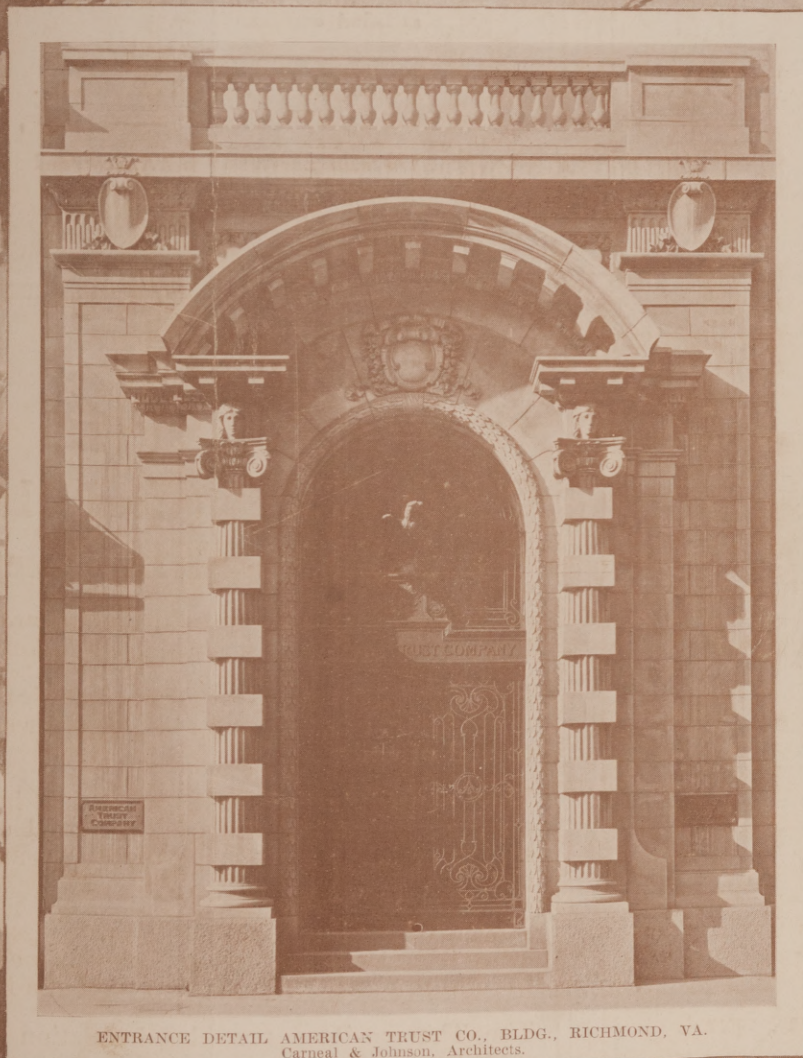


Southern Architect and Building News

DALTON

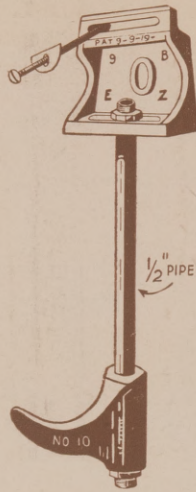
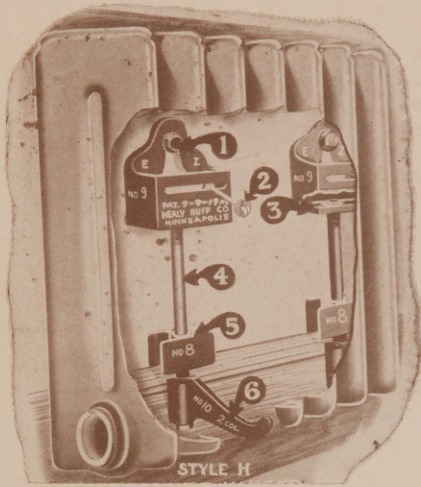
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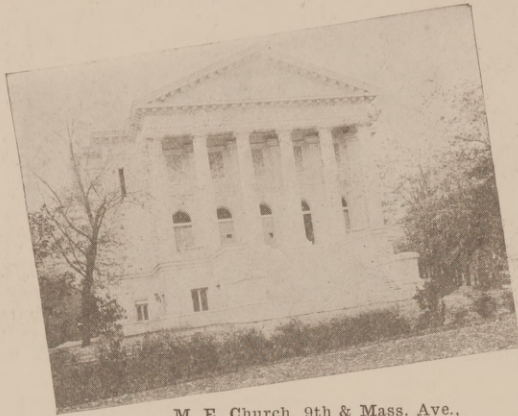
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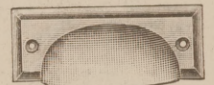
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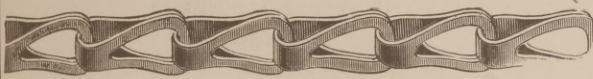


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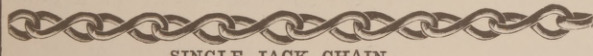
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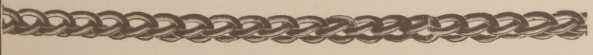
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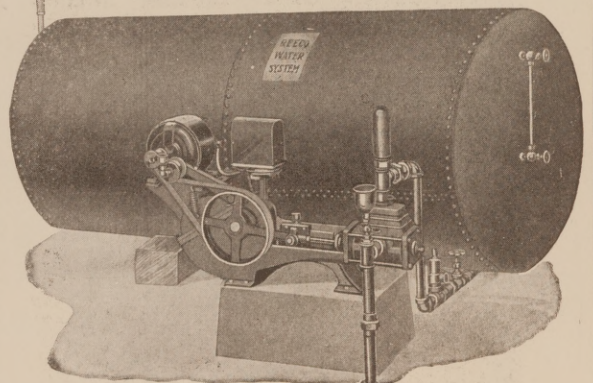
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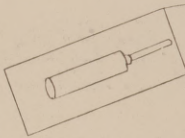


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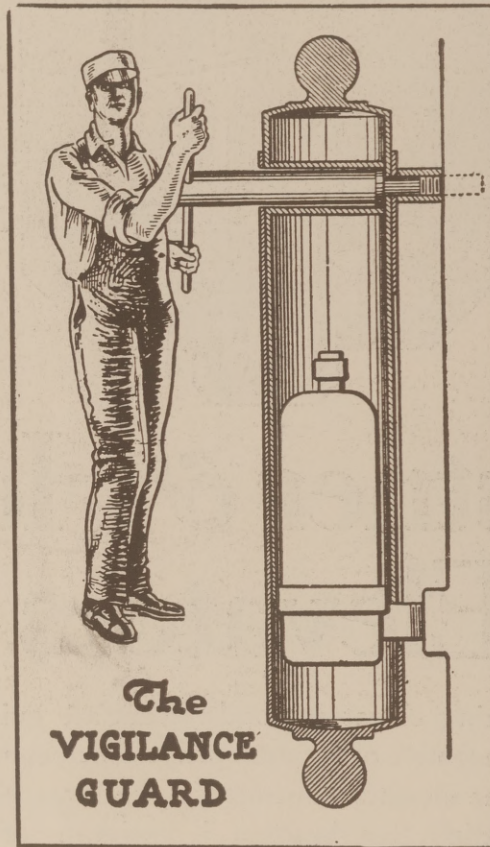
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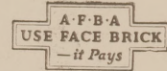
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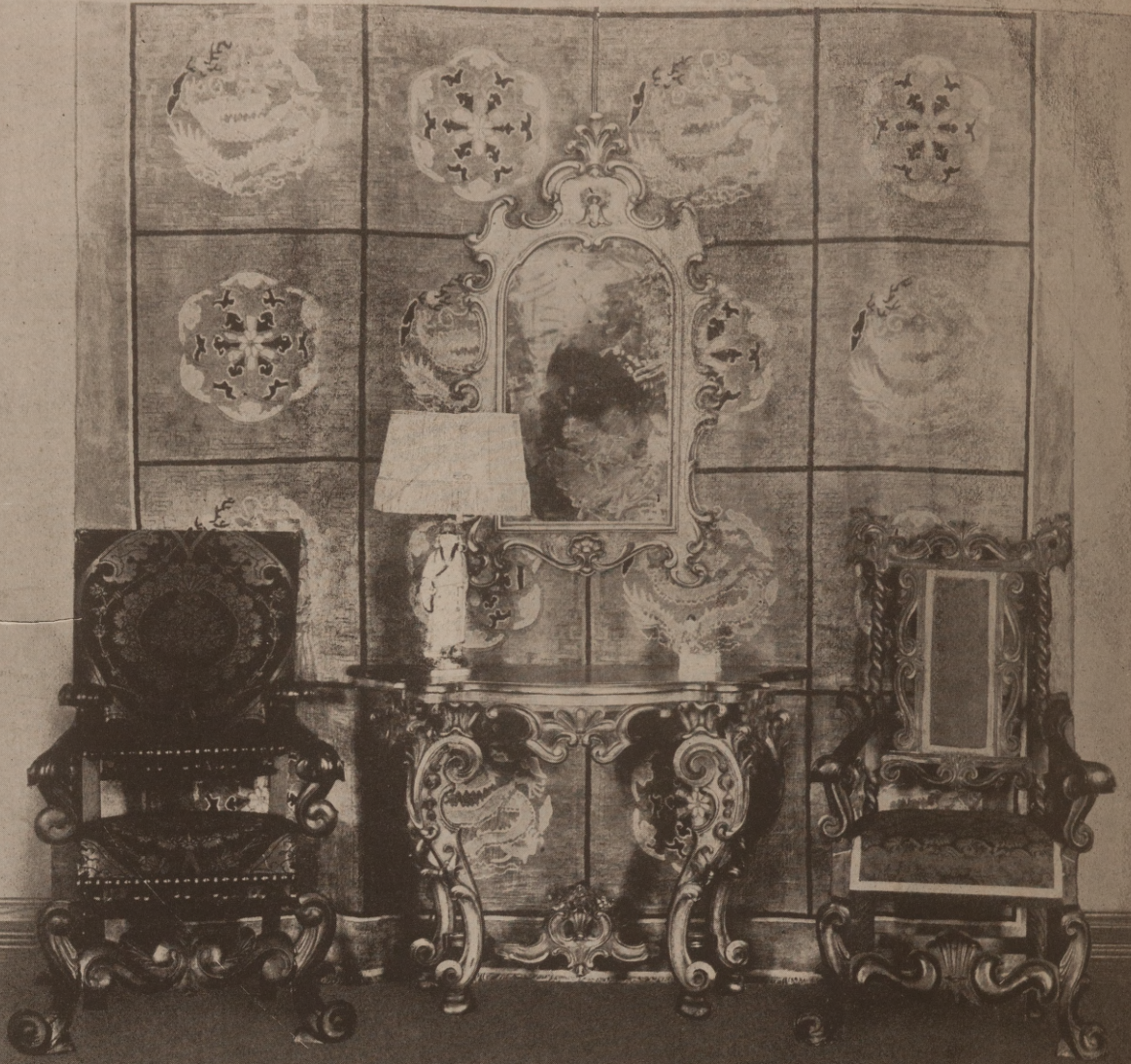
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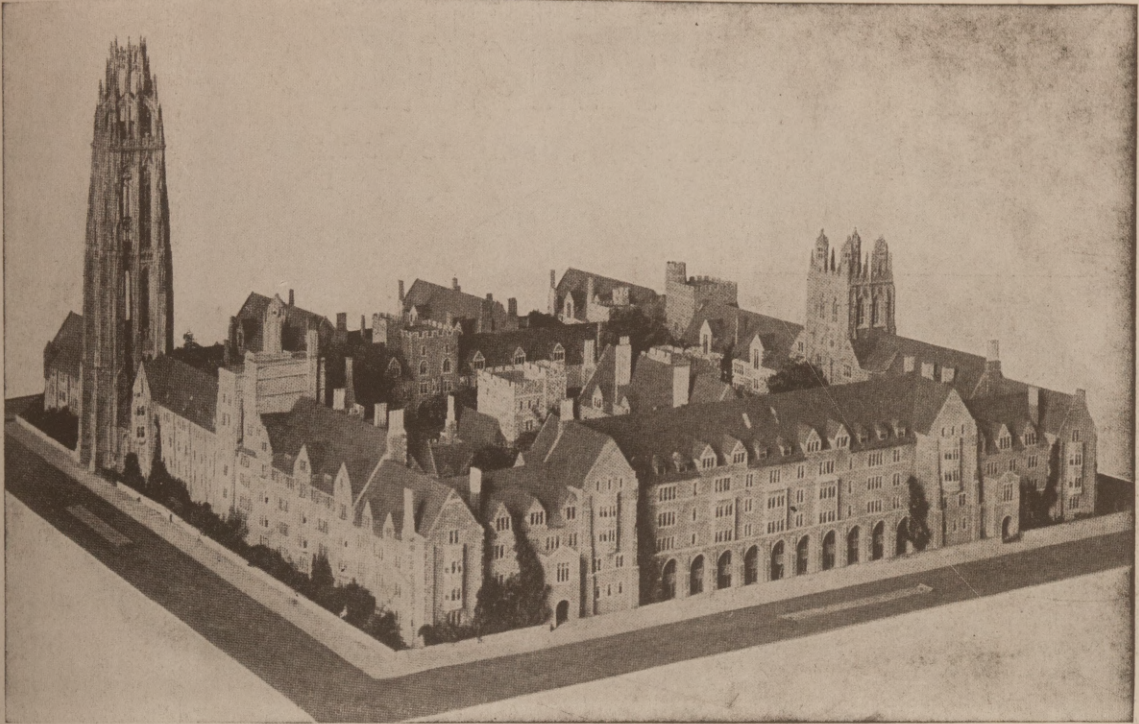
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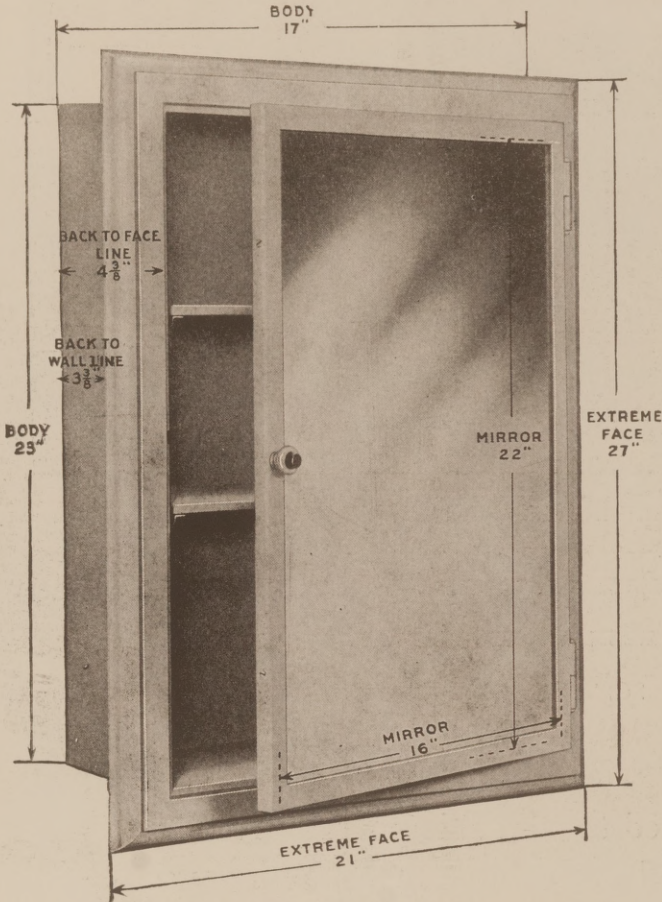
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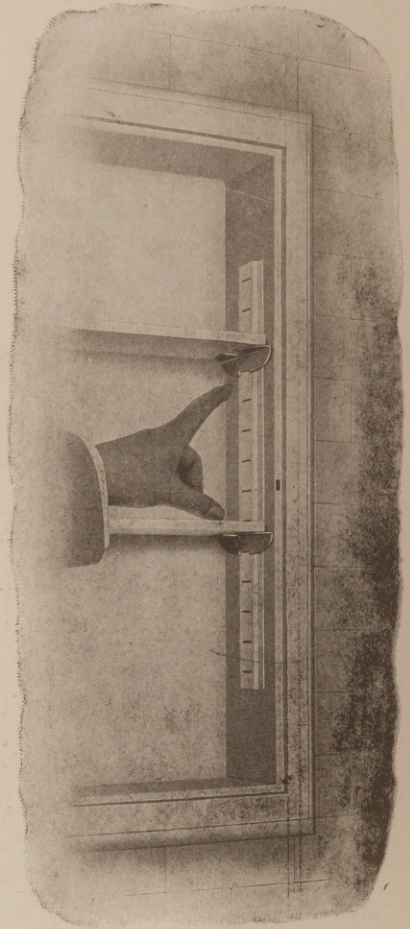
One-Piece Steel Medicine Cabinets



GRAPHIC ILLUSTRATION

Dimensions and roughing measurements.

Extreme of Moulded Edges.....	21 in. x 27 in.
Body	17 in. x 23 in.
Mirror, without Bevel	16 in. x 22 in.

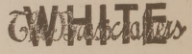


SECTIONAL CUT

Showing how shelves are fixed, but instantly adjustable.

Wall Line to Face	1 in.
Wall Line to Back	3 3/8 in.
Opening required for installation	
17 1/4 in. x 23 1/4 in. x 3 3/8 in.	

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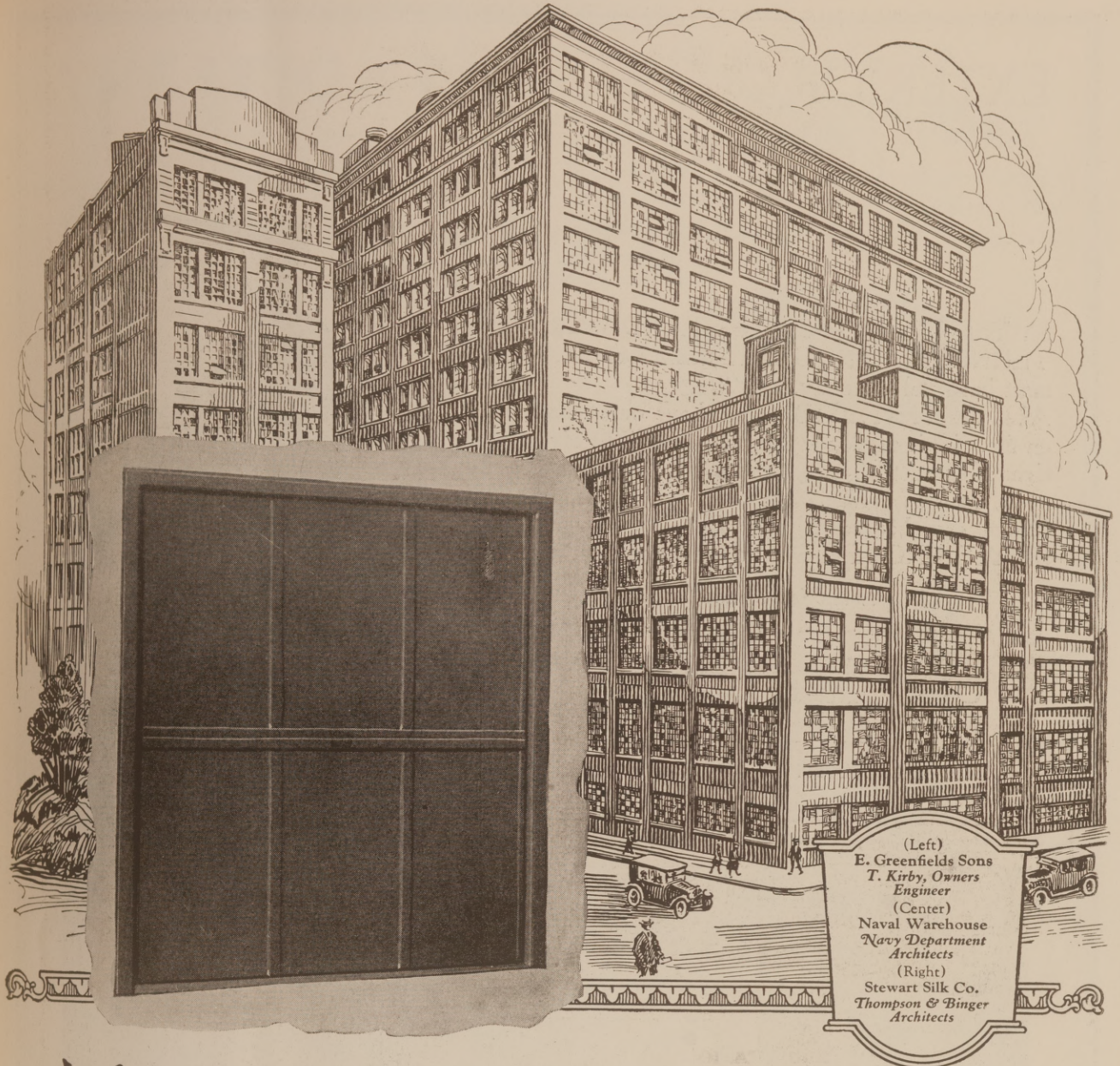
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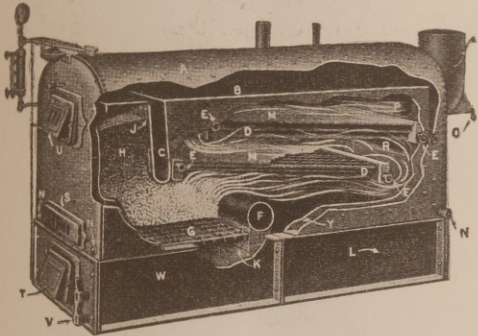
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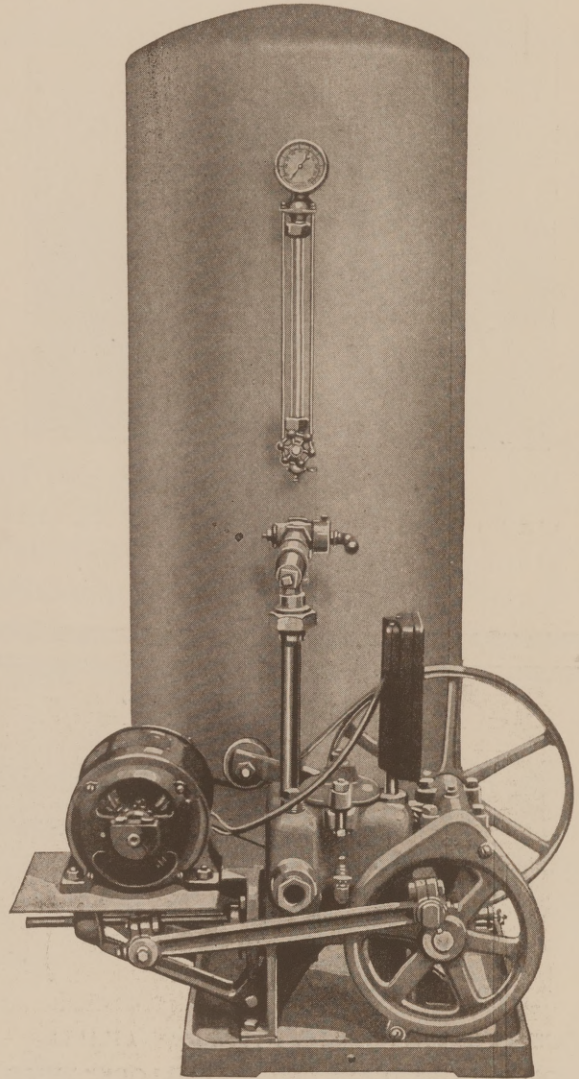
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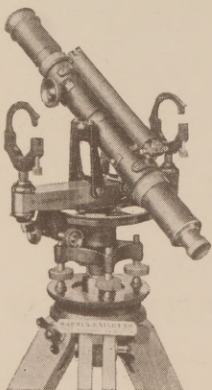
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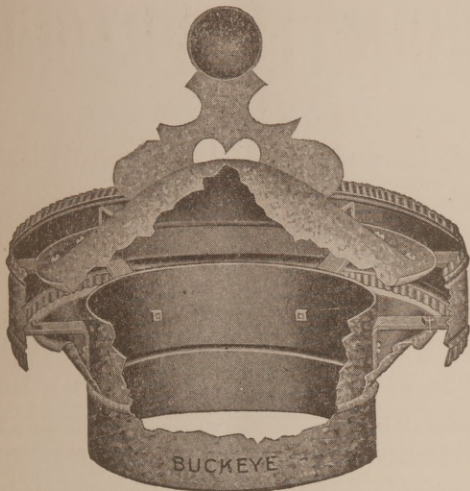
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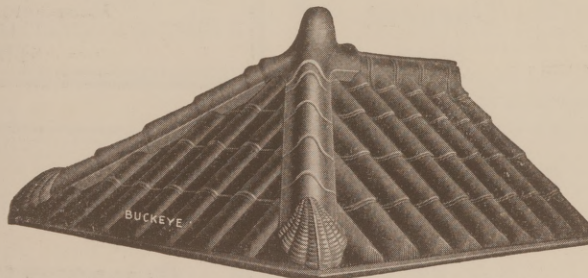
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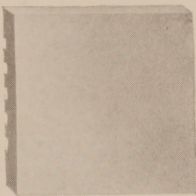
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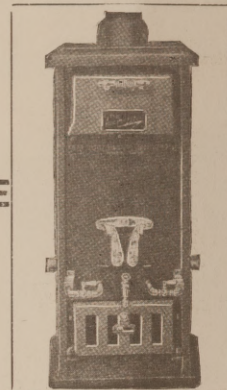
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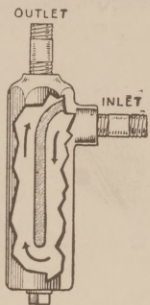
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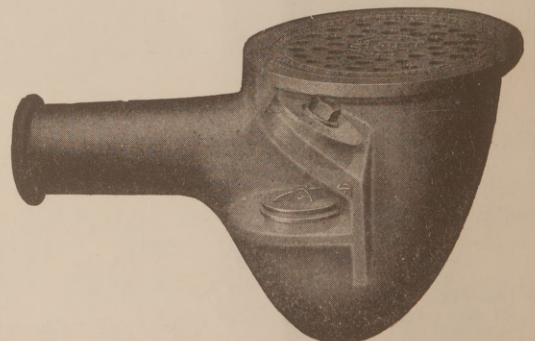
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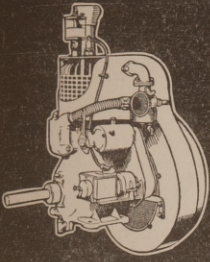
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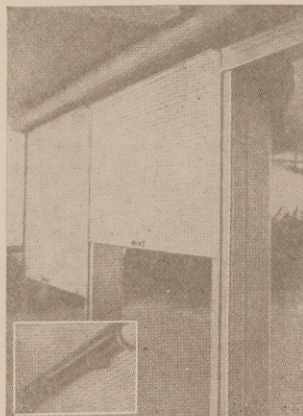
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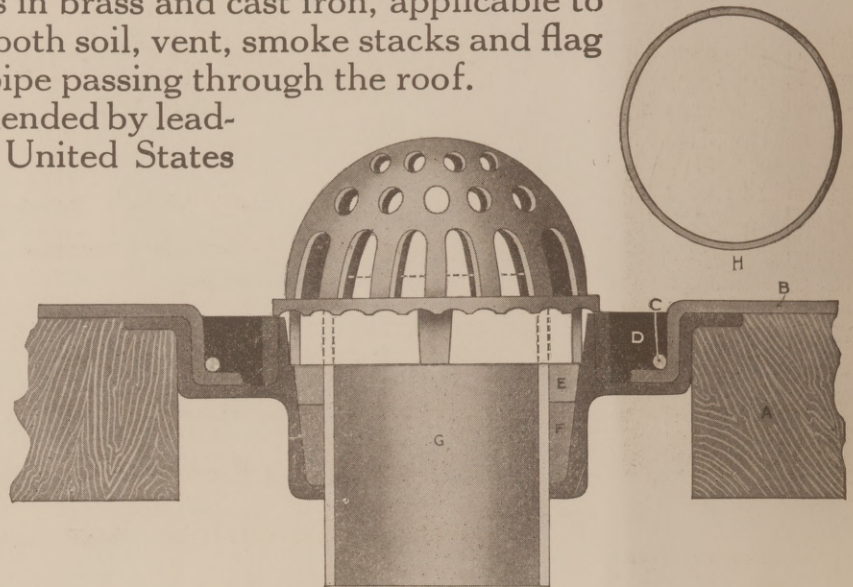


