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 BERNARD L. JOHNSON, *Editor.*
 ROLAND D. RADFORD, *Secretary.*

DELBERT W. SMITH L. H. REICH } *Advertising*
 C. R. W. EDGUMBE E. B. WOLFROM } *Staff*

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AN INVITATION TO YOU

The AMERICAN BUILDER cordially invites and urges you to enjoy the privileges and benefits of its Correspondence Department. Any phase of any building question may be profitably and instructively discussed in this department. If your problem is a knotty or technical one submit it to the Correspondence Department and secure the benefits of the opinions of other experienced builders. It's a "give" as well as a "take" department and you are asked to relate your achievements and tell how you have conquered difficulties as well as to ask for information and advice. Rough drawings are desired, for they make clear involved points. We will gladly work over the rough drawings to meet publication requirements. The Correspondence Department is your department. Use it freely and frequently.

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FRIENDLY CHATS *with the* EDITOR



Carry on Building This Winter

WITHIN the last decade we have seen a lessening of the rigors of our northern winters. Time was when snowdrifts piled up to the eaves and the winds whooped around the corners until practically all outdoor work ceased, and the erstwhile workers remained "snowed in" for the greater part of the winter. Now there are few places in the United States where winter building is not only possible, but practical, and the work can proceed with due regard to all laws of good construction.

What we need to do is change a habit we have let ourselves get into. Not eight months activity, but twelve, should be considered the usual thing in the building trades. Perhaps one of the factors in raising the price of skilled building labor is the element of unseasonableness, of forced employment for short periods only. Given an opportunity for work the year-around adjustment might be made satisfactory to the building owner as well.

Secretary of Commerce Hoover deserves earnest support in his plan to end seasonal operation in the building industry. The country needs all the buildings it can get, and winter building is imperative if we are to keep up with all sorts of housing requirements.



Building Material Prices Decline

THE U. S. Department of Labor has announced a further decline in the general level of wholesale prices in June, as shown by information gathered from the leading markets of the country. In this report a considerable decline is shown in prices of building materials for June, as compared to the previous month. The Bureau of Labor statistics states that of the various commodities, building materials and metals in June showed the largest decreases from the preceding month, due mainly to declines in prices of lumber, paint materials, steel and other metals.

The index number of wholesale prices of building materials for May was shown to be 202, while in June it was 194, or a decline of eight points.

Reports received from nearly all sections of the country by the Southern Pine Association indicate there still is a large unfilled demand for building con-

struction in the cities and towns, while a great volume of needed building on the farms of the country still is to be undertaken.



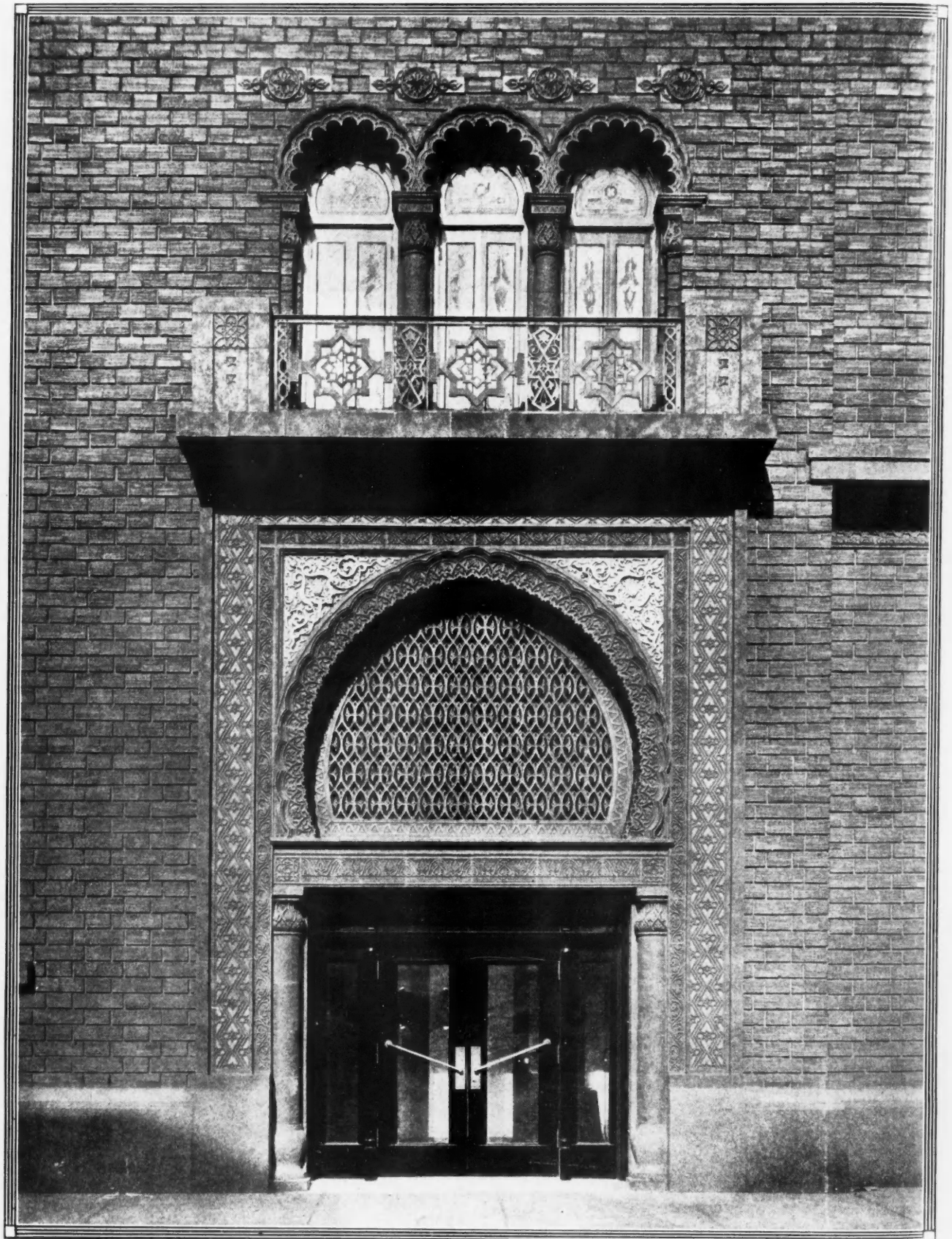
The Safety Factor in Building

THE New York Section of the American Society of Civil Engineers has been considering the subject of structural safety in building. Its study has been limited to building operations of technical character, excluding such simple building work as may be carried out safely by craftsmen without technical direction.

It finds that many practices in the conduct of building are unsound and unsafe, and the fundamental cause lies in the fact that incompetent persons are allowed to build and do build. One of the suggestions offered to offset this defect was the inception of some form of government control which will place it on the owner that he hire the proper architects and engineers and good contractors and building inspectors.

A saving feature of building failures, however, is that they are not chargeable to lack of technical knowledge. The problem of safe building is organizational rather than technical. Ignorance of what good building requires, belief that building codes guarantee safety with ample margin for neglect or variation, dependence upon the city building department, neglect of duty, confusion as to where responsibility lies—or even absence of responsibility for some part of the work—and often plain cupidity—these are reasons. Present conditions of building control make it possible for a man with no knowledge of building to present plans for a building, obtain a permit for erecting it, employ craftsmen, create public dangers subject only to the perhaps not forthcoming objections of the building inspector, and finally put the structure to public use.

The answer is obvious. Building operations of technical character should not be permitted except under the close supervision of a rigidly state licensed structural engineer or architect. No building of any unusual scale should be undertaken without careful planning. It should be technically perfect planning, and not the hit-or-miss variety that merely rough diagrams an important truss.



AN EXAMPLE OF GOOD ARCHITECTURE:

The Moorish Doorway
MEDINAH TEMPLE
CHICAGO . . . ILL.
Harris Huehl, Architect

The Community Hospital

The Community Hospital Is a Local Necessity, Saving Physicians Valuable Time, and Serving the Health and Convenience of Patients and Their Families

By T. O'DONNELL

THE growth of the modern hospital has naturally developed along community lines. In spite of mistaken ideas to the contrary, a patient's home is not always the best place in which to treat him and nurse him back to health. Furthermore, the genuine blessing of physicians who are real healers becomes available to a greater portion of the community, since a community hospital by centralizing cases conserves the doctors' time.

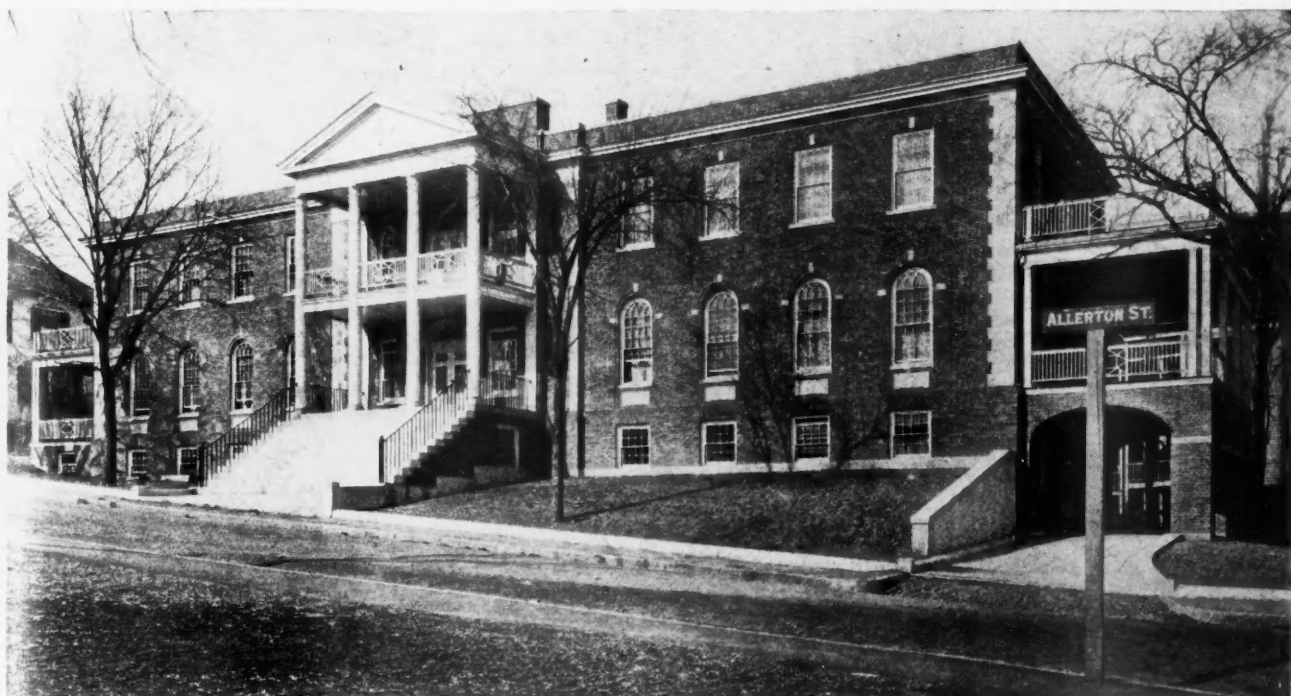
The Trumbull Hospital at Brookline, Mass., is ideal as to the design and type one might expect would be erected by a progressive community. The architect is Harold Field Kellogg, 110 Sumner Street, Boston, Mass. The front elevation, with its finely-proportioned portico, owes its fine architectural aspect to intelligent use and original application of Colonial or Georgian design. It is a natural medium for the architect's expression, and determined no doubt by reason of its New England location. Outside and in, it is attractive, cheerful, and gratefully un-hospital-like, and removes any unfavorable objections as to the community hospital being a grim, forbidding place to enter.

