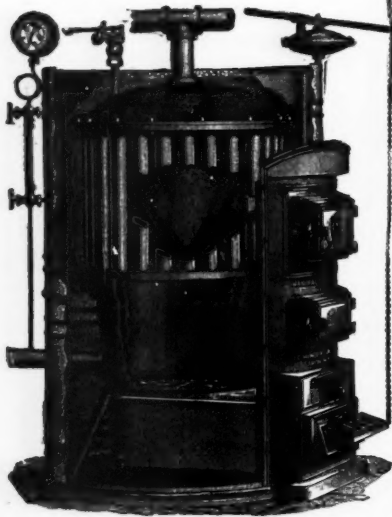
"Adamant makes a wall as hard as marble, at a slight cost."

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 THE KEYSTONE PLASTER CO. 233 North Twenty-third Street, Philadelphia, Pa.
 or Cor. Greenough St. and Gas Alley, Pittsburgh, Pa.
 THE NEW JERSEY ADAMANT MFG. CO. 61 Passaic Avenue, Harrison, N. J.
 THE UNITED ADAMANT PLASTER CO. 10 South Holliday Street, Baltimore, Md.
 THE NORTHWESTERN ADAMANT MFG. CO. 4th Ave., near 1st St. South, Minneapolis, Minn.
 THE CHICAGO ADAMANT PLASTER CO. Room 70, 149 La Salle St., Chicago, Ill.
 THE ST. LOUIS ADAMANT PLASTER CO. 6 to 16 N. Second St., St. Louis, Mo.
 THE CONNECTICUT ADAMANT PLASTER CO. 460 Grand Ave., New Haven, Conn.

THE OHIO ADAMANT PLASTER CO., Room 58, Board of Trade Bldg., Columbus, Ohio.
 THE OHIO PLASTER CO. 5 Euclid Avenue, Cleveland, Ohio.
 THE ADAMANT WALL PLASTER WORKS. 315 Superior Street, Toledo, Ohio.
 THE INDIANA ADAMANT PLASTER CO. 196 Maryland Street, Indianapolis, Ind.
 THE DETROIT ADAMANT WALL PLASTER CO. 88 Griswold Street, Detroit, Mich.
 THE MICHIGAN ADAMANT PLASTER CO. 39 N. Division St., Grand Rapids, Mich.
 THE KANSAS CITY ADAMANT PLASTER CO. 517 N. Y. Life Bldg., Kansas City, Mo.
 THE TENNESSEE ADAMANT CO. 715 Line Street, Nashville, Tenn.
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CONCRETE, ILLUMINATED SMOOTH SURFACE.

Old Style Bull's Eye Knob Protected,
 Steel Plate Doors, Illuminated or Plain,
 Vault Rings or Covers, Illuminated or Plain.

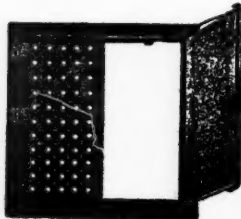
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Vault Ring.

T. H. BROOKS & CO.,
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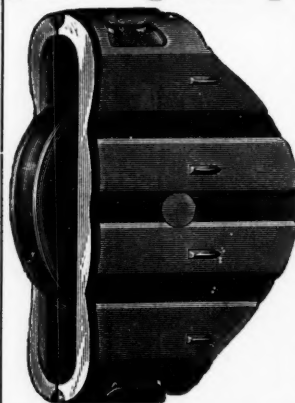
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Illuminated Steel Door.

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IDEAL SASH PULLEY.



A 4-Hole Anger Mortise Cone Axle Pulley.
 Applied without Chisel or Screws. Each
 Pulley Its Own Marking Gauge. A Variety
 of Styles and Sizes to Select from. Ask
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Amateur Outfits in
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 or call and examine.

More than Forty Years
 Established in this line
 of business.

THE INLAND ARCHITECT AND NEWS RECORD.

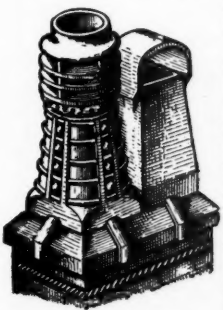
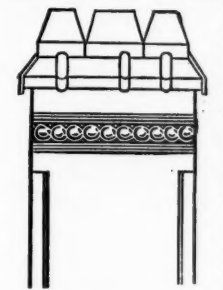
Vol. XV.

ADVERTISERS' TRADE DEPARTMENT.

No. 4

A Substantial Chimney Topping.

As a protection against the early destruction of the tops of chimneys by rain and frost, the Hansen patent saltglazed chimney top, a device patented by a



Chicago architect, seems to meet with general approval, their use demonstrating just what was claimed when the device was put upon the market and applied to chimneys by a large number of builders. The success in introducing them already achieved by the agent, Mr. William M. Dee, No. 165 East Adams street, Chicago, is because of the simplicity in principle and undoubted substantial character of the material of which it is made and the praise bestowed upon it by those who have given the device a trial. These toppings are almost as cheap as common brick toppings, and should be used generally for permanent work — repairs as well as in new work.

The Pasteur Filter.

The importance of having better and more healthful drinking water is attracting the attention of all who live in the more thickly settled portions of this country. It is a well established fact that typhoid fever, diphtheria, Asiatic cholera, cholera infantum and dysentery are caused by germs, taken into the system — most generally through the medium of drinking water. It is claimed for the Pasteur Filter that the only reliable means of obtaining biologically pure water is by filtration through this filter, which has been proven to be germ proof, after thorough bacteriological tests by the most eminent bacteriologists, physicians and chemists in this country and Europe. The filtering medium of the Pasteur Filter are unglazed porcelain tubes or bougies, in appearance resembling a candle. One end of the tube is closed, the other has a small orifice, which is the outlet for filtered water. The unfiltered water is forced through the walls of the tube from the outside, all the impurities in the water are deposited on the surface of the tube, which is thoroughly and easily cleaned by washing.

De Golyer's Rock Finish.

The manufacturers of this excellent material have issued a finely gotten up album of unique design, showing the finish on the different woods used in interior finishing. They have many testimonials of its beauty and durability from architects and builders of prominence, one of the latest tests of its value being upon the Virginia building, a large apartment house recently erected by Architect Clinton J. Warren, at the corner of Ohio and Rush streets, Chicago.

Trade Notes.

MESSRS. GEORGE A. BLESSING & Co., New York, manufacturers and dealers in plumbing goods and sanitary appliances, have removed to No. 290 Pearl street.

THE Chicago Union Lime Works, Mr. F. E. Spooner, agent, long and favorably known to the building public as manufacturers of Chicago quick lime and crushed stone, and dealers in stucco, cement, plastering hair, etc., have removed their office from No. 153 Market street to Room 5, No. 159 La Salle street,

close to the rooms occupied by the Builders' and Traders' Exchange. Evidencing the stability of the concern is the fact that it was at the old location for eighteen years.

WARREN WEBSTER & Co., proprietors and manufacturers of Webster's "Vacuum" Exhaust Steam Economizer, 491 North Third street, Philadelphia, Pennsylvania, have also located in Chicago at the Builders' and Traders' Exchange Building, Nos. 159 and 161 La Salle street, with T. L. Webster resident manager.

W. R. OSTRANDER & Co., New York, manufacturers of speaking tubes, whistles, electric and mechanical bells, annunciators, etc., have removed to 195 and 197 Fulton street, where they carry in stock a full line of speaking tubes, whistles, electric, mechanical and pneumatic bells, annunciators, and general bell hangers' supplies.

THE mail this month brings to THE INLAND table the illustrated catalogue and price list of Rundel, Spence & Co., of Milwaukee, manufacturers of plumbers' sanitary specialties, steamfitters' supplies, etc. It goes without saying the output of this company stands well with builders, and the present catalogue brings down all the company's improvements to the latest date. Users of plumbers' and steamfitters' goods cannot afford to be ignorant of what the firm is doing and has to offer for their consumption, and, therefore, should send for this latest publication if they are not already supplied.

We are in receipt of the *Trefoil*, a miniature newspaper published by the Yale & Towne Manufacturing Company, of Stamford, Conn., devoted to useful improvements in lock and metal work. The present monthly number is devoted largely to some new departures in the Yale front door lock, wherein a single key controls two separate bolts through a single key hole, and the key hole is placed *above* the knob instead of below it. The merits of the Yale lock are too well known to need repetition, and this new departure will certainly receive a hearty endorsement from the users of this inimitable door fastener.

THE Munroe patent ingrain wall paper has been in the market for ten or more years and during that time has made a revolution in the methods of decorating walls artistically, beautifully and cheaply. Its rich, pure tones and soft texture give a perfect background for pictures and other wall decoration, and it has added qualities of elasticity, imperviousness to moisture and beauty, being made with non-poisonous, as well as fast, ingrained colors. The above qualities are of the highest value in wall paper and it is claimed are found only in the Munroe ingraings, the various imitations being deficient in one or all of the good points that have made the patent paper so deservedly popular.

ONE of the handsomest trade catalogues that has reached THE INLAND table in a long time has just arrived from the Decco Company, of Newport, Rhode Island, for 1890. It is quarto in size, and illustrated with superbly engraved representations of the plumbing specialties of the company. Among them the "oval Decco water closet, improved"; the "oval pedestal Decco water closet"; the "square top Decco water closet"; the regular square top water closet; "Puro lavatories"; "Puro bath tubs"; "Colonial lavatories"; "Puro traps"; "Decco flush-pots and sinks." These goods should be familiar to all house builders as being something uniquely chaste and artistic in design, and at the same time of the highest sanitary merit; especially is this the case with the pedestal water closet and anti-siphon Puro trap. Of course, all prominent plumbers are "up" in these latest novelties and improvements, yet there are others, beside architects, builders and owners, who may not be fully acquainted with their possibilities and growing popularity, and who have not received a copy of this latest publication, that ought to have it. They can procure copies by addressing the

home office, or branch headquarters at 427 Walnut street, Philadelphia, 71 Kilby street, Boston and 203 Lake street, Chicago.

WHILE it may not be very interesting information to the architectural profession, although all information in regard to the manufacturing arts should command somewhat of the architect's attention, we can find a space to refer to a most excellent and well-tested preparation that is of paramount interest to every one whose line of business calls for the use of belted machinery, since they are only too well posted in the very common annoyance of belting and the various methods in use to avoid it. Besides, too, they are cognizant that many of the devices are destructive of the belting, so that anything that refers to this important part of motive power is of attractive significance. The preparation to which we refer is "Dixon's Belt Dressing," a composition manufactured by the well known Joseph Dixon Crucible Company of New Jersey. It has been used extensively in Europe as well as in this country and meets with universal commendation. What most gives the preparation well-merited notoriety beyond its life-giving quality to leather belting, is its holding power to pulleys without requiring hurtful tension. Very much could be written in this connection, but it is better for the would-be and not informed to gather the facts by addressing the company or its representatives.

Railroad Notes.

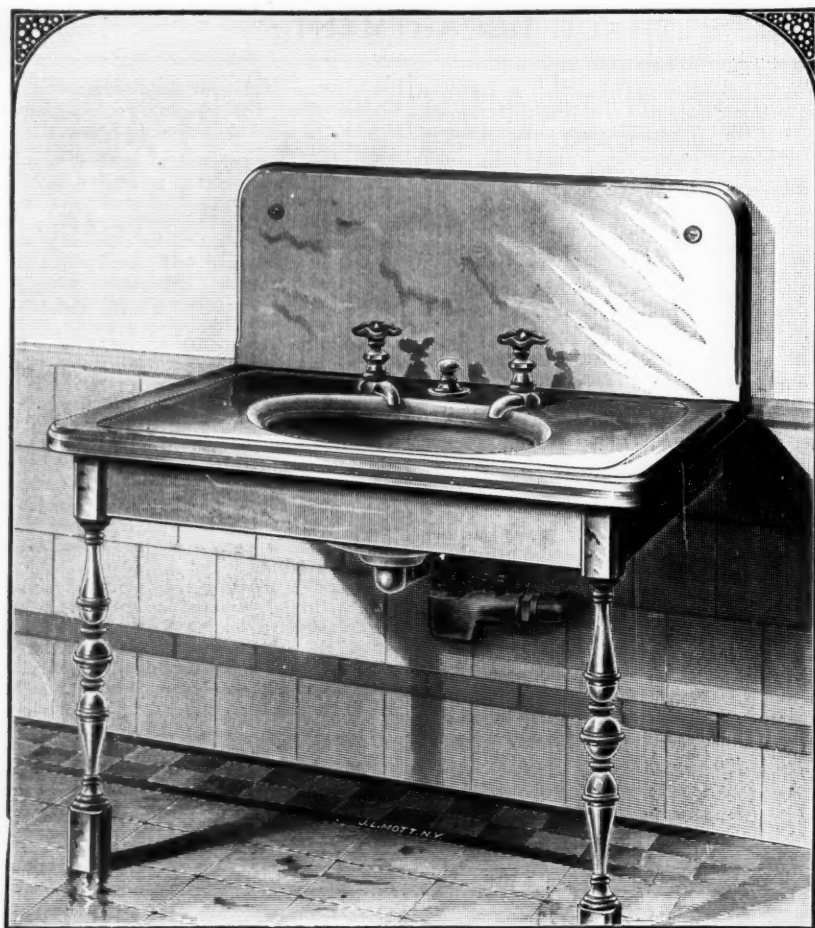
A MODEL RAILWAY.—The Burlington route, Chicago, Burlington & Quincy Railroad, operates 7,000 miles of road, with termini in Chicago, St. Louis, St. Paul, Omaha, Kansas City and Denver. For speed, safety, comfort, equipment, track, and efficient service, it has no equal. The Burlington gains new patrons, but loses none.

BURLINGTON ROUTE TO OMAHA, LINCOLN AND DENVER.—The best train to the above points is "The Burlington's Number One" solid vestibule train, with through dining and reclining chair cars and sleepers, leaving Chicago at 5:30 P.M. daily. Tickets via the Burlington Route can be obtained of any ticket agent of its own or connecting lines.

QUICKEST TIME TO ALL POINTS IN TEXAS.—The Chicago & Alton Railroad, with its connection, the Iron Mountain Railway, at St. Louis, Missouri, now makes the quickest time of any route from Chicago to Galveston, Houston, San Antonio and the City of Mexico. The only line running Pullman buffet sleeping cars. For further information, and tickets, sleeping car reservations, etc., call at city ticket office, Chicago & Alton Railroad, No. 195 South Clark street, Chicago, Robert Summerville, city ticket agent.

"PEN AND CAMERA" is the title of an elegantly printed and bound brochure issued by the passenger department of the Wisconsin Central Railway lines. The white covers, tied with white silk cord, inclose descriptive matter regarding the beautiful lake and river country through which this road runs, illustrated profusely by photogravure plates. To those contemplating a summer trip in search of health and recreation it is an invitation and a guide to some of the most beautiful and restful spots this country affords. It is issued by G. C. Thompson, city passenger agent, Wisconsin Central Railway, Chicago.

A BEAUTIFUL BOOK.—A very elaborate and artistic publication, entitled "Gateways of Tourist Travel," has been issued by the passenger department of the Chicago & Grand Trunk Railway. It is printed on coated book paper, splendidly illustrated by seventy-five engravings, all of the photogravure or half-tone process. The book contains about fifty large quarto pages, and will be mailed, free of charge, to any address on receipt of 20 cents in postage stamps, on application to W. E. Davis, general passenger and ticket agent, Chicago & Grand Trunk Railway, Chicago, Illinois.



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FINE PLUMBING and SANITARY FIXTURES.

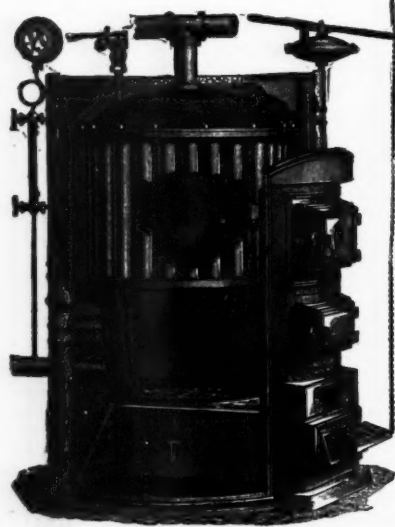
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*Steam Jacket Kettles, and Port-
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SIDEWALK LIGHTS, CONCRETE, ILLUMINATED SMOOTH SURFACE.

Old Style Bull's Eye Knob Protected,
Steel Plate Doors, Illuminated or Plain,
Vault Rings or Covers, Illuminated or Plain.

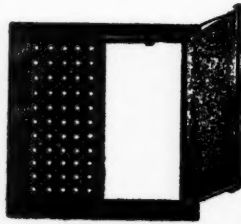


Vault Ring.

Architectural Iron Work of every description.

T. H. BROOKS & CO.,
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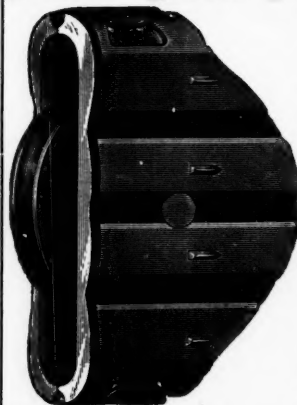
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Illuminated Steel Door.

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IDEAL SASH PULLEY.



A 4-Hole Auger Mortise Cone Axle Pulley.
Applied without Chisel or Screws. Each
Pulley its Own Marking Gauge. A Variety
of Styles and Sizes to Select from. Ask
for Catalogue of Hardware Specialties.

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Amateur Outfits in
great variety from \$9.00 up-
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or call and examine.

More than Forty Years
Established in this line
of business.

THE INLAND ARCHITECT AND NEWS RECORD.

Vol. XV.

ADVERTISERS' TRADE DEPARTMENT.

No. 5

A New Sash Balance.

The probability that there will always be something new under the sun, notwithstanding the venerable "saw" which alleges the contrary, is being proved every day.

One among the very latest of the new-born novelties, and which will interest everybody having to do with either in the construction or occupancy of houses, will be found advertised in this number of THE INLAND ARCHITECT. We refer to the advertisement of the Gardner Sash Balance Company, which announces the placing on the market of a new window-sash or door-hanging device which enters the field to substitute the old cord and chain balance. There is nothing complex about the innovation. It is simply substituting a steel ribbon, which rolls over a properly adjusted pulley, for the commonplace cord or chain, and which is attached to the sash and sash-weights by very simple and easily attached fasteners. The accompanying diagram gives away the entire secret of the new departure. While this sash balance is new to the trade, it is not an untested affair, as before any thought of adding it to what is already well known and tried, it was put upon a heavy upward sliding door that opened and closed hundreds of times a day, and under this severe test for a period of six months—equal to eight or nine years of window trial—it was found to be, at the end of that time, as perfect in every respect as it was the first day. Since then it has been tried in a large number of buildings, some of which are named in the advertisement, and the accompanying testimonials of men too well known for their probity to doubt, certainly vouches for its more than ordinary merit. It works equally well on light and heavy windows, and is galvanized to prevent rust.



Practical Hints.

Architects' specifications, says the *Trefoil*, have heretofore usually left to the contractor large discretion in everything included under the term "hardware," no distinction being made between articles of ornament, the knobs and escutcheons, and articles of utility, such as nails and screws.

The force of habit and, in some cases, doubtless, want of familiarity with the better class of products now obtainable, prompt architects to frequently draw their specifications on the old lines. Under modern practice, however, the selection of metal work, at least for the more important rooms and floors, is preferably reserved for the owner or architect, as in the case of other matters of decoration, such as gas fixtures, papering and mantels.

Liquid Paints.

The H. W. Johns Manufacturing Company, of New York, make a specialty of designing combinations of harmonious shades for their customers. This they do free of charge, on receipt of photograph or architect's plan of the building to be painted.

A point we cannot too strongly impress upon the minds of our readers is the importance of using none but the best. The question of quality should receive the first consideration, and in estimating price it should be remembered that it is questionable economy to spend from fifty to one hundred dollars in applying

twenty-five dollars worth of inferior paint which will never have a satisfactory appearance, and will wear at most, but two or three years, when the use of a strictly first-class article, costing say twenty per cent more (or five or six dollars for an ordinary house), would insure a serviceable and much more pleasing result for at least two or three times as long. The H. W. Johns Manufacturing Company are manufacturers of first-class, strictly pure linseed oil paints, and their reputation as a reliable house, well known in business circles for many years, should give weight to any claims they make for their goods.

If any information is desired regarding quantity of paints required, or any other special points, they will cheerfully answer any questions addressed to their office, 87 Maiden Lane, New York.

Railroad Notes.

