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The Work of Henry Hering*

By GUY PENE duBOIS.

AMERICAN sculpture with the figure of Rodin hovering over it, an evil genius, is as though it had been dipped in an acid that only age could rub off. There have been so many monumental figures in art, but no single, contemporary figure of any period so enormous as that of the great Frenchman. He is, as I have said elsewhere, a god or a

interest in art. Indeed it is the art market, the glamour of the fabulous sums spent in it, rather than the art product, that creates talk, excitement, admiration, envy among the people.

Now unless art takes the reins and tugs on them one way or another we are going to be realists—that is, we are going to take life as it comes and comment upon it with all the literal truth of which we are capable. Not because the world is without natural idealists and symbolists, men with intuitive prejudices who would follow a path blindfolded despite temptations placed in a million by-ways, but because the vaster world with eyes glued on gold follows the practical man who may lure it with enough of the stuff that glitters. The practical collector of gold is a realist.

Place ideals instead of dollars, which for the simplification of the argument is not an ideal, on the pedestal, and immediately the heads of artists, who are individuals, will bob up definitely above the vortex; idealism becomes a buffer to realism; symbolism steals a little of the fire of literalism.

It is true that nothing lives that is not truthful, and likewise true that the range of truth is so vast that one end of it must seem very great truth and the other end very great falsehood. Now the modern realist who sees in truth an obvious theme are likely to call the idealist a liar, forgetting that truth, which is sincerity, lives in every man's individual vision.

Henry Hering, the sculptor, whom this article concerns, is not a realist, not a follower of Rodin, strange for the day, and one of the most sincere of the men here who feel that they have something within themselves worth giving out to the world. He was born in New York City in 1874. He began his studies at Cooper Union, worked for eight years with Martini and for eight years with Augustus Saint Gaudens. The latter connection was broken only with the sculptor's death.

It would be futile and rather foolish to say that he had retained nothing of the teaching of these men, that he had discarded, with a shake of the shoulders, the veil thrown over every sincere student and stood forth an individual linked to no other



Plate by Bucher Eng. Co., Columbus, O.

"Diana"—A Bronze Profile—By Henry Hering, Sculptor. monster. The great mass of sculptors either profit from the radiation of his light or are lost in the darkness of his shadow.

Rodin with the world, I am inclined to believe, is a realist. That may be because the present day interest in dollars is greater than the present day

*An article with illustrations from a recent number of The Architectural Record through the courtesy of the publishers.

individual by any trend of thought or any method of expression. He is Saint Gaudens over again, the workman and, in many little delicacies of conception, the artist. Here the influence may be said to rest and through it and above it stands Hering the individual, with his own grip on thought. A very

every soldier in a company was like his captain.

Hering works quite alone and rarely exhibits. In this he resembles the older sculptors whose work became familiar to the public only after it was placed in a public building or square or park a finished commission. He has made an ideal of dignity

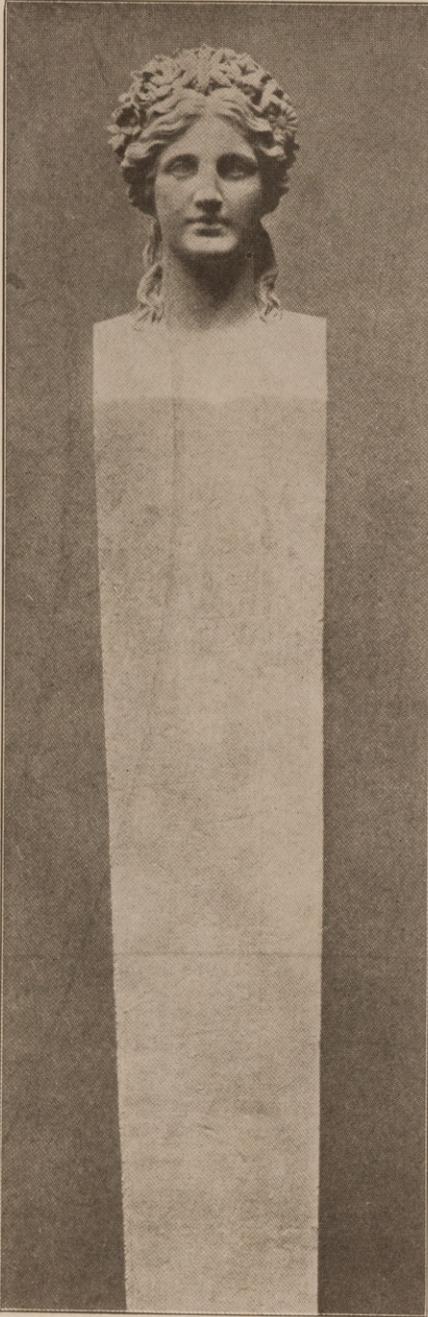


Plate by Bucher Eng. Co., Columbus, O.

Garden Terminal Figure: "Spring."
Henry Hering, Sculptor.

distinct point should be made of this because it would be a very easy and a very natural thing to place him as a pupil of Saint Gaudens, in accordance with the tradition of the pupil and the master, and to let it go at that, and because I fear that it would be as great a mistake as to say all Republicans and all Democrats and all Socialists were sheep or that

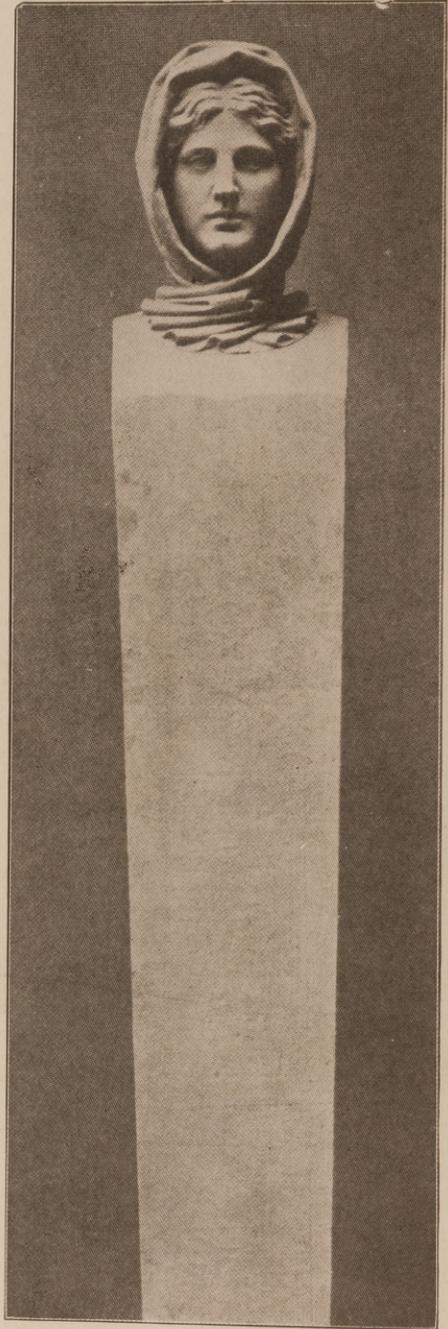


Plate by Bucher Eng. Co., Columbus, O.

Garden Terminal Figure: "Winter."
Henry Hering, Sculptor.

and in this he stands a little aside from modern sculptors whose gymnastic minds are capable of leaping and bounding, backward and forward, from peaks to valleys, with the acrobat's ability and the mountebank's boast of infallibility. He seeks completion, and in this resembles the Hellenists and not at all the followers of Rodin, who, having given

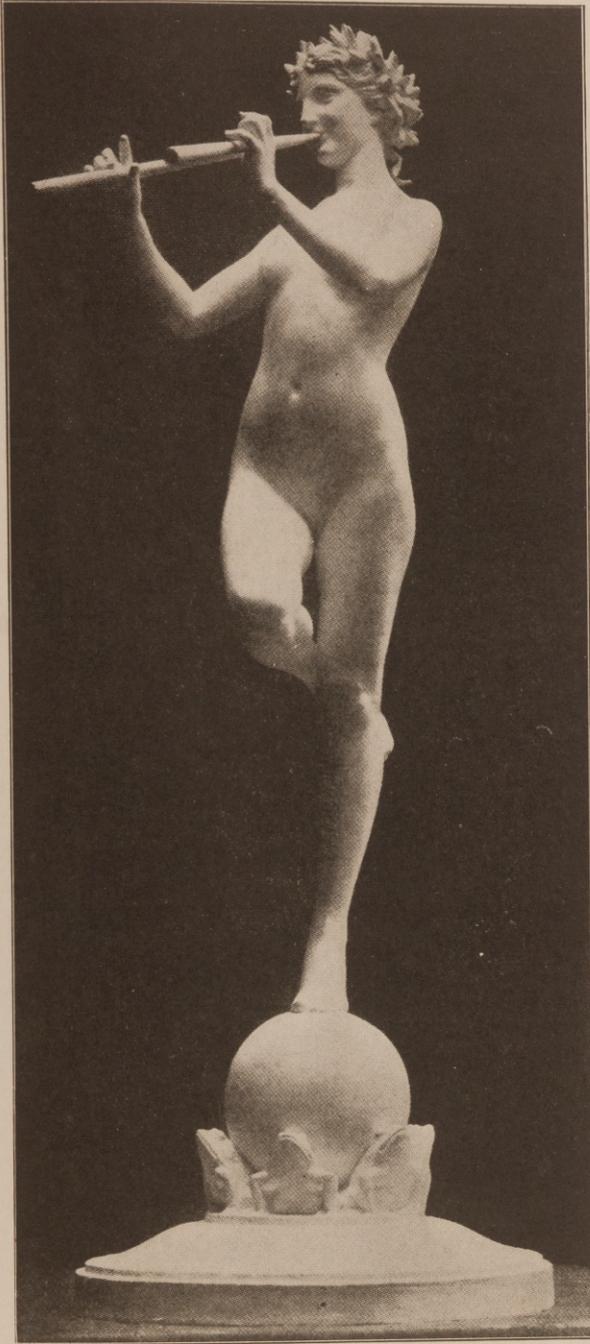


Plate by Bucher Eng. Co., Columbus, O.

"L'Allegro"—A Bronze by Henry Hering.

the suggestion of an idea in their work, are wont to leave entirely untouched parts considered unessential, which is as though a woman, meeting success in the effort to attract eyes to her face, went barefooted.

The man who makes a goal of perfection leaves himself open to the attacks of the realists who are ever ready to cry inhuman, cold, for the Puritan spirit has brought up here the vision of a perfection which called the heart, since it could be tempted, a weakness. Often enough the realists have been right. Attacks on the works of the classicists who built a theme about the shell of the Greek idea, copied lines and forms and proportions and failed to see the heart, the soul, the palpitating, living, immoral thing inside of it are justified, surely.

But there are realists too who copy the shell of man and call that hollow reproduction real man. Mr. Hering is neither the one nor the other. The classicists who follow formulas and are described as Academicians might point to the realism in his work and therefore, in accordance with the formula, bad. I imagine that realists finding that the classic spirit regulated the realism would discover an ideal in it and cry falsehood. Mr. Hering, as a matter of fact, is too truthful to deny his eyes as the Academicians do and too sincere or too truthful to deny the ideal of beauty, which with him, as with any man, must color his sight.

I believe that this ideal in Hering is dignity. A portrait bust of John Freeman, a New England



Plate by Bucher Eng. Co., Columbus, O.

"Diana"—A Bronze by Henry Hering.

farmer, which he showed to me recently in his studio, is to me the most direct expression, at least the most obvious expression of himself, or of his art, if you prefer it, that I can call to mind.

That Hering himself considered the execution of it important is certain. He spent three years getting the old farmer, who is past eighty, to pose for him. During this time he was forced to push his wit to the extreme of effort in almost every direction. Mr. Freeman, being a typical New Englander, feared the thing that he could not understand, feared that possibly a fortune was to be made from settlers, who, strangers in a strange wilderness, became conquerors of it.

The theme of this work Hering carried out in a portrait bust of Augustus Saint Gaudens finished just previous to that great American's death, and never publicly exhibited. This Saint Gaudens' bust indeed, as a tribute to the famous artist, is unquestionably valuable. In the Metropolitan Museum of Art are two portraits of Saint Gaudens, one by Kenyon Cox that follows closely an academic formula, and therefore must be valueless as a document, and one by Ellen Emmet, in which the literal facts concerning form, features, construction are made to seem, perhaps, over important as though the detail of a mole on a man's face was to be turned into a conclusive argument in the judgment of his character.

Hering points to the puny in minor details with big comprehensive truths. One finds them in his portrait of Bishop Talbot, of Southern Pennsylvania, and in his portrait of Roger Platt, the son of Charles Platt, the architect. In this latter portrait one sees not only the boy Roger, but an epic to the spirit of American youth. It is handled in much the same way that Praxiteles handled that head of Hermes, the smooth clearness of the face accentuated by the tumbled roughness of the hair.

Indeed the spirit of the ancient Greeks is to be found often as not in the works of Mr. Hering. It is decidedly apparent, for example, in a little statuette of Venus, hands uphold a drapery that hangs in symmetrical folds, the proportions lending grace, the attitude, dignity, the almost frenzied coldness of the manipulation of flesh—the godlike purity of the Greeks, clear as air on a fine winter day.

It is the bronze Diana that Mr. Hering considers his masterpiece and in which he has made of reserve a fine art. That statuette shows a Diana new to modernity, a Diana that is really a goddess, free from earthly temptation, from material care, happy, joyous, but refined and as divine as though she were a goddess of Hering's own religion. He shows her in lines that are clear and continuous, sinuous and unhampered, devoid of prudery. Con-

tinuous line, but not too continuous, too suave, which, like urbanity, is vulgar.

Another picture of joy, less dignified, more youthful than the joy of Diana, that is ageless, is his figure, suggested by Milton's "L'Allegro," blowing through pipes similar to those of Pan and dancing, her face lighted, like her figure, by the joy of rhythmic tune and motion.

A catalogue of Hering's work would be entirely inadequate if it did not include examples of his work in bas-relief. Here one may not forget that he was a pupil of Saint Gaudens who knew how to lend air and even color to a flat surface. His bas-reliefs reach a little further into the province of the painted picture. Their forms are a little fuller, a little more robust than those of Saint Gaudens. I am thinking of the bas-relief of Everts Tracy, the architect; of Charles Albert Coffin, the president of the General Electric, and of the group portrait of Alice Olin Dows and of Stephen Olin Dows. The last is captivantly decorative. This may be said too of his medal for the Scarsdale Golf and Country Club, an arrangement of Scotch thistle, which it is possible he may win himself, as much of his spare time is devoted to golf.

Elsewhere in that catalogue designs for architectural motifs should be given a prominent place. In this field of his work the most apt examples are to be found in a lioness wearing the Egyptian head-dress, seated, the lines of her figure rigid, her gaze impenetrable—a sphinx truly; in the terminals of the seasons now at the Harkness house of which Gamble Rogers was the architect; in the fountain of the boy and the dolphin in the Mather house, Cleveland, which Charles Platt designed, and in a beautifully arranged figure of Pan, the immortal, for the fountain of the Dows house at Rhinebeck, designed by Albro and Lindeberg—here is a strong feeling by the sculptor that his art is indeed allied to architecture.

Country's Building Statistics.

Official building reports from some fifty building centers throughout the country show an aggregate gain of 8 1-2 per cent for November as compared with November, 1911; and the past eleven months show a gain of 5 1-5 per cent as compared with the same months of the past year. The building industries enjoyed prosperity last year, and it is gratifying to know that this year promises to be still better. Over one hundred per cent increase for November was scored in the following cities: Atlanta, 199 per cent; Duluth, 251; Indianapolis, 183; Kansas City, 153; Nashville, 309; St. Joseph, 105; Worcester, 194. The principal gains during the eleven months were made at: Akron, 33 per cent; Atlanta, 53; Buffalo, 40; Detroit, 35; Los Angeles, 34; Fort Wayne, 32; Manchester, 86; Rochester, 32; Toledo, 44.

Florida Architects Have Organized

WITH quite a number of the members of the profession present from Jacksonville and other points in the state, the Florida Association of Architects was formally organized Saturday, December 14, at Jacksonville, the meeting being held at the auditorium.

Among those present were R. A. Benjamin, George O. Holmes, Emil A. Ehmorun, M. R. W. Elliott, James R. Walsh, J. H. W. Hawkins, W. B. Camp, Sargeant Hamilton, M. S. King, L. P. Hut-ton, W. B. Talley, L. E. Lindsay, J. E. Summer, L. R. Sheftall, Rutledge Holmes, V. E. Mark, H. J. Klutho, J. L. Pfeiffer and others.

The meeting was called to order by George O. Holmes, of Jacksonville. The chair then introduced Rutledge Holmes who, in welcoming the visiting architects and explaining the purposes for which the meeting had been called, said:

Holmes Makes Address.

"Fellow sufferers, my designing friend, having an erroneous idea of my talking qualities, has commissioned me to perform the work I am about to attempt and, like some clients, no doubt expects much more than a sketch immediately.

"I shall endeavor to outline what has been done in bringing the architects of the state together and the purpose of our association.

"The architects of Florida have for years felt the necessity for an association. Early in December W. B. Talley succeeded in arranging for a meeting of the local architects, the 18th of last month, at the Jacksonville Board of Trade building. So much enthusiasm was shown by the local architects that a temporary organization was formed and the architects of the state advised of the movement, many of whom are deeply interested, and the movement has become state-wide.