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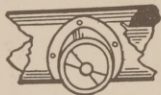
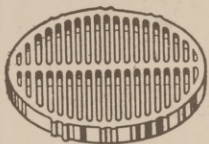
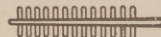
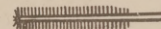
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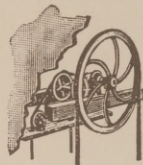
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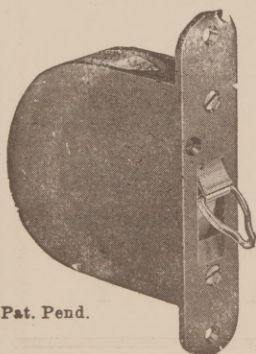
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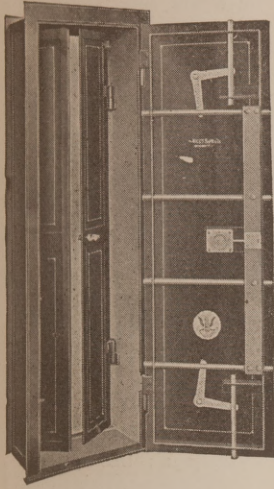
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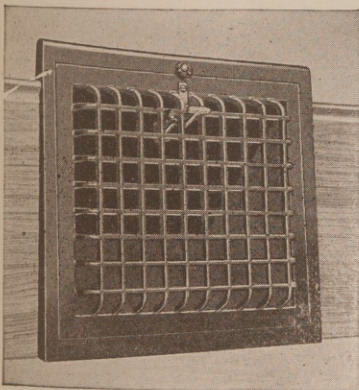
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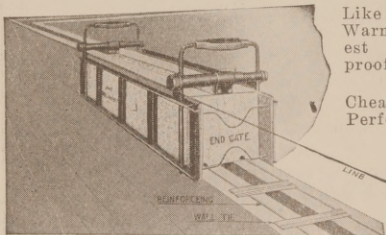
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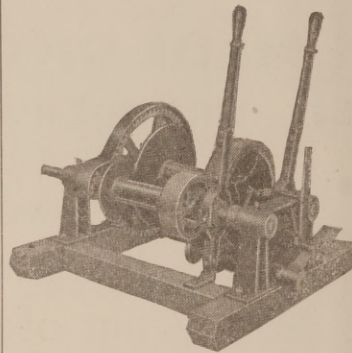
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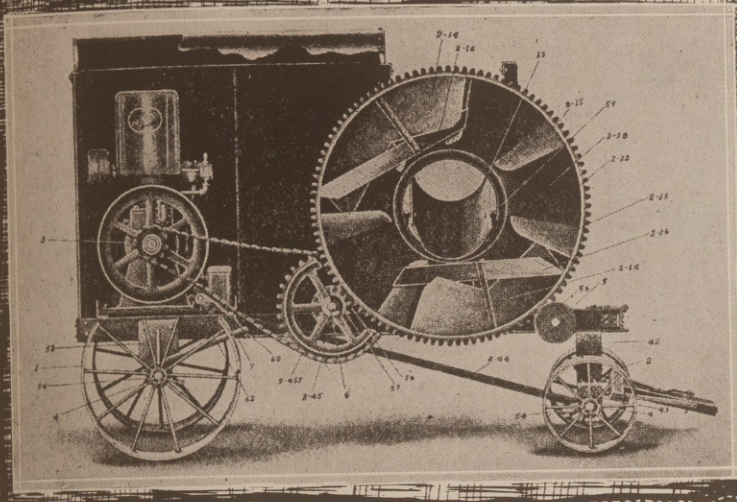
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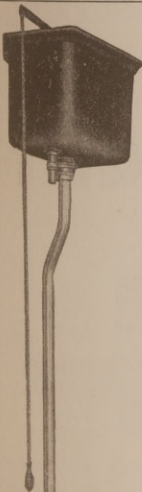
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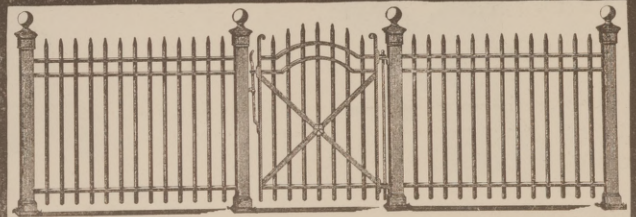


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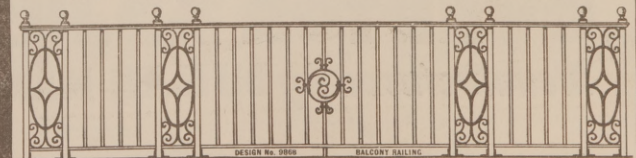


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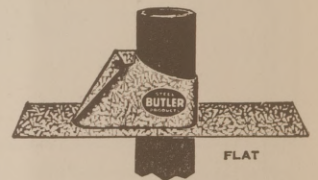
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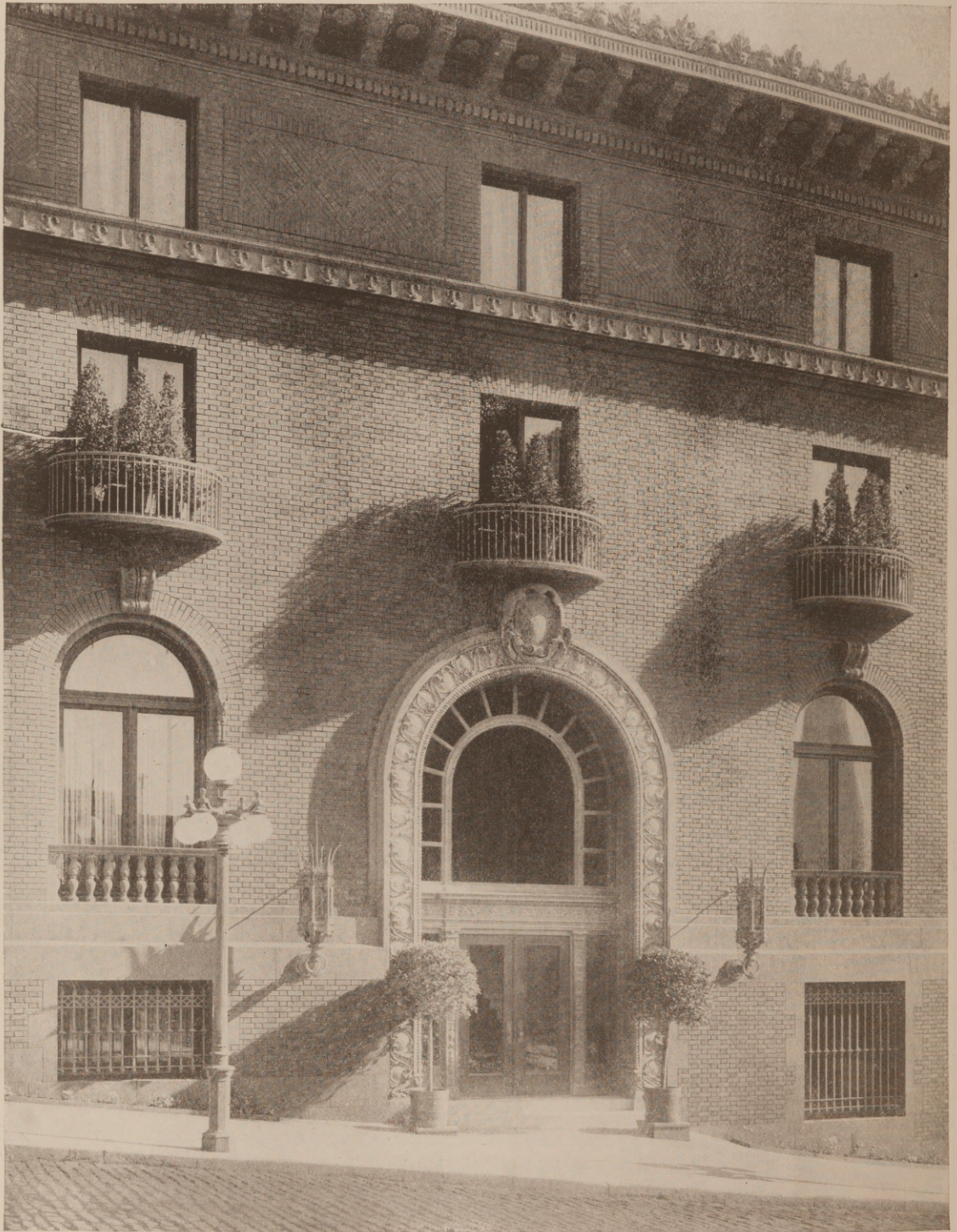
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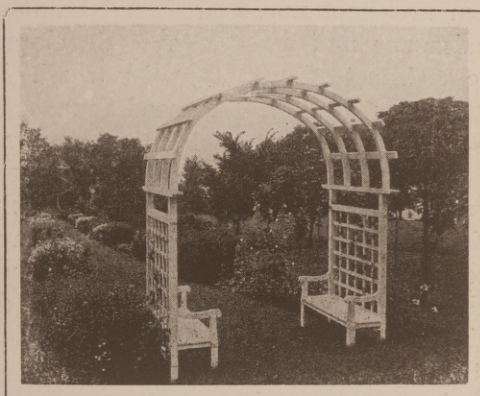
E. R. DENMARK,
Editor.




Entrance Detail, Bohemian Club, San Francisco, Calif. George W. Kelham, Architect.

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September
1922



Vol. XLVIII.
No. 9



Modern Tendencies in Architectural Design



By C. H. Cowgill.*

Professor of Landscape Architecture, Iowa State
College, Ames, Iowa.

NO doubt there has been a great improvement during the last few years in the quality of examples of architecture, and this is perhaps in no locality more evident than in the Middle West. While this is gratifying to us all, there is little that may be said about it except in the way of applause. And after all, are not the qualities of design—such as unity; harmony with site, surroundings, and climate, the planning for natural light, ventilation, and for utility and beauty; the expression of the plan, of use, and of construction—are not all of these qualities means for the development of a national style, or at least a characteristic style for the Middle West?

Perhaps some of you smile at the mention of an American Style, for it has been discussed so much in an academic way and there is no little evidence of its existence of its advent. But to what else may tendencies in design lead? Tendencies have to do with the results of typical changes. Improvement in the quality of designs is a typical change which is to be hoped will lead to further improvement, but typical changes in character point to the development of style. It may be said, though, that our country is so large,

contains so many different peoples, and has such a variety climate and traditional architecture, that an easily recognizable style, such as has been developed by European countries can not be developed here; yet if pictures of various modern American buildings were to be thrown upon a screen mixed with those of buildings in other countries, most of them would be recognized as American as quickly and as surely as American citizens are recognized as such when abroad.

Why is it there exist the rudiments of an American Style of Architecture when so few designers have given it a second thought? That our country possesses definite characteristics is well known—the character of a nation is but the composite character of its individuals. On the other hand, the character of each of us is influenced by the national character, and we express ourselves in all we do. It is thus that designers unconsciously express the national character in their designs, and it is thus to a large extent that our national style has reached its present stage of development. Another reason that American buildings are somewhat similiar to each other but different from those in other countries is because the conditions and requirements are unique

for many types of our buildings—for example our skyscrapers.

Previous to the Renaissance, architectural styles developed great individuality in much the same way that we have developed our style so far, i. e. unconsciously. The main reason that our American style does not become as individual as those of the past is that today we have many precedents which may be followed, while the antique builders knew of but one. We are not more lazy nor prone to copy than were our ancestors; but while one modern architect may be inspired by the Italian Renaissance and another by the English Gothic, the architect of ancient times scarcely ever had knowledge of more than one type of architecture at a time, other than such as existed in his own country.

To overcome the effect of a multiplicity of precedents, modern nations which have developed individual style have I believe made conscious attempts to do so. National characteristics are analyzed by designers and critics, precedents which are not in keeping with the national character are ignored, and those used are tempered to fit the national character. Perhaps France has been more successful in this than any other modern nation, and incidentally the establishment of a national school for the teaching of architecture has possibly assisted by bringing about a harmony of thought along this line.

To facilitate further discussion, an attempt, crude as it may be, will be made to analyze the national characteristics of the United States. The character of the nation is shown by its record from the War of the Revolution to the present time, particularly its attitude toward other nations. The love of liberty, high ideals, and strict morality are perhaps the most outstanding virtues; to which might be added hospitality, fairness, honesty, and kindness. Of course, even a nation must have its faults, but they should not be expressed in architecture. Incidentally, however, the love of display has often been so expressed, much to the detriment of the pleasing effect of our buildings.

Each designer, perhaps, has a different way of expressing the same thing, which adds to the interest, but we have all observed certain ways in which common characteristics are brought out. High ideals are inspired by towering masses with predominant vertical lines which tend to carry the eye upward. Morality is suggested by severity of lines and freedom from over-ornamentation. The love of liberty and fairness are expressed by broad sweeping horizontal lines, and openings wide in comparison to their height suggest hospitality. Honesty is expressed by simplicity of composition, truth in expression of construction and plan, and freedom from over-

ornamentation; and kindness by quiet color, soft texture, and smallness of scale.

Quite naturally some of these national characteristics may sometimes have to be subordinated to other characteristics which express the use or purpose of the building, but enough may be made of them to stamp any building as American.

It will now be interesting to review some of the typical changes in character of American buildings. The first single designer to exert a profound influence upon others was Richardson, whose development of the Romanesque is familiar to all. Without question his designs expressed many of our well known characteristics which perhaps account for his popularity. The proportions of many details have been criticized by men accustomed to classic architecture. Perhaps the popularity of his work was killed more than any other way by his being slavishly copied by incompetent designers, but it is not likely that a historical style could correctly express our modern times.

Louis Sullivan seems doomed to Richardson's fate. His work may not express our national character as well, but more of originality is shown. While he undoubtedly received inspiration for his ornament from Saracenic architecture, he developed it in an individual way. Frank Lloyd Wright, Sullivan's apprentice, has carried out his master's style with a great deal of modification. His influence is still felt, but there seems little possibility of its spreading. The work of each of these two men is more individual than national in character.

The Gothic style has had many friends in this country, its chief proponents among the architects being Cram, Goodhue and Ferguson. It has been generally limited to certain types of buildings, however, with no thought of its forming the basis of a modern style.

Within the last three decades there has come into prominence a group of architects mostly graduates of the School of Fine Arts in Paris, of which McKim, Meade and White, and Carrer and Hastings are perhaps the most prominent. This group has had a mighty influence upon other designers. The principles of composition as taught by the French are followed and pleasing proportions and refined detail are insisted upon. The Italian Renaissance seems to be the favorite source of inspiration for these men, although the same one use the Georgian and the French Renaissance.

The last few years, however, have brought forth a desire on the part of many designers, and a corresponding demand from critics and public for means of expression other than details used

The Bulkley Building, Cleveland, Ohio

C. Howard Crane, Architect

STORES, offices, with now and then a theater in addition, is the usual story of the commercial building erected in a large city's congested retail business center. More often than not, the structure shot up into the air with little regard for the inverse ratio in which money return often follows the addition of many floors of small square foot area. A tall shaft, majestic and imposing, very often becomes merely an insignia of achievement, a monument to the misunderstanding of the proper development of business property in such a way as to produce proper returns upon an original investment.

This is the story of a building development planned and completed as a paying investment. It is the story of the evolution of a group plan, covering over two acres on Euclid Avenue, the main thoroughfare of Cleveland.

Hon. Robert J. Bulkley, prominent Cleveland attorney, and former Congressman, is president of the Bulkley Building Company. It has been through the vision and foresight of Mr. Bulkley that the structure bearing his name has come to be built.

During the past several years the trend of business growth in Cleveland has been eastward along Euclid Avenue. The Public Square, center of the city in earlier days has ceased to be the heart of the retail district. Following in the path of the city's old residential mansions, famous as "Millionaires' Row," the retail district has grown so as to occupy practically all space on lower Euclid Avenue. A new retail center has come into existence at the intersection of Huron Road and East Fourteenth Street with Euclid Avenue, a converging point of three main arteries of traffic which are the most direct highways to the east, west and south section of Cleveland. The Bulkley Building, occupying 2000 feet of Euclid Avenue frontage on the north side of the street, is located directly opposite the point of convergence of East Fourteenth Street and Huron Road with Euclid Avenue. Across the avenue is the new Hanna Building, and to the east is the Keith Building, now in process of construction.

Several parcels of land, held on ninety-nine leases, make up the large ground area occupied by the units of the Bulkley Building. The plan of layout is unusual. At the time the several leaseholds were acquired there stood, on one property, the old Cleveland Athletic Club, a four

story brick structure, set back about two hundred feet from the street, and occupied by C. A. Selzer, dealer in antiques, whose galleries are known throughout the country. This building, situated at the one side of the property, has been included as one of the units in the Bulkley building development, and entrance to it has been provided through the lobby of the main building. The basement of the building has been made into a spacious and unusually attractive sales room, and thus an expanse heretofore useless and ugly has been converted into an area of beauty and utility.

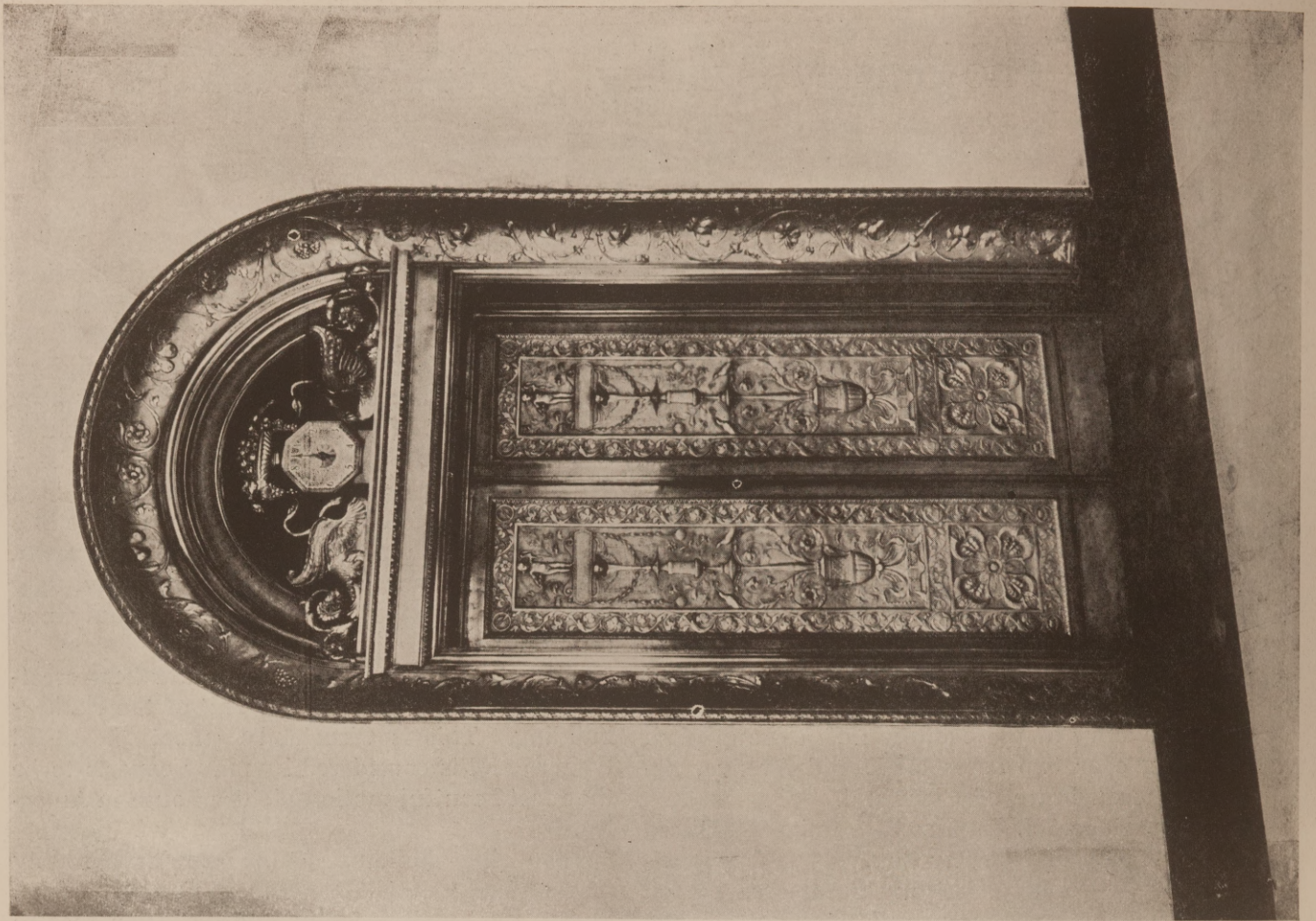
Adjoining the Selzer store has now been erected the Allen theatre, another unit of the Bulkley building. This is Cleveland's most beautiful theatre, and is considered by many experts to be the most beautiful motion picture house in America.

The office building of the Bulkley Building group rises to eight stories on Euclid Avenue. Stores, the building lobby, and the Allen theatre lobby take up the first floor. The second floor is devoted to retail shops, having large display windows on Euclid avenue, and an attractive arcade corridor at the rear. The six remaining floors are devoted to offices.

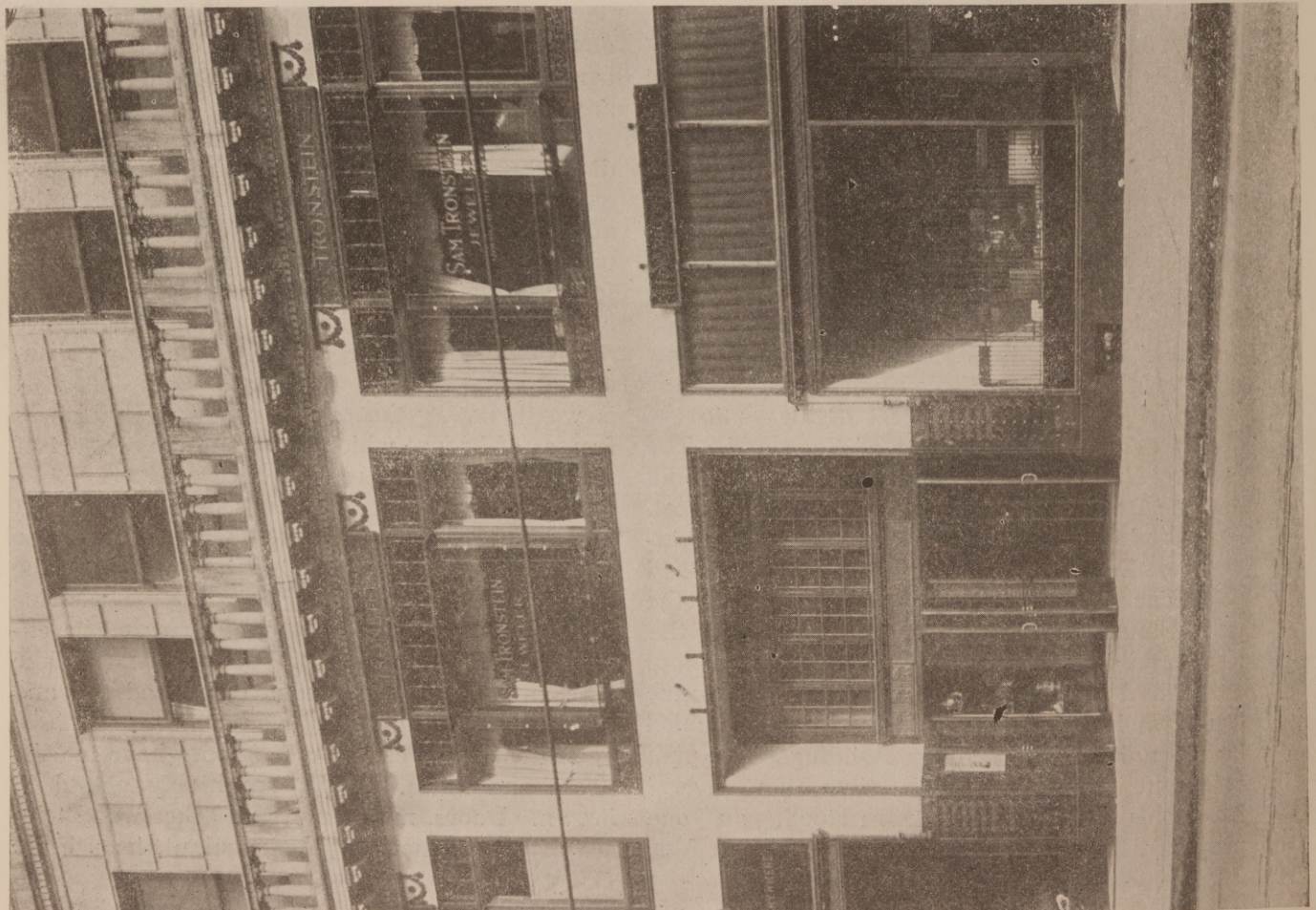
The exterior of the office building is of Indiana buff limestone; the base of the building, and the store fronts, are of dark green granite, obtained after considerable difficulty by opening up an inactive quarry of a certain rare formation found in Maine. Doorways, awning frames, and other metal work on the front of the building are of ornamental bronze, oxidized black, or polished and waxed to an antique green-gold finish. It is worth noting that all awnings are hidden in frames of bronze which form an integral part of the decorative scheme of bronze work.

The entire property extends in depth 445 feet to Dodge Court in the rear. Of this depth the office building occupies 120 feet, rising above the other units of the Bulkley Building. The office building has no enclosed court space. The entire rear faces north, and is open toward Lake Erie, providing for abundance of good air, and excellent north light at all times.

All corridors on the office floors have marble floors and bases. Walls are highly glazed in brown. Doors, mouldings, and other wood trim are of solid American black walnut, beautifully



ONE OF THE ELEVATOR ENTRANCES—BULKLEY BUILDING, CLEVELAND, OHIO. C. HOWARD CRANE, ARCHITECT.



DETAIL OF FACADE—BULKLEY BUILDING, CLEVELAND, OHIO. C. HOWARD CRANE, ARCHITECT.



REAR LOBBY AND ENTRANCE TO SHOP—BULKLEY BUILDING,
CLEVELAND, OHIO. C. HOWARD CRANE, ARCHITECT.



PART OF FRONT LOBBY—THE BULKLEY BUILDING,
CLEVELAND, OHIO. C. HOWARD CRANE, ARCHITECT.

Cuts courtesy "Architectural Record."

finished. All suites are equipped with the most modern appliances for the comfort and convenience of the tenants. Each office is furnished with hot and cold water, and heated by steam. Toilets for men and women are on every floor. Electric current is metered separately to each tenant.

Offices are furnished with smooth plaster walls and are tinted in a quiet, restful color, to insure a pleasing effect with a maximum amount of light. Lighting fixtures are of the most modern indirect type, providing the best of illumination without glare or shadow. Daily janitor and cleaning service is, of course, provided.

The office building has a most beautiful lobby. To a depth of over 120 feet it is finished in marble, with an elaborately decorated ceiling, and heavy bronze lighting fixtures. Five high speed elevators of the latest type insure rapid service. Cabs are finished with domes of ornamental bronze, moulded by a special new process which perfectly reproduces even the finest lines of the original models.

From a depth of 120 feet the architecture of the lobby is of the style of the Italian Renaissance. Heavy columns of weathered stone, with Corinthian capitals, supported vaulted domes with windows of leaded glass. On one side are large black mirrors, flanked by pilasters of polished Numidian marble, with richly polychromed capitals. On the opposite side are several arcade shops.

At the extreme end of the lobby, past marble columns supporting an arched entrance, is the approach to Selzer's store. Recesses in the walls on either side are built of travertine. Large antique doors open to the first floor of the store, and ornamental iron stairways, flanking either side, lead to a balcony overlooking the entire lobby.

The most remarkable feature of the Bulkley building is the garage, a two story structure built as the rear unit of the development. The garage fronts on Dodge Court, and has a capacity of over 250 cars. It has been extended under the theatre in order to obtain maximum use out of the land, and also in order that access to the building lobby, through a marble corridor, might be provided for patrons. With this arrangement, a tenant may go from his car to his

office without coming in contact with the outside elements. This not only effects a considerable saving of time, but is especially appreciated in cold and inclement weather. The garage is of steel and concrete construction, strictly fireproof, and is up-to-date in every particular.

Dodge Court, on which the garage faces, is about twelve feet lower than Euclid avenue. This is due to the fact that Euclid avenue at this particular location, marks the point from which one of the old post-glacial beaches of Lake Erie, known as the Warren beach, slopes for some distance to the north. Since the Bulkley building group is built on the lakeward side of the old Warren beach, it has been possible to turn to advantage the difference in level between the two streets on which the front and rear of the building face. The two floors of the garage are so arranged that cars may be easily ramped to either floor. In addition, it has been possible to provide a large covered trucking space, immediately back of the office building, below the level of Euclid avenue. Trucks have direct access to this space from Dodge Court. Doors open from the trucking space directly into the basements of the Euclid avenue stores. This provides an unusual, and very convenient arrangement for delivery of merchandise.

On account of the fact that all store deliveries can be made from the rear, it has been possible to utilize the entire front of the basement, containing over 13,000 square feet as an attractive dining room. This space has been leased to the Colonnade Lunch, who are in business in several of the large cities. Access to the dining room is provided by means of marble stairway from the lobby, as well as by elevator from the lobby and from the office floors.

The several units, combined as one structure, make up the Bulkley building. There is no lack of balance between store and office space. Foundations are laid so that six stories may be added to the office building, and six stories to the garage, at such time as this may be advisable.

C. Howard Crane, of Detroit, was the architect for the Bulkley building, with Allen M. Allen & Company, of Cleveland, as consulting architects and engineers; John Gill & Sons, of Cleveland were the general contractors.

Extracts from Competition Program, LeBrun Traveling Scholarship, 1921-1922



PROSPEROUS city of from 100,000 to 150,000 population has voted the funds necessary for the construction of a

Municipal Bath Building.

It is supposed that the citizens of the city have a proper pride in the aesthetic quality of its public buildings, parks, etc., and have consequently instituted a competition for the selection of an architect to construct this building about to be added to the city's public buildings.

The size, materials, type of architecture, etc., are left entirely to each competitor who may locate, if he so wish, the city in some particular region of this country and develop his scheme and selection of materials to suit and express the climatic or other general conditions of the region.

The Site: The building is to be located in a public park in proximity to a main street that forms one of the boundaries of the park, and at a point where there is no grade. The building, with its approach, must be confined to a space 190 ft. x 250 ft. It is left to the option of the competitor to determine whether the long or the short axis of the property shall be parallel with the street.