The size of the community hospital should take in 35 to 50 beds. As in the case of the Trumbull Hospital, the height is best limited to two stories with basement. The location of such a hospital is important. It cannot be placed at an inconvenient distance from

the residential part of the city, and yet consideration must be given to residential sections which may not desire to have the hospital in too close proximity.

First, the necessity of the community hospital itself must be considered. One good way to ascertain whether such a hospital would be logical, is the preparation by local physicians of a record of cases that have gone to outward hospitals from a particular community over a period of perhaps five years. This would afford a basis for the consideration of the prospective hospital's capacity and income. Another important consideration is the industrial life of the community. A busy industrial community will be able financially to support a hospital; industrial exigencies may demand such a building. But again, if there is a large percentage of foreign labor, such injured workers are apt to hold aloof with superstitious dread from the idea of being "taken to the hospital." The standard of living and paying ability of a community will also decide the arrangement of the proposed hospital, and indicate floor divisions into private rooms or more public ward accommodations. Provision will be required for the religious needs of the patients and chapel accommodations for services by visiting clergymen.

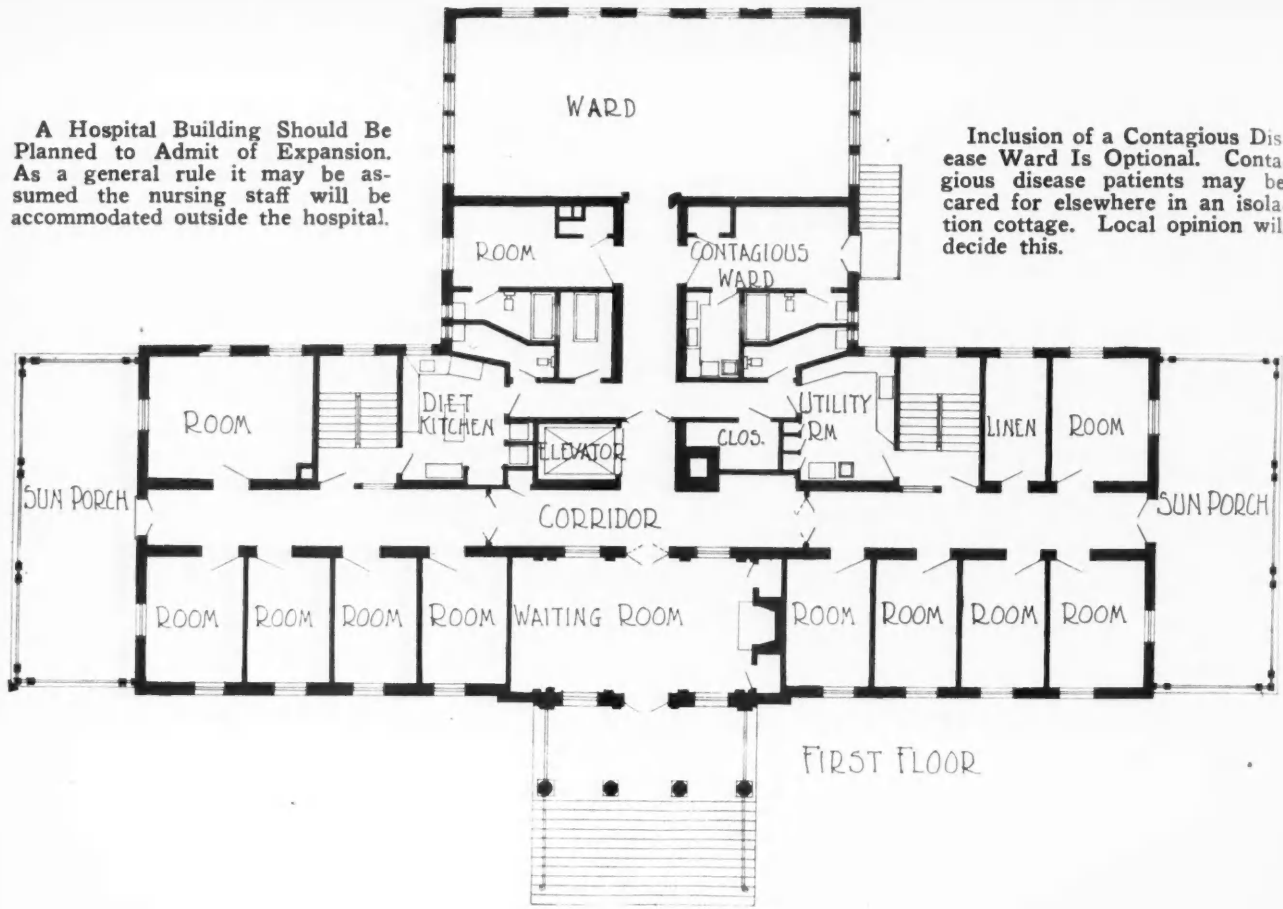
The physical characteristics of the proposed location will enter into the designing of the community hospital.



The Trumbull Hospital, Brookline, Mass., Is Ideal as to the Type and Design of Community Hospital One Might Expect Would Be Erected in a Progressive Municipality. Harold Field Kellogg, Boston, Mass., is the architect.

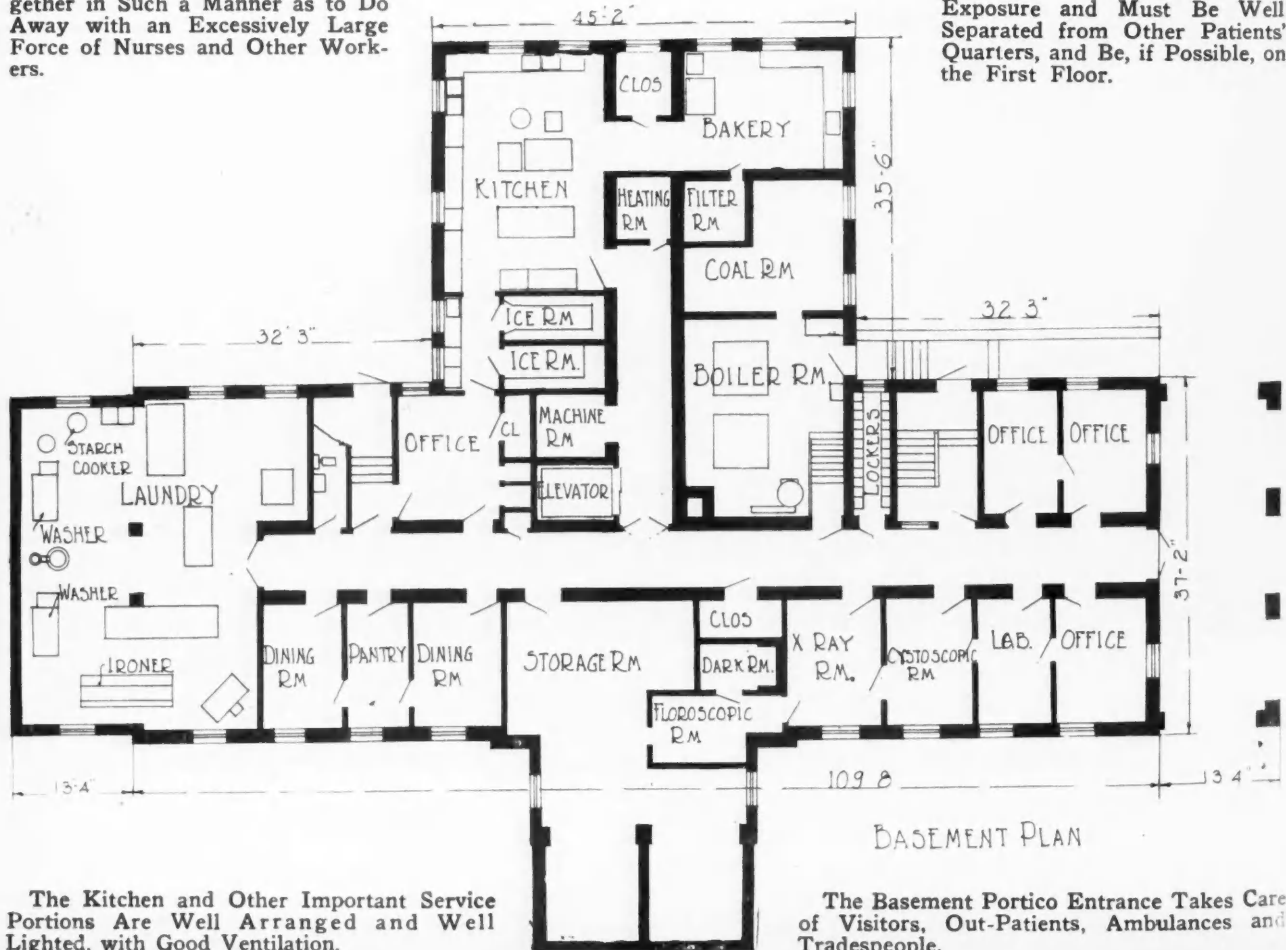
A Hospital Building Should Be Planned to Admit of Expansion. As a general rule it may be assumed the nursing staff will be accommodated outside the hospital.

Inclusion of a Contagious Disease Ward Is Optional. Contagious disease patients may be cared for elsewhere in an isolation cottage. Local opinion will decide this.



The Working, and Especially the Nursing Units, Must Be Put Together in Such a Manner as to Do Away with an Excessively Large Force of Nurses and Other Workers.

Maternity and Children's Departments Need Ample Sun Exposure and Must Be Well Separated from Other Patients' Quarters, and Be, if Possible, on the First Floor.