"Each and every one of us feels proud of our profession, feels proud of the work its members have accomplished and the monuments of art and beauty which they have left to posterity. Art, architecture and engineering have always been closely allied, and today most public buildings are the result of the combined effort of these arts and sciences, under the direction of the architect.

No art or profession reflects and perpetuates a people's culture and civilization so much as architecture. It expresses religion, social life, artistic sense, and commercialism, the last unfortunately frequently interfering with design. Each of us by a careful study of the problems coming before us can influence the public taste by directing our clients into the proper channels. We should at this moment feel specially satisfied with the progress made in forming an association and bringing together some of the best designers and constructors of our state.

"Any professional man can attain greater efficiency by frequent contact with his co-workers, if he can freely exchange ideas. Meetings of this association will be the means of diffusing individual thought among its members and broadening their views, which would influence design throughout the state. Each section of the state will be benefited by knowledge gained from other sections and the people at large by this permeating influence come into a realization of what architecture really is. We are today struggling to do good work and satisfy our clients. Something very difficult, because many of our clients have money only, have just learned the difference between architects and builders, and cannot judge as to what is good or bad in design, though they imagine that they know just what they want. By being patient with our clients, we can influence them for better design, so that patience appears to be one of the necessary attributes of an architect.

Best Design Seldom Wins.

"In competitions for public work, the best design seldom wins, as those who have the work in charge are not artistic or scientific enough to feel the necessity of obtaining expert advice. By concerted action we can remedy this and educate the various boards in charge of public works to appreciate the value of advice from trained men. When our boards of public works come to a realization of this they will not only benefit architecture, but the work of all professions. In architecture, however, it will have the result of obtaining for the public the best design. May the best design always win!

"Architecture, as it does, combining both science and art, requires as much gray matter as any other profession. It is as dignified and important as any, yet few of our states have laws regulating its practice. The reason for this is that in this state we have not been working in unison. Now let us work together, have proper laws passed which will regulate the practice, require examination and make it impossible for incompetent persons to obtain licenses, thereby necessitating the best design, and make our public buildings things of beauty, adequate in arrangement for the purposes for which they have been built and constructed, if possible of fireproof material.

"Many of our schools are unsanitary fire traps, are ugly and do not give the children of the state any idea whatever as to what architecture is. Every child receives impressions which are more lasting than impressions received later in life, and many a child's taste is so warped by the early impressions of his schoolhouse that should he become an architect he might in consequence be guilty of some of the atrocities we see.

Defects of Architecture.

"Even boards of public instruction have been guilty of erecting school buildings without plans made by an architect, believing that they were saving money for the public. I might name some atrocious buildings in this city, the results of judgment of business men, but to do so would be in bad taste. I have in mind, however, a certain building of classical pretensions which has five columns, one on the axis. Other misfits strike every architect or person of culture as being rather unfortunate. Another building which would belong to the Renaissance period has the entablature and the columns improperly proportioned, has a door in the center and when you enter you are struck by a column on the axis.

"A nearby office building has some decorations in terra cotta below its many windows, which look as if they might have been scalloped out of green paper by a free lunch counter chef for the decorations of his kitchen shelves and applied by a paper-hanger to the building. A prominent building, the center of which serves as an entrance to a theater, wears a facade as expressionless as the physiognomy of a Chinese laundryman.

"Not wishing to be personal, I shall forbear to criticize any of my own work, and merely mention the foregoing as an illustration to show that the money-makers in a community are often the worst judges of art and should be influenced by the patient architect.

"An adequate set of plans and specifications is the result of a great deal of work and expense, for which every architect is entitled to proper compensation. If this work is done for too low a price, it not only lowers the architect's dignity, but is a positive injury to the design of buildings, because this architect can not devote the proper time and study to his work and live, and of necessity continues on the 'cheap work road' which leads to the construction of expensive and offensive buildings, which are sources of constant expense in repairs and trying on the nerves of the community.

"A temporary committee on constitution and by-laws has prepared a code of ethics, which, if followed, will do a great deal to properly dignify the profession and make our state architecturally beautiful. From the expressions I have heard from many of the architects, I have no doubt that this organization intends being ethical.

"Every successful architect must necessarily be a critic, but it is not necessary that he should adversely criticize the work of others before the public. There is nothing to be gained in this kind of criticism. If, however, he will discuss and criticize specially his own work with his fellow-architects he will gain much knowledge.

Fellows Should Criticize.

"If he will invite and take good naturedly the criticisms of his fellow-architects on his own work,

he will avoid falling into errors which he has heretofore made, and constantly improve as a critic and a designer. We are now assured of a permanent organization and must work together in good fellowship. Frankly tell one another of the weak points, if we believe that our fellow-architect would take it in a proper spirit, and give each other the benefit of any knowledge we may happen to have. Because an architect does one building which is bad in design, it does not necessarily follow that he is a bad architect, as every architect is more proficient in certain classes of work than he is in others, and we all have our limitations. These limitations, however, can be extended, if we give each other the benefit of good advice freely and unreservedly. This meeting evidences the fact that our association is beyond the embryonic stage, and its success seems assured, so let us work together for our common good and the good of the people of the state at large."

The address of Mr. Holmes was received with splendid applause and the body then went into a temporary organization, resulting in the election of M. L. Elliott, of Tampa, as chairman, and L. E. Lindsay as secretary.

Officers Were Elected.

Various committees were appointed and a constitution and by-laws were adopted, after which an adjournment was had for lunch, which was served in the banquet hall of the board of trade.

After luncheon the association took up the matter of electing officers with the result as follows:

President, George O. Holmes, of Jacksonville.

First vice-president, George L. Pfeiffer, of Miami.

Second vice-president, M. L. Elliott, of Tampa.

Secretary and treasurer, Rutledge Holmes, of Jacksonville.

Directors, W. B. Talley, H. J. Klutho, M. C. Greeley, of Jacksonville, and L. P. Hutton, of Orlando.

After selecting Jacksonville as the next place of meeting on Thursday, June 5, 1913, the association adjourned and the visiting architects were taken on an automobile tour of the city.

Building Company Organized.

A meeting of the incorporators and stockholders of the American Construction & Development Co. was held at Knoxville, Tenn., recently. A board of directors was elected, as follows: W. R. Johnson, Chas. H. Harvey, A. Greenwood, Thomas Pruden, E. L. McLemore, Huger M. Johnston, John M. Ross, T. A. Wright.

The officers selected by the board of directors are: W. R. Johnson, president and general manager; C. H. Harvey, vice-president; Thomas Pruden, secretary and treasurer; T. A. Wright, attorney.

The capital stock of the company is \$50,000. It was organized for the purpose of building homes.

Georgia's Architectural Association

THE architects of Georgia have taken a wise step in the recent formation of the Georgia Architectural Association, which meeting was recently held at the Piedmont Hotel in Atlanta, attended by members of the fraternity from all parts of the state, starting out with a membership of thirty or forty, many of whom were in attendance.

The meeting was called to order by Mr. T. W. Smith, of Columbus, who was instrumental in promoting the organization, and who has been and is one of the active workers in the new organization. Mr. Smith stated that the object for which the meeting had been called was that he had felt for some time that the architects for social and professional reasons should get together, not for the purpose of being antagonists to any other order not for being exclusive to any private interests of any individual, but for the good of all architects and their assistants, and that it was his desire to help the young men of the profession.

A temporary organization was perfected by the naming of Mr. Curran R. Ellis, of Macon, as temporary chairman, and Mr. L. A. Belonby, of Augusta, as temporary secretary.

There appeared before the meeting Messrs. W. B. Willingham and A. R. Colcord, well-known Atlanta manufacturers, who gave appreciated talks and offered a few suggestions as to details of specifications which will redound to the good of every member of the profession. They were heartily in favor of a state organization and promised it every support in their power.

Architect Haralson Beckley, in behalf of the Atlanta chapter of the American Institute of Architects, of which he is president, appeared before the organization and extended an invitation for those present to join the local chapter with the idea of becoming members of the institute either at present or ultimately. He suggested that a member of the Georgia association be appointed to attend the next meeting of the chapter, which will be held at the Brookhaven Club on January 25, and lay before the institute the plans and purposes of the Georgia association. Mr. T. W. Smith was appointed special commissioner to attend the institute meeting.

Chairman Ellis appointed the following committee on general organization: T. W. Smith, chairman; Harry E. Lindley and L. A. Belonby, who,



Plate by Bucher Eng. Co., Columbus, O.
Menger Hotel, San Antonio, Tex., Showing Part of Alamo Plaza.

during the afternoon session, reported they had prepared a constitution and by-laws much after the order of the one now being used by the North Carolina Architectural Association, which has been operating eight years. After discussing the original draft, paragraph by paragraph, alternating and eliminating some features, a most satisfactory article was adopted which should meet the approval of every practicing architect in Georgia.

Architects J. R. McEachron and Park Dallis, both of Atlanta, attended the meeting, gave talks and signified their willingness and desire to join hands with the members of the new organization.

It is the desire of the architects and the object of the new association to have enacted into law a measure requiring the licensing of all architects by examination and of lending their influence to only such mills as who do not make a practice of furnishing ready-made plans.

The membership of the association is to be divided into the following classes: Active, associate, junior, and honorary. All architects of good standing and good character, who have been practicing in the profession exclusively for three years, or who can submit proof of their capability as architects, will be eligible to membership. Draftsmen and young men in architects' offices will be eligible as junior members of the association.

The following were the officers elected:

President, T. W. Smith, Columbus, Ga.

First vice-president, Curran R. Ellis, Macon, Ga.

Second vice-president, L. A. Bellonby, Augusta, Ga.

Secretary and treasurer, Harry E. Lindley, Macon, Ga.

The directors are composed of the above officers and Frank R. Happ, of Macon, and T. F. Lockwood, of Columbus.

The roster of members follow:

G. M. Poley, Savannah; Carlyle Nisbet, Macon; A. Sidney Brown, Macon; W. A. Edwards, Atlanta; L. A. Bellonby, Augusta; C. L. Whaley, Augusta; P. E. Dennis, Macon; Percy Sugden, Savannah; George E. Murphy, Atlanta; A. F. Walker, Atlanta; W. T. T. Chase, Atlanta; Alexander Blair, Macon; J. F. Moorefield, Gainesville; G. Lloyd Preacher, Augusta; Harry E. Lindley, Macon; H. W. Witcover, Savannah; L. R. Bentz, Valdosta; Frank R. Happ, Macon; Leroy E. Kern, Atlanta; R. B. Adams, Atlanta; M. J. Reidy, Albany; A. N. Canton, Atlanta; F. W. Cooksey, Atlanta; D. S. Schureman, Waycross; T. F. Lockwood, Columbus; I. P. Crutchfield, Savannah; Curran R. Ellis, Macon; Park A. Dallis, Atlanta; J. R. MacEachron, Atlanta; T. W. Smith, Columbus.

An invitation to hold the semi-annual summer meeting in Macon was extended and accepted by unanimous vote of the association. The meeting to

be held sometime in July, the date for which will be decided upon later. A design for a seal of the organization was invited to be submitted by junior members, a prize to be awarded the one adopted.

The entertainment feature of the meeting was a Dutch supper given at the M. & M. Club on the top floor of the Candler building, a most delightful affair, and thoroughly enjoyed by everyone present. Mr. G. P. Dozier, J. T. DeJournette and other well-known Atlanta men, made the visiting architects feel at home. Mr. A. C. Bruce, one of the oldest architects in Atlanta and a veteran in the profession, gave a most interesting talk. Later, at the invitation of Mr. G. P. Dozier, the architects adjourned, spending the rest of the evening most pleasantly at a prominent local theater.

Other details of the organization, such as going more thoroughly into the by-laws, will be given in future issues of *The Southern Architect*, whose desire it is to lend every aid to the architects of Georgia in carrying out its plans and promoting its interests in the fullest measure.

Many Duties of This Inspector.

The created position of building inspector, provided for by a special ordinance of the Vicksburg, Miss., city council, and filled by the election of M. J. Donovan, will be a position carrying with it numerous duties.

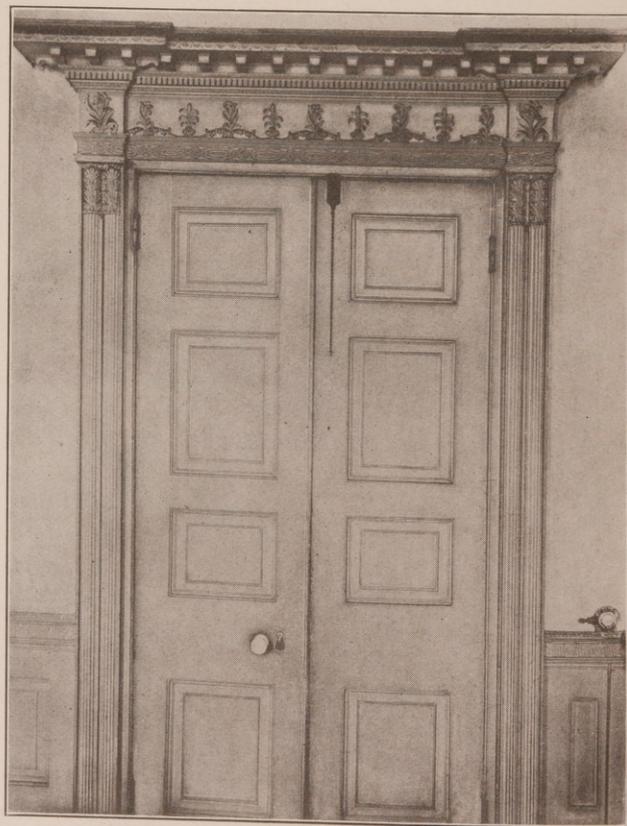


Plate by Lanman Eng. Co., Washington, D. C.

Interior Door to Russel House, Charleston, S. C.
Showing Wood Carving a Century Old.

Oyster Shells Basis Concrete Construction

BRANCHING out from the field of stews, fries, cocktails and other table delicacies in which it has long reigned supreme, the humble oyster, whose nervous system has of late caused Dr. Wiley so much concern, has entered the strenuous life as the chief component of the concrete from which one of Galveston's new business structures is built. A five-story building destined for mercantile and office purposes, occupying a ground space of 120 by 43 feet in the heart of Galveston's business district, adjoining the city hall, on its east side, has nearly reached completion. The basis of the concrete from which the framework of the building is constructed is shell taken from the reefs of Galveston Bay. Generations of oysters for hundreds of years past have gone to the making of these massive reefs that now form one of the new monuments to Galveston's material progress.

The owners of the building, Nic Bohn and G. Tietze, met with much technical opposition in their plan, but are still firm in the belief that they have introduced a building material of remarkable strength and cheapness. There is but approximately ten thousand pounds of metal reinforcement in the building, and Mr. Bohn argues that the building could have been constructed with perfect safety with nothing but the oyster shell concrete in the walls. The concrete skeleton of the building contains about 26,423 cubic feet of material, formed of one part cement, two parts sharp sand and four parts shell. An estimate, based on the weight of the average oyster shell, shows that approximately 5,500,000 bivalves sacrificed their outer garments that the five-story structure might rise on Market street.

Resting on a shell concrete foundation four feet wide, the walls for the first three stories are fourteen inches thick, with eighteen-inch pilasters at frequent intervals to add strength and support to the walls themselves and the five floors. After the third story the wall is reduced to twelve inches, with sixteen-inch pilasters for one story, and for the fourth and fifth floors a still further reduction is made to ten-inch walls and sixteen-inch pilasters. Expressing complete confidence in his plan of construction and the strength of the material used, Mr. Bohn says that he could with perfect safety add three more stories to the building.

Mr. Bohn has resided in Galveston for the past fifty years, during which time he has been engaged in mechanical pursuits. He first used concrete made with shell in 1882, he says, when he built a sidewalk curbing and foundation three feet high and 336 feet long. Two years later a conflagration swept over this part of the city and against the wall and curbing there was piled 25,000 feet of oak and ash lumber. This was entirely consumed without a particle

of damage resulting to the wall or the curbing. The same wall has stood the test of weather and water since that time, and today it is as firm and apparently as solid as the day it was constructed.

In 1888, Mr. Bohn built a cistern and a foundation for a two-story building, both of which are standing today, firm and solid, without a crack or evidence of decomposition.

As a test of the fire resisting qualities of shell concrete, Mr. Bohn has constructed in his machine shop a number of fire pots where the fierce heat of blasts used in welding have tested the durability of the material, the results being entirely satisfactory to the experimenter.

Taking up the matter of cost, Mr. Bohn asserts that his experience teaches him that buildings constructed with shell concrete are about 25 per cent cheaper than brick. He also says that the work is fully 100 per cent better in every respect, in that it is stronger, requires less attention and does not deteriorate in a moist climate. The fact that shell is a lime substance, and, therefore, unites readily with cement, is an argument of Mr. Bohn's in favor of his plan of construction, and he says it makes a wall more elastic and less inclined to crack. He also says that the blending of the shell with sand and cement is easier and better than where gravel is used in that it produces a smoother and better body in the mixture.

Shell is delivered in Galveston by barges at the wharf front, after it has been picked up and loaded by suction dredges. At the wharf hopper dredges are used to transfer the material from the barges to the wagons or cars waiting for it, and it is delivered about the city at a cost approximating 75 cents a cubic yard. Gravel costs, delivered, about 81 cents a yard.

Shell from Galveston Bay has long been used as surfacing for streets and roads and for ballast for railroad tracks. There is now within the city limits approximately forty-five miles of shelled streets, which have been greatly improved and given practically an asphalt finish by the use of crude oil. Four big concerns with equipment valued at over \$1,500,000, are now exclusively engaged in the shell business in Galveston.

