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CONTENTS.	
EDITORIAL.	Page
Annual Report of the Department of Health of Chicago—The Examination and Licensing of Architects—The Indiana State Soldiers' and Sailors' Monument—The need for and probability of a cheap fuel gas for manufacturing purposes—The proceedings of the Society of Italian Engineers and Architects for 1887—The proposed establishment at St. Louis, of an Academy of Architecture—The erroneous impression the public have formed of the true status of the profession of architecture.....	17
PHOTOGRAPHY IN ARCHITECTURE. By Fred D. Foss, Part I.....	20
LIFE AND WORKS OF JEAN FRANÇOIS MILLET. By Walter Cranston Larned, concluded.....	20
ENGINEERING TRAINING AT VANDERBILT UNIVERSITY.....	22
CORRESPONDENCE.....	23
ASSOCIATION NOTES.....	23
NEW PUBLICATIONS.....	24
OUR ILLUSTRATIONS.....	25
SCIENTIFIC AND ART NOTES.....	25
MOSAICS.....	26
SYNOPSIS OF BUILDING NEWS.....	28
INDEX TO ADVERTISERS.....	XI

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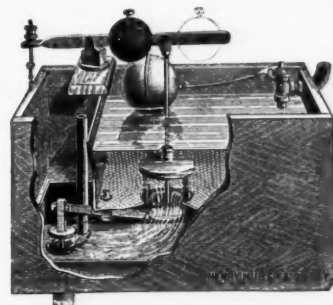
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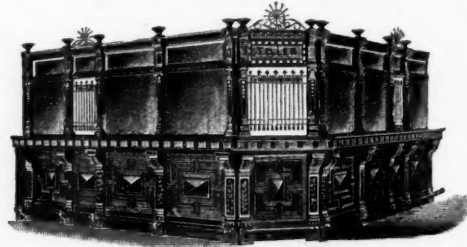
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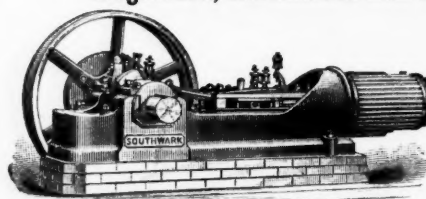
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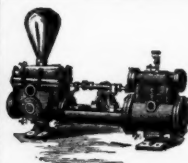
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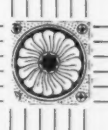
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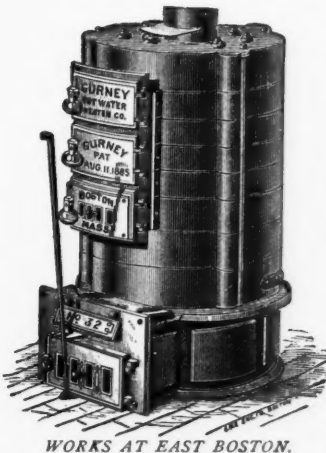
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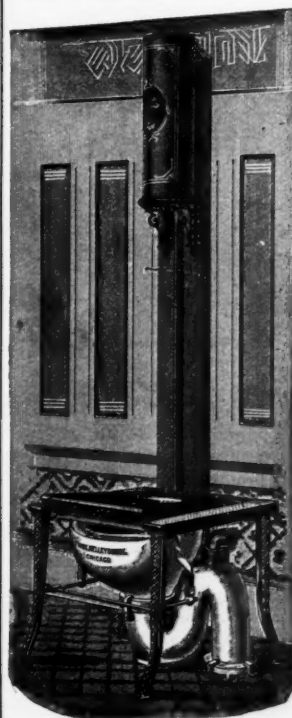
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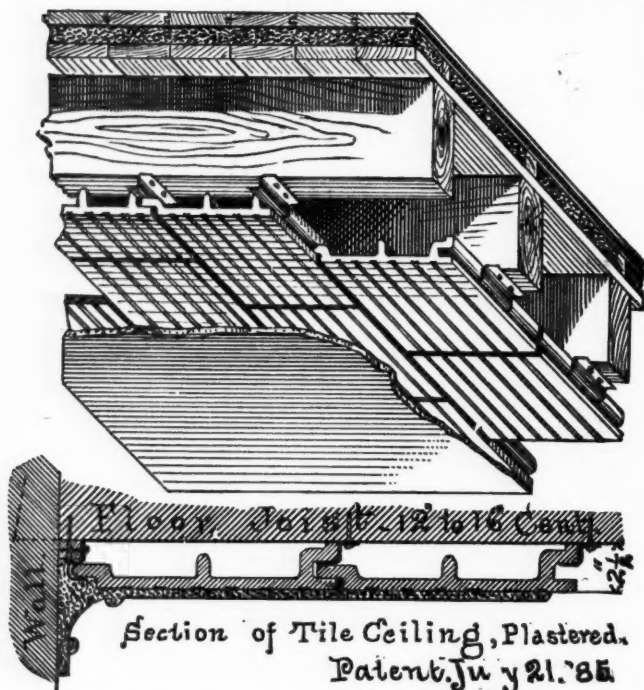


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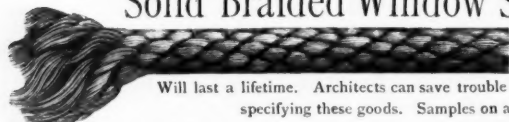
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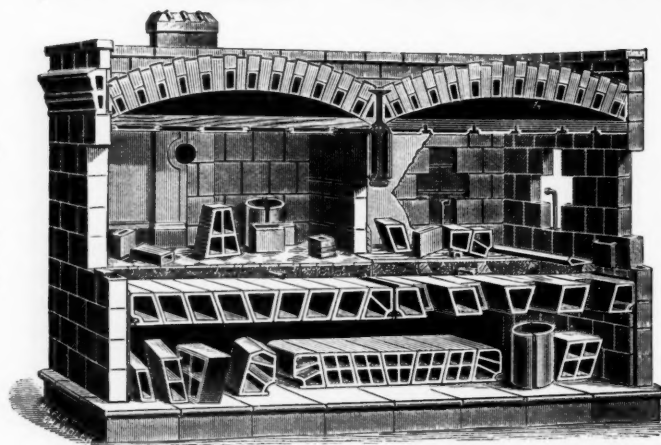
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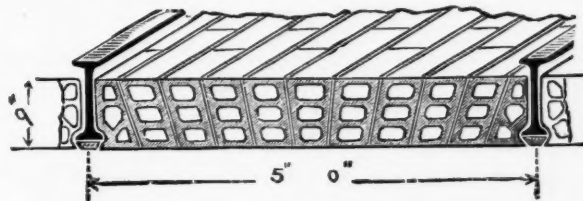
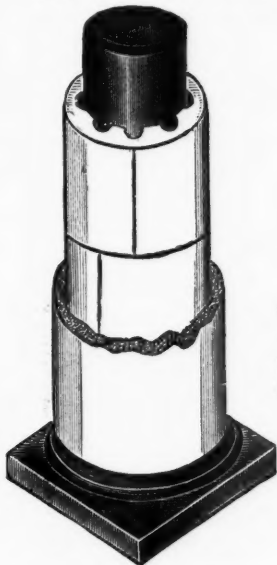
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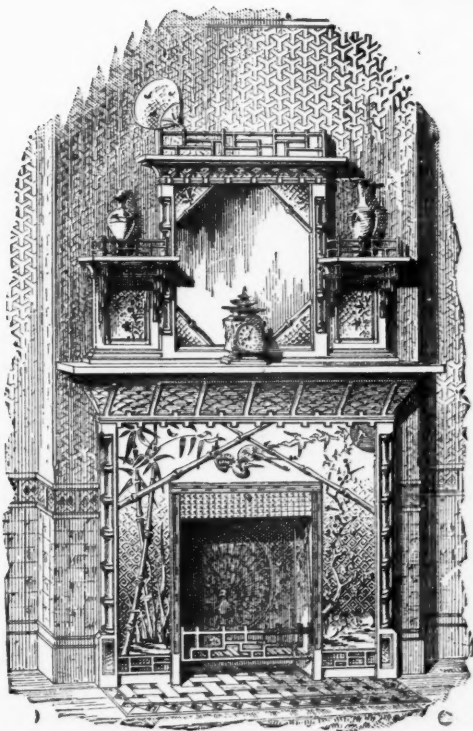
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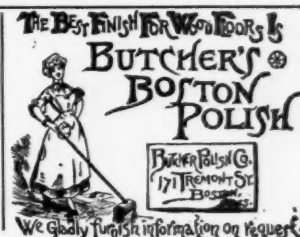


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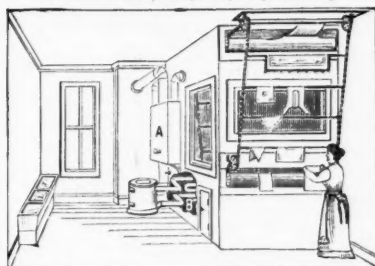
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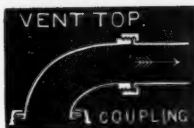
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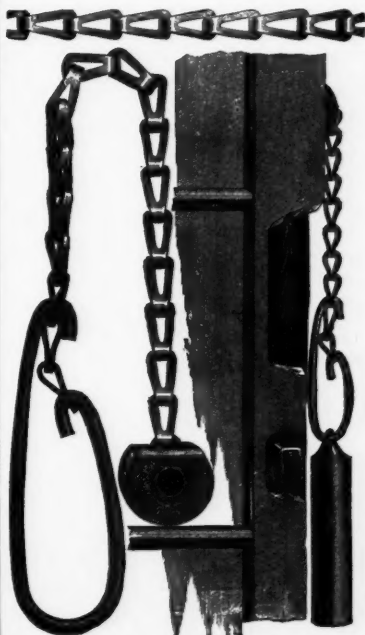
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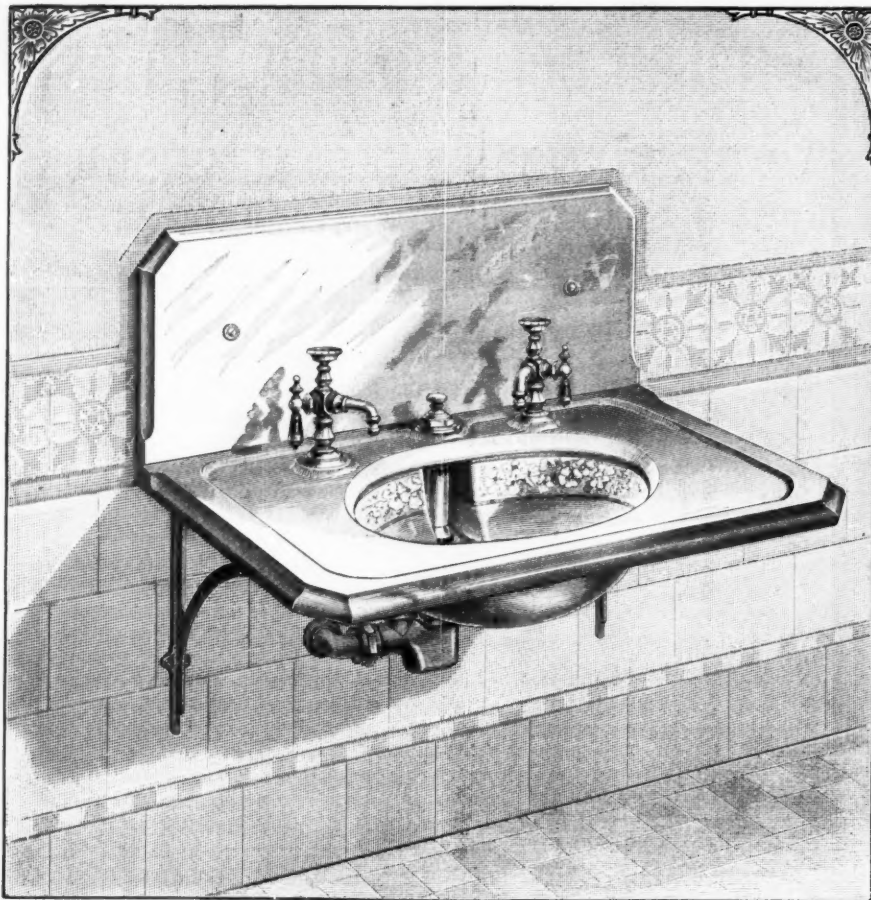


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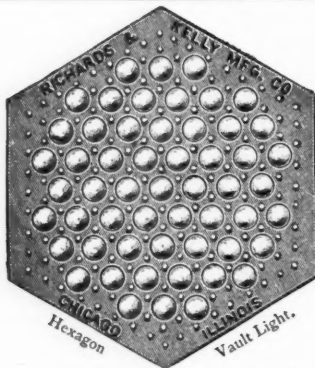
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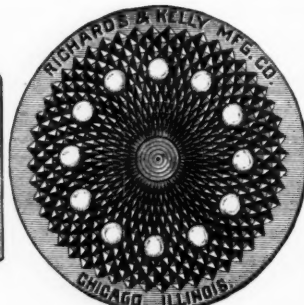
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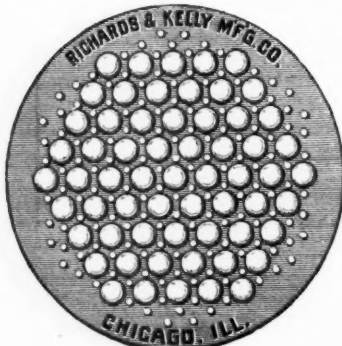
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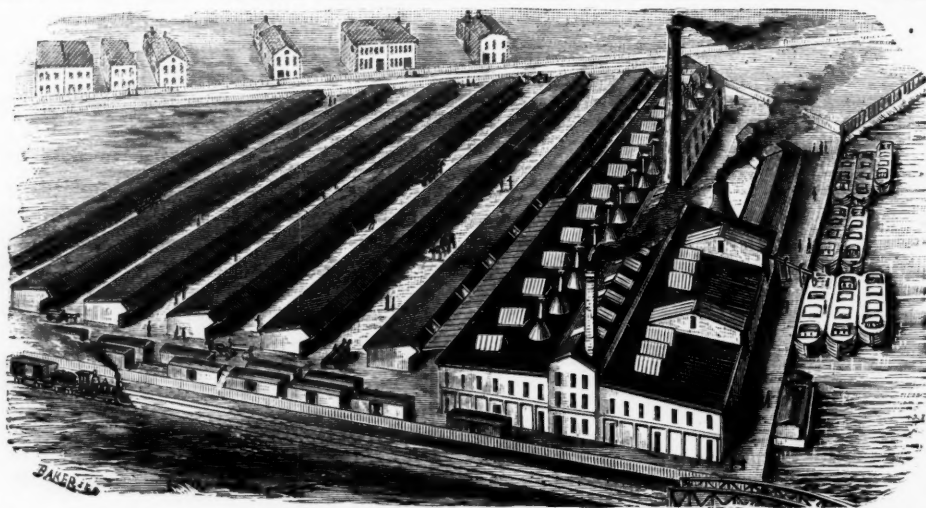
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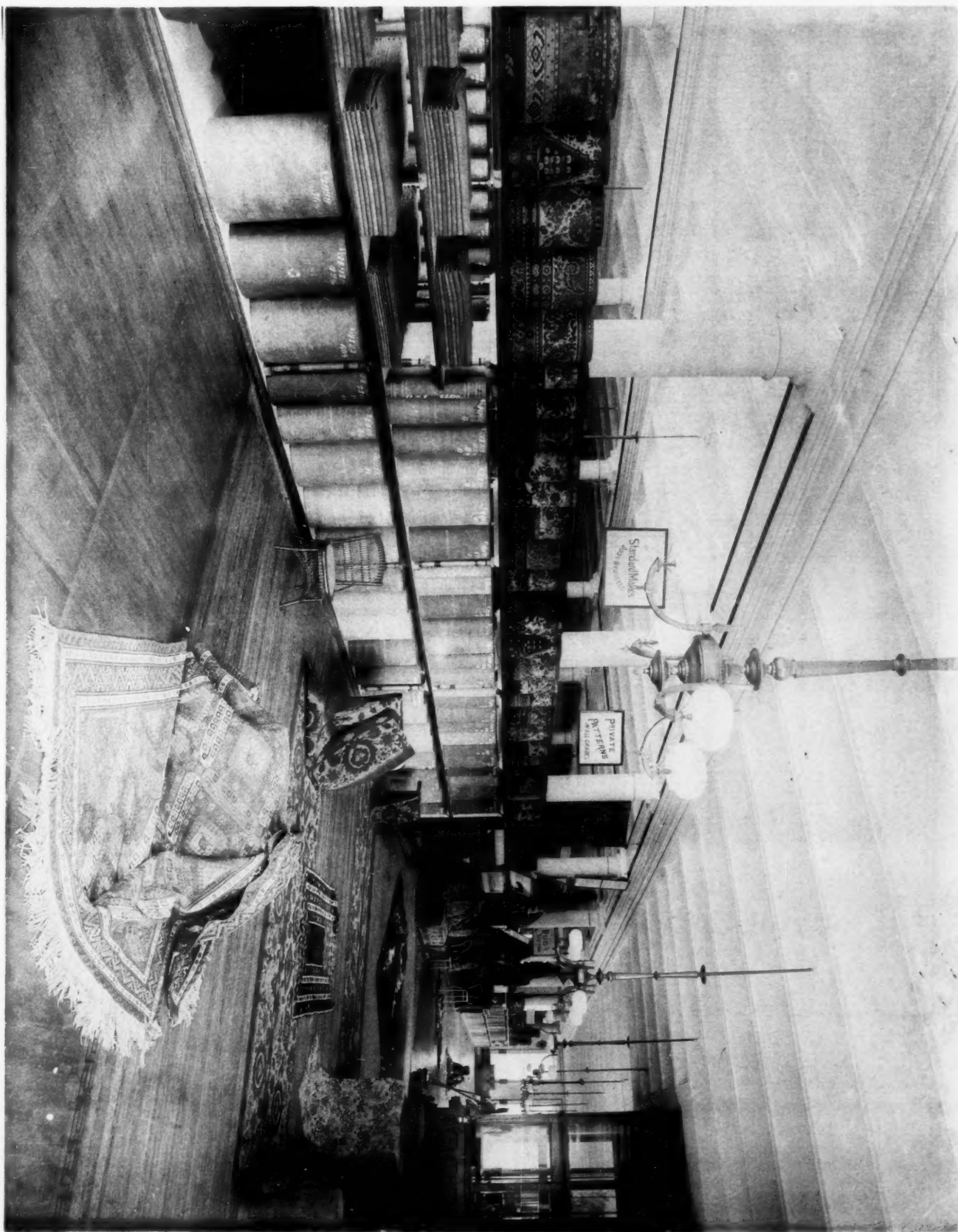