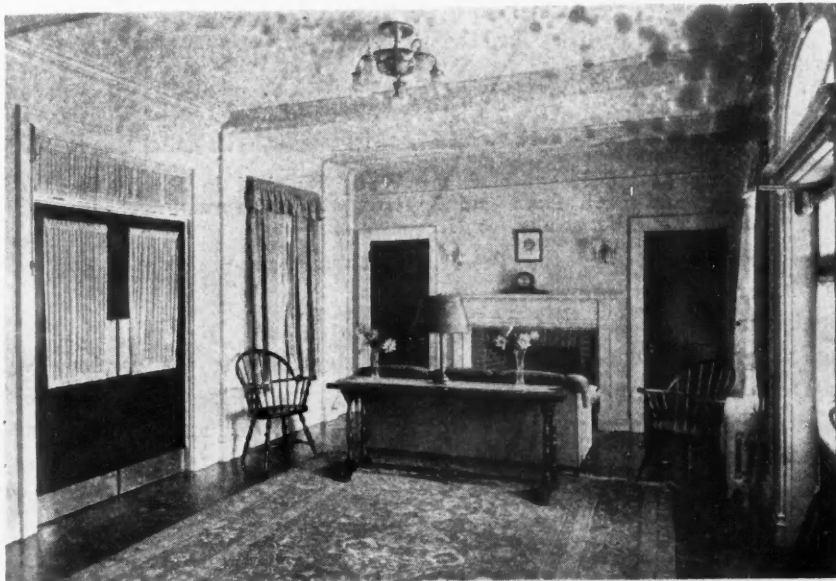
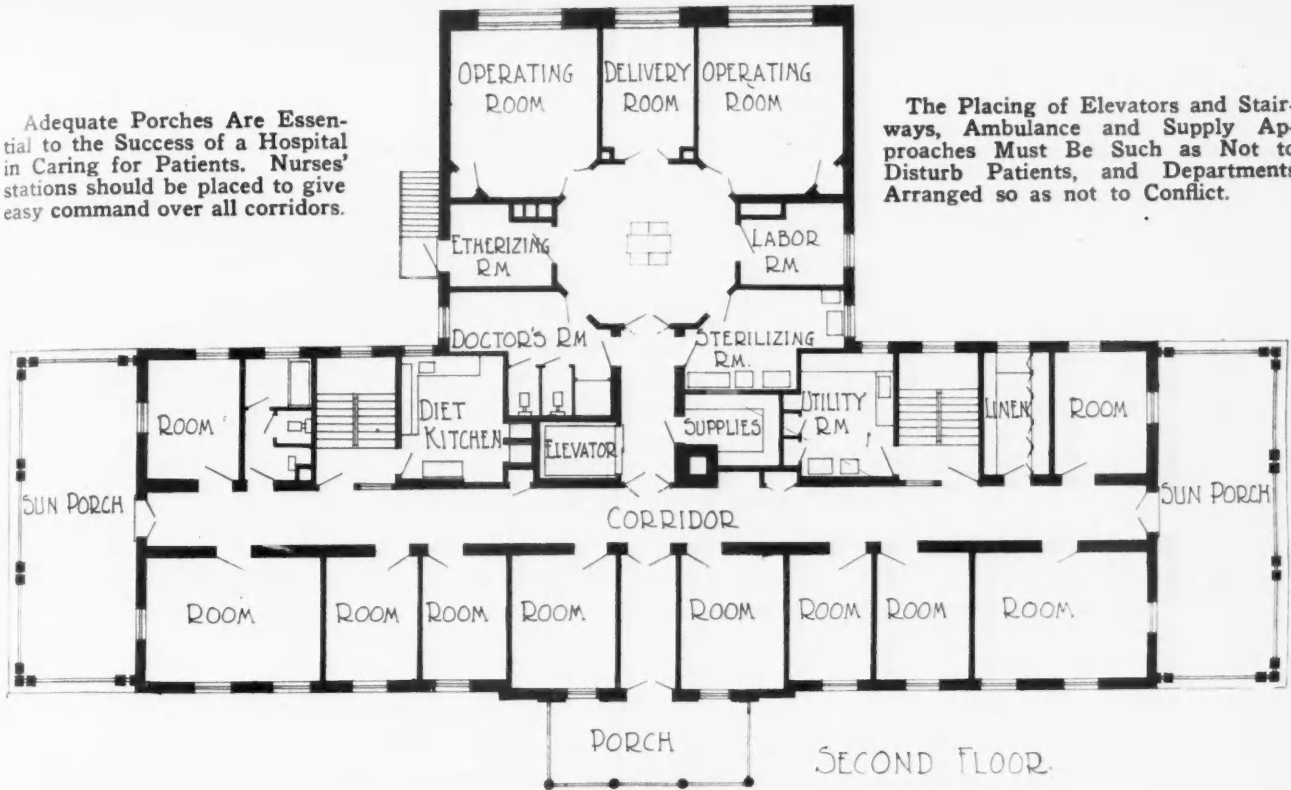


The Kitchen and Other Important Service Portions Are Well Arranged and Well Lighted, with Good Ventilation.

The Basement Portico Entrance Takes Care of Visitors, Out-Patients, Ambulances and Tradespeople.

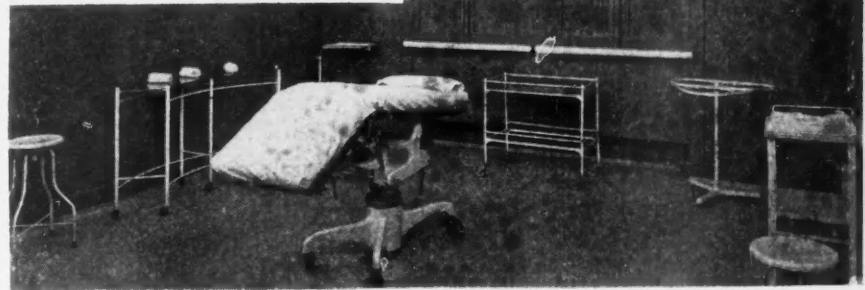
Adequate Porches Are Essential to the Success of a Hospital in Caring for Patients. Nurses' stations should be placed to give easy command over all corridors.

The Placing of Elevators and Stairways, Ambulance and Supply Approaches Must Be Such as Not to Disturb Patients, and Departments Arranged so as not to Conflict.



No Forbidding, Unhospitable Air About This Reception Room, Is There? This feature of the Trumbull Hospital is typical of modern advances in hospital design.

The Operating Room. It will be noted how provision has been made for that all-important detail, light. Indirect lighting floods the operating room with a semblance of daylight, making all-hour operations possible.



tal, and the climate will exercise no inconsiderable influence. In warm climates there would naturally be more open pavilions and porches, and it is considerations like these which will determine whether the building will be compact and self-contained, or spread over a greater floor area.

A properly managed hospital ought to bear a relation to the community similar to that of the churches and schools. It points a way to avoid disease, besides assisting in its cure, so purely on its value as a health center it should prove a good investment. Give a thought to one in your locality.

Special Practice Plaster

Finished and Decorated in the Same Process

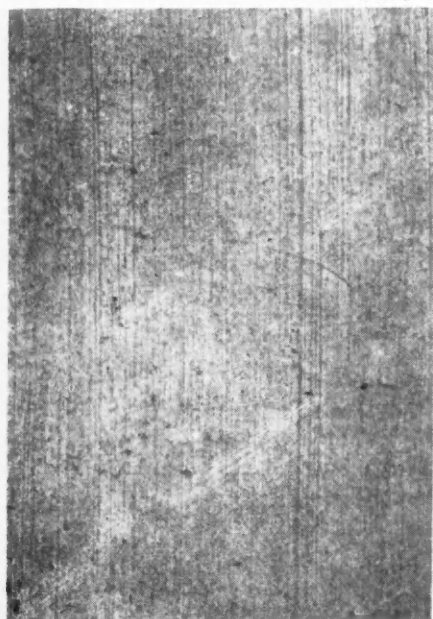
By CHARLES RIDGELY ALLISON*

IN introducing this subject, which contemplates a change of method in the application of plaster to walls, as well as a change in the time-honored methods of mixing plaster materials, the writer feels that the mental attitude of the architect, builder or contractor may be somewhat reflected in the words of the Italian boss plasterer who worked under our direction:

“Dis-a-man!—de whit-a da coll’, de soft-a da hand, de pen in da pock’, what-a he know about de put-a on de plast’?”

Industrial history, however is full of incidents where a theory has arisen in the mind of the layman, the theory fully tested out in actual practical experiments and the method changed in effect to the betterment of the finished product and the advantage of all concerned in its production and use. It is probable that the prehistoric man who first daubed over the interstices in his reed-woven wall considered that he may have reached the acme of perfection in the result that chilling drafts of air were thereby eliminated from his rude dwelling; but we, who have profited by his inventive genius and have added thereto by learning to mix the same raw materials as were in his mud into scientific, modern plaster and to lay this plaster over walls of artificial stone, brick and cunningly stamped out steel lath, can readily imagine how much progress is involved in the improvement of both materials and methods.

It is never safe, in considering any industrial process,



* (Mr. Allison is Research Engineer to The Standard Textile Product Company, 320 Broadway, N. Y.)

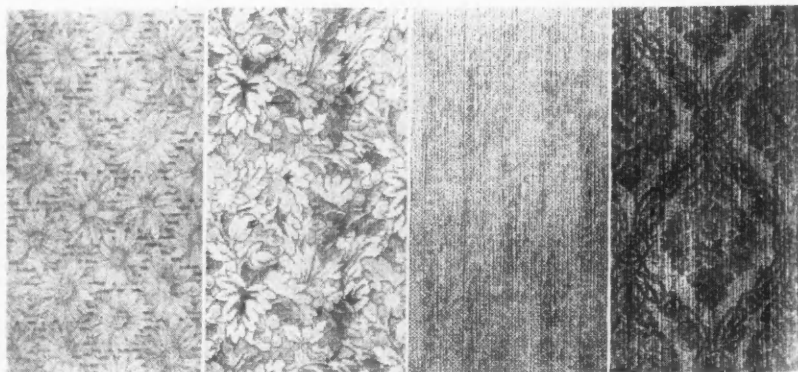


This Living Room Had the Walls Finished in Special Practice Plaster and Then Sized and Covered with a Fabric Finished in Oil Colors Made Especially for Use on Walls.

to feel that the article has been developed to its highest form.

One of the most promising signs of the times is the ever-increasing popular demand for the combination of better materials and better processes with less labor into more serviceable, finished products. With some such ideas as these in mind, the writer has spent the better part of two years in a careful research into plastering materials and methods.

There is no doubt that the valuable properties of a plastered wall, such as insulating and sound-proofing qualities, are inherent in the scratch and brown coats.



At Left, Specimen of Finish Surface Special Practice Plaster Sized for Hanging Fabric. Illustrations at right show few of wide range of patterns obtainable in wall fabric finished in oil colors.

In standard practice the white coat smooths out and levels the roughness of the brown coat and is susceptible of troweling to a smoothness, evenness and density which makes it an ideal base over which to apply paint, calcimine or mural decoration. Its hardness also supplies a degree of support and protection to the undercoats and its density holds up the priming or sizing coats necessary to painting or decorating operations. It is, however, the most laborious and expensive of the three coats in standard practice to apply; and if, as is usually done, it is later to be covered up by subsequent painting or decorating operations, its whiteness and burnish are unnecessary and, therefore, an extravagance—*provided the same smoothness, density and protective quality can be secured without adding to the expense of the finished wall.*

In the writer's tests, therefore, the scratch coat was made and applied exactly as in standard practice. After the scratch coat was thoroughly dried a standard mixture brown coat was made up and applied, the work of application being timed to allow a slight initial set. Beginning where the brown coat had set slightly, a skim coat of lime putty and plaster of Paris mixed very thin was applied rapidly over the partially set brown coat and the whole wall troweled smooth, but without any great attempt to preserve the whiteness of the finished plastering. It was found in actual practice that the smoothing down of the brown and skim coats was accelerated by the fact that the surplus water was very largely absorbed by the dry scratch coat underneath and that the whole process of applying and smoothing the brown and skim coats could be accomplished very much quicker than a white coat as put on in standard practice could be applied. This resulted, therefore, in saving of one full labor operation beside a notable saving in the quantity of finishing lime and plaster used.

In order to furnish the necessary protective quality to the plaster a machine-painted fabric, either in designs or in plain tints, was applied over the smoothed and skimmed brown coat, completing the plaster finish and the decorating in one and the same operation and furnishing the necessary strengthening and protective qualities by reason of the high tensile strength of the fabric. This process also completed the decoration of the walls.

The tests under consideration were conducted under the direction of the writer by a skilled plastering contractor and all costs carefully kept.

Standard Practice Scratch Coat. Three houses exactly alike were selected. All the houses were scratch coated alike with a mixture of two parts Cow Bay sand to one part Kings Windsor cement.

Standard Practice Brown Coat. Houses Number 1 and Number 2 were brown coated with a mixture of 2 1/2 parts sand to one part Kings Windsor cement laid on directly over the scratch coat which was allowed to "set" somewhat before the application of the brown

coat. After the scratch and brown coats were dried, a hard white finish coat of hydrated lime and plaster was applied as in standard practice.