Decatur, Ga.—Weekes Bros. will erect brick store and office building; two stories; 80x45 feet, plate glass front; steam heat; gravel roof; construction by day's work. Miss Leila Ross Wilburn, 305 Peters building, Atlanta, Ga., is the architect.

Dublin, Ga.—Store building will be erected by S. J. Lord and T. B. Brantley; brick.

Making and Laying of Composition Flooring

By U. S. Consul ROBERT P. SKINNER.

THE report on "floorings of sawdust and magnesium chloride" has given rise to innumerable inquiries from correspondents from various parts of the United States, all of whom express a desire for further details. It was stated in the original report that the extensive use was being made in Germany of a flooring composition consisting of a solution of chloride of magnesium to which pulverized magnesia is added, together with considerable proportions of sawdust, and which, being skilfully compounded, provided a relatively inexpensive and fairly fireproof flooring material, especially useful in large office buildings and public halls. One inquirer stated that the art of laying these floorings in Germany is far ahead of the practice in America, and asked particularly for the method of coloring the material and of governing its expansion and contraction.

According to my information, there should be neither expansion nor contraction of the material from any cause whatever, after a flooring of magnesium chloride is once laid. The very ingredients are such that there is no buckling or cracking due to heat or cold: In Hamburg the composition is mixed and spread where the building operations are being carried on, the prepared dry meal being delivered in bags from the factory and the lye water made on the spot. It is impossible to state the precise rule for the composition of the meal or for the lye solution, these being the manufacturers' secrets and each manufacturer claiming particular merits for his own formula. These formulas are not patented, and there is no doubt that they are all substantially alike. Several manufacturers have expressed a willingness to sell their process, either for the whole of the United States or for a restricted territory. One Hamburg firm sold its formula for a small place in Southern Germany for \$1,428.

The mixture of meal and lye water is made in a mortar box, and when a thickness of not more than two inches is proposed it is spread and smoothed with a hand trowel; when a thickness of four inches is desired, the material is tamped and then smoothed. The amount of lye water used in mixing the meal depends upon whether the flooring is to be simply spread or tamped; if spread the ordinary practice seems to be to use from four to six buckets of the lye water to one sack of meal, the sack apparently containing from fifty to sixty pounds.

These floorings were first utilized in large office buildings in Hamburg, and probably elsewhere, as a basic flooring for linoleum and also for the addition of artificial wood-marble flooring. These wood-marble floorings are substitutes for wood, and the panels are polished like hardwood floors; that is to say, smoothed with steel shavings and given a coating of wax. When linoleum is applied, it is

glued to the magnesium-chloride foundation with a linoleum cement, which is said to be composed of resin and putty.

In Germany linoleum is never tacked to wood or artificial stone flooring, as is usual in the United States, but it is invariably glued in place, an ordinary flour paste being used when it is applied to wooden floors. Linoleum thus laid is washed afterwards with soap water and when dry given a coating of wax, exactly like a hardwood floor. This treatment is the ordinary practice in the large office buildings in Germany, even in hallways where thousands of people pass in the course of a week.

The magnesium-chloride flooring was the first considered a particularly excellent foundation for linoleum, and it is only in comparatively recent times that it has been found possible to color it and to lay it so attractively that no linoleum covering is necessary. It is laid tight against the side walls, making the entire floor waterproof. In bathrooms and around toilets it is brought to the edge of the porcelain and the joints are rounded upward, so that no crevices present themselves in which dust or dirt can collect, nor should there be any joint through which water might percolate.

The favor in which linoleum is held in this country is such that manufacturers of these new composition floorings have some difficulty in inducing buyers to put down this material, in solid or varied colors, in preference to a similar natural color foundation with linoleum coverings, although the cost and wearing qualities of the former method are said to be much in its favor. Linoleum costs in Hamburg about 86 cents per square meter (a square meter equals 1.2 square yards), and the cheapest class of magnesium-chloride foundation pavement costs 48 cents, making a total of \$1.34 per square meter against a cost of \$1.19 per square meter for a colored wood-marble floor attractively finished. The new floorings may now be obtained in almost any color, or in mottled colors. When mottled colors are desired, the different colored mixtures are prepared separately and tamped in together as the floor is laid. Special dyes are required for these operations, and there are a number of manufacturers who produce them. In a general way, from 15.4 to 22 pounds of color are necessary for 220 pounds of mortar. The proportions vary with the strength of coloring desired. The colors themselves are of different prices. One manufacturer quotes red, blue black and brown at \$4.76 per 220 pounds; oxide green, \$53.55; and blue, \$19.04 to \$21.42 per 220 pounds. Another manufacturer quotes red dye, very much in demand, at an average price of \$3.81 per 220 pounds. The prices again vary with the quantity ordered.



Plate by Bucher Eng. Co., Columbus, O.

View in a Colonial Hallway.

The more delicate tints, such as green and blue, are more sensitive to light, particularly if exposed for a long time, than the quiet colors, such as black, red and brown. Red is especially favored, and the many different shades are said to be absolutely unchangeable. Most of the manufacturers of these dyes also supply dyes for cement tiles, stucco, imitation marble, sand-lime brick, and cement blocks.

One Hamburg manufacturer claims for his own composition that it is crack-free under all circumstances, warm under foot, elastic and sound-proof, preferable to linoleum, as linoleum curls at the edges after a time, breaks or wears away, and absorbs water, permitting it to leak through. This same manufacturer submits a certificate of examination from the royal board of examiners of material in the Technical High School of Berlin, reporting as follows on the examination of samples of his material:

1 After the sample plates were soaked in water and had been exposed to frost 25 times at 15 degrees C. below zero, the samples remained unharmed.

2. After the plates had been lying in water for eight days a very small proportion of water (9 per cent) had been absorbed.

3. After the plates had been attached to a vessel containing water—after 24 hours, none; after 48 hours, 2 cubic centimeters, or 5 per cent; after 72 hours, 4 cubic centimeters, of 10 per cent, of moisture had been absorbed.

This manufacturer also claims that in this country his composition is cheaper than pine flooring, tiling or stone; that it may be used to cover old worn-out wood and stone-plate floorings, staircases, and the like without the necessity of removing the old floors. Wherever a foundation is firm and dry it may be laid without any complicated preparations. Finally, it may be cleaned with cold water and only very seldom should lukewarm water be applied. After complete cleansing and thorough drying the flooring should be rubbed with raw linseed oil or should be waxed.

Magnesium chloride, the chief ingredient of these compositions, is worth, in 50-ton lots, in casks of 880 pounds f. o. b. Hamburg, \$11.50 per ton fused. If in lesser lots, \$12 per ton. Greek calcined and powdered magnesite, in barrels of 396 to 440 pounds, is worth \$33.32 to \$35.70 per 2,000 pounds f. o. b. Rotterdam. Raw magnesite, in casks, is worth \$30.94 per 200 pounds f. o. b. Hamburg.

Development of National Architecture

By C. M. PRICE, In Arts and Decoration.

IF WE are to assume that there is to be a style of architecture in this country which might come to be justly called a "National Style," there is much in favor of the presumption that it will be evolved from the work of an architect, or a group of architects, whose style is easily and widely copyable and adaptable. In other words, it will be a style which will be the most applicable to the greatest number and variety of conditions. Before such a style is probable, or even possible, of evolution, it is of great importance to study the viewpoints of certain prominent American architects in order that some conclusion may be formed as to the influences that are slowly being woven, like the threads of an elaborate storied tapestry, into one consistent fabric. One may be green, another blue and yet another may be yellow. A fourth may mellow all the others with a neutral brown—and perhaps this is Wilson Eyre.

His work, as it stands, is impossible to copy, no matter how profitable it may be to study. He is preeminently an individualist and, as such, our most valuable conclusions as to the basic significance of his work must be arrived at through an appreciation of his point of view in architecture.

To say that he is practical is to say no more than should be credited to any architect worthy the name. To say that his houses are picturesque and individual is to say no more than might be said of Grosvenor Atterbury or of much work by Albro and Lindeberg. To say that it is well studied, adequate and pleasing is to characterize it with qualifications which might be distributed among many other contemporary architects. That there are evidences of craftsmanship in the actual finished work might be said as well of much work by certain other Philadelphians. To say that all these particulars belong to Mr. Eyre's work, however, is to approach very nearly to placing it in exactly the niche it should occupy, and to attributing to Mr. Eyre exactly those qualities as a designer and an architect which are his due.

I speak of "designer" and "architect" as two because these functions form the dual equipment of the ideal architect, such men as Voysey and Lutyens in England, who are gifted with the artistry to conceive and the practicability to put into execution the houses of their dreams.

Too many American architects consider that the bulk of their work is done when the client has approved the last set of plans and when ground is broken on the site of the proposed house. Here, with the real architect, whose soul is in his work, the thing has only begun. The working drawings are the first rungs of the ladder—the soul of the

house is in its execution. Can the mason contractor lay the tiles in the courtyard in just the way the architect has seen them in an old English manor-house? Does he know one kind of field-stone work from another, or does he care? Why should he? If his work is not condemned on technical grounds of artisanship, why should he care if esthetic qualities are lacking, wholly or in part—even if he knows what esthetic qualities are? Does he care whether the ceiling beams in the great hall are hand-hewn, with the interest of the visible adze-marks? Personally he prefers the mill-sawed and smoothly finished beam, and will say that it is much neater.

But if these are the particulars in which many American architects fail, whether through ignorance or indifference, they are emphatically the particulars that give much English architecture that quality of character which we have tried so long and vainly to emulate in this country.

It is said that Edwin L. Lutyens, the great English architect, made it a practice personally to inspect every square foot of masonry on his work. The results of the conscientiousness are everywhere manifest—the work of Lutyens and of Voysey is the work of the architect who considers craftsmanship as a fine art, and who realizes that design and execution are two different things, and that the one is not a whit more important than the other.

With Wilson Eyre, craftsmanship in architecture may be said to be one of his most salient characteristics. He does much of his own detailing, a most important side of architecture which is too often slighted.

In gauging Mr. Eyre's influence on contemporary architecture, then, we are to reckon his personal conscientiousness—his detailed interest in the houses he builds as his point of view, and this point of view we are to accept as his by no means inconsequential contribution to the development of American architecture.

As long as the material aspect of Wilson Eyre's houses bear no pronounced English traits other than qualities of the picturesque (which might well be desired as a universal trait) he cannot be accused of being an architectural Anglo-maniac, and as his point of view, though manifestly that of the English architect, is also universally desirable in itself, his work can never fall under criticism of having a denationalizing effect on our native art. If he is trying to produce a sincere architectural type with local materials by applying a working point of view which has proved so tangibly successful in England, surely he is approaching his problem in a manner at once logical and practical.

To profit by the success of another country or another age is not necessarily to copy, and in this there lies, perhaps, the reason why the term "precedent" means such widely differing things to different people. When precedent is copied literally it can not fail to run into danger of being stupid—not because the precedent is a bad precedent, but because no two sets of architectural conditions are identical. This only illustrates an axiom which is not more particularly true of architecture than of many other things—that precedent should be studied rather than followed. Exactly in this lies a quality in Wilson Eyre's work which is almost unique in American architecture. Because the casual critic has been unable to say this or that building by Mr. Eyre is like this or that building in England, he has been popularly set down as being "original"—a designation which might be reasonably appropriate were it not for the fact that very little really original work in this country has also been good from abstract standards of good architecture. Unfortunately, the designers of this age, bewildered by a multiplicity of styles, have, in such instances as they have striven for originality, succeeded only in being eccentric. Mr. Eyre, however, is individual without being what might strictly be called original. His motives of design are the result of his scholarly study of precedent; his work as a whole the result of a sane and discriminating point of view. He has not taken the actual English country house; he has, rather, taken the idea of the English house as a starting point for his evolution of the actual American house. He has not sought to transplant the tree, but its seed, and as a picturesque type of house grew from this utilization of ideas instead of actualities, he saw to it that different climatic, social and national characteristics became so blended in the development of the whole that not even the most carping critic could find cause to make any accusation of copy.

Wilson Eyre is unlike by far the greater number of American architects in that he is absolutely consistent and does not experiment. And in spite of the fact that he has never stepped aside from his personal style, still this style has never become mannered or uninspired. That this is true and that Mr. Eyre's houses are absolutely individual, is proved by a recent pointed instance. A photographer, who is by way of being rather a connoisseur of architecture, was to take some pictures of a house by Wilson Eyre, at Orange. He knew only the name of the road on which the house was located, and although the hack driver at the depot was skeptical as to the chances of finding the house, the photographer said: "No, I've never seen the house; never been here before; but you just drive along. I'll know it when we come to it."

The illustrations bear out certain points brought

up in connection with Mr. Eyre's work in a manner which should leave but little doubt as to the soundness of his principles.

The house at Media is not "an habitation enforced" in that it is enforced on its locality, ruthlessly set down in the midst of its surroundings. The place was studied, and the house planned accordingly. It was not of a pre-conceived idea of a house, with the landscape pruned to fit, or left at everlasting and bitter variance with the architecture. It is designed around the great tree, and seems to belong where it is placed with an ease which is so deceptive as to rob the designer of his due of commendation in the matter. In points of detail it is important to notice the pleasant spacing of the windows, the picturesque effect of the small panes, and the ingenuity of the lattice at the overhang of the stucco superstructure on the field-stone base, softening this junction of materials, as well as affording encouragement to the vines. The frank treatment of the roof, and the introduction of a "leader-head" for the rain-pipes is eminently characteristic of the architect. The garden front of the Pepper house forms an apt illustration of Mr. Eyre's nice sense of craftsmanship—a very joy in the use of materials. The materials do not seem rebelliously forced into conformity with the design, it is rather as though the design had been made with forethought of the materials. There is cut stone in the bay at the left, blending gracefully into field-stone, which is cleverly masoned in the arch and thoughtfully selected in the chimney. There is a rugged slate roof, good half-timbering with "rough-cast" or stucco between and an impressive metal leader-head for the convergence of rain-water from the roof. To hold the heavy slate roof the timber framing of the porch is appropriately sturdy. There is neither monotony of material or construction, not yet is there any sense of random application. Each to its use is fit, and all blend in an harmonious whole.

The "Jacobean" hall at "Fairacres" shows that Mr. Eyre carries his architectural sincerity and his strong individualism into the interior as well and imparts to this a character unmistakable. The texture imparted by the hand-working of the timbers in this hall is visible in the adze-marks on the massive strung beams of the gallery. His unique interiors are arrived at by means of his remarkable and thoroughly studious drawings, for such problems as these he generally arrives at by means of a careful sketch. Of these sketches Mr. Eyre has made hundreds—the graphic projection of the architect's mental picture in three dimensions and it is to the fidelity of these studies that the finished charm of Wilson Eyre's interiors is due. Nothing is left to chance—no effect of the executed work can be unexpected or disappointing. Flat elevations are often misleading, even to the designer himself, but in a conscientiously worked out perspective draw-

ing, chance is eliminated. One is fortunate to be able to reproduce one of these—a crystallization as it were, not only of the architect's idea, but of his ideal as well.

And that his ideals have ever kept pace with his ideas and his able execution with both is the combination of architectural gifts that has given to Wilson Eyre his unique place among the men of this day and country.

Birmingham Builders' Election.

Nominating committees have been appointed to begin framing a ticket of officers to serve the Builders and Traders Exchange in Birmingham, Ala., for the ensuing year. At the last meeting of the Exchange a committee composed of Frank H. Conner, R. N. Hawkins and L. L. Stephenson was elected from the floor to select the officers, who will be opposed by a ticket made up by a committee appointed by President John W. Sibley.

Reports of these committees will be made at the next meeting, December 16. Composing the administration committee are W. A. Curie, H. A. Lockhart and William Spencer. The following offices are to be filled at the approaching election; President, vice-president, second vice-president, treasurer, two executive committees and five directors. Selection of the secretary is left with the board of directors.

J. H. Eddy, as chairman of the ginger committee, is preparing a superior program for the December general meeting and as two attendance teams are at work, it is expected the November meeting will be excelled in point of attendance.

Market for Vacuum Cleaners In Hungary.

Vacuum cleaners for private use are not on sale in the city of Fiume. Dealers say that they have been offered cleaners of German and domestic make, but that they have never put them on sale, as the price was such that they did not think there would be a sale for them. This price ranges from \$100 to \$125. The city has a large vacuum cleaner, which it rents for \$9.13 for eight hours or \$5.07 for four hours, with three men.

Owing to the strong wind which is prevalent here dust in the houses is very great, although all houses are provided with double windows. It would seem that vacuum cleaners should have a ready sale, if the price were not too high. It seems that the necessity is to make a start, so that the dealers as well as the buyers may see the practicability of the machine.

There are cleaners in the United States costing from \$35 to \$50, which, I think, would find a sale here if introduced. A list of the important hardware dealers in the three largest cities of this district is forwarded (and may be obtained from the Bureau of Foreign and Domestic Commerce).



This is not a Ceiling Decoration, but a Dancer. Look at this Picture Up side down.

Meeting of North Carolina Architects.

After adopting a resolution petitioning the North Carolina legislature to enact a law imposing requirements on persons who wish to become architects, the North Carolina Architectural Association which had been in session at the Selwyn hotel in Charlotte December 13th and 14th, adjourned.

The attendance at the convention was very large considering the limited membership of the association. Aside from Charlotte there were architects present from all towns and cities of the state whose meeting was in the nature of a home gathering of friends, thus making all sessions most congenial and pleasant.