NOTICE.—The Wisconsin Central Lines are now selling special ten-ride club tickets between Chicago and Fox Lake, embodying railroad, omnibus and steamer coupons for ten dollars (\$10). City office 205 Clark street. Depot corner Harrison street and Fifth avenue, Chicago.

A MODEL RAILWAY.—The Burlington route, Chicago, Burlington & Quincy Railroad, operates 7,000 miles of road, with termini in Chicago, St. Louis, St. Paul, Omaha, Kansas City and Denver. For speed, safety, comfort, equipment, track, and efficient service, it has no equal. The Burlington gains new patrons, but loses none.

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TO THE SEASHORE AND THE MOUNTAINS IN A PALACE.—The sale of tourist tickets to eastern summer resorts commences June 1. "The Seaside and White Mountains Special," the finest train in the world, makes its first trip from Chicago Wednesday, June 25, continuing each Wednesday thereafter during the tourist season, leaving Dearborn Station, Chicago, at 5 P.M. The entire train, including dining car, barber shop, library and observation car, with four magnificent Pullman vestibuled sleeping palaces, all lighted by electricity, accompanied by a special agent of the passenger department and a lady attendant, runs through solid without change Chicago to Portland, Maine, and return. Complete tourist information mailed free to any address. Passengers for Niagara Falls, the Thousand Islands, Montreal, the Adirondack region, White Mountains, Rangeley Lakes, Poland Springs, Portland, Cushing's Island, Chebeague Island, Peak's Island, and the three hundred and odd islands of Casco Bay; Bar Harbor, Old Orchard, York Harbor, Portsmouth, Isle of Shoals, and all the seaside and mountain resorts of New England, should secure accommodations early on this finest train in the world by applying to E. H. Hughes, general western passenger agent, Chicago and Grand Trunk railway, No. 103 South Clark street, Chicago, Ill. Tourist tickets are good on all trains. Send 20 cents in stamps and obtain copy of the finest tourist publication ever issued, the "Gateways of Tourist Travel."

Trade Notes.

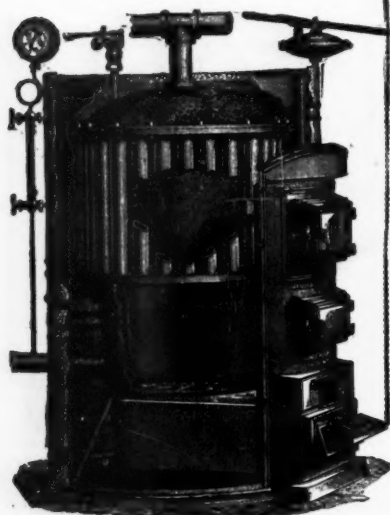
THE Tiffany Pressed Brick Company has just issued a neatly bound in cloth pocket manual of their output, which is a price list as well, containing fac simile engravings of their molded and ornamental brick. The present publication supersedes the older price lists which are now valueless to the trade. Copies may be had of the present edition by application to the company's headquarters, 161 La Salle street, Chicago.

THE Buckeye Portland Cement Company, Bellefontaine, Ohio, have issued a second edition of their price list and catalogue which contains very important information to architects and builders in reference to this character of cement. It would seem from chemical analysis and testimonials from experts, that nature has given this company a bonanza in the way of a natural, strong and pure hydraulic cement.

MR. SAMUEL CABOT, of Boston, Massachusetts, the inventor and manufacturer of the justly celebrated "Cabot shingle stains," is just sending out from the press a souvenir illustrated catalogue, entitled "Sketches," giving some forty odd views of buildings erected in various parts of the country, designed by prominent architects, on all of which the Cabot stains have been used. Outside of the accompanying testimonials and useful information, this latest, "with compliments of Samuel Cabot, Boston," is worthy of a place in any architectural library for the "hints" that may be taken from the views of buildings contained in its half-hundred pages.

It is not every catalogue and price-list sent out by manufacturers to catch the attention of users of their material that is so designed as to perform its intended mission successfully, but now and then one appears which has been compiled and arranged as to leave nothing to be desired on the part of an investigator. One of this better class has just reached THE INLAND ARCHITECT table from the well-known Mathews Decorative Glass Company, of New York, wherein it would seem no possible rational inquiry is unanswered, while the various departments of the industry are profusely presented in superbly engraved fac simile designs, copies of actual work. In noticing this latest "novelty" of the Mathews Company, it is not necessary to remind the architectural profession of the capacity of the plant nor the ability to produce new work from original designs, but it may be a good service to suggest sending for a copy of the new one hundred page book, and therefore this pleasurable mention of it.

EVERYONE interested in the art of sanitary plumbing is aware, notwithstanding the great progress that has been made within the last decade, that there is yet "room on top" for something better, and the endeavor to get there on the part of sanitary engineers and plumbing genius. Perhaps in no department of this vital quantity of modern house construction has so much attention been given as in the lavatory and water-closet and many excellent devices are in the market which have received merited liberal patronage. One of the newest competitors in this race for excellence and which appears to be "neck and neck" with the foremost, to say the least, is the so-called "A. D. Syphon water-closet," manufactured by the Fred Ade Company, of 90 Beekman street, New York. It certainly has points of excellence not possessed by any other, and our observation discloses its successful introduction in Chicago. By referring to page — of this number of THE INLAND ARCHITECT, those unacquainted with its peculiar construction and claims will find them so plainly set forth by letterpress and engraving that they will hardly require further amplification. In Chicago this interesting "supply" can be seen at the plumbing establishments of M. Carboy, 69 Washington street; J. F. Allee Bros., 233 Lincoln avenue, and B. & L. Bain, 633 West Madison, and it will well repay the investigator to examine this more than ordinarily advanced water-closet plumbing device.



HENDERSON'S SYSTEM FOR Heating and Ventilating

PRIVATE AND PUBLIC BUILDINGS,
— BY —
Hot Air, Hot Water or Steam

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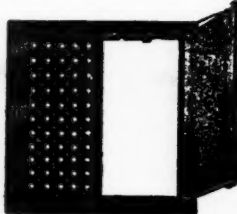


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Is superior to any other Portland Cement made. It is very finely ground, always uniform and reliable, and of such extraordinary strength, that it will permit the addition of 25 per cent more sand, etc., than other well-known Portland Cements, and produce the most durable work. It is unalterable in volume and not liable to crack.

8,000 barrels have been used in the foundations of the Bartholdi Statue of Liberty, and it has also been used in the construction of the Washington Monument at Washington.

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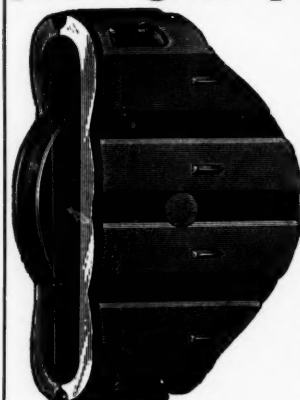
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THE INLAND ARCHITECT AND NEWS RECORD.

Vol. XV.

ADVERTISERS' TRADE DEPARTMENT.

No. 6

The Yale & Towne Manufacturing Company.

In the summer of 1868, a partnership was arranged between the late Linus Yale, Jr., then of Shelburne Falls, Massachusetts, and Henry R. Towne, then of Philadelphia, Pennsylvania, for the development of a business to be based upon the inventions and patents of Mr. Yale relating both to bank and key locks. In October of that year, the two partners gave effect to their plans by the organization of the Yale Lock Manufacturing Company (of which they held all the stock), and by the purchase of land in Stamford on which to erect a building for the accommodation of the business, which had for several years previously been conducted on a small scale at Shelburne Falls. While Mr. Towne attended to the erection of the new buildings in Stamford, Mr. Yale continued to conduct the business at Shelburne Falls, until December 25, 1868, when he died suddenly, of heart disease, in the city of New York. Notwithstanding this severe blow the new enterprise was carried forward by Mr. Towne and Mr. John B. Yale, son of the inventor. The new buildings were pushed to completion, and in March, 1869, the machinery and business were moved from Shelburne Falls to Stamford, starting in the latter place with about thirty employes.

In June, 1869, Mr. Towne was elected president of the corporation to succeed Mr. Yale, and in the summer of 1870 the representatives of the Yale estate disposed of their interest in the business, the entire control and management of which then passed into the hands of Mr. Towne, who has continued in the presidency down to the present time. In 1873, the late Franklin Underhill became treasurer of the company, which office he occupied until his death, seven years later. In 1877, Mr. Schuyler Merritt entered its service, becoming soon the secretary, and later, the general manager. In 1881, Mr. George E. White was elected to the office of treasurer, which he still holds. Among those longest connected with the company are Mr. Emory Stockwell, superintendent of the bank lock department, and Mr. Warren H. Taylor, superintendent of the small lock department, both of whom, as well as a few others still in the business, also came from Shelburne Falls.

Mr. Yale had been chiefly interested in inventing and manufacturing bank locks; Mr. Towne had been attracted to the business by the possibilities which he foresaw in the pin lock with flat key, now generally known as the "Yale Lock." Since Mr. Yale's death, both branches have been largely developed, but the business in key locks on the Yale system, which obviously embraces a larger field than the bank lock business, has grown more largely, and has long constituted the most important feature of the business.

In 1875, Mr. Towne obtained exclusive rights under the patents of Mr. T. A. Weston, relating to differential pulley blocks, and simultaneously acquired, by purchase, the business of three manufacturers, each of whom had previously been making pulley blocks in competition, thus uniting all interests and obtaining control of the market during the lifetime of the Weston patents. All of these interests were duly transferred to the Company, which thereupon added to its manufacture the making of pulley blocks, and later, of cranes and other hoisting machinery. In 1877-1878, Mr. Towne (then controlling all of the stock of the company), also negotiated the acquisition of the business of two competing lock manufacturers, namely, the United States Lock Company, of Plymouth, Massachusetts, and the American Lock Company, of Cazenovia, New York, thereby greatly strengthening the position of the company in its key lock business. At about the same time a partnership arrangement was entered into with Sargent & Greenleaf, of Rochester, New York, for the pooling of interests relating to time locks, whereby the parties to the agreement secured a controlling position in this field.

The original building (now known as the "Old Lock Shop") was about 35 by 120 feet, with a one story annex at the east end, 35 by 45 feet, which constituted the brass foundry and boiler room. A small addition (the present shipping shed) was made about 1872, to accommodate postoffice woodwork, and in 1873 a new foundry building was erected, which has since been utilized for the engine room. In 1875-1876, the south wing of the present pulley block shop was erected, additions thereto being made during the next two or three years until the whole of the present building was completed. In 1881, the growth of the business was such as to necessitate a large increase of capital, and a large extension of plant; a considerable portion of the new capital then issued was taken by employes and others, as was also the case with subsequent issues, so that the company now has numerous stockholders. During the summer of 1881, the range of buildings fronting on Pacific street, and also the present foundry building, were erected, at which time also the present steam plant was installed. The west end of the postoffice building had been erected a short time before and the eastern extension thereof was built during the summer of 1882. In 1883, the growth of the business compelled a further extension, and during the summer of that year the present crane shop and smith shop buildings were erected. At the present time plans are in preparation for a new building east of the present smith shop to accommodate pulley block and chain making, the building now occupied for these purposes being required for use in connection with the small lock department. Plans are also under consideration for a large extension of the foundry building. The number of employes has increased steadily from thirty in 1869, to over eight hundred at the present time, exclusive of those employed at the branch houses of the company in New York, Chicago, Philadelphia and Boston.

A New Plastering Material.

King's Windsor Cement for plastering walls and ceilings, which is claimed to be both fire and water proof, is the material now being used on the Madison Square Garden, New York City, and also in the United States Government Court House and Postoffice building at Williamsport, Pennsylvania. Among the numerous jobs where it has been used, as we understand to the entire satisfaction of the owners, are the New York Central Railroad Depot at Niagara Falls, N. Y.; Dr. Meredith's Church, Brooklyn; the Lincoln Club, Brooklyn; Mr. Wm. Knowlton's house at 87 Remsen street, Brooklyn; addition to the Arlington Hotel at Washington, D. C.; the Hier Flats at Syracuse, N. Y.; Mr. Geo. Westinghouse's villa at Lenox, Mass., and many other places throughout the country.

We believe it to be to the interest of all who contemplate building, to thoroughly investigate this material before giving out contracts.

Circular and samples of this cement will be sent free by J. B. King & Co., manufacturers, 24 State street, New York, N. Y.

The National Capital.

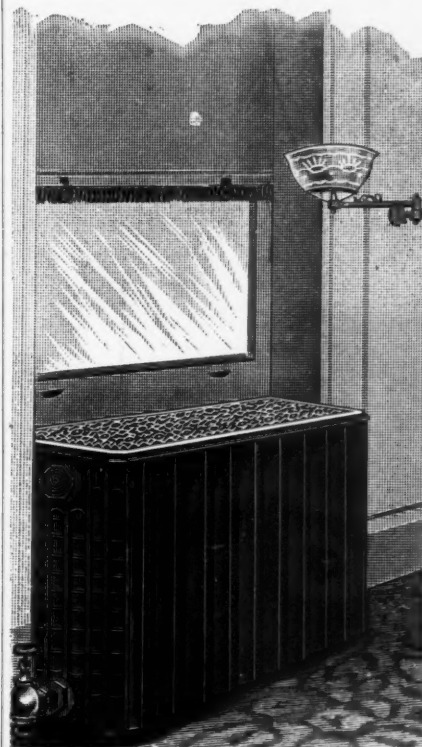
The city of Washington is an object of perennial interest to all patriotic Americans. Not alone because it is the great throbbing heart of the mightiest and grandest republic the earth has ever known, but also on account of its material magnificence. All Americans take pride in its beautiful avenues, majestic architecture, stately homes, and well stored galleries and museums as things of grandeur and beauty in themselves, apart from the historic interest with which they are invested. It is a hope and aspiration of all "YOUNG AMERICA," at least, to some time or other visit the capital of his country.

The Baltimore & Ohio railroad offers unequalled facilities in aid of this desire. All its through trains between New York, Philadelphia and Baltimore on the east, and Pittsburgh,

Cincinnati, St. Louis and Chicago on the west, pass through Washington. Its fast express trains are vestibuled from end to end and heated with steam. Pullman's latest and best productions in the way of sumptuous Drawing Room Sleeping Cars are attached to all its through trains. The present management of the Baltimore & Ohio have made vast improvements in the last two years, and the road is today one of the foremost passenger carrying lines in the country. Through tickets via Baltimore & Ohio Railroad can be procured at all the principal ticket offices throughout the United States.

What An Expert Engineer Says.

A prominent Engineer called recently at the Works of the A. A. Griffing Iron Company, Jersey City, New Jersey, and was much impressed with a new style of steam and hot water radiator which they had just brought out. The accompanying cut shows the utility of the radiator.



BUNDY DEFIANCE.

(TRADE MARK.)

The special features of the Bundy Defiance Radiator, for that is the name given it, are its adaptation for use under windows, in a recess or wherever a low radiator is required, and also its compactness. The maximum of surface can be placed in a limited space. In placing the Bundy Defiance under windows, the window-sill oftentimes serves as a top finish for the radiator, then, again, a marble slab resting on brackets over the radiator, produces a handsome effect.

There are two sizes of Defiance sections, 8 by 13 inches and 11 by 18 inches, respectively, the former figures representing the widths of the sections or radiators, while the latter show the heights, but the height varies. It increases when the radiator is set on legs, and here a special feature is observed in the great variety of heights in which the legs are furnished. They can be had $\frac{1}{2}$, 1, $1\frac{1}{2}$, 2, $2\frac{1}{2}$, 3, $3\frac{1}{2}$, 4, $4\frac{1}{2}$, 5 and $5\frac{1}{2}$ inches high, so the radiators can be furnished in different heights, varying by half inches, from $13\frac{1}{2}$ inches to $23\frac{1}{2}$ inches high. When no height is specified in ordering, the 1-inch height is always shipped.

The larger section has 7 square feet of heating surface, the smaller $\frac{1}{4}$, and in either case each section increases the length of the radiator 4 inches. As all sections are

ADVERTISERS' TRADE DEPARTMENT—Continued.

exact duplicates, they are interchangeable and can be conveniently added to or subtracted from a radiator with very slight expense, and produce a radiator of precisely the size wanted.

Further information regarding the Bundy Defiance Radiator can be had from the manufacturers, the A. A. Griffing Iron Company, Jersey City, New Jersey.

Trade Notes.

ARCHITECT W. LUFF MEREDITH, of Seattle, Washington, would be glad to receive trade catalogues and samples for office use.

R. W. MAXTON is furnishing the Kilbuck brownstone for the Metropole Hotel, Twenty-third street and Michigan Avenue.

MERCHANT & COMPANY, manufacturers and importers of brass bronze and copper specialties, have just issued a new manual and price list that will be of interest to the building fraternity as it contains the latest information in regard thereto. Copies may be had on application at the headquarters, Philadelphia, New York and Chicago.

AN indorsement from a connoisseur in colors:

NEW YORK, April 29, 1890.
Messrs. Dexter Bros., Boston, Massachusetts.
DEAR SIRS,—Such use as we have made of Dexter Brothers' English Stain has proved entirely satisfactory.
Respectfully,
THE TIFFANY GLASS CO.

MAY 22, 1890.
Please ship to Louis C. Tiffany, Cold Spring, Long Island, New York, one half barrel Shingle Stain No. 4.
THE TIFFANY GLASS COMPANY.

B. F. STURTEVANT, Boston, Massachusetts, has just issued a special sectional catalogue of the Sturtevant steam blast drying and heating apparatus, which will prove very interesting literature to the building fraternity, as well as to the manufacturers of lumber, since it is equally well adapted to house heating as kiln drying lumber. The catalogue embraces forty-six pages of descriptive letter press, illustrated by as many excellent engravings, the whole making a complete exposé of the practical working and philosophy of this well-tried apparatus. A copy can be procured on application to the home office or branches at New York, Chicago, and London, England.

DE GOLYER'S ROCK FINISH is a new and valuable article for all wood finishing, superior in hardness and toughness, which dries on wood like a cement, and will produce a smooth and very durable surface. It has been adopted by architects throughout the western country, and from all reports this varnish does all that is claimed, and fills the bill to perfection. Several buildings in Chicago have been finished with the Rock Finish and it has proved satisfactory. It has also lately been largely adopted in New York City and Philadelphia, and all who once use it commend its permanent qualities. The trade extends throughout the entire country, and is of vast magnitude and importance. The success of the Watts, De Golyer Company has been achieved by the strict adherence to the highest standard of commercial honor and integrity in all their transactions. From the inception of this enterprise down to the present time, this house has been consistent in its determination to excel in every detail of manufacture, and to this fact may be ascribed the prominence this Rock Finish has attained, and the name of De Golyer has become recognized as synonymous with the highest excellence in varnish. Architects will do well to send for their new album of finished woods and price list, and will be convinced of the merits of this useful and valuable Finish.

THE Ames Sword Company, of Chicopee, Massachusetts, is putting on the market an automatic sash lock that will win the admiration and confidence of all who will investigate its several intrinsic and wholly novel merits. As its name indicates, it does its service automatically, and, we may also say, effectually. It is a burglar-proof lock and is so constructed that there are no projections above the meeting rails of the sash to mar the head of the window frame. It can be applied to any sash,

whatever the make may be, and always be applied to the center. One great feature of this lock is *it can't be neglected*, for in the closing of a window the latch, of its own action, securely locks it. It is made in bronze, nickel and such other styles as may be desired. It looks as if this new window fastening device must necessarily come into a very general use on account of its several very inviting features, especially as it is as inexpensive as any good window lock now in the market.

"THE GREAT CHURCH LIGHT."—The patent Reflectors and Reflecting Chandeliers manufactured by Mr. I. P. Frink, New York, are now being introduced in the following prominent churches: First Presbyterian Church, Woodhaven, N. Y.; Ocean Hill Baptist Church, Brooklyn, N. Y.; First Universalist Church, Putnam, Conn.; Grove Street Congregational Church, East Orange, N. J.; First Welch Presbyterian Church, Wilkes Barre, Pa.; Second German Baptist Church, New York; Roseville M. E. Church, Newark, N. J.; Sunday School Room of Tompkins Avenue Congregational Church, Brooklyn, N. Y.; Mount Pleasant Baptist Church, Newark, N. J.; Foster Street Lutheran Church, Harrisburg, Pa.; St. James M. E. Church, Galveston, Tex.; Tacoma Presbyterian Church, Tacoma, Wash.; Trinity P. E. Church, New York; House of Prayer, Germantown.