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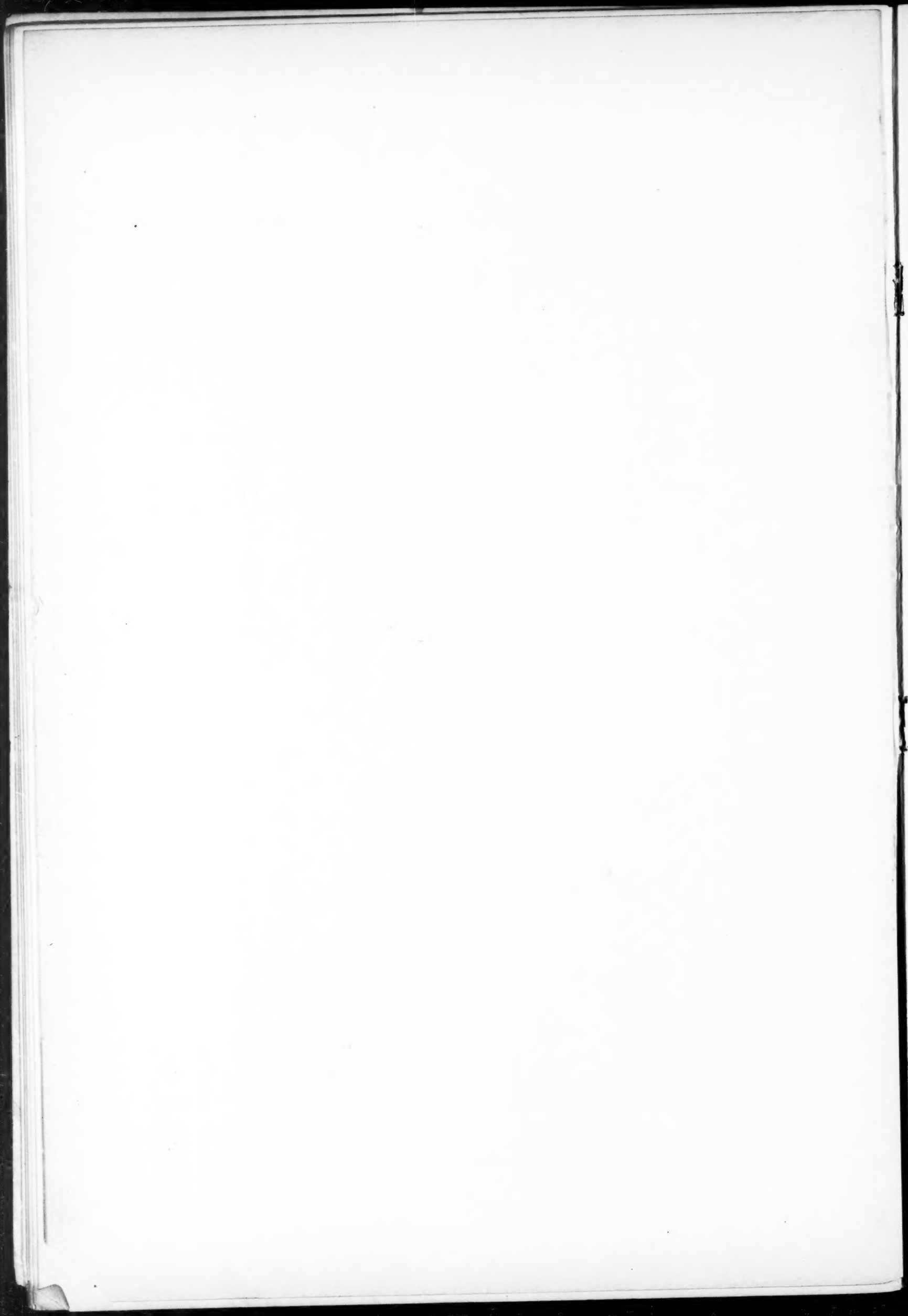
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Committee on Legal Decisions Relating to Building Interests—J. J. Kane, S. A. J. Preston, N. F. Clayton, Texas; Sidney Smith, G. L. Fisher, G. W. Field, Neb.; Sidney Osgood, L. D. Grosvenor, G. W. Lloyd, Mich.; L. H. Sullivan, C. L. Stiles, Wm. Holabird, Ill.; J. W. Reed, J. F. Wing, B. Vonegut, Ind.; J. W. Yost, E. O. Fallis, S. E. Des Jardines, Ohio; J. G. Haskell, E. T. Carr, C. B. Hopkins, Kansas; E. T. Mix, D. M. Hartau, A. C. Class, Wis.; W. F. Hackney, C. H. Lee, E. H. Taylor, Iowa; F. C. Bruce, A. M. McMurphy, T. H. Morgan, Ga.; Louise Bethune, W. W. Carlin, New York; J. S. Mathews, W. T. A. E. Cobby, Dakota; J. F. Cook, Cal.; C. C. Helmers, A. Van Brunt, T. B. Annan, Mo.; H. Wolters, H. P. McDonald, H. L. Rowe, Ky.; G. W. Thompson, J. F. Baumann, Tenn.; L. S. Buffington, I. Hodgson, D. W. Millard, Minn.; C. C. Helmers, St. Louis, chairman.

STATE medicine as illustrated by Dr. Oscar C. DeWolf, commissioner of health of Chicago, presents to other cities a perfection of sanitary system that is as unapproached as it is enviable. The report of the department of health for 1886, just issued, gives one hundred pages to the statistics and details of work done during the year. The department has entire control of all sanitary matters, employing ninety men in the different branches. Twenty-seven are plumbers whose business it is to inspect the plumbing and sewage systems of buildings, or the inside of houses; twenty-two are occupied in the inspection of streets, alleys, etc., or the outside of buildings, and a large part of the remainder have the health of the people as affected by meats and vegetables in their charge, a large force being on duty at the stock yards and packing houses. The offices of the board are most perfectly arranged and the records exhaustive and minute. An index book shows a record of 76,000 old houses, collected in the past three years, showing the state of the plumbing, etc., and a law went into effect last year by which every house builder is obliged to submit new plans to the board and answer a long list of questions regarding location of windows, airshafts, traps, vents, etc., and also how the building is to be occupied. This statement, with a copy of the plan, is placed on file. When the plumbing is in, and before it is covered, the owner is obliged to notify the department and if on inspection any defect is found it must be rectified. Each house so registered is subject to inspection as often as necessary, and any death from scarlet fever, diphtheria, etc., is charged up against the plan on file. All complaints from occupants of houses are registered and four days after such is made a report can be found at the health office of the condition of the house. Thirty-two thousand of such inspections were made last year. Arrangements have been made by which the city will soon be cremating its garbage by furnaces. The report of W. H. Genung, chief of inspectors, is also extremely interesting and on the whole the report of the health department is a valuable addition to the list of works upon sanitary science, and goes far toward showing that the law formulated by the department and the Illinois State Association of Architects should be passed by the next legislature.

A NEW YORK correspondent, presumably an architect, writes to *Building* in regard to the examination and licensing of architects. He assumes that "the idea has met with little general approval, nor has anything like a unanimous wish been shown on the subject." The correspondent further begs to suggest a system of voluntary examinations, etc. It seems hardly possible that there is an architect in the United States who does not know that almost two years ago the Western Association of Architects proposed and adopted a general draft of a bill providing for this, and placed it in the hands of fourteen state associations and committees in other states where no association existed, for presentation to their legislatures for passage. While the bill has not yet been passed in any state, and may not in all for years, yet every architect of real ability is anxious that the profession should receive this legal recognition. It is the only measure that will check the monstrosities in the way of public and private building that become more noticeable as the general architectural talent of the country improves and makes the defects more glaring by contrast. An examination may, and we think should be instituted by the architectural associations as a condition of membership, which, with the state law, architects are fully alive to the necessity of, and will work for its accomplishment.

THE State Soldiers and Sailors' Monument Commission of Indiana have selected as advisers in the monument competition the following gentlemen: Prof. Wm. R. Ware, of Columbia College, Prof. Jno. L. Campbell, professor of physics and engineering, Wabash College, and Gen. Thos. A. Morris, state house commissioner at Indianapolis. Prof. Campbell was secretary of the Centennial Commission, and is well known as a thoroughly scientific man and of rare culture. Prof. Morris has had a wide experience in architectural matters, is a graduate of West Point, and for ten years has been the senior member of the State House Commission. Prof. Ware, as is well known, is usually called as an adviser where an expert of unusual ability in architecture is required, and we are glad to note that our timely warning regarding the most probable result of following the plan at first proposed led the committee to seek advice from so authoritative a source. We have now great hopes for the success of the commission in building a monument the design and construction of which will be a credit to the commission and the state and a fit memorial to the heroes in whose honor it is erected.

SO far there has been no outcome to the reported find of natural gas in or near Chicago, but the agitation of this important subject has led us to an investigation into the merits of systems producing an equivalent, and we believe it can be asserted as a fact that there are several so-called water gas systems producing a fuel gas quite as cheaply as natural gas can be piped from the flowing well to the places where most needed, either to the domestic hearth or the plant of the manufacturer. Chicago and its environment is one vast manufacturing plain, and the use of our common soft coal constantly emits volumes of smoke which is proving not only to be obnoxious, but deleterious, and of a permanent injury to residence property. If our investigation leads to anything of value, it is this, that by chemical combination our soft coals can be so utilized that at a low cost we gain the equivalent to natural gas, which can be placed at the disposal of the consumer as readily as illuminating gas is now furnished, and at a cost coming within the reach of all requiring a cheap fuel. It is confidently asserted by scientists that as a heating agent the combination of hydrogen with certain chemical substances at the gas burner the resultant effect is incandescence rivaling the electric light, without its dangers and high cost. At present Chicago has not reached this economic point, but in the light of advancing sciences, there are those who believe we are nearing the point where a fuel gas and an illuminating gas may be easily and cheaply furnished from the same common source, the local gas works.

WE have received from Rome the bound volume of Proceedings of the Society of Italian Engineers and Architects, for the year 1887, a bulky pamphlet of 320 pages octavo, with an appendix of sixteen plates of engravings, some of which are large and have to be folded several times. Such a publication issued every year is an impressive evidence of the activity of architects and engineers in Italy, a country where untraveled Americans are apt to imagine that the houses are mostly hundreds of years old, and there is very little new work going up. Beside the records of society meetings and debates, there are elaborate papers on proposed modifications in the Roman Building Laws; on a plan for a Baltic canal to the North Sea, to cost \$39,000,000.00; on the shapes of equilibrium curves in arches of various forms and variously loaded, on excavation by means of compressed air, on the relation between earthquakes and terrestrial magnetism, on the design of curved roof trusses, and on a proposed new railway station

in Rome; also, on the materials of construction for first-class railways. There are fifteen pages of notes in the shape of a scientific and bibliographic review of matters home and foreign.

THE annals of the Italian Engineers and Architects not only show eminent attainments, scientific and professional, by its industrious membership, but we find that throughout the Italian peninsula architects and engineers are well organized in local associations and an admirable energy is displayed. Thus we find acknowledgment of exchange of published proceedings with societies of engineers and architects at Alexandria, Bologna, Catania, Florence, Genoa, Milan, Naples, Palermo, Turin and Trieste. Foreign publications are also acknowledged from Austria and Hungary, Belgium, Brazil, France, Germany, England, Holland, Portugal, Russia, Spain, Switzerland and the United States. The number of exchanges from the United States is greater than from any other country except France, and we will modestly add that THE INLAND ARCHITECT heads the list of American publications received in Rome.

WE have elsewhere in this issue made mention of the establishment in a western city of an "Academy of Architecture." Looking over the course of study offered we were altogether disappointed at the nature of the instruction. There are to be courses in mathematics, drawing, mechanics, surveying; courses in plan-making and in specifications, and a brief time is to be given to the history of architectural styles. This instruction is intended to be given in a practical form; all of it is of value, some of it indispensable, to an architect. But does this constitute an architectural education, and will such a training fit a young man to be an architect? Beyond a doubt not a few in the profession, and most outsiders, would answer "yes." Such a course of study honestly pursued fits a man to build, and building is architecture. This is the view of the man of business; this is the view of the architect who follows architecture for what there is in it, and who considers that he has done his duty by his client when he has planned and erected a building that will stand alone. This, in an age whose characteristic feature is the development of material resources, whose largest, at least whose most conspicuous, activities are directed toward tending to that development all that is known or can be discovered of the physical and natural sciences, this, in such an age, is a natural, perhaps a necessary view, directly in keeping with the great impulses that largely control all modern, certainly all American life. Quite likely neither this generation nor the next will see any other notion prevalent among the people generally. None the less building is not architecture; a technical training in applied science, however much it may avail in the education of engineers and constructors, will never be adequate to the education of an architect, and so long as clients are committed to this low view, and the profession permits itself to be ruled by the clientage, the architecture of this country will not be a great architecture.

IF not synonymous with building in what does architecture consist? Definitions rarely define, and the unabridged with its "art of building" does not carry us far on our way, inasmuch as it entirely leaves out that which is of the very essence of the idea, which constitutes the fundamental difference between architecture of building,—namely, the idea of *art* in its highest sense, and we are infinitely nearer the truth if for the "art of building" we substitute "building in accordance with the principles of art." It is of little moment how well your builder understands the nature of

materials and the principles of construction, how well he can heat, ventilate and drain; so long as he deals only with materials and material facts he is not an architect. The architect, like the poet, is a creator; in and through all his facts works the creative mind; his materials are means, not ends; the fire of thought gives to his materials a value above the gift of science and beyond possibility of statement in terms of money. He deals with commonplace things in the most practical of ways, and adapts them to everyday uses, but he is an architect just in the proportion in which he makes practical things accordant with and subservient to an ideal. In short, he must be an artist and an idealist that he may be an architect. In this it is that a course of study, based on material facts, must fail to train up architects even though supplemented by historical analyses of styles and courses in drawing and modeling. In the failure to recognize this fundamental principle is found the explanation of the existence of so many monstrosities in our public and private monuments and buildings. A vocation in which art is a chief factor must indeed be conducted on business principles, but it defies any attempt to adjust its final tests on lines determined by ordinary routine occupations. It may seem highly desirable to the busy man of affairs to measure art in terms of the stock market and to judge its creations as he would a cargo of lumber, but once brought down to that level it has perforce lost that which was its chiefest value, it is salt which has lost its savor. This is the fate that has overtaken much of the architecture of this country. It has descended to the level of a business pure and simple; it has lost its saltiness. Certainly architecture cannot be rehabilitated in its proper guise by an education on purely technical lines. Excellent builders we may get, but never an architect; unless, perchance, in spite of his education, rather than by it.

IF a technical education alone cannot bring forth an architect, what shall be said to the young man asking what studies he must pursue? Never was this question so vital in any country or time as in this country at the present day. We have fairly broken loose from the methods and styles of a decade or so ago. Then to be an architect means to erect buildings after certain forms in vogue as if by authority. For large work scarcely a thought was given to any styles except Renaissance and Gothic, and we add with regret that scarcely a thought was given to them. Folios and photographs set for the architect his limit in forms and details. By holding to his models he might turn out very decent structures ad infinitum; and so long as he held to his folios there was little danger of his doing anything extraordinarily bad. But there was also little incentive to creative work, and the majority of architects were no longer creators but copyists. A copy may be a very fair thing in its way, but viewed from a purely artistic or creative standpoint the best copy is hardly worth a mediocre original; and a copyist is not an architect whether his models be good or bad. It was, then, a great day for architecture when the set styles so long regnant were dethroned and each architect began to cast about to see what he himself could do. The immediate outcome has not been altogether cheerful to behold. When any large body of men who have been working under the restraints imposed by the laws of a fixed and highly developed style are set free from these limitations and left to work out their own ideas, there will inevitably be at first an immense amount of very crude and undigested work. The fruits of an uneducated and unrestrained imagination are fantastic and extravagant. A penalty always attaches to freedom. Yet in freedom is the possibility of progress, and there is more *hope* in one crude

original than in twenty fair copies; and herein lies the encouragement for American architecture. It needs that the untrained mind be trained, that the errant imagination be not quenched but subjected to the control of artistic principle to make an artist of the builder and experimenter, to make, in fine, an architect.

IN a sense it is true that education cannot make an artist; but it is probably no more true of an artist than of a lawyer or a mathematician. Education, unable to give a man capacities, may utterly warp what nature has given him. Hence the war of words concerning the utility of schools of art; the one side claiming that the education of the school of art cramps native force and leads rather to repression and imitation than to creation in accordance with native instinct and talent; the other side asserting that unaided the artist spends months in acquiring technique where, with the knowledge of the schools, days should have sufficed. The freedom which our architecture has even now but acquired we cannot afford to lose through a wrong education. But may not that part of the architect's training which constitutes him something other and more than a mere builder be acquired through an education primarily neither technical nor narrow in scope? From what has been said of the nature of the architect's vocation it is a short and logical step to the conclusion that what he does must be a function of what he is; that that by virtue of which he is an architect must be in his ideas, in his imagination, in him rather than in the materials and the processes of which he makes use. What he most needs today to make it certain that he will no more do crude things or weak things or exaggerated things is a refined perception, an imagination cultivated but controlled, an artistic principle: a refined perception that he will unerringly discern between good and bad, and will shrink from coarseness and brutality in form and detail; an imagination cultivated and controlled that he may conceive his designs in a large and liberal spirit, may create truth, not fantasies; an artistic principle that he may have within himself, a pervading influence and contentment that will suffer him to be neither a copyist nor an experimenter but will impel him to the exercise of his own best powers in accordance with felt laws of beauty.

THESE specialized faculties are to be trained only by culture on broad lines; by close study of all that is best in all art; by an intimate acquaintance with, an entering into the mind of the great dramatists and poets, the great novelists and essayists, the musicians, painters and sculptors. What is not in a man does not come out. To do great work an artist, an architect, must have great thoughts, great inspirations; must be spiritually and mentally alive and impressionable; must feel the beauty of nature and life, like Seyd, seeking beauty everywhere; must be such a one as Emerson describes in the stanza entitled, "Culture." This means a habit of thought, a getting nearer daily to beauty and the heart of things. It is very certain that if beauty is constantly making its subtle appeal to a man, the inspiration that thus fills him will find its expression in his creative work, and will forbid him to do inane things or ugly things. The education that induces this attitude of mind is not to be had in the acquisition of facts or of technique. It is open to any man who will strive to put himself *en rapport* with the great masters of beauty, who so opens himself to impressions that he is being perpetually born again into higher and yet higher appreciation of the beauty that beckons to him on every side. This self-educating, this individual striving after inspiration at first hand is all that can lift our liberated architecture above grossness and triviality, and make it great.