President W. G. Rogers called the convention to order and after the invocation, Mr. Hook presented Mayor Charles A. Bland, who delivered the address of welcome on behalf of the city. The response was made by Mr. H. W. Simpson of Newbern. The business session then followed for the discussion of topics of particular interest to the profession.

One of the most important topics discussed was that looking towards the standardizing of the profession in the state. It has been suggested that examinations be held of all prospective architects and that safeguards be placed about the profession which will tend to eliminate abuses, the same as in the profession of law, medicine, etc. This matter is in the hands of the legislative committee.

Friday, the 13th, had no terrors for the architects as that was perhaps the most important of the two days meeting, when business matters were considered, and during the afternoon the following were the interesting features on the program, which was in blue print:

Address, by Mr. Joe F. Leitner; subject: "Why I Don't Stay in Wilmington."

Address, by Mr. H. W. Simpson: "Trials and Vicissitudes of an Architect."

Original poem, by Mr. Charles C. Hook.

Address, by Mr. H. C. Linthicum, "Personal Reminiscences of Members of the Association;" 8:00 p. m., lecture by Mr. John S. Gates of the American Sheet and Tin Plate Co., subject, "Infusion of Copper and Steel."

After lecture Dutch supper and smoker tendered by the Charlotte architects to the visiting architects and invited guests.

The entire afternoon of the last day was devoted to discussing the proposed law. A delegation will appear before the legislative committee and urge its enactment. The architects desire that persons admitted in the future into the profession shall be required to pass an examination which shall afford a test of the training and technical knowledge. Possession of a diploma from certain well-recognized institutions would remove the necessity for exami-

nation. The architects say they believe the public will be benefited by such restrictions, just as the public is protected by the requirements imposed on would-be physicians and lawyers.

Saturday morning the architects were entertained on an automobile ride over the city of Charlotte and portions of the country by courtesy of the Greater Charlotte Club, and was declared by visitors to have been especially enjoyable and beneficial.

The reception committee was composed of Messrs. Charles C. Hook, E. J. Stern, J. M. McMichael, Louis H. Asbury, O. D. Wheeler, W. G. Rogers, L. L. Hunter, F. Gordon and their draughtsmen.

The entertainment committee was composed of Messrs. C. C. Hook, E. J. Stern, J. M. McMichael, L. H. Asbury and W. G. Rogers.

The members of the refreshment committee were Messrs. H. W. Simpson, L. L. Hunter, F. Gordon and O. D. Wheeler.

The next meeting will be held in Wilmington in July, the exact date to be named by President W. G. Rogers.

Memphis, Tenn., New Building Code.

A new building code on which representatives of all departments of construction have worked for several years, has been proposed at the meeting of the Memphis, Tenn., Board of City Commissioners.

The code is a complete set of building rules and is similar to that adopted by practically all of the cities of the size of Memphis and larger.

Owing to the popularity of concrete work, which has come into prominence during the last few years, the code deals with that subject fully. It has not in the past been subject to municipal law.

Another change and improvement over the present system is that relating to elevators. The new ordinance provides for elevators to be inclosed in fire-proof shafts or that on each floor automatic safety trap doors shall be provided which may be closed in the event of fire.

All theatres and other downtown buildings must be equipped with sprinklers under the ordinance. The ordinance also provides that contractors who work for the city shall furnish an adequate bond which will be sufficient to protect the city in the event of personal damages.

The code represents the work of Dan C. Newton, building inspector; Walk C. Jones, architect; Frank B. Hunter, insurance man; Elliott Middleton, insurance man; H. N. Howe, concrete engineer; D. M. Crawford, contractor, and numerous others who have been in consultation with the committee.

Paris, Tenn.—The First Presbyterian congregation will erect a church to cost in the neighborhood of \$100,000.

Semi-Detached Houses and What They Teach

By PHIL M. RILEY.

IT IS a hopeful sign of the times that real estate promoters—at least the best and most far-sighted among them—are beginning to consider the man who buys a house as well as their own gains. Time was when this was not so; the attitude seemed to be that if a man had not the money to build his own house he should be duly thankful for anything a philanthropic promoter saw fit to hand out to him, however widely it might differ from his cherished visions of a home. This attitude does not succeed today among educated people who are demanding more consistent and attractive homes than ever before, and unprogressive promoters do not find such people among their clients.

Admitting that the promoter is of great assistance to the man of small means, enabling the purchase of a home for moderate monthly payments as the money is earned, yet his calling is not a philanthropic one. He takes from the buyer a fair interest for his money involved, just as he would expect to from a bank or any form of investment. In this light the buyer owes him nothing. It is, though, a case of a business purely for gain, yet of great benefit to the public. This fact makes the promoter's position in any community a responsible one, more so, probably, than the average promoter realizes. Upon him rests the good appearance of towns, which should be almost a sacred responsibility; yet how many of them give it a single thought, or giving, heed it?

In every town there is a row of many houses exactly alike, all equidistant from the street. To look along the porches of the whole row is much like the view from Grand Central to Fourteenth street in the New York subway. In our large cities there are hundreds of whole streets lined on both sides with such rows of houses, all alike. It puzzles even a sober man to tell which is his, and the hideousness of it all is made still more pronounced by the ungainly, height, length and narrowness of the houses themselves, huddled closely together on lots little wider than the house, so expensive is the land in the suburban districts.

This matter of the small house harmoniously treated on the small lot is an important problem, worthy of the best skill of any architect; for some pocketbooks will be lean and some lots small as long as the world lasts. A colorless existence in one of a score of houses exactly alike is not much to look forward to, and as the standard of education becomes higher year by year, fewer and fewer refined people of small means are willing to live in such houses, not only because they detest them, but also because they do not wish to encourage the building

of others. Even the doubtful dodge of changing the style of a dormer, bay or porch on each alternate house does not altogether suit them, for the increased cost of a long row of houses not more than two of which are alike is of less moment than the mental attitude of a person toward his home, when that home is of attractiveness and individuality.

The matter of the narrow lot is a problem not so easily solved as the variation in outward appearance, but there will be narrow lots as long as some people have more money than others, and so it is worth while to solve the problem of best arrangement of the house on the lot. The average promoter locates his house in the middle of a lot, say forty feet wide. If the house is twenty-six to twenty-eight feet wide there remain six or seven feet of lawn on each side, part of which is taken up by a patch, and so there are only twelve or fourteen feet between houses. To give more space between houses or to make a smaller lot answer, as the case may be, promoters often build ugly, narrow, high houses, so often seen in the suburban districts of cities. So narrow are these houses that the floor plan resembles that of a flat, one room back of another, without the pleasing variety of a house which can project here and there without extending to the side property lines; so long are they that little space remains for a lawn in front or a garden behind.

As a matter of fact no suburban property can be attractively developed with small detached houses on plots less than 100 feet in width. A six-room house, for example, with three rooms on a floor and the uncounted extras such as halls, bath, pantry and closets makes at best only a cubical, ugly house. To put four rooms on the first and two on the second floor, or to build a one-story bungalow necessitates a large lot and is expensive in respect to increased excavation, foundation and roof surface. The best solution of the whole difficulty is the English idea of two-family semi-detached houses with party lines on the side property lines.

In the hands of a resourceful architect this idea almost invariably results in a dignified, well-proportioned structure which has the appearance not of a two-family house, but a single residence of some pretension costing \$10,000 to \$12,000. By combining two houses in this way a full two-story structure, broad of roof, generally low in effect, friendly with its site, harmonious in every proportion is possible; the sort of house any man would like to build for himself could he afford to do so. It is at utter variance with the appearance of any six-room house

on a single lot and is vastly superior; it has, in other words, benefited by association with its neighbor. This applies not only to appearance of the house itself, but to surroundings as well. A two-family semi-detached house on two forty-foot lots with the party line located on the side property line gives one wide lawn for each house instead of two painfully narrow ones, because all of the land is combined on one side.

When a two-family house is mentioned many persons at once picture mentally an ugly thing of the common old-fashioned variety. One needs only to see a modern semi-detached type to realize how beautiful such a house can be. At Nassau Boulevard, L. I., near the well-known Jericho Turnpike, a few splendid examples have been built which prove the contention. They were designed by Oswald C. Herring and it would be difficult to imagine a more delightful arrangement for a modest home, or a better investment for any man who desires to buy a house half of which he can rent. Moreover, the styles and floor plans are such as would be as appropriate on almost any other suburban community in the Eastern States as they are on Long Island.

The houses at Nassau Boulevard have been built each on a lot 40 x 150, cleverly joined together in pairs in a way that gives complete privacy to the occupants of each dwelling. They are of frame construction covered on the first story with stucco and on the second story with shingles or clapboards, the color scheme being in warm grays and browns of harmonious blend. Inside, the rooms are trimmed with hazel wood and decorated throughout in harmonious tones that give an impression of spaciousness and restfulness that cannot be obtained with sharp contrast in the colors of adjacent rooms. These houses cost to build about \$4,000 for each house, or \$8,000 for the double house, and are of distinctly pleasing appearance and a welcome addition to the architecture of any community.

Economic floor plans, simple but convenient and attractive arrangement are seen to be features. All the rooms are rectangular, of fair size, and with ample window area. While the plans shown here were intended primarily for corner lots, that one with two bays on the front might easily be used with other houses each side. The dimensions of these houses are 35 x 56 and 38 x 52 placed on two lots 40 x 150, or a combined size of 80 x 150. There are, then, twelve to fourteen feet of lawn space remaining each side of the house, so that were another similar house adjoining instead of a street there would still be twenty-six to twenty-eight feet of lawn between houses. As the houses are only thirty-five to thirty-eight feet from front to back, there remains 112 to 115 feet for a suitable grass plot in front and a garden behind, according to that very sensible English idea of garden privacy.

All this does not constitute a new idea, although it is new to many, but it is an idea which has never received the attention it deserves in America. Certainly it is an idea which real estate promoters and home-builders may well give more thought to. Not only does it improve the appearance of the house, but that of the lot as well, and as a renting proposition these are big assets. Many a man would like to buy a home part of which he can rent, but he dislikes the appearance of the ordinary two-family house and knows that it is not always easy to find tenants. The semi-detached type is the solution of his problems.

Structural Men to Remain Firm.

The present indications are that the strike of the structural iron workers will continue, so far as Houston, Texas, is concerned, for some time to come.

The present severance of amicable relations between the contractors and the union men has been brewing for some time.

According to the rules and by-laws of the Bridge and Structural Iron Workers, nearly every kind of structural iron comes within the province of the union so far as the handling of the same is concerned.

In an interview with Theoder C. Basedow, secretary and business agent of the Houston union No. 84, he stated that instructions had been received by the local union from headquarters of the national organization, for the union men here to notify the contractors 90 days in advance of any contemplated move on the part of the union looking to an increase in wages or other matters touching business relations between the contractors and the union men.

Accordingly the contractors had been notified of the increase that was to take effect February, 1913, at the same time a protest was entered against the use of cheap labor, in the placing of reinforcing steel in the structures at present in course of construction.

According to Mr. Basedow the protest was not heeded and the cheap labor is still used in the handling of the reinforcing steel, and as a result the union men went on a strike.

Mr. Basedow says that during the coming winter structural iron workers will be scarce in Houston, as there are many men being sent to other fields where there is a heavier demand for iron workers at the present time. In Mexico there is a very great demand owing to the fact that the railroad bridges are being rebuilt as fast as the steel can be shipped into the country and iron workers are in demand by the railroad companies in that country.

The Personal Side

Write Us a Letter.

We want our readers to feel that The Southern Architect and Building News is their paper, and that what interests them interests its publishers and subscribers. We will therefore appreciate most highly any communications, experiences or suggestions, or marked copies of local papers containing items of news pertaining to the interests of the fraternity.

Landscape Architect for Dallas.

Charles A. Butterfield, a prominent landscape architect of Muskogee, Okla., has gone to Dallas, Texas, for the contemplated purpose of establishing an office in that city to do private landscape there and in Texas generally.

Architect Frost In Charleston.

Mr. Paul R. Frost, the landscape architect from Cambridge, Mass., has recently visited Charleston, S. C., to study the famous gardens around the old city. His principal work is to beautify Magnolia gardens there.

Architect Given Another Trial.

Joseph Conradi, the New Orleans architect who was recently convicted of having sent blackmailing letters to Father Stenmans, of the Catholic church of Gretna, La., was again granted a new trial by the Louisiana Supreme Court, the first conviction having been set aside because of a defective indictment, and the last on the ground that the presiding judge failed to properly charge the jury and to instruct them properly as to the law which was to be applied to the case.

Appointed Railroad Architect.

Announcement has been made of the appointment of Mr. Charles A. Hayes as architect for the Mobile & Ohio Railroad Company, with offices in Mobile, Ala.

Contractor Cuts Throat.

W. A. Fries, a well-known contractor, of Greensboro, and secretary of the North Carolina building commission, committed suicide in a local hotel at Raleigh by severing the jugular vein with a pen-knife. Fries had for some time been superintending

the construction of a large administration building for the state of North Carolina. Ill health is assigned as the cause of his act.

Gold Medal to Architect Mead.

The National Institute of Arts and Letters announced at its annual dinner in New York, the award of the gold medal to William Rutherford Mead, architect. A similar medal is awarded annually by the institute to some American for distinguished services in the creation of original work in arts and letters. It is awarded in a different branch of work each year.

Mr. Mead is of the firm of McKim, Mead & White, architects of the Boston public library, the Rhode Island State capitol, the war college at Washington, the University of Virginia, the Bank of Montreal and numerous other buildings throughout the country, and in the city. Brander Matthews was elected president of the institute; Henry Dwight Sedgwick, secretary, and Samuel Isham, treasurer.

Moise DeLeon Opens An Office.

Moise DeLeon has opened an office in the Greenfield building on Marietta street in Atlanta, and will resume business on the first of the year.

"My plans," he said, "are merely to begin business again as a contractor on the first of the year."

Mr. DeLeon has not yet fully regained his strength and is still under the care of a physician. His many friends will be glad to learn of his return to the field of business.

New Columbia Architect Firm.

James B. Urquhart, who has been practicing architecture in Columbia, S. C., successfully for a number of years, has formed a partnership with J. Carroll Jonson, for the past two and a half years with the firm of Wilson & Sompayras, Columbia. The new firm will be known as "Jas. B. Urquhart, architect; J. Carroll Johnson, associate," partnership to become effective December 1, with offices in the National Loan & Exchange Bank building.

Locates at Texarkana, Tex.

W. B. Cates, a contractor and builder of St. Louis, Mo., has decided to locate at Texarkana, Tex., and will move his family there as soon as he can find a suitable house.

Building Line Is Invalid.

The United States Supreme Court has recently declared that the Richmond, Va., building line ordinance is invalid and that the ordinance forbidding building on taxed property in that city is held to be confiscatory.

The City Beautiful.

It is a time-worn phrase, "The City Beautiful"; yet to thoughtful minds these three words contain a sad reminder of opportunities for civic dignity and splendor that are being uniformly neglected in the upbuilding of the mighty cities of our western hemisphere, whose lusty growth is the wonder of all the world. The city wonderful, the city costly, the city luxurious, we have within our borders in plenty, but of the city beautiful, how few!

Therefore we welcome, as all lovers of their country should, the effort of the Municipal Art Society of New York to bring about co-ordination among those important interests which are concerned in a large way with the laying-out of urban and suburban property, and the construction of the more important city buildings.

The failure of New York City, and most of the larger cities of the United States, to present to view those open plazas and spacious boulevards surrounded or flanked by municipal buildings of dignity, and so placed as to present a harmonious architectural combination, is not due to any lack of enterprise or want of capital for construction, but rather, and we might say, almost entirely, to want of foresight, and the failure on the part of the municipal authorities, at least in the earlier days, to pay any attention whatsoever to the question of the future architectural and aesthetic appearance of the city.

Such important structures as railroad terminals, steamship and ferry docks and landings and bridges for spanning our great rivers, to say nothing of imposing municipal buildings, should always be planned with reference, not merely to their utilitarian purposes, but to their architectural fitness as related to the site on which they are built and the character of the architecture by which they are, or in the near future are likely to be, surrounded. The principal cause of the lack of beauty in our cities is to be found in the want of any such co-ordination and supervision in the years gone by. Almost invariably there has been too much individualism and streets have been laid out and buildings erected according to the passing mood or whim of the city department or the supervising architect in charge. Hence that distressing lack of harmony which completely robs of its charm a street, a public square, or a collection of civic and commercial buildings, which, had they been grouped on a well-ordered plan, would have possessed sufficient dignity and beauty to place them in rank with some of the finest and best districts in the older European cities.

The Municipal Art Society has communicated with the leading railroad interests and the commissioners of the tenement house; dock, and other city

departments having control of municipal buildings, and has requested their advice in drawing up a revised city plan which shall modify, as far as possible, present defects, and make provision for careful regulation in the future. Although we can not pull down our cities to rebuild them upon a more wisely ordered plan, we can, at least, make sure that in future extensions or rebuilding the laws of harmony shall be considered. At the present time, hundreds of millions of dollars are being expended in New York alone upon construction, and it is the aim of the society to so direct this expenditure in regard to the aesthetic and architectural effects produced as to develop, in the course of time, a practical, comprehensive and ideal plan for the city of New York. To this end they will shortly issue a map of the new city as proposed, which will be scattered broadcast and posted in all public places. We heartily commend this movement to the attention of the citizens, not only of New York itself, but of every one of those great civic centers which the recent federal census has shown to be having such phenomenal growth.—Scientific American.