The Building: Practical considerations call for the entrance, or entrances, for both men and women, to be on the facade, facing the public street, from which they have immediate access to separate waiting rooms.

While in these waiting rooms, both sexes obtain from the General Office a card of admission to the baths and they give up, for safe keeping, any valuables in their possession.

Each sex must have direct access from its waiting room to its portion of the bathing establishment. An attendant there takes up the bath ticket and distributes towels and, when required, bathing suits.

Those who merely wish to take a shower bath

will find individual dress cabins in communication with individual showers. Those who wish to take tub baths, will find bath rooms with bath tubs, while those who wish to enjoy a swim in the plunge, will find dress cabins in direct communication with a Cleansing Room, for each sex, where a shower must be taken, before proceeding to the plunge. The plunge is to be used in common by both sexes.

Exit from the building must, of necessity, be through the waiting rooms.

Requirements For the Building.

A plunge or swimming pool, 75 feet long and about 30 feet wide with a platform on all sides about two feet above water level. At the deep end of the pool the platform should allow for a running dive.

Cleansing Rooms, one for each sex, with totals of about 12 showers.

Dressing Cabins (3 feet x 4 feet). Approximately 40 for men, 30 for women.

Showers (3 feet x 3 feet) with individual dressing cabins (3 feet x 4 feet), 1 shower for each cabin, approximately 20 for men, 15 for women.

Bath Rooms with individual bath tubs, about 6 for men, about 10 for women.

Toilets and Wash stands for each sex separately.

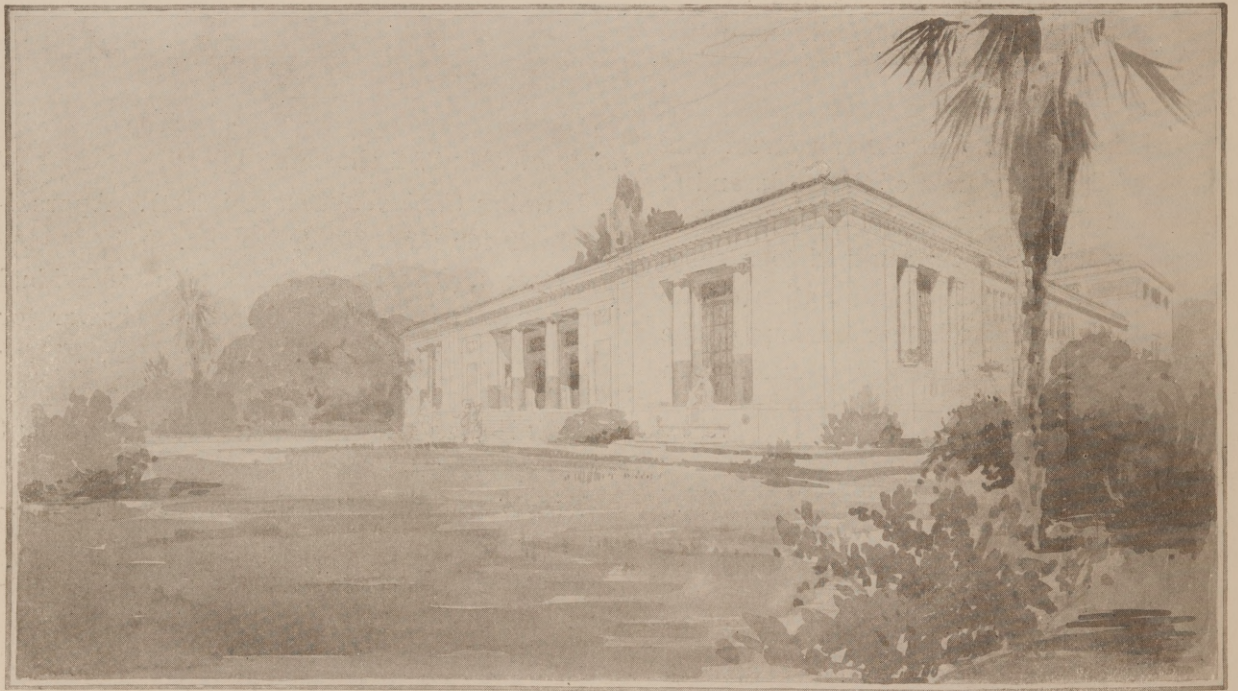
Attendant's Rooms for towel and other supplies.

Waiting Room for each sex.

General Office for administration.

The general services for heating, etc., may be considered to be placed in a basement or cellar and do not form part of this program, but their existence necessitates the raising of the main height.

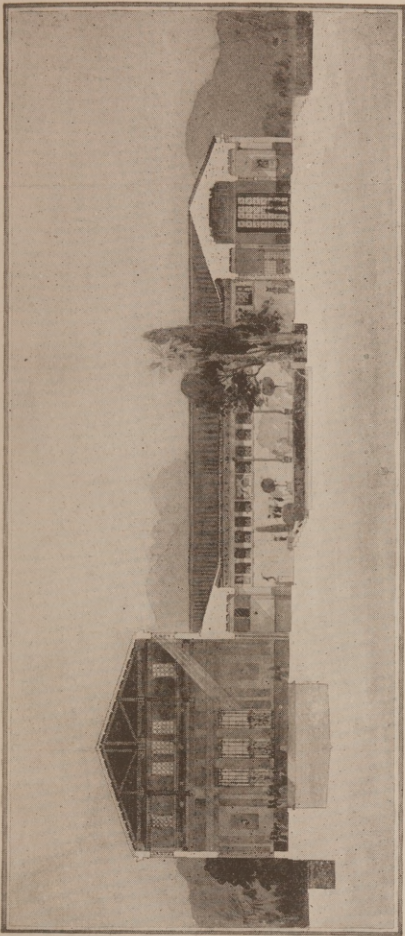
The building may be one or more stories in floor level about 5 feet above curb.



PRIZE WINNING DESIGN

LIONEL H. PREIS

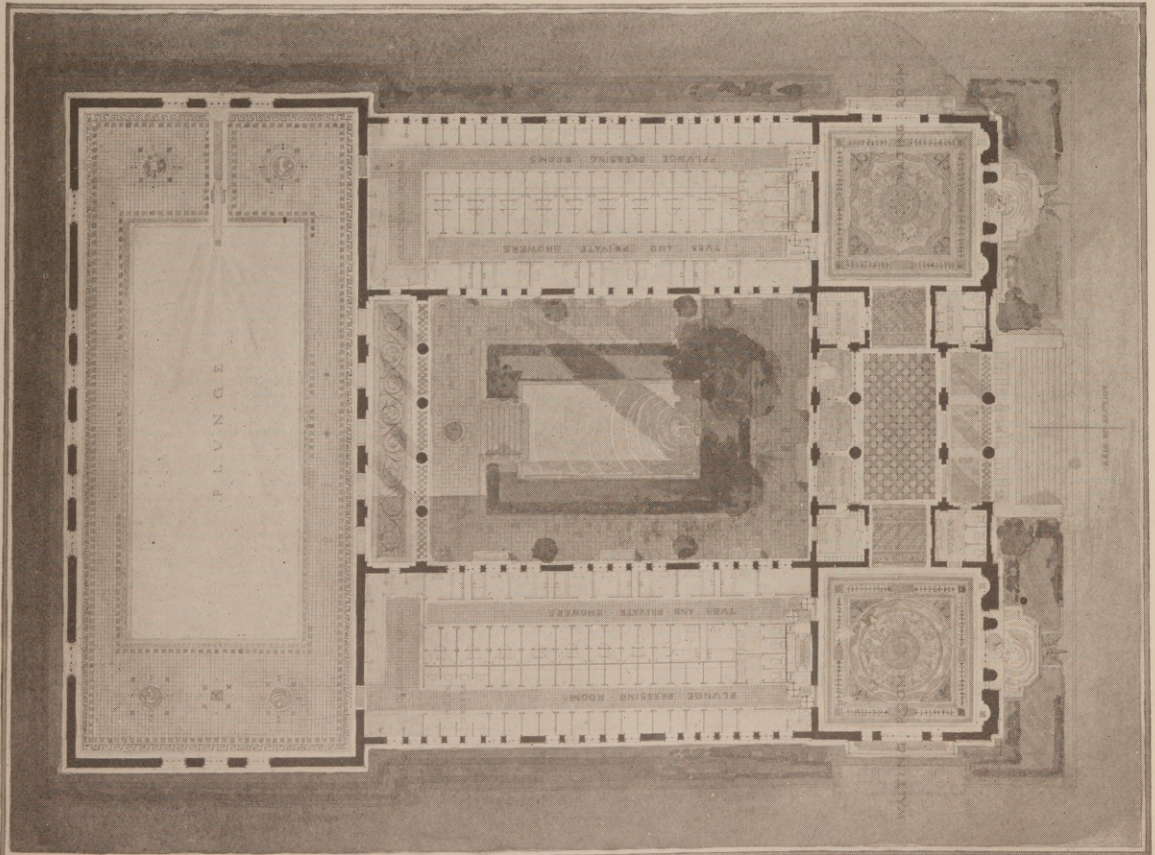
LE BRUN TRAVELING SCHOLARSHIP COMPETITION, 1922

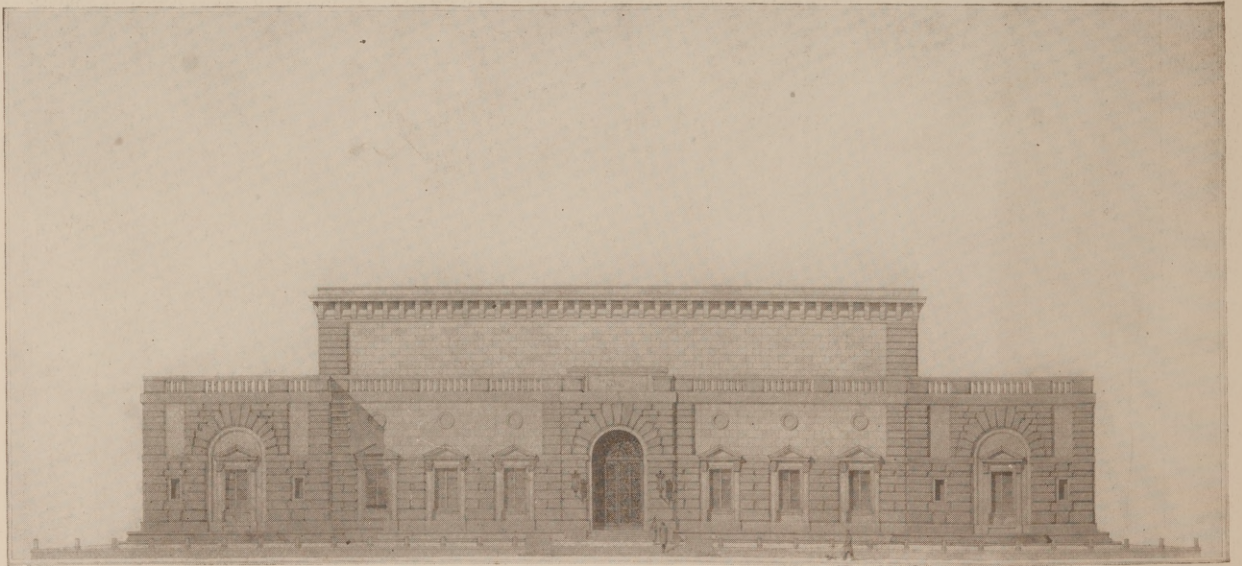
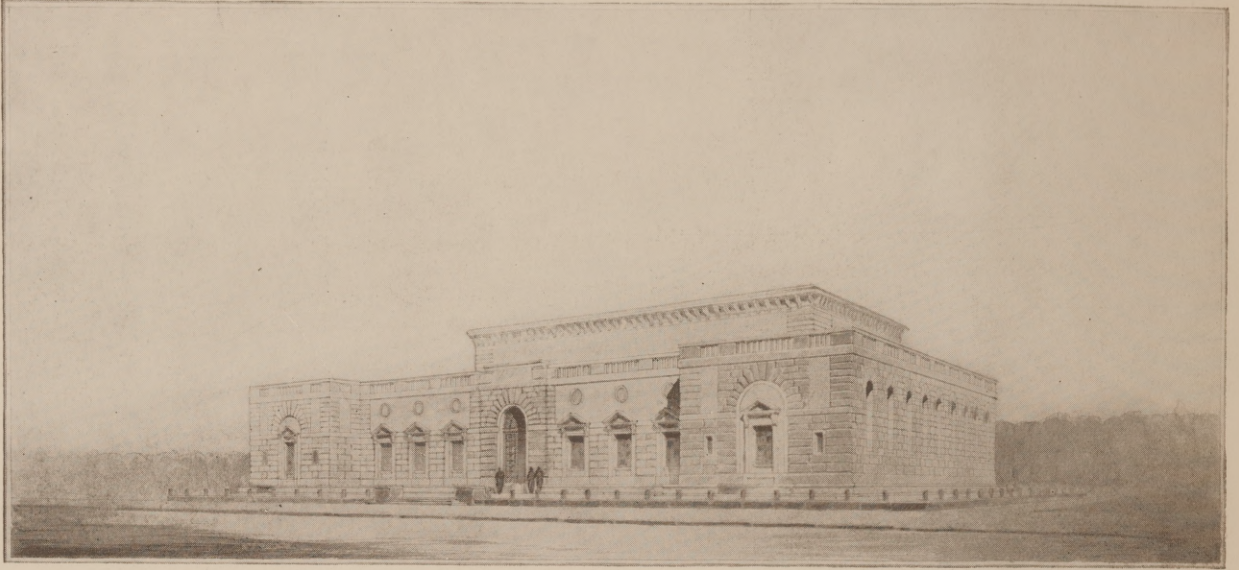


PRIZE WINNING DESIGN

LIONEL H. PREIS

LE BRUN TRAVELING
SCHOLARSIP COMPETITION, 1922

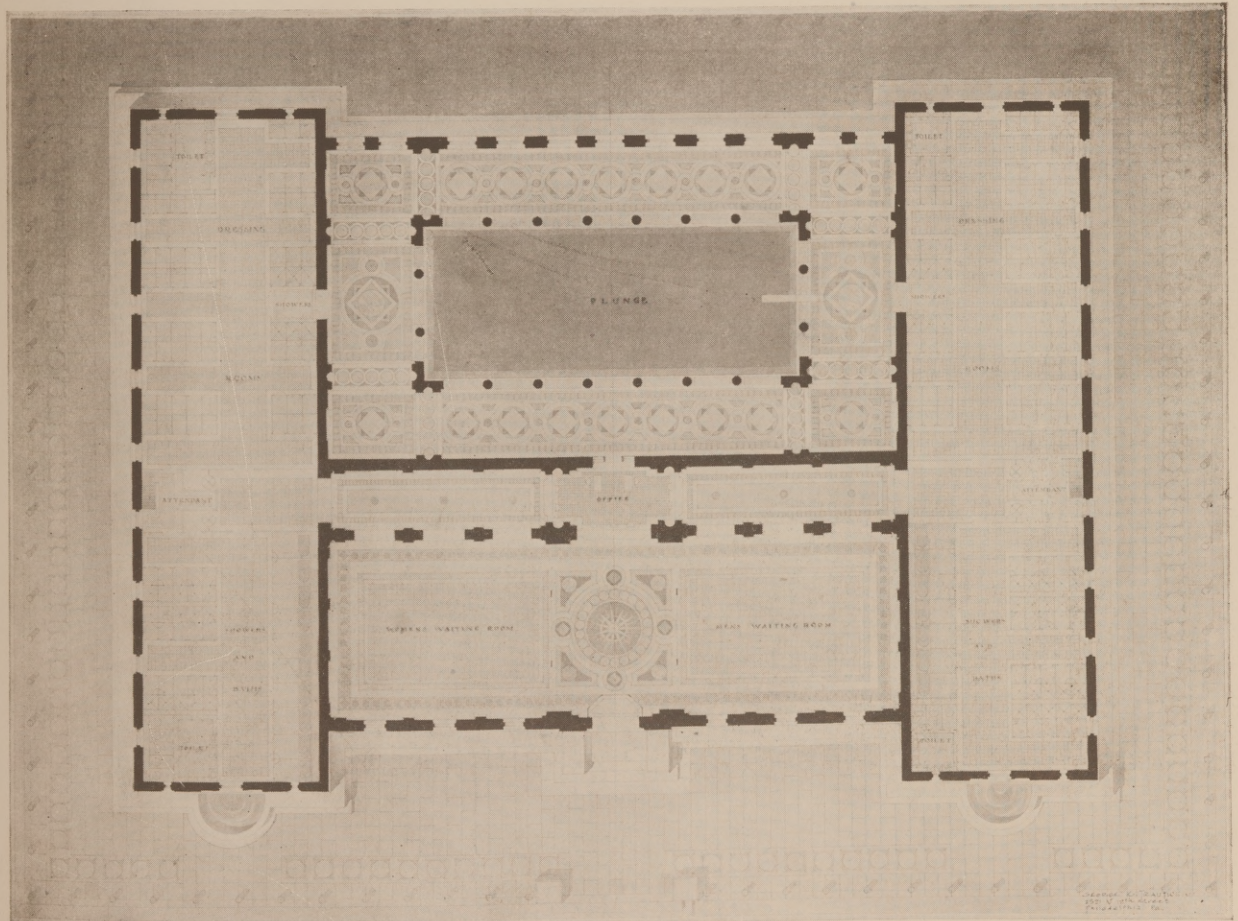
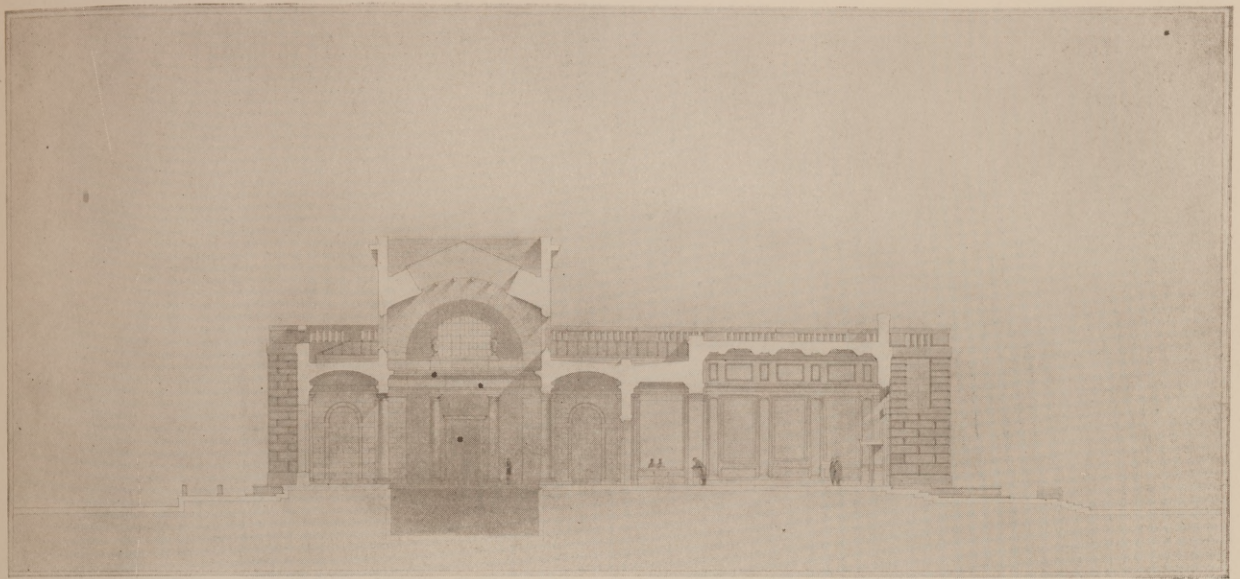




FIRST MENTION

GEORGE K. TRAUTWEIN

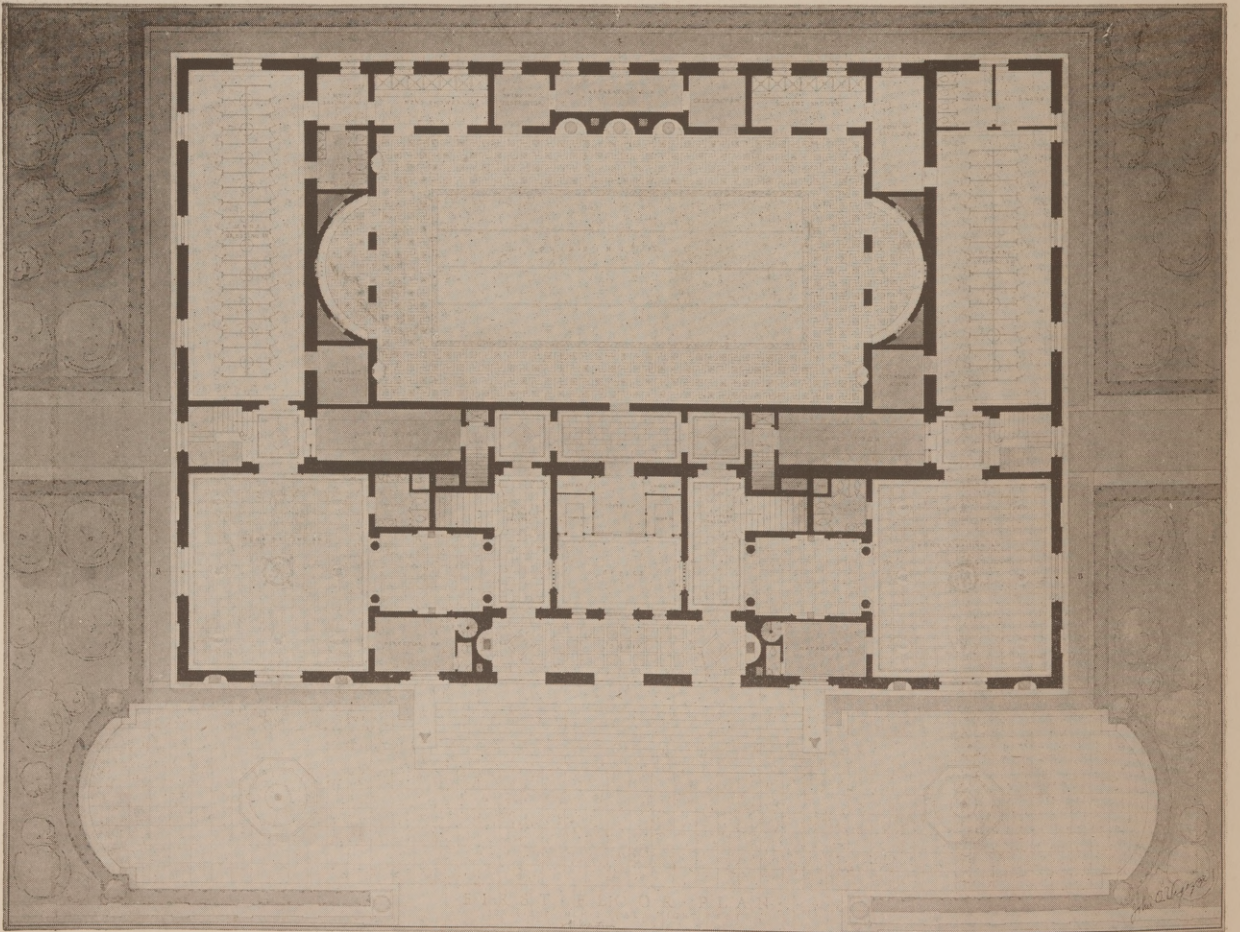
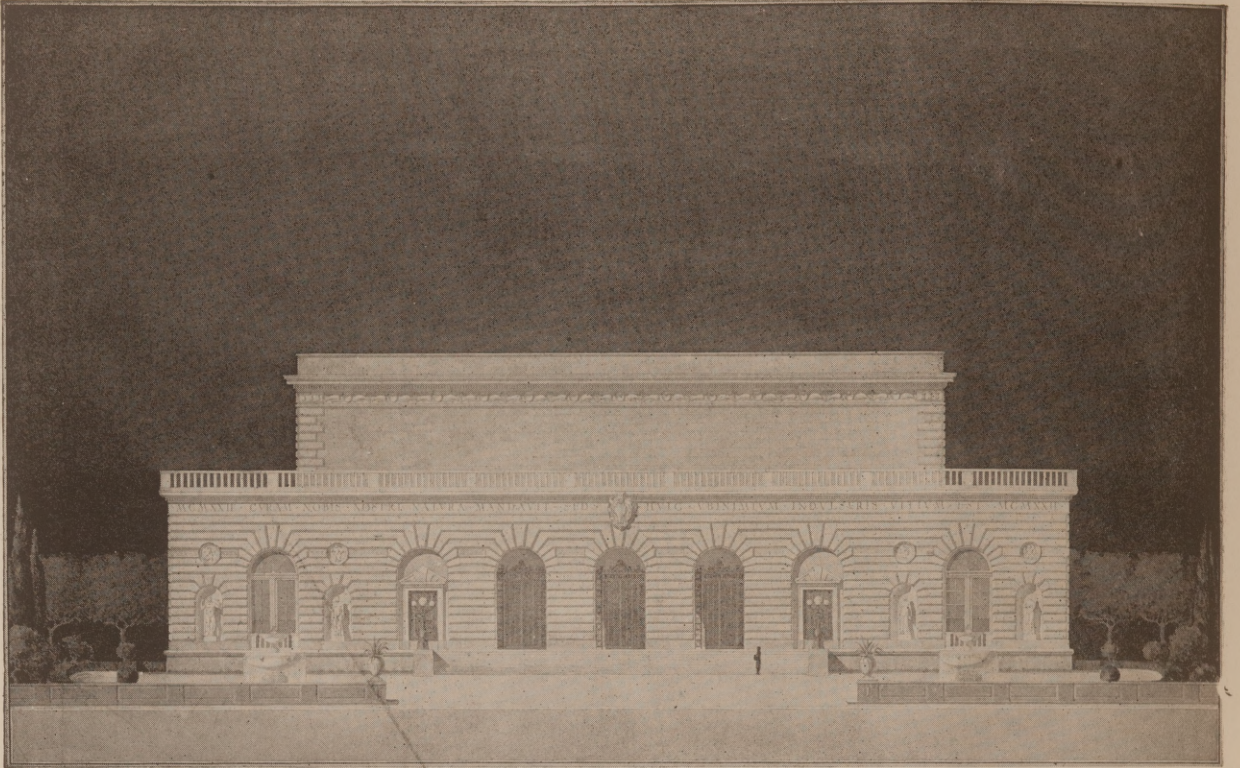
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FIRST MENTION

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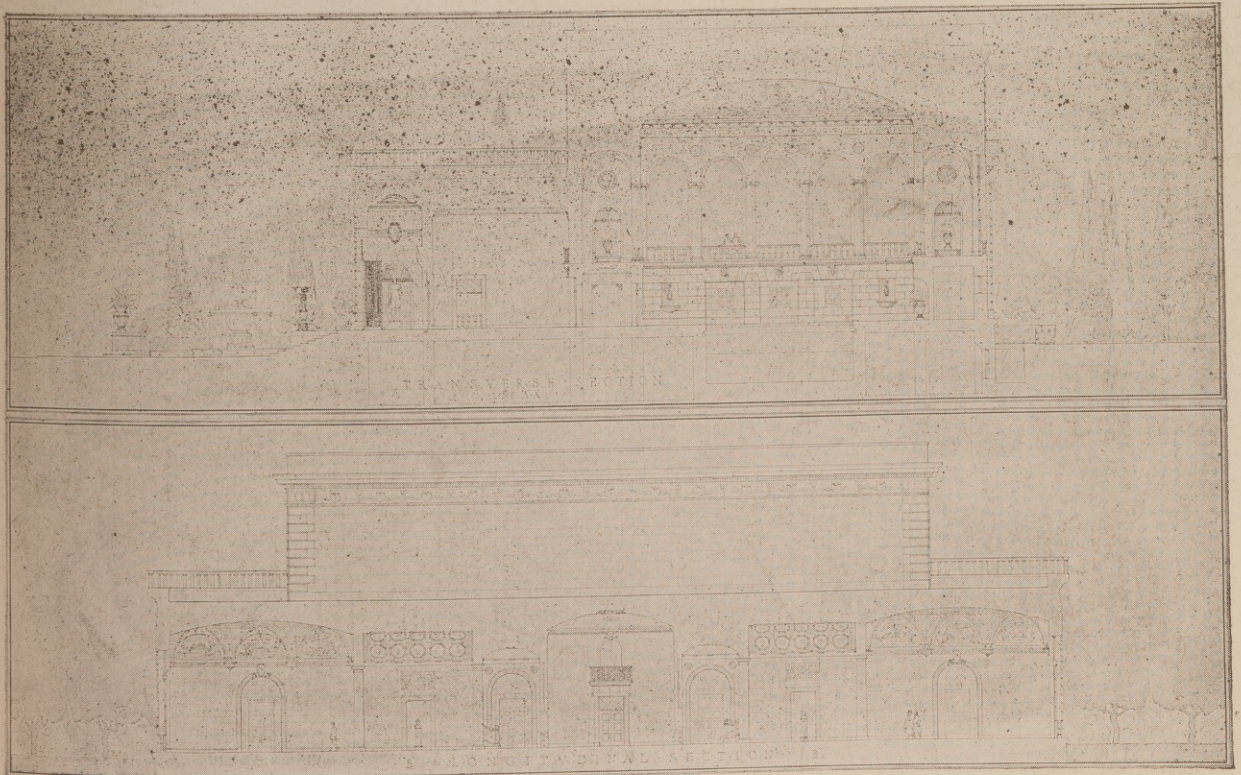
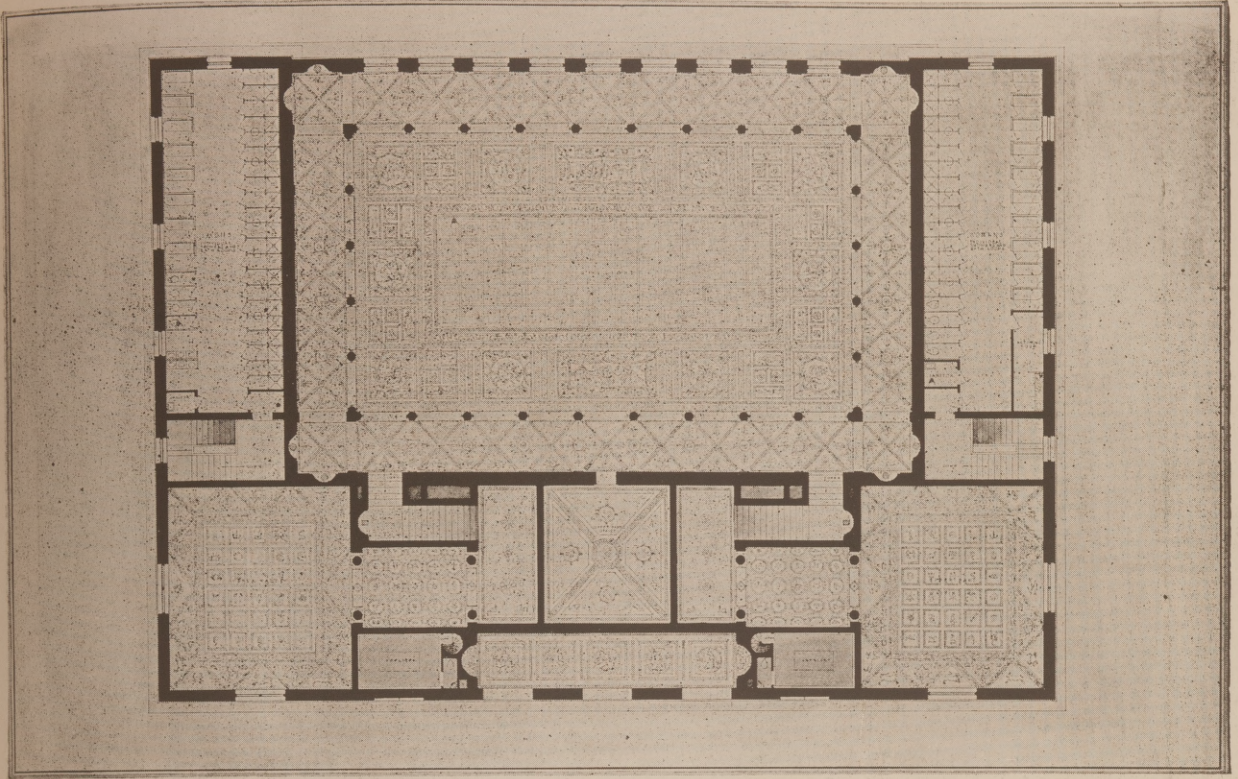
LE BRUN TRAVELING SCHOLARSHIP COMPETITION, 1922



SECOND MENTION.