Photography in Architecture.

PART I.—BY FRED D. FOSS.

PHOTOGRAPHY has ceased to be an experiment, and is rapidly reaching a position where it commands an almost universal interest with the general public, and it is found to be indispensable in all arts and professions. The student, the professor, the man of letters, the man of leisure, in fact, anyone may derive infinite pleasure and a vast amount of instruction from the practice of this beautiful and useful art. The exposure of, and the subsequent development, of the photographic negative has been so simplified by the introduction of the dry plates, and the cost of the necessary apparatus so materially reduced that it is now possible for anyone to become proficient in the work at the expenditure of little means—comparatively—and time, and the pleasure derived, not to mention the knowledge gained, will more than offset the monetary outlay. To architects photography is of especial value, for it enables them to indelibly record the progress of their work, be it a one-story frame or a colossal business block. I propose in these articles on photography to give practical information and instruction in the workings of the process that will enable anyone to successfully practice the art, whether it be for pleasure or as a means of record. I shall avoid all technical terms and phrases, and lean to the side of plain English. The practical uses of photography are so well known that a wordy introduction is superfluous, so I shall commence with a list of the articles and apparatus necessary to be procured to make a photographic negative and the prints from the same. Assuming that I am writing principally for architects who desire to make good work as a means of instruction and record, I will avoid a description of what is known as "amateur outfits," and describe a practical and good apparatus that will not only photograph architectural subjects with absolute correctness as to lines, but will also make portraits, should such be desired. The first and most important article of all is the lens, as, by its means, principally, is the action of light conveyed to the sensitized plate. Lenses are made in various styles, and combined in numerous forms to produce different effects. In selecting these the purchaser should plainly state to the dealer the kind or class of work he intends doing, so as to avoid troublesome delays. The simplest form is known as the "single combination." It appears to be but one lens only, though in reality it is two sealed together. One is of flint glass, the other of crown. A judicious or proper combination of the two "achromatizes" them. This single achromatic lens is suited for general landscape work, but not for architectural pictures, as it does not yield *rectilinear* lines, i. e., a picture of a house, where the latter nearly covers the plate, would show the sides of the building *curved* or "barrel-shaped"; on the contrary, reversing the lens and using it in that position on the same subject would render the outlines "mortar-shaped," i. e., curved inward as they approached the center. Hence, to procure strictly rectilinear pictures a combination of the two above stated results must be resorted to, giving what is termed a "double achromatic combination." When very rapid exposures are desired, a lens must be used that will work with its full aperture and at the same time covers the plate sharply. It requires a certain degree of light to act sufficiently on the sensitized plate to produce the proper effects, and, although this period of exposure is reduced to a minimum by the advent of the quick-working dry plates, the lens must be chosen that will best suit the operation. It is not my purport to advertise any particular make of lens or apparatus in these articles, and when any special style of apparatus is recommended it is because it has been used and its practicability thoroughly verified. Thus, when it is desired to make a picture on a 4 x 5, 5 x 7, 6½ x 8½ or 8 x 10 plate, select a lens that is guaranteed by the makers to cover the size plate selected, clearly and sharply, with its full opening, always bearing in mind the class of subjects you desire to photograph. For general landscape, architectural subjects, portraits, groups and instantaneous work, a Dallmeyer, Voigtlander, or a Beck lens is recommended. These lenses vary in price according to the size plate they are to cover, thus, a lens of any of the mentioned makers to cover a 4 x 5 plate costs (about) \$28; a 5 x 7 plate, \$39; a 6½ x 8½ plate, \$48. Of course there are cheaper lenses in the market that are advertised to do work fully equal to the higher priced and better known lenses, but it has been my experience that these do not substantiate the glowing promises of the makers, in fact, I have never been able to get a satisfactory result with anything but first-class apparatus, and I have found that the use of good instruments produces a marked degree of satisfaction in the finished negatives and prints, besides one is not so liable to have black marks recorded against him, when, by the use of a cheap lens, he finds on developing a plate he has spent hours to obtain that the lines of the building appear to have been drawn with a crimping iron. Therefore, I say, get good apparatus. It costs a few—a very few—dollars more at the outset, but the satisfaction derived by making fine correct negatives, with absolute rectilinear lines and a beautiful graduation of tones from the highest lights to

the deepest shadows, more than repays one; so purchase any one of the three mentioned, and if you do not obtain good results it is the fault of the user and not of the lens. The next article of importance is the camera, which may be briefly summed up as a "light tight box." The use and appearance of a camera is so generally known that a description is unnecessary. There are numerous styles of cameras in the market, from the minute "vest pattern" to the gigantic "60 x 60." The most useful size for architects' use is what is known as a "5 x 7." This camera holds a plate of sufficient size to make a negative large enough for all practical purposes, but should a larger picture be desired the 5 x 7 negative can be used to enlarge from, or if one desires to make direct negatives of larger size a larger camera will have to be purchased. For general outdoor viewing where one desires to do general work, the size mentioned (5 x 7) will be found most convenient. Should any architect desire to extensively use photography in connection with his work and make pictures of larger size, then a "four-four" (6½ x 8½ inches) camera will be found very desirable. Perhaps the best, if not the very best, styles of cameras that an architect can possess for general work are those known to the trade as the "Scovill St. Louis Model," and "Blair's Reversible Back," both of the front focusing pattern. The points of excellence in these two cameras are so nearly similar that a description of one will suffice for both. The ground glass of the camera is stationary, the image being focused by means of a screw and rack movement, so that a very fine definition can be obtained. Another object of the stationary focusing screen is, that the focus of the eye does not have to be changed with every change of the screen, thus enabling one to have a clear vision of the screen and retain it while the reflection of the object is being sharply adjusted. Another great advantage possessed by these cameras is the movable ground glass. By a neat arrangement of springs the glass can be drawn back to admit the shield, or more plainly speaking, the plate-holder—in which is placed the unexposed sensitive dry plate—thus entirely doing away with the removing of the ground glass every time an exposure is made.

[To be continued.]

Life and Works of Jean Francois Millet.*

BY WALTER CRANSTON LARNED.

BUT his life at this sad time was not all sadness. His home was happy, and his children gathered about him in the evening with his wife, and delighted him with childish nonsense and village gossip. Hence the tenderness, the spirit of love that pervades his picture of the home. Often does he paint these home scenes, women at the spinning wheel or carding the wool; or perhaps some old grandmother gently teaching the little girl how to knit, and thus early bear her part in the common labor of the household; or again he even takes a domestic scene in which is no tinge of sadness—a fond father and mother teaching their little one to walk. The father holds out his arms and the mother at a little distance from him supports the child, which hesitates to take the few steps alone. Pelloquet says of the "Woman Carding Wool": "If I possessed one of those princely galleries which are the pride of Italy, I would willingly place the 'Woman Carding Wool' between an Andrea del Sarto and a Raphael. I think those two noble geniuses would not blush at such companionship." While the critics in this year, 1863, are thus warring about him, Millet remained quietly at home, and in the evening he would lean upon his garden wall, saying to himself: "Truth is there. Let us fight forever."

And so he works on, painting great pictures when his health, which began to fail him, would allow. His wife is attacked with a serious illness, and he takes her to Vichy for her health. Afterward he goes with Sensier for a little excursion to Alsace and Switzerland which did him much good. At last, in 1868, he was made a Chevalier of the Legion of Honor. It had taken the French government seventeen years to find out that Millet was a great artist. In 1870 he was made one of the judges of the Salon, hence this year marks his final triumph.

Then came the Revolution, the Commune and the Prussians. Millet is driven from Barbizon by the advancing Uhlans and goes to Cherbourg, where he is so much affected by the woes of France that he cannot paint at all for a while. But at last he paints from his windows at Cherbourg some wonderful pictures of the sea. Of one of them called "Earth, Heaven and Sea," Silvester says: "This picture felt and expressed like a psalm, is not a composition, although art's labor is consummated in it. It is an effusion. It is all light, all soul—this painted poem—of an originality most powerful and calm, an originality achieved and not altered by study, reifying only on itself, although profoundly subjected to nature, and bound by a spiritual relationship to all that is beautiful, to the Bible, to Homer, to Dante, to Michael Angelo, to Ostade, to Ruysdale, to Claude."

And now at last the fierce struggle is over. All around are heard words of enthusiastic admiration. Orders pour in upon the artist from every side, and his pictures sell readily at prices which would have merely dazzled him a few years before. The truth has conquered. The great, self-sacrificing labor of a lifetime sees for a brief moment a full reward. More than the money or the comfort it brings to one long used to grinding poverty, is the peace which comes to his tortured spirit as he feels his life, so heroically offered at the shrine of truth, has not been a vain offering; and as the proud, glad thought possesses him, that his message has reached the artist heart of the world, almost a dead heart before he came, and with somewhat of that power which raises the dead to life, has thrilled

*Lecture delivered before the Art Institute of Chicago, February 8, 1887. Continued from page 94, Vol. IX, No. 10.

the very souls of artists and thus become the harbinger of a new era. But alas! It is too late. There is no earthly joy for this sad, gentle soul. With slow and feeble steps he is walking with his beloved Sensier amid the dear scenes of his youth. A stranger lives in the Millet homestead. Long since it has been given—an offering to their poverty. But the old trees are there, and the gaunt rocks whereon the surf booms. Yonder is the hillside on which the sower sowed as the oxen wended homeward; and there is the well, embowered in green vines whose glossy leaves reflect still the sunlight which irradiated the simple, loving wife who carried water thence, burdening all her strength that she might serve without complaint the man of her love. The window still is there at which sat the sainted grandmother, patiently turning her wheel, or guiding gently the clumsy fingers of the little maid who must needs learn to knit. Through that low door had often entered the poor to find warm help; and thence had come forth the poet-peasant father in the early morning, unfolding, as he went to work, nature's secrets of beauty to the eager lad. Yes, all is there. The sweet memories of childhood crowd fast upon him, and dim with tears those deep, true eyes, already dimmed by the fast-coming mists of death. Weary, sad, ready to lay down the burden of life he had found so heavy, he still tries to work, and does indeed complete for Mr. Shaw his glorious picture of the "Priory of Vauville." But it is the last time. Returning to Barbizon, the scene both of his bitter trials and his rapturous communions with nature, he lays him down to die. He feels that he dies too soon. He seems called away at the very zenith of his power, when the secrets of life and nature lie before him like an open book, and his trained eye and hand could unerringly trace those glorious mysteries which were revealed to him. But so it is. As he lies patiently there awaiting the final summons, a stag chased by the hunters flies toward him and is slain almost within his sight. Millet who had never loved hunters, sees in the fate of the poor stag an omen of his own doom. Truly it was a fit omen. All his life he had been hunted. The hounds had always been on his track. He had found no pity these many years, but like the stag he had not complained. Nor did he complain now, but calmly breathed his last. This was on the 20th of January, 1875.

It does not seem meet that the sad picture of the dying stag should be alone associated with the last moments of this great man. As the unfinished "transfiguration" stood by the bedside of Raphael, so should the "Angelus" hang above the couch whereon lay the dead Millet. For it tells of a life of labor, hard and unceasing. The man and the woman alike must share it. They must leave the beauty of their youth, and the gayeties that youth loves, and harden their young muscles by stern toil until the joints stiffen, and the comeliness all departs. But ah, the light above them! How it irradiates the sky! There is in it peace and rest for them; nay, more; there is beyond it the raptures of the Cherubim and Seraphim, the heavenly music, in whose strains they, too, may ere long bear a part. All the evening air is tremulous with the tones of the far-away bells, coming softly, as though they loved to fly through the radiant air. In these peasant hearts the "Angelus" tones find full response. There is reverence, love and faith within them. No labor and no sorrow shall stifle these, and when the "Angelus" bell rings for them the last time, it will summon them to the unfailing treasures they have laid up beyond, to the joy and light, and the life which shall be theirs forever.

The deepest and most vital quality of Millet's method of painting is the use of all his artistic resources as a means of expressing something, and never as an object in themselves. This is not the usual French idea. M. Taine's maxim, "art for art's sake" means something very different from this, for it implies that the dexterity of a painter may, in itself, be enough to make his pictures true works of art, without regard to the dignity or value of their subjects. Many painters follow this theory, and content themselves with the brilliant execution of difficult feats of technique. Millet was more in accord with the best English critics, in believing that art is a means of expression. Lessing certainly teaches the same idea, but he regards beauty as the highest end and aim of art. If the finished picture or statue is not beautiful, it is not true art, according to the great German critic. Taking this thought of Lessing's as a text, some have spoken and written in disparagement of Millet's work, because, at times, he certainly is careless about this law of beauty. Millet thought truth was the highest thing in art, and, as all truths are not beautiful, so some of his pictures, which deal with painful subjects, cannot be called beautiful in Lessing's sense of the word. The "Vineyard Worker Resting," the "Man with the Hoe," and the famous "Woodcutter" are not beautiful pictures. Their object is not beauty, but faithful telling of sad truth. The question about such pictures will ever be—Was the truth worth the telling, and has the artist told it faithfully? Millet himself believed that he was called to paint the peasant life of France, in much the same way as a missionary thinks he is called to preach the gospel, hence he did not hesitate to paint the sad, the painful, even the repulsive parts of it, as well as its poetic, hopeful and almost joyous side. The critics, however, will perhaps be right, when considering these painful pictures independently of their relation to the artist's lifework, in holding them of less value, merely as works of art, than those which are at the same time beautiful and truthful. Doubtless the "Angelus" is a greater picture than the "Man with the Hoe." But enough has been said to define clearly the determining principle of Millet's work. It remains to study the way in which he expressed the truths he saw. The quality most noticeable in his method is the wonderful breadth of his characterization. His figures are history in themselves, and often a most comprehensive history. Everything about them is expressive; face, form, attitude, drapery, color, surroundings, whether landscape or interior, there is nothing that does not help express the central truth. Much attention to minute detail would be incompatible with the artist's purpose, hence he paints in broad masses, appreciating, as Barye did, the value and grand simplicity of these. The eye is not confused by many lines, complicated tones, and intricate effects of light and shade, but perceives directly the painter's meaning. Simple as this treatment may seem to those who do not know how much study and mastery of technical matters it requires, nevertheless it is the grand manner in art, and distinguishes many of the world's greatest masters, both in the classic

days and in the times of the Renaissance. Michael Angelo painted in this massively simple way, and, indeed, Millet has often been compared with this mighty man. With both truth and powerful expression of it were sought with the entire fervor and devotion of an artist soul, and both found in simplicity, combined with breadth and heroic grandeur of treatment, the best means for expressing deep truths through art. Let no young artist think, however, that he can attain Millet's power of expression, or anything approaching it, merely by copying his manner. Much deeper study is required before a painter can omit details, and paint broadly, than is required for merely literal work, because an artist must have a thorough knowledge of all the elements composing a subject before he can determine which are essential and which are not, what may be left out, and the proper degree of force with which to emphasize each one of the selected elements which are to remain in the finished work. So strongly did our own George Fuller realize this, that he is said to have painted his most ideal pictures in the first place from a model, with as nearly literal and detailed accuracy as he could command. Then he would put the picture out of his sight for a time and think about it, seeking to impress upon his own mind the essential elements of the art thought he wished to embody. Afterward he would again approach his canvas and deliberately paint out all he thought unnecessary, all which did not help express the central idea.

Probably the rejection of the superfluous is to an artist a harder task than the literal copying. This is what the school of the so-called impressionists aims at, and it may be truly said that in one sense Millet was an impressionist, the greatest of them all. But there is a sense in which Millet does not at all resemble most impressionists. They often aim to produce in their pictures the same effect which would be produced upon the eye at the first glance upon some scene in nature or human figure, before more careful examination has had time to reveal anything except the chief truth. Such pictures often produce a strong effect at first, but afterward it is seen that they are unnatural, and sometimes much strained and exaggerated. Millet's aim was far deeper than this. He was not merely seeking the best way of producing by his pictures the same effect upon the eye which a first glance at the subject in nature would produce, but he wished rather to impress the mind with the very deepest truth involved therein. If he would do this thoroughly he must never paint untruly or carelessly, but, on the contrary, with the utmost fidelity not only to the truth of surface, form and color, but to the inward truth of life and character. This will be better understood by considering some particular picture. In looking at "The Sower," for example, the eye is impressed at the first glance, much as it would be by the actual scene. The dark figure, with its majestic stride, outlined somewhat dimly in the fading light against the plowed field and sky mellow with the tints of sunset—all this the eye would see directly, and Millet produces this impression by means similar to those used by painters of the impressionist school. But this is not all. Deeper study of the picture reveals more and more of truth and meaning. It is seen that the "Sower's" movement and gesture are grand, rhythmic and strong; that his face is serious and earnest, suggestive of a feeling almost religious. It is felt that he is truly a French peasant, a toiler of the field, who toils as his fathers did before him for generations. The oxen, turning homeward, after finishing the last furrow, suggest a hope of rest for them which contrasts strongly with the sower's continued labor. The man works on when even the patient ox yields to fatigue. The birds, which flock in the air above the field, ready to seize what they can of the newly scattered grain, tell of the continuous struggle of man for existence, for the forces of destruction threaten the fruit of his labor, even from the beginning.

A picture cannot mean so much as this unless it is true not only to the outward seeming of nature and man, but also to the deep meaning of the human life, depicted in its harmonious relation to the natural scene.

The picture is painted with Millet's strongest and broadest manner, and with the utmost force of characterization which he possessed, and it illustrates, as well as any, the power of his method and its success in impressing thought.

He used the vividness and intensity of the impressionist school, studiously and carefully, to make it tell all he knew of the subject's deepest truth—a rare combination, indeed, and one which has few parallels in the history of art.