Americus' New Building Code.

By unanimous vote of the members of the Americus, Ga., council the newly arranged building ordinance for that city was passed. The new ordinance is very rigid as to the construction of new buildings and provides for a building inspector who is to be chief of the fire department.



Plate by Lanman Eng. Co., Washington, D. C.
St. Philips Churchyard, Charleston, S. C.

The Late Norman Shaw, Architect

The death of Norman Shaw, at 81, removes one of the most notable and perhaps the most original of British architects of his generation. The preceding generation of architects, the generation of Sir Gilbert Scott, of Burges & Butterfield and Street & Waterhouse, of whom Waterhouse, dying in 1905, was the last survivor, had devoted themselves to showing that gothic architecture was adequate to all purposes and to every expression. The Victorian Gothic revival of which they were the conductors might have succeeded better if they had not confounded the principles of Gothic architecture with the forms in which it had found historical expression. In practice they regarded these as the sources rather than as the illustrations of the principles which were in fact those of real architecture in general. With true British conservatism and "prehensibility of tail" they continued to repeat forms from which the life had departed with the passing of the modes of construction which had given rise to them. Their Gothic was thus argely a matter of taste alone, of preference for the Gothic forms over classic. They failed to make it a living language and to express it for all purposes. Even when the revival was at its height Lord Palmerston directed Sir Gilbert Scott to make a classic design for the foreign office, to the disgust of that architect. But in 1865, at the time of the competition for the new law courts, which was the most signal demonstration that the revival was in possession of the field, there was not one notable design that was not in some mode of Gothic, and no other would have stood any chance of acceptance or consideration. But it was soon recognized that the revival had not succeeded in domesticating Gothic for residential purposes nor in commercializing it for commercial purposes. Its most ambitious effort in the way of a public building, Street's Law Courts in the Strand, was a failure with the British public. So equally was its most ambitious effort in purely monumental architecture, the Albert memorial in Hyde Park. Since 1870 modern Gothic in England has been mainly confined to churches and colleges.

It was just at this time that Norman Shaw, already a man of 40, and known as a picturesque and artistic draughtsman, came into the field with his proposal for what may be called, though very loosely, a classic revival. It did re-employ classic detail, but purely as decoration and with a freedom and usefulness much more in the spirit of Gothic than of classic. His "free classic" was exhibited in several country seats and in one town house, commotion in the English and American architectural circles of the early 70's. The new revival presently became known as "Queen Anne," for no good reason, for nothing could be less like the formalized design which the followers of Sir Christopher Wren

were doing during the reign of Queen Anne than the racy and idiomatic work of the revivalist. The New Zealand "chambers," or as we should say, "office building," was as much a novelty in commercial architecture as Lowther Lodge had been in domestic. The qualities of these lines as shown on a huge and more imposing scale in the new buildings for the Scotland Yard, a work at which London long looked askance, but finally accepted. The early imitators of Shaw were not successful, but with such co-laborers as Mr. Colcutt he at last succeeded in imposing upon London a new secular style, marked by vivacity of design and disregard of purism as well as by strong contrasts of color. The "motives" and the general treatment were derived more from the continent than from any historical examples in the British islands, and it would not be unfair to describe the style of modernized London as a version of Flemish Renaissance.

All the same, the style has suffered a sea change in crossing the channel. It has really been naturalized and become racy of the soil. It is a mundane manner, obviously unsuited to churches and colleges. Though Mr. Shaw built an acceptable Gothic church or two, he was not distinguished and apparently did not aspire to distinction as an ecclesiastical architect. But he had done more toward expressing the life and spirit of his country in building than any American architect or group of architects has succeeded in doing for this country, hopeful as Richardson's attempt in that behalf looked thirty years ago. Our country homes, it is true, are often original and nature expressions of those who inhabit them. Our sky-scrapers have an originality enforced. But our public buildings are all done after the latest Parisian fashion, the grandiosity and factitiousness of which is at least as un-American as it is un-English.

The movement which Norman Shaw originated and to which he was the most important contributor is in harmony with the time and place. It expresses artistically the unpretentious, undemonstrative and homely taste and temper of the modern Englishman. He has an architecture in which he is at home.

Memphis Builders See Movies.

Moving pictures were recently shown at the Memphis Builders' Exchange, illustrating the manufacture of tin roofing, conveying all the operations from the mine to the finished product, showing the tin plate and sheet mills in operation. After a short business session, addresses were made by the officers of the exchange and prominent construction men. Other entertainment and refreshments were features of the meeting.

Why Factory Chimneys are Built High.

In some parts of the country the most conspicuous evidences of man's handiwork are factory chimneys, their tall shafts decorating the landscape in the same manner that church steeples do in farming villages and country towns. It has come to be considered a matter of course that factory chimneys should be high, but why such hundreds of thousands of dollars are spent in their construction and what are the important principles involved in their presence are matters little considered.

The taller the chimney, then, the better is the draft, and the better the draft, the more thoroughly is the fuel consumed and the hotter does the fire burn. But why? Again, the colder the day, the better does a fire burn. Every housewife knows that. But again, why? Once more, the stronger is the wind blowing (unless it is blowing down the chimney) the better does a fire burn. And once more, why? And yet again, a fire burns better by night than by day, but why?

The answer to these four problems is the same. The draft in a chimney is caused by the difference in weight between the volume of heated gases inside the chimney and the cooler air outside. To give an illustration: A piece of wood that has lain in the water a long time rises up through the water slowly, because the difference in weight is not great. A cork pops up quite readily, because it is so much lighter. A bubble of air slips up through the water more quickly still because it is lighter than the cork. Again, a cork will pop up to the surface more quickly in salt water than in fresh, because the salt water is heavier and the cork is proportionately more light.

Now the lightness of heated air lies in its heat, but most of the gases that rise from the fire are really as much lighter than air as cork is lighter than water, so that they must rise in the same way. If the air is hot above the chimney the contrast between the smoke and gases from the fire and the air is not so great, and the vapors disperse sluggishly, but if the air is crisp and cold, the gases rise straight up, causing a greater draft. Therefore, a cold day is better for firing, because the contrast is greater; night air is better for firing because the night air is colder; a wind is better than a calm for firing, because it blows away the smoke and heated vapors instead of allowing them to form a heated cloud envelope in the region of the top of the chimney, and a tall chimney is better than a short one, because it rises higher into the colder air. In figures, a chimney 175 feet high will cause coal to burn at exactly three and one-quarter as rapid a rate, giving more heat and power to the fire. Tall chimneys also benefit a neighborhood by giving more room for poisonous gases to escape, but the

true reason of their construction is the added power they give to the furnaces below.

Country people have a habit today of stepping out of doors in the morning and looking at their neighbor's chimneys. If the smoke is sagging down about the chimney, acting sluggish and hanging about in clouds, they declare it is going to rain, or snow, depending upon the season. But if the smoke is seen issuing straight up from the chimneys in long, somewhat spiral columns and disappearing into the higher air, they declare it will be fair weather.

Alumni Association of the American Academy In Rome.

At the annual meeting of the Alumni Association of the American Academy in Rome, held November 20, 1912, the following officers were elected: President, H. Van Buren Magonigle; vice-presidents, H. A. McNeil and Barry Faulkner; secretary-treasurer, Harry E. Warren, 37 Liberty street.

Among those present were Edgar J. Williams, Paul Manship and F. P. Fairbanks, holders of the "Roman Prizes" in architecture, sculpture and painting, respectively, and Tolles Chamberlin, holder of the Lazarus Scholarship in Painting; all recently returned from three years' study at the Academy in Rome.

Various important matters were discussed bearing upon the extension of the influence and interests of the Academy.



Plate by Lanman Eng. Co., Washington, D. C.
St. Michaels Churchyard, Charleston, S. C.

Tampa's New Building Law.

City Council of Tampa, Fla., has passed the new building code. It is a lengthy document, covering every possible phase of building operations.

There were a number of building men present, but no objections were raised to any part of the building code, with the single exception of that bearing on cement or concrete construction, and over some of the clauses in this section there was considerable discussion.

C. E. Hyer, of the constructing firm of Hyer & McGurkin, led in this discussion. There were some paragraphs of a technical nature that he objected to, and was backed up by technical books from which he read to the City Council to sustain his contentions.

Engineer F. Mitchell, who aided in the preparing of the code, contended with Mr. Hyer over some of these points, but, in the end, Mr. Hyer gained them and the code was changed to correct the objection he made.

The code has now become a law and, in this, the city has complied with every requirement of the Southern Tariff Association in order to place Tampa under a first-class insurance rating. A copy of the new building code will be sent immediately to the main office of the association.

Glance at Architectural Forms.

It is difficult to describe definitely any but the pure Greek form of architecture, for the others in use since the days of the Acropolis' glory have all partaken of various ideas. The pure Greek style, with the pillars, with flowerlike and ornamental capitals of the Corinthian order or the plainer forms of the Doric and Ionic are the chief marks of the Greek temple, together with the sharp angle made by the roof at either end, and the flat coping over doors or windows. The Roman style is marked by the rounded arch and the vault, the Pantheon in Rome being an example. It retained the pillared portico of the Greek and in many cases added much ornament more or less in imitation of the Greek, but not applied with such pure taste. The huge arches of the baths of Caracalla at Rome hint how big and bare and solid the Roman ideas were, influenced by the Greek tradition. The Roman used brick largely and small building materials, while the Greek temples were of heavy stone and much marble.

The Gothic type of architecture is named curiously enough, for the Goths had nothing to do with its development. The name Gothic was applied as a term of contempt to all kinds of artistic attempts that sprang up between the old classical period and the renaissance. Whatever was crude and ugly and

barbaric was called Gothic by the artists of the renaissance. The word was after a time restricted to certain forms of architecture as distinct from the classic or old Greek and Roman. The Gothic, or as it is better named, the pointed form of architecture, is recognized by the spire and the tall pointed arch over the windows and doors. Yet the real difference between the classic style and the pointed is more in the way the building is put together than in the external shapes of windows and towers and spires. The Gothic windows show much more ornament than the Greek, which used ornament in a very reserved way, as friezes or under the end of the angled roofs. The Gothic influence is seen for example in the great cathedral of Milan, which is marked by the pointed towers and other decorations, which make it look, as has been said, like frozen music—very different indeed from the plain exterior of the Greek temples.

The cathedral at Florence is a mixture of various architectural ideas. There is the dome, with its reminder of Roman influence, the tall square tower of Giotto, with the pointed windows at the top, and there are the Gothic effects in the points over the windows and doorways of the facade. An extremely ornamental effect is given by the varicolored marbles and the sculptures on the outside of the cathedral. It is beautiful as a whole and immensely effective, but closer study reveals no such harmony of impression as we gain from many other buildings.

A Word On Architecture.

Mr. Lyndon P. Smith, a member of a New York and Atlanta architectural firm, says of Southern architecture:

"I should like to see the South grow in wealth and position, developing an architecture not based on fake and foible, but indigenous, truthful and natural esthetically and constructively. The time is ripe for such indication of the character of the people."

Those words are timely and should be pondered by the men who are today shaping the architectural development of the South. This section of the country is right now in a position to develop an architecture of its own, for much building must follow or accompany industrial growth. We have passed through the colonial stage and, thank heaven, the ginger-bread school has passed. It is now time for us to bring forth something of our own. And for those who are in position to give shape to the new tendencies that may arise, it is important to remember that in architecture, if not in clothing, the idea of use precedes that of decoration. Climate should be the most important factor in giving style to architecture. And the next should be the conformation

of country. To the indigenous, true and natural, it must be in accord with these two factors. Nine-tenths of the crimes in architecture are due to a lack of a just regard for truthfulness.

Building Costs of a Modern Skyscraper.

The following building costs for a modern first-class office building are contained in a paper read by J. A. Strouss, of Knox, Strouss & Bragdon, Pittsburg, before the Manufacturers' and Contractors' Club, of Pittsburg. The total cost of the building, as will be seen, was \$1,270,421, divided as follows:

Wrecking	\$ 4,158	.33
Excavating	47,990	3.79
Shoring	34,876	2.74
Steel Work	156,563	12.33
Stone, cement and concrete ...	95,525	7.52
Fireproofing	38,865	3.07
Brick Work	56,222	4.44
Plastering	39,560	3.11
Painting	20,335	1.60
Mill work	86,100	6.77
Carpenter work	117,600	9.22
Terra Cotta	40,000	3.15
Heating	75,330	5.93
Elevators	106,200	8.36
Electric work	40,500	3.17
Sheet metal	21,840	1.72
Plumbing	51,520	4.06
Waterproofing	9,500	.75
Metal lathing	9,100	.71
Ornamental iron	75,900	5.98
Tile and marble	90,000	7.09
Weatherstripping	1,025	.08
Vaults	24,750	1.94
Hardware	1,500	.12
Vacuum systems	5,000	.36
Mail chute	2,250	.18
Revolving doors, etc.	5,700	.45
Steel lockers	8,335	.66
Refrigerating machinery	3,827	.30
Roofing	950	.07
	<hr/>	
	\$1,270,421	100.00

"The list is interesting," comments the author, "as shedding light on the question as to whether a mason or a carpenter is a logical man for a general contractor on work of this type, as it is generally considered by most of us that the trade having the largest interest in the proposed structure is in the best shape to take the general contract.

"It is also of interest as showing one of the reasons for the elimination of the general contractor and the subletting of work direct by the owner through the architect.

"The writer will confess to being astonished at the cost of the equipment, as most of us would hard-

ly consider it true that almost one-fourth of the total cost of the building goes into the various auxiliary devices which are now considered necessary to make an office building habitable."

Builders' Supply Convention Details.

The National Builders' Supply Association will meet in regular annual convention in New Orleans Jan. 15 to 18, when builders' supply men from all over the United States will be here. Upwards of 200 delegates are expected.

The place of holding the convention has not been determined upon, but it was stated by a member of the arrangement committee that it will be in one of the big hotels of New Orleans.

Delegates and visitors attendant on the convention will be entertained by local men. Features of the entertainment now being arranged by the committee, headed by Walter F. Jahncke, chairman of the entertainment committee, will be a banquet at one of the hotels, an outing on Lake Pontchartrain and a steamboat excursion on the Mississippi river.

National officers of the association are: Charles Warner, of Wilmington, Del., president; Ralph Dinsmore, of Wilmington, secretary; Henry W. Classen, of Baltimore, treasurer. President Charles Warner is chairman of the executive committee, and Walter F. Jahncke, of New Orleans, vice chairman.

Hardwoods for Jamaica.

For the first time valuable hardwood timber has been exported from Port Antonio to the United States. An agent there from New York recently purchased a considerable number of mahogany and cedar trees. Two shipments of this timber have already been made and other shipments are going to a New York firm. These shipments may be the beginning of a considerable exportation of valuable Jamaican hardwoods to the United States.

Although the lumber is not an article of export from Jamaica, there have been some shipments of hardwood timber for years from Kingston, chiefly to European ports. Now that the beginning has been made in exporting such timber from Port Antonio, it is probable that the shipments will increase in time, especially as there is a body of some 35,000 acres of forest land in one parish (Portland), which the government is taking steps to open up by building roads through it. This land is part of a purchase made by the government from a company to which a subsidy in land was voted for building a railway some twenty years ago.

Jamaica has from 400,000 to 500,000 acres of forest, not including scrub lands. Although there is not much heavily timbered land, the island produces a great variety of hardwood trees.

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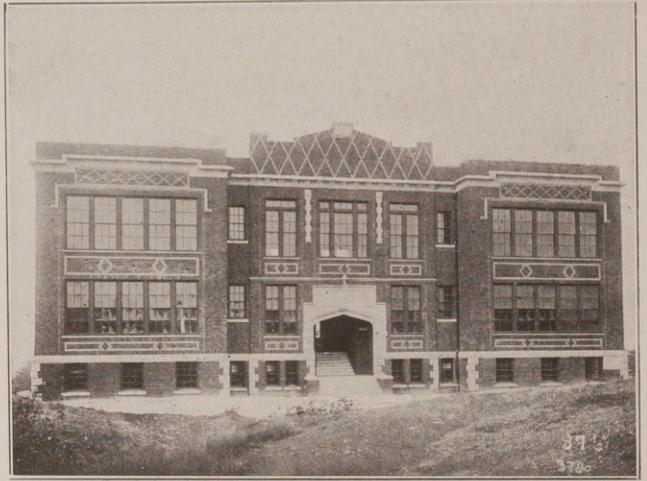
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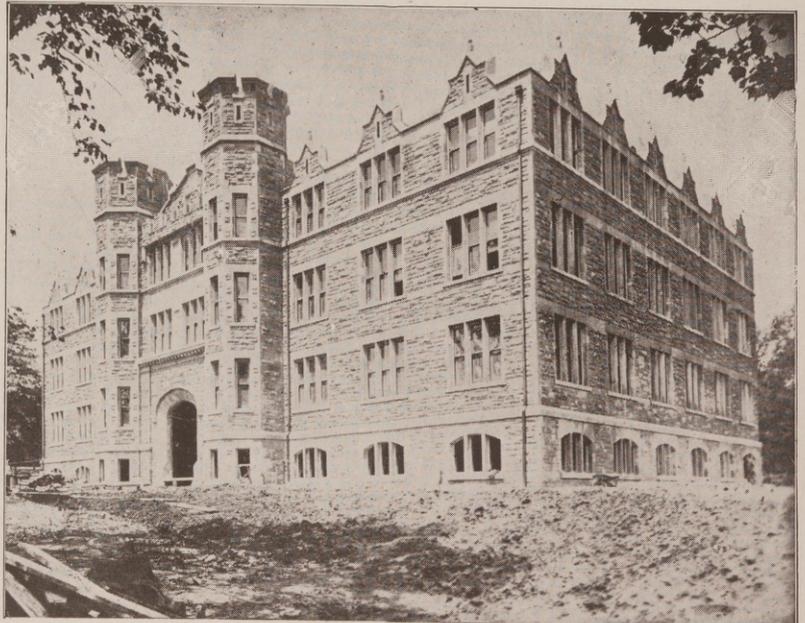
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In the architectural appearance and structure of its state university buildings, New Mexico, recently admitted to statehood, stands alone. They have been patterned after the ancient Pueblos, built and occupied by primitive Indian tribes in this part of the United States centuries ago. This singular departure from architectural forms, commonly found in institutional buildings, was due largely to a former president of the university, Dr. William Tight.