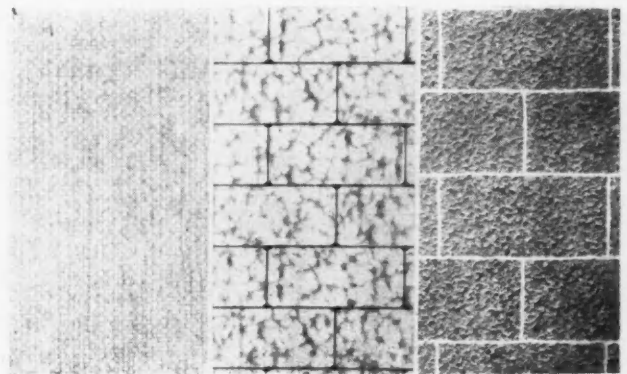
Special Practice Brown Coat. House Number 3 was brown coated after the scratch coat was dried. The brown coat mixture was 2 1/2 parts sand to one of King's Windsor cement. The brown coating process was carried ahead sufficiently to allow an initial set in the first part of the application when the troweling smooth began. It was found in experience that the brown coat troweled with ease and quickness to a smooth even surface (having been carefully darried and pointed up before setting), and that this troweling and leveling process could be completed much quicker than on a standard practice white coat; also that the scratch coat being dry and absorbing the excess moisture of the brown coat, the setting process was fairly rapid admitting of quick smoothing and setting under the trowel.

Skim Coat. To further reduce the porosity of the brown coat, a skim coat of hydrated lime and plaster was mixed as thin as would stay on the hawk and applied as quickly as possible over the smoothed brown coat while still wet, troweling to a smooth even surface.

Comparative Plaster Costs. Figures given below are for the square yard.

	HOUSES NOS. 1 AND 2 Standard Practice Cost per square yard		HOUSE No. 3 Special Practice Cost per square yard	
<i>Materials—</i>				
Sand, cubic yard—	\$ 2.50	\$0.0267		\$0.0230
K. W. C., ton.....	22.00	0.1430		0.1147
Fin. lime, ton.....	24.00	0.0515		0.0256
Plaster, pound ....	.017	0.0276		0.0163
			\$0.2488	
<i>Labor—</i>				
Helper, per hour..	1.00	0.1004		0.0994
Plasterer	1.875	0.1762		0.1850
			0.2766	
<i>Total Cost—</i>				
Standard practice, per square yard..	\$0.5254			
Special practice, per square yard....	0.4640		\$0.4640	
			Difference in favor of special practice, per square yard.....\$0.0614	

Decorating Houses Nos. 1 and 2. Houses Nos. 1 and No. 2 were decorated over standard practice plaster as follows: Living room, dining room, bed rooms and halls papered; kitchen and bath rooms, one priming coat, three coats flat white, one coat enamel on side



A Wide Range of Patterns, Suitable for Every Room Requirement, Is Available in This Fabric, Finished in Oil Colors That Are Washable and Durable.



A Bedroom Which Has Its Walls Finished in Special Practice Plaster, Then Sized and Covered with Fabric Finished in Oil Colors. Sanitary and ideal for sleeping quarters.

walls and ceilings. All other ceilings calcimined.

House No. 3 Decorations. All sidewall surfaces were sized and covered with a fabric, finished in oil colors made expressly for use on walls. The painting processes on this material aggregate four coats of linseed oil vehicle and standard pigments applied in the factory. The fabric is made in 48-in. width, in either plain tints or designs. The walls were sized and a starch or flour paste prepared as for paper hanging. The edges of the goods were trimmed with a straight edge, the back of the fabric pasted then hung on the walls, the trimmed edges being butted to an invisible joint. The use of this material completed the plastering by giving it a clean washable surface of high protectional strength by reason of the tensile strength of the fabric, and the decorating process was completed at the same operation. All ceilings calcimined.

Comparison of Finished Costs. Figures are for the square yard cost.

	HOUSES	
	Nos. 1 AND 2	HOUSE No. 3
<i>Plastering—</i>		
Standard practice	\$0.5254	
Special practice		\$0.4640
<i>Decorating—</i>		
Calcimining, priming, painting and enameling, supplying and hanging paper (as per contracts, \$235.25)	0.4705	
Calcimining, supplying and hanging decorated fabric (as per contract, \$258.35)		0.5167
Total	\$0.9959	\$0.9807

The value of a fabric covering for plaster has long been recognized. Many of the high-class public buildings and residences of the country have been completed as to the walls by an application of canvas pasted over the plaster and painted three coats of lead and oil paint.

The cost of this has been found prohibitive except to the best lined purses, although its economic advantage is without question in consideration of the upkeep expense. Within a short period of time, the tendency in the decoration of hotels and high class apartments has been toward paint applied directly to the plaster; but the tendency of such walls to show cracks and other defects in a short time has aroused grave doubts as to the ultimate economy and efficiency of this method. The wind and vibration strains and stresses to which large wall spaces are subjected call for a stronger more elastic finish than is inherent in plaster, and this elasticity is native to a fabric covering on the plaster.

The values, therefore, of a process which shall retain all the desirable qualities of plaster and add a very appreciable degree of crack prevention without increasing the finished cost should certainly appeal to the property owner, the architect and the engineer.

Specifications for Special Practice Plaster and Decoration

Scratch Coat. Thoroughly incorporate one part of King's Windsor cement or other equal gypsum plaster with two parts clean sharp medium-coarse dry sand. Add water and thoroughly temper to good stiff mortar to work freely from plastering trowel. Proportions may be varied slightly to suit conditions of sand and background.

Application. Scratch coat to be applied with sufficient pressure to obtain a good "clinch." Scratch the face crisscross to obtain a good bond for the brown coat and allow the scratch coat to dry.

Brown Coat. Thoroughly incorporate one part of King's Windsor cement or other equal gypsum plaster with 2½ parts clean dry sharp medium-coarse sand. Add water and thoroughly temper to good stiff mortar to work freely from plastering trowel.

Application. Use enough material to fill out to grounds. Darby and float the entire surface to obtain a true and even plane. Trowel after a slight interval for "setting" to a smooth even surface.

Skim Coat. Mix a very thin coat of well seasoned lime putty and plaster of paris in about equal proportions and as thin as will stay on the "hawk" and apply quickly upon the wet troweled brown coat. Complete the troweling of the wet brown and skim coats to a smooth even surface which should not vary more than 1/16 to 1/8 inch as determined by "rodding" or quick plumbing.

Finishing and Decorating. After the carpenters have installed the standing trim, size the plaster as above applied with one coat of best white glue size made as follows: Soak one pound of ground glue in cold water over night; add 12 quarts of hot water and one tablespoonful of alum. Apply hot with a paste brush.

Trim the fabric edges perfectly straight and true with a sharp knife, using a long metal faced straight edge. Paste the back of the goods with any standard pre-

(Continued to page 152.)



A House Such as Anyone Might Well Be Proud of. It is conservative in line, and yet has an air of smartness that is sure to please. It is spacious enough for the accommodation of guests and compact enough to give every convenience.

A Home in the Dutch Colonial

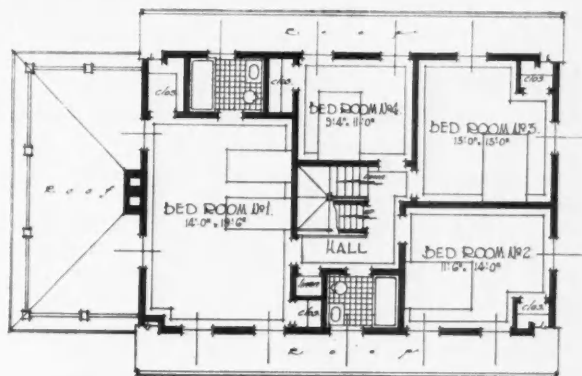
By R. C. HUNTER & BRO., Architects, New York, N. Y.

HERE is an excellent version of the Dutch Colonial period—a real translation of the smart lines and roomy interiors of that popular style—a house that combines with its generous size all the conveniences and time-saving arrangements of the smaller house.

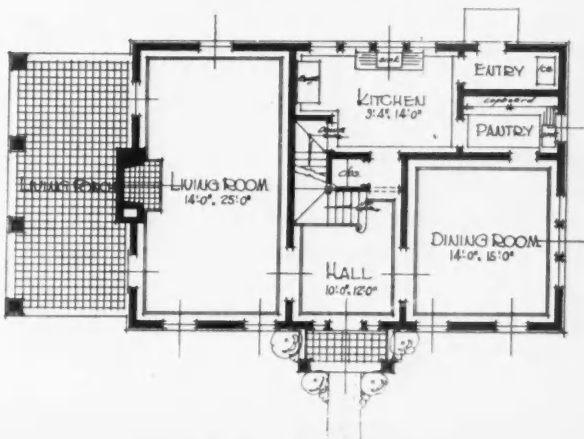
One enters the house through a small porch into the square hall, from which the stairs lead up to the floors above. On the right one finds the dining room and on the left the spacious living room. A glimpse of ruddy fire or the refreshing coolness of the porch beyond this room assures one of a delightful welcome in all seasons. A kitchen, a pantry, with ample cupboards, and an entry where the ice box is kept in order to eliminate the necessity for the ice man to enter the kitchen complete the first floor.

The architects have made ample allowance for the large family or for guests, as there are four generous master's bed rooms and two baths on the second floor. Plenty of closets, at least one in each bed room, and a linen closet in the hall insure a minimum amount of steps in keeping everything in order.

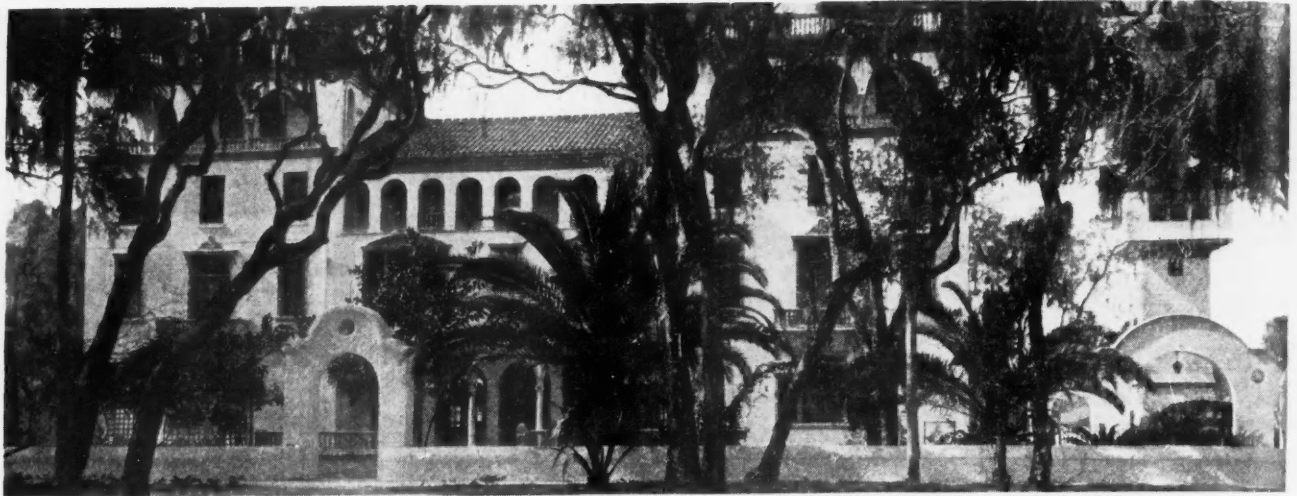
All of the bed rooms have ample windows, and through the small panes, with their heavy wood muntins comes a wealth of sunshine, in plaid patches of golden light. Or, the wholesale air pours through the open windows, making the room healthful and pleasant.