The method of Millet has thus far been spoken of in a somewhat general way, and without attempting to point out the particular qualities of his technique in the strictly artistic sense of the word. How did he draw? Was he a colorist? Could he, like Rembrandt, produce powerful effects of light and shade? Was he master of composition? Such questions as these will always be asked by any artist, or student of art, about the works of a painter. As a draughtsman Millet is practically beyond criticism, especially in drawing the human figure. This is the more remarkable because he rarely painted from a model. He had so deeply studied his subjects from life with an observation of simply marvelous acuteness, that he did not need the actual presence of the peasants, in order to put upon canvas what was already accurately drawn and painted in his mind. This power of rapid, truthful drawing was always a distinguishing characteristic of the man. It was born in him, but, nevertheless, it was most highly developed by hard and patient study in the rigorous French school. He studied from the nude figure, and became a thorough master of its varied curves, its articulations, the strength and delicacy of its tones, and the expression of power, in its differing attitudes and poises. Having thus learned what the schools could teach him about drawing and painting the human figure scientifically, he began to study the forms of the particular men and women whom he was to paint, and to depict what were the characteristics which distinguished them from the ideally perfect grace and beauty of the human form. Hence came it that his drawing had so much character. He knew exactly how to emphasize the effects which long continued toil impresses upon the face and form. In the "Angelus," for example, it is clear that the joints of the figures have been stiffened by hard labor, and all grace of suppleness is lost, but it is also clear that great strength of body is there, and with strength there is always a kind of grace. The charm of the picture

comes mostly from its spirit, but the drawing is so full of character that it preserves a certain beauty of line and poise where most artists would find little but awkward heaviness. Whatever quality of beauty, grace, strength, stiffness, or even awkwardness, he wished to emphasize, his rapid, facile, highly-trained pencil never failed him. Always the touch was sure to produce the exact effect desired, because it was guided by science and study of life, and also directed by that deeper truthfulness, still, which comes from real sympathy and poetic inspiration.

As a colorist Millet has often been criticised. Certainly he was not a colorist in the sense that Delacroix and Decamps were, that is his pictures were not chiefly remarkable for color. The color was always subservient to the thought, and was not with him so potent a means of expression as form. According to Ruskin form has more to do than color with the vital expression of artistic truths. Color savors more of the accidental. Form has greater permanency. The broad and lofty forehead of the man of mind, the wrinkles which a long life has chiseled upon the aged face, the stiffness which unremitting labor brings to the limbs, the grace of rhythmic motion, the expressive power of attitude, poise, and above all features molded in differing ways by feelings light or deep—all these have to do with form rather than color. To tell through plastic art the agony of a Laocoon is a harder task and needs more of art's deepest truth than to paint the rosy skin of a fair young girl. The greatest painting, then, will emphasize form rather than color, since it cannot otherwise so well express the deepest truths. So was it with Millet. Since truth was always his aim he laid most stress upon that which would best express it. Compare his works for a moment with those of a man like Monticelli with whom color was the chief aim. No man can say that Monticelli's pictures are true in any deep way. They are gorgeous and splendid. The eye rests upon them with pleasure, for their harmonies are lovely, their richness is superb, and their voluptuous softness steals over the senses like a dream, but it is often hard to say what they mean, or whether they mean anything more than that the rainbow and the prism give the joy of lovely hues. This cannot be said with equal truth of Delacroix and Decamps, for there was much in their pictures beside beauty of color; nevertheless it is true that they did not express or try to express such deep truths as filled the thoughts of Millet.

But it cannot be said that Millet was lacking as a colorist. While his color, like everything else, was subservient to the thought he wished to express, it was nevertheless beautiful, harmonious, and at times so lovely as to give his pictures something of the charm which comes from color alone. He loved the more delicate tints, and was sparing in his use of red. In the "Sower" the whole tone is deep and rich. In the "Angelus" the sunset sky is radiant thought, its tints are of silver rather than gold. In the "Potato Planters" there is a mellow radiance, subdued indeed, but full of the beauty of sunshine. The sunlit blue and green of the "Water Carrier" is most delicately lovely. In the "Feeding the Chickens" there is a warmth and radiance which suggests, if it does not equal, the glowing canvases of Decamps.

It does seem strange that one who painted with such rugged force, such almost stern devotion to truth, whether lovely or not, should have used so little impasto, so few of the artificial means by which a mere colorist is wont to heighten and emphasize his effects. Nevertheless the explanation is simple. He used color as he used form, merely as one of the means which his art gave him for the expression of his thought. Judged by this standard his color is always good, and often admirable. Certainly it is never inharmonious, nor does it ever force itself upon the eye in such wise as to obstruct the vision of things deeper and more spiritual.

Millet's pictures are always excellent in tone, that is in the relations of the colors to each other, and in the effect of light and shade upon them, and he may perhaps have had something of that spirit so characteristic of modern French art, which is ever prone to sacrifice pure color to tone relation. Corot has followed this idea as far as true art allows. Millet followed it too, but in no exaggerated way. He was impelled to follow it because general tone relation sympathized more with the entire expressiveness of his pictures than was possible for the beauty of color pure and simple.

So, too, in his management of light and shade, there is no exaggeration, but much artistic expressiveness. The secret of Rembrandt's wonderful chiaroscuro, and the effect it gives his pictures is thus explained by Henri Havard, in his work on the Dutch School of Painting. "The old German painters, the early Flemings, the Dutch of the first period, certain even of Rembrandt's contemporaries, had endeavored to give to their compositions an almost uniform light, assigning the same relief and the same importance to all objects, treating accessory points with inflexible precision, omitting nothing, and neglecting nothing. Rembrandt, however, like a great master, proceeded in a totally different manner; he placed the important facts of his picture in a clear light, and plunged the rest into shade. But his shadows are never 'a means of veiling weak points, or of slurring over difficulties.' They are, on the contrary, transparent and luminous. 'Through them all the accessories which complete the action, or explain the scene can be distinguished.' Details are not neglected, 'but thanks to the light and shade, nothing ever usurps an importance which is not its due. No point escapes our eye or evades our curiosity, but we return instinctively to the salient features, the essential part of the picture, which, in all this great artist's works, stands out prominently in strong light.'"

This is in one sense true of Millet also, although he did not lay so much stress upon effects of light and shade as did Rembrandt. Like his drawing and his color, chiaroscuro was also to him merely a means of expression, and used with rigid subordination to that end. In one way, he uses chiaroscuro with a greater variety of expressiveness than did Rembrandt, for while the latter almost always brings out his figures in strong light, against a dark background, Millet sometimes puts the figures in deep shadow, while the background is luminous. This is true of the "Sower" and also of the "Angelus," his two greatest pictures. The reason is plain, though full of profoundest meaning in both cases. The central fact of each picture is earnest, religious faithfulness to duty in the

hard and homely peasant life, and also the beauty, dignity and poetry of such faithfulness. Lives of duty, however homely, are beautiful even upon this earth, but their beauty is fitly emphasized by an upward look toward the heavens above. Indeed it must have seemed to the sad Millet that the real and poetic beauty of such lives could not be clearly shown in the toil-bent frame of the laborer, nor in his field, though made fruitful by unceasing work, without bending above him the heaven luminous, tender, restful, opening its portals of joy and peace to the humblest of earth's wayfarers, whose faithful soul leaves the toil-spent body to find an eternal reward.

The man and the woman in the "Angelus" are still in the shadow, but the light is above them, and already touches their hearts which thrill responsive to the church bell's tone, sounding forth peace, good will to men.

This is as true and deep a use of light and shade as can be found anywhere, although contrary to Rembrandt's method of throwing strong light upon the important figures always.

These thoughts lead to a consideration of Millet's composition. The keynote here is harmony. The figures and the landscape or other surroundings must be component parts of an entire whole. No part must be slighted for any other, but all brought together in perfect relation, with due emphasis upon that which has most dignity.

Thus Millet was not wholly a figure painter, nor entirely a landscape painter. He painted pictures in which both the figures and the landscape wrought together in embodying a single art thought. The mysterious poetic quality of his shepherd figures is often greatly enhanced by uncertain moonlight, or deepening twilight shadows, and yet the full light of a noon-day sun in summer will sometimes, with equal force, help express the artist's meaning. Always the keynote was to make man and nature harmonize, and in this is one most weighty element of Millet's power. Properly to blend the spiritual, the mental, the aesthetic and the sensual was the problem of Wagner's life, and so was it in the art of Millet. Both have succeeded in differing ways, though here and there a fault appears either in the thought or the expression of it. As to the technical rules of composition, Millet must be held a master, so much so that he worked within their limits as easily as a poet does within the laws of meter and rhyme. He may have laid special emphasis upon the laws of principality and expression, but he certainly did not neglect those which enforce harmony, simplicity, contrast and balance.

But it is idle thus to analyze the powers of Millet. One might as well uproot a plant to learn its secret of growth, or tear the petals from a rose to find the source of all its fragrant loveliness. The real, deep, inspiring essence of his art is true poetry. He finds the grand, even the sublime in every little thing that touches human life. He reverences man as man, because he feels that there is no human brow which has not been sealed with the imprint of immortality. Real poetry is the deepest expression of truth known to man. That art is most real, most abiding which has in it most of that deep power whose roots strike down far into the spiritual and undying part of man's nature.

"In the sweat of thy brow shalt thou eat bread," saith Genesis, "well done good and faithful servant," saith the fulfillment of the law. In the law as old as man, and in the promise which reaches into the eternal must be sought the secret of Millet's artistic and poetic power.

[Concluded.]

Engineering Training at Vanderbilt University.

PERHAPS no other indication of a healthful development in the South is more reliable than that southern educational systems are making rapid strides, and are yielding encouraging results both quantitatively and qualitatively. Not only is this true of academic culture, but in industrial education this hitherto agricultural section is laying the safest foundation for her industrial development by providing her own technical schools.

Among the foremost of these is the engineering department of Vanderbilt University, Nashville, Tennessee, which, though but recently established, already has sent out well-trained, energetic young men into positions of usefulness and responsibility in nearly every southern state, and so well is this movement appreciated that the applications for young men to take positions during the past year have been so numerous that it has been almost impossible to retain the men until graduation. Every man in the senior class this year received important positions before the close of the session, and many of the undergraduates are filling positions of trust.

The technical instruction is of two kinds: Engineering instruction proper, and manual training.

It is the aim of the engineering training:

1. To provide theoretical and practical instruction in the general subjects in the profession of the engineer, and to provide special technical training in one or more of the several subdivisions of engineering.

2. To combine with class and lecture instruction such actual work of the nature of instrumental practice, field work, shop work, drafting and laboratory practice, conception and execution of plans, projects and designs, as shall illustrate the application of theory to practice, and qualify graduates to occupy at once subordinate positions while acquiring professional experience.

The scheme of instruction in the regular courses of engineering comprises a three-years' course of general engineering studies essential to a broad and thorough training in any branch of the profession. This is followed by a two-years' course of specialized study and practice pertaining directly to some one branch of engineering. Such courses have been organized and equipped for the three leading divisions of the profession, viz: civil, mechanical and mining engineering, either of which may be selected by the student on the completion of the general course.

Visits of inspection are made to structures and operations of professional interest in and about the city. Nashville, as an important commercial center of railroad and river communication, necessitating important buildings, bridges, water and gas works, manufactures and processes, affords excellent facilities for such inspection and study. Field-parties in

surveying and road-engineering are regularly organized and directed by the instructors. Ample facilities for drawing are furnished in two drawing-rooms, provided with individual drawing desks and boards, models, designs, and plates.

The equipment of engineering instruments, models and specimens is extensive, and the collection will be constantly increasing.

Well-equipped wood and machine shops, under the direction of skilled artisan instructors, furnish practical instruction in woodwork and metal work.

The molding shop, casting shop and forge shop will shortly be furnished extensive quarters in a new shop building now being provided for these and other mechanical purposes.

Experimental apparatus and appliances for testing engines and boilers, as well as the character and strength of constructive materials, are provided and are regularly employed by the students.

The purpose of the organization of the other branch of instruction—viz: Manual technology—is to supply a course of mechanical instruction shorter and more elementary in character than the regular courses in engineering, but comprising studies and practical work so related as to be, for its scope, fairly complete in itself, and to constitute a valuable preparatory training for young men who intend to become skilled artisans, designers, constructors, managers or superintendents of mechanical operations and enterprises, as well as for those who, recognizing the educating value of a rational system of manual and mechanical training, desire such a course as a part of their general education. The plan of instruction comprises a foundation of the principles of mathematics, physics, mechanics and drawing, on which is given thorough instruction in the proper application of these principles to the more prominent constructive operations and mechanical trades, illustrated and put into execution in the drafting rooms and shops.

The prime object of the course is to teach young men the habits and methods of doing whatever they undertake thoughtfully and rationally, to train them to think about their work, and to work as their thoughts direct, to know the reason, and to have a definite object for every step taken; in short, to install the mind, properly trained, as the ruler of the hand, and to teach it to guide, to ease, and to render more efficient the efforts of the hand.

The course extends through two years, and unites contemporaneously class instruction and shop work in subjects closely related.

The forenoons are devoted to class work and drafting, and the afternoons are regularly assigned to the several shops in exercises three hours in length.

It is worthy of special notice that from the heavy outlay necessary to establish and maintain well equipped technological schools, tuition in them has hitherto always been expensive, and often beyond the reach of young men of moderate means. The munificence of the Vanderbilts—father and son—has, however, placed the cost of tuition at Vanderbilt so low as to present a barrier to no one; in fact, tuition is entirely free to any student in manual technology, and the class in road engineering is open, free of charge, to one properly qualified highway official or deputy from each county. These privileges are not restricted to state lines, but are limited only by the capacity of the institution, and should cause the Vanderbilt to be recognized as one of the strong agencies in the material development of the country, as it has ever been a leading power in intellectual culture.

Correspondence.

Editors Inland Architect: COLUMBUS, Ohio, August 30, 1887.

An article in your Intermediate number for August causes me to ask a question or two.

You speak, in said article, of the city hall and chamber of commerce competitions at Cincinnati as though one was "successful" and the other was not. What features in the latter did you wish to commend? Was it the fact that in one case the premiums were paid to competitors selected before the competition, while in the other the premiums advertised were to be paid for the best designs? or was it the fact that in one case the designs were submitted under *nom de plume*, and in the other the names were given and the designs exhibited to the public before the decision?

You also speak of a proposed competition at Kansas City in which four architects are to be paid, and others invited without pay, as an "extremely fair competition." If that is a "fair" competition, please give us your idea of one that would not be "fair." Respectfully yours,

J. W. YOST.

[In the editorial spoken of we referred to the circular issued by the church committee, not having space to publish it in full. We have certainly spoken sufficiently upon the subject of competitions for a number of years to make our position on the subject clearly understood. It is, in a word, that taken by the Western Association of Architects. That competitions are an evil, but must be recognized. To do this seemed possible. A committee gave a year to the consideration of a method by which architects could enter a competition with professional honor. A code was formulated and adopted as the only rule under which architects could enter, and every member of the association is pledged to promote its use. The Cincinnati chamber of commerce competition was after the general provisions of this code, three vital points being that architects were paid for sketches submitted; that an expert adjudicated the drawings, and drawings were submitted under a *nom de plume* or motto. The city hall competition was a simple advertisement that the board "invite competition in design for a new city hall." The fact that the Grace Church invitation calls for drawings under motto, and offers to pay for the sketches submitted, returning those not adopted, is much in its favor. The way in which the Cincinnati city hall and also the armory competitions were entered into by

leading members of the profession in the state after the positive stand taken by the State Association and adoption of the code, was a most serious mistake on the part of the individuals concerned. We mean most emphatically to state that it is better to employ a reliable architect, at the schedule price, than to attempt to obtain architectural services by any form of competition, but that the only form that can be countenanced is the code referred to. Architects who enter into others, not only risk their professional reputation, but do much damage to the standing of the profession in general.—EDITORS INLAND ARCHITECT.]

Editors Inland Architect:

ERIE, Pa., August 29, 1887.

I see in your issue of June last a notice of a new method of supporting walls, when necessary to remove the lower part of same and place supports consisting of columns and beams, giving credit to Mr. F. Baumann, of Chicago, as the originator of the method. While giving Mr. Baumann all credit due as the inaugurator of a new idea, I will say that I have used exactly the same method for the purpose during ten years past, and on many buildings. Yours respectfully,

D. K. DEAN.

Association Notes.

WESTERN ASSOCIATION OF ARCHITECTS.—Convention will be held November 16, 1887, at Cincinnati. J. F. Alexander, La Fayette, Ind., secretary; W. L. B. Jenney, Chicago, secretary of foreign correspondence.

NATIONAL ASSOCIATION OF BUILDERS OF THE UNITED STATES OF AMERICA.—Convention will be held the first Tuesday in February, 1888, at Cincinnati. Wm. H. Sayward, Boston, secretary.

ILLINOIS STATE ASSOCIATION OF ARCHITECTS meets the first Saturday of every month, at 15 East Washington street, Chicago. Annual meeting first Thursday in October, 1887. Clarence L. Stiles, Chicago, secretary.

INDIANA STATE ASSOCIATION OF ARCHITECTS meets on the fourth Wednesdays of January, April, July and October of each year. Annual meeting fourth Wednesday in October. E. H. Ketcham, Indianapolis, secretary.

MISSOURI STATE ASSOCIATION OF ARCHITECTS meets at Kansas City on the second Tuesday in January, 1888. Charles E. Illsley, St. Louis, secretary.

THE ARCHITECTURAL ASSOCIATION OF IOWA, annual meeting, second Wednesday of August, 1887, at Spirit Lake. F. D. Hyde, Dubuque, secretary.

THE ARCHITECTURAL ASSOCIATION OF MINNESOTA meets every other Tuesday at Minneapolis and St. Paul alternately. Annual meeting January 3, 1888. F. G. Corser, Minneapolis, secretary.

KANSAS STATE ASSOCIATION OF ARCHITECTS meets at Wichita on the third Tuesday of January, 1888. J. C. Holland, Topeka, secretary.

ASSOCIATION OF ALABAMA ARCHITECTS.—John Sutcliffe, Birmingham, secretary.

ASSOCIATION OF OHIO ARCHITECTS meets annually. Next meeting third Thursday in August, 1888, at Cleveland. F. A. Coburn, Cleveland, secretary.

ASSOCIATION OF TENNESSEE ARCHITECTS meets bi-monthly. Annual meeting third Thursday in February, 1888, at Memphis. T. L. Dismukes, Nashville, secretary.

ASSOCIATION OF TEXAS ARCHITECTS meets at Houston on the third Tuesday of January, 1888. S. A. J. Preston, Austin, secretary.

KENTUCKY STATE ASSOCIATION OF ARCHITECTS meets at Louisville first Thursday in each month. O. C. Wehle, Louisville, secretary.