MR. WILLIAM HOMES, of the Boston Fire Brick Works, is on a tour to the leading western cities, for the purpose of exhibiting to the architects, for their criticism, samples of the company's latest novelty in its specialty of ceramics, namely, "brick ashlar." His visit to Chicago was on June 12. As may be inferred, the object of the new material is to offer a substitute for ashlar stone. So far as appearance goes it can be truthfully said the imitation of stone is wonderfully close to nature, so close that even the eye of an expert can very readily fail to detect the imitation from the genuine. Especially is this true with the brown, gray and buff brick ashlars—they are made of these colors as well as of mottled gray, old gold, white and Pompeian shades. These ashlar brick are made in sizes ranging from one to two feet in length, and we are given to understand that even larger sizes are not beyond the possibilities of the company's plant. One peculiarity of this new material is the character of the represented fracture. It is *not* a clay fracture, but a fac simile of the stone imitated, and any boldness of face desired can be supplied. In this connection it may be stated the company guarantees the permanency of the coloring—that it is absolutely and as unalterably fixed as the hues and shades of stone. The desirability of such a material must be admitted, for the indestructibility of brick under atmospheric influence, and the crucial test of fire, is beyond controversy. It is interesting to know that under government testing, this ashlar brick has shown a crushing strength above the average of the various stones in use, and only outplaced by one granite, and that by so small a margin as hardly to be a matter for consideration. As ashlar work is becoming so justly popular in modern house building, there seems to be a very inviting field for this new material in connection with molded and carved brick, as façades may be designed for such combination as will meet every appearance of the more expensive imitated products of the quarry. So far as the utilizing of this new candidate for popular favor is concerned, we learn that it has passed beyond the experimental stage at the East, having been placed in the superstructure of a number of prominent public and private buildings in Boston, New York and vicinity. We shall watch with interest how the building profession will receive this latest arrival from Progress Land.

It is phenomenal the factor the various common metals have become in modern house building, outside of the old-time uses which may be epitomized in the two words "builders' hardware." It seems as if every day some new necessary or decorative use for them is

discovered which was never thought of before. So true is this that large manufacturing plants involving the outlay of large sums of money to fit them for production are now distinctive features of today's manufacturing interests. There are iron and steel mills, iron and brass foundries, and a hundred other special metal-working shops, whose entire output is to meet purely architectural demands. This departure from old-time ways cannot be attributed wholly to the growing scarcity of building woods, but must be accounted for in the greater strength of metal, together with its mobile character, which permits a much wider range of application, especially in the way of decoration. It would take columns to enumerate the multitude of accepted architectural metal specialties, but perhaps the plant of the Ludlow Saylor Wire Company, of St. Louis, presents a fair type of the whole. The specialty of this plant is wire making and forged iron, steel, brass and copper work, which embraces everything in the line of counter and office railings, interior and exterior house decorative work, and the polishing or electroplating of the same, when desired, either in gold, silver, nickel, in fact, throughout the entire circle of electroplating metals. It is interesting literature to read the descriptive catalogues and circulars of the company, making, as they do, a new revelation of the possibilities of metal, and a prophecy of the rank it is to take in the building material of the future.

Railroad Notes.

QUICKEST TIME TO ALL POINTS IN TEXAS.—The Chicago & Alton Railroad, with its connection, the Iron Mountain Railway, at St. Louis, Missouri, now makes the quickest time of any route from Chicago to Galveston, Houston, San Antonio and the City of Mexico. The only line running Pullman buffet sleeping cars. For further information, and tickets, sleeping car reservations, etc., call at city ticket office, Chicago & Alton Railroad, No. 195 South Clark street, Chicago, Robert Summerville, city ticket agent.

A BEAUTIFUL BOOK.—A very elaborate and artistic publication, entitled "Gateways of Tourist Travel," has been issued by the passenger department of the Chicago & Grand Trunk Railway. It is printed on coated book paper, splendidly illustrated by seventy-five engravings, all of the photogravure or half-tone process. The book contains about fifty large quarto pages, and will be mailed, free of charge, to any address on receipt of 20 cents in postage stamps, on application to W. E. Davis, general passenger and ticket agent, Chicago & Grand Trunk Railway, Chicago.

"PEN AND CAMERA" is the title of an elegantly printed and bound brochure issued by the passenger department of the Wisconsin Central Railway lines. The white covers, tied with white silk cord, inclose descriptive matter regarding the beautiful lake and river country through which this road runs, illustrated profusely by photogravure plates. To those contemplating a summer trip in search of health and recreation it is an invitation and a guide to some of the most beautiful and restful spots this country affords. It is issued by G. C. Thompson, city passenger agent, Wisconsin Central Railway, Chicago.

TO THE SEASHORE AND THE EASTERN SUMMER RESORTS ON THE FINEST TRAIN IN THE WORLD.—The great popularity of the "Seaside and White Mountain Special" was further shown Wednesday last, when this magnificent train pulled out of Dearborn Station, Chicago, with all accommodation thereon occupied by the best class of summer tourist travelers.

The next train leaves Chicago at 5 p. m. Wednesday. Passengers for Niagara Falls, the Thousand Islands, the Adirondacks, the White Mountains, Portland, Maine, and all the seaside resorts of the North Atlantic coast, going East, should secure accommodations early. Train leaves Chicago every Wednesday at 5 p. m. during the tourist season. Make application to E. H. Huges, General Western Passenger Agent, Chicago & Grand Trunk Railway, No. 103 South Clark street, Chicago, Illinois.

THE INLAND ARCHITECT AND NEWS RECORD.

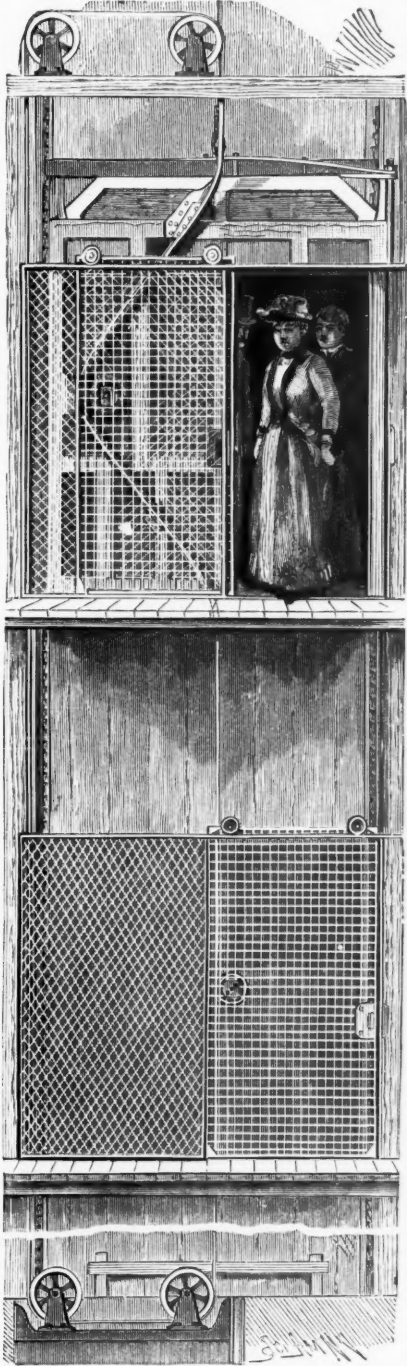
Vol. XVI.

ADVERTISERS' TRADE DEPARTMENT.

No. 2

Automatic Elevator-Door Closer.

The accompanying engraving illustrates an automatic elevator door-closer, invented by Architect C. H. Stilson, of New Haven, Connecticut. It has been put into practical use at the East and in view of the almost daily occurring elevator accidents throughout the country, owing to the negligent attendance of elevator doors, it would seem to be a



proper thing to do to make the practice universal, even if it had to be done in a compulsory way, through amendments to existing city ordinances. By means of this device all the doors along the elevator shaft are held positively closed except the door at the landing where the car is stopped, and not any can be opened unless the car is present. Its mechanism may be thus briefly outlined. On the door near the side and opposite the latch is a grooved wheel about eight inches in diameter. On the elevator car there is a parabole-shaped track which runs from a point just above the top of the door down across the car to a point on the side of the car, distant from the doorway equal to the width of

the door. From there the track bends back to a point below the door, and is a counterpart of the track above. A wire cable is attached to both ends of the tracks, and is run over pulleys which keeps it at tension. With the elevator at rest at a landing, the grooved wheel on the door just fits into the bend of the parabole-shaped track. When the elevator is started upward, the wheel follows the lower arm of the track downward, at the same time forcing the door forward, closing it firmly and instantaneously; then the cable comes into play, for as soon as the wheel has left the track, it follows into the groove of the wheel, and holds it fast until the car is again back at the landing. The closing of the door on the descent is the same as the ascent, except that the grooved wheel follows the upper track, instead of the lower. It will be seen such a device takes all the responsibility of closing the door from the elevator attendant, as there is no escape from the doors closing under this arbitrary mechanism which "binds and lets loose" of its own mechanical will. It has proven to be eminently practical. It can be applied to all elevators, new or old, and is comparatively inexpensive. These qualities should attract the attention of every architect who has the welfare of the public at heart, who may be called on to plan for elevator service in buildings. Further particulars may be learned on application to Otis Brothers & Co., 36-38 Park Row, New York.

It was intended to publish this mention last month, but it was inadvertently omitted.

Paint Adulteration.

The propriety of enacting stringent laws to compel manufacturers and dealers to label the goods they handle, so as to show the latter's character and composition, is rapidly gaining the acceptance of the whole honest-minded portion of the community. The prevailing practice of paint and oil adulteration has led to a bill being framed by our contemporary *House Painting and Decorating* to regulate such adulteration by making it a misdemeanor to falsely label any pigment or linseed oil. The principle upon which the bill is framed is simply that purchasers shall not be induced to purchase paints or linseed oil by deception. There is no attempt made to prevent, nor is it desired to prevent, the sale of cheap material to those who desire to use it. But if, for instance, a manufacturer marks a package "chrome yellow," either with or without such adjectives as "best," "pure," "superfine," etc., such package must contain pure chrome yellow, or both the manufacturer and the seller be subject to heavy penalties. If, however, the package contains, say, only seventy-five per cent of pure color, and a statement to that effect is placed on the label, the sale of such color will not be unlawful. The bill will be presented to congress as soon as practicable, and it will be accompanied by the petition of master painters and other consumers of paint in favor of its becoming a law forthwith. Those who are in favor of the petition are invited to send their names to the editor of *House Painting and Decorating*, 1130 South Thirty-fifth street, Philadelphia, Pennsylvania.

Leather Belting.

Although some writers contend that leather belting should be run with the flesh side to the pulley, while others are equally strong in their claim that it should run with the hair side to the pulley, they all agree that for general use there is a no more satisfactory or more economical driver than a good leather belt when properly adjusted to carefully balanced pulleys. It is estimated that every inch in width of good double leather belting, traveling at the rate of 500 feet per minute, will transmit one-horse power; and that every inch in width of good single leather belting, traveling at the rate of 800 feet per minute, will transmit one-horse power.

If the belt is allowed to accumulate dust and dirt, such accumulations will absorb the moisture of the belt and it will become hard and

dry and begin to crack and slip. If the face of the pulley becomes bright and smooth it shows that the belt is slipping, even though the eye fails to detect it otherwise. A belt can be cleaned by means of warm water applied with a stiff brush, or by holding a square-edged board against the belt while it is in slow motion. Belts should be cleaned regularly, and after cleaning, a good belt dressing should be applied. A proper dressing will keep the belt soft and elastic. It will cause the belt to hug the pulley and transmit its greatest power. The use of a good belt dressing is superior in economy to any other method for correcting a slipping or slightly loose belt. The custom of tightening a belt whenever it slips is not a good one. The belt is liable to be made too tight, which heats the bearings and strains the belt. Great care, however, should be taken in preparing a belt dressing. Castor oil is an article in very general use but experts have found that it contains an active acid principle, and is drying in its nature. The use of soap, resin, tar, etc., cannot too strongly be condemned. They are only temporary stimulants and eventually destroy the belt.

It is a wise policy to purchase first-class leather belting only and then to give it the best of care.

Cincinnati Corrugating Company's Lath.

As the season opens the inquiries for our metallic lath increase, showing that it is still growing in popularity. It is found in practice that this style of lathing is the most effective as well as the most economical on the market. Especially do contractors and workmen find advantages over all other styles in the matter of putting it on. Its rigidity gives it a great advantage over all other forms of wire cloth. It forms a strong bracing to the building, and can be used over many open spaces where other styles would not be effective.

This lath generally comes in pieces about 4 inches wide for the narrowest, to about 12 inches wide for the widest. It runs from 2 to 8 feet in length as circumstances require. By the use of the lath here illustrated, very smooth and solid walls and ceilings are secured, and as there is no shrinkage or expansion there are no cracks. It can be easily adapted to curved surfaces, for such work as groined arches, coves, cornices, etc. It is also the best article for fireproofing, for covering iron girders, posts and beams. The protection secured by its use is equal to that of tile, while its weight is not over one-eighth as much. At the same time it costs only one-fourth as much.

Steamfitters find this lath specially adapted to their needs both for covering around registers and about air flues, and for use in partitions. It is extensively employed in covering hot air pipes and boilers, and is as suitable as a base to which to apply plaster of paris, asbestos or mortar of any kind. This lath requires no cross furring, even with unusually wide spans. It is economical of plaster, and the mortar adheres firmly to the surface. This with the perforations makes a key the strength of which is unequalled. Further, this lath is the only kind that can be put in place by a man working alone.

We should be pleased to furnish samples and quotations at any time. Respectfully,
THE CINCINNATI CORRUGATING CO.
Piqua, Ohio.

Suburban Shingled Houses.

Architect R. Bruce Price, in an article in the July *Scribner's*, says:

"Viewing American houses from point of style, there is as marked a character in the artistic handling and designing as in the planning of them.

"The most distinctive national suburban house is undoubtedly the shingled house; that is, the cottage, however great or small, built of frame and covered on sides and roof with shingles, plain or ornamented as the case may be. Next in importance is the stone or brick and shingled house combined; that is, the

ADVERTISERS' TRADE DEPARTMENT—Continued.

house with the ground story of stone or brick and the upper structure of frame and shingles.

"The old colonial houses cannot be considered in connection with the shingle houses of today. The old colonial houses were in all the best examples built upon classic lines, with a classic base for all their details and a classic feeling in their outlines.

"The shingle house, while it has been recently taking a decided old colonial form, both in general and detail, and is very distinctive in plan, began in a picturesque desire to be novel and quaint, and aimed to impress the beholder with these qualities as well as its originality above everything. That it ran riot and is still doing so there can be no mistake. But out of it all there is a lot of splendid work. To enumerate it or classify it is not within the scope of this article, but I am impressed with the conviction and belief in the thought that in the planning, designing and building of the modern-cost suburban villa of today, the American architect has no equal. I believe his work is well above and beyond any period of the school anywhere. Of course I mean his best work. There is much that is bad, very bad; there have been many conditions to make it so. Vulgar and ambitious clients, uncultivated draftsmen, who, gifted with clever manual dexterity (and our draftsmen are getting to be very, very clever as such), set up as architects; *nouveaux riches*, who gauge the beauty of their house by its cost; and these and many other conditions produce inevitably their results. But when the client and his architect are in accord, the one to the manner born and the other a part of it, the results are noble and true."

The lasting beauty of these houses depends on the coloring of the shingle and the durability of the stain used upon them. Dexter Brothers' English Shingle Stains have stood the test from Maine to California, and are growing in favor with architects.

Trade Notes.

THE Narragansett Electric Light Company, of Providence, Rhode Island, has contracted with the Babcock & Wilcox Company for eleven 20 horsepower additional boilers, and also for the reconstruction of its present Moore boilers into the Babcock & Wilcox system.

THE McClellan Anti-siphon Trap Vent, of which the readers of THE INLAND ARCHITECT are pretty well acquainted, seems to be gaining in favor with builders everywhere, judging from the growing orders that are coming in to the Du Bois Manufacturing Company of New York, the sole manufacturers of this admirable plumbing device. It could hardly be otherwise with a thing so palpably good as it is.

MR. WILLIAM HAYTHORN, of 94 Franklin street, Chicago, is the inventor of two articles that are of interest to all steam users. One, the automatic return valve, which prevents the freezing and bursting of pipes by automatically discharging the water into the return pipe during the day, and when the engineer closes his valve at night drains all the water out of the radiator. It requires no attention whatever. The other is a patent strainer, which prevents steam traps choking up with dirt and sediment common to steam pipes, and besides this, gives complete circulation to the steam apparatus, thereby decreasing fuel bills.

The tenth edition of the Herenden Manufacturing Company's (Geneva, New York) illustrated catalogue has just reached THE INLAND ARCHITECT's table. It is a handsomely printed book of 150 pages, devoted to a full exposition of the Furman steam and hot water heaters—a special output of the company. Being one of the latest heaters of this grade on the market, it is safe to conclude that it presents novelty, both in the philosophy of operation and in the construction of the apparatus, deviations from common methods which, it is claimed, give more satisfactory results both in heating qualities and cost of running. Some of the chief characteristics are: All connections are by lathe-turned screw joints. No flues are required. Every part that comes in contact with the fire has a

constant water backing. The water and steam circulation is vertical. It is noiseless; cannot leak, corrode or burn; is free from gas, dust and smoke; is self cleaning and self regulating; is absolutely safe, durable and attractive in appearance. The Furman is made entirely of cast-iron. Hundreds of testimonials from parties of repute living in various states of the union, who have tested its merits in their own houses, form a part of the contents of the book. For a full comprehension of the Furman heaters, it is necessary to read what the company has to say in their behalf, and the best thing for the interested to do is to send to headquarters for a copy of this tenth edition.

THOMAS W. JONES, 170 Front street, New York, has received the following letter from William R. Walker & Son, Architects, Providence, Rhode Island: "We are in receipt of your postal under date of May 11th. In reply thereto, it gives us pleasure to say, that the eagle you made and which has been placed in position on top of globe to finial of city hall tower, in Fall River, Massachusetts, is as fine in proportions and as pleasing to the eye as any we have seen—yes, we think more so. Have never heard any dissatisfaction expressed by the citizens and critics, but, on the contrary, have heard it praised by many. Should we ever have occasion for another in any designated position, should certainly call upon you."

THE Trenton Indicator Bolt and Lock Company, of Trenton, New Jersey, has assuredly supplied a "long felt want." The wonder is that somebody didn't do it long ago. Everybody has experienced the unpleasantness of going into a public, or private for that matter, water closet or toilet room, and having to learn whether the apartments are at their disposal or not by a very intrusive examination of the premises. This company is putting on the market a bolt that presents the word "Occupied" whenever a door is fastened by one of them, and which disappears from sight when unfastened. The mechanism is a part of the bolt or lock, working automatically and so simple of construction it cannot get out of order. Undoubtedly it will find a ready sale to managers of railroads, hotels, steamboats and other similar public institutions, while all well ordered private houses will be sure to have them supplied to doors where privacy is a *sine qua non*.

FELTON, RAU & SIBLEY, Philadelphia, Pa., manufacturers of high grade paints and varnish, have issued an unique circular, in that it contains ten practical examples in as many pieces of wood bound in the little volume, of their "wood filling and finishing." The examples show four of pine, done in the white, mahogany, walnut and cherry stains; two of oak, light and antique; one of walnut; one of sycamore; one of walnut, mahogany stained; one of native cherry and one of native walnut. The finishes are in one, two and three coats of varnish. Nothing more practical can be conceived to convey the idea of the possibilities of their output in this direction than the one adopted, since it affords an opportunity to see actual results rather than a pictured claim that may or may not be fulfilled in practice. The circular also contains valuable hints on wood filling and varnishing which should form a part of the knowledge of all connected with house construction.

It is truly remarkable to note the rapidity of the growth of the photographic element among our young, and old people, too, for that matter, and when we come to think that among all who have undertaken to study photography only a very small percentage give it up, it is not surprising if a firm like that of E. & H. T. Anthony & Co., who have been forty-seven years catering to the trade in this line, should be, as they are, under constant pressure to supply their goods which are now so familiar to all, to say nothing of being able to lead in so many new styles and patterns of cameras as they are constantly putting out. One of their most recent innovations is a magazine camera which is capable of making eighteen exposures on films 4 by 5 inches, and then changing the

exposed films and substituting for them eighteen fresh ones without going into the darkroom at all. While this seems almost incredible, it is none the less true, and the ease and simplicity of the whole operation is, perhaps, the strangest part of it all.

Railroad Notes.