Second Floor Plan.



First Floor Plan.



The Design of This Daytona, Fla., Apartment Building Is an Extremely Clever Adaptation of El Palacio de Marques de Almada, an Old Mansion in the Hispano-Moorish Style Located in San Sebastian, Fla.

Arroya Gardens, Daytona, Florida

By ESTELLE H. RIES

CONSCIENTIOUS care and strict adherence to the ideal of beauty in building have been combined in at least one successful commercial enterprise, and in Arroya Gardens have created a development that deserves the widest publicity.

This project is an apartment house in which no utility has been neglected and no beauty of environment overlooked.

It is located in the heart of the city of Daytona, that charming region in northern Florida where it is always spring.

The history of Florida is closely identified with Spanish adventurers and explorers. Add to this the fact that Florida's climate is not unlike that of Spain, and we have two excellent reasons why the Spanish types of architecture are eminently fitting here. Natives and visitors to Florida are growing ever more conscious of this, and the tendency in much building throughout the state is in the direction of Spanish tradition.

It remained, however, for a gentleman of Spanish extraction to seek out Daytona and bestow upon her a long cherished thought. Mr. Julian Arroya, born in Venezuela, S. A., and widely traveled, brought to his undertaking a thoughtful and scholarly attitude; competent knowledge of architectural detail, a keen sense of the refinements in building, and an understanding of practical considerations.

The design of the building is an extremely clever adaptation and modernization of El Palacio de Marques de Almada as it stands today in San Sebastian; an example of the Hispano-Moorish architecture that held sway while America was being explored under the Spanish flag.

The structure is of hollow tile with stucco finish, and stands in a garden of more than four acres of

which every natural feature has been scrupulously preserved. There are magnolia trees, bamboos, camphor, rubber, huge live oaks with their veils of Spanish moss, all undisturbed and in their virgin beauty. The pathways have been led around them even at the risk of eccentricity of line, and it is delightful to know that these gifts of nature have received the respect and consideration that should be given them. The palms, without which one can scarcely imagine Florida, are also at the entrance gate, and cherokee roses and purple bougainvillea and other tropical vines are trained over pergolas and archways. A fine grove of bearing oranges and grapefruit lies at one side of the house, and one of the unique privileges of the tenants is the use of three trees for each apartment.

A terrace tiled in small mosaics of blue and white steps and trim set in rich red terra cotta makes for the richness and solidity of Old World dignity. The exterior is about 100 by 125. There are three stories without the basement and sub-basement. The structure is built about a court, all interior openings looking down upon a patio 37 by 80. The patio is adorned with splashing fountains and gay flowers, and against a background of red tile, with a high Spanish mosaic wainscot, a picturesque result is had that is indeed appealing.

Sixty windows of the building look upon this delightful sight. Arched doorways and windows with their early Spanish medallions in relief afford a mediaeval suggestion that conforms with that provided by the terra cotta balustrades the mosaics and the grand stairway leading to the first floor, from the patio.

Before entering the building, you may see on the grounds toward the rear, a smaller structure which contains a fine swimming pool of sulphur water, and

fully equipped with every modern appliance. Further back there is provision for motor cars, one stall for each apartment.

Among the delightful features of the Arroya apartments is a large roof garden. Observation towers at each side command a view for miles around over the sea and land, and a powerful radio receiving station has also been installed.

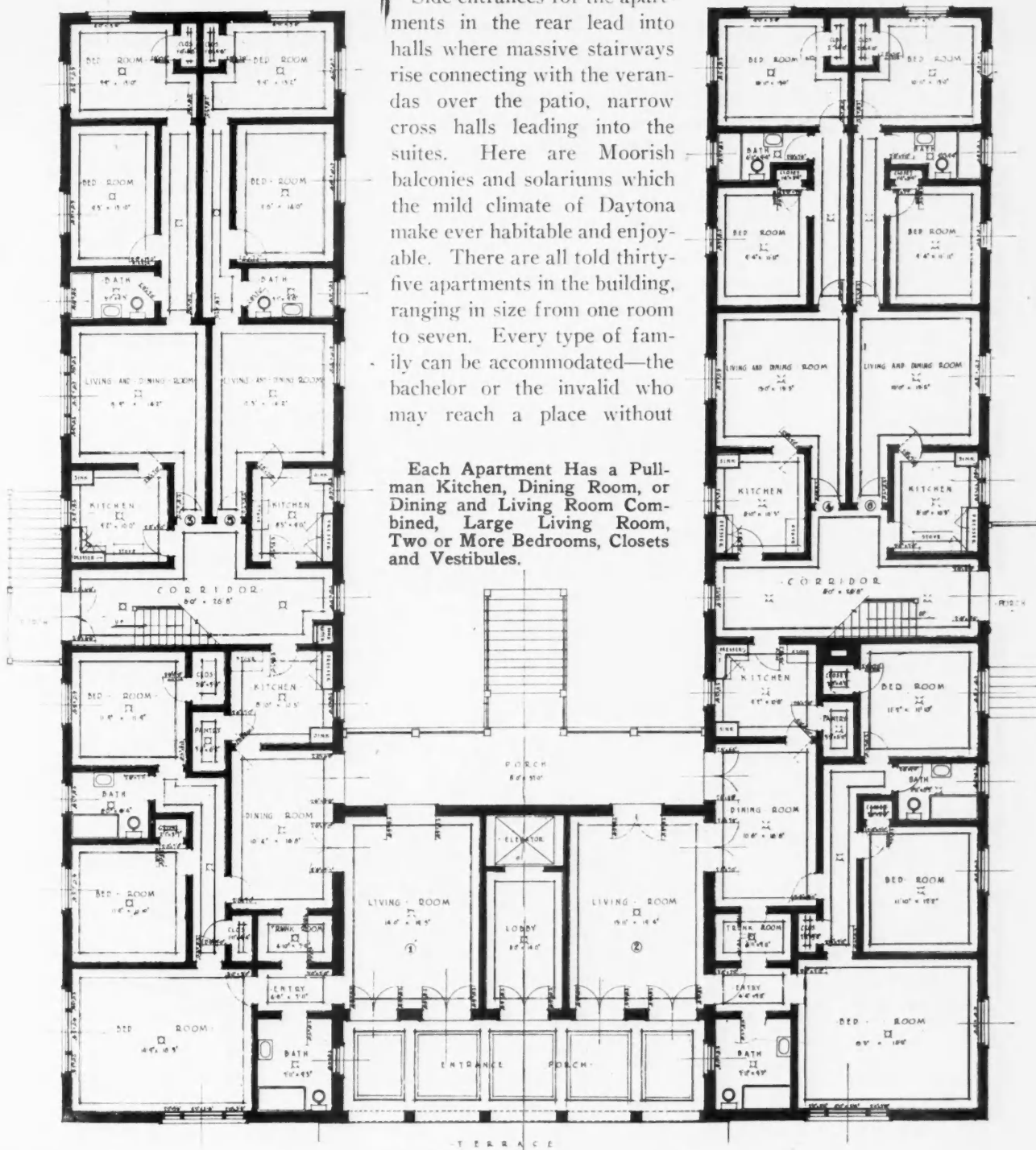
The approach to the interior of the house is through the main gateway up a tiled walk, past a latticed summer house vine-covered. Here is seen the tiled terrace with three flights of steps rising thereto, one

in the center and one at each end. Terra cotta columns of Moorish design uphold the balcony above and lead to the large doors and into the vestibule. This vestibule is also the elevator lobby where an electric elevator operates automatically by push button.

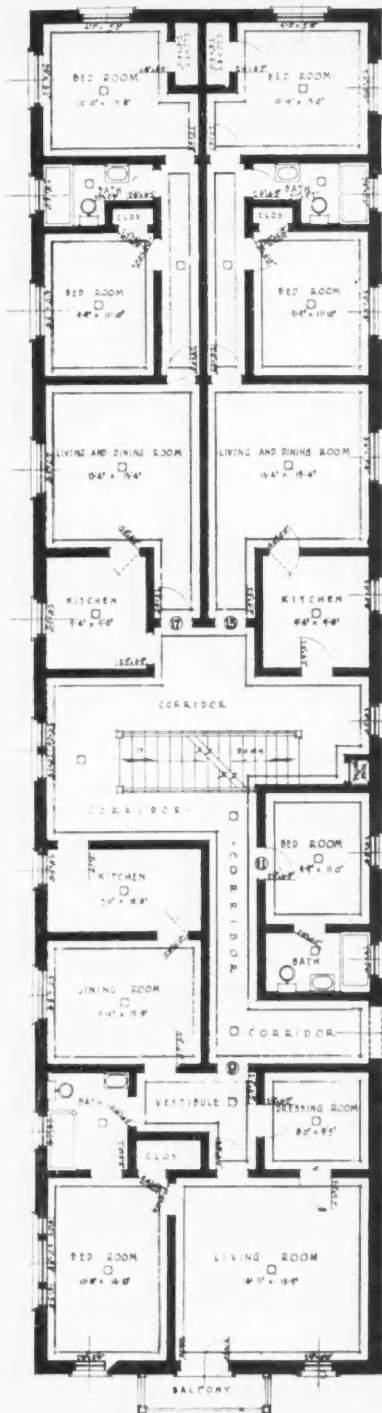
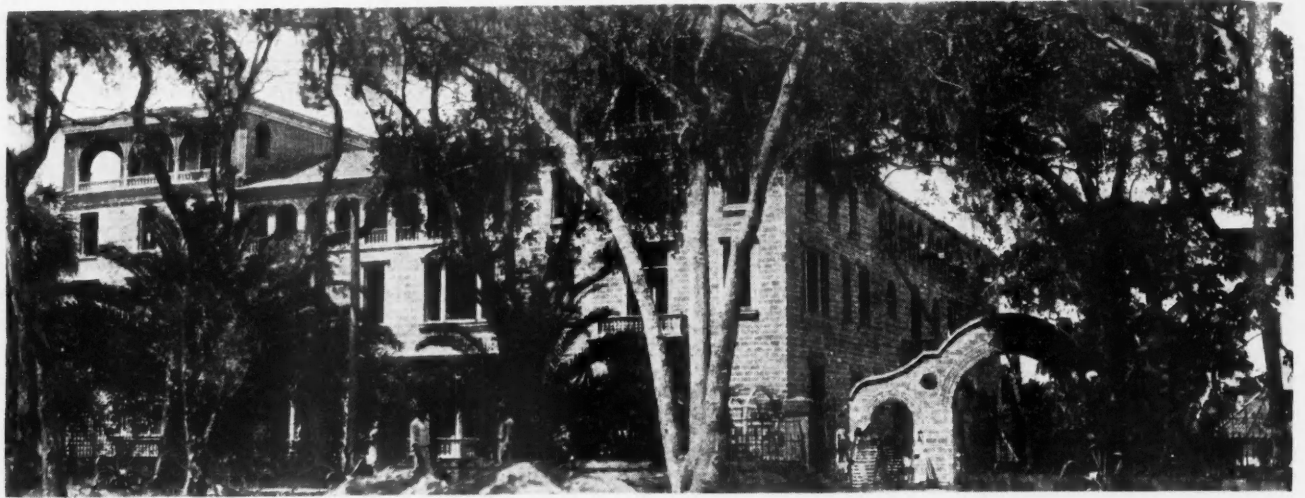
At either side of the elevator may be seen the front doors of the front apartments. These consist of a large living room having an entrance both to the dining room and into a vestibule, from which in turn three doors open into a pullman kitchen, a dumbwaiter entrance and a small hall from which bedrooms and bath may be reached.