LOUISIANA STATE ASSOCIATION OF ARCHITECTS meets first Wednesdays in May, August, November and February. Annual meeting in February. W. C. Williams, New Orleans, secretary.

KANSAS CITY SOCIETY OF ARCHITECTS meets Monday afternoon of each week, at 4 o'clock. Annual meeting second Saturday in April, 1887. F. B. Hamilton, secretary.

NEBRASKA STATE ASSOCIATION OF ARCHITECTS meets first Wednesdays in January, April, July and October each year. F. M. Ellis, Omaha, secretary.

WISCONSIN STATE ASSOCIATION OF ARCHITECTS meets first Monday of each month. Annual meeting first Monday after first Sunday in January. Howard Russell, Milwaukee, secretary.

BUFFALO SOCIETY OF ARCHITECTS meets first and third Tuesdays each month. W. W. Carlin, secretary.

THE CHICAGO ARCHITECTURAL SKETCH CLUB meets every alternate Monday, Builders' and Traders' Exchange. W. G. Williamson, secretary.

THE WESTERN SOCIETY OF ENGINEERS meets the first and third Tuesdays of each month at 4 o'clock, P. M., at 15 East Washington street, Chicago.

LOUISIANA STATE ASSOCIATION OF ARCHITECTS.

The August meeting of this association was called to order at the office of Messrs. Williams & Patton, Wednesday, August 3, at 8 o'clock P. M., Thomas Sully in the chair. There were present: Architects B. M. Harrod, William Fitzner, A. Toledano and S. M. Patton.

In the matter of Mr. James Freret, who had postponed joining the association until he learned whether he would be positively prohibited taking contracts, Mr. Sully reported that he had heard from the secretary of the Western Association of Architects that the status of an architect, as defined in the constitution, was absolute.

It was moved, seconded and carried that a committee be appointed to act in concert with a committee from the Mechanics', Dealers and Lumber-

man's Exchange, in regard to having suitable building laws passed by the City Council.

The president then appointed Messrs. Harrod, Fitzner and Patton to comprise this committee.

On motion of Mr. Toledano, seconded by Mr. Fitzner, and carried, an assessment of \$10 was levied upon each member of the association to meet the current expenses; this assessment to be paid within thirty days after date of meeting.

On motion of Mr. Toledano, which was seconded and carried, the secretary was authorized to have five hundred copies of the schedule of prices printed and distributed pro-rata among the members of the association.

It was moved by Mr. Harrod that individual application be made by the members of the association for admission to the Western Association of Architects. Carried.

The meeting then adjourned until the first Monday in November.

AMERICAN INSTITUTE OF ARCHITECTS.

The twenty-first annual convention of the American Institute of Architects will be held in Chicago, October 19, 20, 21. Preliminary to the regular programme the secretary, A. J. Bloor, has issued the following letter to the president and secretary of each chapter, inclosing, as will be seen, another letter to be handed by them to a member of their organization, who is thereby requested to present the convention with a paper on the paramount requirements for some designated structure with which the blank space is to be filled in.

AMERICAN INSTITUTE OF ARCHITECTS,
18 Broadway, N.Y., August 10, 1887.

—, Esq., Pres't. }
—, Esq., Sec'y. } Chapter A. I. A.

DEAR SIR,—Referring to the approaching twenty-first convention of the A. I. A., to be held in Chicago, permit me to call your attention to the inclosed copy of circular letter, and to ask you to fill in the blank, and let me know the name of some member of your chapter who would be likely to respond with a paper on the kind of structure chosen for treatment.

I would also suggest that another member of your chapter be selected to prepare some condensed "Suggestions toward the best and speediest methods for harmonizing and utilizing all the architectural societies in the United States, so as to secure the most good for architecture, for the public, and for the profession in America; due regard being had, as concerns means, alike to individual energy and enthusiasm, and to associative experience; and as concerns ends, alike to local sentiment and to national reputation."

And if you think it compatible with the interprofessional relations and other conditions of your locality, I beg moreover to suggest that still another member might be selected to prepare a brief resumé of the high-class architectural work lately executed in your neighborhood. Or, if preferred, the secretary of your chapter might embody this in his annual report to the institute.

As the make up of the programme will depend on the information received in regard to the above-mentioned points, an early answer is particularly requested.

Yours respectfully, A. J. BLOOR, Secretary.
For Messrs. W. L. B. Jenney, E. T. Littell, H. L. Gay, and myself, Committee of Arrangements, Twenty-first Convention, A. I. A.

AMERICAN INSTITUTE OF ARCHITECTS,
18 Broadway, New York, August 10, 1887.

DEAR SIR,—Desiring to make the approaching Twenty-first Convention of the Institute an interesting one, I beg to ask you to prepare, if at all consonant with your engagements, a short paper on "The paramount requirements of a large —," as regards site, construction, disposition of space, arrangements for water supply, day and night illumination, ingress and exit, heating, ventilation, hygiene generally, and provision against conflagration, as well as any other points involved in this special theme, which your studies and experience have led you to class as important.

As style is generally conceded to be a matter of taste, chiefly dependent on education or temperament, environment, or fashion, or on a combination of these, I have not included it under paramount requirements; but it is, nevertheless, the crowning element of an edifice in its relation with the contemporary public (outside of its occupants and habits), and with posterity and history; and, if you think it best to enter such a wide field of your subject, the convention will doubtless be very glad to hear what a fellow specialist of your prominence may desire to say on it.

The paper should be as brief as possible, to allow time for the reading of other papers, and for the discussion of all as well as for the usual large amount of routine work. It need not be delivered to the secretary before October 1 ensuing; but if you accept the obligation I have the honor to propose to you, a speedy answer is requested, as the programme of the convention must be published shortly.

Yours respectfully,
A. J. BLOOR, Secretary.

It is proposed to collect drawings for exhibition first at the A. I. A. convention in Chicago (to open probably on second Wednesday of October), and afterward at the W. A. A. convention in Cincinnati, Nov. 16. Those illustrative of your theme would be particularly acceptable.

CHICAGO CHAPTER A. I. A.

At a meeting of the Chicago Chapter A. I. A., held August 23, 1887 called by the president, Architect L. D. Cleaveland, the following resolution was passed:

Resolved, That the president of this chapter appoint a committee of such size as he may deem expedient, and that such committee have power to act with the committee of the Illinois State Association in making arrangements for receiving the American Institute of Architects at the convention of that body, to be held in this city on the 19th of October, 1887.

The following members of the Chicago Chapter, A. I. A., were appointed to serve on this committee:

Architects William W. Clay, S. V. Shipman, F. M. Whitehouse, L. L. Silsbee, John Addison, Henry W. Hill and William Holabird.

It is earnestly desired that each member of this committee will take a personal interest in making this meeting of the institute as pleasant and entertaining as possible, and that they will feel themselves at liberty to call to their assistance other members of the chapter, if they desire their coöperation. A meeting of the joint committee of the above members of the chapter and the executive committee of the Illinois State Association is called for Tuesday evening, September 15, when final arrangements will be made. Every member is expected to be present.

NORTHWESTERN ASSOCIATION OF THE INSTITUTE OF TECHNOLOGY.

The Northwestern Association of the Massachusetts Institute of Technology, which was formed some months ago, and is composed of graduates of that institute, will give a banquet at the Hotel Richelieu, Chicago, at which the general business of the association will be transacted. The banquet will occur September 10, at 7:30 P. M., and it is expected that a full attendance of the former members of the Institute of Technology will be present.

THE ARCHITECTURAL LEAGUE OF NEW YORK.

The following circular letters are issued preliminary to the next exhibition of the league in New York:

DEAR SIR,—In sending the accompanying circular, with reference to the next exhibition of the Architectural League, the committee has been much hampered by inaccuracies in the list of architects, at its disposal.

Would you, in view of the non-existence of any comprehensive and definite information as to American Architects, be disposed to fill out the inclosed blank and forward it to the secretary of the league?

The secretary will, in return, be most happy to send you on request a compend of the results of this inquiry.

Respectfully yours,
CHARLES I. BERG, Secretary.

August 1, 1887.

To Charles I. Berg, Secretary Architectural League, No. 152 Fifth Avenue, New York.

My name, correctly spelled, is.....
My address.....
I studied at.....
I began practice.....
My principal works and their dates are.....
In this place prominent architects are.....
Signed,.....

ARCHITECTURAL LEAGUE, 1887-'88.

Third Annual Exhibition at the Fifth Avenue Art Galleries, 366 and 368 Fifth Avenue (adjoining the Stewart mansion), New York City.

The third annual exhibition will be open to the public on Monday, December 19, 1887, and will continue for three weeks.

The exhibition will consist of work not before exhibited in New York City, and representing, as far as practicable, the work of the past year.

CONDITIONS.—The exhibition shall be devoted to architecture and the allied arts, as may be represented as follows:

Architectural designs; perspective drawings; sketches in pencil, pen and ink, water colors, charcoal, etc.; elevations and photographs of executed work.

Sketches for interior decoration and furniture; designs and cartoons for stained glass; mural decoration and paintings of foreign work.

EXECUTED WORK.—Stained glass; wood carving; mosaic, and casts and models of executed architectural and decorative work.

A detailed circular of blanks as to jury, framing, transportation, etc., is now being prepared and can be had after October 1 on application to the secretary.

By order of the Executive Committee.

CHARLES I. BERG, Secretary.

152 Fifth Avenue, August 1, 1887.

New Publications.

PRELIMINARY REPORT ON A SYSTEM OF SEWAGE DISPOSAL AT THE STATE HOMEOPATHIC ASYLUM FOR THE INSANE, N. Y., BY WM. PAUL GERHARD, C. E. By the Author.

An interesting pamphlet, treating of sewage disposal, by natural and artificial processes, which can be read to advantage by architects, plumbers and building-sanitary projectors.

THE ESSENTIALS OF PERSPECTIVE. L. W. MILLER, Principal of the School of Industrial Art of the Pennsylvania Museum. New York: Charles Scribner's Sons.

Mr. Miller states in his preface that his purpose has been rather to set forth such principles of the science of perspective as are of immediate use to the artist or the draftsman than to produce an exhaustive treatise of a purely scientific nature. To this end he has omitted all discussion of points pertaining to principles only to be applied under the most unusual conditions. Of the value of the matters omitted, each reader will form his own opinion, and probably, as is commonly the case in such questions, no two will agree in their judgment. Another feature which distinguishes the book is the paucity of lettered mathematical figures in illustration of the text. Mr. Miller has sought to avoid a formidable task that might deter some from undertaking the study, by substituting for such lettered figures a series of sketches in perspective illustrating the several principles. In this we incline to think that he has done wisely, for nothing tends more to puzzle and discourage a beginner in the study of perspective, whose acquaintance with mathematics usually stops far short of descriptive geometry, than the gruesome pages of mysterious and perplexing figures that greet him at the very outset of his work. Called upon, as we are daily, to inspect numbers of drawings, we have a realizing sense of the need of bringing the subject home to those who are under the constant necessity of making use of its principles in the ordinary routine of their business. We are reminded of the argument of Col. Sellers, who based his expectations of profitable sales of his invention on the number of sore-eyed Chinamen; and we are tempted in like manner to prophesy an equal demand for Mr. Miller's little work, based on a calculation of the number of artists and architectural draftsmen who *lame* in this perspective. Much as it is to be desired that every man whose occupation necessitates his making perspective drawings should understand thoroughly every branch of the subject, it would be a day of rejoicing for art and an omen of good times to come, were even these "essentials of perspective" somehow to get themselves well read by every artist who has not already in head more than is to be found in Mr. Miller's eminently practical little book.

THIRTY THOUSAND LOCKED OUT. The Great Strike of the Building Trades in Chicago. By JAMES C. BECK. 1887.

In the compilation of this history of the most stubbornly contested dispute between employer and the employed that has ever occurred in the building trades, Mr. Beeks has shown an enterprise, as well as a public spirit, that is not only commendable, but will aid largely in placing before each the ground plan of all disputes in the labor field, and the principles that underlie their relations to each other. As a reporter of the Chicago Times, and giving his entire attention to the labor field, Mr. Beeks has, like a true reporter, given an important review of the different moves made by all parties in the controversy. The workman can read this work and see beyond the narrow limits of his trades unionism into the broad field of equality, and the arguments brought forward in favor of the personal freedom of the individual. The contractor can see where he can, through the

history of events, attain greater wisdom in dealing with his workmen, and a better knowledge of where he stands in relation to them, and both can see where they are acting under their rights as citizens and where they are arbitrarily demanding what is unjust, upon the principle that might makes right. The author, in an introductory note, makes no apology for his terse and thoroughly authentic narrative, but shows that it was called for by the fact that local conditions in Chicago were general ones throughout the building public of the country, and the results reached were of national importance. He briefly sketches the formation of the national association of builders, as the principles laid down by that association were the foundation for the plan of action adopted by the Chicago master builders in their fight against the arbitrary action of the unions in the building trades, and then running through the principal features of the different strikes and the great lockout which ensued, leading up to the final arbitration which took place between the master masons and builders' association and the bricklayers and stonemasons' union. The pamphlet contains over two hundred pages, and should be in the possession of every contractor and intelligent workman in the country, while to the student of the relations of capital and labor, not only in the building trades, but in all departments in this country, it will be valuable as a demonstration of what can be done or what cannot be done in the solution of the labor problem. Copies can be obtained from secretary of the Builders and Traders' Exchange, 157 La Salle street, Chicago.

SHORT TALKS BY AN ENGINEER. JOHN E. ERWOOD, M.E.

A vade-mecum that should be in the possession of every one who uses steam as a motive power. The author, who has a practical knowledge of the subject, presents in a brief series of plain talks, information of the gravest importance to owners of plants driven by steam. The book is quite diminutive, but, whoever will give its forty-one neatly printed pages a careful reading, will admit a more timely book, touching upon mechanical subjects, has not been issued from the press in a long time, and that the author is deserving of the thanks of the manufacturing public.

GRIMSHAW'S "Steam Engine Catechism," only twenty months old, has gone into its fifth edition already, and the "Pump Catechism," only six months old, is just going into its third. Either book may be ordered of us. Postpaid, price \$1.00.

THE Illustrated Catalogue for 1887, of Dalton & Ingersoll, Boston, Massachusetts, is a handsome specimen of artistic typography containing 88 pages of interesting matter pertaining to their "universal float-valves," wash out closets and other plumbing and sanitary specialties for which this house has become noted. The catalogue is neatly and substantially bound.

A NEW monthly publication, *Monographie de Bâtimens Modernes*, has been issued by H. Cagnon, of Paris, under the editorship of Ragueneau, who is known to many American artists and architects as the editor of *Matériaux et Documents*. This publication proposes to make each number a monograph of some single building. The first page generally giving a perspective view, and following that, plans, elevations, details and descriptive letterpress of the building selected. Five numbers are now out. The first takes up the Hotel Boulevard Montparnasse, Paris, M. Just Lische, architect; the second, Maison Rue de Luxembourg No. 32, Paris, M. Cohn-Bousson, architect; third, Eglise Notre-Dame d'Auteuil, Paris, M. Vaudremer, architect; fourth, Hotel de Ville, La Ferté sous Jouarre, Seine-et-Marne, M. E. Cament, architect. A feature which will especially interest American architects is the fine details accompanying each number, a feature which made a success of *Matériaux et Documents*.

AN editorial in the September *Century* closes as follows: "We feel justified in adding to these general statements a word of strong recommendation in favor of native as against foreign, or at least as against European, trees. At the best the latter are uncertain in almost every case, while the former have an inborn and a well-proved title to be trusted. The most successful ornamental planting that has ever been done in America shows its results in the streets of such towns as Stockbridge, Great Barrington, Salem, and New Haven, and was the work of men who went to the forest and not to the nursery for their infant elms and maples. Certainly our more recently planted parks offer small promise of a like maturity of beauty with their European oaks and ashes, their Scotch and Austrian pines, in almost as deplorable a state as their Norway spruces. When not ornamental but economic plantations are in question, past experience tells very strongly against European trees, while the evidence of recent experiment with native trees—as in the plantations of indigenous conifers in eastern Massachusetts—is of the most encouraging kind."

AN English building journal from which frequent quotations are made in these columns, the *Builders' Weekly Reporter*, is discussed by *The Journalist* in a current article on class journals. "This was established in 1856 by a Mr. Archdeacon, then sold to Mr. Rymer, a journalist, with whom Mr. Thomas Blower was associated. The latter gentleman afterward acquired the sole proprietary. For the first five years the paper was distributed gratis at the rate of 7,000 weekly, relying on the advertisements to recoup the proprietors. This plan does not answer, however, in England. The recipients of a gratis paper look upon it as being worth that cost and no more, and advertisers are chary and doubtful; they will not believe that a paper printed and posted for nothing can have anything of a circulation or influence when there is such a direct temptation to keep down. Mr. Blower, therefore, priced his journal at *two pence*, and since that time the paper, and incidentally the proprietor, have gone on prospering as they deserve. Mr. Blower met with an able editor and coadjutor in the late Mr. John Lloyd, formerly editor of the *Shrewsbury Chronicle*, who continued with him for many years until his death, which occurred about a year or two since. Mr. John Lloyd was also a contributor to the *Licensed Victuallers' Gazette* and a well-known and highly respected newspaper man." The *Builders' Weekly Reporter* now holds a high position among journals of that class, because of the practical quality of the articles contained in its pages. The *Builders' Weekly Reporter* also enjoys a high reputation among builders on this side of the Atlantic, and it gives its English readers frequent extracts from American journals.

Our Illustrations.

Terrace for Hiram Walker, Detroit, Mich.; Scott & Co., architects.

Houses for J. L. Houghteling, Astor street, Chicago; Burnham & Root, architects.

Fullerton Avenue Presbyterian Church, Chicago; J. S. Woolacott, architect.

Residence of Elliott H. Pendleton, Jr., erected by Plympton & Trowbridge, architects, of Cincinnati. Situated in the neighborhood of College Hill, about three miles from Cincinnati. The house contains thirteen rooms and bathroom, large pantry and china closet. The attic is finished entire, and in the basement is the laundry. The first story is of stock brick laid Flemish bond, and the second story and gables are of frame filled in with brick, shingled and plastered upon the outside. Leaded clear and cathedral glass throughout. The finish on inside is of white, selected pine, with exception of parts of finish in hall and main staircase, which are of oak. It was completed one year ago, and cost, complete, less than \$7,000.

PHOTOGRAPHURE PLATES.

(Issued only to subscribers for the Photographure edition.)

Details of the Phenix Office Building, Chicago.