LE BRUN TRAVELING SCHOLARSHIP COMPETITION, 1922

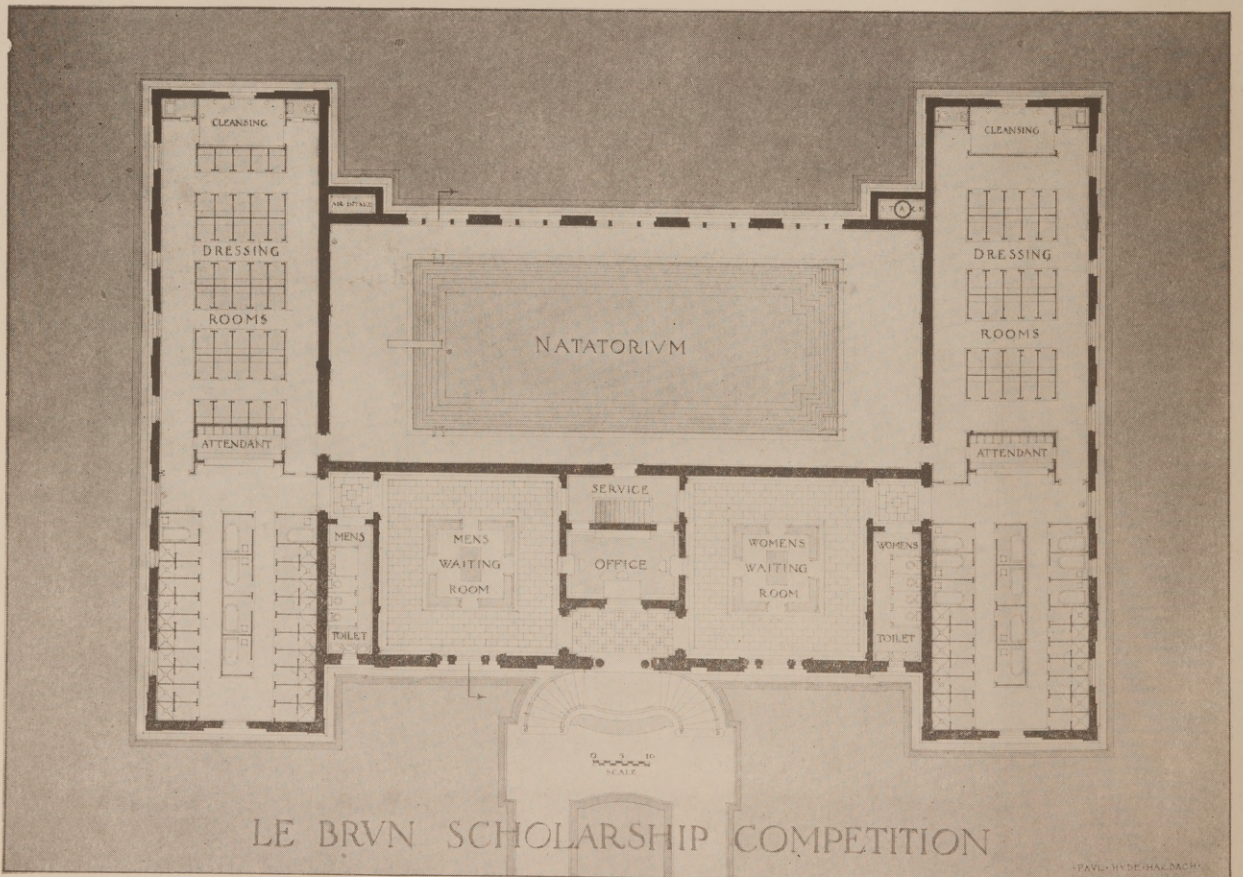
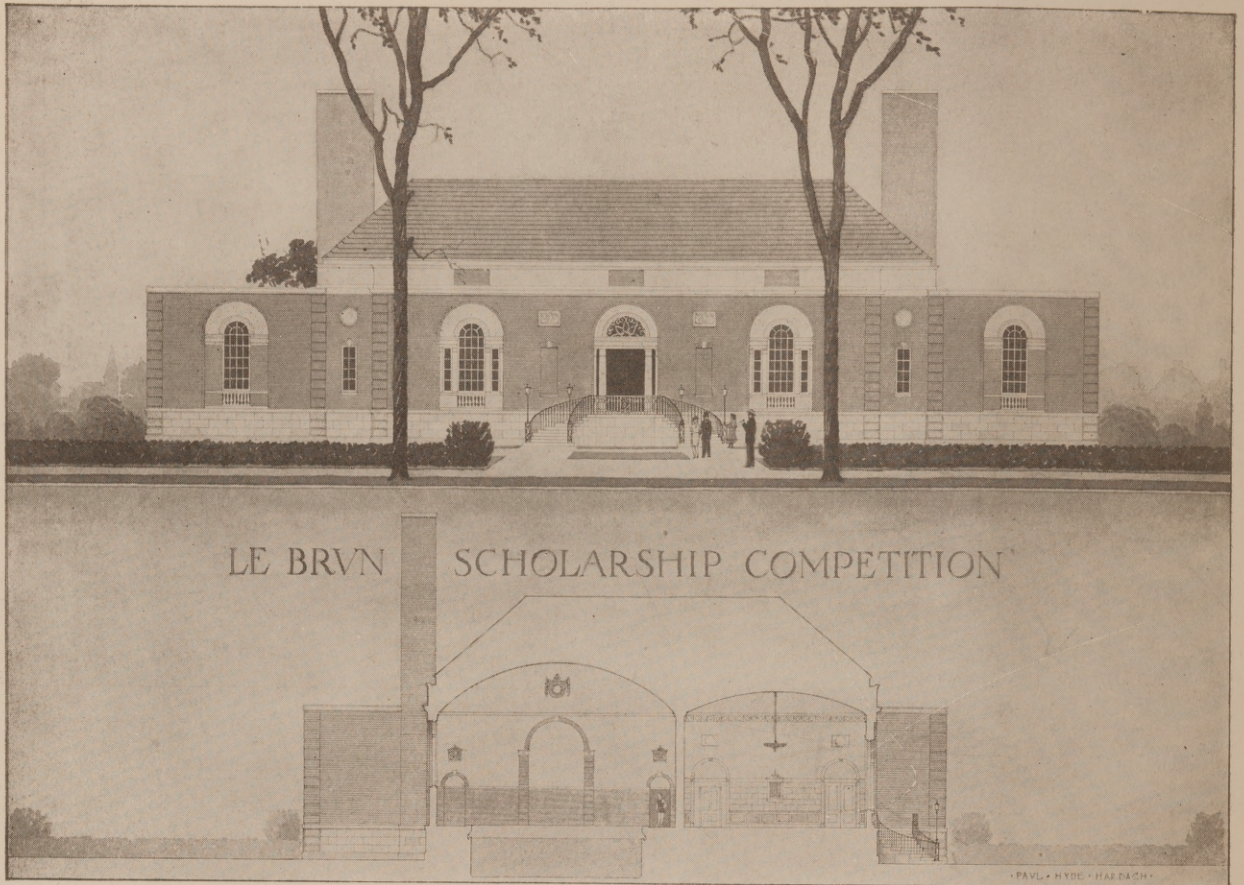
JOHN O. VEGEZZI



SECOND MENTION

LE BRUN TRAVELING SCHOLARSHIP COMPETITION, 1922

JOHN O. VEGEZZI



THIRD MENTION.

PAUL HYDE HARBACH

LE BRUN TRAVELING SCHOLARSHIP COMPETITION, 1922

Cuts courtesy "American Architect."

(Continued from page 26)

by other ages and countries. There is no quarrel with the past. Use is made of architectural elements, ornament, and detail from all ages and countries; but if an ancient form be the source of inspiration, it is so effected by making it fit modern conditions and our original character that very little of its original character is evident. Bertram Goodhue has perhaps been one of the most active and successful in this, but he is by no means alone. The winning designs for the Nebraska State Capitol by Goodhue and for the Kansas City Memorial by Magonigal are prominent designs of this class. It will be interesting to hear what you men think of their effect upon the development of the American style of architecture.

Before closing this paper it will be proper to say a few words regarding the teaching of architectural design. The purpose of this teaching may vary somewhat according to the student. It should be frankly admitted that many of the students taking this work will never be designers. If a student possesses talent, education will develop and guide it but if the natural aptitude be lacking, no amount of training will create it. Why, then, you say, should the students who will not make designers be taught design? Because it is essential that everyone who takes an important role in the realization of a design should thoroughly appreciate it. You men have many draftsmen, who, you know will never be designers; but if they are untrained in design, what a mess they would make of things. Even the engineer and the superintendent may easily ruin or save a design during its realization in building materials. The purpose of the teaching of design, therefore, is not primarily the making of designers. Although every spark of genius is carefully fostered and encouraged, sufficient time is not allowed the study of architectural design in most American schools to produce thoroughly trained designers. All that can be hoped for is a ground work in fundamentals; such that with further study the few possessing talent may be able to develop themselves with what assistance they may be able to obtain, and that the others may be able to carry on in their various branches and work in harmony with the mind of the designer.

The methods of accomplishing this purpose are influenced by tradition and by modern ideas. Before the establishment of architectural schools, designers learned through apprenticeship to architects. Some of you men, perhaps, like myself, recall memories, pleasant or otherwise, of the days when you swept out the office, etc., for the privilege of picking up various secrets of the profession and following the guidance of your "preceptor."

The first school of architecture to be established was the School of Fine Arts in Paris. The organization of this school was influenced greatly by the custom of apprenticeship which existed previous to the establishment of schools of architecture in France as well as here. The faculty of the school, therefore, until lately, did not teach design directly, only giving out problems, and teaching theory. The students worked in groups under the guidance of a practicing architect; the beginners along with the advanced students, and the older students help teach the newer ones in return for help in the routine work connected with their problems. The system of grading has been copied in various forms in many American schools. The work is a series of competition. After twelve hours work without access to outside help of any kind, the student is required to hand in a sketch showing in a general way his solution for the problem as set forth in a written program. This scheme must be followed out in the later drawings. After a specified length of time, all drawings are handed in, and grades awarded by a jury of architects. The higher the grades received on the problems, the fewer required for the diploma, and vice versa. It takes from five to seven years to complete the work according to the ability of the student.

Another traditional influence on our American teaching of design is the customary method used in teaching other subjects, which are well known to the audience. Then there is the influence of the scholars, cultured connoisseurs, and archeologists, which are too varied for discussion. The ideas of practical men, however, such as architects are keenly felt; and are being followed of late, perhaps more than any other, and it is hoped that the discussion this morning will bring out some of these ideas.

At the Iowa State College we are teaching design in much the same way as it is being taught at other American schools except in the choice of subjects for design problems. Every possible means is used to drive home the fact that an architectural design is a composition of form and color to be realized in building materials and that the drawing is merely a representation of it. In the early stages the students are required to make measured drawings of parts of buildings, showing the construction as well as the design. In connection with design work, freehand drawings are made of antique fragments and portions of actual buildings.

The relation of means of construction and of engineering design to architectural design is also thoroughly impressed on the student's mind. After some of the simpler problems have been worked out in design, working drawings are

(Continued on page 42)



The residence of
Mr. Peter O. Knight
Tampa, Fla.

THE beauty and joy of life in the tropics and its picturesque possibilities are all alluringly in evidence about the charming residence of Mr. Peter O. Knight, in Tampa, Florida. In many respects it is unique, even in a section noted for the individuality of its homes. For instance, it enjoys the very unusual site of facing on three wholly agreeable streets—150 feet on Hyde Park Avenue, 250 feet on Azele Street and about 275 feet on Cedar Avenue. It was erected in 1901, the building materials being brick, marble, slate and copper. It is three stories high, with walls of solid brick eighteen inches thick—not veneered brick, mind you—but the substantial kind that endures through many generations, such as our forefathers used for those fine old Colonial mansions which we prize so highly as illustrative both of the history and the personal dignity of the early founders of our present nation. For its exterior finish alone eight carloads of marble were required.





The Residence of
Mr. Peter O. Knight
Tampa, Florida

In its design the house also exemplifies history, in that it follows the simple lines and dignified exclusiveness of those adventurous Spanish grandees who discovered and first appreciated the desirability of Florida as a home place. There are not many rooms in the house, according to the hospitable ideas of its owner, but those that divide up its spacious interior are twice or thrice the size of ordinary rooms. On the first floor are the main hall, drawing-room, library, dining-room, back halls, kitchen, pantry and other service departments, all extraordinarily large. The second floor contains five master's bedrooms, two baths and halls. In the third floor or clerestory are one bedroom and another large apartment designed for billiards. Detached from the master's residence and excluded from it by a brick wall with marble coping also surrounding the rear grounds, is a brick garage with accommodations for three big



cars on the first floor and four servants' bedrooms, hall and bath on second floor.

The grounds are beautifully landscaped in the tropical manner and beautified with gigantic live-oaks, and date and cocoanut palms. On one side an extensive parterre offers a number of inviting charms in the way of informal flower pots of vividly hued blossoms; garden seats beneath the far reaching branches of the live oaks; Grecian vases on high pedestals, filled with growing flowers and vines; and a classic colonnade surrounding a circular pool with an exquisite marble figure in the centre. From the pool the colonnade reaches out to arch a marble paved walk leading in graceful curves and spirals through and connecting the different sections of the grounds, all ornamented with vine-hung arbors, pergola, and conventional plantings of small shrubs interspersed with smooth spaces of sward arranged with appropriate garden furniture for tea or other informal uses.

(Continued from page 39)

made of them. The student is required to make some construction detail for a great many of the design problems. In the course in structural steel, reinforced concrete, plumbing, etc., designs made by the students are used as exercises in the application of the principles taught. When design problems are given that involve a consideration of unusual structural or mechanical features, members on the staff of Civil or Mechanical engineers are asked to criticize the student's work from those standpoints.

I have intimated that the architect has helped and may help in the teaching of design by constructive criticism of methods employed. There is also another way, as many have realized. When the student receives his degree and leaves the school, he does not cease to be a student; he simply leaves one school to enter another. When you men employ a draftsman, you are not renting a machine; you are taking a responsibility. Of course the draftsman must earn what you are paying him and also enough to repay you for teaching him, or at least he should be able to do this after he has become accustomed to his surroundings. But since the courses of architecture in this country are too short to turn out ready made architects, it is up to you men to finish the job.

Paper presented before the 19th annual convention of the Iowa Chapter A. I. A.

Present Day Progress in Home Decoration.

More progress has been made in home decoration during the last ten years than in any of the other arts and crafts. In most homes today, gloomy reminders of bad periods have been relegated to the attic or the furnace and the modern home reflects the learning and culture of its owner. Not so the home of 1861 or 1910. The home lover was forced to make her selection from a very restricted number of good designs. Today she has all the designs which have ever been produced to select from and each season brings a number of newer ones.

June Building Value Over Million.

Atlanta maintained its prestige among Southern cities for building activities in June.

Value of building put under way here in June, 1922, was \$1,374,516, as compared to \$855,716 in June, 1921. A comparison of these figures with other Southern cities is shown as follows:

	June, 1922	June, 1921
Atlanta	\$1,374,516	\$ 855,716
Savannah	154,375	221,170
Louisville	1,577,950	1,007,650
New Orleans	1,238,025	546,950
Shreveport	270,468	385,160
Chattanooga	213,961	131,581
Knoxville	688,890	143,437
Memphis	1,304,649	1,061,664
Nashville	305,415	253,789

Rutherfordton, N. C.—Jail Building. The County Commissioners of Rutherfordton County, have engaged Milburn, Heister & Company of Washington, D. C., Architects, to prepare the plans and specifications for a new County Jail. Bids will be asked for some time during September.

Mount Ida, Va.—Residence. Milburn, Heister & Co., Architects, Washington, D. C., have prepared plans and specifications for a residence for Mr. C. E. Davison, to cost about \$12,000. Bids will be called for soon.

Chapel Hill, N. C.—The Sigma Chi Fraternity has given the contract for the new Fraternity Building, after plans and specifications by Architects, Milburn, Heister & Co., Washington, D. C., to W. H. and T. H. Lawrence of Durham, N. C.

Gastonia, N. C.—Bank Building. Architects, Milburn, Heister & Co., Washington, D. C., have awarded the contract for the heating and plumbing of the Third Trust Building, to W. B. Guimeron & Co., Charlotte, N. C.

ANNOUNCEMENT

We take pleasure in announcing to our readers the beginning in the October number an article on CHURCH BUILDING IN ENGLAND, by MR. WM. WARD WATKINS, M. A. I. A. Houston, Texas.

This article is written by Mr. Watkin especially for THE SOUTHERN ARCHITECT AND BUILDING NEWS with all rights reserved. The article will continue for several months and we suggest that you save each copy as it appears, for when the article is finally completed you will have an interesting and valuable treatise on this subject that will make a valuable asset to your library.

Mr. Watkin spent some years in England making a study of church architecture and we might say is an authority on this subject. In this article he gives you a concise history of church building in England and offers many valuable and helpful suggestions for the designing of the modern church building.—EDITOR.



SECOND PRIZE IN AMER. FACE BRICK ASSOC. COMPETITION.
DESIGNED BY FLOYD YEWELL, NEW YORK.

This house is most charming and picturesque in its design, and is a good solution of the problem of getting beauty into the small house. The interior is just as distinctive as the exterior; the living room is nicely proportioned and is very well lighted with attractive groups of windows. The house is fitted to either an inside or corner lot location, and can face the street as shown in the illustration, or the long side of the living room may be toward the street. In either arrangement the entrance should face the west to get the best exposure for the principal rooms. The kitchen is placed on the northeast corner, and the rear arranged for a garden development to be enjoyed from the porch. The dimensions of the

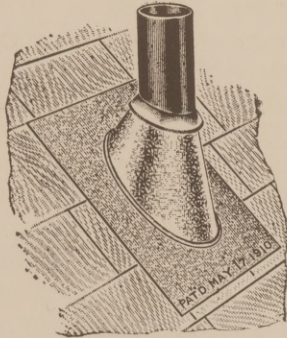
house are 26 ft. by 32 ft. The height of the first floor rooms is 8 ft. and of the second, 7 ft. 6 in. Both floors are conveniently arranged.

The above illustration of this charming brick house was reproduced by Supervising Architects Burge, Stevens & Condlin of Atlanta, Ga., in the residence of Mr. S. C. Noland. The interior was changed slightly. In the construction of this house "Fishlock" brick was used. "Fishlock" is a double, hollow brick which can be used as economically as an ordinary brick and give a dry, fireproof wall, for as little cost as brick veneer on frame and it increases the value of a home 25 per cent. "Fishlock" brick for this residence was furnished by THE F. GRAHAM WILLIAMS BRICK CO., Atlanta, Ga.

Don't be content with ordinary Roof Flashings.
Specify and use the reliable

"SIMPLEX"

Made in
ALL LEAD—COPPER—GALVANIZED IRON



Every
Flashing
Adjustable

Every
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Perfect

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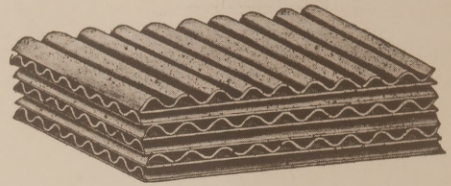
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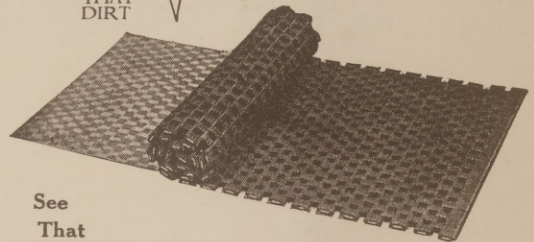
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Editorial Comment

The Southern Architect and Building News

Southern Architect and Contractor, Atlanta, Ga., and Southern
Building News, Memphis, Tenn., and Southern Building
Record, Nashville, Tenn., Consolidated.

Entered as second-class matter May 27th, 1911, at the Post
Office at Dalton, Ga., under the act of March 3d, 1879.

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All letters should be addressed to the Atlanta office.

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The Kitchen As Feature of Home.

F the way to a man's heart is through his stomach, then the means to a successful home is by way of the kitchen, according to one of the most famous interior decorators in America. The kitchen of the moderate priced home, the home where the mistress is in real truth the housewife, is the key to the home, says this man, and its appointments should be considered as carefully and with as much regard to beauty as those of any other room in the home.

It is common practice among architects to plan the rest of the house and utilize any waste space there happens to be for the kitchen. Sometimes architects, even the best of them, actually design the kitchen closets and the pantry before they turn any attention toward the kitchen itself. This is beginning the house backward. The kitchen space should be the most carefully considered part of the ground plan of the house if a real home is to be produced.

A design for a kitchen, including color scheme and furnishings, which has pleased many housewives is the big, square floor plan, with windows on two sides and butler's pantry and closets on the remaining two sides.

The walls are finished in a warm buff enamel which may be washed with soap and water, and

which is very cheerful, and the woodwork is the natural wood well varnished. The floor covering is a blue and buff linoleum, and the chairs and tables are yellow pine painted a soft blue. Little conventionalized sprays of buttercups decorate the chair tops.

A buff enameled gas or electric range is placed rather far out into the room under its steam canopy, which is also painted to match the walls, and window boxes containing parsley, mint and whatever savory herbs may be grown in this way stand on the window sills.

The sink is under one of the windows and has both a right and left drain, and the mixing table is placed under another. A second table is placed at a convenient distance from the range so that there are few steps to be taken in passing back and forth between the two.

An electric fan screwed to the wall opposite the range, and several electric plugs for attaching portable lights, iron and other electric appliances are at convenient places along the side walls. The windows are low and wide, with upper sashes coming out to provide special ventilation. A wide porch equipped with screen frames or glass for both summer and winter gives additional comfort and convenience to this model kitchen.

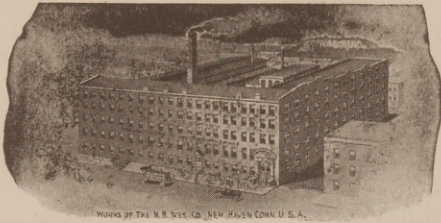
The buff and blue color scheme and hard enamel paint are continued into the pantry and closets, all of the shelves of which are glass and the built-in flour, sugar and coffee bins have removable tin linings to facilitate cleaning.

A distinctive feature of the pantry and closets is that no closet space or cupboard is on a level with the floor. All inclosed receptacles for pots and pans are ten inches above the floor and built upward to the ceiling, thus obviating stooping on the part of the person who removes the pots, and at the same time insuring proper cleaning of the floors and doing away with all dark corners where dust may accumulate.

ZONING SYSTEM FOR SOUTHERN CITIES.

THE time has come when the cities in the South realize that they must incorporate in their laws some law for regulating the building activities of their inhabitants.

Atlanta, Georgia one of the most progressive and wide awake cities in the South has taken the right step and put in effect a Zoning System that will compare favorably with any of our eastern cities. Now that Atlanta has put the right foot forward, it might be well for other cities in the



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South to begin making preparations to follow the lead that this city has taken.

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How the great economic loss resulting from the scrapping of buildings in "blighted" city districts can be eliminated through the use of the zoning system is outlined by the Advisory Committee of the Division of Building and Housing, Department of Commerce, in the second article of a series on the subject.

A "blighted" district is described as one, originally developed for residences or industry, in the future of which people have lost confidence because of the encroachment of inappropriate structures.

Property and Health.

"Suppose you have just bought some land in a neighborhood of homes and built a cozy little house," the article says. There are two vacant lots south of you. If your town is zoned, no one can put up a large apartment house on those lots overshadowing your home, stealing your sunshine and spoiling the investment of twenty years' saving. Nor is anyone at liberty to erect a noisy, malodorous public garage to keep you awake at nights or to drive you to sell out for half what you put into your home.

"If a town is zoned, property values become more stable, mortgage companies are more ready to lend money, and more houses can be built.

"A zoning law, if enacted in time, prevents

an apartment house from becoming a giant airless hive, housing human beings like crowded bees. It provides that buildings may not be so high and so close that men and women must work in rooms never freshened by sunshine or lighted from the open sky.

Cost of Living Reduced.

"By zoning, millions of dollars of waste from the scrapping of buildings in blighted districts may be eliminated. The causes of such scrapping are manifold. The most familiar case is that of a residential district into which there have begun to creep various uses threatening rapid destruction of its value for residences, such uses as sporadic stores, or factories, or cheap rooming houses.

"It is not that a few such inappropriate uses really spoil the district, but that people, having lost confidence, start a panic, like a run on the bank. Hundreds of them hurry up to unload their properties at a sacrifice for any kind of use, no matter how objectionable to their neighbors—and the "blight" is on.

"Dwellings worth in the aggregate millions of dollars for the purposes for which they were built and physically fit to serve those purposes for many years to come with a moderate investment in alterations and improvements, are thus annually abandoned to purposes for which they are unfit, or are left to stand practically idle.

Public Services Reduced

"Expensive public services of water, gas, electricity, sewers and transportation are maintained at great waste in order to get through the 'blighted' district to the more fashionable location.

The total economic loss is enormous, and this loss and the risk of it are paid by the people, in the price of house rents or otherwise, as inevitably as they pay the price of the enormous fire losses either directly or through insurance.

"Proper zoning cuts these losses at their

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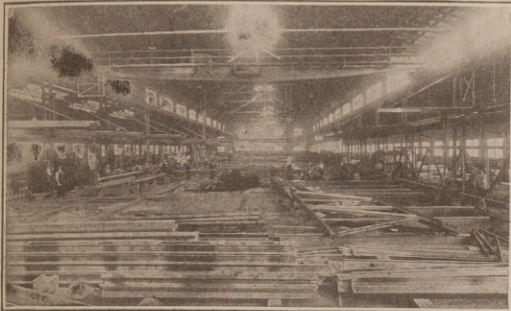
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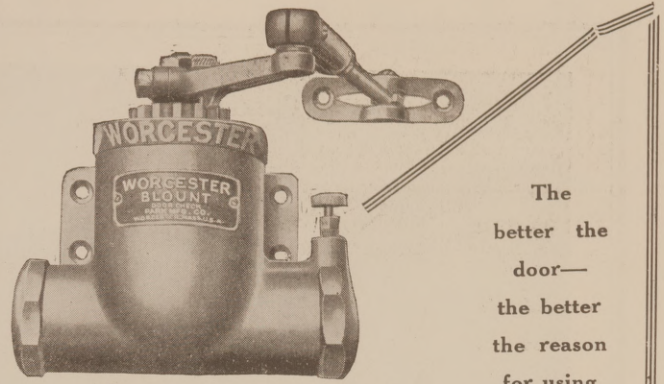
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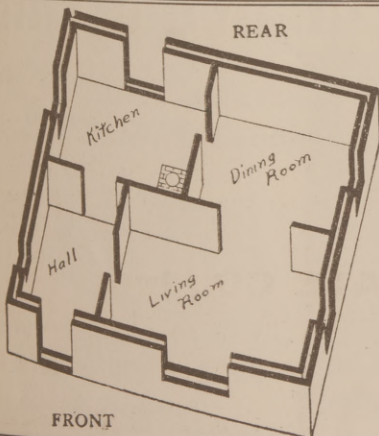
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source, just as proper building regulations and fire protection cut fire losses at their source.