The university campus is on a high mesa a mile east of Albuquerque, and overlooks the broad valley of the Rio Grande river. The Pueblo structures are a combination of squares and oblongs, and at first glance the stranger is strangely impressed, wondering whether by chance he has found his way to an ancient Indian town that has withstood the wear of time. New Mexico is rather proud of the uniqueness or originality of its university buildings.

Artists, architects and educators arriving at Albuquerque rarely fail to visit the university and inspect the buildings. They are agreed that nothing like them may be found elsewhere in the whole world.

The largest building is used for administrative purposes. Next comes Hokona, the girls' dormitory, and then Kwataka, the boys' dormitory. The president's residence and the power plant are pueblos. Estufa, the Tri-Alpha "frat" house, resembles nothing more closely than a dismantled feudal watch tower, with a stupendous stairway leading from the outside to the top. Plans are under way for the building of a science hall of pueblo design, to be three stories in height, and 65 x 120 feet in size. Concerning these buildings the university board of regents lately said:

"Located in the oldest and most picturesque part of this country, the university has fittingly adopted a unique feature in its architecture, that of the restoration of the ancient pueblo. This style of architecture has been now in use for some years and has the feature so essential in the growing Southwest—easy expansibility—and it has lost nothing of the convenience and comfort which is found in the building of ordinary construction. An excellent illustration of how this building is perfectly adapted to expand with the rapidly growing Southwest is seen in the boys' and girls' dormitories. These buildings accommodate the present student population. Should, next year, the population be increased 50 per cent, these buildings can be expanded without causing the least awkwardness in the appearance of the enlarged structure and without the expenditure of a single dollar in demolishing any part of the old building."

On November 9, Dr. David R. Boyd was inaugurated as the university's new president. He

was the first president of the University of Oklahoma, and gave to that institution its present standing in educational circles. Doctor Boyd was president of Oklahoma University for sixteen years.

A New Type of a House.

Several houses, in type proper examples of what is termed the architectural "school of the Middle West," are being built in Kansas City just now. Such a house Clarence E. Shepard, an architect in the Reliance Building, has designed for Hayden S. Jones. Mr. Jones is building at the northwest corner of Huntington and Wornall roads.

Here is the tendency to accentuate broad horizontal lines, plain surfaces, gently sloping roofs, a quiet sky line, suppressed heavy set chimneys and sheltering overhangs. Though perhaps equally typical is the suggestion of substantiality secured from the pilaster effect of the corners.

A good substantial base, an essential expression of the type, is evident to the eye, at the same time eliminating that horizontal strip of raw foundation material above ground, a disturbing element in many buildings. The concealing of the raw foundation secures a simple, unbroken wall surface from the base to the second story sill.

At the sill a horizontal line occurs which emphasizes the frieze. In some of Mr. Shepard's other buildings this frieze is formed by a change of material.

Openings, occurring as integral features of the house, form the natural ornamentation. It is noted that they are treated in groups with straight lines. The nature of the glass is taken into account and the lines are simple and severe.

The same simplicity has been carried throughout the interior, straight lines and quiet effects predominating.

Here, with ornamentation a part of the construction, the house has a simplicity that will not "go out of style."

Two other examples of this type are under construction in the Country Club District.

Roanoke, Va., Builders Met.

Mr. R. A. Figgatt presided, and Mr. John Seater was secretary, presided over a recent meeting of the Roanoke, Va., Builders' Exchange. Messrs. W. R. Engleby, Frank Normoyle, R. K. Stuart and R. H. Angell were appointed a committee on constitution and by-laws, and were authorized to obtain a charter for the organization. Messrs. J. H. Yost, D. P. Magann, were appointed a committee on finance to arrange for the disposal of the stock of the organization and arrange for a meeting place.



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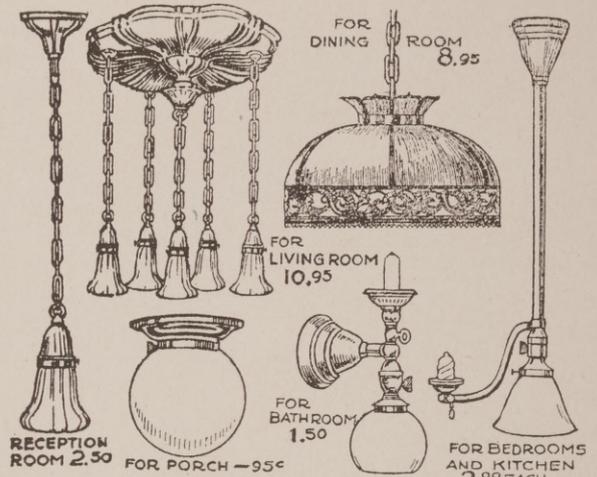
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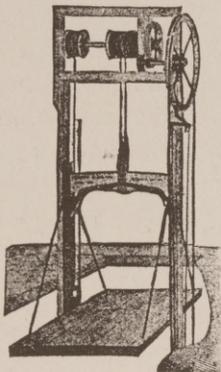
We will also sell single pieces at prices shown above Workmanship and quality guaranteed. Out of town orders \$1 extra for boxing. Write for free blue prints. Estimates cheerfully furnished and courteous treatment extended to all.

Chicago Gas Appliance Co.

28 W. Lake St.,

CHICAGO, ILL.

ELEVATORS



Hand, Belt or Electric Power
DUMB WAITERS—
CONCRETE MIXERS

Write for Prices and
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Mention this paper.

SIDNEY ELEVATOR & MFG.
COMPANY
Sidney, Ohio.

Re Roof Repairs

Geroofco Elastic Cement

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GRIFFIN ROOFING CO.

CONTRACTORS FOR COMPOSITION
ROOFING, WATERPROOFING AND
ASPHALT WORK

507 W. 26th St.,

New York City

Small Slates embedded in Asphalt Over a Standard Built-Up Waterproofing

FOR FLAT ROOFS

TO WALK ON

A practical roofing for Hotels, Apartment Houses, Office Buildings, Colleges, Schools, Public Buildings, etc., and being specified by leading Architects.

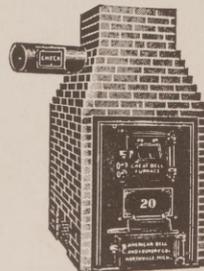
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INLAID SLATE CO.,

Pen Argyl, Pa.

A Hot Air Furnace

FOR LESS THAN A
BASE BURNER
For 5 and 8 Room
Dwellings



An unheard of Price and a most Remarkable and Indestructible Furnace. No Pipes—no Lost Heat.

American Bell & Foundry Co.,

NORTHVILLE, MICH.

Trade Notes of Interest

New Faces This Month.

The attention of our readers is directed to these new advertisements appearing this month, all representative in their several lines, and worthy the patronage of those interested:

Hunt, Helm, Ferris & Co., Harvard, Ill., manufacture the celebrated Cannon Ball house door hangers and are guaranteed to be frictionless, noiseless and practically indestructible. Write them now for special circular and full particulars.

H. P. Didrikson, Anderson, Ind., are makers of floor scrapers of the best quality, a tool that is indispensable to every contractor and builder. Write for prices.

The National Roofing Tile Co., Lima, Ohio, have established a Southern agency with headquarters in Atlanta in the Forsyth building, in charge of Roper & Strauss Co., who will be pleased to quote prices and show samples of their Patent Double-Interlocking roofing tile. Write them or to the company direct.

The Miller Tool & Novelty Works, Miller, Pa., have now on the market the Miller Butt Gauge, as shown in their illustrated advertisement in this number. Prices to dealers on request. Retail price 25 cents postpaid.

The Van Dorn Iron Works Co., Cleveland, Ohio, are manufacturers of all kinds of joist hangers, post caps and bases. Their catalogue may be had for the asking.

The Cahill Iron Works Co., Chattanooga, Tenn., are makers of sanitary sinks known to the trade as the "Chattanooga" in many sizes—sixteen. Their catalogue may be had upon request. Write them.

Concrete Tile the Future Roofing Material.

As pointed out elsewhere in this magazine, concrete roofing tiles have made great advance through many years in the Old Country. They have occupied a definite position on the building material market there, and although many different kinds of good clay tile, slate, etc., are offered, the concrete roof-tiles have been preferred, and is still the favorite roofing material; not only on account of their cheapness, durability and beauty, but also because they can be given any color desired, to suit any architectural style and form.

European roofs are generally better than American roofs. The traveler in Europe is likely to be struck with the difference between European and American method of residence construction, and the roof is one of the principal points of difference. The Europeans see the roof as the most valuable part of the house, and are selecting the very best roofing material known, whereas many of the American

builders still are satisfied with the poor wood shingles.

For centuries Europeans have laid tiles on their roof constructions. The original design of roof tile, as shown, is "Monk Tile." They were made of clay, with a thickness of nearly one inch; and for the reason they should be laid nearly in two layers, they made a very heavy roof, not good for common use. Afterwards was made other and some lighter designs of roofing tiles; but as made of clay, they were not accurate, and not waterproof; and because some of them were burned poorly, the roof of them needed thorough repair mostly every year.

Nearly thirty years ago, when the use of cement had grown common, this material have been used for roofing tile successfully. The business of manufacturing these tiles is old there, and well established. The value of concrete as a roofing material is unquestioned in Europe, and it is certain that this industry over there is still far ahead of the Americans; specially because the public, the architects and builders there exactly demand a roof which will prove satisfaction in both durability and beauty, a roof as outwear the house without any repairing.

Concrete roofing tile manufacturers in America, with exactly good machines have an opportunity to make even more profit of this business than in any other sort of concrete products, because the public will prefer an absolutely good roof, durable and everlasting instead the poor and expensive wood shingle roof, which is not fireproof, or able to protect the house against rain and snow more than very few years.

A man who has a great experience in the concrete roofing tile business is L. Hansen, 2036 Penn. St., Kansas City, Mo., patentee and manufacturer of "The U. S. Champion Cement Roofing Tile Machine." Mr. Hansen started in the business nearly twenty years ago in Denmark, Europe. He built a factory and manufactured a tile of his own design; and coming to this country, about seven years ago, he invented, and got patented his new machine for making concrete roofing tile. This machines are brought on the market, and are now extensively used by roofing tile manufacturers; not only in the U. S. A., but also in Canada, Europe and Australia, everywhere giving perfect satisfaction.

This machine is equipped with an adjustable attachment for making ridge rolls, hips and end tiles, which makes the outfit so complete that any roof can be covered perfect with the product, no matter how complicated it may be.

The ordinary tile made on this machine is nine inches wide and fifteen inches long, made of a very wet mixture. They are provided with five holes for

nails and wire. These holes are made automatically while the tile is being molded. The tile weighs from six to seven pounds to the square foot on the roof, and it takes 150 pieces to cover a square of 100 feet.

For making 1,000 tiles is used four and one-half barrels of cement and one and one-half yards of sand. Labor, \$10. Ordinarily the manufacturing cost of 1,000 tiles is about \$18, everything of the material and labor included. One thousand tiles will cover from 6 1-2 to 6 3-4 squares, and the cost per square for the tile is about \$2.70. One man can make tiles for from three to four squares of roof at a profit of from \$7 to \$8 a day.

The method of attaching these tiles to the roof or siding, and the perfect manner in which the tiles lock into one another, makes the whole roof rigid—absolutely storm-proof—and for the reason each tile in itself is waterproof and fireproof, a roof of them is nearer perfection in every way than of any other material.

The "U. S. Champion" tile, which in its present form represents many years of careful designing, is the ideal roofing material for both the city and the country houses, and every contractor and builder has the opportunity to increase their income very largely in making roofing tiles—if not constantly so in dull days—cure them and store them for having an excellent roofing material ready for use any time.

For making the roof satisfactory it is not necessary to use solid sheeting or roof boards underneath the tiles. They can be hanged on 1 x 3 inch strips—about twelve inches on center—nailed right upon the rafters.

Heavy roof construction is not necessary. Roof timber suitable for wood shingles will also be strong enough for this kind of roofing tile.

L. Hansen & Co., 2036 Penn St., Kansas City, Mo., who is manufacturing the "U. S. Champion" roof tile machine and has it advertised in this magazine, will gladly send catalog and full information about the cement roofing tile business.

Supply and Hardware Companies.

Memphis, Tenn.—The Warner-Shelby Hardware Co. Capital \$10,000. Incorporators: I. L. Higgins, H. Y. Reed, R. S. Williams.

Bridgewater, Va.—The Bridgewater Implement Co. Capital \$10,000. L. V. Miller, president; C. W. Bowman, vice-president; J. H. Spader, secretary and treasurer.

El Paso, Tex.—American Building Co., of El Paso; capital stock, \$300,000. Incorporators: W. L. Tooley, H. B. Stevens, J. J. Mundy, J. M. Goggin, W. H. Burgess, all of El Paso.

Port Norfolk, Va., P. O. at Portsmouth—Barrels, etc.—Planters' Manufacturing Co. will rebuild plant (recently burned) for manufacturing barrels and truck packages.

Soundless Music Place.

For the first time in architectural history there has been erected a business building devoted almost entirely to music. This is the new Aeolian hall first among the rising crop of skyscrapers which threatens soon to adorn Forty-second street. Here is a building, erected by the Aeolian Company, of which at least six floors were planned and constructed by manufacturers of musical instruments entirely in the interest of the particular needs of the trade of music.

In a building largely devoted to musicians and their allied interests, the specialized requirements are unusual in number and variety. First among these of course, is absolute sound-proofness. None of the elaborate precautions against the transmission of sound vibrations, which form such a special feature of Aeolin hall, had ever before been conceived. For instance, the 17 music rooms are separated from each other by a partition, which in reality consists of four walls. The first two walls are the outer and inner sides of a hollow tile brick. Then another air space of more than 12 inches; this air space incidentally being stuffed with a specially prepared quilting. And then another hollow tile to complete the partition. Such a perfect effect of sound-proofness has been accomplished that a good part of the building can be devoted to offices.

From a musician's point of view probably the most unusual feature of the new \$3,000,000 18-story building is the organ. Up to the present time there has been no public institution in this country where a good concert organ is available. Here, however, is what is declared to be the finest organ in the world. The biggest pipe organ in this instrument is 32 feet long, while the smallest measures one-half inch. There are 5,079 pipes in all. Still it is not in point of size but in "voicing" that this instrument is said to stand pre-eminent.

In the center of the auditorium ceiling there is a screened opening, which is the outlet to the echo room—a space of about 20 feet square directly above the ceiling of the concert hall. In this echo room there is another complete organ, auxiliary to the main organ. The purpose of this second organ, installed in an echo room far from the main instrument, is to allow the performer, by throwing a switch, to produce the effect of a distant echo in the music.

While an architect would describe the general style of the building as chastened Louis XVI, on the 13th story four Corinthian columns serve to modify the appearance of plainness besides helping to harmonize the outline with the Engineers' building, directly opposite across Bryant park,

PERFECT RESULTS ARE EASILY OBTAINED BY USING
SCHLUETER RAPID FLOOR SURFACER

This machine is built on the only correct principle. It is guaranteed to be **THE BEST** machine with which to produce an even, smooth surface on any kind of large or small wood floor, old or new, hard or soft, and in all buildings: Residences, Stores, Factories, Bowling Alleys, Roller Skating Rinks, Reception and Dance Halls, Etc.

The **SCHLUETER** will remove all joints or warped edges, on all kinds of Southern pine wood floors, as well as maple or oak.

EARNING CAPACITY, \$20.00 to \$35.00 PER DAY

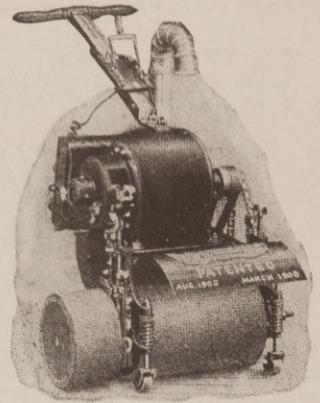
Send for Prices and Free Trial Proposition.

M. L. SCHLUETER,

103 North Canal Street

Chicago, Ill.

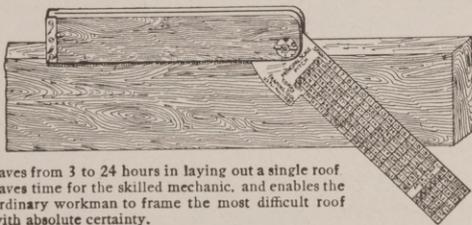
New York Office, 1001 Flat Iron Building



Roller Easily Adjusted to either side

For all Kinds of Stone and Concrete Floors.