TRAVELERS and tourists contemplating a visit to the Pacific coast should bear in mind the Lake Superior, St. Paul & Union Pacific, a new passenger and freight line formed by the Chicago, St. Paul, Minneapolis & Omaha and Union Pacific railways. This line strikes about all the important far western towns and cities, i. e. of Nebraska, Montana, Idaho, Utah, Wyoming, Washington, Oregon and California, and reaches the coast several hours sooner than any other route. The accommodations are first-class in every respect and the fare as low as the lowest. Special excursion trains are run, leaving St. Paul and Minneapolis every Thursday morning. For fuller particulars address T. W. Teasdale, general passenger agent, St. Paul.

ONE of the most delightful routes between Chicago and the East is over the Baltimore & Ohio Railroad to New York, by the way of Washington. The trip possesses many peculiar charms, especially to one whose journeyings have never taken him to the borders of the sunny Southland. The ride through the Monongahela valley, across the mountains of West Virginia, and then along the gently flowing Potomac, awakens a keen interest in the lover of natural scenery. Much of the ground traversed has unique historical associations. A large part of this region was debatable land at the time of the civil war. Across these fields and down along these dusty roads once marched now the Blue and now the Gray. These valleys once rang with cheers, now for the Stars and Stripes, and now for the Stars and Bars. These mountainous heights more than once echoed the sounds of deadly conflict. Here General Lee's army crossed the Potomac on that carefully planned invasion of Maryland and Pennsylvania which ended so disastrously at Gettysburg. Here Stonewall Jackson directed his forces on that "grand hunting excursion," by which he corralled the Federal forces in Harper's Ferry and compelled them to surrender. And here at Harper's Ferry is still seen the old brick fort where John Brown took his stand in defiance of the slave-holding power. To one who remembers when these names were first written in blood, what an excitement of feeling the mention of them arouses: Antietam, Sharpsburg, South Mountain, Shenandoah, Harper's Ferry, Ball's Bluff. It is no ordinary experience to pass through a region fraught with such tragic memories. The train hurries on; and soon there is seen dimly in the distance a white marble shaft, and then a great white dome, and then other pinnacles and spires, and Washington is reached. Even the most cursory glance at the city is sure to be profoundly impressive. A half hour's drive through the streets will reveal more clearly than any detailed description possibly can, those features which have given the city its reputation and made it, in one sense, the Mecca of all patriotic citizens of this country. The capitol building, that embodiment of national majesty, the Washington monument, with its lofty reach heavenward, the White House, with its deeply interesting associations, the several department buildings in their massive stateliness, the Smithsonian Institute, the Soldiers' Home, the broad avenues and beautiful parks,—it does not take long to view these, outwardly at least; and the viewing of them for the first time, by one who recalls what these public buildings stand for and the scenes which they have witnessed, is attended with emotions not easily described. New York is about six hours ride from Washington, and the road runs through a very interesting stretch of country, touching at Baltimore, Wilmington and Philadelphia. This is one of the finest sections of railroad in the world, the speed of the trains often reaching over sixty miles an hour.—*Northwestern Congregationalist*.

THE INLAND ARCHITECT AND NEWS RECORD.

Vol. XVI.

ADVERTISERS' TRADE DEPARTMENT.

No. 3

Royal Check and Waste.

The accompanying engraving illustrates the "Royal" check and waste valve manufactured

by the patentee, P. H. Gunderman, and kept in stock by reputable dealers in plumbers' supplies generally. It is unnecessary to state this simple and ingenious device is long since outside of the experimental field, for it has been tested and found eminently practical by hundreds of house owners all over the Union, who testify to its excellence. Among the claims for it are: It does away with the clump and wire arrangement where the rod connects with the check and waste proper; the weight of the rod rests on the casing leaving the valve free from its pressure; is complete in itself, requiring no boxing, occupies less space than any other and less time in setting. Its action is positive, may be located anywhere and operates easily whatever number of angles may be necessary. All materials used in its construction are of the best metal and all iron parts are galvanized. The fact that it is guaranteed for five years shows the confidence of the patentee and should commend it to a trial.



The Yale & Towne Manufacturing Company.

Perhaps there is no manufacturing establishment in the world so well known to the building fraternity as the Yale & Towne Manufacturing Company, of Stamford, Connecticut, a notoriety gained principally through the celebrated Yale lock, although much of the company's other output is equally unique and unrivaled. A history of the growth of this famous establishment would prove interesting reading, not the least of the interest being centered in the present phenomenal expansion. So great has been the demand for the company's wares, that not only have larger facilities become imperative, but a re-organization of the executive staff become an unavoidable necessity; hence the following recent changes and appointments are officially announced from the General Office, under date of October 1.

Mr. Schuyler Merritt, since 1878 secretary, and since 1884 the general manager, resigns the latter position, in order to give attention to other interests, but retains that of secretary. He will have charge of the company's legal and patent affairs, and of the business of Department B, Bank Locks.

Mr. W. F. Donovan, since 1880 the manager of the company's Chicago house, and manager of its western business, is appointed to the position of general manager, made vacant by the resignation of Mr. Merritt, with headquarters in Stamford and New York.

Mr. George S. Redfield, recently manager of the Tubular Axle department of the National Tube Works Company, of Boston and McKeesport, Pennsylvania, has been appointed to the position of manager of Department A, Locks and Hardware, in the Stamford office. The business and correspondence of this department will pass through his hands and be under his general supervision.

Mr. B. H. Warren, recently superintendent of the works of the Hancock Inspirator Company, Boston, has been appointed to the position of manager of Departments C, Cranes,

etc., and D, Pulley Blocks, Hoists, etc., in the Stamford office. The business and correspondence of these departments will pass through his hands and be under his general supervision.

Mr. Henry H. Supplee, recently editor of the technical journal *Mechanics*, and also consulting engineer in Philadelphia, has been appointed to the position of editing manager, in the Stamford office. He will have entire charge of the presentation of the products of the company before the public, including all editorial work and advertising.

Mr. W. H. Bryan, recently secretary of the Heisler Electric Light Company, St. Louis, Missouri, is appointed to the position of manager of the Chicago house, made vacant by the promotion of Mr. Donovan.

Mr. Frank H. Taylor, formerly president of the Belmont Iron Company, Philadelphia, was appointed in February last to the position of manager of the Philadelphia house, vice Mr. John T. Boyd, resigned.

The present executive organization therefore stands as follows: General Office and Works, Stamford, Connecticut.—Henry R. Towne, president; W. F. Donovan, general manager; Schuyler Merritt, secretary; George E. White, treasurer; Geo. S. Redfield, manager Department A; B. H. Warren, manager Departments C and D; Henry H. Supplee, editing manager; John W. Meserve, engineer Department C.

The following is the status at the offices and warehouses: New York, 84-86 Chambers street, Thomas F. Keating, assistant treasurer, manager; Chicago, 152-154 Wabash avenue, W. H. Bryan, manager; Philadelphia, 15 North Sixth street, F. H. Taylor, manager; Boston, 224 Franklin street, A. T. Young, manager. At each of the offices of the company are the warehouses, containing a fully assorted stock of the company's staple products, an exhibit room for the display of an extensive collection of samples of art metal work, and a repair shop where special key work and lock repairs can be promptly executed.

Trade Notes.

THE business of the Buffalo Forge Company has extended so far that it has become necessary for them to open a Philadelphia and a Chicago branch in addition to the regular offices in other large cities, in order to meet the demands of the trade.

HEALY & MILLET, Chicago, are furnishing stained glass and decorative work for the following: McVicker's Theater, Chicago; Auditorium Banquet Hall, Chicago; Grand Opera House, Pueblo, Colo.; Metropolitan Opera House, St. Paul, Minn.; First Congregational Church, Decatur, Ill.; Louisville & Nashville Passenger Depot, Louisville, Ky.; Hyde Park Methodist Episcopal Church.

THE Cincinnati Corrugating Company, of Piqua, Ohio, by means of their special machinery, are now corrugating sheets as heavy as No. 12, and in lengths up to ten feet, for which there has been such a demand in engineering and building circles, for special construction. The attention of architects and builders generally is called to this as a new feature in special construction, and it will no doubt be appreciated, especially for arches.

THE Disposal of Household Wastes, No. 97 of the Van Nostrand Science Series, by Wm. Paul Gerhard, C. E., price 50 cents, has reached THE INLAND ARCHITECT table through the courtesy of the publisher. Mr. Gerhard is a prolific writer on sanitary matters and has the happy faculty of saying what he means in unmistakable, simple language, and always writes as one who knows what he is writing about. Perhaps nothing has yet come from Mr. Gerhard's pen that is deserving of as much careful consideration as this well-timed little book. Some of its matter has already appeared in THE INLAND ARCHITECT as contributed articles by the author, but can be interestingly read again along with the new and added features of the discussion. The

scope of the discussion covers the best treatment of the sewage of farm houses, country houses, suburban dwellings, hospitals, asylums, prisons, colleges, towns, villages and cities.

MERCHANT & Co., Philadelphia, New York, Chicago and London, England, have issued a small catalogue and price list, giving full particulars and prices of the celebrated "Star" ventilator. This device has been too widely used to require anything beyond the mention of its name to single it out from other devices of its class, nor does it need any commendation, as its merits are so generally well understood as to make them commonplace among the building fraternity. It is sufficient to say that it is simple, durable, handsome, storm-proof and cheap, and can be applied to all manner of buildings and performs its work effectually. No better corrector of gassy or smoky chimneys has yet been put on the market, while many of no mean notoriety fall far below its measure of excellence.

We call the attention of our readers to the following letter recently received by the H. W. Johns Manufacturing Company, from a firm who have been using their paints for a number of years. The H. W. Johns Manufacturing Company may feel justly proud of having repeatedly supplied their paints for so large an hotel.

THE CROSSMON, THOUSAND ISLANDS.
ALEXANDRIA BAY, N. Y., Aug. 25, 1890.
H. W. Johns Manufacturing Company, New York City.
GENTLEMEN,—We intend painting our house this fall, and do not intend asking for any bids from any other paint house than yours.
Ship us at once by New York, Ontario & Western Railroad, care Rome, Watertown & Ogdensburg Railroad, 150 gallons paint as follows:

Trusting that there will not be any delay in shipping, we are,

Yours truly,
C. CROSSMON & SON.

A UNIQUE business card has reached THE INLAND ARCHITECT table through the convenience of Uncle Sam's mail. It is a miniature fac simile of a sheet of tin bearing the legend in the left upper corner "IX, OLD STYLE, Registered (cut of an arrow going for the bull's eye of a target) Trade Mark, N. and G. Taylor Company, Philadelphia."

At the top of the card two lines read:
"The heaviest and best roofing tin made. It will outlast the life of the building."

At the foot four other lines read:
"Every sheet of the genuine Taylor OLD STYLE has the above stamp in the corner of each sheet. None is genuine without it."

The Taylor Company claim, supported by affidavits, to be the originators of stamping the brand and thickness of sheets on tin plate, which was done for the purpose of a guarantee that every sheet so stamped is absolutely free from imperfections, and that architects, property owners and tanners should be secure in the conviction that the "Old Style" brand is strictly first class in every respect.

THE attainable apparently has not yet been attained in steam-heating apparatus, notwithstanding the many excellent steam heaters on the market. Every now and then some observing genius is rewarded by an advanced idea that affords a nearer approach to the much desired goal. Judging from an examination of the "Page Low Pressure" steam heater, the inventor thereof picked up a pair of mental seven-league boots when the philosophy of its construction dawned upon his consciousness. It is an automatic steam-heating apparatus, made of cast iron, which is known to be less subject to corrosion than wrought iron, and also of even or equal expansion under changes of temperature, the latter permitting necessary jointing to remain undisturbed—a feature that prevents leakage—and both peculiarities suggestive of economy in the cost for repairs. Being automatic, it does not require a skilled attendant to operate it, but one who can feed a kitchen stove can run it and get out of it all its possibilities. By a return flue all parts of the water and steam spaces are brought in contact with the heat before it passes into the chimney, whereby the cost of fuel is brought down to a minimum,

ADVERTISERS' TRADE DEPARTMENT—Continued.

which has given it the name of being the smallest fuel consumer out. Its freedom from dust or gas and its safety from fire and explosion are among its prominent claims, and withal lowness of cost has not been overlooked among its commendable features. Anyone interested in the subject of economical and perfect steam heating cannot do better than to send to the Page Steam Heating Company, Norwich, Connecticut, for a copy of its little brochure giving full explanation of this device, accompanied by numerous testimonials from gratified users of the same.

THE Duplex Hanger Company, of Cleveland, Ohio, is introducing an invention that is bound to supersede the old-time usage of mortising and tenon framing in every important building construction of the future. It is a simple, inexpensive, malleable iron shoe, cast in uniform sizes, of proportions to receive the various sizes of timber used in headers, trimmers, tail joists, beams and kindred wood-work, and is adapted to every character of timber framework, especially chimney, stair, light-well, elevator and other openings, cellar beams, ceiling joists, roof trusses, etc. Not only can stronger work be had with its use, but neater and more satisfactory work in every sense. By the use of this metallic shoe or "Duplex Hanger," as it is called, all timber or lumber is left intact and consequently its full strength is retained in the construction. Such an obvious serviceable invention and one that will not exceed in cost good work in the old way must naturally find a ready recognition and adoption by architects, engineers and builders.

It is a conceded fact, the world over, there never has been a system of house heating that can compare in cheerfulness or suggestive comfort and hospitality with a hearth or grate fire. The trouble has been that while the cheerfulness was beyond dispute, the "comfort" of the fire has been a matter of the imagination more than of fact, and hence, the hospitable fires of our fathers have died out from house to house so that, in later years, where the hearthstone has been retained by the architect in his planning it has been for ornamental purposes rather than utility. That this old-time house-fire is to be restored again seems more than probable, since the inventive genius of the age has been directed thereto and several grates have been invented to do away with former objectionable features. Perhaps what is known as Jackson ventilating grate has made the greatest stride toward perfection. Certain it is, from the testimony of users, it has proven to be a good heating apparatus, capable of heating large areas equally, to an extent supposed to be only within the capacity of steam and hot air heaters. What the philosophy of its construction and the results of its work during several years are, can be gleaned from a neat little brochure published by Edwin A. Jackson & Bro., 50 Beekman street, New York, the manufacturers. It is good reading and affords information no one can afford to be without.

THE Exeter Machine Works, of Exeter, N. H., with headquarters and salesrooms at Boston, Mass., has just issued an illuminated and descriptive pamphlet of the "Exeter Steam and Hot Water Radiator" that has won such an enviable reputation throughout the East. A feature of the "Exeter" is that all its parts are interchangeable, whereby any radiator can be increased or diminished in size according to any change of conditions calling for alterations of this character, and without in any degree suggesting that such alterations from the original have been made. Again the "Exeter" has no cumbersome base, but sits upon neatly-fashioned legs that are detachable and which may be of any height or pattern. It has a flat removable top of handsome design and altogether has an artistic and graceful finish. It is manufactured for either high or low pressure, with large supply and return openings for the unobstructed passage of steam or water, and which are adapted to any of the different systems of piping now in use. It is claimed to be perfectly noiseless in operation and, as a whole, the result of thirty years'

experience in this class of work. Architects, builders and contractors can learn something from this little pamphlet that may be of great service to them in future transactions, and it would not be an unbusinesslike thing to send for a copy to the Boston house, No. 32 Oliver street.

THE sash chain manufactured by the Smith-Edge Manufacturing Company, of Bridgeport, Connecticut, is a familiar article with all progressive architects and builders. Sash chain, to substitute cord with something better, had been essayed before these enterprising manufacturers entered the arena of competition, but never with much success, owing in part to ill-devised links, but more particularly to defective material. A happy inspiration afforded this house their first stepstone to success, a link that thirteen years of trial has not suggested any improvement in. A second and, perhaps, more important step, was the discovery of a bronze composition to make the links out of, which had great tensile strength, and the quality to retain it under any period of use, besides being anti-frictional. Another, and the final step, was the invention and construction of a machine that would turn out automatically links in a chain so exactly alike and perfect in finish that the most perfectly trained mechanical eye would fail to detect any difference in them whatever. In short, an absolutely uniform and perfectly formed chain of these peculiarly formed, practical working links. Of course, those familiar with this window hanging are aware the company constructs accompanying fixtures such as single and double pulleys, weight-hooks, etc., that have a special adaptation to this style of chain, and designed especially as its accompaniment. Also that a cheaper grade of chain than the bronze, for windows where lighter weights are used or where cheapness in construction is a question for consideration, is made by the company, namely, a "red metal" and an enameled steel sash chain, both metals being expressly manufactured for the purpose. It is said to be beyond controversy that more of this sash chain is being used at the present day than any other metal window weight hanging extant, that its manufacture runs away up into the millions of feet a year, and that the demand is constantly increasing—facts that are an excellent advertisement of true merit.

WHEN the ancient wise men looked upon the lightning's play and said it was the fitful flashing of the fires in the forges of the gods, nay, centuries further down the causeway of time, when Franklin, with a kite string, demonstrated to the scientific world of his day that the man-made electric current and the bolt of the thunderstorm were identical, it never formed a part of any enthusiast's dream that a day would come when the evanescent flamings would be prolonged indefinitely, and the homes and public places of the people be lighted by the rays. It is not a hundred years since Franklin flew his kite, and yet, in the sense of perfect accomplishment, it is doubtful whether there is today a city in the world where an electric lamp would excite the wonder of the populace. Throughout the United States, in continental Europe, in far-off China and Japan, and even the antipodean sea islands of Australia and New Zealand, this last great gift from the hands of scientific genius is accepted and utilized. No one who has seen this artificial light can doubt that it will in time supplant all others. Every day marks its progress. Nearly every building now-a-days is constructed with a view to its introduction, while hundreds and thousands of the better class of buildings in the great cities and towns already enjoy the beneficence of the incandescent lamp—the light *par excellence* for homes and public resorts. It is true the arc light, with its weird and dazzling glare, has its place in public illumination which it will hold without fear of displacement, but notwithstanding its excessive brilliancy, to say nothing of its suggestive menace to life, its good and desirable qualities are too circumscribed to hope for a successful competition with its more grateful and universally adopted brother, the incandescent light. How soon the universality

of the electric light will be a fact depends largely upon the improvements of the future, improvements that will cheapen its introduction and use. That they are bound to come is in the very nature of things. What the possibilities are to date and how far the improvements have already reached may be gleaned from a very interesting catalogue and circular just issued by The United Edison Manufacturing Company of New York, wherein very full details are given.

Railroad Notes.

SAVE \$36.50 TO CALIFORNIA.—J. C. Judson & Co's personally conducted California excursions in broad gauge Pullman tourist sleeping cars, via Denver and Rio Grande Railroad, (the scenic line of the world) leave Chicago via Chicago and Alton Railroad, 12:00 noon Saturday of every week, each excursion in charge of an efficient and gentlemanly excursion manager. Pullman tourist sleeping cars through from Boston and Chicago to San Francisco and Los Angeles. For rates, reservation of berths, etc., call on or address J. C. Judson & Co., 195 Clark street, Chicago.

ARCHITECTS BOUND FOR WASHINGTON.—The Big Four Route, in connection with the Chesapeake & Ohio from Chicago, St. Louis, Indianapolis, and all points west and south direct to Washington, has been selected as the route architects bound for the American Institute Convention October 22 are recommended to take. Architects from Kansas City, Omaha, St. Paul, etc., can start on the night trains, as per last Institute circular, and connect at St. Louis or Indianapolis with the celebrated F. F. vestibuled train of parlor, smoking, café and sleeping cars on this line, the handsomest train in the United States, leaving St. Louis at 8:05 A.M., Chicago at 9:10 A.M., Cincinnati at 6:30 P.M. of same day and reaching Washington at 2:35 the next afternoon.

TRAVELERS and tourists contemplating a visit to the Pacific coast should bear in mind the Lake Superior, St. Paul & Union Pacific, a new passenger and freight line formed by the Chicago, St. Paul, Minneapolis & Omaha and Union Pacific railways. This line strikes about all the important far western towns and cities, i. e. of Nebraska, Montana, Idaho, Utah, Wyoming, Washington, Oregon and California, and reaches the coast several hours sooner than any other route. The accommodations are first-class in every respect and the fare as low as the lowest. Special excursion trains are run, leaving St. Paul and Minneapolis every Thursday morning. For fuller particulars address T. W. Teasdale, general passenger agent, St. Paul.