“Again, miles of streets and sewers and other utilities, such as are ordinarily built when land is newly subdivided for dwellings, need never be constructed if we know that these areas will be devoted mainly to large factories. Industry will be more efficient as well as homes more wholesome, if kept generally separate. Separations need not mean great distances for workers to travel.

“Concentration of uses and a fair apportioning of districts should reduce the amount of all transportation and result in economies not only directly for the worker but indirectly in the costs of production and marketing goods.”

Self Confidence Versus Conceit.

All the education, opportunity and money in the world will not make a success of any man unless he is the possessor of self confidence. But self confidence does not mean conceit. No matter to what length one lives, there will be many things left unknown at death. We are never too old to learn. Do not be too conceited to ask questions, correct mistakes and profit by the advice of the other fellow. Do not be afraid of

failure, believe in yourself and your ability to win. If you make up your mind before starting that you can't lose, you rarely will. Self confidence plus energy and intelligence is a sure producer of accomplishment.—(Plumber & Steam Fitter.)

Registration.

The West Virginia bill for the registration of Architects is so closely framed on the principles laid down in the “Model Law” adopted by the American Institute of Architects and is so just in its general provisions that it is not likely to involve the profession in any annoying technicalities. The only provision which may disturb is that relating to the fee for registration or renewal. If you are unfortunate enough not to be a legal resident of that state you have to pay a fee of \$50 to obtain the right to practice. If you carelessly fail to renew your certificate at the end of the year you must pay a fee of \$10 for renewal. You have to pay \$10 for a renewal even though you have in mind the necessity. This requirement of the law may be criticised but the bill shows such careful thought in its preparation that it is to be presumed that the financial conditions were well considered.

W. P. B.

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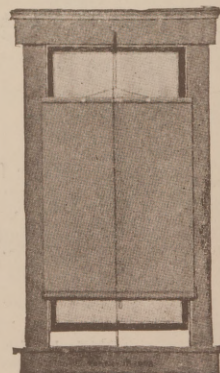
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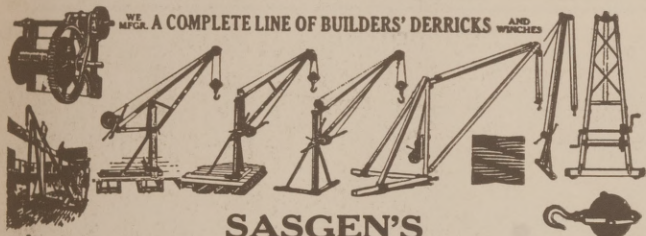
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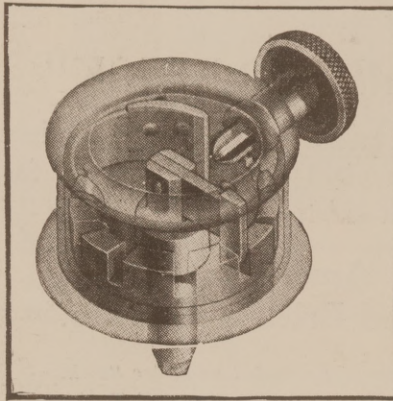
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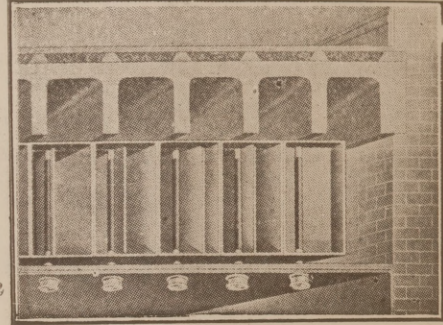
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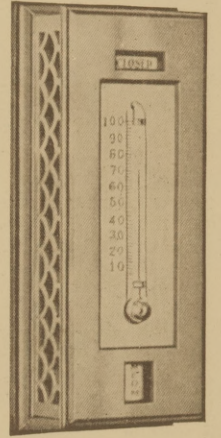
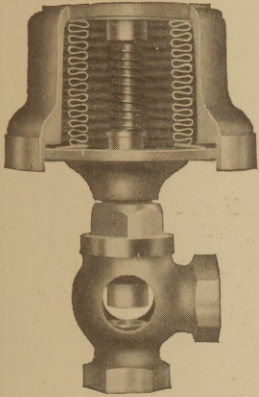
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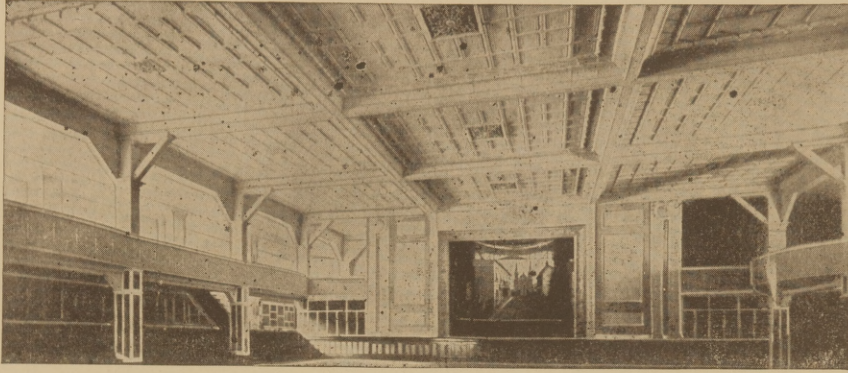
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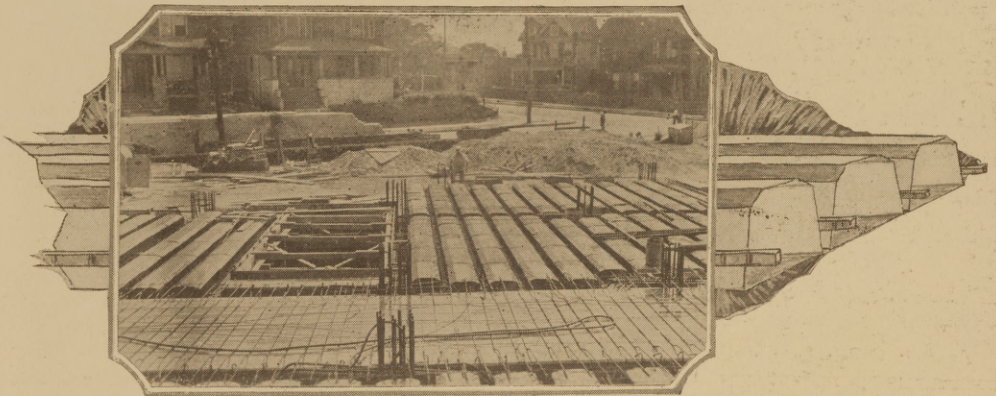
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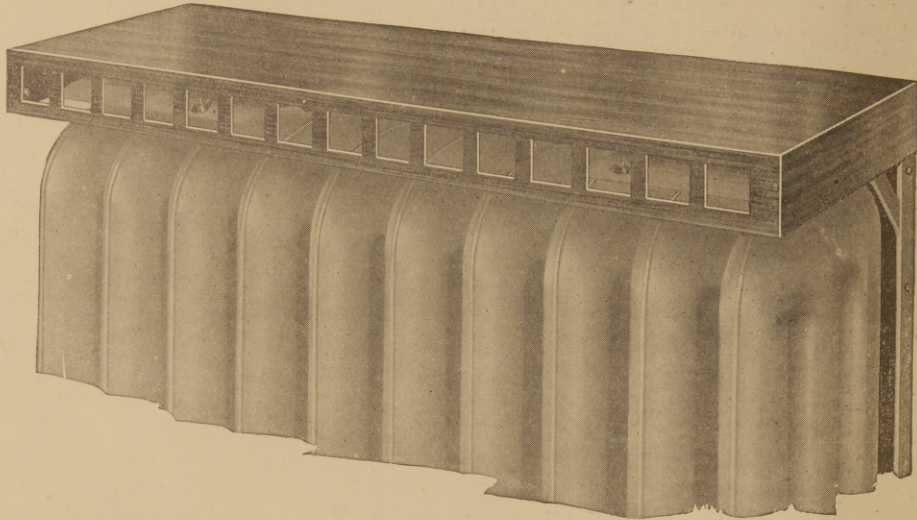
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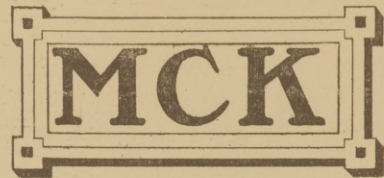
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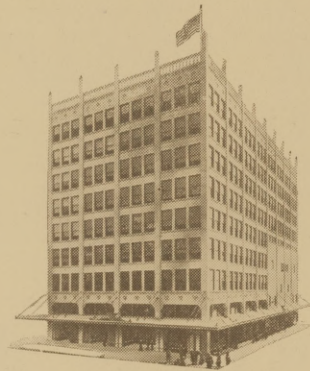
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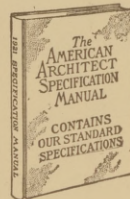
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 Safety Locks**



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**All Elevators Equipped with
 M-C-K SAFETY LOCKS Are
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- THIRD—Keep the power locked until the gate is closed and securely fastened.
- FOURTH—Securely lock the shaft enclosure gate automatically before the power can be used to start the car.
- FIFTH—Lock each gate in the shaft independently of the others so that they cannot be opened until the car is stopped within the radius selected, and then only that one at which a landing has been made; said limit being controlled by the length of the landing cam forming an integral part of the device.
- SIXTH—Perform the above functions without the device being attached to or interfering with the motive power of the elevator.



GUARANTEE—The manufacturer shall guarantee each "M-C-K" Safety Lock to work properly and to replace any part or parts proving defective in workmanship or material within one year from the date of acceptance of the installation.

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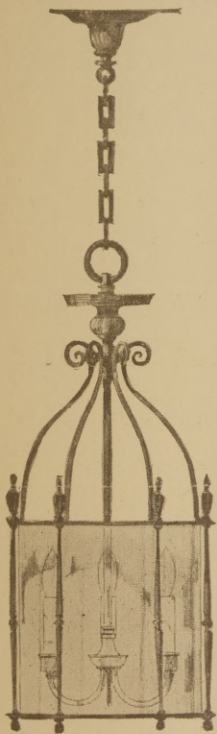
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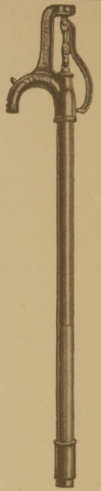
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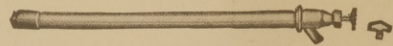
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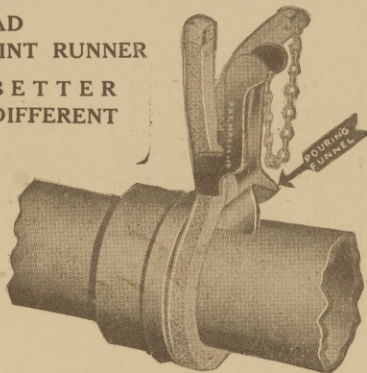
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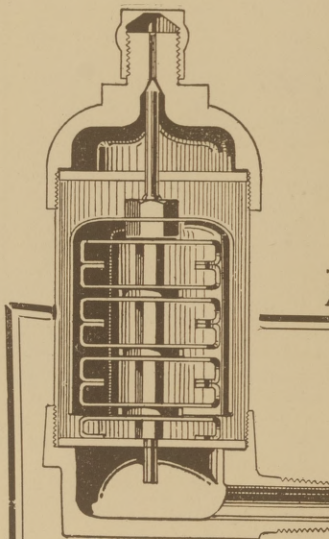
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The First and Last Word in
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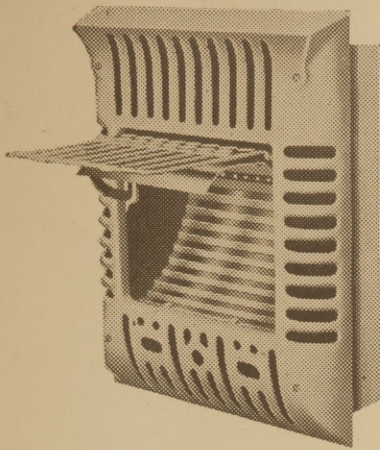
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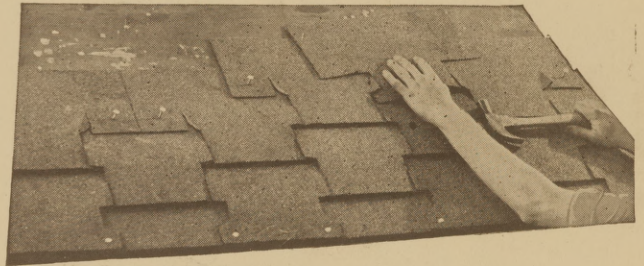
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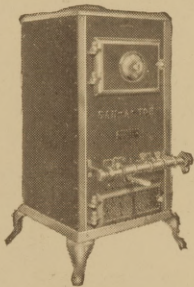
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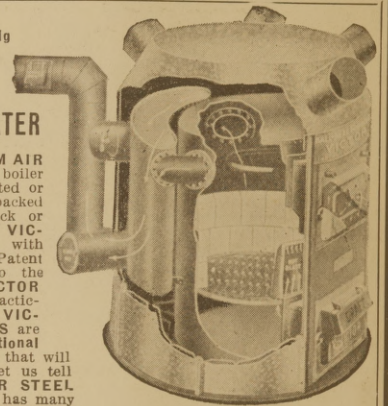
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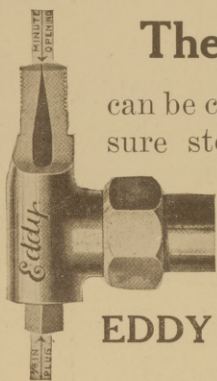
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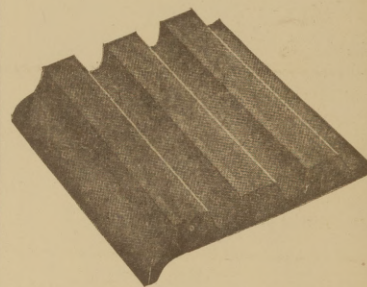
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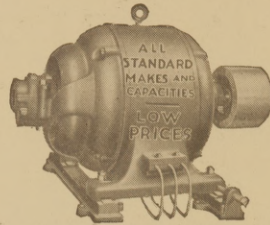








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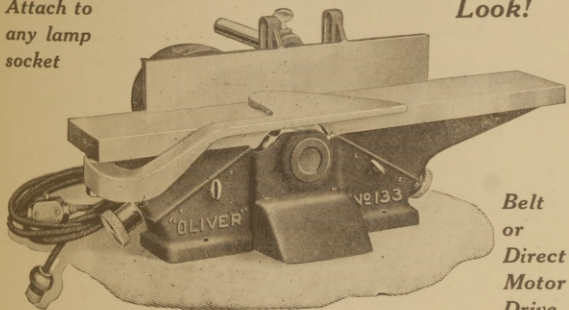
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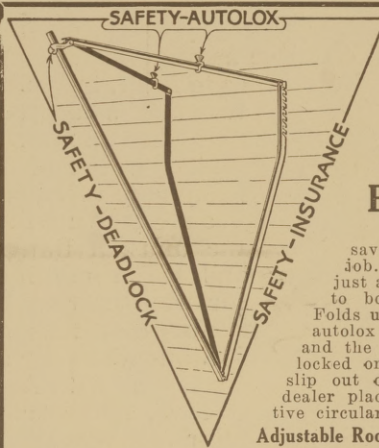
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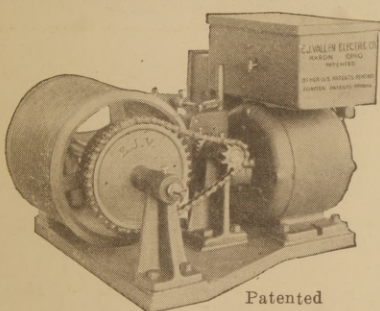


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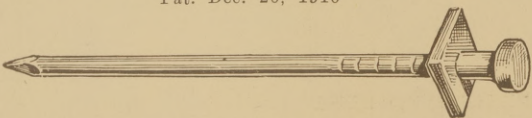
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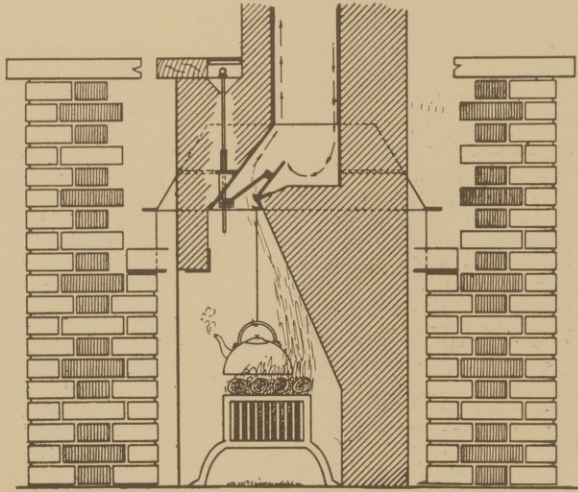
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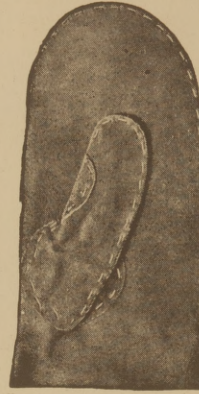
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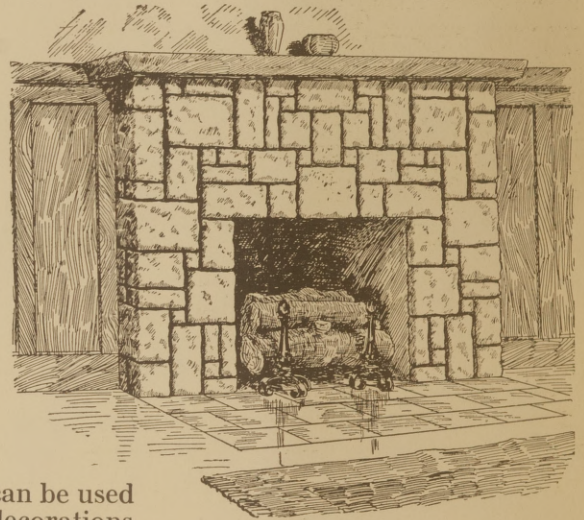
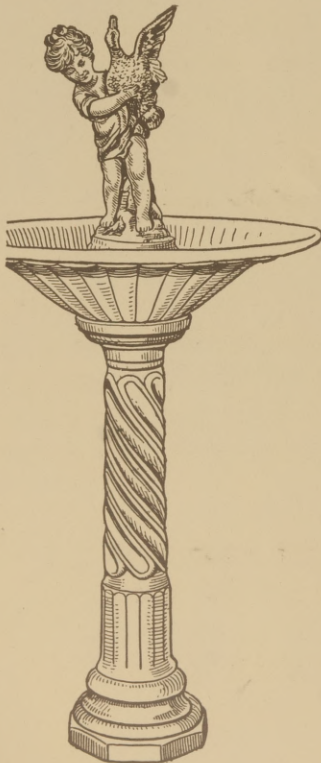
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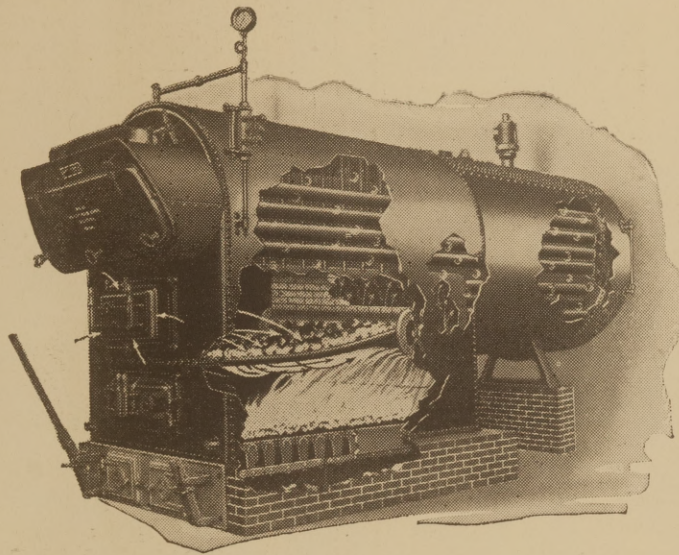
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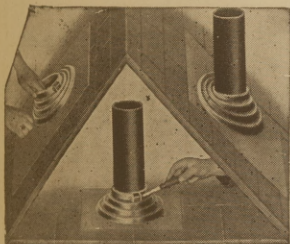
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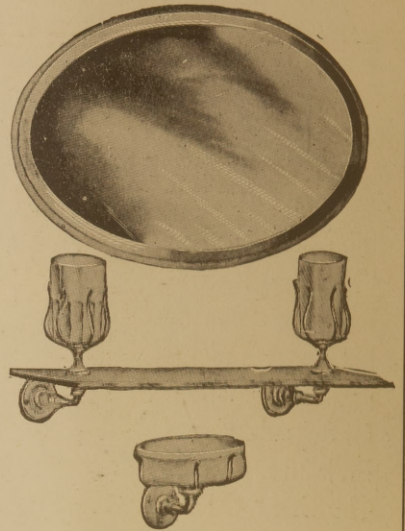
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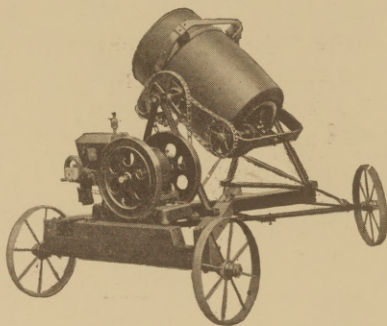
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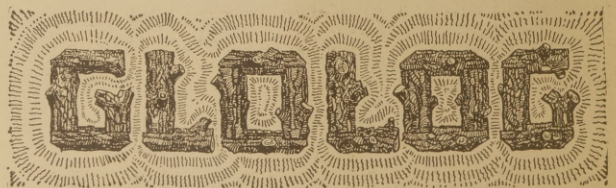
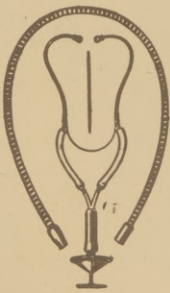
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Raising Funds for Community Projects

The function of this organization is the raising of funds for worthy community, or group-interest projects: hospitals, hotels, college and fraternity houses, fraternal buildings, American Legion Homes, etc.

And after this organization has completed its program, SOME architect gets a contract for the planning of the structure.

Our program represents the soundest of business principles and the service is such that those with whom we have co-operated are our strongest boosters. There's a long list of endorsers—big men in every field of business and professional life. We'd be glad to give you the list, Mr. Architect, letting them tell you our story. It's contained in our booklet, "Turning Prospects into Contracts." Your copy is waiting.

Established 1911

Incorporated 1920

The Hockenbury System Inc.

Penn-Harris Trust Bldg.—Harrisburg, Penna.

GLASS

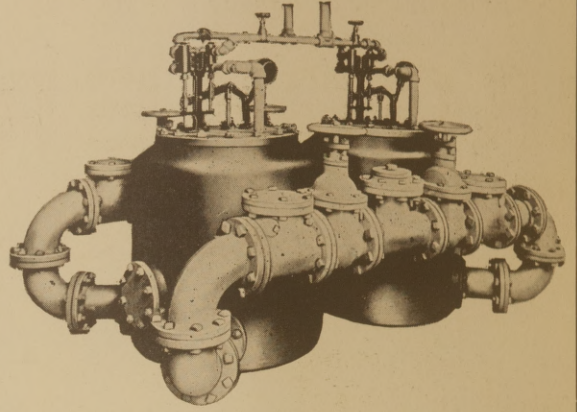
Stucco Dash—

This kind of Stucco Dash will be very popular this year. It is glazed and non-porous and will not hold dirt. Made in 15 to 18 different colors. Will not cut the hands in handling as the sharp edges are smoothed in crushing and fracturing. Sticks better than stone and covers more space.

We are in position to furnish two thousand tons per month. Shipped in either $\frac{1}{4}$ inch or $\frac{1}{16}$ inch sizes.

Write for details

Wright & Wimmer
MARION, INDIANA



Ansonia Automatic Sewage Ejectors

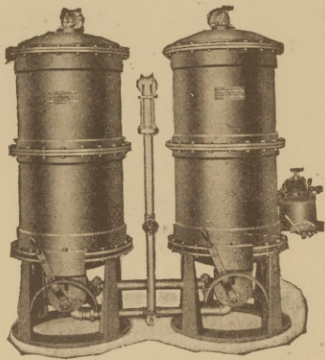
EJECTORS that never fail to eject. Solid **BRONZE**, positive action, valves.

Send for free sample ink remover for your tracings.

CATALOGS

EJECTORS and INCINERATORS

Ansonia Sanitary Mfg. Co.
New York City



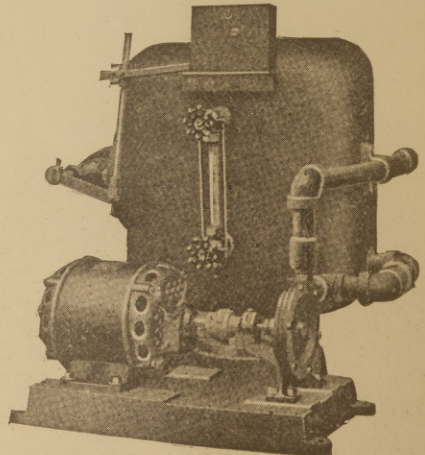
The Value of Filtered Water

In the large number of fine buildings and homes equipped with Loomis-Manning Filters similar to the above cut, the experience has been that the filtered water is attractive for all uses, protects and keeps clean plumbing fixtures, piping, tanks, and boilers, and is a safeguard for health because the water is safe for drinking.

Write for our interesting booklet

Loomis-Manning Filter Distributing Co.
1451 South 37th St., Philadelphia, Pa.
Established 1880

WESTERN AUTOMATIC ELECTRIC CONDENSATION PUMP and RECEIVERS



RELIABLE

SIMPLE

A single stage pump suitable for high or low pressure ranging from 10 lbs. to 100 lbs.

The unit is very compact, mounted on cast iron base, only two pipe connections necessary when installing. The receiver is made in two sizes, of heavy cast iron. An enclosed butt contact switch is used on all pumps.

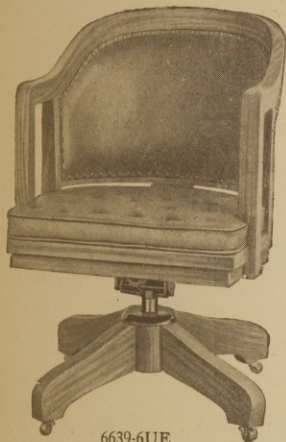
Write for Bulletin No. 220

WESTERN ENGINEERING CO.
DAVENPORT, IOWA

"All of the BIG things of today were the little ones of yesterday"

CROCKER CHAIRS

A chair for every purpose



6639-6UE

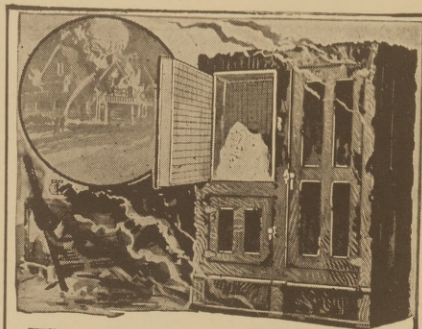
Shown permanently at
Furniture Exchange
Building, Grand
Rapids
1414 S. Wabash Av-
enue, Chicago
San Francisco Furni-
ture Exchange, San
Francisco
601 First Avenue, N.
E., Minneapolis



Crocker Chair Company

Sheboygan, Wisconsin

Branches: Chicago New York Minneapolis Oakland



The Ice That Went Through Fire

An Iowa building recently burned to the ground. Two days later a charred Herrick Refrigerator was dug out of the ruins. It still contained ice, and the food contents were in perfect condition—Saved by Herrick 5-Point Mineral Wool Insulation.

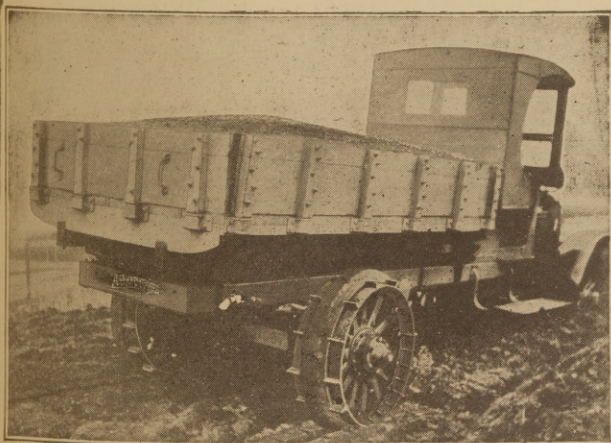
HERRICK DRY AIR SYSTEM REFRIGERATOR

A refrigerator that can defy a raging fire can protect ice and food against any weather conditions. Ask for full details about Herrick insulation and 26 other extra-value features. Name of dealer and booklet free.