Side entrances for the apartments in the rear lead into halls where massive stairways rise connecting with the verandas over the patio, narrow cross halls leading into the suites. Here are Moorish balconies and solariums which the mild climate of Daytona make ever habitable and enjoyable. There are all told thirty-five apartments in the building, ranging in size from one room to seven. Every type of family can be accommodated—the bachelor or the invalid who may reach a place without

Each Apartment Has a Pullman Kitchen, Dining Room, or Dining and Living Room Combined, Large Living Room, Two or More Bedrooms, Closets and Vestibules.



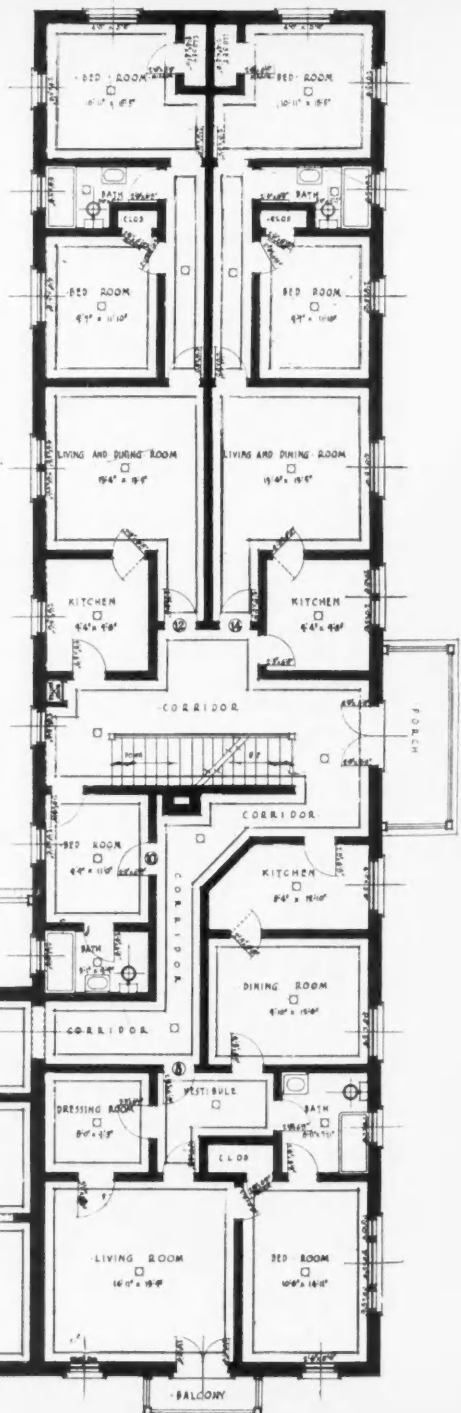
FIRST FLOOR PLAN



Before the Stuccoing. The structure is of hollow tile. This garden in which it stands is four acres in extent and truly gorgeous.

needing any assistance. Each apartment has a pullman kitchen, a small dining room or dining room and living room combined, a large living room, two or more bedrooms, closets and vestibules. The window arrangement gives an inviting outlook over the east coast country. The higher the apartment, the broader the view. From the two in the towers, the ocean, the river and the country between may be seen in all their glory.

Every room is provided with numerous outlets for electric connections. There are center lights, side lights, switches and floor plugs for the desired appliances. There is also gas



SECOND FLOOR PLAN

lighting for emergency, and very complete telephone service. Each apartment has its exclusive balcony, piazza or solarium. In-a-door beds are used in a number of apartments. Reference to the plans will indicate the differences on the separate floors.

In addition to the equipment available in the individual apartments, there is a separate building on the grounds known as the tea room and dining hall. Here in loggias located in a setting of foliage, the arches of the building are lighted at night, and tables may be set in the open space as well as within the enclosure, while a dining hall and kitchen, separate from the apartments, is maintained for those who do not care to do their own cooking. Four charming private dining rooms, decorated colorfully, are situated on the second floor of this dining hall. The richly tiled floor, the good proportions, the vivid color, make this the scene of merry conviviality. The dining room measures 30 by 40 and is beautifully appointed. Large store rooms and pantries provide every need and afford opportunity for larger scale entertaining than might be possible in the apartments themselves. There is also a laundry building for the use of tenants, set back in the grounds, and concealed by bamboos and other growing things, from the general view.

The apartments are completely furnished so that the northerner need bring nothing but himself, and

every modern convenience and comfort is available. The interior of the house appeals to that love of ease which characterizes the taste of today, and yet blends harmoniously with the mediaeval exterior aspect.

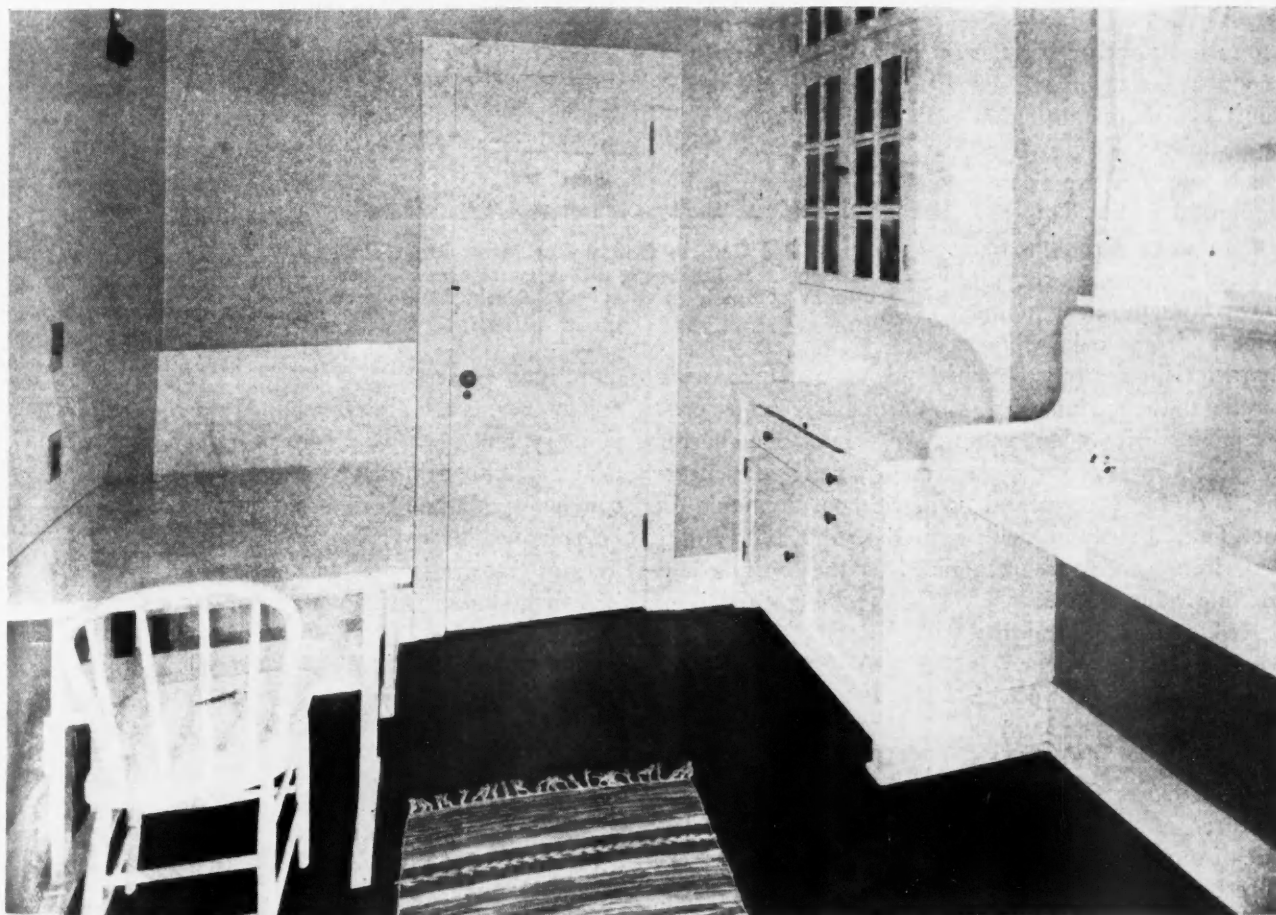
With every facility for enjoying the out-of-doors, with private porches, piazzas, patio, arbors and pergolas; with every housekeeping and non-housekeeping want provided for; with natural and man-made beauty on every side, with old-world beauty and new-world practicality, something unique in building ideals has been achieved.



The Small Kitchen

THESE are the days of the small kitchen. The kitchenette here shown has some points that offer good suggestions for all homebuilders. There was not space for a full-size dining alcove, so a stock one was bought and cut down. Only one of the benches was used, with the kitchen chair handy for the other side. Notice the wall-hung sink, placed under low, broad windows, and the handy location of the dresser where dishes may be put away as washed. This dresser has "toe-room"—a small point, but one brought home to the housewife many times a day.

Even the hot-air register is enameled, to carry out the complete sanitary finish of the kitchen. Electric outlets are provided for the percolator, grill or toaster.



The Kitchen Has Progressed from the Cavernous, Capacious Place of Our Forefathers to a Compact, Small Room with Everything Sanitarily Stored and Ready to Hand.

Red Gum—A Coming Wood

A Structural, Finish and Cabinet Hardwood With a Wide Variety of Uses

EDITOR'S NOTE: We are indebted to the Kling-Gibson Company for this, the sixth of a series of articles on important finish and structural woods appearing in AMERICAN BUILDER. Photographs courtesy of The Hardwood Institute.

RED GUM has been whimsically called the "last of the substitutes." Masquerading for many years under such misnomers as satin walnut, hazelwood or satinwood, it has at last come into its own and has been accepted as one of America's finest cabinet woods. It stands today proudly on its own feet—as gum.

Here is a wood that possesses beauty, adaptability and fine working qualities, with a figure delicate as satin and of a character peculiarly its own. It is one of Nature's riddles to account for the pattern in figured red gum. Some trees have it; some not. Undoubtedly the soil and the situation of the individual tree in some mysterious way affects the structure of the wood. Whether quarter or plain sawn, certain gum logs show a figure from which fact they are classed as figured gum. This figure ramifies through the wood at random, obeying no known laws, differing in this respect from oak whose characteristic figure is obtained only by quarter sawing parallel to the medullary rays. Particularly fine effects, resembling Circassian walnut, are eagerly sought for by cabinet makers for highest quality matched veneering, both for foreign and domestic consumption. In fact, figured red gum, with figured walnut, both native American woods, are recognized as the world's best for fine cabinet work.