Topp's Framing Tool



Saves from 3 to 24 hours in laying out a single roof. Saves time for the skilled mechanic, and enables the ordinary workman to frame the most difficult roof with absolute certainty.

A Perfect Tool, and the Only Tool for the Purpose Ever Invented.

Price, \$1.75

IT DOES ALL THIS { It gives angles for any pitch. It gives lengths for any rafters. It prevents all mistakes. It is accurate. It gives cuts for principals, jacks, hips, valleys and cripples.

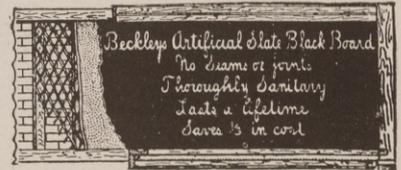
G. A. TOPP & CO., Indianapolis, Ind. See Tool at Your Hardware Dealer. Circular on request

The Sanitary Seamless Steel Blackboard

FOR MODERN SCHOOLS

Ground Slate, Steel and Cement, applied with a trowel on a base-coat of hard plaster makes a

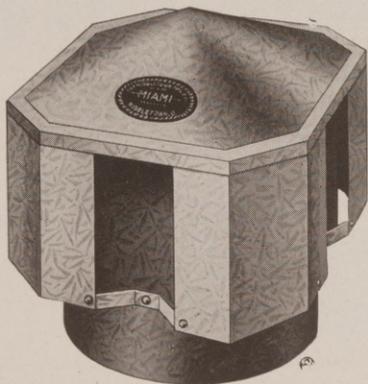
Solid Concrete Slate Surface without seam or joint, lasts as long as the building, is not injured by washing and is



Thoroughly Clean and Sanitary
Write for catalog.

BECKLEY-CARDY MFG. CO. Manufacturers and Sole Owners 312 W. RANDOLPH STREET, CHICAGO

'MIAMI' Ventilators



Manufactured from Rust Resisting American Ingot Iron
The "MIAMI" Ventilator

Is absolutely weather-proof, and there is always an upward draft because of their peculiar and scientific construction.

The "Miami" Ventilator will automatically exhaust hot and foul air, disease germs, gas, smoke and steam, in greater volume than any other of same diameter. It's an inspiration for smoky chimneys. No back draft, simple in construction, very strong and substantial.

When fitted with an automatic closing device the temperature of the room is easily regulated. The closing device has a vertical motion only, requires no attention after regulating, and can be arranged to automatically close in case of fire.

Manufactured only by

The Dixie Culvert & Metal Company

Southern distributors for American Rolling Mill Co.
 Genuine American Ingot Iron.
 ATLANTA, - GEORGIA.

Deitrich Brothers

SHIPMENT FROM STOCK

12 to 24 Hours from Receipt of Order

Beams, Channels, Plates, Angles, Concrete Bars and Reinforcing Wire Fabric, Cut Wire and Coated Nails

Baltimore, Md.

McKenna — Pittsburgh

RAILINGS, GRILLES, DOOR SADDLES, KICK PLATES, HAND ELEVATORS

A McKenna Manufactured Article is known by its "Quality."

We make a specialty of Structural Brass Work of all kinds for Office Buildings, Theatres and Churches. Write for Catalog.

Our Quotations Will Interest You.

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Why Don't You Stop Wasting Money?

What is the advantage in Cutting
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Concrete Foundations and Walls

when you can obtain Blaw
Steel Forms?

Blaw Steel Forms are adjustable to all
kinds of work. They are practically indestruc-
tible. They can be operated at high speed and
low cost.



Blaw Steel Forms for Foundations.

Blaw Steel Forms are being used for Concrete
Sewers, Drains, Aqueducts, Tunnels
Warehouses, Residences, Foundations
Columns, Beams, Girders
Tanks, Granaries, Silos, Shafts
Retaining Walls, Piers, Abutments
Bridges, Viaducts,
Sidewalks, Curbs, Gutters

Tell Us About Your Work!

Blaw Steel Construction Co.

General Offices
Cor. Anderson St. and Penn. Ave.
PITTSBURGH, PA.

PARK'S
Adjustable
FORM
STEP
HOLDERS

Save
YOU
50% in Labor

**Make Your Steps
With My Forms**

Every contractor should have a set of my Adjustable
Step Forms. With these forms you can easily and quickly
make steps from 8 to 16 inches wide and with a rise of 6 to
8 inches. Steps can be made any length.

These forms cannot be set up unless they are absolutely
plumb. This guarantees work being TRUE and SQUARE.

These forms are quickly adjustable through the tight-
ening of an eccentric. They are made strong and durable.
They are easy to use. They save you time, labor and materi-
al on every job—no sawing of lumber and fitting neces-
sary.

Forms are sold in sets (rights and lefts), six pairs to a
set. They quickly pay for themselves.

Get my circulars and full particulars about these
forms. Contractors, get in touch with me. Let
me show you just how these forms can make you
profits. AGENTS and SALESMEN wanted in
every locality.

H. L. Park, Reading, Mass.

93 MAIN STREET

AMERICAN REVOLVING DOOR CO.

Manufacturers of

STANDARD

AND

Anti-Panic Revolving Doors



2516 W. Monroe St

Chicago, Ill.

ESTABLISHED 1892

Parsons Bros. Slate Co.,

Miners and Manufacturers of

ROOFING SLATE

PEN ARGYL, PA.

Slate Blackboards

Structural, Etc.

Your asking for our prices will be a gilt edge investment

Building and Construction Department

Public Buildings.

Madison, Fla.—Election will be held on February 4, next, upon issuance of \$50,000 of bonds by Madison county for building county court house. J. E. Hardee, chairman.

Birmingham, Ala.—Southern Club proposes to remodel building or erect another. T. O. Smith, president of Birmingham Trust & Savings Bank, is president of club.

Montgomery, Ala.—Beauvoir Club may erect clubhouse some time next year. J. Kirk Jackson, president.

Americus, Ga.—Grand jury recommended that new cages and heating plant be installed in county jail. Frank Sheffield, chairman of Sumter county, Americus.

Clearwater, Fla.—Bids will be received until January 7 for construction of temporary county jail; galvanized iron or concrete block; twelve cells and living quarters for jailer. Clerk of Board of Commissioners of Pinellas county.

Americus, Ga.—Americus Lodge of Elks has purchased for \$10,000 a residence which will be remodeled and furnished for clubhouse. The secretary.

Fort Myers, Fla.—Fort Myers lodge of Elks will erect fraternal building; three stories; club rooms and library on first floor; gymnasiums, baths and dressing rooms on second, lodge room on third and garden on roof; \$15,000 to \$20,000. The secretary.

Augusta, Ga.—Advices have been received here to effect that bids will be asked by January 5 and opened February 20 for erection of Federal building here. Oscar Wenderoth, supervising architect of the Treasury Department, Washington, D. C.

Soperton, Ga.—Dr. O. B. Moye has awarded contract for construction of hotel building.

Augusta, Ga.—Contract was awarded to McKenzie Construction Company, this city, to erect administration building for municipal hospital; \$35,880. Contracts for four buildings have been awarded, total cost to be \$169,000. About \$81,000 will be expended for plumbing, wiring and equipment. Thomas Barrett, Jr., mayor.

Tarpon Springs, Fla.—Efforts are being made to secure erection of 100-room hotel, to cost about \$60,000. Board of Trade is acting in the matter. J. R. Durrance, secretary.

Gadsden, Ala.—Stated that arrangements are being effected for erection of hotel building on Bellevue Highlands to cost about \$75,000. Loui Hart.

Lakeland, Fla.—Bids are wanted for contract to erect six-story hotel building here for D. K. Kibler, Dunnellon, Fla.; 103 guest rooms. Plans are at office of C. M. Clayton, First National Bank, this city. Building is to be completed by October 1, next. It

has been leased by William Foor, who manages Aragon Hotel, Jacksonville, Fla., and Patterson Hotel, Valdosta, Ga. It is stated that he is to furnish the hotel at a cost of not less than \$20,000.

Marion, Ala.—A \$25,000 public building will be erected here.

Helena, Ark.—Phillips county has purchased a site and will erect a court house.

New Orleans, La.—Plans for the new Hotel Dieu are being completed and details will be announced within a few days. The contract for the erection of the structure will be let within a few weeks. Andry & Bendernagel are the architects.

Cartersville, Ga.—An additional \$5,000 will be appropriated for the Federal building.

Eatonton, Ga.—The Masons will erect an additional story to their building.

Rossville, Ga.—A \$50,000 postoffice will be erected here.

Hendersonville, N. C.—Sayer & Baldwin, of Anderson, S. C., have prepared plans for the Patten Memorial Hospital. Joseph McCreary, superintendent.

High Point, N. C.—A site has been purchased whereupon it is proposed to build at an early date a town hall, an opera house, a market, fire house.

Columbia, S. C.—The Baptists of South Carolina will erect a sanitarium. Rev. C. E. Burts, pastor of the First Baptist church, is interested.

Knoxville, S. C.—The Boyd School Building may be converted into a city hall. The work will represent an expenditure of \$40,000. Mayor S. G. Heiskell.

Memphis, S. C.—Chairman J. P. Norfleet and other members of the board of trustees for the hospital for communicable disease, are planning to erect a hospital building to cost about \$25,000.

Memphis, S. C.—Work on an addition to the Lucy Brinkley Hospital, to cost between \$18,000 and \$20,000, will be started within the next month. Plans drawn by John Gaisford have been adopted. The three-story addition will be of steel and brick, with tile floors throughout.

Memphis, S. C.—B. R. Miller, of Bartlett, and J. B. McGee, were appointed a committee to receive options for a site for a joint city and county tuberculosis hospital, to cost \$25,000.

Nashville, S. C.—An Appropriation of \$300,000 will be asked for the purpose of erecting a capital annex and a city hall.

Waco, Texas.—The Masonic Grand Lodge is planning to enlarge the temple at this place.

Waco, Texas.—The sum of \$25,000 will be expended for the erection of an additional story to the Y. M. C. A. building, and the construction of a swimming pool.

A Long Stride Forward!

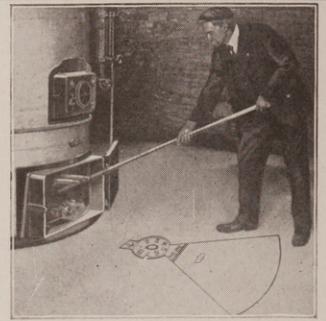


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As an auxiliary to the Heating Plant means positive elimination of Dust, Fire Risk and Labor.

Write for Literature.

The W. M. Sharp Co.,



330 Park Avenue,
BINGHAMTON, N. Y.

"CRECONTO"

Creconto Waterproofing Concrete Floor Dressing

This material is designed for finishing concrete floors in public and private buildings of all kinds, especially those of Factories, Power Plants, Garages, Asylums and Jails.

The finish produced is sanitary and prevents stains from water, oil, grease, or other causes from penetrating and discoloring the surface.

AQUABAR WATERPROOFING PRODUCTS for waterproofing basements, roofs, reservoirs, tanks, etc. Results guaranteed.

Steel Reinforcement, Concrete Mixers, Contractor's Machinery, Building Materials, etc.

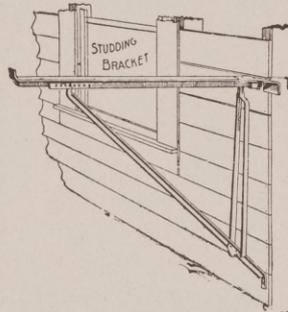
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The Fireproof Building Material Co.

Reliance Building

Kansas City, Mo.

The "DETROIT" Folding Scaffold Bracket COMBINES ALL GOOD FEATURES



SAFE: Owing to its peculiar construction, the load strain is entirely Downward with no tendency to pull outward from the building.

CONVENIENT: Its automatic and positive grip makes it possible to set up in 15 minutes without bolts; screws or nails.

ECONOMICAL: No builder can afford to be without it because its cost can be saved on a single contract.

MADE FOR EITHER STUDDING OR SHEATHING

FOLDING SCAFFOLD BRACKET CO.

50 Fort Street W.

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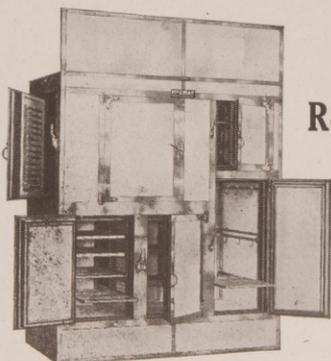
SPECIFY McCRAY Refrigerators

The plans of well built homes are not complete unless they include a McCray Built-to-order Refrigerator. Our expert Craftsmen will co-operate with you in locating the refrigerator and drawing plans of different models adapted to the requirements of the owner. McCray Built-to-Order Refrigerators economize in wall and floor space and in being iced from outside are the acme of convenience.

McCray Refrigerators

have been recently installed in the homes of Mrs. L. C. Carnegie, Fernandina, Fla.; R. J. Reynolds, Winston-Salem, N. C.; Hoke Smith, Atlanta, Ga., and many other of the finest homes throughout the South.

We will gladly submit plans for refrigerators for Residences, Clubs, Hospitals, Hotels, etc., free of charge. Let us send you our American Homes Booklet and catalog for any line you may be interested in.



McCRAY Refrigerator Co.,

339 Lake Street

Kendallville,

Ind.

The American Line



Our Direct Flush Valve

Simplest in construction.

Greatest in efficiency.

High or low water pressure has no effect.

Style "B"

Pressure Tank

Absolutely noiseless. Uses the least water. Air cushion in tank protects entire system.

Write for catalog and style "C" tank.



American Valve Company

Indianapolis, Ind.

Dwellings and Apartments.

Atlanta, Ga.—J. H. Surber will erect residence; two stories; brick veneer; stone foundation; vapor heat; cost, \$5,000; day's work. Plans by Miss Leila Ross Wilburn, Peters building, Atlanta.

Atlanta, Ga.—C. T. Bergstrom will erect \$3,000 residence; furnace heat; tiled bath room; contract not let; plans by Architect Frank W. Cooksey, 351 1-2 Candler annex, Atlanta.

Atlanta, Ga.—Renfroe & Daniel contemplate remodeling and adding to residence; two stories; brick veneer; stone foundation; vapor heat; tile floors; hardwood floors; cost, between \$8,000 and \$12,000.

Atlanta, Ga.—W. W. Griffen will erect two-story frame residence; stone foundation; cost, \$4,000; construction by day's work. Miss Leila Ross Wilburn, 305 Peters building, Atlanta, is the architect.

Atlanta, Ga.—Permits have been issued for erection of following residences, which will be built by day labor: J. T. Taylor, one-story frame, \$3,980; also one-story frame, \$3,600.

Atlanta, Ga.—R. C. Little has permit to erect one-story frame residences; day labor; \$3,000.

Bradentown, Fla.—James F. Brown, of Chapman Construction Co., will build concrete block residence.

Dawson, Ga.—R. E. McDowell will erect brick residence; brick has been purchased.

Hawkinsville, Ga.—Residence will be erected by J. B. Glover.

Jonesboro, Ga.—O. G. Coogler has plans by Miss Leila Ross Wilburn, 305 Peters building, Atlanta, Ga., for two-story frame residence; cost \$3,750; contract not yet awarded.

New Smyrna, Fla.—Residence will be erected by J. S. Duss, Jr.

Tampa, Fla.—T. J. Morris has permit to erect \$3,000 residence.

Tarpon Springs, Fla.—Plans are being prepared by Architect A. H. Johnson, Tampa, Fla., for residence to be erected by Peter O. Knight.

Troy, Ala.—Bungalow will be built by William T. Ogletree.

Savannah, Ga.—Harper Investment Co. has applied for permit to erect eight two-story, frame apartment houses.

Atlanta, Ga.—D. M. Argo, this city, has contract to erect one-story, frame residence for Oscar Lane; \$2,800.

Atlanta, Ga.—T. C. and Paul Wesley, Atlanta, have contract to erect two-story, frame residence for R. E. Riley; cost, \$3,500; plans by Miss Leila Ross Wilburn, 305 Peters building.

Decatur, Ga.—W. A. Ozmer, Decatur, has contract to erect one-story, frame residence for Mr. Hewey; stone foundation; cost, \$2,500. Plans by Miss Leila Ross Wilburn, Atlanta, Ga.

Columbus, Ga.—Contract has been awarded to Butts Lumber Co., this city, to erect two-story,

frame residence for John F. Scarbrough; about \$5,000.

Kissimmee, Fla.—J. A. Barclay has awarded contracts for erection of two residences.

Sarasota, Fla.—Price & Sigler, this city, have contract to erect two-story, 10-room bungalow for Col. Gillespie.

Zebulon, Ga.—Contractor Waddell, Woodbury, Ga., will erect residence for Fred Scott.

Little Rock, Ark.—The Bracey, Beauchamp & Neimeyer Realty Co. to erect four residences at an expenditure of \$15,700.

Texarkana, Ark.—Witt Seibert & Co., of this city, have prepared plans for a \$4,500 residence for Miss Joanna M. Henry.

Louisville, Ky.—W. B. Miller, to remodel building, \$3,000.

Whitesburg, Ky.—The Consolidation Coal Co. has let to a company of Pittsburgh a contract for the construction of 200 ten-room residences in the main section of Jenkins.

New Orleans, La.—N. P. Wain will erect a residence to cost \$4,000, contract to be awarded at an early date.

New Orleans, La.—Judge O. O. Provosty will erect a residence, to contain two stories, of stucco construction, and will have modern improvements. Albert G. Bear drew the plans. Jules Dreyfous will shortly let the contract for the erection of a three or four-story building. Anthony Montleone is expected to call for bids for a six-story structure.