The Herrick Refrigerator Company
River St., Waterloo, Iowa
Outside Icing Refrigerators in Many Styles

Foley Traction-Rims deliver cement tile

"We have used your traction-rims eighteen months on a Republic Number 12, two ton truck. We are very much pleased with the service given and would not think of trying to get along without them. I have recommended them very highly. Our work consists of delivering tile from railroad stations to ditches and distributing same where possible to go with trucks, meaning much field work and short going."
CEYLON CEMENT TILE CO.,
Tyler, Minn.



Rims quickly and easily applied to any wheel with solid or pneumatic tires. They make traction easy on soft roads. Write for circulars and prices. These rims pay for themselves in a short time.

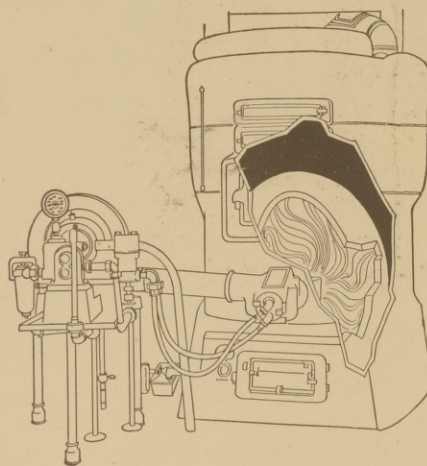
FOLEY TRACTION-RIM COMPANY

1311 Hennepin Ave.

Minneapolis, Minn.

WANTED

Exclusive Distributors for the Continental Oil Burner.



We are looking for a good live distributing and sales organization to whom exclusive state rights will be given on a most liberal profit-making basis. Ours is a thoroughly tried and proven burner, being automatic in operation and burning fuel oil, at a cost of 30 to 40% less than kerosene. Burner is practically noiseless in operation and has every desirable feature to recommend it for home use.

The height of the selling season is upon us and now is the opportune time to get in on the ground floor of a proposition that has immense possibilities and that is meeting with wide interest and popular favor.

Write us in detail as to your qualifications, organization and financial ability to handle a big proposition in a big way. To those qualified a demonstration and interview will be arranged.

CONTINENTAL OIL BURNER CORP.

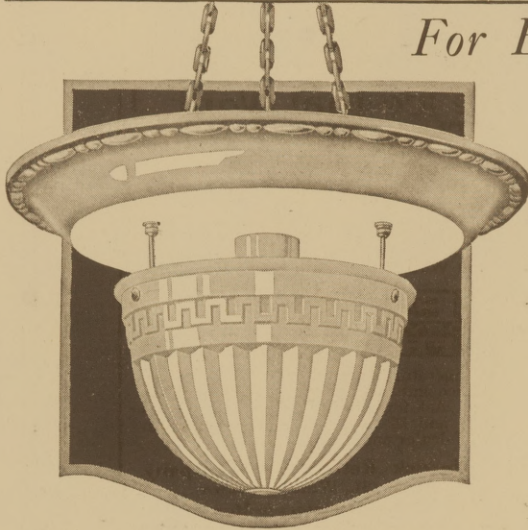
430 Rush Street, Chicago, Illinois



BRASCOLITE

PATENTED AND TRADE MARK REGISTERED

For Better Illumination



900 of these 3-chain suspension Brascolites installed in Texas Company Building, Houston, Texas. Fixture has white glazed porcelain enameled reflector with ceiling band finished in leather bronze.



Texas Company Building, Houston, Texas. Original fixtures removed and Brascolite installed by the Brown-Woods Electrical Company of Houston.

Here's Strong Testimony— Texas Company Changes to Brascolite

The Texas Company, Houston, Texas, recently went to considerable expense in taking out the entire original equipment of 900 lighting fixtures, installed in its general office building about a year ago, in order to install Brascolite.

A stronger testimony of Brascolite efficiency could hardly be desired. This and thousands of other Brascolite installations are daily demonstrating Brascolite's supremacy both in the quality and quantity of light delivered and in directing that light to the useful working plane.

To know the Brascolite principle of illumination—diffusion plus reflection at the source of light—is to know the primary reason for Brascolite's wonderful success—the largest selling lighting fixture in the world.

We have recently prepared a series of architectural booklets—of Standard size for filing—copies of which we will be glad to send upon request.

- No. 1—Hospitals
- No. 2—Banks and Office Buildings
- No. 3—Schools, Colleges and Y. M. C. A. Buildings

THE BRASCOLITE COMPANY, ST. LOUIS, U. S. A
Division of the St. Louis Brass Manufacturing Company

BRANCH OFFICES:

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Atlanta	Boston	Chicago	Cincinnati	Detroit
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Canadian Distributor: Northern Electric Company, Ltd., Montreal.



Contractors Department

Uniform Contract Wanted*

By A. J. McKenzie,
McKenzie Constr. Co., San Antonio, Tex.

I WANT to say to you, just as a matter of interest to show what this association is doing in our section, a word which I think will help the rest of us to accomplish more—that we got more out of the Association through this uniform contract and through the development of the standard contract than through any other source. The publishing of the various contracts in our monthly magazines created a good deal of comment amongst the contractors in Texas, and, as a result of that comment, we began to try to find some method of getting better contracts and establishing a uniform contract; and the smaller contractors are catching the spirit from our magazine which you are sending them and are asserting this thought like the rest.

Texas Uses A. I. A. Contract.

We couldn't talk to the engineer or architect direct, but we have been insisting for the last two or three years that the standard contract of the American Institute of Architects be used, and practically every reputable contractor in Texas now writes across the proposal, "This proposal is based upon the standard form of contract adopted by the American Institute of Architects." These contracts are sold in practically all supply stores in Texas and are being used almost universally, especially on large work.

About 18 months ago we had what was called the Texas section of the American Society of Civil Engineers meet in Texas. We encouraged all the engineers working for contractors to take an active part in this Texas section of the society, and we insisted at that conference held about 18 months ago that a committee be appointed for the purpose of preparing a uniform contract.

We had about fifteen meetings, and last fall we adopted a uniform contract for engineering work in Texas. Now, I couldn't sit on that committee as a contractor, but I sat on it as a member of the Texas section of the American Society. We succeeded in getting some very good clauses, and I think the greatest improvement has been made in those contracts that I have yet seen. It isn't perfect by all means, because we had to concede a great deal, but we did get some very satisfactory clauses. For instance, we got interest on the late payments; and we got allowance for en-

gineers' mistakes, provided also that the engineer would have to inspect the material at the source, and that, after once inspected, the burden of proof was on him to show that it didn't meet the specification, which, if you think about it, means quite an item on construction work.

Now, we don't expect the National Association to get as good a contract for our purpose as we've already got, but we do want you to adopt the uniform contract, because we know that it's going to give prestige and more strength to our arguments in adopting these contracts.

At this time we are considering a railroad contract, and we have no way in Texas of reaching this particular form. I don't know if you people are familiar with railroad contracts. They are good contracts if you never have to use them, but, if you ever get into trouble, you had better never have signed one of them. We do a good deal of work for the Katy. To give you a typical example, there is a clause for arbitration. It says, "Whenever the contractor has a dispute with the receiver, the matter shall be referred to the chief engineer, whose word shall be final and binding on all parties." Now, we never have anything to do with the receiver, in Texas, of the M., K. & T. All of our work is with the chief engineer.

Extra Work at Cost-Plus 10 Per Cent.

We have another clause in the contract which provides that for all extra work the contractor shall be paid the actual cost of labor and material incorporated in the work, plus 10 per cent. He is not allowed bond, liability insurance, general supervision, anything else, and, as a result, we lose about 15 per cent, on every bit of the extra work we are required to do by the contract. They say they don't want you to make any money on extra work, so the result is we invite them across the road and agree on a price before we do the work.

As I have said, we are very anxious to have some kind of a uniform contract adopted so that we can hammer our engineers that are not yet in line, to get a uniform contract that should be adopted.

The reason I mention this railroad contract is that we can't talk to the chief engineer of the railroad. But I will say this, that we are fortun-

ate in having a good chief engineer in Texas, he is a mighty good man. He says the only time he wants a contract is when he gets in trouble (that is what we want, too—we want a contract when we get into trouble), and, as a rule, he only invites those people he wants to bid on the work. You'd better not bid on it if you are not invited. We have very little trouble, but the contract is absolutely unfair and should be remedied, and we want this Association, through the Railway Engineering Association, to reach that situation. We can't do it, as we have no way on earth to reach it.

*Address presented before the General Session, Annual Meeting, A. G. C., Cleveland, Ohio, Jan. 19, 1922.

EQUIPMENT LEASE OUT.

New Agreement Will Serve to Eliminate Much Misunderstanding.

N equipment lease that constructors are willing to sign as either lessee or lessor has just been issued by the Associated General Contractors of America. Its object is to establish on a basis of common equity those obligations and responsibilities properly involved in renting construction machines, and to provide a simplified rental agreement which will insure absolute fairness to both parties. Thus a principle universally acknowledged and generally applicable, though too infrequently followed in the construction industry, will be given a practical test.

Result of Two Years' Preparation

The form adopted is the result of investigation extending over a period of two years. It was prepared under the direction of the Committee on Methods, of which A. P. Greensfelder, Secretary of the Fruin-Colnon Contracting Co., St. Louis, was Chairman, and Ward P. Christie, Research Engineer. Through use of this form it is believed that many difficulties incident to renting construction equipment can be eliminated.

Responsibilities Defined

Both construction and equipment leasing companies have frequently been subjected to expense and annoyance on account of misunderstandings which arise when equipment is rented by verbal or letter agreement or by an unsuitable form of lease, and it is to overcome such difficulties as these, as well as to eliminate drastic and unreasonable provisions, that the new standard form has been adopted. Misunderstandings frequently arise from the fact that equipment is sometimes rented on short notice when the need arises, and, when the main consideration is to get the machine into operation. In such instances a telephone call, a letter or almost any kind of a lease, may serve to close a

transaction, and when the unexpected happens both parties find that the responsibilities are not properly defined or that one or the other is saddled with an unfair obligation.

Situations of this nature can usually be avoided where the construction company has a suitable form of lease, easily filled out and familiar to its officials and executives. When all companies are using the same form the chance of misunderstanding is even more remote, especially when arrangements for leasing must be hurriedly made by letter or wire. This means of consummating an agreement, however, can be safely used by means of the A. G. C. Equipment Rental Agreement. All that is required is an understanding that certain equipment is shipped under A. G. C. terms of lease, and each party will then know definitely his obligations. Final arrangements can be made with a minimum of delay.

Additional Copies Available

The standard form is arranged so that all blank spaces for filling in of dates, rental rates and other stipulations are segregated on the front of a single sheet, and those provisions of general application and requiring no filling in for ordinary conditions are segregated on the back. Thus a concise form of letter size convenient for filing is afforded.

Copies may be obtained from the Associated General Contractors of America, 1038 Munsey Building, Washington, D. C., or through the secretaries of associated organizations, at 10 cents each or five dollars per hundred.

Apply for Miami Chapter.

Contractors in Miami, Fla., have made application for a chapter charter of their new organization, to be called the Associated General Contractors of Miami. This new association, composed of building contractors, is to be part of the Building Division of the State Association.

Spray Painting.

There can be no question about the fact that paint spraying on large surfaces is quite practical and effects an immense saving of time. A large front can be painted down by spraying in quarter of the time it can be done by brush. The pumping apparatus is mounted on a trolley and moved from place to place as required. The actual spraying is done from a painter's boat or swing scaffold, which is lowered or shifted from side to side, as may be required, as the work proceeds. The spraying apparatus could also be used for inside work, but it is not so suitable.



—FOR SCHOOLS—

Evans Vanishing Door Wardrobes

Class F.

More than a MILLION hang their wraps in Evans Vanishing Door Wardrobes.

When installed directly in the Class Room they eliminate the Cloak Room, making a saving of at least \$800.00 for each Class Room, also about 15% of the fuel and upkeep. The value of the space saved is more than three times their cost.

The UNIFORM VENTILATION meets all requirements as the doors can be set any height from the floor.

As the Wardrobes are directly under the eye of the Teacher, their use is conducive to the morality of the pupils. They add to the efficiency and are of unusual convenience.

The Wardrobes are correctly designed and properly built, and give to the building a touch of finish that appeals to both pupils and public.

The Doors swing on Double Pivoted Arms, no tracks, weights or noisy rollers. They swing out like ordinary doors, yet swing in at the same time, and when open have vanished within the compartment and appear as an end panel instead of a door: thus its name and U. S. Registered Trade Mark, "VANISHING DOOR."

The Doors do not block the Aisles when open, neither do they interfere with the use of the adjoining compartment, they swing easily and silently, they move with a touch.

Every piece of work is substantially built and guaranteed. We do know that our equipment gives general satisfaction, and do not know of a single exception where an Architect, after his first installation of our equipment, has failed to use it in his next job of like character.

Our New Catalog "Pictures That Talk," showing cuts and details of Evans Vanishing Door Products, together with Net Prices, mailed for the asking.

W. L. EVANS, 711 Main Street, Washington, Ind.

DOES THE CONSTRUCTOR'S PROFESSION LACK IDEALISM?

By J. B. Warrack.

The subject of my talk only came to me yesterday after a brain-racking week of thought and feverish hunt for a timely topic. It was revealed through a chance meeting with a business acquaintance whom I had asked for a suggestion as to a proper subject for an address to the Builders' Association. He said, "Oh, talk about 'how to skin a job,' or 'grab a dollar'; those men have no other ideas—they have no ideals!"

I thought this over; have we no ideals? Are we just ordinary money-grabbers? At last I had a subject for my talk.

"Does the Constructor's Profession Lack Idealism?"

I will endeavor to acquaint you with these few thoughts on the subject, born only a few hours ago, and sincerely hope you will find some good in them, but I fear you will have to accept your position with resignation as the Swedish bridegroom did when the minister said, "Ole, do you take this woman, Hilda Sorgenson, for your wedded wife, for better or for worse?" Ole replied, sadly, "Oh, well, aye tank aye get leetle bit of both." And that is probably what you will get in my talk this evening, a little bit of both.

The constructor by his experience and technical knowledge is well prepared to enter into public discussion, and should do so. To that end constructors (builders-contractors) should be members of local associations, devoted not only to the considerations of the technical points of the profession, but to the far more noble service to the community; that of being a co-operative part in public affairs.

In spite of the necessity of long hours in the office or on the job, studying, estimating and analyzing costs, the constructor must needs find time for the consideration of broader interests.

The lawyer, whose work brings him into contact with the people, has the advantage of public prominence which too often leads to his appointment on commissions of a technical nature which could have been filled more ably by a contractor.

Publisher, SOUTHERN ARCHITECT & BUILDING NEWS,
Atlanta, Georgia.

Please mail to address below The Southern Architect & Building News for one year, price \$2.00 per year, check attached.

W. Earl Otis,
924 Inter-Southern Bldg.,
Louisville, Ky.

Publisher, SOUTHERN ARCHITECT & BUILDING NEWS,
Atlanta, Georgia.

Please mail to address below The Southern Architect & Building News for one year, price \$2.00 per year, check attached.

C. J. Stinson,
503 Inter-Southern Bldg.,

Americans Lead as Property Owners.

Latest government reports indicate the United States is one of the most extensive property-holding nations. Records show that of the adults in the United States, less than 2,000,000 can be grouped directly or indirectly as without some material property interest in land, transportation, public finance or industrial securities.

The following facts are based on official government reports and data:

Twenty million persons bought Liberty and Victory bonds and notes, of whom about 12,000,000 still retain them; 6,000,000 family groups own the homes in which they live; more than 1,000,000 own railroad bonds and 800,000 own railroad stocks; a large proportion of the 6,000,000 farmers own in whole or in part the land which they cultivate, while more than \$5,000,000,000 is the average total of bank deposits.

Contract Awarded to Newman.

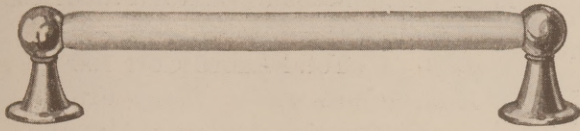
The contract for three massive brass ladders for their swimming pool has been awarded by the Nineteenth Century Club of Memphis to the Newman Manufacturing Co. of Cincinnati. This contract was placed through Mr. A. W. Pannell, special representative of the House of Newman.

Have Sleeping Porches Come to Stay?

ACCORDING to Mr. Aymer Embury, II, architect, New York, the present custom of building sleeping porches on the second floor seems unsettled. Personally, he does not believe that we, as a nation, have yet determined we want to sleep, as a nation, have yet determined where we want to sleep. He says: "If we are to have sleeping porches for everybody, the sensible thing would be to do away with bedrooms and use dressing rooms only, for sleeping porches, especially when enclosed, become practically rooms, so that the bedrooms have little or no outside air and are dark, stuffy, and unpleasant. For myself, I prefer a well-ventilated bedroom to all the sleeping porches in the world. They are often unsightly, makeshift affairs, but if we are to have them, let us have proper ones, permanently useful, each with its dressing room."

Douglas fir made up about 95 per cent of the total lumber imports of China before the war. Production of lumber in Chile is between 30,000,000 and 40,000,000 feet a year. Chile's forest area is estimated at 39,362,000 acres out of a total land area of 188,110,750 acres. About 9 per cent or 3,500,000 acres is covered with merchantable timber.

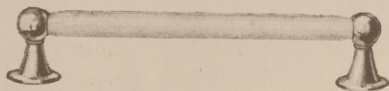
The Latest Addition to the Perfection Line



There has been a steadily increasing demand, in recent years, for sanitary bath room fittings.

Our line of "Perfection" Towel Bars meets all requirements for appearance, durability and sanitation.

Made in a wide range of sizes. Brackets and screws finished either with baked celluloid finish to match opal bars of heavy hand polished nickel plated finish for crystal bar.



Ask your jobber for
The "Perfection" Line

The Beaton & Cadwell Mfg. Co.

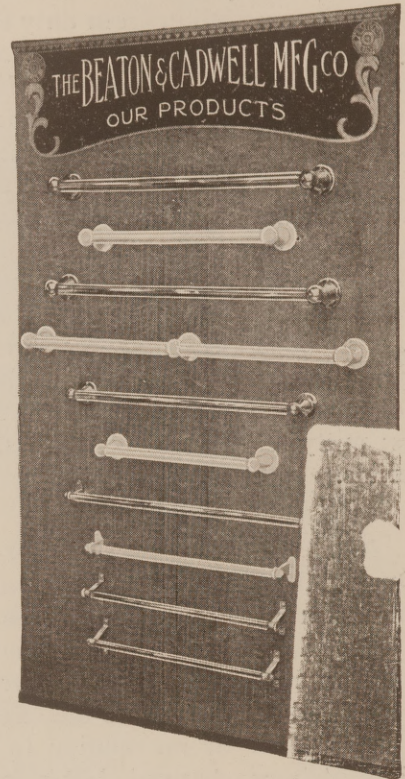
New York Office and Store, 234 Water Street

Pioneers and Largest Plate Manufacturers in the Country

New Britain



Connecticut



—a machine that makes an endless stream of building blocks one every 5 seconds--5,760 a day

The Debay Completely Automatic Block Machine is a piece of equipment that can turn a struggling block plant into a prosperous manufacturing enterprise.

It is the only concrete block molding machine in the world that has rotating mold members with stationary core bars.

Hand labor is reduced to the minimum.

Keep the material hopper full and the finished 8 x 8 x 16" blocks flow from the machine on an endless belt in an endless stream at the rate of 12 every minute, 720 an hour, 5,760 a day.

The product includes standard 8x8x16" back-up, corner and end blocks, in a wide variety of faces.

See it in the movies!

You can see the machine operating in a plant at Springdale, Pa., or we will show moving pictures of its operation in any community where interest is manifested in the proposition.

Write for full details.

DEBAY RESEARCH & MFG. CO.,

SPRINGDALE, PA.

ARGENTINA.**Proposed Free Admission of Building Materials.**

A proposed law, as amended by the Senate and to be discussed by the House of Representatives, provides for exemption from duty for a period of five years, of the principal construction materials imported from abroad, among which are the following: Iron and steel in ingots, bars, and sheets; beams and channels, galvanized and other kinds of iron pipe; galvanized iron and sheets, screws, nails, and iron work; tin sheets; zinc in ingots, bars, and sheets; tin in bars and ingots; lead in sheets, ingots, or bars; lime for construction purposes; bricks of all kinds; sand, stone, asphalt, tiles, and asphalt roofing; floor tiles; white and Oregon pine lumber and spruce, whether finished or not; glass for windows, doors, Skylights, and floors; putty; earthen or clay pipes, and sanitary materials.

Postponing Prosperity.

During the war the price-fixing evil grew to enormous proportions. Every line of business was affected by the abnormal trade conditions, and the unprecedented demand for merchandise of every kind made possible the exaction of sums which bore little or no relation to costs of production. Times changed, but very few of the leaders in industry were prompt to act. They seem to have held on, hoping against fate, that they would find some way to avoid a reduction in inflated prices. One large American manufacturer met the conditions squarely, and he is reaping his reward in increased business. The railroad leaders are learning their lesson, slowly, and the steel executives are gradually bowing to the inevitable. In just about the measure that these bows are deferred, will prosperity linger on the outside.—(Sugar.)

Columbus, O.—Ohio State University is to begin spending \$250,000 for flood protection and beautification of the new Ohio stadium in the spring. The river-improvement program, funds for which will come from regular legislative appropriations, will extend over a period of years. With the \$37,000 now available, University officials will purchase equipment and begin dredging the Olentangy River in the spring.

Ultimately a levee will extend for 4884 feet along the eastern bank of the Olentangy, while a 400-foot dam will extend across the river south of the Stadium site. The levee will have a top width of 70 feet and will drop to the water's edge in two terraces, each 50 feet wide. Forty feet of the top width will be devoted to boulevard with a 15-foot parking space on either side. The beauty of the whole will be enhanced by landscaping.

Cost of Six-Room House.

The following are preliminary figures showing the percentage which the amount paid to each labor group bears to the total labor cost of a six-room house:

Trade.	Total Labro Cost 100%.	
	Frame house	Brick house.
Carpenters -----	49.6	32.2
Bricklayers -----	6.2	21.5
Hod carriers -----	2.2	6.7
Plasterers -----	7.9	8.8
Plumbers -----	8.7	7.6
Electricians -----	2.6	2.5
Painters -----	10.0	6.3
Common laborers -----	6.3	9.9
All others -----	6.5	4.5
Total -----	100.0	100.0

These averages were constructed from reports covering a large number of six-room brick houses throughout the country.

The relation of the amount paid to the various groups to the total labor cost varies according to the types of construction prevailing in the various localities; however, these averages gives a fair view of the general distribution of labor costs.

If you have any comparable figures available, this Division would appreciate your sending them.

Yours very truly,

John M. Griers, Chief,
Division of Building and Housing,
U. S. Chamber of Commerce.

Building Materials Made of Sugar Cane.

New Orleans, La.—Bagasse, the sugar cane stalk, from which the juice has been extracted, is being made into building material by a manufacturing company at Marrero, La., across the Mississippi river from New Orleans. It is aid to be virtually a substitute for lumber and its promoters claim it to be superior in some respects.

The product is being manufactured in boards twelve feet wide and 800 feet long, one board containing enough material to build three bungalows. Strips are later cut into required dimensions.

Discovery of a use for bagasse is said to have developed during the war in an investigation of insulating board.

Publisher. SOUTHERN ARCHITECT & BUILDING NEWS,

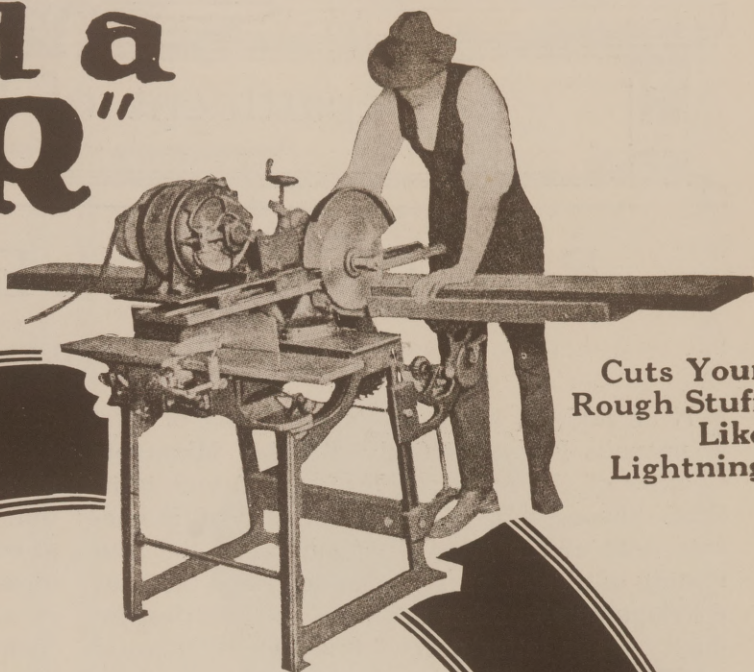
Atlanta, Georgia.

Please mail to address below The Southern Architect & Building News for one year, price \$2.00 per year, check attached.

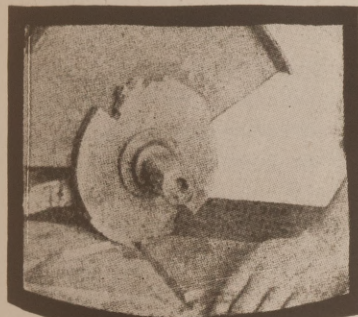
Harvey Abrames,
303-304 Arcade Bldg.,
Norfolk, Va.

You need a "MASTER" WOODWORKER

You Can't Afford Hand Labor!



Cuts Your Rough Stuff Like Lightning



BACK TO PRE-WAR PRICES

Underslung rip saw, Overhead cross cut that works like a swing saw. Bores, mitres, dadoes, rabbets, planes, moulds, rips and joints on the bevel, makes jackrafters, fire cuts, houses stair strings, and every other cut necessary in building.

**WILL RIP 4 INCHES THICK, WITHOUT OVERLOAD.
NO POWER WASTED ON COUNTERSHAFT.**

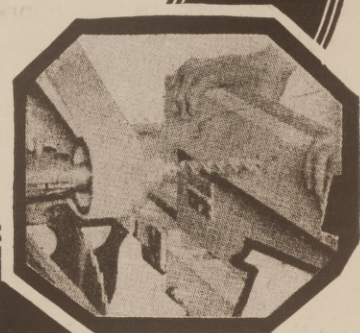
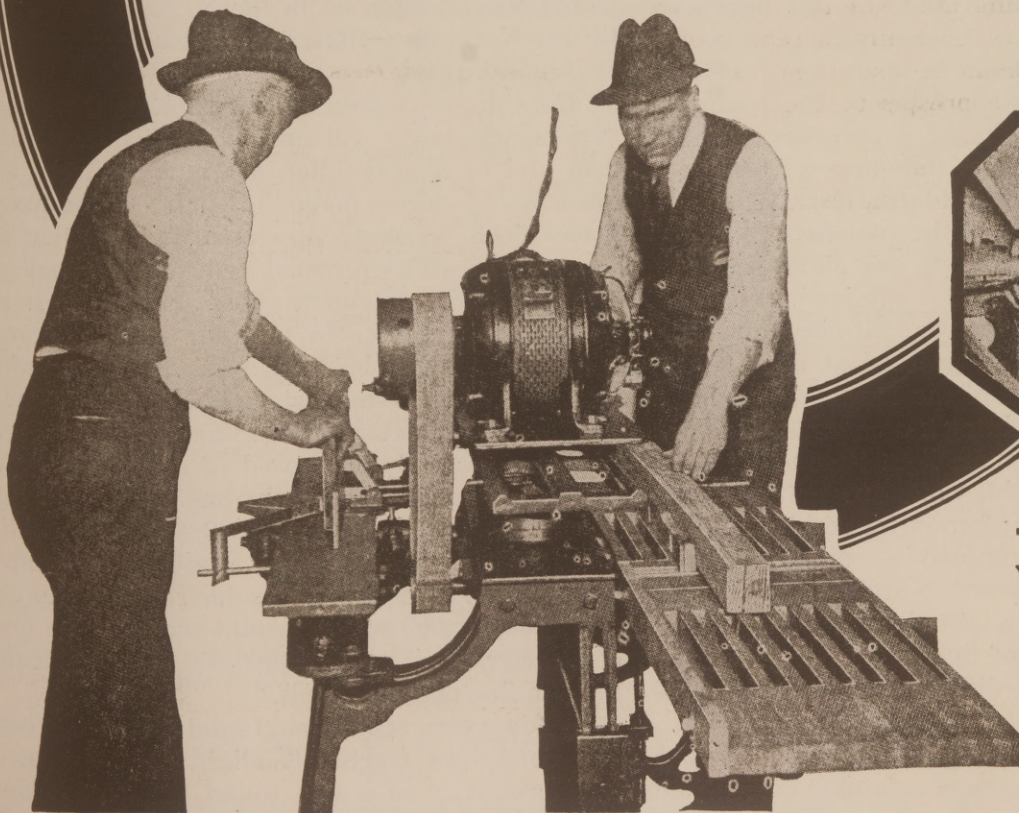
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Department of Engineering

Plumbing, Heating and Ventilating, Lighting

Recent Developments in Electrical Engineering

By Prof. Geo. D. Shepardson.