Red gum is a beautiful wood. The heartwood is a bright reddish brown with a satin-like sheen and a varying figure, presenting a smooth, close, fine-grained texture. As a tree, it is one of our most ornamental forest products. It is not to be confused with black gum, tupelo or the eucalyptus, which, botanically

speaking, are not related species, though the first two named grow in the same localities. Often called sweet gum because of the fragrant resin in the bark known as "liquid amber," it is found growing from Connecticut to eastern Texas following a range south of the Ohio River. In the Carolina forests the average growth is about 100 feet in height and 15 inches in diameter at 50 years of age. It is most numerous, however, and attains

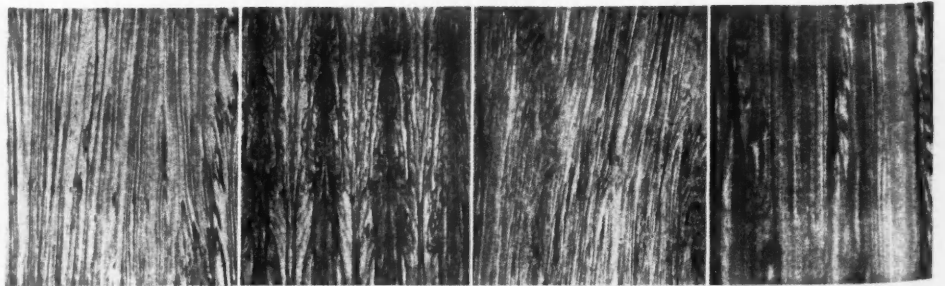
its largest growth in the lower Mississippi Valley hardwood bottom lands, the maximum size being about 150 feet in height and 5 feet in diameter. In summer the gum is distinguished by large glossy star-shaped leaves, while in the fall its coloring is unexcelled in gorgeousness even by the maples. Its graceful yet sturdy symmetry is enhanced by masses of scarlet, orange and yellow leaves, changing to the bronze and purple tones characteristic of the autumn dress of the ash. Some idea of the extent of growth of this important tree may be gained from the fact that with the exception of the oaks, gum exceeds all other hardwoods, more than three times ash or maple, two and a half times hickory, many times elm and somewhat



As a Tree, Red Gum Is One of Our Most Ornamental Forest Products. It has large, glossy, star-shaped leaves, and grows in company with stands of ash, cottonwood and cypress.

more than cypress.

New woods are always adopted slowly in the lumber industry, and twenty years or more ago gum was practically unknown in commerce. As it grows always in company with stands of ash, cottonwood and oak and never alone in any great tract, lumbermen, following lines of least resistance and most profit, cut the better known and more marketable hardwood timbers, and



Red Gum Plain Sawed.

Red Gum Veneer Panel Matched.

Red Gum Figure Sawed.

Red Gum Plain Sawed.



Red Gum Paneled Room in the Residence of Edward C. De'afield, Riverdale on Hudson, New York. With the beautiful striped ribbon effect of the wood, soft and delicate as satin, handled in the way which best brings out its beauty, a Red Gum paneled room becomes an artistic triumph.

left gum standing. The result today is that wide boards are available in gum as in no other hardwood with the possible exception of cottonwood and poplar. The quantity is ample for all purposes and this unusual situation is reflected in lower prices. Now that this wood is valued for its own sake, and its qualities known, it finds a ready and appreciative market. It is a remarkable fact that from 60 to 70% of F and S gum runs in 14 ft. to 16 ft. lengths, with widths averaging 10 inches and up.

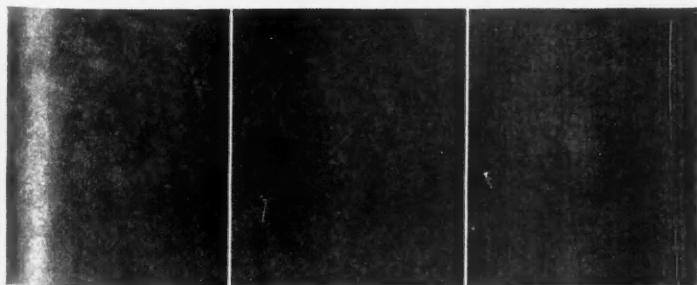
Because of imperfect kiln drying in the early days, red gum twisted and warped, and gum veneer performed strange antics disconcerting to the cabinet

maker, and users of interior trim. This has been overcome by modern methods, the result of painstaking investigations by forestry bureaus and manufacturers into the peculiar properties of red gum. Its great economic value is fully recognized, now that difficulties in seasoning have been overcome. Its use is wide, befitting a product that averages 33% of the entire hardwood production in the four states of Mississippi, Arkansas, Louisiana and Tennessee.

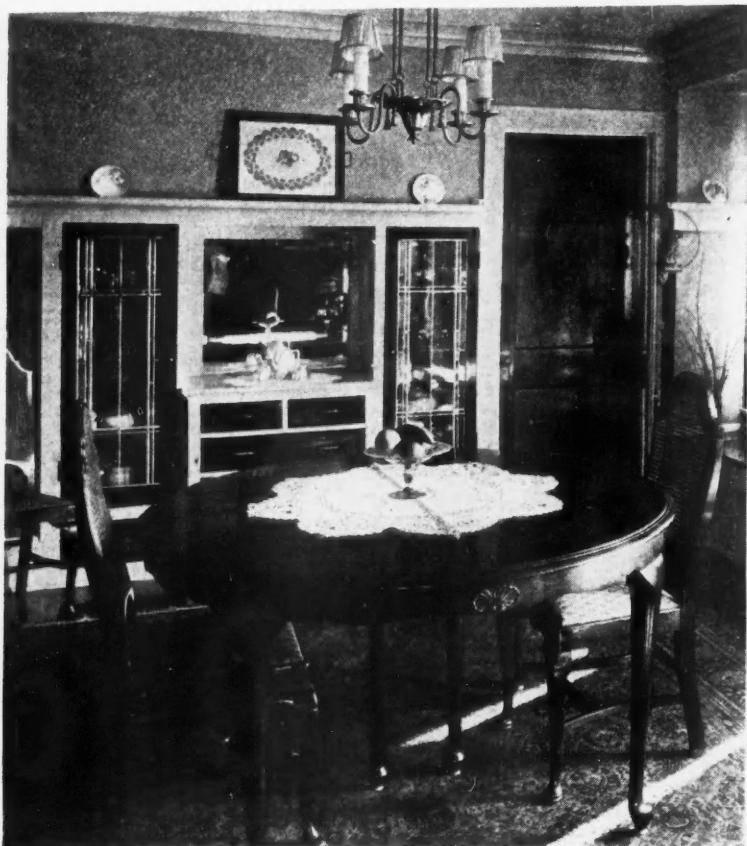
Use in Furniture Industry

Approximately 35% of all red gum cut goes to the furniture industry and this percentage is increasing. The common grades of both heartwood and sapwood find a market in frames, drawers and backing, while clear heartwood is selected for surfaces, either as veneer or solid. Red Gum is heavy, hard and tough, with a compact grain susceptible to a beautiful polish. At the same time it does not show finger marks and is easily worked in with tools, which makes it a favored material with the wood carver.

The use of matched figured gum in cabinet work has been mentioned. Cheaper furniture of sound construction is in demand today and gum, especially sapwood, because of the plentiful supply



Red Gum, Plain Sawn. Contrast these with the plain sawed specimens opposite which are highly figured.



Dining Room, Finished Entirely in Gumwood, in Residence in Wauwatosa, a Suburb of Milwaukee. The fine interlocked grain is easily worked, and takes a perfect finish. Red Gum is being given increasing consideration for the finest interior woodwork.

and low cost, is being used in tremendous quantities now that the public recognizes its intrinsic beauty and individuality.

For Interior Trim

No other hardwood yields more exquisitely matched panels than figured red gum. Even in plain sawn lumber, figures in beautiful striped ribbon effects, soft and delicate as satin, are often obtainable, while in quartered, the figure runs the gamut of fantastic patterns, yet so subdued and delicate in coloring that the effect as a whole is one of dignity and quality. The fine interlocked grain is easily worked, and takes a perfect finish. Twenty per cent of gum production goes into this important channel. Cut into thin veneers, gum embraces 33 per cent of all domestic woods so used; it takes glue perfectly.

It is non-resinous which makes it especially suitable for white enamel, while its structure is so uniform that it does not absorb too much of any staining material used. Because of these practical qualities, as well as its beauty, either stained or natural, together with low cost, gum is being given ever increasing consideration for the finest architectural woodwork.

Gum siding contains no acid injurious to nails, and as it is close-grained, it takes paint well.

Red gum is not unknown as flooring; it is suitable because it does not splinter, and is free from splinters as is not the case with woods of alternate hard and soft grain. It is tough and durable, yet not flinty, all parts of the surface offering the same resistance to wear. A dance pavilion floor near Sandusky, Ohio, laid in 1906, is still doing service.

The Automotive Market

The automotive industry consumes about 12 per cent of gum production, and yet only 8 per cent of all woods used in auto body building. It would appear from investigations of the Forest Products Laboratories that there is almost a virgin field for gum in this industry, especially for lighter or medium class bodies, where great strength is not a prerequisite. Body builders are now using other woods that contain considerable stain, knots and small knots. They can use to advantage and at a saving in cost, gum of similar quality which, because of these defects, is unsuitable for furniture and interior trim.

Implement makers favor gum, because of its hardness, strength and elasticity. It is adaptable to the making of slack barrels and hoops, also tight barrels for oils, molasses and

(Continued to page 158.)



Breakfast and Corner of Kitchen Finished Entirely in Gumwood, in the Residence in Wauwatosa. Red Gum is non-resinous, which makes it especially suitable for white enamel.

Parables of Bildad the Builder

V. He Fixeth a Wicked Eye Upon the Handiwork of a Competitor and Thanketh the Lord for a Good Liver

UPON my Return to the city of Make-Good-or-Make-Room I found that a Competitor had Completed a Certain Contract in our Exclusive Residence section, of Which our Local Paper found Cause to Brag as Being the Last Screech in Home Architecture. And I, being Sore at Heart and Bilious of Liver, betook My way Thither with my Wife, to bestow upon It the Once-Over.

For this should have been My Job, and had I not been Cursed with a Wife who Considered her Own Convenience of More Moment than mine as a Builder and Contractor, I had been in from Pishimagee Lake sooner, and Copped this Job from my Competitor, of whom it May be Said in Sincere Flattery that His Face resembleth a Pickled Persimmon and his Business Methods the straightness of a Corkscrew.

Now you Must Know that in Our City there resided one of the Family of Bootleggers; a Man who by purveying Divers forms of Synthetic Juniper Extract and Sulphuric Acid had built up a Great Custom among our Very Best Citizens. And having Acquired a Fortune in an Evil Moment he Decided to Build a House.

Now it so Happened that Although he Was a Bachelor, he was a Man of Large Family, and his House would be a Large Contract. For the Specifications called for a Cellar that Extended 175 Feet to Bedrock, and for Divers Rooms and Apartments and Wings to care for multitudinous First and Second and Third Cousins and Uncles and Aunts and Grandfathers and Grandmothers. For it is Too True that when a Man Acquireth Wealth he also Accumulateth Relatives, far More than if he Had Merely Married a Wife. And Furthermore, This Man Had Insisted upon Divers Lookout Windows, and not only Sun Parlors but Moon Parlors as Well, for the Enjoyment of Moon-

shine

Kind of a House he Should build he Had Swept my Suggestions Aside, Saying:

"Know you Not that I possess the Artistic Temperament? Bestow thy Blue Ribbons upon the Holsteins and Shorthorns, where They Belong. My Home shall reflect Individuality!"

And he Proceeded to give me his Idea. And that Night, feeling as though I had Stood Enough, I left Town.

Now it so happened that I at Last stood with Mistress Bildad before the House I Should Have Built. And it Needed but One Glance to know that only one Afflicted with Delirium Tremens could do Thus. Alas, it was too Too!