Entrance Interior of the Phenix Office Building, Chicago.

Residence of C. W. Brega, Chicago; S. S. Beman, architect.

The Phenix Office Building, Chicago; Burnham & Root, architects.

Residence for Francis T. White, Baltimore, Md.; Chas. Carson, architect.

Scientific and Art Notes.

A COMPANY has been formed in St. Paul for the laying and operation of a pneumatic tube between that city and Minneapolis, and also to operate throughout the United States. A test was made with a tube two and one-half feet in diameter, an iron ball, though papier-mâché is intended to be used when in practical operation. The officers of the company are C. M. Johnson, of Chicago, president; T. B. Smalley, vice-president; T. N. Denslow, secretary and treasurer; James Stephens, mechanical engineer. The company has been incorporated with \$500,000 capital stock. The claim is made that by this system and the use of larger tubes grain or coal can be transmitted with equal facility.

W. H. Mallock has an article on "Wealth and the Working Classes" in the London *Fortnightly Review* for August that every one who is interested in the question of capital versus labor would do well to read. In the passage here quoted there seems more of sound common sense than is usually brought to the discussion of this subject. Says Mr. Mallock: "No doubt, if we accept the Socialistic formula and regard capital as congealed, crystallized, or fossilized labor, those who lived on the interest of capital, without even taking any part in the management of it, have all the appearance, as the Socialists say they have, of so many licensed robbers. The moment, however, that we realize, with regard to productive energy, that labor is only a part of it, and the least productive part, and that its growing, its progressive element is not labor, but ability, capital is presented to us in a wholly new light, as congealed ability, not as congealed labor—as the congealed contrivance, ingenuity, and enterprise of the few, not as the congealed muscular exercise of the many." If Socialists ever do think, it seems they might find this extract worth thinking about.

THE excellence of iron, in an economic form, as a roofing material is too well understood to be recapitulated. It has been the difficulties that have been met with in its application, such as has accrued through expansion and contraction, oxidation of nail holes, want of permanency of attachment, etc., that have been so discouraging as to largely affect its use. These difficulties have been battled with by inventors from time to time. Seemingly, at last, they have been overcome, or very largely mitigated by what is known as the "Garry patent," a description of sheet-iron roofing manufactured at Cleveland, Ohio. By this method, old time processes for fastening by screws and nails are done away with, and a system of fastening by anchors and cleats and lock-joining, whereby security is given, and all possible contraction and expansion from climatic exposure provided for, all giving integrity to the roof. The circular of the manufacturers, the Garry Roofing Company, furnishes a complete exposition of this method, and can be read with edification by architects and builders. The method provides for plain and corrugated roofing, shingling and tiling, also for plain and corrugated ceilings and siding. Apparently the problem of iron roofs has been successfully solved by this Garry process.

A SYSTEM of electric lighting for private residences has up to the present time been sought for by electric engineers without obtaining results either practical or economical. The Providence *Journal* speaks of an interesting exhibition of a method that will do this and give the private houses light of a quality that large establishments hitherto alone have been able to afford economically. A little Bowers dynamo furnishes the current, and is run by a small Shipman engine of two-horse power. The dynamo itself is but little larger than an ordinary wastebasket, and the engine occupies an insignificant corner of the room, running automatically hour after hour without attention, maintaining the same pressure and speed. This little plant runs fifteen incandescent lamps of sixteen-candle power each, of unusual steadiness, and the results prove that electric lighting in private houses is an accomplished possibility. In the same room, and operated by the same engine, is a similar dynamo, the Waterhouse, of little larger size, that astonishes many electricians who have visited it by furnishing with two-horse power four arc lights of 2,000 candle power each, for it has always been accepted as a fact that a single arc light required one-horse power. The same dynamo is also seen running thirteen

incandescent-lamps of sixteen-candle power, two of twenty-five candle power, two of thirty, and one of 125, and one arc light, while it operates a sewing-machine from a small electric motor with almost fierce rapidity. This dynamo is self-adjusting, and as the lights on the circuit are successively turned off the remaining ones are not affected in brilliancy or steadiness. The especial interest in these two electric systems centers in the fact that they afford a practical solution of the problem of lighting private houses cheaply and practically.

ONE of the most prodigious engineering projects now on the tapis is that of tunneling the Rocky Mountains under Tray's Peak, which rises no less than 14,441 feet above the level of the sea. It is stated that at 4,441 feet below the peak, by tunneling from east to west for 25,000 feet direct communication could be opened between the valleys on the Atlantic slope and those on the Pacific side. This would shorten the distance between Denver in Colorado, and Salt Lake City, Utah, and consequently the distance between the Missouri river, say at St. Louis and San Francisco, nearly 300 miles, and there would be little more required in the way of ascending or descending or tunneling mountains. Part of the work has already been accomplished. The country from the Missouri to the foot of the Rockies rises gradually in rolling prairie until an elevation is reached of 2,500 feet above the sea level. The Rockies themselves rise at various places to a height exceeding 11,000 feet. Of the twenty most famous passes, only seven are below 10,000 feet, while five are upward of 12,000, and one is 13,000 feet. The point from which it is proposed to tunnel is sixty miles due west from Denver, and, though one of the highest peaks, it is by far the narrowest in the great backbone of the American continent.

"ALUMINA," said Professor Kedzie, of the Michigan State Agricultural College, to the Michigan Brick, Tile and Drainage Convention, as reported by the *Brick, Tile and Pottery Gazette*, "is the silver of clay as the French call it. Silica of aluminum is the clay itself. This is the most singular metal we have. It is a little heavier than heavy wood, and it is remarkable for its power to resist corrosion and friction. Make a cannon of it, take it into battle. If the horses get killed, the cannonier can shoulder it and walk off with it [laughter], and this strange metal is found in every part of clay. This metal has its feet in clay and its head in the air. (Blowing a film about his head.) It combines singularly with other metals; uniting ninety-five per cent of copper and five per cent of aluminum makes a rich metal looking like gold—Arabian gold, as it is called, and a different per cent of each makes aluminum bronze. It will play an important part in the arts in future. It will be the metal, for it is now more plentiful and will soon become more valuable than all other metals put together in the world, as it has so many qualities of the other valuable metals. We can make a ship of it as light as pine, and as strong as steel. It is exceedingly hard, will not corrode, resists friction, can be used for boxing on railway trains, such a thing as a blazing or "hot box" could never happen. Out of it they make knives that have the cutting qualities of the best steel. It never tarnishes, but looks like gold or silver as you choose. It has all the beauties of the finished metals. It will take a temper like other metals. It is most wonderful in its anti-friction properties, and will accept a polish as fine as agate. Clay has about twenty-eight per cent of alumina, a large amount. We can draw on this bank of clay, you can bank on this metal and it will never fail. It used to cost \$15 to \$20 per pound to get it from its hiding in clay, but new and improved methods, chiefly by an electro dynamo, of 6,000 degrees Fahrenheit, it can be produced for \$4. When it can be had for twenty-five cents per pound, you will see it greatly used, driving most other metals out of the mechanic arts. Take a bar of wrought-iron, we cannot melt it into bars, but add one-half aluminum, apply 500 degrees of heat, and you will have a compound which will retain all the properties of wrought-iron, and yet you can cast it without changing its newly acquired strength and elasticity."

THE WORLD HAS ANOTHER TELEPHONE.—A recent dispatch to the Boston *Herald* from Milford, Massachusetts, says: "This afternoon William A. Hayward, manager of the Pulsion Telephone Company, invited some newspaper men to inspect the operation of a private wire at North Milford. Messrs. Jerome Prince and Lemuel Millett, of Milford, have perfected the pulsion telephone after months of close study. They use no battery or electricity, operating through a wonderfully ingenious transmitter and a No. 18 taut copper wire. Mr. Hayward led the way to an apple orchard, where 1,600 feet from the house, a single wire, with a loose end lying on the ground, was stretched from house to tree. One of the party went up to the house and spoke through the transmitter and another man took off his hat—a common straw—laid it on the wire, using it as a receiver, and held conversation in an ordinary voice. At the same time Mr. William Bancroft, of Hopedale, took hold of the wire between the two speakers, to prevent any vibration and also to conduct off a possible electrical current. This had no effect whatever. During the talking three others of the party also heard the conversation by listening in hats placed on the wire at the end of a stick placed against the tree limb to which the wire was attached. Mr. Hayward placed the line at the service of the party for tests. The newspaper men then arranged a test to discover the range of audibility. The *Herald* man held a stiff derby hat against the wire near the tree, and carried on a conversation through the wire with the house, his associate meanwhile steadily retiring from the hat at right angles to the wire. When away sixty feet from the hat the latter plainly understood the conversation of both, and at seventy-eight feet could hear, but not distinguish words. A whispered conversation was plainly audible. All this occurred wholly out of doors, and one-third of a mile from the speaker at the transmitter in the apple orchard. A brisk wind was blowing across the wire. This closed the experiments with the single transmitter and grounded wire. The party then went to an adjacent building to the unoccupied loft of which a wire from the first house was stretched, connected with the second transmitter. Ordinary conversation through the transmitter could be heard anywhere in the room. Whispers, singing, music, etc., were distinguished with great clearness. Mr. Prince left the transmitter, went out of the room and down a flight of stairs, and his conversation that distance from the transmitter was distinctly heard at

the other end. The *Herald* man, standing in a yard, heard Mr. Prince clearly over the wire, although the nearest transmitter was forty feet away in a direct line upstairs in an interior room. The above tests were tried by each of the party in turn. The transmitter contains a device for imparting to the tones of voice a peculiar vibratory force, not only persistent as against other vibratory forces, but easily controlled. From Mr. Hayward's office lines to North Milford, Hopedale and Upton will be constructed, and the most rigid tests that can be devised will be tried before it is presented to the public."

THE bronze statue of Nathan Hale, heroic size, just set up in Hartford, Connecticut, is the work of Carl Gerhardt, says a writer in the *Washington Post*. Three or four years ago I first met Gerhardt. He was a young, bright and spirited looking German, and was with Mark Twain in New York. Clemens presented me to him, and, after mentioning his name, said "Sculptor." "Ah, yes," I said, with complaisant hypocrisy, as if the name had been ringing in my ears for centuries. "Yet I'll bet a dollar you never heard of him before," said Clemens to me as the artist left us. I confessed. "Well," he said, "Carl has a short but interesting history. Three or four years ago Charles Dudley Warner came over to my house accompanied by a plainly-dressed woman, and bringing between them some small figures cut in marble. 'See here!' says Warner: 'these are first-rate. This woman's husband is a marble-cutter at the cemetery works. She has brought these bits up to have me see if they are not good. They are good; don't you think so?' I agreed that they showed decided talent, and we told the woman that we would come down to the yard where he was hammering. We went. The upshot of it was that we paid the family expenses for a couple of years and sent him to Europe. It is the most profitable investment I ever made, for it looks as if the country was enriched by a new sculptor." The next spring I met George W. Cable and we went over to the academy and saw a superb bust of Mark Twain, full of vigor and vitality, just from the New York studio of Carl Gerhardt. I was told that he was at work on a statue of the patriot spy, Nathan Hale, which, as he left no portrait, was to be wholly a work of imagination. This it is which has just found worthy pedestal at Hartford, the home of the stonemason and of his discoverers, Dudley Warner, Senator Hawley, and, especially, Mark Twain.

Mosaics.

A. G. BAUDRY, formerly with Grey Vigeant, architect, has opened an office at room 24, 81 Clark street.

BERRY BROTHERS, manufacturers of varnishes, stains and lacquers, have just issued a vest memorandum tablet, illuminated with a fine steel portrait of Frances Cleveland; a neater or more artistic advertising device can hardly be conceived.

THE Gurney Hot Water Heater Company have appointed M. H. Johnson, at 140 Center street, New York City, and Ries & Whitacre Manufacturing Company, 42 and 44 West Monroe street, Chicago, selling agents for their hot water heaters.

THE Architectural League of New York has just issued a handsome edition containing list of officers, committees and members and the constitution and by-laws. It is from the *Art Age* press, and is in the height of typographical excellence.

MR. O. M. SHANNON, president of the Chicago Laundry Dryer Company, has left for New York and Brooklyn, where the company are putting in twenty stove heating clothes dryers, including a very large apparatus for the laundry room of the Brooklyn Bureau of Charities' new building.

THE Hendricks monument committee, at Indianapolis, have decided not to adopt a design submitted by sculptor Parks as they have not sufficient money to complete it but have decided to advertise for designs for a monument to cost not to exceed \$15,000. Mr. Parks it is reported will not submit a design in the competition.

ADVERTISERS like to receive returns from their advertising, and publishers are also gratified when such evidence comes to show the value of their publication as an advertising medium. The extent of the circulation of THE INLAND ARCHITECT is shown by a substantial order received a few days since by J. W. Taylor, the architectural photographer, from Australia.

THE Executive Committee of the Lincoln Monument Association, on September 6, opened the bids for repairing the Lincoln monument under the appropriation law of last winter. There were eight bids, the lowest being by E. F. Gobel, of Chicago, for \$9,333. From this figure the bids ran up as high as \$15,000. The work, which will occupy from sixty to ninety days, will begin immediately.

In another column will be found the advertisement of D. Rosenberg & Sons' "Elasticia," a wood finish which, it is claimed, has all the good qualities of varnish finish for inside work, besides possessing a higher luster, greater resisting properties against atmospheric action and influences, is not liable to cracking, or easily scratched; all of which are very meritorious qualities, worthy of investigation.

ARCHITECT W. W. BOYINGTON is supervising extensive repairs on the Lincoln monument. The vast memorial pile has been going to decay so rapidly that it has been found necessary to introduce some radical changes in its details. Mr. Boyington intends to preserve the general features of the design, but much of the stone now in the monument will have to be removed and replaced by more enduring material.

THE Northwestern Terra Cotta Company are turning out a great number of orders, among the more prominent buildings being the Haymarket Theater, where the terra-cotta will be the same warm peachblow color as the entrance porch of stone; the Telephone building, Washington and Franklin streets; the Standard Club House; the residences of Robert Law, James L. Houghteling, W. H. Feingd. Every day passers-by stop to admire that vast construction, the new Rookery, LaSalle and Adams streets, and the terra-cotta ornamentation is one of the most admired features of the building. The effect is a rich lacework, adorning the salient features like the openings of door and window and the dividing lines of the colonnades;

furthermore—and this is an entire novelty in the use of this wonderfully serviceable and comprehensive material—the ironwork will be incased by terra-cotta, which will thus serve as the double purpose of fireproofing and ornamental finish at the same time. The Northwestern Company make a superb quality of terra-cotta, which excites the admiration of English architects as well as those of the United States.

FRANK C. SCHOENTHALER, who has been secretary of the Chicago Builders and Traders' Exchange since its organization, has resigned to fill an important position elsewhere. James John was appointed to fill his place as secretary until the next annual meeting. Mr. Schoenthaler filled the place of secretary not only with rare ability, but a large amount of the credit is due him for the influential position the exchange holds.

WHILE Mr. John Kelly, of the firm of Thomas Kelly & Bros., of Chicago, has been visiting the Pacific coast, seeing the sights and incidentally placing large orders for their specialty, the Kelly self-acting water-closet, Mr. Thomas Kelly has taken an eastern trip, and saw Boston and its environs, in company with Mr. E. Baggot, where he was warmly received and agreeably entertained by the plumbing fraternity of Boston.

SEYSEL and Neufchatel rock asphalt, derived from the bituminous limestones of the Val-de-Vers, is rapidly growing into public favor. It is observable that most of the Chicago leading architects have introduced it into their latest work, where stable floors, laundry floors, driveways, balcony roofs, etc., etc., form a part of the construction. The claims for this covering are: that it is equally durable over wood or brick; can be laid in the coldest weather; is water and fireproof; is non-absorbent; impervious to sewer-gas; creates neither dust nor mud; is hard and smooth, noiseless, light of color, dry and durable.

THE prospectus has been received of a school to be opened in St. Louis next November, under the name of "Academy of Architecture." An examination of the course of study offered discloses the fact that the instruction is such as will be of special aid to contractors and those employed in the several building trades rather than to architects; and the founder, in recognition of this, says in his opening sentence, that "This institution is intended to meet the wants of building tradesmen." Viewed in this light, the course of study and the moderate tuition fees, coupled with the winter session when the building trades are least active, render it certain that, if the instruction is of a high order, the school will accomplish a good work.

MR. MERCHANT, of Merchant & Co., of Philadelphia, has recently returned from England. It will be interesting to architects, builders, and roofers, to learn that the following arrangement has been made with the manufacturers:

In future every box of "Gilbertson's Old Method" and "Camaret" will be stamped with the average net weight on each box, as follows:

"GILBERTSON'S OLD METHOD" ROOFING PLATES.			
IC 14 x 20.....	120 lbs.	IC 20 x 28.....	240 lbs.
IX 14 x 20.....	148 "	IX 20 x 28.....	296 "
"CAMARET" ROOFING PLATES.			
IC 14 x 20.....	110 lbs.	IC 20 x 28.....	220 lbs.
IX 14 x 20.....	138 "	IX 20 x 28.....	276 "

The arrangement is also now in force that no wasters of either of the above brands will be sold to anyone in England, nor will they be shipped to the United States.

Messrs. Merchant & Co. claim that these plates are the heaviest made, and the action of the manufacturers in stamping the weight on each box will guarantee to consumers that the manufacturers mean to supply just what they claim. The efforts of this roofing plate firm to supply a thoroughly reliable article is commendable.

PROBABLY the largest contract ever made for steam boilers for stationary purposes has recently been awarded by the Edison Electric Illuminating Company, of New York, to the Babcock & Wilcox Company, for 8,700 horsepower of their water-tube boilers, to supply three new central stations now in process of erection in the city of New York. It is expected that with economical engines these boilers will develop an indicated horsepower of not less than 15,000, which is greater than that of the most powerful steamship afloat, the Umbria, which has developed 13,000 indicated horsepower. The awarding of this contract to the Babcock & Wilcox Company is a merited compliment to their system of water-tube steam boilers, particularly as this is the thirty-fifth order received from the different Edison companies for boilers for electric lighting purposes. The Pearl street station has been running nearly six years with 900 rated horsepower of the same kind of boilers, which, according to Mr. C. E. Chinnock (one of the Construction Committee of the Edison Company, and who is also the vice-president of the Edison United Manufacturing Company) have given the most perfect satisfaction, and have cost practically nothing for repairs in that time; that they have been called upon frequently to furnish a capacity fully sixty per cent above their rated power, and they have never failed in any case to respond generously with perfectly dry steam. After six years of such experience as this, joined with experience in a large number of other stations in this country and in Europe, it is no wonder that the preference was given to this boiler for these new stations, which are to be the largest electric lighting stations in the world.