THE City of Washington is an object of perennial interest to all patriotic Americans. Not alone because it is the great throbbing heart of the mightiest and grandest republic the earth has ever known, but also on account of its material magnificence. All Americans take pride in its beautiful avenues, majestic architecture, stately homes, and well stored galleries and museums as things of grandeur and beauty in themselves, apart from the historic interest with which they are invested. It is a hope and aspiration of all "YOUNG AMERICA," at least, to some time or other visit the capital of his country. The Baltimore & Ohio Railroad offers unequalled facilities in aid of this desire. All its through trains between New York, Philadelphia and Baltimore on the east, and Pittsburgh, Cincinnati, St. Louis and Chicago on the west, pass through Washington. Its fast express trains are vestibuled from end to end and heated with steam. Pullman's latest and best productions in the way of sumptuous drawing room sleeping cars are attached to all its through trains. The present management of the Baltimore & Ohio have made vast improvements in the last two years, and the road is today one of the foremost passenger carrying lines in the country. Through tickets via Baltimore & Ohio Railroad can be procured at all the principal ticket offices throughout the United States.

THE INLAND ARCHITECT AND NEWS RECORD.

Vol. XVI.

ADVERTISERS' TRADE DEPARTMENT.

No. 5

Employers' Liability and Accident Business.

Employers' liability insurance is making smooth and steady progress, the business showing a gradual expansion. The South is offering an enlarging field for this business. The great and rapid increase in the number of industrial establishments and the increase of capital in that section has been followed by a demand for insurance against liability from accidents to workmen. It is curious how this increase in wealth affects the demand for this insurance. The concern which has no surplus of working capital will rarely insure, though an accident to its employes might entail expenses it could ill sustain, while those with ample funds, able to run their chances, are the ones who desire insurance.

The late decision of the United States Circuit Court that vessel owners are liable for injuries to sailors arising from defective condition of the rigging, thus reversing previous rulings, is expected to open a great field for employers' liability insurance among vessel owners. Another branch of this form of insurance which has assumed considerable proportions, is elevator insurance. The inception of this dates back only two or three years, but already property owners are beginning to look upon it in the same manner as they do fire insurance, regarding its cost as one of the necessary expenses of conducting business. Elevator accidents are alarmingly frequent, there having been several fatalities within the last month. The management of the business has been thoroughly systematized.

The public may not be generally aware that owners and lessees of buildings may be liable for claims on account of accidents which may happen to any person (passenger or employe) in an elevator or elevator well, or while entering upon or alighting from an elevator car.

The premium is moderate and the insurance company assumes liability to the amount of \$5,000 for any single person and to an aggregate of \$10,000 in case two or more are injured. In case the question of damages should go to the courts the company conducts the case and pays all legal expenses.

All the surroundings of an elevator are taken into account in determining the question of its insurability as well as the condition or pattern of the elevator itself. The method employed by a prominent company largely engaged in this business is, immediately after having insured the elevator, to have it thoroughly inspected by an elevator maker; the custom being where practicable to have each maker inspect his own elevators. After this each elevator is inspected at intervals of two or three months. Records are kept at the office of the company by which the present condition of the elevator can be seen at a glance. The recommendations of the inspectors are registered and if they have not been complied with, the reason why must be forthcoming. While this insurance promises indemnity to the owners of the property from loss by elevator accidents, the general public receives additional protection from the thorough and frequent inspections to which the elevators are subjected.

Trade Notes.

THE Detroit Heating and Lighting Company have just secured one of the largest hot water contracts of the season in St. Anthony's Hospital of the Sisters of the Poor, Columbus, Ohio, requiring about 15,000 feet of radiation. On this job will be used for the first time the new extra large Bolton heaters adapted for large work.

THE National Hot Water Heater Company, of Boston and Chicago, manufacturers of the Spence Hot Water Heater, have undoubtedly "put up a job" to universally advertise and make a household word of that well and favorably known house warmer. The company is introducing, gratis, a new musical instrument called the squawkophone, that is capable of rendering not only the simplest melodies and scores of the masters, but of imitating the carols and songs of birds, from the notes of

the lark down to the baricole of chanticleer. What the connection between the squawkophone and the Spence heater is, is "one of those things a fellow can't find out," and the only thing left is to surmise there must be some analogy in the home amusement of the one with the home comfort of the other.

THE cement plaster manufacturers, J. B. King & Co., of New York, have established works in Chicago, as recently announced in these columns, and, under the management of Mr. Lovell T. Carr, is ready to supply contracts of any magnitude for their incomparable plaster. The location of works in the West removes the only objection to its use heretofore, that of distance from the source of supply.

THE publishers of that very excellent trade journal, *House Painting & Decorating* have changed its name to *Painting & Decorating*, undoubtedly to conform more nearly to its "true inwardness." It has traveled far away from the "metes and bounds" suggested by the original title and now covers with its instructive and interesting matter, the entire field. It is no disparagement to other well-conducted specialty journals to say of this contemporary, it offers them many "pointers" of the way to get out an indispensable paper to masters and workmen.

THE Michigan Radiator and Iron Manufacturing Company, of Detroit, Michigan, is putting on the market a dining-room radiator that certainly will attract the attention of designers and owners of well ordered homes, if beauty and utility have attractiveness to them. This radiator is constructed with a "hot closet" so designed that a continuous body of steam or hot water surrounds it, and in a manner that regulates the temperature. The oven is hidden from view by double doors, one of which when let down serves for a resting shelf, and both are ornamented to conform with the other artistic ornamentation of the radiator. It is beyond controversy one of the handsomest radiators offered to the public—really is a piece of dining-room furniture as much as it is a heater and warming oven, and is fittingly called "Perfection."

As a protection against the early destruction of chimneys by rain and frost, the Hansen patent saltglazed chimney top, a device patented by a Chicago architect, seems to meet with general approval, their use demonstrating just what was claimed when the device was put upon the market a year ago. The success in introducing them already achieved, mainly in Chicago, is because of the simplicity in principle and undoubted substantial character of the material of which it is made and the praise bestowed upon it by those who have given the device a trial. These toppings are almost as cheap as common brick toppings, and should be used generally for permanent work—repairs as well as in new work. Agents: William M. Dee, Chicago, Illinois; James T. Mackay, manufacturing agent, St. Louis, Missouri; Twin City Lime & Cement Company, St. Paul and Minneapolis; Sellen & Erdman, Milwaukee, Wisconsin.

PART II of the third edition of L. Manasse's catalogue of mathematical instruments, drawing instruments and optical goods has reached us for inspection. As might be expected of one of the largest manufacturing and importing houses in the United States of this class of goods, it is a mammoth affair covering 184 pages, illumined with over a thousand facsimile engravings illustrating the varied specialties of this far-famed merchant. We use the term "far-famed" advisedly, for, although a Chicago house, by dint of perseverance and a thorough knowledge of the business, Mr. Manasse has in his twenty-seven years of dealing, built up a trade that not only extends throughout the West, but reaches the Eastern States as well. In a word, his establishment has become an acknowledged headquarters to the trade all over the Union. It will not be considered out of place in this connection as an indice of his stock, to mention the fact that at the Exposition of 1889, where

there was an unusually fine display of mathematical and drawing instruments, Mr. Manasse carried off the gold medal prize. If there was any necessity to commend his house to the architects and draftsmen of the country it would be a pleasure to do so, but there are few, if any, who at some time have not sent an order to 88 Madison street, Chicago, Illinois.

EVERY architect and builder is interested in the manufacture of iron to the extent of utilizing the products in their creations, therefore the exhibit of first-class plants, through their literature, concerns them in more than an ordinary degree. In view of this THE INLAND ARCHITECT desires to call attention to catalogue No. 7 of the J. E. Bolles Company, Detroit, Michigan, which has just come under our notice. It is profusely illustrated with reduced copies of the company's output; iron stairs, iron columns, iron balconies, store fronts, railings, stable fittings, jail work, illuminated tiling, wrought-iron grills, sills, caps, ornamental wire and brass work—in short, everything that goes into architectural construction. As a matter of course it is a price catalogue as well as an illustrated one of the company's wares. An examination of this catalogue will amply pay anyone for a careful perusal of its contents, especially that portion devoted to wrought-iron products which are of more than ordinary merit from an artistic point of view.

JAMES B. SCOTT & Co., Pittsburgh, Pennsylvania, importers of tin plates, have issued and are circulating a neat brochure of testimonials from prominent users of their goods. Among them may be mentioned the chief engineers of the Pennsylvania Central Railroad, Central Union Depot Company of Cincinnati; Gen. M. C. Meigs, supervising architect and engineer of the new Pension Building, Washington, D. C., and several large and well-known contracting firms whose judgment is beyond question among their craft. The firm markets three brands designated as "Scott's Extra Coated," "The Triumph Hand-made" and the "Braddock." Each is stamped with brand name and thickness, squared and guaranteed. That heretofore non-users of these goods may glean an idea of the estimation they are held in by those who have, we quote from S. G. Bonis, the government contractor of the new Pension Building: "I would say that your 'Scott's Extra Coated' plate is as good, if not better, than any I have ever used since I have been in the business and I have used large quantities of plates. I have put on more than 300,000 square feet of high-grade tin." It is needless to say the firm takes great pride in offering their goods to the building public, particularly in their "Extra Coated" or highest brand.

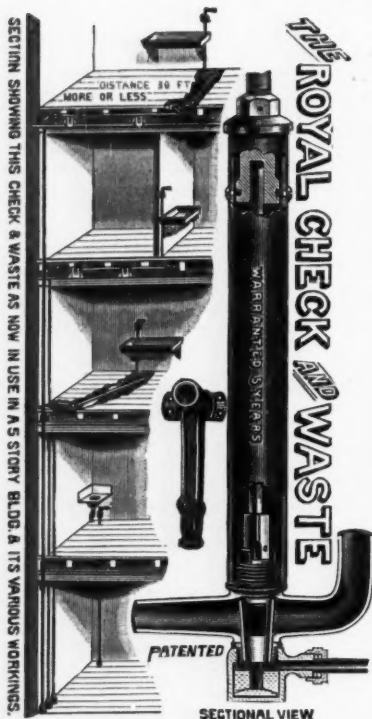
Railroad Notes.

SAVE \$36.50 TO CALIFORNIA.—J. C. Judson & Co's personally conducted California excursions in broad gauge Pullman tourist sleeping cars, via Denver and Rio Grande Railroad, (the scenic line of the world) leave Chicago via Chicago and Alton Railroad, 12:00 noon Saturday of every week, each excursion in charge of an efficient and gentlemanly excursion manager. Pullman tourist sleeping cars through from Boston and Chicago to San Francisco and Los Angeles. For rates, reservation of berths, etc., call on or address J. C. Judson & Co., 195 Clark street, Chicago.

TRAVELERS and tourists contemplating a visit to the Pacific coast should bear in mind the Lake Superior, St. Paul & Union Pacific, a new passenger and freight line formed by the Chicago, St. Paul, Minneapolis & Omaha and Union Pacific railways. This line strikes about all the important far western towns and cities, i. e. of Nebraska, Montana, Idaho, Utah, Wyoming, Washington, Oregon and California, and reaches the coast several hours sooner than any other route. The accommodations are first-class in every respect and the fare as low as the lowest. Special excursion trains are run, leaving St. Paul and Minneapolis every Thursday morning. For fuller particulars address T. W. Teasdale, general passenger agent, St. Paul.

THE ROYAL CHECK AND WASTE

IS THE UNIVERSAL FAVORITE.



Architects are Specifying It, and Plumbers Everywhere are Using It.

It is the ONLY PERFECT WATER SHUT-OFF INVENTED, and the only one which is warranted for five years.

A good check and waste is an essential feature in all systems of plumbing; and merit, not price, is the basis upon which a selection should be made. Not how cheap, but how good.

NOTE.—A half-inch rod should be used above the first floor in all instances where the rod is carried up at an angle, as it will operate with greater ease than any other size.

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PECK BROS. & CO., 259 Wabash Avenue, Chicago.
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SAMPLE CARD OF 54 NEWEST SHADES, ALSO PAMPHLET ON EXTERIOR DECORATION MAILED FREE.

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BUILDING FELT, STEAM-PIPE AND BOILER COVERINGS,
ASBESTOS STEAM PACKINGS, GASKETS, ETC.
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DYCKERHOFF PORTLAND CEMENT

Is superior to any other Portland Cement made. It is very finely ground, always uniform and reliable, and of such extraordinary strength, that it will permit the addition of 25 per cent more sand, etc., than other well-known Portland Cements, and produce the most durable work. It is unalterable in volume and not liable to crack.

8,000 barrels have been used in the foundations of the Bartholdi Statue of Liberty, and it has also been used in the construction of the Washington Monument at Washington.

Pamphlet with directions for its employment testimonials and tests sent on application.

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DUMB-WAITER,

FOR DWELLINGS,

With Automatic Catch.

For Any Size of Shaft.

GUARANTEED

FOR ONE YEAR.

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Vol. XVI.

ADVERTISERS' TRADE DEPARTMENT.

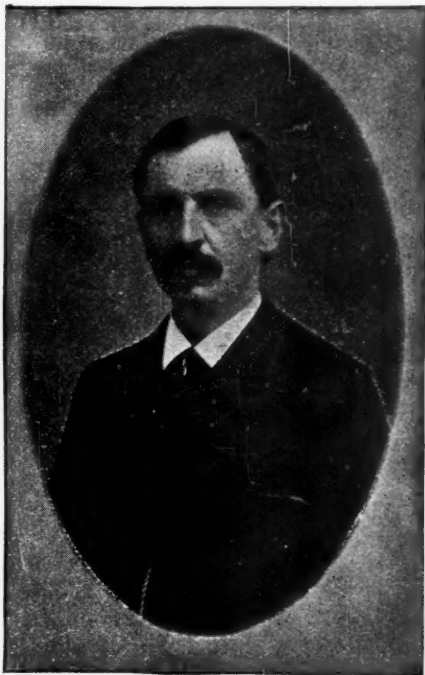
No. 7

What Mr. C. A. Blessing is Doing.

BURNED OUT LAST JULY—NOW IN A LARGER AND MORE COMPLETE FACTORY THAN BEFORE.

PHILADELPHIA'S PLUMBERS' METAL WORKS.

On the morning of July fourth last, the factory of Mr. C. A. Blessing, situated on Montgomery avenue from Sixth to Randolph streets, was partially destroyed by fire and badly damaged by water. The foundry was completely burned out, and the cabinet shop partly so. But he immediately commenced rebuilding and is now in a larger building than before. The ironfoundry formerly on the 4th floor is now being located elsewhere. His former capacity is now increased between fifty



and seventy-five per cent, and the working force from 200 to 300 hands. Much new machinery has been put in, and the equipment has been considerably added to in one way and another, and when everything is complete this will not only be one of the largest but one of the best equipped establishments of its kind in the United States.

One of the features of this factory is the woodwork department, which turns out some of the very finest specimens of cabinetwork, fine bathrooms, bar fixtures, etc.

We learn that the excellence of the "Blessing" make of goods is recognized not only all over the United States, but also in Canada, South America and other foreign countries, and is constantly becoming more widely known and appreciated, as evidenced by the orders continually pouring in from all the sections.

Mr. Blessing owns the five-story building 623 and 625 Arch street, Philadelphia, and by January 1, 1891, he will occupy it as down town show and sales rooms, which will be a decided convenience to both the local and out of town trade. It will be by far the largest and finest place of the kind in that city, and will contain an unequaled stock of everything coming under the heading of plumbers' goods and sanitary improved fixtures, in brass, iron, copper, nickel, silver and wood work.

This is the only manufacturer in the line in Philadelphia making and handling everything used by the plumber.

The business was established in 1866, Mr. Blessing being one of the founders, and he has been the sole proprietor since 1873. He is a man of splendid business qualifications and personally one of the most popular men in the

plumbers' supply trade. The first catalogue of plumbers' copper goods, bath tubs, etc., ever sent out to the trade was issued by him and he has invented numerous sanitary improvements of the greatest merit.

The "Willer" Sliding Blinds.

The new catalogue (No. 9) which has just been issued by The Willer Manufacturing Company, of Milwaukee, Wis., is most carefully got up, contains about 132 pages, and is profusely illustrated. It is principally devoted to the Vertical Sliding Blind, of which this firm make a special line, though they also manufacture every other form of sliding and folding blinds and screens as now used.

The feature of the Vertical Blind is that it works like an ordinary sash, by sliding up and down in grooved guide-ways fixed for the purpose in the sides of the window space. The blind is divided into sections, each of which works independently of the other, and any section can be, when necessary, removed from the window or re-adjusted without interfering with the sash or other sections.

For convenience the blinds are arranged in classes, each comprising some feature wherein it differs from the others. Thus classes "D" and "E" (which are the two kinds most generally used), or, also, classes "F" and "G," all show some varying form of adaptation to existing windows; and in each case the sections slide wholly within the window space, allowing from one-half to three-fourths of the window being closed when desired. Where it is practicable, however, it is usual to arrange for a space above or below the window, into which the sections can be slid, so as to leave the window wholly clear, and classes "A," "B," "C," "H," "J," "O," "Q," "R," "S," and "T," each show difference of arrangement of pocket space, while classes "I," "K," "L," "M," "N," and "P," all show some different, but always ingenious, means of attaining a similar result where circumstances preclude the use of pockets.

The blinds are made in every known wood, and are furnished in two grades: a higher quality for mansions, public buildings, etc.,



ILLUSTRATION OF CLASS "A."

and a second quality for those who require a cheaper article suited to houses of minor importance. In substance and general appearance there is little to choose, the essential difference being that the latter is not finished with such extreme care.

The catalogue also contains explanatory illustrations of the "Rolling" slats, and the new method of operating them which this firm have patented. It is very simple and easy,

and obviates any necessity for the rod in front, which is, to so many, so highly objectionable.

A charge of 50 cents is made for the catalogue (the latter part of which contains a series of original designs for Fine Stair Work), but a smaller catalogue (No. 10) is intended for gratuitous distribution and will be supplied to any who desire it.

The "Automatic" Compression Faucet.

These faucets are made of the best quality of composition, and aside from the advantages of the automatic shut-off, they are the best made goods in the market; every faucet is made with an extra large size stem which cannot be bent or twisted, and is fitted with a



stuffing box through which the stem operates.

The automatic shut-off is the best improvement ever made in a faucet, and will be appreciated by every architect, owner and plumber.

The operation of the automatic shut-off will be readily understood from the accompanying cut and explanation.

The cut represents the faucet closed to the passage of water, the valve "E" being seated on "H." As the handle "A" is turned to open the faucet, the valve "E" rises from its seat, as does also the auxiliary or shut-off valve "X"; one revolution of the handle "A" opens the faucet to its fullest extent and in this position the valve "X" is just far enough away from the lower face of "H" to allow a free waterway through the faucet; if now, a wrench is applied to the nut "C," the valve "E" rises still further, and the valve "X," being actuated by the water pressure and the spring "M," also rises until it meets the lower face of "H" and thus shuts off the water; this occurs before the nut "C" has been entirely removed, thus avoiding all splatter of the water; the washer may then be removed by unscrewing the tit "F."

An additional advantage of these faucets lies in the fact that when the lower valve "E" is wide open, its upper face makes a water-tight joint on the lower face of the nut "C," and thus prevents any water getting up around the stem.

Particular Notice.—The faucet should be opened wide, before the nut "C" is removed.

H. A. Williams Manufacturing Company, 22 Milk street, Boston.

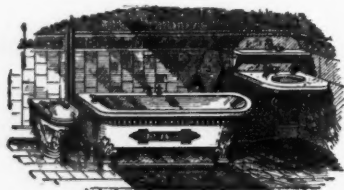
The Sanitas System of Plumbing.

The "Sanitas" plumbing appliances need no introduction to the building fraternity as, undoubtedly, most have utilized them to a greater or less extent in the line of their professional duties and always to satisfaction, since fault-finding in regard to the Sanitas system does not appear to have materialized. The appliances, in addition to other specialties, comprise the Sanitas water-closet, trap, basin, bath-tub, pantry sink, kitchen sink, sitz bath-tub, water-closet cistern and slow-closing faucet. The

ADVERTISERS' TRADE DEPARTMENT—Continued.

following engraving gives a good illustration of these appliances *in situ*.

The leading features of the Sanitas goods may be epitomized as follows: The trap is of a form that makes mechanical seals unnecessary, and provides one perfect and permanent on philosophical principles, hence is antisiphonic. The lavatories, i. e., basins, bathtubs, water-closets, etc., are constructed on the flush-tank principle, so that the discharges which fill the water passage "full bore" are instantaneous and of such force as to thoroughly cleanse every vent at each operation. The



overflow and outlet passages are combined by a standpipe, doing away with the joined lead overflow-pipe and plug and chain. Particularly is the Sanitas water-closet unique. Short of hopper, being without an airpipe, the flushing is practically noiseless, antisiphonic, quick-acting, self-sealing and free from spattering and waste of water.