IN an address before a joint meeting of Minneapolis Engineers Club and the Minnesota Chapter of the American Institute of Architects, Prof. Shepardson, of the University of Minnesota, told of the great development in the generating of electric current and described the later developments in other angles of the electrical industry. The latter part of this address follows:

The progress that has been made in the generation and distribution of power in only typical of the progress made in other uses of electricity. Brief mention may be made of progress in two great divisions of electrical engineering, namely, lighting and communication. Very great improvement has been made in the sources of light, so that today it requires only about one-tenth as much electric power to produce a candle-power of light as was required thirty-five years ago; together with the improvements in producing electric power, one can now purchase about thirty times as much light for a dollar as he could thirty years ago. The results of this improved economy are varied. The central station people formerly looked with alarm upon each promised improvement in the efficiency of the incandescent lamp, for they feared a corresponding reduction in their revenue; this however was generally found to be a false alarm, because it overlooked the psychology of the customer. Mr. Average Man is accustomed to pay about so much for his gas and for his water and for his electricity; therefore if the price per unit goes down Mr. and Mrs. Average Man proceed at once to use about that much more of the commodity. Thereby the standard of lighting has continuously been rising. The old 16-candle light is superseded by 40-candle 50 watt light, while 100-watt and 150-watt lamps are not uncommon for residence lighting as well as for commercial and industrial lighting. This has opened to architects and other designers much wider latitude in the design and selection of methods of lighting, ranging through the whole gamut of direct, semi-direct and indirect lighting.

Moreover, the lowering cost of electricity has stimulated the development of many household

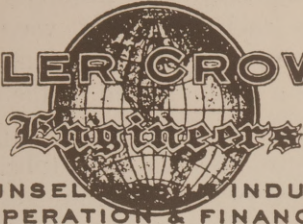
and industrial uses of the heating effects of electricity and of electric motors for fans and other purposes. This makes desirable the installation of many more outlets than were formerly provided. Indeed the modern electrical home of moderate size calls for something in the order of a hundred of what are coming to be called "convenience outlets" instead of "baseboard or floor receptables," and the amount of energy taken by the lights is coming to be the smaller part of the monthly bill for electric service. In several cities co-operative action has constructed model electric homes to illustrate the many ways in which electricity now mitigates the drudgery of housekeeping. Incidentally it may be said that such model houses more than pay for their construction and stimulate every branch of the electrical and construction business.

Incidentally mention might be made of the increasing large variety of electrically equipped furniture, concerning which a copiously illustrated article appeared in the N. E. L. A. Bulletin for November, 1921, which also described an "Electrical Home."

Consider next some large problems involving very small units. Chemistry, mechanics, light, heat and even gravitation are now claimed as branches of electro-magnetics. One of the most active fields of electro-magnetic investigation is what is known as physical chemistry, dealing with the ultimate constitution of matter. It is now generally accepted that the atom (a word meaning "indivisible" and applied to what was considered as the smallest particle of matter that could exist and enter into combination with other atoms) is actually composed of a large number of smaller parts. The atom has a diameter of about 10^{-8} centimeter, that is 0.000,000,01 centimeter; in other words, if a number of atoms were placed in a row like soldiers, elbow to elbow, 100,000,000 atoms would make a line one centimeter long, and 254,000,000 atoms would make a line one inch long.

A few years ago it was found that under certain conditions fragments might be separated from atoms; then it was found that these chips

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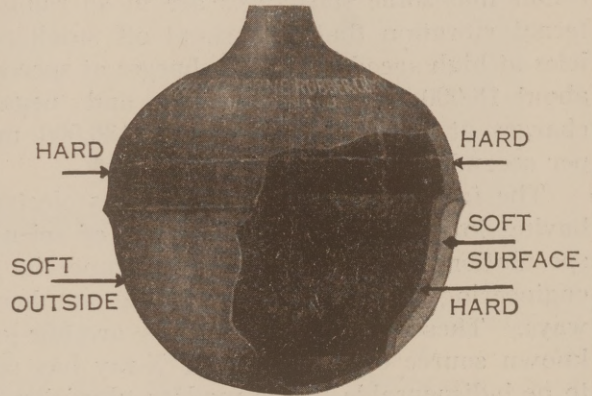
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U. S. NAVY CENTRAL SALES OFFICE

NAVY YARD, WASHINGTON, D. C.

acted very much alike, from whatever substance they might be obtained. These were isolated and actually measured, being found to have a mass about equal to 1-2000 of that of an atom of hydrogen. It was found to carry or to consist of a minute charge of negative electricity, always the same amount, the velocity being found to depend upon the substance from which it came. These small fragments of atoms are known as electrons.

As a result of studies of radio-activity, it is found that some substances are in so rapid internal vibration that they shoot off small particles at high speeds, positive charges at speeds of about 18,000 miles per second, and negative charges at speeds approximately 186,000 miles per second.

The fractions of atoms, known as electrons, having long since passed the stage of scientific speculation, and have come into commercial and engineering practice in a surprising number of ways. These fractions of atoms are the only known source of X-rays. The X-ray has come to be indispensable to the modern physician and surgeon. Not only has its peculiar power of passing through what are ordinarily opaque objects been utilized in radio photography by physicians for diagnosing internal disorders, by dentists in examining the condition of roots of teeth, and by customs officers in searching suspicious passengers and baggage, but they are coming into successful and extensive use in treating internal malignant growths, such as internal or external cancer.

Various uses have already been found for the three kinds of radiation from radium compounds, and other uses are sure to be found.

Fractions of atoms are the basis of the mercury vapor lamp with a characteristic greenish light which has long been used in photograph galleries and elsewhere. They are also the basis of the mercury vapor rectifier, which is used by obtaining direct current from alternating current, these being used in large quantities. For example, the arc lights in the streets of Minneapolis are operated by a direct current obtained through mercury vapor rectifiers.

The ability of the electrons to pass through a so-called vacuum, has been utilized in several types of vacuum-tubes, which are often called electric valves because of their peculiar properties.

These are used as detectors of radio waves, by which a group of electric waves that alternate in direction are sorted out so as to allow only those in a given direction to pass through the electric valve. In this way a group of waves coming at the rate of several hundred thousand per second (a speed to which neither the human

ear nor the telephone receiver would respond) are resolved into groups of impulses of the same polarity; thus each group of waves serves to give a single impulse to the telephone receiver and so to give a single sound in the ear.

By inserting what is known as a grid between the two elements of a vacuum tube, it becomes possible for a very small amount of energy applied to the grid to control a much larger flow of energy, somewhat as an engineer may operate a small valve that controls a large engine.

The vacuum tube has already been developed for a variety of uses, such as magnifying the strength of radio signals received from a great distance, some of these amplifiers increasing the strength of a received signal by as much as 40,000 or even 60,000 times. An illustration of the extreme sensitiveness of radio receiving apparatus was recently brought to our attention by the receipt of a letter from a well-known operator in Hartford, Connecticut, stating that he had clearly heard and actually measured the wave length of sound sent out by a radio telephone at the University of Minnesota, 1,200 miles away, which was radiating only six watts or about $\frac{1}{8}$ of the energy used in a 50-watt incandescent lamp.

In closing, I wish to emphasize the belief that we are just getting started on the use of electrons or small fragments of atoms. In this, as in numerous other lines of electrical engineering the possibilities of future development seem to be limited only by the amount of research that can be conducted. We believe that money invested in electrical research promises very great returns and should prove a very attractive field for people who have money to invest in helping extend the usefulness of this servant of mankind. I believe the possibilities of extending the usefulness of electricity as a servant of mankind are boundless, and we may confidently look forward to still more varied and even more useful developments in the future.

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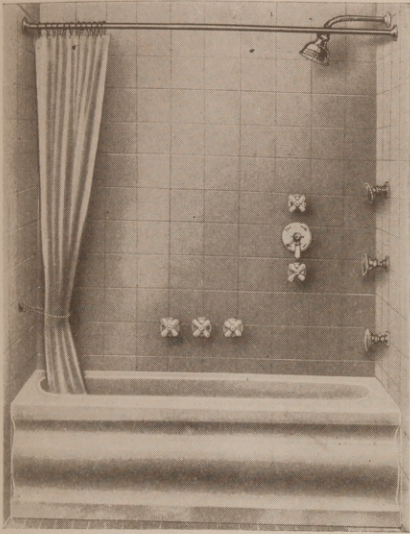
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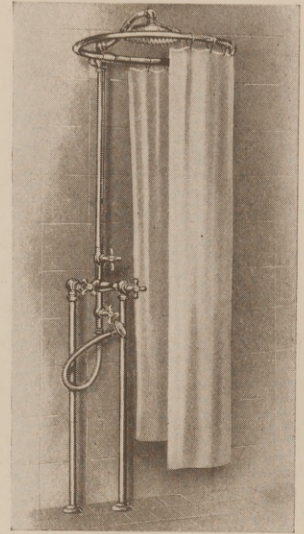
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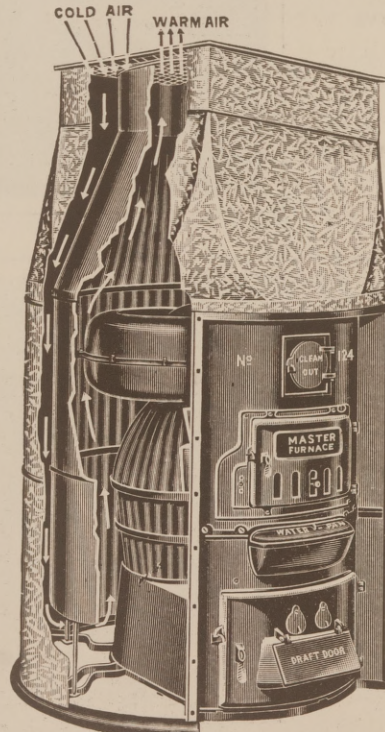
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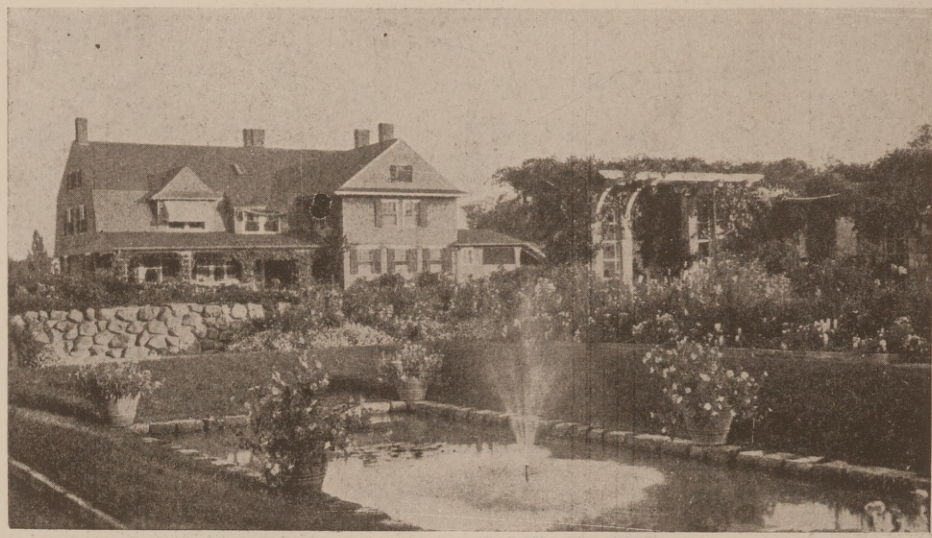
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View of the Garden Showing the Pool and Arbor With the Squam Mountain Range in the Background.



The Treatment of Bare Rocky Ground Shown in This Picture is Particularly Interesting.

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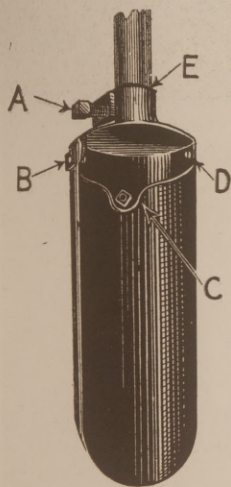
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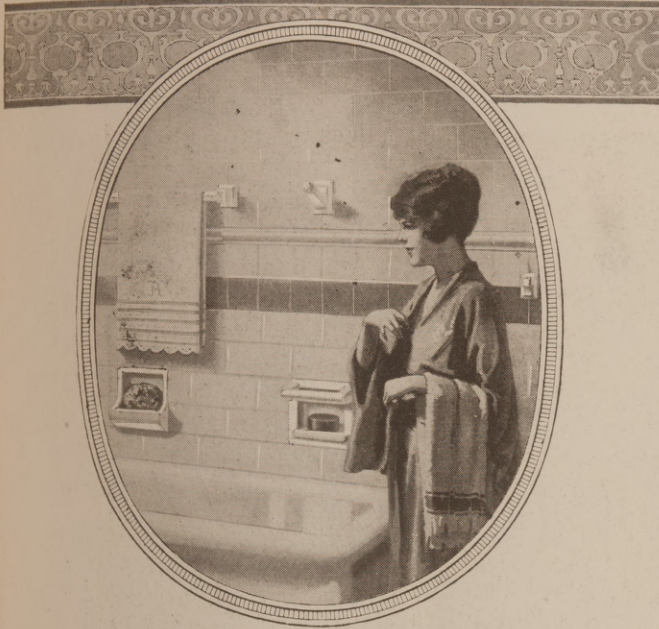
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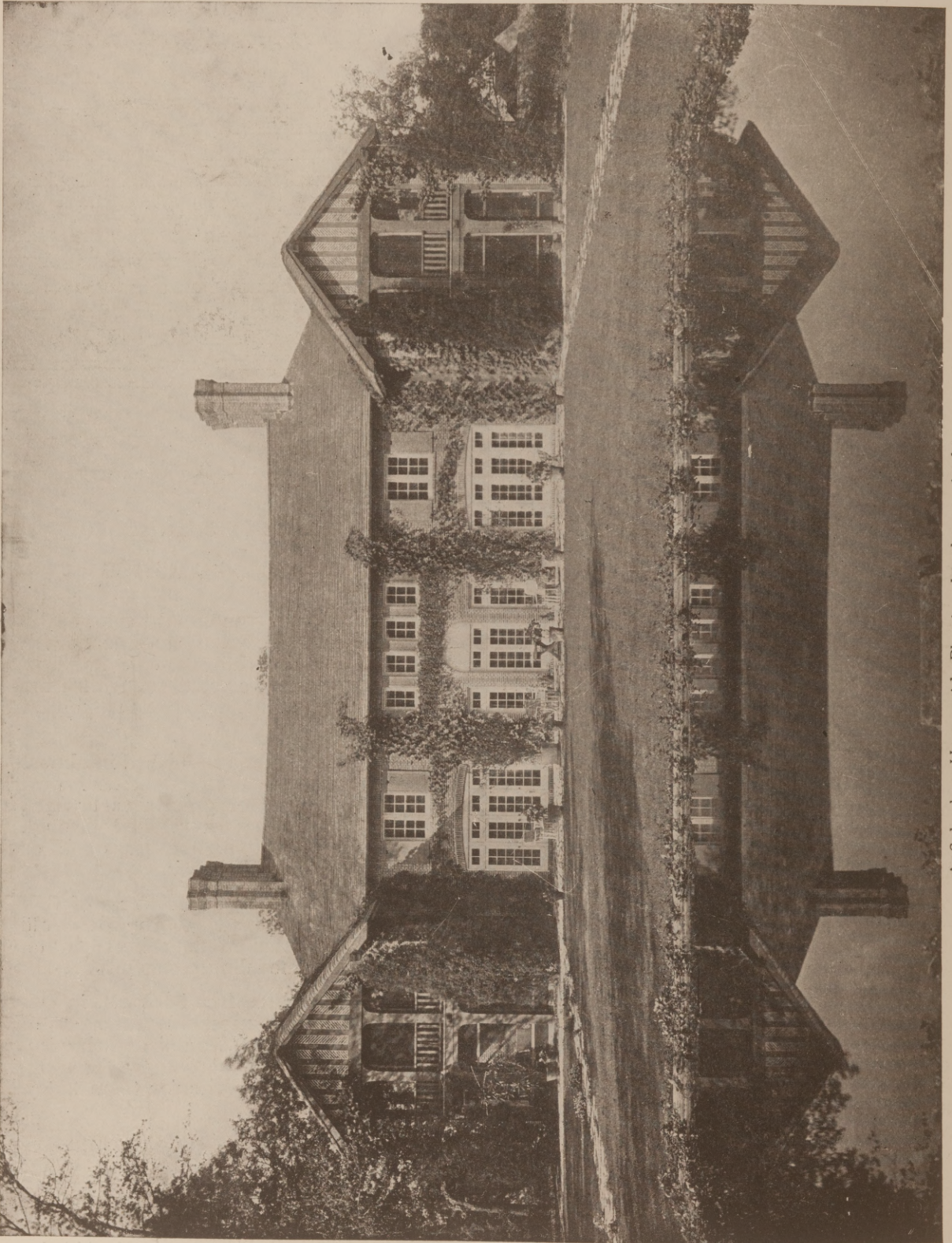


For general specifications see Sweet's Architectural Catalogue, Page 458, 16th Edition; Page 389, 15th Edition.

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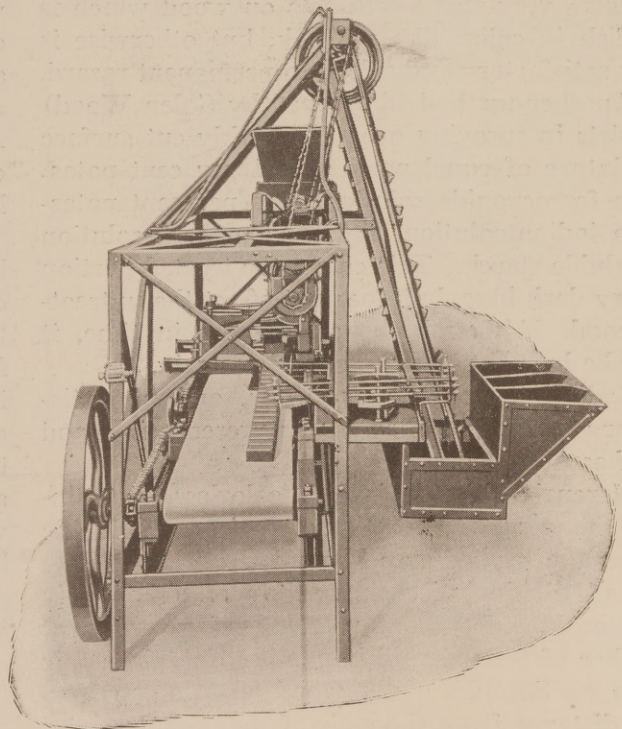
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Penetration of Wood Preservatives.

The effectiveness of any wood preservation treatment is measured very largely by the depth to which the preservative penetrates. This can be determined by the following tests, which are used by the Forest Products Laboratory:

The presence of creosote oil is indicated by the dark discoloration, but the degree of penetration may be determined by taking a sample at a point free from checks and other imperfections and at a considerable distance from the end. This may be done either with an ordinary $\frac{1}{2}$ -in. bit, or with an increment borer, which bores out a core of the wood that shows in cross section the depth of penetration and is easily examined. The observation should be made at once, because the oil spreads rapidly over the cut surface. In order to prevent infection, the hole in the treated wood should be tightly closed with a creosoted plug.

As zinc chloride is colorless, the depth of penetration of this preservative must be ascertained by chemical means. After cutting the stick in two or getting a sample with the increment borer, the fresh-cut surface is dipped for not to exceed 10 sec. in a 1 per cent solution of potassium ferrocyanide, and the excess solution is removed by blotting paper. The sample is then dipped into a 1 per cent solution of uranium acetate, and dried. The treated portions will be whiter than the natural wood, and those untreated will have a dark red or maroon color. This method does not give very sharp contrasts on wood which is reddish in color, like red oak, but otherwise is very satisfactory and affords a permanent record.

Another method (developed by Galen Wood) consists in spraying over the freshly cut surface a mixture of equal parts of a 1 per cent potassium ferrocyanide solution, at 1 per cent potassium iodine solution, and a 5 per cent solution of soluble starch. This colors the treated portion a very dark blue, but does not affect the untreated wood. Although the color fades in time, it may be brought back by spraying again.

Sodium fluoride is colorless, and no satisfactory method of showing its presence in wood has been devised.

Mercuric chloride is also colorless, but dipping the wood in a solution of hydrogen sulphide turns the treated area black.

As individual pieces may show an abnormally high or low degree of penetration, a sufficient number of tests should be made to obtain a fair average. Samples of the wood taken a considerable distance from the ends of the stick in order

that they may not be affected by the heavy longitudinal penetration from the ends.

Test On Bituminous Clay Pipe.

As a result of laboratory tests made in the College of Industries of Carnegie Institute of Technology, Pittsburgh, it has finally been established that bituminous clay pipe for drainage and sewerage use is in every way the equal of the more expensive cast iron pipe which has been employed heretofore.

For years efforts have been made by manufacturers and engineers to find methods of efficient substitution of bituminous clay pipe for cast iron pipe, but without success. One weak point has invariably remained an inability to join the lengths to prevent leakage. Practically speaking there has been but one general type of jointing material used, some variation of the ordinary building cement.

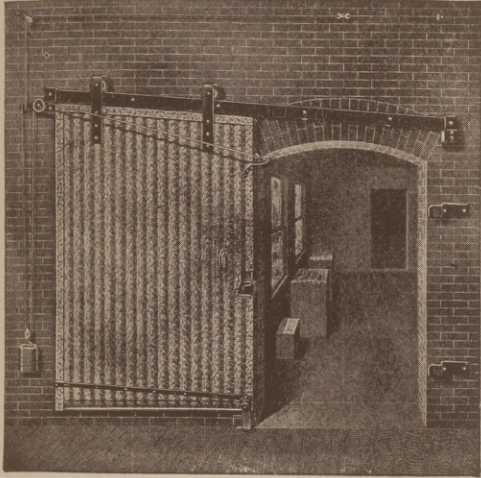
Recent various bituminous compounds have been evolved as a substitute jointing material. But the first—and numerous—tests made of these, too, failed to overcome the great weakness of clay pipe when used for drainage or sewerage.

Finally a number of these bituminous compounds were placed at the disposal of S. E. Dibble, Head of the Heating and Ventilating Department of the College of Industries of Carnegie Institute of Technology. He proceeded to make painstaking and unusual tests and experiments. He not only devised absolutely new equipment with which to simulate actual drainage and sewerage conditions in the making of his tests but as a result of the tests themselves he developed an entirely new jointing practice and technique. Altogether twenty-one separate tests on a total of sixty-three joints were made, three different bituminous compounds being used.

Not only have Professor Dibble's tests established (1), that a proper bituminous compound can be used efficiently in jointing a pipe; (2), that joints made in the manner developed by Professor Dibble stand any pressure that the pipe itself is capable of standing, without showing any leak; (3), that a pipe line so jointed can be thrown out of alignment without causing a leakage at the joints; and (4), that leaks due to poor workmanship can be repaired easily and quickly; but Professor Dibble has gone further and has published chemical analyses of two of the bituminous compounds found satisfactory.

Industry in a score of its important fields will immediately profit by this practical type of educational institution work.

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They are built along the lines of correct engineering principles and embody every known feature for effective resistance against fire. Their construction is entirely of non-combustible materials—so rigid and so sturdy they should easily last as long as the building itself. They are easy to operate and in all the best Fire Door investment procurable.

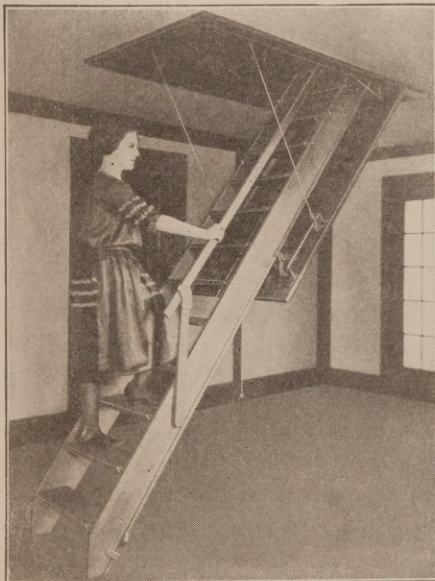


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Get in LINE with all the Regular Contractors, Carpenters and Builders. What you need is an improved Schlueter Floor Surfer to scrape all your old and new Floors.

Why surface by hand and suffer

—Loss of Time—Money, and Contracts on account of unsatisfactory work, when you can purchase an IMPROVED SCHLUETER SURFACER—the machine with all troubles left out!

“The SCHLUETER Surfacer are worth their weight in gold” as one of our customers describes them, and he is right.

A few jobs and the machine has paid for itself. In a short time the people will know who and what you are; you get the

work because you have the TOOL. You advance to a higher grade and are a man of high class work, for that is just what the people of today demand.

We want to send you a SCHLUETER on Trial and let you see for yourself the quantity and quality of work it accomplishes.

The Improved SCHLUETER Floor Surfer

will surface right up to the wall or baseboard without the use of Side Roller. Just the Machine you would want for surfacing all floors whether old or new. Perfect results guaranteed. More than 20,000 of our Machines now in use. Guaranteed against defect in material and workmanship for five years.

Manufactured by **M. L. SCHLUETER**

221 West Illinois St., Chicago, Ill.

SEND FOR OUR PRICES, ALSO TRIAL PROPOSITION

Trade Notes.

Kelley Island Selects Officers.

The Kelley Island Lime & Transport Co., The World's Largest Producer of Lime, at their recent directors' meeting, following the annual stockholders' meeting, elected the following officials:

John A. Kling, Chairman of the board.

George R. Johnson of Buffalo, who has been vice president of the Foundation Co. in charge of its central district for fourteen years, president.

F. W. Ohlemacher, who was elected fourth vice president, has been in charge of the company's vessels and Sandusky department for many years. Following is a list of officers and the executive committee:

Chairman of the board, John A. Kling; president, George R. Johnson; first vice president, E. W. Oglebay; second vice president and general manager, G. J. Whelan; fourth vice president, F. W. Ohlemacher; secretary and treasurer, C. A. McMorris; assistant general manager, A. B. Mack; assistant secretary and assistant treasurer, F. W. Kuhl; auditor, J. W. Longdon.

Executive committee: John A. Kling, chairman; George R. Johnson, H. M. Hanna, Jr., John Sherwin, John E. Morley, H. G. Dalton.

Other officers are: Sales Manager, Henry Angel; Assistant Sales Manager, F. M. Pinnegar; Purchasing Agent, Victor Price; Traffic Manager, J. F. Potts.

Newman Mfg. Co. Appoints Branch Managers.

To take care of their extensive interests in the South the Newman Manufacturing Co. of Cincinnati, makers of ornamental metal work, has appointed several branch managers during the past thirty days. Following out their customary methods the Newman folks are planning to cooperate with architects and contractors through these new agencies.

J. L. Kirkpatrick, with offices at 1711 Twenty-Fourth Ave., Nashville, will travel throughout the western portion of Tennessee, exclusive of Memphis.

F. C. Clifford, located at 17 W. Mulberry St., Baltimore, will cover that city and its environs.

O. D. Brinson, of Miami, will hereafter cover the southern half of Florida. G. F. McDowell, of Little Rock, has the entire state of Arkansas for his territory.

The W. T. Wrenn Co. succeeds the Beecroft-Wrenn Co., and retains the office at 1829 Fifth Ave., Birmingham.

Announcement.

That type of door check known as the Liquid Check provides the only successful method of controlling the door yet brought out and of this type the check known as the "Blount" check patented by Eugene I Blount in 1891, is acknowledged to be the best.

Since taking over the business from the Worcester Shock Absorber and the Worcester Manufacturing Co., Park Manufacturing Company engineers have conducted exhaustive tests with the end in view of producing the best Liquid Type Door Check possible. Doors, where traffic is heaviest were fitted with checks and daily inspections made, in each case failure or trouble was traced to its source and the cause eliminated.

After more than a year of effort we now feel warranted in announcing that the Improved Worcester Blount Door Check is the best that skill and experience can produce.

We call attention to some points of superiority over former Blount type Checks.

1. Shaft (No. 7) ground to precision fit through assembly, insuring alignment and preventing leakage of fluid into spring chamber.

2. Piston (No. 4) ground to precision fit in compression chamber and assembled to shaft, crank and connecting rod in perfect alignment.

3. Ball valve pinned in piston, can be easily removed if desired. No screws to work loose.

4. Ball stud in end of main arm is steel, not a weak casting. No long shot in main arm, giving greater strength.

5. All parts machined to precision gauge no guess work.

6. All screws and nuts are U. S. standard threads.

7. Every check tested and inspected after assembly.

If the Worcester Blount Door Check is properly attached and adjusted to door, it will not fail to function. See our advertisement in this issue.

"When we hear of a man cutting down on his advertising," said a wise bank president, "we cut down on his credit." Good business is coming again, and now is the time to make preparations to get your share of it. When one has leisure, one has time to plan carefully."

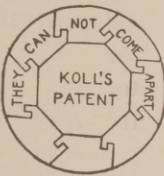
(Forbes.)

This applies with equal force to the retailer and to the producer.