SOME time ago the board of directors of the Union League Club received a proposition from a number of prominent members for the establishment of an Auxiliary Art Association. The proposition was placed in the hands of a committee composed of Messrs. Thomas B. Bryan, Charles E. Billin, John W. Root, Max A. Meyer, F. H. Head and J. W. Palmer, who at once addressed letters to all members of the club explaining the nature of the plan and inviting them to join the association. Members of the club only will be admitted to membership in the art association. The intention is not to set apart a room in the club house to be devoted solely to the uses of an art gallery, as several clubs in this city have done, but to follow the example of the Union League Club of Philadelphia, which formed such an association several years ago, and has thereby been able to line its walls with many thousands of dollars' worth of valuable paintings and other works of art. There is so much vacant space that were the club to undertake to cover it all at once with the kind of works that would be appropriate,

the treasurer would be obliged to issue bonds to foot the bill. The plan, therefore, that has been decided upon is to form an auxiliary association, the yearly membership dues of which shall be devoted to the purchase of art works. These dues have been fixed at \$5 per year, and as it is expected that at least sixty per cent of the club's members will join there will be a fund of \$2,000 or \$3,000 every year which can be devoted to the purchase of pictures. The art association will elect its own officers and adopt rules for its own government. It is the present intention to purchase at least one valuable painting each year, though the promoters of the scheme are not ambitious that the club shall compete in this regard with the older galleries of the country. They are rather desirous of promoting the interests of home artists by purchasing their pictures and establishing prizes which shall tend to encourage emulation.

Railroads.

THE St. Louis, Fort Scott & Wichita Railway is a favorite route for parties going to western and southern Kansas, especially to Wichita, the "Magic City," as it is called. The trains run through by daylight, giving excellent facilities for seeing the country. Stop-over tickets are sold, and the officers are polite and attentive.

THE Burlington Route, C. B. & Q. R. R., will sell, on August 30, September 20, and October 11, harvest excursion tickets at one fare for the round trip to principal points in Nebraska, Kansas, Minnesota and Dakota. Limit, thirty days. For tickets and further information concerning these excursions, call on the nearest C. B. & Q. ticket agent.

THE Chicago, Burlington & Northern will build a road into Dakota, beginning work in the spring. The line will start either at Dubuque or Lansing, Iowa. It is said that this road has been surveying a direct line from St. Paul to Duluth, and that the line surveyed is 20½ miles shorter than the St. Paul & Duluth's new line. A line of this road is to be built from Canton, Dak., to connect with the Burlington, and to be extended to Centerville on the south, to meet the Northwestern. The new line is known as the Canton, Burlington & Northern. The capital stock is \$800,000.

THE Missouri Pacific Railway, of Missouri, with its branch, the St. Louis & Iron Mountain Railway and extensions, is now one of the greatest railway systems in the world. Five separate trains daily are run from St. Louis to the West and Southwest, reaching all leading points from Galveston to San Francisco and between, expeditiously, promptly and with admirable regularity. The reclining chair cars, sleepers and all the appointments of this vast system are the finest to be found in the United States, the trainmen are uniformed and every provision is made for the safety, comfort and enjoyment of its passengers, and, a notable fact, there are remarkably few accidents.

COMMENCING August 28, the new yet popular railway line to the Northwest, the Wisconsin Central, put on a new fast evening train, which is certain to be accepted with great favor by the traveling public in general, and particularly that portion which is obliged to economize upon the point of time. At the time that the announcement was made that the running time of railway trains over several lines between Chicago and St. Paul was to be shortened much curiosity was manifested as to the probable course of the Wisconsin Central. People thus interested were not forgetful of the fact, however, that the Wisconsin Central has, from the day of its opening for through business, invariably been the first to make a move which was likely to result in substantial benefit to its large list of regular patrons and the traveling public in general. It was thereupon decided by the Central people to put on a daily train leaving Chicago at 4 P.M. and arriving at St. Paul at 7:15 the next morning. The great advantage of this plan, as no few will readily see and appreciate, is that passengers will be landed in St. Paul or Minneapolis at an hour in the morning which enables them to meet merchants and business men before the day's rush of business has come on. It also enables one to have the entire day in those cities, and then, by taking the Wisconsin Central's south-bound train at a little past 7 o'clock, he will be landed in Chicago in time for attention to business affairs here the next morning, thereby having lost, or rather devoted, but but one day to the trip. In placing this train in service the Central's officials are not forgetful of the accommodations and comforts which have made their line the favorite with travelers, and will run thereon a through sleeper between Chicago and St. Paul and Minneapolis, as well as one between this city and Duluth. The dining-car service is also included in the new arrangement, and, in fact, everything has been provided which goes to make up a thorough and first-class service. Merchants and business men are not slow to make note of these very important facts as a rule, and they will undoubtedly not be in this instance.

Interior Furnishing.

THE period which marked the revolution or sharp advancement in the furnishing of homes in the United States commenced soon after the World's Exposition at Philadelphia in 1876. Chicago, at that time and since, probably more than any other American city, has been peculiarly situated, owing to the large area of homes destroyed by fire, and to its very rapid growth, to adopt modern ideas in architecture and modern furnishing.

Marshall Field & Co., through their retail carpet and upholstery departments, have not only recognized the demand for advanced ideas in these goods, but have been influential by their progressive methods in cultivating the general public to a better appreciation of the thoroughly correct designs and colors as applied to carpets, rugs and upholstery.

A sketch is presented in this issue of part of their carpet and rug departments, from which readers may get a fair idea of the mammoth stock carried. The entire floor, which is devoted to these two departments, is considered the finest one floor in the world for the display of such goods, and a visit to this department will not only prove interesting to the visitor or purchaser, but instructive as well.

The Exposition Exhibition.

WITH due deference to the monetary and material phase of progress in the Interstate Industrial Exposition, its vital spark of interest to the citizen of Chicago is the art department. In this connection it is a pleasure to chronicle art is herself again at the Exposition.

Miss Sara T. Hallowell, who has frequently displayed her masterly qualities as a generalissimo in collecting and conducting this department, again has charge of it; and in her artistic effort has been liberally aided and abetted by the art committee: James H. Dole, chairman; C. L. Hutchinson, Henry Field, George Mason, and J. P. Reynolds. Great expectations have been amply fulfilled, and the result is the most interesting exhibition of a decade is now open for inspection.

The annual recurrence of this exhibition inspires brief retrospection, not only as to the class of work displayed, but its potency as an educational factor in formulating taste and furnish a large and varied field to draw from. They certainly provide an incentive for the art idea, for urging all men to guard what each desires to gain.

The powerful primary impression of the exhibition is its uniformity of excellence. There are surprisingly few weak pictures, and possibly the bad ones are only so by comparison. A secondary item of interest is the unusual number of large pictures bearing the fresh laurels of the Parisian salon, that have the impression of modern French influence, and last but not least, in fact the standard element of interest, is the Seney collection.

George I. Seney, of Brooklyn, N. Y., has a famous collection of pictures, and has kindly loaned over one hundred of them to this exhibition. It comprises many of the modern French masters, Corot, Barye, Pasini, Rosa Bonheur, Laurens, Bouguereau, Jules Breton, Cazin, Daubigny, Millet, Diaz, De Neuville, Jacque, Isabey, Kraus, Israels, Munkacsy, Henner, L'Hermitte, Rousseau, Constant, Troyon, and many others. Of pictures not French Mr. Seney has sent examples of the German Achenbach, Defregger, Van Marck, Mauve, the English Boughton, and the Americans Inness, Fuller and Chase. They furnish a fund of interest and information as masterpieces, and a delightful comparative study. The younger American school, practically Parisian through French influence, has among its conspicuous exhibitors Charles Sprague Pearce, Edwin E. Simmons, E. L. Weeks, Julian Story, F. M. Boggs, Alexander Harrison, F. A. Bridgman, C. S. Reinhart, and W. H. Howe. The representative American artists who have boldness of conviction to be entirely free from forcing influence are led by Eastman Johnson, John La Farge, George Inness, J. Carol Beckwith, J. Frances Murphy, F. W. Tryon, William Sartain, A. H. Wyant, F. L. Kirkpatrick, W. T. Richards, Thomas Hovenden, F. D. Millet, William M. Chase, J. A. Monks, Arthur Parton, J. G. Brown, Edward Moran, Albert Bierstadt, and George Fuller. Among the 175 American artists represented thirty are located in this city. Miss Annie Shaw, whose very recent death deprived the art circle of one of its most capable members, is well represented by two landscapes that take an interest as the last work from her brush. Among the others are G. W. Platt, H. E. C. Peterson, H. V. Maratta, Mrs. M. K. Lusk, N. Ledochowski, N. P. Harrison, Ellen A. Holmes, Dennett Grover, Mrs. M. A. Gardin, William Chesman, Ida Burgess, P. Baumgrass, Mrs. E. L. S. Adams, D. F. Bigelow, and L. C. Earle. This fairly furnishes the interesting and varied composition of the exhibition.

The industrial exhibit is better this year than last; one that will greatly interest architects being a display of clay-working machinery.

Synopsis of Building News.

Arkansas City, Kan.—Architect Chas. S. Sedgwick, of Minneapolis, Minn., reports: Sandstone and terra-cotta residence, 55 by 73 feet, tile roof, plate glass, hardwood finish, etc.; cost \$30,000; under way.

Austin, Ill.—Architect F. R. Shock, of Chicago, reports: For the Library Association, two two-story and basement frame buildings; cost \$25,000.

Belding, Mich.—Architect Claire Allen, of Ionia, reports: For H. J. Leonard, two-story stone front business block, 24 by 84 feet; plate glass, etc.; cost \$4,000; contract not let.

Bonanza, Mich.—Architect Claire Allen, of Ionia, reports: For Miner & Son, two-story brick hotel, 38 by 80 feet; cost \$4,000; contract not let.

Chicago, Ill.—Architects Flanders & Zimmerman report: For Jacob Beidler, six-story brick warehouse, 100 by 187 feet, terra-cotta and blue Bedford stone trimmings; cost \$150,000. For D. J. Harris, two-story residence, 25 by 70 feet, stone; cost \$10,000.

Architects Treat & Foltz report: For J. J. Simmons, two two-story and basement and attic dwellings, 42 by 58 feet, pressed brick, stone and terra-cotta; cost \$15,000.

Architect H. K. Wilson reports: For himself, three three-story and basement residences, 20 by 70 feet, Salem stone front; cost \$24,000; Geo. Lehman, mason; Philip Baillageon, carpenter. For F. V. Turner, four-story brick and stone apartment building, 40 by 40 feet; cost \$12,000.

Architect C. M. Palmer reports: For H. McGunn, three-story and basement livery stable, 50 by 132 feet, stone front; cost \$15,000.

Architects Edbrooke & Burnham report: For F. W. Campbell, five two-story and basement dwellings, pressed brick and stone; cost \$12,000. For S. G. McAdam, two-story and basement dwellings, pressed brick and stone; cost \$14,000. For Joseph Alcock, three-story and basement store and flat building; cost \$10,000.

Architect F. V. Wadskier reports: For W. L. De Wolf, three-story and basement flat building, 135 by 83 feet, pressed brick, stone and terra-cotta; cost \$40,000. For John Brennock, three-story and basement store and flat building, 113 by 62 feet, pressed brick, stone and terra-cotta; cost \$35,000. For Judge L. B. Otis, two-story and basement and attic residence, 35 by 75 feet, stone front; cost \$35,000. For Geo. L. Otis, three-story and basement stone front residence, 30 by 80 feet; cost \$20,000. Also four-story and basement store building on Franklin, near Randolph street; cost \$16,000. For William Luff, residence at Oak Park; cost \$6,000.

Architect S. V. Shipman reports: For A. M. Fuller, block of six two-story and attic dwellings, 62 by 121 feet, pressed brick and brownstone; cost \$28,000.

Architect Edward Baumann reports: For Zeese & Conkey, seven-story and basement manufacturing building, 121 by 67 feet; cost \$80,000.

Architect Fred. Baumann reports: For the Bodie Estate, six-story building, 99 by 148 feet; cost \$130,000.

Architect Geo. L. Scoville reports: For Mrs. J. B. Marshall, two-story dwelling, 22 by 42 feet; cost \$4,000.

Architects Schaub & Berlin report: For F. Koepke, three-story and basement apartment building, 24 by 70 feet; cost \$6,000. For Henry Steppe, two-story and attic and basement dwelling, 25 by 62 feet, pressed brick and brownstone; cost \$5,000.

Architects Holabird & Roche report: For L. D. Webster, four-story store, office and hall building, 50 by 170 feet; cost \$60,000. For J. R. Walker, three-story and basement residence, 40 by 80 feet; cost not estimated.

Architects Jenney & Otis report: For Ferd. W. Peck, three-story and basement residence, 35 by 75 feet, 1826 Michigan avenue, spruce head granite, Spanish tile roof, also stable; cost \$50,000; John Angas, mason; J. F. Reese, carpenter; Hallowell Granite Co., granite work.

Architect L. B. Dixon reports: For J. E. Beifield, four stone front dwellings, 120 by 60 feet; cost \$35,000.

Architect W. G. Barfield reports: For School Board, Lake View, three-story brick and stone school building at Gross Park; cost \$40,000. For S. G. McAdam, two-story and attic brick dwelling, 25 by 60 feet; cost \$9,000. For J. C. Ferguson, three-story and attic dwelling, brick and brownstone; cost \$8,000.

Architect C. O. Hansen reports: For S. D. Johnson, two-story and basement and attic residence, 28 by 52 feet, pressed brick, brownstone and terra-cotta; cost \$10,000. For H. Johnson, two-story store and flat building, 52 by 72 feet, pressed brick and stone; cost \$16,000. For E. Christensen, four-story and basement store and flat building, 25 by 100 feet, pressed brick, brownstone and terra-cotta; cost \$14,000.

Architect H. B. Seeley reports: For F. P. Owings, six-story building, 43 by 82 feet; cost \$30,000.

Architect F. R. Shock reports: For J. J. Lindley, stone front residence; cost \$12,000. For T. R. Willard, two-story and basement flats, 25 by 75 feet, pressed brick and stone; cost \$7,500. For E. M. Brooks, three-story and basement stone front apartment building, 25 by 70 feet; cost \$8,000.

Architects McAfee & Lively report: For H. H. Walker, ten two-story cottages at Brighton; cost \$25,000. For Chas. Willard, frame residence at Crystal Lake; cost \$7,000.

Architect Joseph L. Silsbee reports: For W. E. Stiles, two-story frame residence; cost \$6,000. For G. R. Phillips, two-story frame residence; cost \$13,000. For Mrs. A. S. Piper, two dwellings, 50 by 70 feet; artesian stone fronts; cost \$20,000.

Architect C. E. Lohman reports: For N. Hansen, three-story and basement brick and stone building, 26 by 71 feet; cost \$8,000; nearly completed. For C. Ottesen, three-story building, 21 by 68 feet; cost \$5,000; not let. For C. Jansen, three-story building, 21 by 72 feet; cost \$6,000; under way. For E. J. Jacobson, three-story building, 21 by 52 feet; cost \$7,000; under way. For Miss Gibbons, three-story brick, 22 by 72 feet; cost \$6,500; under way. For Mrs. M. Burns, three-story brick, 24 by 73 feet; cost \$7,300; under way. For M. B. Hansen, three-story brick, 22 by 70 feet; taking bids.

Cincinnati, Ohio.—Reported by Mr. Lawrence Mendenhall: As the summer season draws to a close there is the usual extra activity to push buildings forward and have them ready for interior finishing before the cold weather comes on.

While fall prospects have been worse, yet they cannot be called altogether satisfactory, certainly not what were expected.

The nine-hour resolution of our builders' exchange does not accomplish its intended ends, namely, that of establishing a uniform time of labor, from the fact that some of the influential members, notwithstanding their vote sustaining it, are not living up to it. By

[Continued on page XIV.]

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effect hitherto unattainable, except at great cost. The Endolithic marbles are, without doubt, the latest and best material for Floors, Dados, Friezes, Bathroom and Vestibule Walls, Mantel Facings and Hearths, etc. They can be decorated with any design in permanent colors below the surface of the marble, and polished.

SEND FOR CIRCULAR.

[Continued from page 28.]

their course they are not only injuring the influence of their exchange, and themselves, but are laying an excellent cornerstone upon which to build a strike. Even at this writing there is an unsettled, uneasy state existing among the carpenters.

On August 8 five architects, Messrs. Samuel Hannaford & Sons, Jas. W. McLaughlin, Schureman & Kennedy, Chas. Crapsey, Buddemeyer, Plympton & Trowbridge, all from Cincinnati, submitted plans to the Armory Commission for the new armory, and each plan showed careful study, also good taste in the interior arrangements.

Competition jobs, as generally conducted, are not satisfactory, at least to the defeated ones, and I am very sorry to say that quite a good deal of ill-feeling has been generated, which I trust time will heal. The point that galls the most is that the highest-priced plan was accepted, provided the estimate could be lowered, which was done, to bring it within \$9,000. Being an unprofessional man, and not "learned in the arts," I will not either criticize, condemn or praise, except to say that the firm which secured the prize stands high as to good work and honesty. In closing, however, let me say that the fairest manner in which to conduct all competitions is to submit designs to an expert, and allow him sufficient time in which to examine and pass upon them.

Architect Jas. W. McLaughlin is very busy on the plans and working drawings of the exposition building, to be erected over the canal, he having, as previously stated, secured that contract.

Ground will be broken shortly for the main exposition building, and all hands in Architect H. E. Siter's office are laying all over the boards, busily preparing the necessary drawings.

Wm. A. Lay has secured the contract for frescoing the amusement hall of the Central Ohio Insane Asylum, at Columbus, O.

Architect E. Anderson reports the following: The extension and remodeling of Andre's Opera House, at Connersville, Ind., is nearly completed. The city infirmary have awarded contracts for a new colored ward and a ward for the toolers, at \$17,500 each. Mr. Anderson is engaged in the preparation of designs for an extensive barn for the same institution. The Cincinnati infirmary has over seven hundred inmates. Additions to the Lindlow Grove schoolhouse, lately completed; plans for a villa residence for R. G. Hufford, at South Lebanon, O.; H. C. Furneaux, residence, Bellevue, Ky., and a number of others.