All of the Sanitas goods are mechanically and artistically finished: in fact are *ornamental* as well as useful.

Buffalo Hot-Blast Steam Heating Apparatus.

As is well known by those who have looked into the matter of the most desirable heating plants for large buildings, the "Fan" system is making rapid strides for popular introduction in buildings of this kind. In the latest patent appliances of the Buffalo Hot-Blast system, the entire quantity of radiating surface is massed together into manifold sections, inclosed by a heater case of steel plate. These sections differ in size and number according to the air space to be heated. Fresh air is taken in directly from outside of building through a duct, and is either forced or exhausted over the steam pipe; from thence it passes through conveying air pipes to different portions of the building. A properly planned outfit distributes the air evenly and secures a uniform temperature in all parts, both at floor and ceiling, without reference to outside temperature. The ventilation is thus entirely independent of natural conditions.

A special feature of these patented heaters is the complete control of the heating surface. They are arranged to use both live and exhaust steam, or both together, or separately, as desired. The supply of either is varied at will of operator, this being secured by the Buffalo patented valve placed between each manifold section. The cages holding the valves are made suitable for the different sizes of manifolds, being fitted to receive a brass nut into which the valve stem screws. It is designed so as to prevent every possibility of its sticking, leaking, or becoming obstructed so as to impair its usefulness. It is made of such material as to prevent corrosion or rusting. The only packing used in its construction being the necessary stuffing box around the valve stem.

Actual experiments have shown that one-fifth of the amount of lineal feet of one inch pipe required to heat a given number of cubic feet of airpipe by direct radiation will give equally as much heat when arranged in the form of a hot-blast heater and distributed by the fan.

No doubt the greatest and most desirable feature of the "Fan" system is, that fresh air is insured at all times, heated to the right degree for comfort. With thus combining ventilation with heating, the highest ideal in a heating plant is secured.

The evil effects from leaking valves, well known to direct steam systems, hammering in the pipes, etc., is avoided, while the labor,

care and expense of keeping the apparatus in order practically amounts to nothing.

The patent system of heating and ventilation is furnished by the Buffalo Forge Company, Buffalo, New York, who are always pleased to assist architects in preparing plans and specifications for heating and ventilation of large buildings for any purpose, and have at all times a corps of thirty efficient engineers, having years of experience in this particular line.

Railroad Notes.

SAVE \$36.50 TO CALIFORNIA.—J. C. Judson & Co's personally conducted California excursions in broad gauge Pullman tourist sleeping cars, via Denver & Rio Grande Railroad, (the scenic line of the world) leave Chicago via Chicago & Alton Railroad, 12:00 noon Saturday of every week, each excursion in charge of an efficient and gentlemanly excursion manager. Pullman tourist sleeping cars through from Boston and Chicago to San Francisco and Los Angeles. For rates, reservation of berths, etc., call on or address J. C. Judson & Co., 195 Clark street, Chicago.

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HOLIDAY EXCURSION RATES.—The Chicago & Grand Trunk Railway has arranged to sell special holiday excursion tickets at one and one-third fare between stations on its lines and also to points on Detroit, Grand Haven & Milwaukee R'y, and Toledo, Saginaw & Muskegon R'y, under the following arrangement: Christmas tickets will be on sale from December 24 to December 25, inclusive, and good to return up to and including January 3, 1891. New Years tickets will be on sale from December 31, 1890, to January 1, 1891, inclusive, and good to return up to and including January 3, 1891. Special return tickets to all Canadian points west of and including Toronto, Niagara Falls and Buffalo, will be sold on the above dates and limits at one and one-third fare from all stations on the above lines.

DISTANCES TO WASHINGTON.—From St. Louis to Washington the distance is 894 miles; from Cincinnati to Washington 553 miles; from Chicago to Washington 813 miles. This is via the bee line followed by the Baltimore & Ohio Railroad, the most picturesque as well as the most direct route from the Mississippi river to the Atlantic seaboard, stretching across level and fertile prairies, amid hills and valleys, over mountain crests, along banks of historic rivers, through teeming cities and bustling towns. The through Baltimore & Ohio trains, with full Pullman equipment of sleeping, parlor and buffet cars, run from St. Louis to Washington in 29 hours; from Cincinnati to Washington in 18 hours; from Chicago to Washington in 25 hours. Sleepers from all points run through to New York from the West without change. At Washington connection is made with the Baltimore & Ohio's matchless Royal Blue Line for Baltimore, Philadelphia and New York. These Royal Blue trains consist of the stanchest and finest coaches, parlor and sleeping cars ever built by the Pullman Company; are vestibuled from end to end, and are protected by Pullman's improved anti-telescoping device, which makes every car as safe as it can be made by man's ingenuity and skill. All the cars are heated by steam and lighted by Pintsch gas. They are the fastest trains in the world, placing New York and Washington within five hours' reach.

Trade Notes.

A NEATLY printed volume, bound in stiff muslin covers, has reached THE INLAND ARCHITECT table with the compliments of the Chicago Real Estate Board. Its title, "A Real Estate and Investment Directory," is in explanation of the contents. Full exposition of the territory of the cities and suburbs of Chicago, Minneapolis, St. Louis, Duluth, West Duluth, Superior, West Superior, Milwaukee, Sioux City, Omaha, Denver, St. Paul, Kansas City and St. Joseph is given, with such information in connection thereto as investors are desirous to learn; also the names and addresses of the reputable operators in each city. It does credit to the Chicago Real Estate Board, the leading real estate organization in the country.

AN estimate of the extensive business in the manufacture of architectural sheet metal work and roofing conducted by W. J. Burton & Co., Detroit, Michigan, can be gathered from the following: This season's trade in one place alone (Coldwater, Michigan) will reach several thousand dollars, which consists of galvanized iron cornices, roofing sundries and more especially the extensive sale of their famous "Eastlake" metal shingles, which were used in and around the above named city. The "Eastlake" shingles have become a general favorite for roofing and siding wherever they have been introduced and are giving general satisfaction. They are recommended to any one needing a first-class roofing material. Recent shipments embrace Virginia, West Virginia, North Carolina, Ohio, Mississippi, Texas, Missouri, Indiana, and various points in Michigan. Estimates cheerfully furnished from plans, and full information and particulars can be obtained by addressing the above named firm.

THE INLAND ARCHITECT extends its hand to welcome No. 1 of Vol. 1, under date of November, of the *Architectural News*, published by the Architectural News Company, of San Francisco, California. Its advent increases the number of architectural journals on the Pacific coast to three, and certainly the profession of the "Slope" have no occasion to complain for want of journalistic representation, unless they are impressed with the idea that every well-ordered office should have its own official organ. Joking aside, evidently the publishers of the *Architectural News* recognize "there is always plenty of room on top," and, like Eli, mean to "get there." No. 1 is as bright and shining as a new pin. It is handsomely gotten up, its typography is first-class and the engravings up to the highest standard of the engraver's art. The reading matter is worthy of commendation. If the first number is a fair promise of the future, no subscriber will regret the \$3 outlay for the year's subscription.

THE contracts for J. E. Bolles & Co's iron works, at Detroit, Michigan, have been let and work is now progressing on the foundation walls. The plans were prepared by Gordon W. Lloyd, architect, Fairburn & Cogger are the mason contractors, and Spitzley Bros. the carpenters. They expect to have the main building completed ready to occupy about February 1, 1891, this being the dull season and a convenient time to move. The main building will be three stories, 200 ft. long by 60 ft. deep, with a wing 60 by 80 ft. for blacksmith shop, iron storage and engine house. A 250 ft. side track connects their grounds with the Michigan Central Railroad, giving them the best of shipping facilities. When this building is completed J. E. Bolles & Co. will have one of the best equipped factories in their line in the country. They are now filling a large order of ornamental railing for the new Tampa Bay Hotel, at Tampa, Fla., besides many other contracts from various portions of the country. This firm produce only first-class work, and as a result have a large and growing trade from all parts of the country. Architects and builders requiring anything in the line of wrought or cast iron work for buildings, artistic grille work, brass or metal work, will do well to correspond with this firm.

THE INLAND ARCHITECT AND NEWS RECORD.

Vol. XVI.

ADVERTISERS' TRADE DEPARTMENT.

No. 8

A New Standard Dictionary.

Messrs. Funk & Wagnalls, publishers, 18 and 20 Astor Place, New York, are about to put the English speaking people under a lasting obligation by the issue of a standard dictionary of the English language which will be parallel with the present time. This new dictionary of which we write and is in an advanced stage of preparation—part already having gone to press—differs in its plan in many important points from any other standard dictionary that has preceded it. In the pronunciation of words the scientific alphabet adopted by the American Philological Association has been adopted. The etymology of a word is placed *after* the definition. The most important and current definition of a word is given *first* and the obsolescent and obsolete last, that is, the substitution of the order of usage rather than the historical, which is the common method. In the case of disputed pronunciation, the pronunciations preferred by other lexicographers is given, as well as that which the compilers of this one prefer. In the locating of the verifying quotations, in each instance the name of the author and of the book, with the page where the quotation can be found, is stated. These are some of the important new departures, which, taken in connection with 50,000 vocabulary words more than are to be found in any other English dictionary extant, is indicative of what the dictionary will be in its entirety. It will be interesting to add that in the introduction of new words to a vocabulary place they have to pass the criticism of such eminent philologists and scholars as Julius H. Seelye, of Amherst College; Edward S. Sheldon, of Harvard University; Edward Everett Hale, Charles H. Dana and Howard Crosby. So, too, in the departments of law, geology, etc., each is under the supervision of two or more men of eminence in these several branches of science, which insures trustworthy results.

Trade Notes.

AS CAPTAIN CUTTLE would say, "Make a note on't." The old-time name of Nimick Brittan Manufacturing Company, manufacturers of builders' hardware, at Pittsburgh, Pennsylvania, has been changed, and the business carried on under the firm name of Brittan, Graham & Mather. That this is the only change in the concern, that the same quality of product, produced with the same spirit of enterprise, continues, goes without saying. Make a "mem." of the name change in your notebooks.

THE UNITED STATES IRON & TIN PLATE COMPANY, of Demmler, Pennsylvania, sent out a New Year's greeting in verse printed on a specimen tin plate, which looks equal to any that John Bull turns out. As to the intention of the company in regard to its output of tin plate, the following verse selected from the "greeting" fully explains:

"Don't be afraid, the U. S. Plate
Will come to stay, just mind it;
We mean no ill, its honest will
And nothing else behind it."

ARCHITECTS and house owners who contemplate the introduction of steam heat into buildings, would do well to investigate the "Webster Vacuum Steam Economizer," which is a feed water heater and purifier. Although chiefly intended to prevent scale in steam power boilers, it is applicable to boilers of all descriptions. It admits the cleansing of boilers without the stoppage of machinery. Perhaps the experience of the Conshohocken Electric Light & Power Company, Pennsylvania, affords the best striking illustration of the capabilities of this apparatus that can be presented in a few words. The company had, before its introduction in their plant, no end of trouble from adhering scale, as the water they were using was phenomenally rich in sulphates and carbonates of lime and magnesia. It was hard to get more than from 135° to 140° temperature of feed-water, and it was necessary to "shut down" every two weeks to remove the large accumulation of scale deposit, much of

which was in the "Heater" and out of reach of removal. With the "Webster Economizer" the company finds no trouble in keeping their boilers and heater free, the cleansing taking but a minimum of time, and never requiring the engines to be stopped running during the operation. The company alleges they can readily maintain 210° temperature at the pump and find only a difference of 1° or 2° before and after cleaning, and all this at a great saving of fuel.

F. WEBER & CO., Philadelphia, manufacturers and importers of artists' materials, have issued a neat fifty-page catalogue of works on art for architects, fresco-painters, sculptors, lithographers, metal and wood workers, and for designers of all branches. The catalogue embraces all the best works and represents the highest authorities in the respective departments. Every professional in the several lines named above should procure a copy of this valuable catalogue, which we apprehend may be had for the asking.

THOSE indefatigable advertisers, Merchant & Co., importers, manufacturers and dealers in metals, have issued a holiday souvenir, entitled a "Midsummer Night's Dream." The illustrations comprise all of what the "Brownies" know about metal working, while the text matter rehearses the various wares this leading house deals in and exploits their excellence. It is not only a handsome contribution to their customers but it is a mighty handy book to have around when information regarding such wares is sought after.

THE A. A. GRIFFING IRON COMPANY, of Jersey City, New Jersey, is circulating a neatly printed and artistically illuminated circular showing designs of the Bundy Radiator, a specialty of their plant. The illustrations include the Standard, Renaissance, Dining-room, Hot-Closet, Elite, Pyrowall and Defiance radiators, all of which have established reputations for excellence and are unsurpassed in the ornamental way. Those contemplating putting in hot water or steam heat should see a copy of this circular or what would be better, where practicable, pay a visit to either the general office at the works or to one of the branch offices at New York, Chicago and Philadelphia.

N. & G. TAYLOR & CO., of the City of Brotherly Love, importers and dealers in tin plate, metals, etc., have issued a New Year's greeting in the shape of a novel calendar, which, in the words of the firm, "is entirely different from any ever before issued by any house, particularly in their (our) line." Its peculiar originality does not consist in any rearrangement of the months of the year, days of the week or anything of that kind, but simply in a fac simile representation of a sheet of the genuine Taylor old style brand of roofing tin, showing its heavy coating of metal, "mottle" and all. On this is printed the firm name and specialties, underneath which the monthly slips are bound ready for use. It is worthy of note that this calendar represents the beginning of the firm's eighty-second year of business.

EVERYONE who has had anything to do in a practical way with ornamental glass windows in churches, halls and private residences, whether architect, vestryman or house owner, will be glad to learn a better way has been found than the old-time methods to keep the vari-colored pieces of glass *in situ*. Messrs. Flanagan & Biedenweg, of East Kinzie street, Chicago, are successfully introducing a metallic sash in the form of flanged bar, over which a self-locking cap, adjustable to the thickness of the glass used is fitted and from which the glass cannot be displaced except by the unsoldering of the cap at the joints. It requires no bars or rods to give it stiffness or secure its mountings, and when glazed into any ornamental form is as substantial as of one piece. Beyond its other suggestiveness as in its construction it requires none of the usual light obscurers such as mullions, etc., to give it rigidity, it would seem to be peculiarly well adapted to store fronts and skylights where

straight lines predominate, as in these cases light is the essential consideration rather than ornamentation. In the matter of beveled glass glazings, THE INLAND ARCHITECT understands fine artistic effects are obtained through crystallizing, beading, mitering, hammering and embossing the framework. However, personal investigation will best disclose how far this adjustable metallic sash is a happy departure from venerable usage, and that is what the gentlemanly manufacturers most desire, therefore, the interested are commended to their care for further and more definite information.

ARCHITECTS and contractors could not better employ their leisure time than by sending and getting some of the literature issued by the Cincinnati Corrugating Company on the subject of iron and steel roofing, siding, ceilings, etc. This material is now making such rapid progress in public favor, that every live man engaged in the building industry wants to keep posted. As an illustration of the company's ability to get out an order in a short time, they report having received an order for a special gauge of iron roofing, and, taking the pig iron as a starting point, they boiled, rolled, corrugated, painted and shipped the iron within four days. Write for illustrated catalogue to the Cincinnati Corrugating Company, Piqua, Ohio.

MERCHANT & CO., Philadelphia, Pennsylvania, the well-known manufacturers and importers of tin plate, have just issued a "Fifth Edition" of "A Tin Roof." This little book gives full particulars of the process of making tin plates and wherein lies the difference between a good and an indifferent article. It also explains the difference between their three firmly established brands, namely: "Gilbertson's Old Method," "Merchant's Roofing," and "Camaret." In addition to the above the book contains information in regard to roofing tin and its proper application that no architect or roofer can afford to be ignorant of. The various methods of laying tin roofs comprise the illustrations of the book, and the latter part is devoted to tables of cost and quantity for the various roofs illustrated.

THE many advantages that followed the discovery and use of "fuel gas" over ordinary fuels scarcely reached its fullest appreciation until the ominous whisperings that nature's reservoirs were failing and ere long must cease to give out their supplies altogether. In fact, many of the original gas wells have been emptied and others that were supposed to be at the outset inexhaustible, are so far weakening in power that the supply to furnaces and factories has been curtailed or withdrawn entirely. This is notably the case at Pittsburgh, Pennsylvania, where natural gas was first utilized as fuel and where the greatest area of productive territory yet discovered is located. The discovery of this fuel in other localities only serves to emphasize the fact that there can be no permanency of dependence on nature in the duration of the supply in any field where it exists, and the fact appears all the more lamentable when viewed in the light of its cleanliness, apart from its convenience and economy. However, the darkest cloud is said to have its silver lining, and the prospective giving out of nature's stores has set the inventive genius of the country at work to meet the "inevitable," and it would seem quite successfully, for at least one gas expert, Mr. T. S. Wellman, has solved the riddle of duplicating natural gas at a minimum cost with a very simple and comparatively inexpensive apparatus. It is manufactured by T. H. Brooks & Co., of Cleveland, Ohio, and called the Brooks Fuel Gas Producer. The device consists of a cylindrical shell, the interior being fire-brick backed up with common bricks—the lining being laid in the form of a cone as in a blast furnace, gradually approaching to a square at the top of the ash pit. A hopper to supply the coal and "poke holes," constitute a part of the arrangement. Inferior coal, bituminous or anthracite, can be used. It is alleged that 50,000 cubic feet of gas can be made from one ton of coal by this

ADVERTISERS' TRADE DEPARTMENT—Continued.

Producer, and a gross ton of steel ingots has been made with 850 pounds of coal, being the average of a number of months running. Quite a large number of the principal iron-works have introduced the apparatus as a permanent part of the plants, which would indicate that the inventor has succeeded to the extent of his highest endeavor. As it can be used for glass, pottery, steel and kindred works, why is not the Brooks Fuel Gas Producer a solution of the smoke problem in all manufacturing cities?

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"THE WORLD'S FAIRS FROM LONDON, 1851, TO CHICAGO, 1893," by Col. Charles Norton; Milton Weston, 149 Michigan avenue, Chicago, publisher, has been received and contents noted. It is highly interesting and gives an intelligent and comprehensive review of the several "World's Fairs" that have been held since the famous Crystal Palace was opened in 1851, a period of forty years, namely: Dublin and New York 1853, Paris and Munich 1854, London 1862, Paris 1867, Vienna 1873, Philadelphia 1876, Paris 1878, Melbourne 1880, Paris 1889. The work is illustrated with Art-type views of the principal buildings of these several Fairs and also of the sites for the Columbian Exposition to be held in Chicago in 1893; also is illumined with portraits of Columbus, Queen Victoria, Prince Albert, President Palmer, Director-General Davis and President Lyman Gage of the local directory. The collection of facts has the ear-marks of intelligent labor, and is a timely publication of them at this present juncture when everybody in the United States, at least, is on the *qui vive*

and anxious to learn all they can about such universal expositions in order to stimulate the national pride to its greatest effort for the Columbian Exposition of 1893. THE INLAND ARCHITECT does not know, but presumes copies can be had at all book stands; if not, address the publisher as above.

MR. JULES VIENNOT, 504 Walnut street, Philadelphia, who is the special advertising agent for a large number of the most prominent manufacturing establishments of this country, among them the Baldwin Locomotive Works, Henry Carey Baird & Co., Latrobe Steel Works, Barr Pumping Engine Company and the Standard Steel Works, has just issued a very handsome 200-page marginal red-lined volume, under the title of "Viennot's Selected List of Trade Papers," embracing all the arts, trades and professions, to the number of four hundred, which contains all the essential information regarding each journal that advertisers are desirous to know. Mr. Viennot has made trade journal advertising a specialty for years, and is better qualified to give advertisers paying advice than any other person, perhaps, in the United States. Manufacturers and handlers, for sale, of any class of goods whatever, cannot do better than get into correspondence with Mr. Viennot, and to solicit the compliment of a copy of this expensively gotten up book, published for their special benefit.

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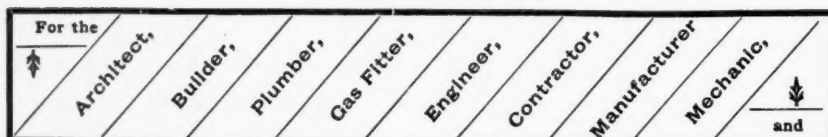
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TRAVELERS and tourists contemplating a visit to the Pacific coast should bear in mind the Lake Superior, St. Paul & Union Pacific, a new passenger and freight line formed by the Chicago, St. Paul, Minneapolis & Omaha and Union Pacific railways. This line strikes about all the important far western towns and cities, i. e., of Nebraska, Montana, Idaho, Utah, Wyoming, Washington, Oregon and California, and reaches the coast several hours sooner than any other route. The accommodations are first-class in every respect and the fare as low as the lowest. Special excursion trains are run, leaving St. Paul and Minneapolis every Thursday morning. For fuller particulars address T. W. Teasdale, general passenger agent, St. Paul.