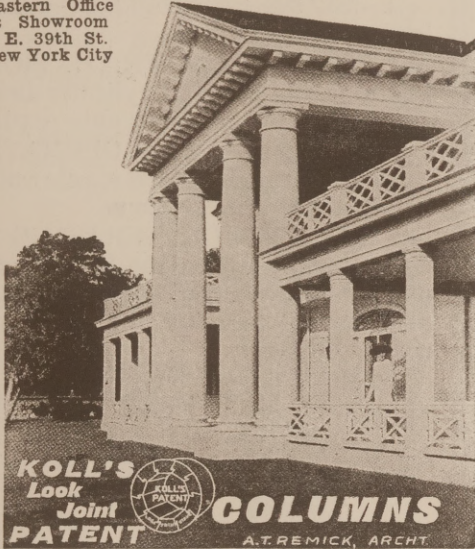
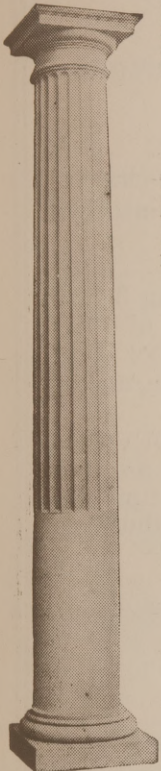
Note the Lock-Joint

—We are the originators of the INTERLOCKING JOINT WOOD STAVE COLUMNS—they are the products of experience and an organization which has studied the most exacting requirements.
—Their specification gives assurance that the striking feature of colonial architecture will insure permanent satisfaction.

For EXTERIOR and INTERIOR COLUMNS very useful information will be found about them in our Catalogue for Columns. When writing enclose 15c and ask for No "S"-47.



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2155-87 Elston Ave., Chicago, Ill.
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Look for the
Cross and Circle
Printed in Red

THIS symbol appears on every genuine package of Alabastine. It guarantees you beautiful, durable, sanitary walls, modern and delicately tinted in soft, pleasing colors which harmonize perfectly with your rugs and draperies.

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TO DEALERS EVERYWHERE.

The word Alabastine, through the merits of the goods and the familiarizing of the consumers with our package and trade mark, represents to this consuming public a standard of quality. There is only one Alabastine. There is only one standard of quality. If a package of Alabastine in your town is good, it is no better than a package of the same goods in Shanghai, China, Tokio, Japan, or San Francisco, California. If it is not good then the packages in the above named locations are equally inferior.

The general consensus of opinion is that Alabastine is a good material. It has demonstrated its superiority by the test of time and by the wonderful demand existing for it.

The merits of Alabastine are recognized. It is standardized by advertising, makes an attractive display for shelf or window, occupies small space, packed compactly, yields a very satisfactory margin of profit and gives universal satisfaction to the trade. Write for full particulars and names of our nearest distributors.

ALABASTINE COMPANY
GRAND RAPIDS, MICHIGAN.

Your local Dealer is Entitled to Your Trade

Here is a Glazing Composition that will—



Adhere tightly to iron, steel, wood, glass, stone or concrete, Make an elastic joint—tight yet indefinitely flexible, preventing glass from cracking.

Guaranteed to withstand heat, cold, rain or extreme climate conditions, without chipping or peeling.

KUHLS' ELASTIC GLAZING COMPOSITIONS

is used for bedding and glazing all classes of glass construction and is unequalled for greenhouses. Also supplied in shades to match for pointing up stone work, terra cotta, granite, etc.

Complete literature on this exceptional product together with testimonials from such prominent architects as Cass Gilbert, also the Lackawanna and Pennsylvania Railroad, will be mailed on request.

There is a reliable dealer in your locality selling Kuhl's Elastic Glazing Composition. His name will be sent on request.



H. B. FRED KUHL'S

Sole Manufacturer

6413 Third Ave., Brooklyn, N. Y.

Personal Mention

Builders Elect John J. Shanahan.

John J. Shanahan was chosen president of the Builders' Exchange of Norfolk, in the annual election of that organization recently. He succeeds A. LeB. Ribble, who held the position for several years and declined to be renominated for president this year.

The election was in progress from 11 a. m. to 5 p. m. yesterday, and practically the entire membership of the exchange cast a ballot. Two nominees were voted on for each office, and an indication of the keenness of the contest was in the fact that Mr. Shanahan's majority was one vote. The other officers elected were:

W. A. Burckard, first vice president; C. L. Roberts, second vice president; C. C. Collums, third vice president; Ira Cahoon, treasurer, re-elected. Directors, A. LeB. Ribble, J. W. Smith, J. G. Lancaster, W. E. Coley, C. E. Hanbury, C. B. Pitt, R. R. Moore, M. T. Blassingham, A. G. Graham, J. A. Addenbrook; A. C. Dyer and W. P. Cake.

Wm. B. Helmkamp, architect, formerly of Boemisch, Krans and Helmkamp, Ohio building, Akron, Ohio, has opened his new offices at 410 Peoples Savings & Trust building, Akron, Ohio.

Whitman & Son, designers and builders, have recently opened offices at 1109 Republic building, Louisville, Ky.

Theo. Steinmeyer announces the opening of an office in the Title Guaranty building, St. Louis, Mo., for the practice of his profession of architecture.

Harry F. Cunningham, late Major, Machine Gun, U. S. Army, and at one time Director, School of Decorative Art, A. E. F. University, France, announces that, having definitely returned from France, he has opened an office at 1219 Connecticut Ave., Washington, D. C., where he is prepared to undertake the study and execution of any architectural, decorating or town planning problem. Mr. Cunningham desires catalogues and samples.

Removal of Office.

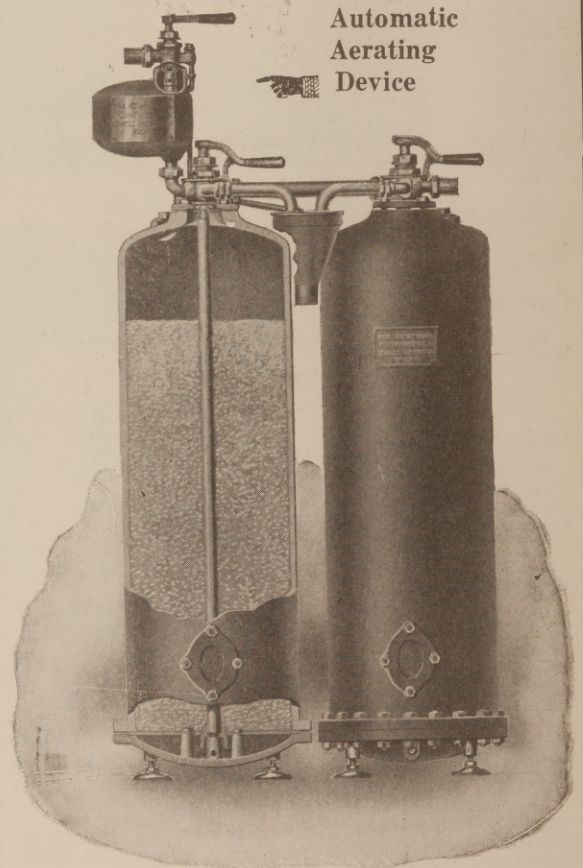
The Newman Manufacturing Co., of Cincinnati, announces the removal of its subsidiary, The National Plastic Relief Co., to 416-418 Elm St. From this time forward both companies will operate under one roof, and with the same sales force and department directors.

THE Continental Filter

The standard for high-class residence installation for the past quarter century

BECAUSE
it combines these important features:

1. DOUBLE FILTRATION — First through sand, then through bone-charcoal.
2. SLOW FILTRATION—Obtained by a large filtering area.
3. THOROUGH FILTRATION — Filtering material in each cylinder being 3 ft. in depth, making an aggregate depth of 6 ft.
4. SIMPLICITY OF OPERATION—Each cylinder controlled by a single valve, making no expert care necessary.
5. AUTOMATIC AERATING DEVICE—By means of which the filter beds are thoroughly agitated and aerated each time they are cleaned and the material is thus kept clean and fresh.



**The New York Continental Jewell
Filtration Co.**

General Offices: NUTLEY, N. J.
Member Associated Manufacturers
of Water Purifying Equipment.

FITTING SPACE . . .

With an Air Washer

MEL-ROCK AIR WASHERS fit the allotted space because:—

Each capacity is regularly made in from four to seven different sizes and proportions—without affecting capacity.

MEL-ROCK Mist Nozzles discharge a greater volume of mist, of a better quality, at lower pressure.

MEL-ROCK Eliminator Systems are made in *batteries*, riveted at the factory. Setting up is a simple, time-saving process.

Mel-Rock is the modern air washer. Send for descriptive catalog.



**MELLISH-HAYWARD
COMPANY**
213 W. Austin Av.
CHICAGO

ANNOUNCING

**SOUTHERN
ICE MACHINES AND
REFRIGERATING SYSTEMS**

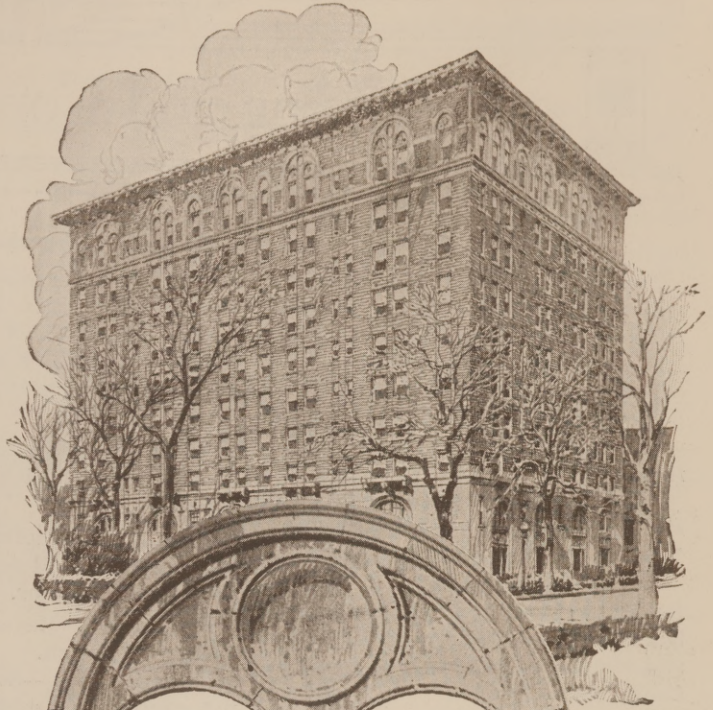
to

READERS of this MAGAZINE

Each month from now on we will tell you something interesting about a company that has been building ice machines in Charlotte, North Carolina, for the past ten years, and about the machine built by this company that has been speaking for itself for the same length of time.

For immediate information, write

Southern Ice Machine Co.
Charlotte North Carolina



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Chicago, Ill.
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In evenness and freedom from imperfections in double or single strength, its uniform high quality and dependability have long since commended it to architects throughout the country.

AMERICAN WINDOW GLASS CO.
General Offices: Pittsburgh, Pa. Branches in leading cities as listed in Sweet's

Building and Construction News

Apartment Houses.

Jacksonville, Fla.—T. S. Roberts will erect \$100,000 building; 240x100 ft.; brick; steel stairways in back; built-up roof; heating not determined; electric lights; interior tile.

Atlanta, Ga.—Mrs. S. P. Bergstrom will erect \$10,000 building; 2 stories; frame.

Atlanta, Ga.—J. S. Gaines has permit to erect \$15,000 building, 240 N. Jackson St.; 2 stories; 4 apartments.

St. Louis, Mo.—Chas. S. Mueri Realty & Building Co. purchased tract on Miami St. between Michigan and Minnesota Aves. and plans 20 2-family flats.

Houston, Tex.—W. D. Smith will erect \$12,000 building, Harrisburg Blvd. and Lenox St.; 2 stories; frame and stucco.

Houston, Tex.—T. J. Tillet will erect \$20,000 building and garage, Westheimer Ave. and Grant St.; 2 stories; brick.

Fairmont, W. Va.—P. P. Lipson will erect 3-story building on Jackson St.; brick; 48x79 ft.; built-ni baths; tile boors; electric lights; steam heat; 3 stores on first boor; Watkins & Co., Archts.

Association and Fraternal.

Lemon City, Fla.—Lemon City Labor Temple Asso., George Barnes, Prest., plans \$12,000 building on Dixie Highway; 3 stories; stores on first floor.

Panama City, Fla.—Ancient Free and Accepted Masons plan 3-story temple; roof garden.

Tulsa, Okla.—Joe Carson Post, American Legion, plans clubhouse.

Fort Worth, Tex.—Masonic Home and School will erect 2 dormitories for girls; Herbert H. Greene, Archt., Dallas.

Bank and Office.

Orlando, Fla.—J. F. Ange and C. B. Beacham, Sr., plant to erect 10-story office building, N. Orange Ave. and Washington St.

Dallas, Tex.—Fox Film Corp., 1907 Commerce St., P. K. Johnson, resident Mgr., will erect \$25,000 to \$30,000 film exchange on Jefferson St., opposite Jefferson Hotel; 2 stories; 25x90 ft.

Churches.

Washington, D. C.—St. Paul A. U. M. P. Church, Rev. J. W. Manokey, pastor, 401 I St., S. E., will erect \$18,000 building; 1 story and basement; R. C. Archer, Jr., Archt., 1449 Florida Ave., N. W.

Atlanta, Ga.—Church of the Epiphany will erect parish house; Pringle & Smith, Archts.

Juliette, Ga.—McDonough Presbyterian church will remodel building. Address The Pastor.

Heiner, Ky.—Maynard Coal Co. will erect church.

Louisville, Ky.—Beechmont Baptist church will erect \$10,000 addition, 4564 S. 3rd. Address The Pastor.

Typo, Ky.—Mitchell-Willis Coal Co. will erect church and school.

Baltimore, Md.—Church of Our Savior, Rev. T. C. Serge, pastor, will erect church building, 33rd and Taylor Sts.; 2 stories; brick and stone; J. A. Dempwolf, Archt., York, Pa.

Baltimore, Md.—St. Matthew's M. E. church will erect \$20,000 addition, 23rd and Barclay Sts.; 1 story; stone; seat 400; John Freund, Archt., 1307 St. Paul St.

Hyattsville, Md.—St. John's Lutheran church, Rev. Henry Manken, Jr., Prest., Lutheran Alliance, Washington, D. C., Act., pastor will erect chapel.

Defiance Mo.—Methodist Episcopal church, I. M. McCormick, Sec., Bldg. Comm., will erect building; bids opened Aug. 12.

Kansas City, Mo.—St. Andrew's Episcopal church, 58th St., near Brookside Blvd., will erect English type building, Meyer Blvd. and Wornall Rd.; frame and stucco; Brostrom & Drotts, Archts.

East Durham, N. C. — Baptist church will erect \$40,000 building. Address The Pastor.

Ellenton, S. C.—Baptist church plans to rebuild burned structure. Address The Pastor.

Breckenridge, Tex. — Methodist Episcopal church, South, will erect \$25,000 building; 60x100 ft.; brick; tar and gravel roof; pine floors; steam heat; electric lights. Address The Pastor.

San Antonio, Tex.—Utica Presbyterian church will erect building,

Mistleto and Michigan Sts.; tile and stucco; John M. Marriott, Archt.

West, Tex.—Methodist church will erect brick building; stone pillars and columns; capacity \$1,000. Address The Pastor.

Lynchburg, Va.—Rivermont Ave. Methodist church will erect Sunday school building, Marshall St. and Riverwood Ave.; native brick; assembly hall to seat 300; church later; Stanhope S. Johnson, Archt.

Petersburg, Va.—Highland Methodist church will erect Sunday school building at Colonial Heights; \$20,000; Rev. Jesse H. Hobbs, pastor.

Richmond, Va.—St. Paul's Episcopal church plans \$125,000 parish house. Address The Pastor.

City and County.

Orlando, Fla.—City Commrs., J. C. Bernard, city clerk, receive bids until Aug. 30 to erect library building; plans and specifications from Murray S. King, Archt., Rock Bldg., Orange Ave. and Oak St.

Passagrille, Fla.—City, R. E. Wyman, town clerk, 247 Central Ave., St. Petersburg, will erect fire station.

Sanford, Fla.—City will erect library; F. H. Trimble, Archt., Orlando.

West Palm Beach, Fla.—Palm County Commrs., Fred E. Fenno, clerk, receive bids until Aug. 20 to erect Soldiers' Memorial Library in city park; 60,000; plans and specifications from Harvey & Clarke, Architects.

Bainbridge, Ga.—City will erect tourist camp; kitchen, etc. Address The Mayor.

Catlettsburg, Ky.—Boyd county is considering \$75,000 bond issue for jail; Judge J. G. Rucker, interested.

Kansas City, Mo.—City will erect central fire alarm station; plans by W. J. Squire, Squire Electrical Co., Robt. W. Waddell, City Engr.; Val B. Mintum and B. C. Haldeman; bids opened Sept. 5.

Richmond, Mo.—City defeated \$75,000 bond issue for city hall. Address The Mayor.

Lincolnton, N. C.—City, Mayor Gamble, plans city hall.

Norfolk, Va.—City will erect \$750,000 municipal auditorium, 9th Street near Granby St.; Carlow & Wrenn, Archts.

Petersburg, Va.—City will erect addition to clerk's office; \$12,000 available.

Morgantown, W. Va.—Monongahela county will erect \$125,000 jail; 108 cells; Sidney F. Heckett, Archt., Bessemer Bldg., Pittsburgh, Pa.

Courthouses.

Tavares, Fla.—Lake county is considering erecting courthouse; brick; stuccoed; Allan McDonough, Eustis, probable Archt. Address County Commsr.

Newkirk, Okla.—Kay county voted tax to erect \$175,000 courthouse. Address County Commsr.

Olton, Tex.—Lamb county defeated \$50,000 bond issue for courthouse.

Dwellings.

Birmingham, Ala.—Gray Bros. will erect 3 dwellings, 3818-20-22 Glenwood Ave.; \$4000 each; hollow tile.

Jacksonville, Fla.—Wm. C. Cooper, Jr., will erect dwelling in North Pablo Beach.

Tampa, Fla.—R. P. Milsap will erect \$11,000 dwelling, 823 S. Delaware St.

Augusta, Ga.—Gary Satcher will erect \$10,000 dwelling; tile baths; hardwood floors; hot water heat; Scroggs & Ewing, Archts., Lamar Bldg.

Atlanta, Ga.—D. Lewistine has permit to erect dwellings on Cooledge Ave. and 2 on N. Boulevard; \$4000 each; 1 story; frame.

Bulan, Ky.—New Duane Coal Co. will erect 12 miners' houses.

Heiner, Ky.—Maynard Coal Co. will erect 30 miner' houses; also commissary building, church and school.

Louisville, Ky.—Builders Realty Co. will erect 4 dwellings, 2329-35 West Kentucky St.; \$2500 each.

Montago, Ky.—Meems-Haskins Coal Corp. will erect 50 miners' houses; contract Aug. 17.

Montago, Ky.—Montgomery Creek Coal Co. will erect 25 miners' houses, church and Y. M. C. A. building.

St. Matthew, Ky.—Holy Trinity church, Rev. John Bohlsen, pastor, will erect \$50,000 priest house.

Whitesburg, Ky.—Big Four Coal Co. will erect 12 miners' cottages.

New Orleans, La.—E. L. Markel prepared plans for \$20,000 brick veneer dwelling, Napoleon Ave. near Galvez St.

New Orleans, La.—E. S. Hayford, 805 St. Charles Ave., will erect \$10,000 duplex, 3343 Esplanade St.; 2 stories; owner builds.

New Orleans, La.—M. Paillet, 413 Mocheca Bldg., will erect 4 dwell-

ings, Amelia and Liberty Sts.; \$13,000.

New Orleans, La.—J. B. McHenry will erect \$10,000 dwelling, Joseph St. near St. Charles Ave.; stucco; 40x51 ft.; E. L. Markel, Archt., 1300 Valmont St.

Baltimore, Md.—Isaac N. Cooper, 2732 N. Charles St., will erect six 2-story brick buildings, Rosedale Ave. and Brighton St.; \$18,000.

Baltimore, Md.—Geo. J. Mohr, Rogers and Rush Aves., will erect \$10,000 dwelling and garage, Rogers Ave. near Stewart Ave.; 2½ stories; frame.

Baltimore, Md.—Waldo D. Barlow, 2580 Parkside Dr., will erect \$10,000 dwelling; Edgedale Rd. near Elwood Rd., Roland Park; 2½ stories; brick;

Baltimore, Md.—Carrie V. Dare, 2433 St. Paul St., and others, will erect \$13,000 dwellings, Norway Rd. near Northway; 32x30 ft.; 2½ stories; brick.

Baltimore, Md.—J. Hurst Pudnell, 4314 St. Paul St., will erect 30 dwellings, 1900-18 and 1901-19 Ruxton Ave., 1901-19 Wheeled Ave.; total \$80,000.

Baltimore, Md.—Wm. H. Klinefelter, 1829 Mosher St., will erect \$18,000 dwelling, 2702 Garrison Blvd.; 2½ stories; brick.

Salisbury, Md.—Wm. H. Jackson will erect \$30,000 dwelling, Camden St. and Pennsylvania Ave.; 51x43 ft.; 2½ stories; frame; 2 baths; Owens & Sisco, Archts., Continental Bldg.

Coweta, Okla.—Ben Wocoche will erect stucco bungalow on Pecan St.; granite trim.

Houston, Tex.—Russell-Brown Co. will erect \$11,500 dwelling, Montrose St., Roseland addition; 2 stories; brick veneer.

San Antonio, Tex.—Mrs. F. D. Houston will erect \$15,000 dwelling, Kings highway near Belknap St.; 8 rooms; brick and tile.

Smithville, Tex.—R. H. Harris will erect \$12,000 dwelling; 1 story and basement; hollow tile; hot air heat; asbestos shingle roof; Edwin C. Kreisle, Archt., 803 Scarborough Bldg., Austin.

Richmond, Va.—George Hinds will erect 4 dwellings on Sheppard St. near Floyd Ave.; \$20,000; brick.

Charleston, W. Va.—Anna May will erect \$15,000 dwelling, Edgewood addition.

Hotels.

Birmingham, Ala.—Molton Hotel, H. R. New, Mgr., will expend \$25,000 to improve building, 5th Ave and 20th St.

New Valparaiso, Fla.—Bay Shore Hotel Co. will erect \$30,000 hotel; 50x100 ft.; 3 stories; frame and stucco; composition roof; wood floors; hot water heat; C. M. Weller, Archt.

St. Petersburg, Fla.—Mrs. C. Gambate will expend \$18,000 to erect additional story to Butler Arms Hotel; 29 rooms and 22 baths; steam heat; electric call system; W. H. Carr, Architect.

Tulsa, Okla.—Wm. D. Barry; 7-story hotel, 4th and Detroit Sts.; 60x140 ft.; brick; terra cotta trim; Barry Constr. Co., Contr.

PERFECTION SEPTIC TANK

*Sewage Disposal Without Sewers
is now available anywhere*

OVER 5,000 IN USE.

Manufactured in 37 cities from Maine to California.

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Sole Manufacturers
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POTTRY TILE AND BRICK

Made from fragments of old jugs and shale

80 STOCK SHAPES IN THREE DIFFERENT TEXTURES.
Write for sample and cuts of artistic fireplaces.

B. MIFFLIN HOOD BRICK COMPANY

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Dept. R.

PIPE RAILING CONSTRUCTION CO., Long Island City, New York

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Judgment Rendered and Paid to Russell Royalties for the use of Inlet & Outlet Pointing Downward Inside Septic Tank Pat'd 1908.

The User Must Pay

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Burlington Iowa

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Double Drainage Shower Traps and Drains

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Victor traps are designed so compactly as to avoid cutting away construction work to install them.

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If your jobber does not carry Victor Traps, mail your order direct to us.

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AMONG THE PRECIOUS STONES

GREENSTONE

Is the one lasting ornament for surfacing Stucco. The natural olive-green color blends in harmony with Nature's color scheme, and age only tends to deepen the shade. The pure white background of stucco, dashed with our No. 48 product, gives you a finish of unequalled beauty and durability.

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TERRAZZO STONE	GREENSTONE FLOUR
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TRITSCHLER & SONS, Inc., Sales Representatives
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Millions in use. Made of Copper, Zinc or Galvanized Iron. Sold by leading jobbers throughout the U. S. and Canada or shipped direct from factory.

Write for prices.

Adjustable
H. E. HESSLER CO.
Sole Manufacturers. Syracuse, N. Y.

ADJUSTABLE FOOT



The Jennison Adjustable Foot jacks it up in a jiffy.

Simply the twist of your wrist on screws it—raises it or lowers it as you desire.

A sample will be sent free upon request. Sold by jobbers.

Jennison Co
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Wilmington Iron Works, Inc.

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North State Coal Chutes

NORTH STATE Building Castings, Clean Out Doors, Ash Dumps, Ventilators, Ash Hoists, Coal Hole Rings and Covers,

Structural Steel for All Purposes

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Branches: St. Louis, Mo.; Baltimore, Md.

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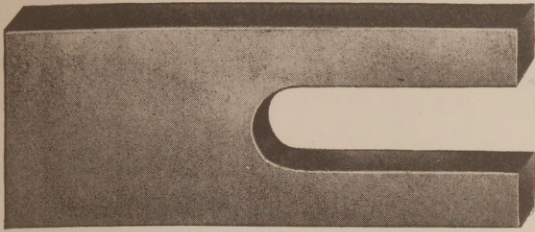
Capacity 15 Cars Per Day

Washed and Screened Gravel and Sand for all purposes. Concrete Gravel, Roofing Gravel, Reinforced Concrete Gravel (thoroughly tested and proved superior to granite in fire resisting qualities), Pea Gravel, Screened Sand, Concrete Sand, Marble Sand (finest for sawing marble). Used throughout Georgia and Alabama. Gravel Pit, Cook's, Ala.

9½ Madison Avenue, Montgomery, Ala.

CONTRACTORS' EQUIPMENT DEPARTMENT Southern Architect and Building News

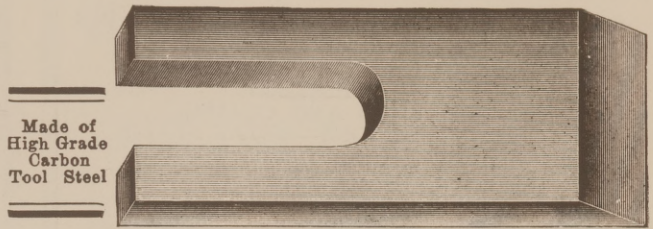
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A large stock carried—Prompt shipments made.
Address Desk No. 2

Beveled and Faced Sticker Blanks

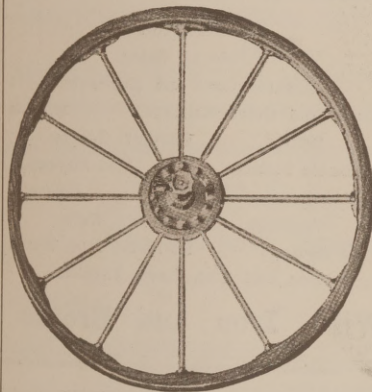
Beveled, Faced and Tempered Sticker Blanks
All Kinds of Moulding Knives Made to Pattern.



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We Repair Band Saw Wheels

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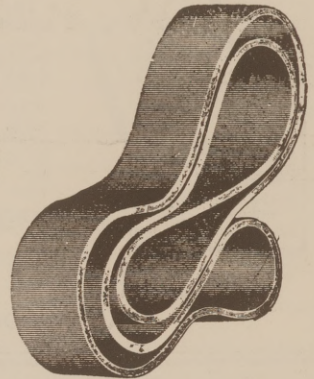
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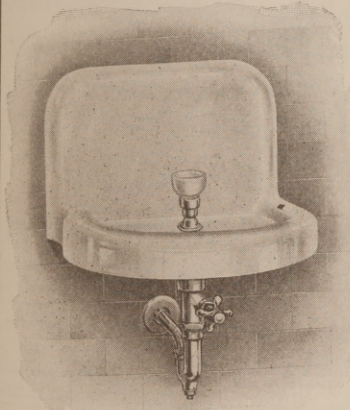
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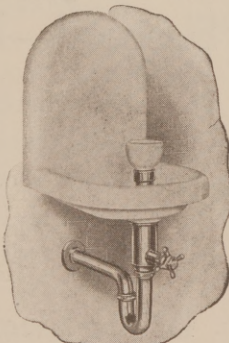


A-65

in an accessible place directly underneath the trough, attached to each bubbler. This makes a strong, efficient and sanitary fountain. Write for our catalogue "K" which illustrates our entire line.

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Fig. A-65 illustrates our porcelain enameled drinking fountain, with 2" roll rim on concealed wall hanger. This fountain has been designed to meet the demand for a thoroughly efficient and sanitary fountain so constructed that it is not necessary to get the hand wet when taking a drink. Therefore, our C-1 positive action self-closing stop-cock is placed



A-63

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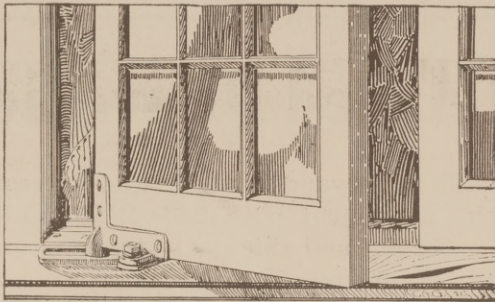
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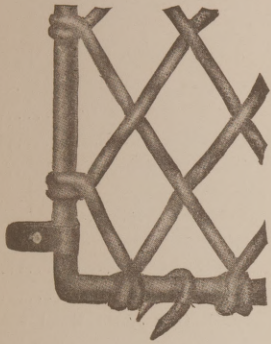
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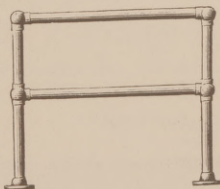
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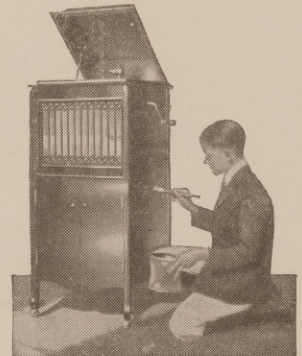
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