Architects Saml. Hannaford & Sons report the following: Brick schoolhouse in Winton Place, Ohio, two stories high, with slate roof; cost \$20,000. Residence for Chas. A. Ault, Wyoming, Ohio, frame, two and a half stories, 14 rooms, and slate roof. Residence for E. Shields, Esq., city, brick, with freestone trimmings, 8 rooms, and slate roof. Have been very busy on alterations and additions, but do not care to report them. The new City Hall and Armory plans are being rapidly pushed forward.

Architect Wm. S. Robinson, Mitchell building, reports as follows: Max Gilbert, Esq., will build a brick house of 9 rooms, bath, etc., pine finish, slate roof; cost \$4,000. E. Galatti, Esq., Charleston, W. Va., will probably build a frame dwelling of 7 rooms, pine finish, with shingle roof; cost \$2,000. Wm. Bryan, Esq., will build a frame house of 9 rooms, pine finish, and slate roof; cost \$3,000. Time has been well occupied ever since his office was opened, and the fall prospects are reasonably encouraging.

Architect S. E. Des Jardins, reports the below-mentioned plans: G. W. Robson, Jr., Bellevue, Ky., will build a brick house of 10 rooms. First story will have hardwood finish, and the second story pine, slate roof; cost \$7,000. F. H. Cloud, city, will build a pressed brick residence of 10 rooms, with pine finish and slate roof; cost \$6,500. Mr. Des Jardins has refused several fine contracts, at least for the present, as about October 1 he expects to go abroad for three months. He will devote the greater part in visiting and studying the old cathedral towns of France, with their grand examples of both modern and ancient architecture. Mr. Des Jardins has made good progress as an industrious, painstaking architect, and we wish him "un bon voyage."

Columbus, Ga.—Architect Ernest Abshagen reports: For Hebrew Congregation, synagogue, 47 by 84 feet, pressed brick, stone and terra-cotta, slate tower, tin roof; cost \$15,000; nearly completed. Public school building, 70 by 95 feet, two stories, pressed brick and cutstone; cost \$17,000; contract not let. For Muscogee Manufacturing Co., five-story brick cotton mill, 150 by 50 feet, iron roof; cost \$30,000; under way. For Dr. Gautier, two-story frame residence, 31 by 57 feet; cost \$3,500; under way. For Mrs. F. A. Howard, two-story frame residence, 45 by 68 feet; cost \$4,850. For Dr. S. N. Jordan, frame dwelling, 33 by 34 feet; cost \$2,700; under way. For Muscogee Manufacturing Co., brick engine house, etc.; cost \$18,000; not yet commenced. Mr. Abshagen is also contractor for all that are let of the above.

Fergus Falls, Minn.—Architect Chas. S. Sedgwick, of Minneapolis, reports: For Congregational Society Church and Chapel, 57 by 80 feet, pressed brick veneer; cost \$15,000; under way; D. W. & C. Stanford, builders.

Fostoria, Ohio.—Architect F. K. Hewitt, of Tiffin, reports: For J. W. Davis, frame residence; cost \$6,500; under way. Brick and stone city hall and jail, four steel cells; cost \$4,500. For J. F. Heilman, frame residence; cost \$4,000; under way. For R. Crocker, brick residence; cost \$7,500; under way.

Greenville, Pa.—Architect S. W. Foulk, of New Castle, reports: For C. R. Wray, frame dwelling; cost \$5,000; John Neel, builder.

Howell, Mich.—Architect Claire Allen, of Ionia, reports: For School Board, two-story brick schoolhouses, 42 by 58 feet; cost \$4,000 each; contract not let.

Hutchinson, Kan.—Architect Seymour Davis, of Topeka, reports: The First Presbyterian Church, 50 by 60 feet, rock-faced stone, is nearing completion; cost \$20,000.

Independence, Mo.—Architect S. W. Foulk, of New Castle, Pa., reports: For V. M. C. A., three-story brick building, 50 by 156 feet, stone and terra-cotta trimmings, slate roof; cost \$23,000.

Ionia, Mich.—Architect Claire Allen reports: Demand for building is fair, mechanics all busy at good wages. For R. Logan, two-story brick business block, 26 by 100 feet, cutstone front; cost \$5,000; contract not let.

Joliet, Ill.—Architect Julian Barnes reports: For the state, two-three-story stone schoolhouses, 40 by 75 feet, at the Penitentiary; cost \$14,000; E. C. Brainard & Co., contractors; also several frame dwellings, ranging from \$1,500 to \$3,500 in cost.

Kansas City, Mo.—Architects James & James report: Very large amount of building in progress and projected. All contractors busy. Prospect of great activity this fall and in the spring. For Walton H. Holmes, five-story store and office building, 50 by 115 feet, brick and stone; cost \$50,000; roofed in; W. A. Kelly, general contractor; for Mrs. Longbridge, apartment block, 132 by 99 feet, brick and stone; cost \$50,000; projected. For T. A. Cookson, brick and frame residence, 28 by 50 feet; cost \$4,000; under way; Kreisher Bros., builders. For A. T. Garth, alterations, etc., to house; cost \$2,000; under way; A. J. Bonham, builder. For C. G. Hopkins, apartment house, 53 by 112 and 32 by 36 feet, brick and stone, seven stories and basement, elevators, steam heat, incandescent light, cold storage, etc.; cost \$100,000; foundation under way.

Knoxville, Tenn.—Architects Baumann Bros. report: For J. O. Lotspeich, two-story frame, 46 by 62 feet, slate roof; cost \$3,500; under way; John Vinson, builder. For H. W. Woolf, two-story frame, 28 by 40 feet; cost \$2,500; under way; John Vinson, builder. For H. W. Curtis, two-story frame, 30 by 50 feet; cost \$5,000; under way; Stephenson, Gelzer & Co., builders. For F. A. R. Scott, two-story brick, 60 by 78 feet, slate roof; cost \$12,000; W. H. Dawn, builder. For Dr. J. M. Masters, two-story frame, 59 by 64 feet, slate roof; cost \$10,000; taking figures. For Dr. R. M. Rhea, two-story brick and marble, 46 by 60 feet; cost \$9,000; taking figures. For H. L. Moses, two-story frame, 29 by 32 feet; cost \$2,400; under way; John Vinson, builder. For J. W. Borchers, two-story brick store, 22 by 75 feet; cost \$6,000; under way; L. A. Galyon, builder. For Coal Creek Coal Co., thirty three-room frame cottages, 16 by 50 feet; cost \$18,000; building by the day.

Lake Geneva, Wis.—Architect M. L. Beers, of Chicago, Ill.: For the Oakwood Retreat Association, pressed brick and stone fireproof hotel building, 106 by 110 feet; cost \$65,000.

Lawrence, Kan.—Architect Seymour Davis, of Topeka, reports: For Dr. C. V. Moltrain, three-story business college and academy building, 75 by 112 feet; pressed brick and red sandstone; elevators, electric bells and light, sanitary appliances complete; cost \$30,000; excavating.

Little Rock, Ark.—Architect B. J. Bartlett: For G. W. Shinn, brick veneered residence, 53 by 56 feet; terra-cotta trimmings, slate roof; estimated cost \$7,000; independent contractors.

Martin's Ferry, Ohio.—Architect Chas. S. Sedgwick, of Minneapolis, Minn., reports: For L. J. C. Drennen, frame residence, 29 by 54 feet; cost \$4,000; under way.

Mammoth Springs, Ark.—B. J. Bartlett, of Little Rock: For Mammoth Springs Improvement Co., brick business block, 50 by 100 feet; estimated cost \$8,000.

Marysville, Tenn.—Architects Baumann Bros., of Knoxville, report: Presbyterian church, 64 by 78 feet; brick, slate roof; cost \$10,000; receiving bids. For Joe Burger, two-story frame, 38 by 60 feet; cost \$7,500; under way; Moore & Co., builders.

Minneapolis, Minn.—Architect Chas. S. Sedgwick, reports: For Dexter Thurber, pressed brick veneer residence, 48 by 63 feet; cost \$15,000; under way; M. Clay, builder. For Judge J. M. Shaw, pressed brick residence, 47 by 58 feet; cost \$17,000; J. C. Stout, builder. For Mrs. E. M. Gill, frame residence, 34 by 53 feet; cost \$5,000; under way; Geo. W. Brown, builder. For C. C. Chase, frame residence, 36 by 58 feet; cost \$4,500; under way; G. S. Powell, builder. For Cable & McKean, frame residence, 36 by 58 feet; cost \$4,500; under way; G. S. Powell.

Architects Newhausen & Dustin, report: Building is very brisk, and outlook for the fall season is very encouraging. For M. Wyman, two-story brick store, 202 by 54 feet; cost \$9,600; under way; C. C. Zeigler, builder. For L. K. Lovejoy, frame dwelling, 28 by 56 feet; cost \$2,700; under way. For H. A. Westphal, two-story frame hall building, 44 by 90 feet; cost \$3,500; under way; G. C. Kenzie, builder. For Wm. Dresser, two-story brick store, 34 by 85 feet; cost \$8,000; under way; J. Knoblauch & Co., builders. For Wm. Dyer, three-story brick store, 24 by 70 feet; cost \$6,000; under way; J. Knoblauch & Co., builders. For Harris Bros., two-story brick tenement, 165 by 110 feet; cost \$20,000; projected. For A. Hornung, two-story frame store, 22 by 56 feet; under way; G. Muther, builder. For Glueck & Son, pressed brick residence, 26 by 68 feet; cost \$12,500; projected. For N. Pratt, frame dwelling, 35 by 62 feet; cost \$7,000; projected. For Geo. McCann, brick livery stable, 60 by 90 feet; cost \$6,000. Also brick basement, 62 by 54 feet; cost \$7,200; projected.

Architect Harry W. Jones reports: Much more substantial work being done than ever before. For Bank of Commerce, seven-story fireproof office building, 66 by 142 feet, brownstone; cost \$175,000; under way. For Dr. S. F. Stance, three-story brownstone residence, 40 by 80 feet, fireproof; cost \$25,000; under way. For E. P. Abbott, two-story frame residence, 30 by 50 feet; cost \$6,000; under way. For W. A. Barnes, stone residence, 30 by 50 feet; cost \$10,000; under way. For J. S. Sutcliffe, brick residence, 30 by 40 feet; cost \$8,000; under way. For T. E. Craft, frame dwelling; cost \$3,000. For E. M. Nesmith, frame dwelling; cost \$3,000.

New Castle, Pa.—Architect S. W. Foulk reports: For P. H. Phillips, brick and stone residence, ornamental brick and terra-cotta trimmings, slate roof, hardwood finish; cost \$16,000; J. M. Vance contractor. For M. J. Hanna, twelve-room frame dwelling, slate roof; cost \$5,600; R. M. Jamison, contractor. For E. A. Douan, seventeen-room frame dwelling, slate roof, hardwood finish; cost \$8,000. Also slate roof barn, 29 by 35 feet; cost \$500; R. M. Jamison, contractor. High school building, 75 by 92 feet, brick, stone and terra-cotta trimmings, slate roof, Smead system heating, ventilating and dry closet; cost \$21,000; Wm. Barnett, contractor. First M. E. Church building, 82 by 130 feet, pressed brick with stone and terra-cotta trimmings, slate roof; cost \$25,000; plan completed and foundation contract let to Charles Rowan. For Mrs. J. C. Hanna, double-dwelling; cost \$4,000; Geo. Bryant, contractor. For John Hill, dwelling; cost \$2,000; Wall Emery, contractor. For D. M. Cubison, remodeling hotel; cost \$14,000; Thomas Allen, contractor. Also several smaller buildings and works out of this city reported elsewhere.

New Corporations.—The Gem Hydrant Co., of Mansfield, O., has been incorporated; capital stock, \$60,000; Rohl, A. McCarty, P. L. Teeple, F. Schreidt, Henry Yoe and Mason A. Noble, incorporators. The Lincoln Diamond Polish Co., of Lincoln, Ill., has been incorporated; capital stock, \$50,000; B. R. Andrews, John A. Lutz and T. T. Beach, incorporators. Automatic Safety Elevator Gate Co., of Rochester, N. Y., has been incorporated; capital stock, \$25,000; Carl J. S. Mensing, A. De Wayne Stickland and W. E. Stickland, incorporators. The New York Heating Co., of New York City, has been incorporated; capital stock, \$55,000; Theodore N. Vail, 95 Milk St., Boston, Mass., David B. Parker, Randolph & Delmore Elwell, Brooklyn, incorporators. The Brooklyn Heat and Power Co., of Brooklyn, has been incorporated; capital stock, \$25,000; David B. Parker, Randolph, Delmore Elwell and Wm. A. Vail, Brooklyn and Alex. Cameron, Orange, N. J., incorporators. The Roland Brick & Tile Co., of Roland, Iowa, has been incorporated; capital stock, \$6,000; Chas. Christian, president, B. M. Ras musen, secretary, and R. K. Beard, treasurer. The Warren Ehret Co., of Philadelphia, has been incorporated; capital stock, \$100,000; Alonzo Gibbons, Palmyra, N. J., incorporator. The Chicago Hydraulic Pressed Brick Co., of Chicago; capital stock, \$200,000; incorporators, E. C. Sterling, H. W. Eliot, William B. Dean, Wais Chauvenet and F. H. Dukes. The Otley Packing Cement Manufacturing Co., of Chicago; capital stock, \$100,000; incorporators, Samuel Otley, William Watkins and James Phelps.

Northfield, Mass.—Architect S. W. Foulk, of New Castle, Pennsylvania, reports: For Congregational Society, two-story brick, stone and frame church, 92 by 85 feet, slate roof; cost not given; plans finished.

Pittsburgh, Pa.—Architect S. W. Foulk, of New Castle, reports: For Rev. Mr. Chapman, two brick dwellings; cost, \$12,000; J. G. Weaver, contractor. For S. A. Taggart, brick dwelling, slate roof; cost, \$7,000; J. G. Weaver, contractor.

St. Louis, Mo.—Following are the most important building permits issued recently: Rosenheim & Frankenthal, seven-story brick business block, 90 by 130 feet; cost, \$125,000; contract sublet. J. T. Drummond, three-story brick warehouse, 44 by 85 feet; cost, \$20,000; Kirgin Bros., contractors. C. Pickel, three two-story stores and dwellings, 54 by 55 feet; cost, \$6,000; sublet. J. W. Clemens, two-story brick carriage factory, 50 by 109 feet; cost, \$8,000; Goesse & Remmers, builders. M. Proetz, two-story brick flats, 45 by 50 feet; cost, \$5,500; M. Proetz, builder. Anheuser & Busch Brewing Company, two-story brick dwelling, 47 by 60 feet; cost, \$10,000; sublet. Mrs. T. T. Wurth, two-story brick store and dwelling, 35 by 61 feet; cost, \$6,000; sublet. M. Slattery, four two-story brick dwellings, 23 by 62 feet; cost, \$7,000; E. Mackey, builder. G. P. Schaefer, two two-story brick stores and dwellings, 26 by 65 feet; cost, \$5,000; A. Dietz, builder. J. Wodraska, two two-story brick tenements, 18 by 51 feet; cost, \$5,200; F. Knittel, builder. Dr. T. O'Reilly, four two-story brick dwellings, 75 by 30 feet; cost, \$7,000; M. Kirkwood, builder. D. F. Kaime, eight two-story brick dwellings, 148 by 52 feet; cost, \$20,000; and four two-story dwellings, 68 by 50 feet; cost, \$12,500; sublet. M. E. Church, two-story brick church, 65 by 97 feet; cost, \$25,000; D. Evans, builder. Mrs. A. Mueller, four two-story brick dwellings, 50 by 44 feet; cost, \$5,000; F. Mueller, builder. St. Liborius' Church, stone basement, 75 by 190 feet; cost, \$18,200; F. Fehlig, builder. H. E. Frendly, two-story brick dwelling, 26 by 44 feet; cost, \$5,000; J. Gager, builder. Mrs. M. Pattison, two-story brick dwelling, 25 by 50 feet; cost, \$5,000; J. Gager, builder. L. D. Dazier, two two-story brick tenements, 57 by 51 feet; cost, \$5,600; Cook & Casey, builders.

St. Paul, Minn.—Architect C. A. Wallingford, reports: For St. Paul Park Company, eight frame residences; cost, \$2,000 each; fourteen dwellings; to cost, \$1,000 each; projected. Hotel, 40 by 80 feet; cost, \$12,000; under way; John Makinson, builder. For John Dow, frame residence; cost, \$7,000; projected. For Lucian Warner, frame residence; cost, \$10,000; projected.

Sterling, Kan.—Architect Seymour Davis, of Topeka, reports: Cooper Memorial College building, 50 by 120 feet, nearing completion; cost \$30,000.

Sweetwater, Tenn.—Architects Baumann Brothers, of Knoxville, report: Presbyterian Church, 49 by 60 feet, brick, slate roof; cost \$8,000; under way; Bina Young, builder.

Tiffin, Ohio.—Architect F. K. Hewitt reports: For R. D. Smeath, frame residence; cost \$3,300; under way. For Dr. J. W. Martin, brick block of three dwellings; cost \$4,600. Trinity Church, Sandusky limestone with Newark brownstone trimmings; cost \$20,000; under way. For John A. Hall, addition to store building; cost \$2,500; under way. For S. B. Smeath, remodeling residence; cost \$3,500; under way.

Topeka, Kan.—Architect Seymour Davis reports: Present condition and outlook for building is good. Have enough work in hand in Topeka and elsewhere to keep five men busy all winter, and work coming in every day. For Wilson Keith, completing four-story business building, 50 by 135 feet; cost \$30,000. For Ex-Gov. Crawford, four-story and basement office building, 50 by 100 feet, pressed brick and terra-cotta, elevators, steam heat and power, electric lights, etc.; cost \$30,000; plans completed. For E. Bennett, finishing pressed brick and terra-cotta residence; cost \$30,000. For J. K. Jones, four-story office building, 25 by 60 feet, Bedford stone front; cost \$10,000. For Dr. Henry W. Roby, office and residence, 25 by 60 feet; cost \$8,000; under way.

Vandale, Ark.—Architect B. J. Bartlett reports: For Cross county, court house, 60 by 56 feet, brick and stone; estimated cost \$15,000; let September 5; Thos. B. Smith, commissioner.

Warren, Ohio.—Architect S. W. Foulk, of New Castle, Pa., reports: Church of the Disciple, 60 by 130 feet, brick, stone, and terra-cotta trimmings; cost \$19,000.