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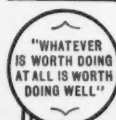
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VOL. XVI.—No. 8.

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CONTENTS.

EDITORIAL.	Page.
Death of Architect John Wellborn Root—In Regard to Mr. Root's Public Offices—The World's Progress in Music Neglected—Columbian Exposition Architects Named—Proposed World's Architectural Exposition—The National Association of Builders and the Trade School Question.....	83
JOHN WELLBORN ROOT. By Henry Van Brunt.....	85
JOHN W. ROOT AS A DRAFTSMAN.....	88
CIRCUMSTANCES ATTENDING THE DEATH OF JOHN W. ROOT.....	88
FUNERAL SERVICE OF JOHN W. ROOT.....	89
IN MEMORY OF JOHN W. ROOT.....	90
BUILDINGS DESIGNED BY JOHN W. ROOT.....	91
ARCHITECTS OF CHICAGO.....	91
MEETING OF BOARD OF DIRECTORS AMERICAN INSTITUTE OF ARCHITECTS.....	92
PROGRESS IN COLUMBIAN EXPOSITION WORK.....	93
NATIONAL ASSOCIATION OF BUILDERS.....	94
SUGAR MORTAR.....	94
OUR ILLUSTRATIONS.....	94
ASSOCIATION NOTES. Chicago Real Estate Board—Chicago Builders' and Traders' Exchange—St. Louis Mechanics' Exchange.....	94
OBITUARY.....	95
PERSONAL.....	95
BUILDING OUTLOOK.....	95
SYNOPSIS OF BUILDING NEWS.....	95
INDEX TO ADVERTISEMENTS.....	XVII

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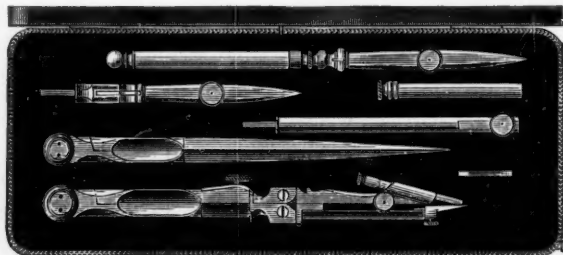
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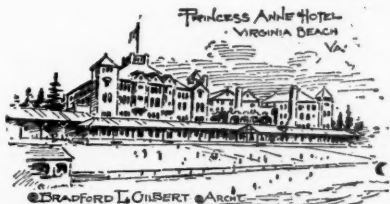
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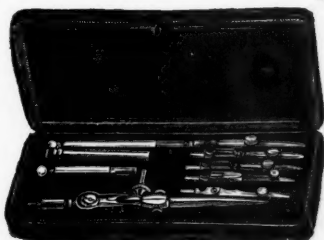
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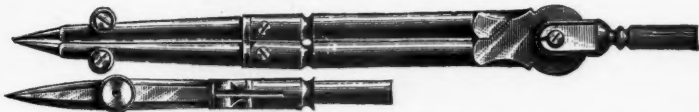
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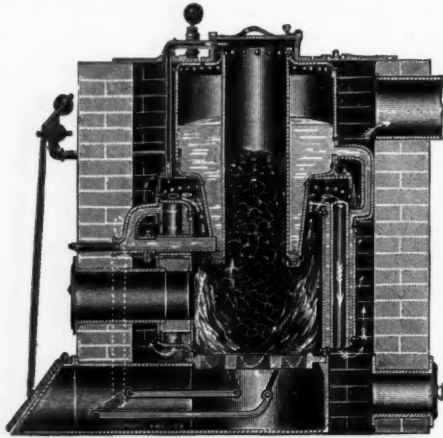


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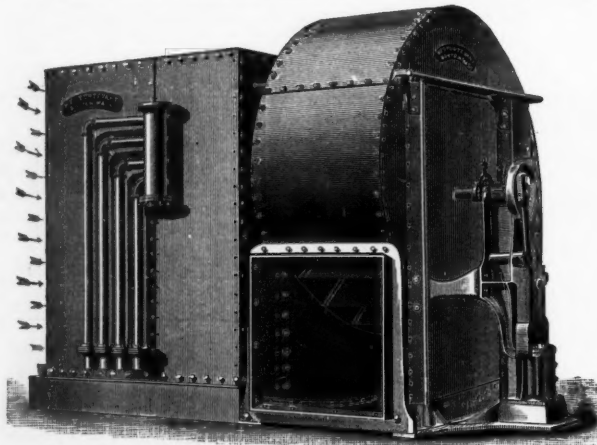
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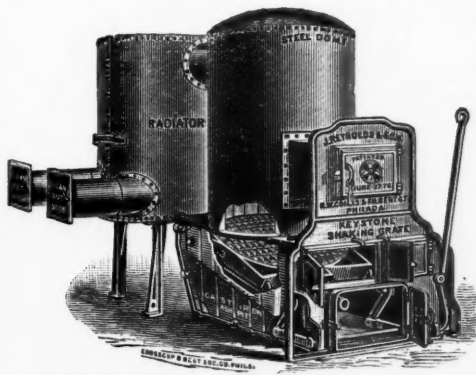
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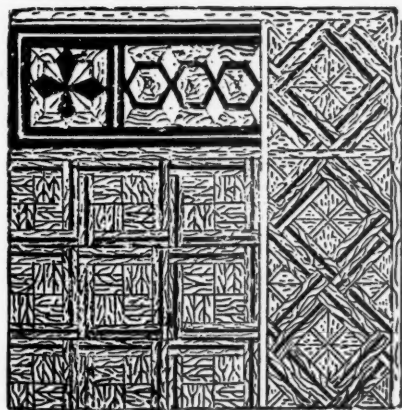


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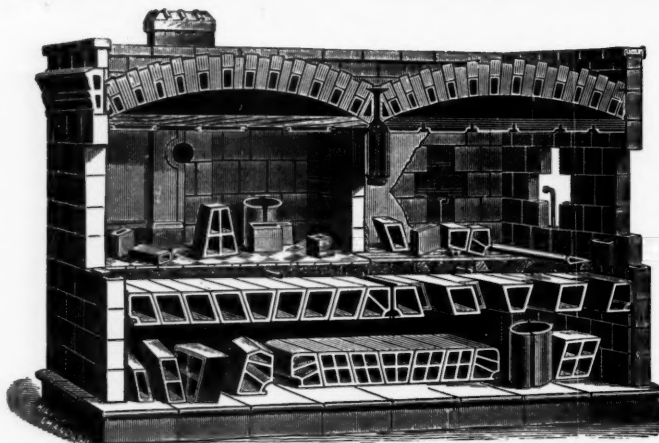
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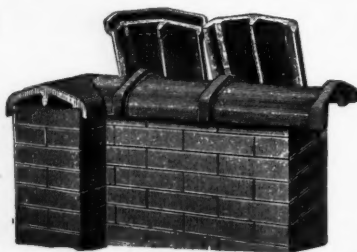
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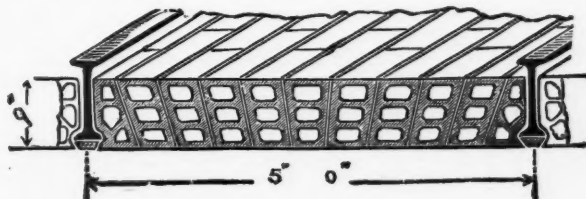
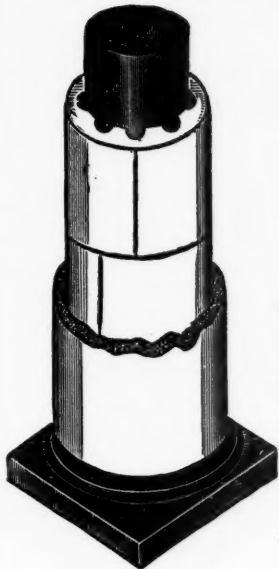
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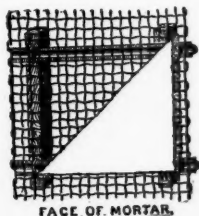
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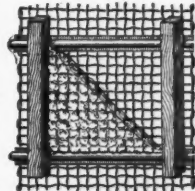
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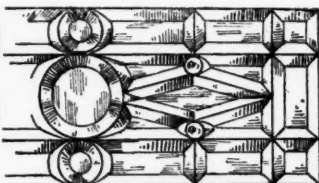
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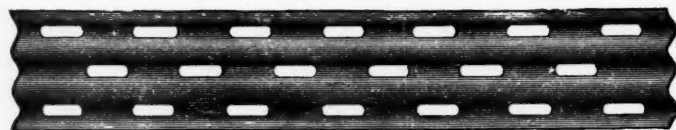
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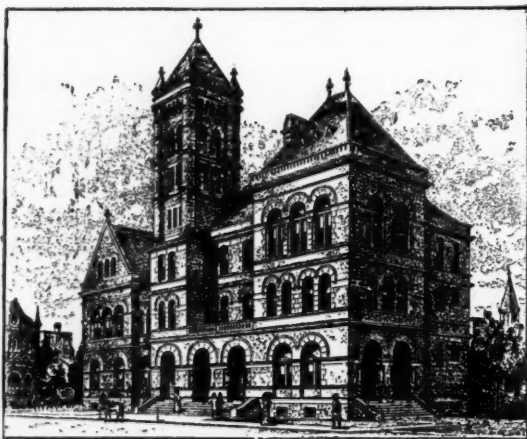


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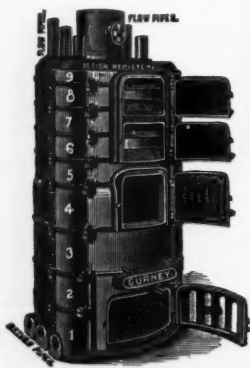
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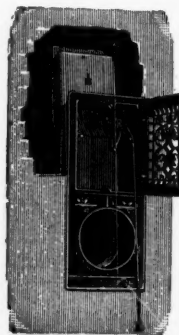
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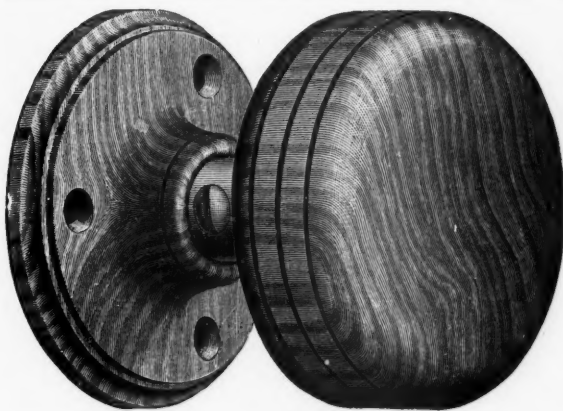
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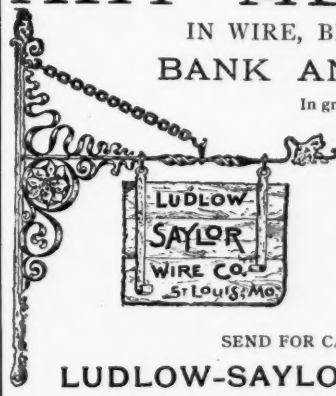
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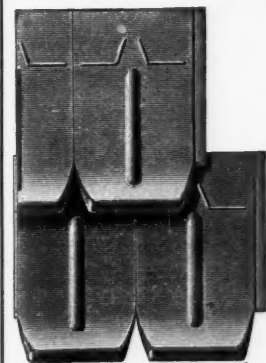
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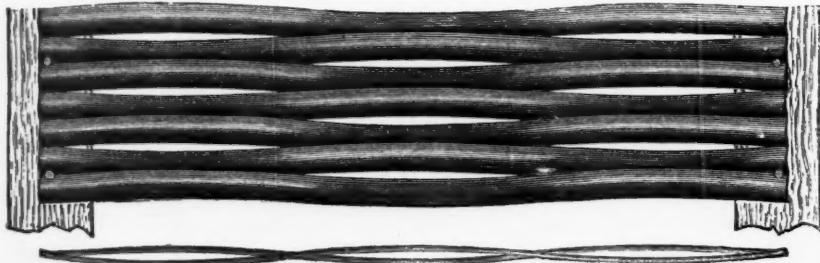
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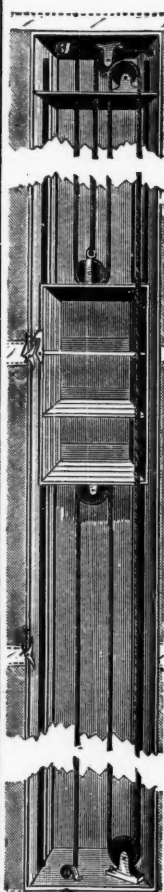
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REFERENCES:

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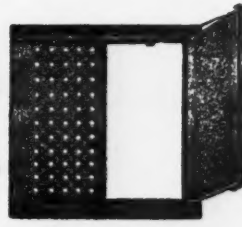
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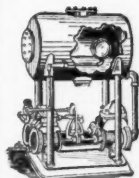
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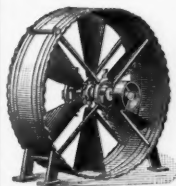
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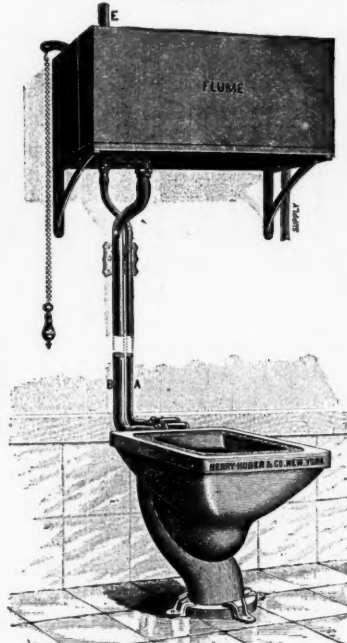
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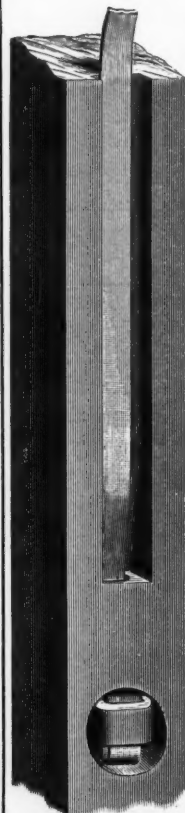
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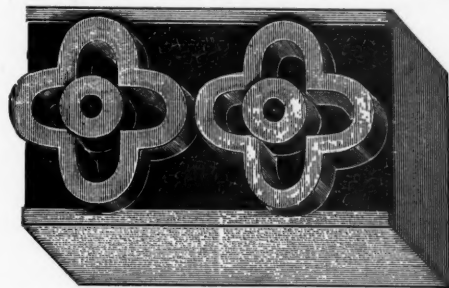
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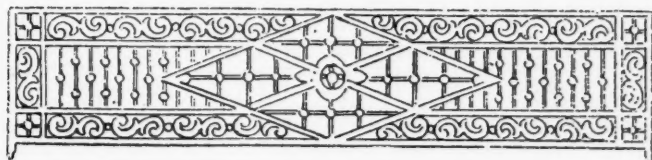
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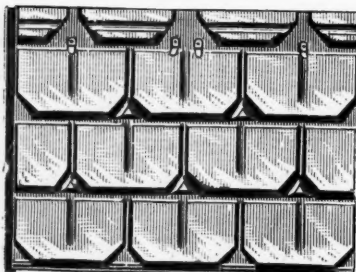
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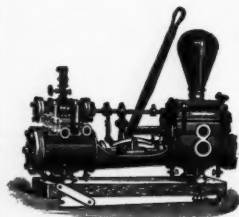
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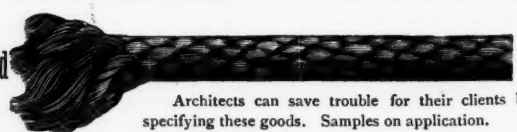
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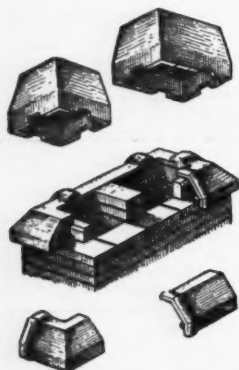
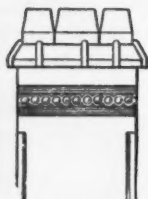
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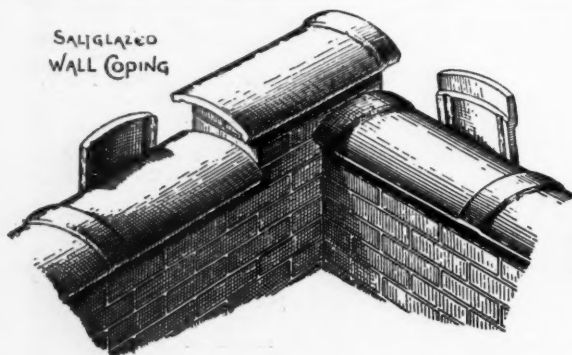
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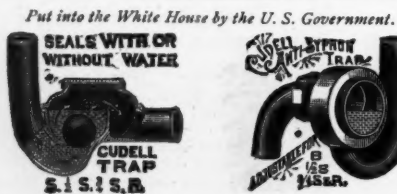
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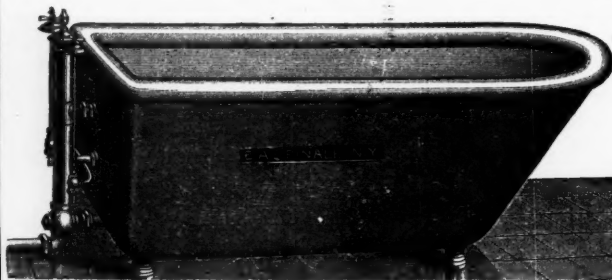
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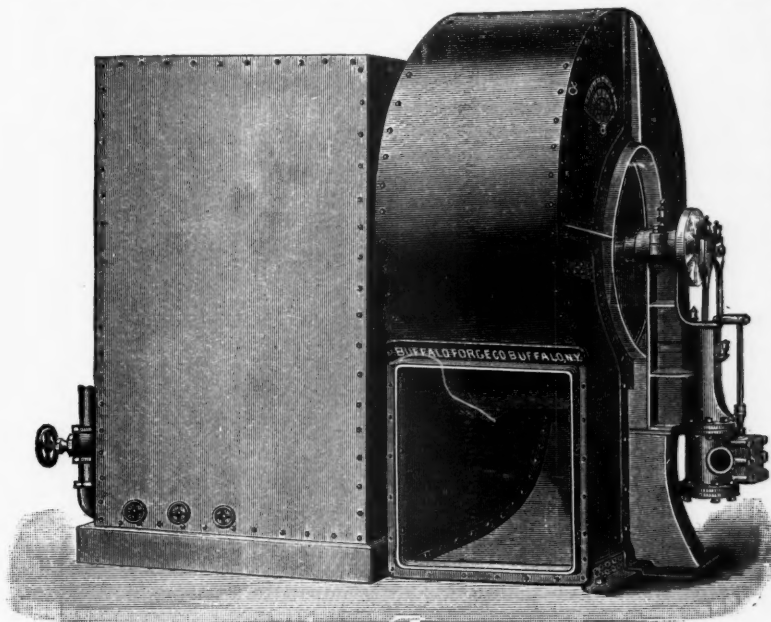


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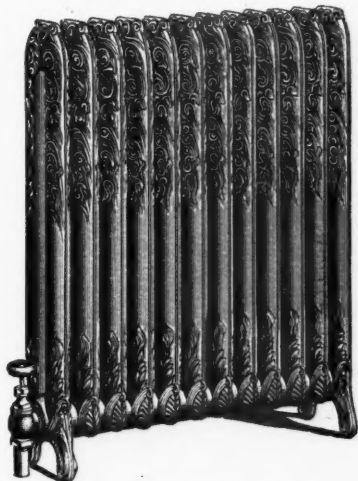