Crystal Springs, Miss.—C. H. Parsons will erect residence, cost \$7,000. Plans by Overstreet & Spencer, Jackson, Miss.

Jackson, Miss.—Overstreet & Spencer, architects, of this city, have prepared plans for a \$3,000 dwelling for G. R. Heaney, also a \$4,000 residence for Dr. Wallace Carnahan.

Duke, N. C.—The Erwin Cotton Mills Co. have let the contracts for ten new residences.

Raleigh, N. C.—J. E. O'Donnell will erect a \$10,000 residence.

Charleston, S. C.—Permit issued to J. W. Fraser for the erection of five dwellings at a cost of \$6,000.

Greenville, S. C.—The Duncan Cotton Mills have awarded a contract for thirty more cottages to house operatives.

Nashville, Tenn.—Plans have been received by Johnson Bransford from Robert D. Farquhar, architect, of Los Angeles, for the new home Mr. Bransford is to erect at Belle Meade. It is reported that the house and a private garage will cost in the neighborhood of \$50,000.

Dallas, Texas.—Permits issued to T. A. Manning, 7-room, two-story tile residence, \$15,000. O. A. Staples, 2-story brick, North Ewing, \$13,500.

El Paso, Texas.—Contractors are now figuring on a bungalow to be erected for William G. Walz,

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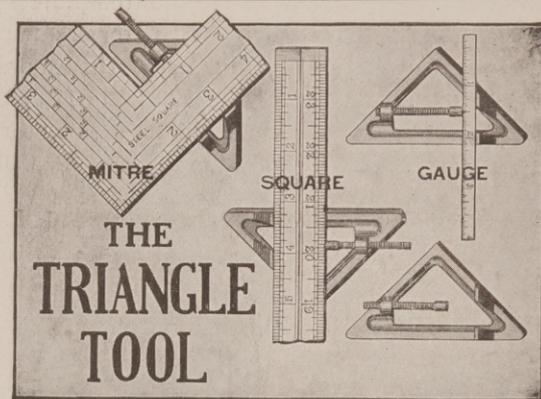
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Jr., the cost to be about \$5,000. The plans for it are being prepared.

El Paso, Texas.—Plans for two new bungalows to be operated by the Mayfield Realty Co. have been completed. The cost of the buildings will be \$6,000. The foundation for the house which is being built for George W. Cameron has been laid. This house will cost \$4,500, and is being built by the same company.

Houston, Texas.—A permit has been issued for a three-story brick store and apartment house. The owner of the proposed new structure is the Southern Loan & Investment Co.

San Antonio, Texas.—C. Trejo to erect a \$3,000 two-story building.

Bank and Office.

Savannah, Ga.—Hibernia Bank is said to have practically accepted plans for a building which it proposes to erect.

St. Petersburg, Fla.—Home Security Company has completed arrangements for erection of four-story building; 80 x 100 feet; offices on second and third floors and lodge halls above; exterior of press brick, with finish of two shades of brown brick; interior finish of decorative tile; Spanish tile floors; marble wainscot.

Bessemer, Ala.—The Bessemer State Bank contemplates erecting a new building.

Pell City, Ala.—Architect D. O. Whilldin, of Birmingham, will submit plans for the proposed new building for the First National Bank.

Hopkinsville, Ky.—Dr. J. E. Stone and L. H. Davis will erect an office building. The plans have not yet been decided on.

Florence, S. C.—Sanborn Chase has purchased property and will erect a steel sky-scraper office building.

Spartanburg, S. C.—J. W. Alexander and associates will erect a \$225,000 8-story office building.

Johnson City, Tenn.—E. Munsey Slack has let the contract for the repair of his two-story brick block, which was recently gutted by fire.

Leferia, Texas.—The Cameron County Bank will erect a two-story building to cost \$7,000. W. E. Stewart, president.

Business and Store Buildings.

Birmingham, Ala.—Newton Paisley has permit to erect two-story, brick building; \$4,900.

Atlanta, Ga.—Donaldson & Son, this city, have contract to erect building for Georgia Railroad and Power Co.; mezzanine floor; \$11,000.

Birmingham, Ala.—Contract has been awarded to Herndon-Hettrick Construction Co., this city, to erect 5-story business building for Judge W. L. Grubb and David Roberts; about \$50,000.

Brunswick, Ga.—Contract has been awarded to

W. C. Anderson, this city, to remodel store building for A. Zelmanovitz; new front.

Troy, Ala.—P. F. Hanchey has awarded contract for erection of brick store building; plate-glass front.

West Palm Beach, Fla.—Contract has been awarded to Lake Worth Contracting Co., this city, to erect two-story building for O. Swenson; store on first floor and living rooms above.

Atlanta, Ga.—Announcement has been made that W. L. Traynham would begin work about the first of the year on an arcade building. Whether the building will be a two, three or four-story structure and what its cost will be have not been fully determined.

Buford, Ga.—J. L. Shadburn will erect two brick stores.

Birmingham, Ala.—The Birmingham Realty Co. will in the near future start work on the second allotment of wholesale store buildings.

Oneonta, Ala.—A two-story brick building is being erected by E. B. Roberts.

Texarkana, Ark.—Plans have been prepared for a store building to be erected for G. P. Hill.

Jacksonville, Fla.—Mrs. Fred Ogram to erect a two-story concrete building to cost \$5,500.

Jacksonville, Fla.—Central Investment Co. to erect a four-story building to cost \$22,000. C. D. Mills is advertising for bids for the erection of apartment houses in the city, to contain twelve apartments.

Lexington, Ky.—The Combs Lumber Co. has prepared plans for a \$10,000 business house to be erected by J. B. Haggin.

Louisville, Ky.—Levy Brothers will erect a five-story addition to their present structure.

Memphis, Tenn.—Harris & Mosby to erect an addition to building, \$5,000.

Nashville, Tenn.—The American Baking Co., of Atlanta, Ga., contemplates erecting a plant here.

Beaumont, Texas.—R. R. Henry expects to begin early in January the erection of a two-story brick building with foundation and walls of capacity to carry several additional stories.

Shreveport, La.—W. K. Henderson Jr., will erect a garage to cost \$25,000.

Charlotte, N. C.—D. P. Hutchison will erect a six-story fireproof building.

Greenville, S. C.—Charles W. Ellis will erect a \$20,000 concrete and pressed brick building. Electric elevator will be installed.

Deridder, La.—Demsey Iles and M. Thompson will each erect a two-story brick business building. S. Roberts has let contract for the erection of four brick stores.

Schools and Colleges.

Augusta, Ga.—St. Joseph's Academy will be located here and school buildings and dormitories will

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Most Powerful Reflectors made

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Reflectors of scientific design

to direct the light rays against the ceiling at the proper angle so that they will be re-reflected from the ceiling to evenly light the room, and corrugated to prevent "streaks" on the ceiling.

Reflectors of lasting brilliancy

so that the illumination does not become dim with the passing of time on account of the reflecting surface deteriorating.

Scientific installation to produce known results

The reflectors must be the proper number of inches below the ceiling, the fixtures must be spaced correctly, the bowls must contain the right type of reflector (concentrating or distributing), etc.

Natural seeing conditions for the eye to work by

There must be no visible light sources. No sharp shadows. No direct or reflected glare. No blotchy illumination. No light rays striking the eye directly.

Low maintenance cost

Washing of the reflectors must be made unnecessary to save time (Labor cost). Handling of the reflectors and lamps must be reduced to a minimum to save breakage (Equipment cost).

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The interior bowl equipment, i. e., the powerful reflectors, the holders to keep them in the right position with relation to the lamp, etc., must be interchangeable and adjustable to special designed fixtures to harmonize with different interiors.

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be erected at cost of about \$100,000. Buildings of this institution at Washington, Ga., were burned a short time ago. Bishop B. J. Kelly, Savannah, Ga.

Condor, Ga.—School building which was burned when nearing completion will be rebuilt. Plans are being prepared by Architect R. B. McGeekin, Dublin, Ga. W. W. Pierce, Dublin, Ga., is the contractor, he having had insurance of \$3,000 on the burned structure.

Fayette, Ala.—Architect Frederick Ausfield, Montgomery, Ala., has been commissioned to prepare plans and specifications for Fayette County High School building.

Jefferson, Ga.—Addition to be erected to municipal school building will have two stories; steam heating; probably slate roof. J. S. Ayers, mayor.

Selma, Ala.—Plans by Architect William T. Warren, Birmingham, Ala., for municipal school building have been accepted; 60 x 120 feet; three stories; class rooms on first and second floors; auditorium with seating capacity of 700 on third floor; about \$35,000; expected to begin construction soon after the first of year. J. L. Clay, mayor.

Springfield, Ga.—Issuance of bonds for completing school building and for other purposes was voted. The mayor.

Bronwood, Ga.—Contract has been awarded to W. T. Jay Co., Shellman, Ga., to erect bank building for Farmers' Bank; brick and stone.

Kingsland, Ga.—Contract has been awarded to J. H. Banks, St. Marys, Ga., to erect bank and office building for State Bank of Kingsland; brick; about \$5,000.

Fort Smith, Ark.—A \$200,000 high school building will be erected and the present building remodeled. A gymnasium building will also be erected.

Denison, Texas.—The high school bond issue of \$100,000 voted on by the citizens of Denison December 6, was carried.

Justin, Texas.—Bonds of \$15,000 have been voted for the erection of a brick school.

Knoxville, Tenn.—The city contemplates erecting a high school building for colored.

Memphis, Tenn.—The Le Moyne Institute (colored) will erect a \$200,000 school building.

Columbia, S. C.—The board of trustees of the University of South Carolina have decided to build an addition to Flinn hall, which is used as a Y. M. C. A. building.

Jefferson, Ga.—By a vote of 155 to 3 Jefferson voted for a bond issue of \$10,000 for school purposes.

New Orleans, La.—Plans have been prepared by N. Richarme for a school building for the Society Francaise-Juliet. The building will be a one-story brick affair, covering a lot 36 x 116 feet in size. It will have a composition and tile roof, sanitary floors, hot water and other modern improvements. Archi-

tecs Nolan & Torre have just finished plans for a three-story brick school building at White Castle, parish of Iberville, La. New Orleans contractors will be asked to bid for this work.

Brookhaven, Miss.—Workmen are actively engaged on the construction of the Mary Lampton auditorium, on the Whitworth College campus. It is expected it will be occupied by June 1.

De Kalb, Miss.—Overstreet & Spencer, Jackson, Miss., have prepared plans for a brick school building to be erected at a cost of \$7,000. Plans ready for bids.

Churches.

Atlanta, Ga.—Congregation of First Presbyterian church is said to contemplate erecting church building and manse to cost approximately \$75,000 and \$16,000, respectively. S. W. Carson, chairman.

Bessemer, Ala.—Plans have been prepared for Sunday school addition to building of First Baptist church. The pastor.

Elberton, Ga.—Church building will be erected at Meadow, Ga., (not a postoffice) by Hebron Association; 50 x 70 feet; Sunday school rooms. Rev. R. A. Smith, Bowman, Ga., and J. R. Booth, Nickville, (R. F. D. Elberton, Ga.).

Mobile, Ala.—Frame church building will be erected by Catholic congregation. Rt. Rev. Edward P. Allen.

Heber Springs, Ark.—The Business Men's League have decided on a site for a Catholic church and school.

Portia, Ark.—The Land Mark Baptist congregation has under construction a church.

Florence, S. C.—Bids will be opened on December 12 for the erection of a Methodist church. W. J. Wilkins & Co., architects.

Clayton, N. C.—The M. E. Church, South, has begun the erection of a house of worship.

Weimar, Texas.—The Catholic congregation will erect a \$35,000 church.

Richmond, Va.—The members of Woodland Heights Baptist church are making plans to construct a new place of worship. Joseph P. Sadler, chairman of the building committee.

Foreign Trade Opportunities.

(Addresses omitted are on file at Bureau of Manufactures, Washington, D. C. In applying for addresses refer to file number. For convenience in filing at Bureau of Manufactures, please use separate letter sheet for each trade opportunity request).

No. 10007. Sanitary Closets.—An American consular officer reports that a member of a firm of machinery contractors in his district is desirous of getting in touch with manufacturers of or dealers in sanitary closets and disinfectants for same, with a view to introducing them in new territory. He is a

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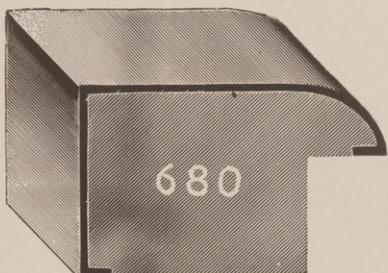
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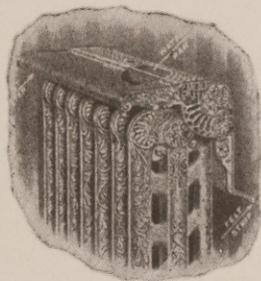
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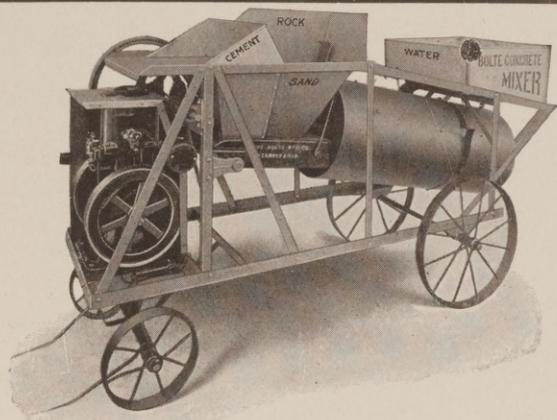


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No. 10034. Radiators, Boilers, Hardware, Machine Tools and Novelties.—An association in the Near East has written to an American consular officer in regard to the local market for certain American products. It is stated that there is a good market for radiators and boilers, but the trade is at present monopolized by a British firm. Show rooms with a full equipment of catalogues and descriptive literature will enable American firms to get their share of this trade. There are many lines of hardware, small machinery, machine tools, and tools in general in which the market is still undeveloped and for which a good demand can be created. Novelties of all kinds are quickly adopted also, and a good trade can be secured in this line of goods.

No. 10045. Cement Machinery.—An American consular officer in a European country reports that a resident of his district is interested in machines and processes which will further the use of cement by the employment of cheap unskilled labor. Correspondence may be in English.

No. 10063. Electric Vacuum Cleaners.—An American consular officer in Canada reports that a member of a firm in his district wishes to correspond with some American firm that handles electric vacuum cleaners. Correspondence may be in either French or English.

No. 10064. Capital for Cement Factory.—A report from an American consular officer in Canada states that cement property of large extent has been discovered in his consular district. It is stated that conditions are favorable for the development of this

property, as cheap coal and cheap electric power can be obtained, while transportation facilities are also good. This land is now owned by a company of several men, who are desirous of interesting capital for the establishment of a plant.

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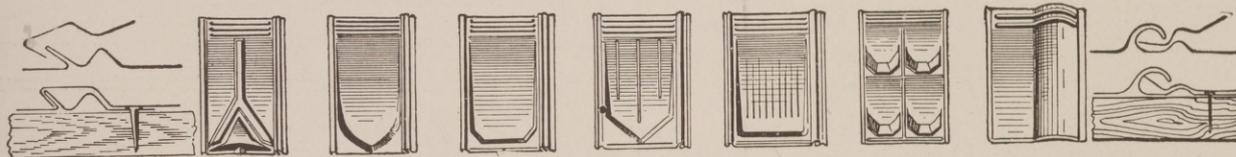
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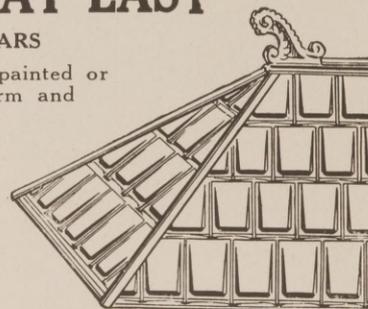
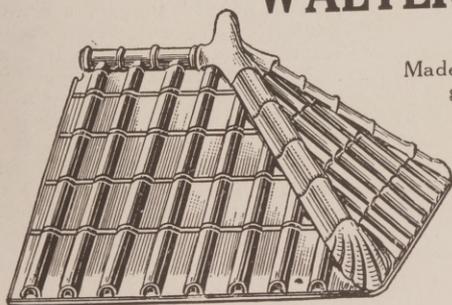
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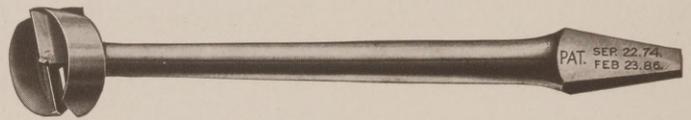
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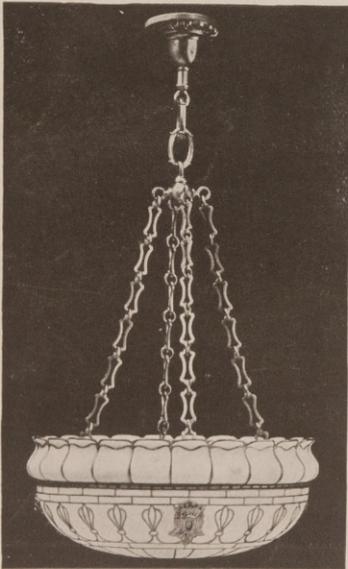


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