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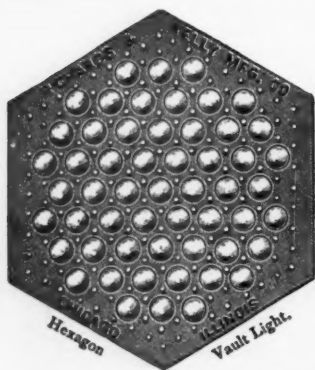
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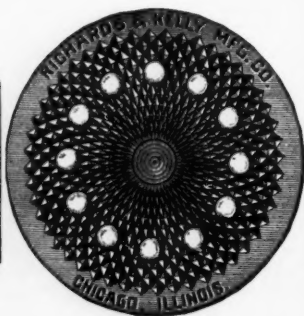
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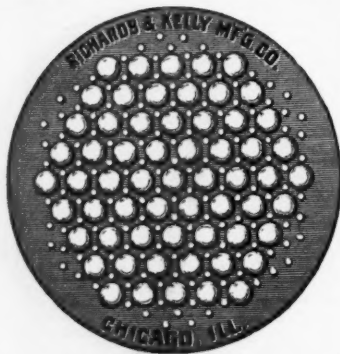
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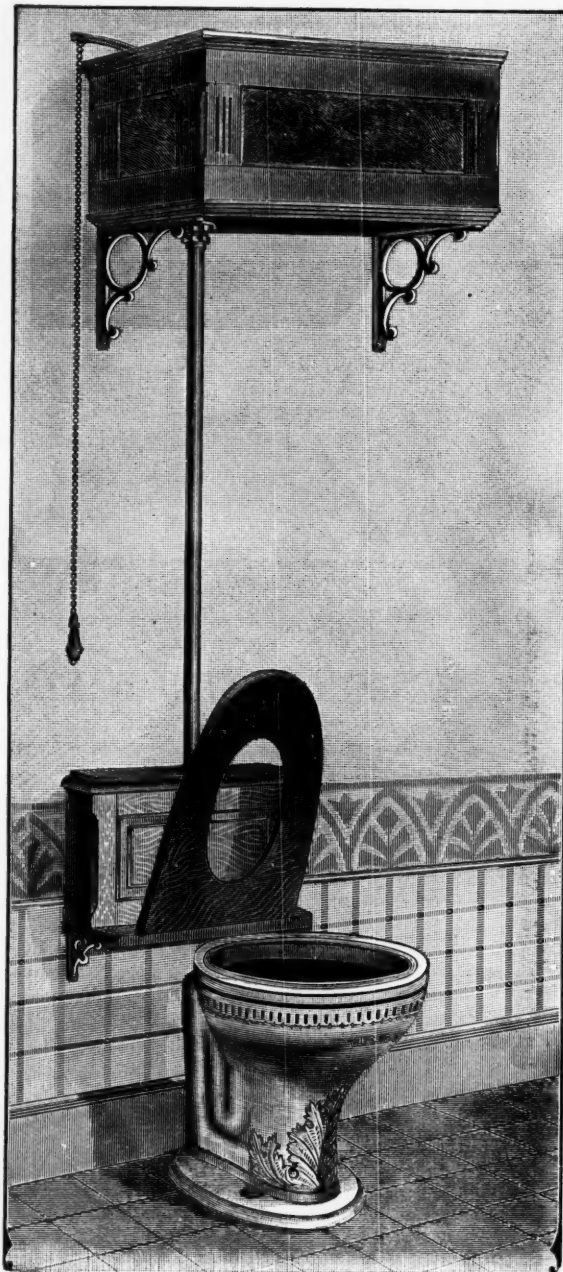
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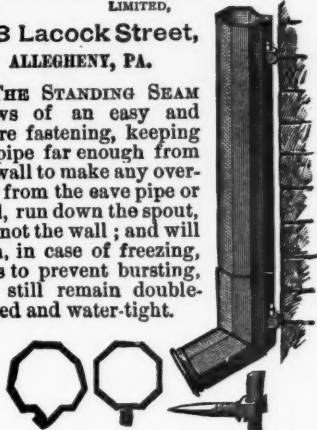
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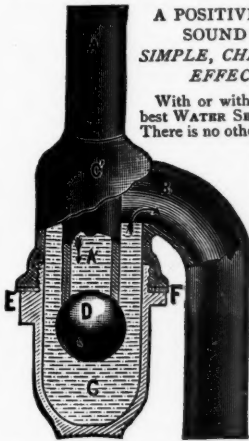
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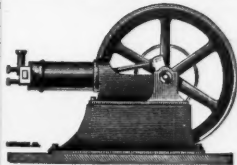
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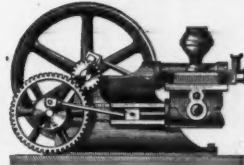
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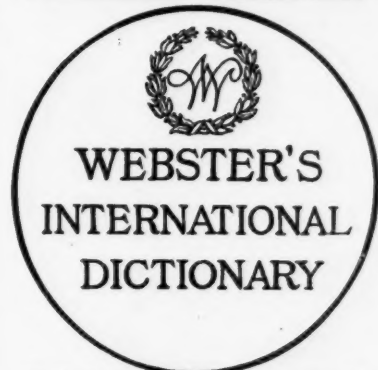
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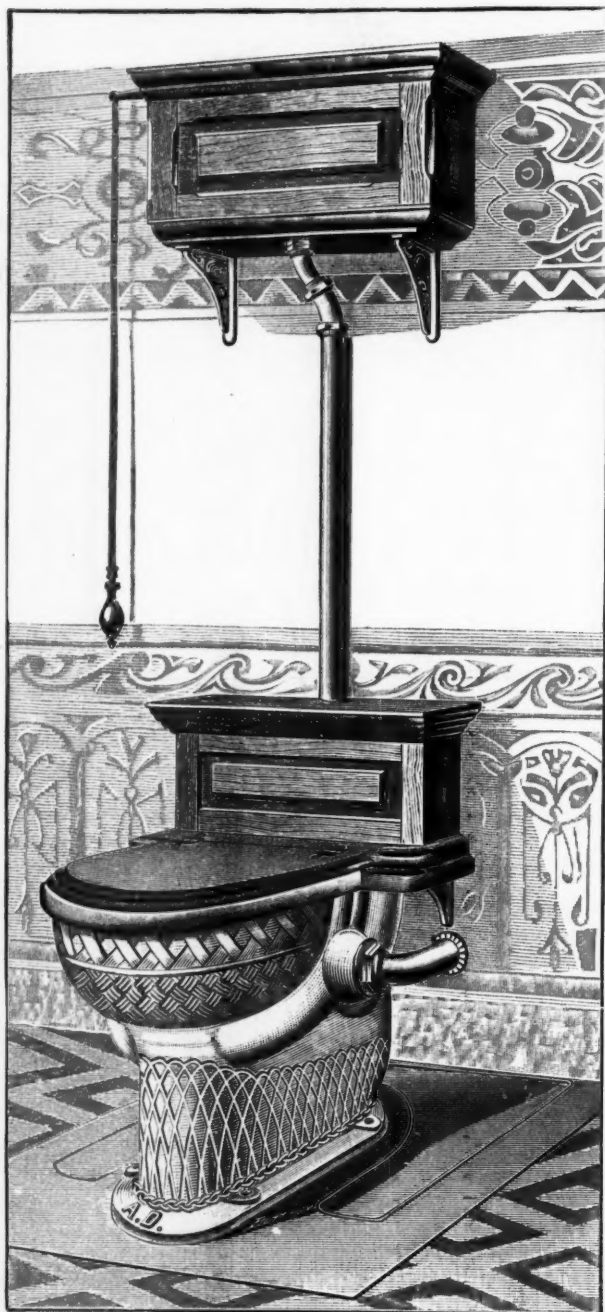
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THE ONLY ABSOLUTELY
SAFE SYPHON WATER
CLOSET EVER PRODUCED.

THE supply to this closet is connected to a bent or curved passage in the earthenware which forms a trap about six inches deep, and as there is no other opening from inside of closet it will be seen that no foul air can possibly escape into the room. The back vents (adjustable to either right or left side) are so placed that they cannot become clogged, because the flow of water is away from instead of directly into the vent hole, as is usually the case. The depth of water in bowl is sufficient to immerse excreta, thereby reducing the diffusion of offensive odors to the minimum.

The discharge is instantaneous, strong and nearly noiseless, and is the result of a single short pull. The cistern (size, 26 x 14 x 15 inches) is furnished with a 3-inch valve, so simple that it

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The only perfect Water Closet ever produced. Send for Descriptive Circular.

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PLUMBERS' SUPPLIES.

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PRONOUNCED THE BEST BUILDING CONTRACT.

TESTIMONIALS FROM ARCHITECTS WHO HAVE USED IT IN ACTUAL PRACTICE:

RHODE ISLAND.

We have used the Standard Contract from its first publication to the present time with entire satisfaction, and do not know of any changes which we would suggest. We think that the clause making the architect the agent of the owner, which has been somewhat criticised, is properly inserted, as the architect is thus fully recognized as such by both the owner and the contractor, and it gives him the necessary authority to have the work properly carried out; and it places upon him a moral as well as a legal responsibility, which a conscientious practitioner fully realizes and carefully exercises. The architect's authority over the contractors, and his right to order work to be done, are admitted. But he cannot escape the obligations which attach to every agent who has important trusts confided to him, and it is to the credit of the profession that we rarely hear of any abuse of the confidence bestowed. So far in our practice, we have had no objections raised on the part of owner or contractor to the contract, and we have had lawyers among our clients who have signed the contract as one party to the same.

STONE, CARPENTER & WILLSON, Providence.

PENNSYLVANIA.

We have used the Standard Contract since it came out, for large and small work, and are pleased with it.

GEORGE C. MASON & SON, Philadelphia.

We have used the Standard Contract for a year past in all our contracts, and have found it very satisfactory.

BROWN & DAY, Philadelphia.

The Standard Contract is the best builders' contract that has ever been used in this city. We like it very much.

MURPHY & HAMILTON, Pittsburgh.

VERMONT.

I have not only used the Standard Contract myself and found it in every way satisfactory, but have furnished it to others here and in the vicinity who think it the best to be obtained. It has also undergone inspection by our best lawyers, who fail to find any loopholes.

Z. T. AUSTIN, Burlington.

Have given the Standard Contract trial, and find it very satisfactory thus far.

C. W. FISHER, Burlington.

MISSOURI.

Have found the Standard Contract quite satisfactory.

CHAS. E. ILLSLEY, St. Louis.

Have been using the Standard Contract during the past year, and find it fills a long-felt want and answers every purpose.

A. F. ROSENHEIM, St. Louis.

I have used the Standard Contract during the past year, and I think it an excellent form.

F. B. HAMILTON, Kansas City.

We have used the Standard Contract for the past year, and it gives general satisfaction.

ECKEL & MANN, St. Joseph.

ILLINOIS.

I am using exclusively the Standard Contract.

CHARLES S. FROST, Chicago.

I have used the Standard Contract and found them satisfactory.

CLARENCE L. STILES, Chicago.

I have used the Standard Contract since it was promulgated. The provisions contained have proved satisfactory alike to both client and contractor. I have no doubt but that it will supersede all other forms.

J. W. ACKERMANN, Chicago

I think the Standard Contract the most just for both parties I have ever filled out. They have given entire satisfaction. I think the insurance clause is excellent.

S. A. JENNINGS, Evanston.

I have used the Standard Contract since it was first adopted, and find that it fills the place for which it was intended.

JULIAN BARNES, Joliet.

We have used the Standard Contract during the year with marked satisfaction. It answers the purpose fully for all parts of our work.

BULLARD & BULLARD, Springfield.

NEW YORK.

We have been using the Standard Contract for some time past. On the whole we are very well satisfied with it.

MARLING & BURDETT, Buffalo.

I believe it is the best form in many respects I have seen.

F. W. HUMBLE, Buffalo.

I have used the Standard Contract for the past season. I like it very much.

ORLANDO K. FOOTE, Rochester.

Am using the Standard Contract, and am pleased with it.

JOHN R. CHURCH, Rochester.

I have used the Standard Contract form, and find it works very well in my practice.

O. P. HATFIELD, New York.

I consider the Standard Contract an improvement on any other blank used for the purpose.

CORLISS MCKINNEY, Albany.

I find the Standard Contract more complete, and to cover all important points more fully, than any contract I have ever seen.

JAMES CONSTABLE, JR., Utica.

We have used the Standard Contract for nearly every contract we have made since October, 1888. We have had no question come up yet on any of the contracts. They have answered our purpose admirably.

PIERCE & DOCKSTADER, Elmira.

I have used the Standard Contract for some time past. Anything you wish to say in its favor, you are at liberty to state over my signature.

J. H. CONSIDINE, Elmira.

The Standard Contract has been in use in my office ever since it was published. I find it satisfactory in every way.

C. F. EISENACH, Brooklyn.

CONNECTICUT.

We have used the Standard Contract for about one year. We think that it is a fair contract, and thus far it has served our purpose well.

LONGSTAFF & HURD, Bridgeport.

The first parties I used the Standard Contract for were a church committee, men who were accustomed to forms of contract. They expressed themselves as perfectly satisfied with the form.

M. L. PRITCHARD, Bridgeport.

I am using the Standard Contract altogether. Am highly pleased with it. It covers all points necessary, and is the best form I have seen.

D. BLOOMFIELD, Meriden.

OHIO.

I have used quite a number of Standard Contracts, and find them quite satisfactory to clients and contractors.

GUY TILDEN, Canton.

I consider the Standard Contract the best form I have seen in fifteen years' practice.

S. R. BADGLY, Cleveland.

We have been using the Standard Contract, and find it a success in every particular.

RICHARDS BROS., Newark.

MASSACHUSETTS.

The Standard Contract is the best we have had yet.

W. H. MCGINTY, Boston.

I have used the Standard Contract from the start. It easily outranks all others.

J. B. WOODWORTH, Worcester.

MICHIGAN.

We have used the Standard Contract for several months past, and find it very satisfactory. We take pleasure in bearing this testimony.

ROGERS & MACFARLANE, Detroit.

I have used the Standard Contract the present year, and find it to be just right for all concerned.

J. W. COUGHLAN, Detroit.

Having used the Standard Contract for nearly a year, I am prepared and pleased to say that it has in every instance given entire satisfaction. A revision of any of its articles would not improve it in my estimation.

D. P. CLARK, Bay City.

We are using the Standard Contract, and find it answers its purpose in every particular.

THURTELL, FLEMING & CO., Jackson.

The Standard Contract is satisfactory.

SCOTT & CHARLTON, Marquette.

MINNESOTA.

I have used the Standard Contract continuously since its publication, and find it satisfactory in every way, contractors and clients alike being pleased.

CLARENCE H. JOHNSTON, St. Paul.

I use the Standard Contract entirely, and find that it gives most general satisfaction to both client and contractors, on account of its eminent fairness to all parties.

H. W. JONES, Minneapolis.

We have used the Standard Contract and like it.

PALMER & HALL, Duluth.

INDIANA.

We are using the Standard Contract. Those clauses not necessary in our work we scratch out; but as a whole the form is very convenient, and fully adapted to the purpose.

WING & MAHURIN, Fort Wayne.

KANSAS.

I take pleasure in recommending to the profession the Standard Contract. It has proved entirely satisfactory.

SEYMORE DAVIS, Topeka.

TENNESSEE.

We have used the Standard Contracts and find them "O. K."

BARBER & PARMELEE, Knoxville.

TEXAS.

We have used the Standard Contract for the past year, and find it gives general satisfaction.

ARMSTRONG & MESSER, Fort Worth.

COLORADO.

We use the Standard Contract altogether in our work, and it fully covers all the points and is just to both parties.

BARNES & WHEELER, Denver.

We have used the Standard Contract ever since its first appearance, and consider it to be the best form of contract that we have ever seen. It seems to answer equally well for entire or separate contracts.

BALCOMB & RICE, Denver.

We have used the Standard Contract successfully for the past year, and do not hesitate to say that it answers every want, giving entire satisfaction to both owner and contractor.

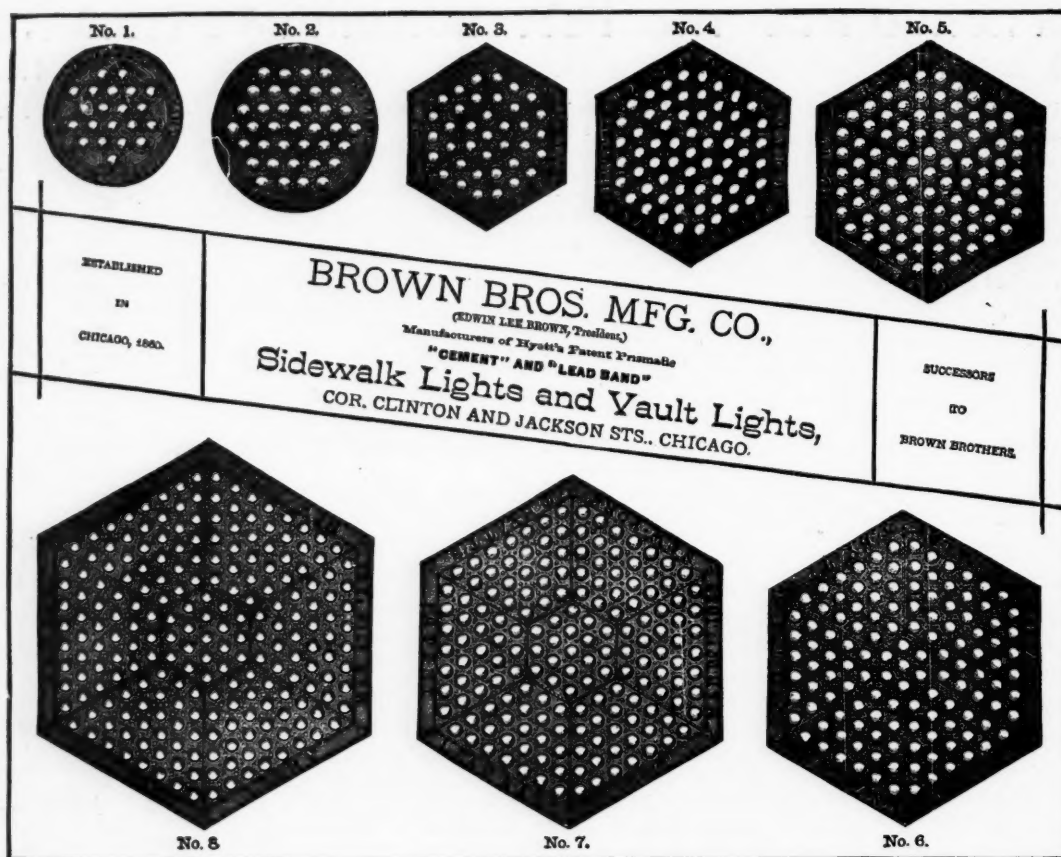
BULGER & RAPP, Trinidad.

Perhaps the best evidence that the Standard Contract is thoroughly practical and adapted to general use, is the fact that it was framed by the Joint Committee of THE AMERICAN INSTITUTE OF ARCHITECTS, THE WESTERN ASSOCIATION OF ARCHITECTS, and THE NATIONAL ASSOCIATION OF BUILDERS. We are licensees for the exclusive publication of the Standard Contract, and furnish the blanks at the following prices, agreed upon with the committee, viz.: \$1.10 per 100, \$4.25 per 500, and \$8.00 per 1,000, free by mail or express. Architects' names and consequent pronouns inserted at additional cost. To save innumerable small accounts, payment should accompany orders. Personal checks on local banks not accepted unless New York, Chicago, or equivalent exchange is added.

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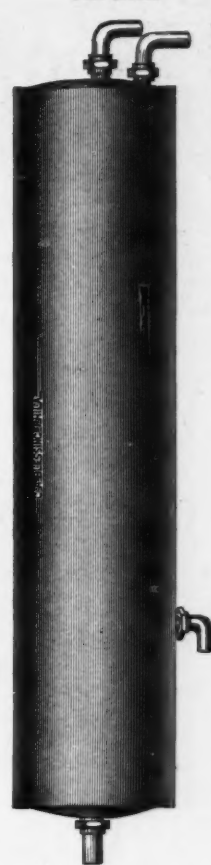
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Skidmore's Patent Adjustable Window Balcony,
For Cleaning the Outside of Windows of High Buildings.

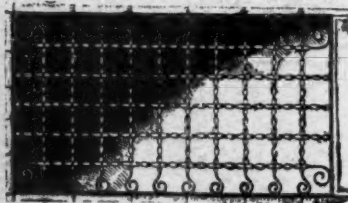
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Manufactured by THE ELLITHORPE AIR BRAKE CO.

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