Truly its designer Deserved the Solid Ivory Medal, for what with Tudor Gables and remnants of the California Bungalow Period and Kansas Colonial and Dutch Romanesque and traces of the Atlanta Georgian period it was the Last Screech. And I drew my Wife away Roughly, lest she Become Pie-Eyed.

When she had Recovered her Speech, she Whispered: "Bildad, you have Built some awful Chicken Coops in your Time, but This Place deserveth the Match

of Someone in the Business of Arson!"

"Verily its Designer was Cross-Eyed and Wielded a Gelatine Fist," I agreed Heartily. "Observe: the Nit-Wit has Fitted the Doors with Golden Door-Knobs, yet the Walls are Caving Under!"

"The Florists say 'Say It with Flowers,'" quoth I, "but here one Might say It with a Cleaver!"

"Bildad, my Love," said she, "as a Builder you are a good Butcher. Not all Can possess Your brain."

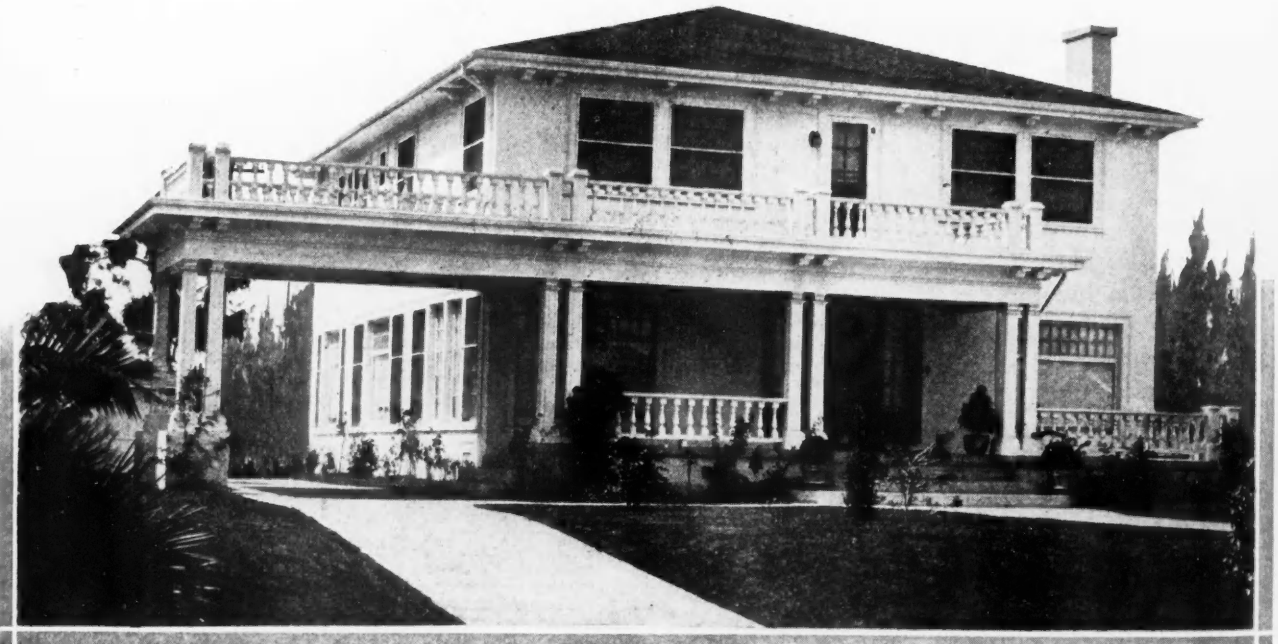
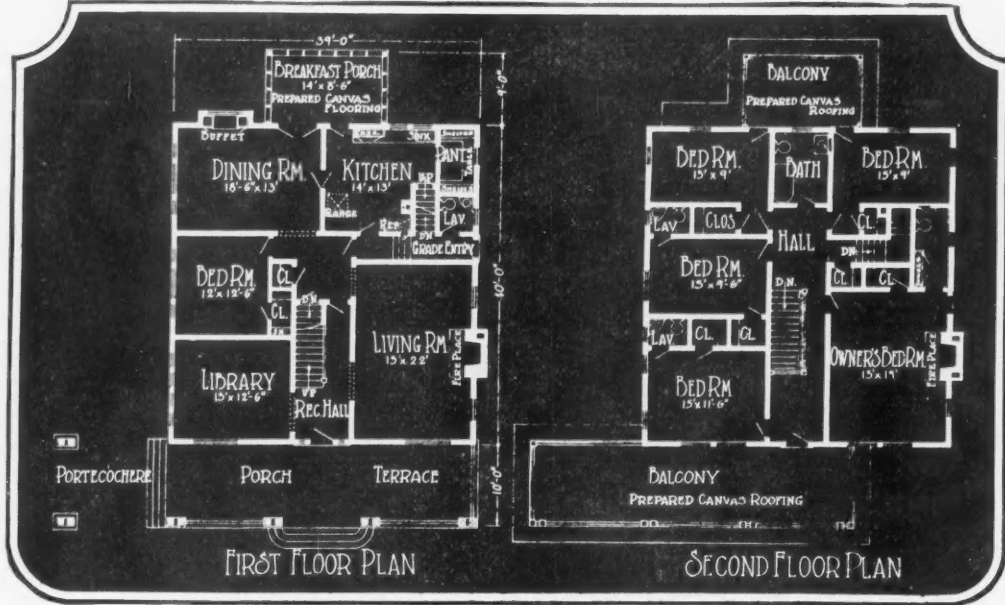
So we Shook a Wicked Hoof homewards.

And I agreed with My Wife for Once, for it Needeth more than Grapes to make Good Wine and more than Gumption to be a Builder; and Furthermore though Anyone may Sell a House it Requireth Intelligence to Shape it to a Home.



"Bildad," Sagely Observed My Better Half, "You Have Built Some Awful Looking Chicken Coops in Your Time, but This House Deserves Matching by Someone in the Business of Arson."

PRACTICAL & ARTISTIC **BLUE RIBBON HOMES**

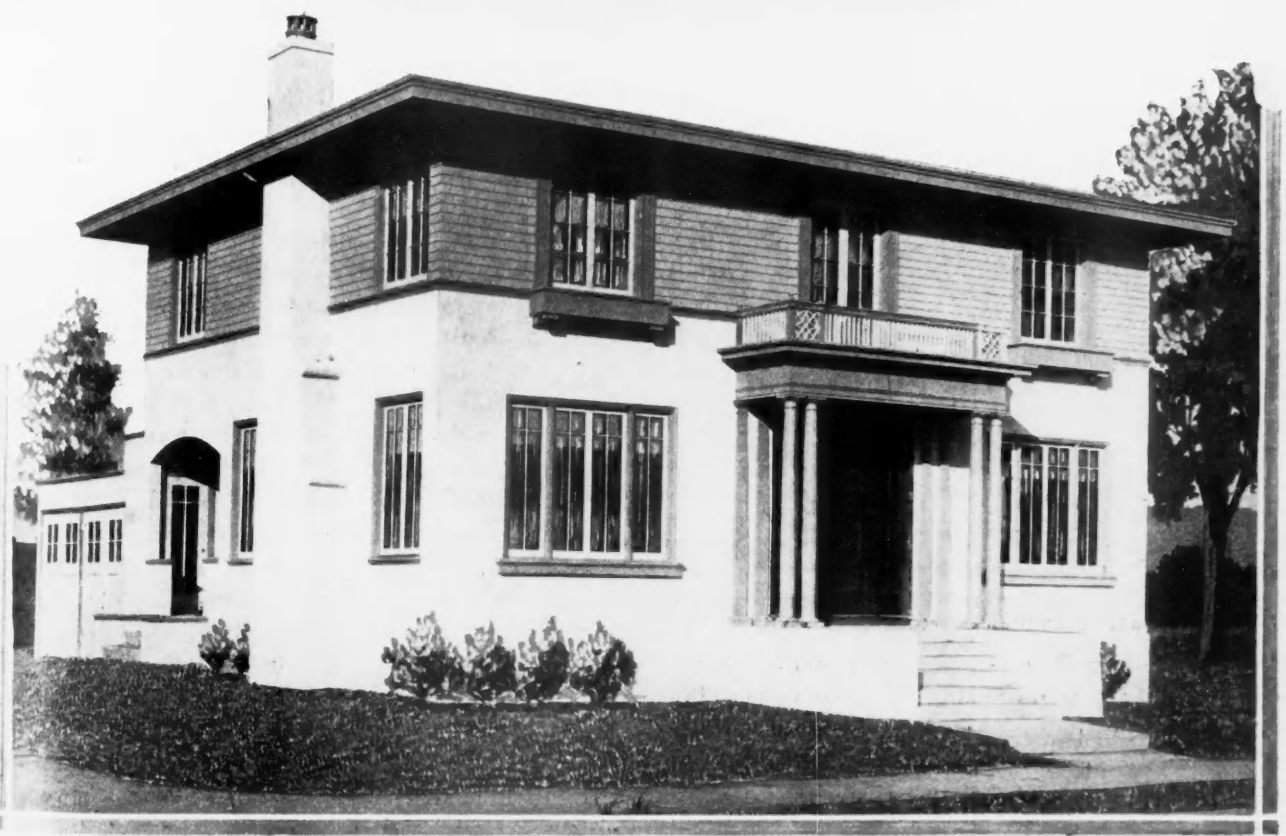
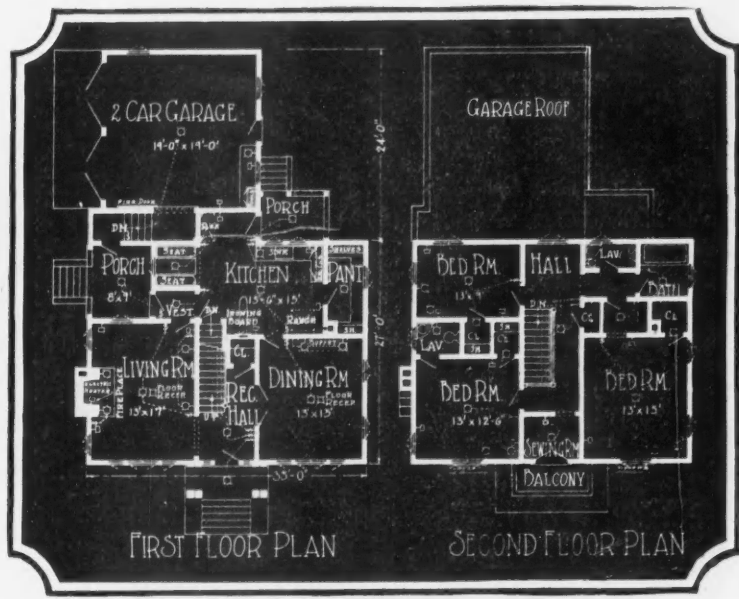


PRETENTIOUS TOWN OR COUNTRY MANSION. Here is a thoroughly pleasing residence of white stucco which will appeal to the prospective builder having a good-sized city lot, preferably a corner one. The lines are good and the general details in keeping with sound, durable construction—so much so that this house will find favor with the country-dweller also. It is the familiar square design, with a hip roof, the porches being used to take away any monotony from the plan. Thus, at the front, we have a terrace sharing honors with the porch, and with a covered

driveway or porte cochere; and at the back, a breakfast porch, accessible from both the dining room and the kitchen. Both these porches are covered with a prepared canvas roofing, making an ideal roof covering, and likewise floor for the users of the balconies. Downstairs we have a living room, a library, a bedroom, kitchen, dining room, breakfast porch, pantry and lavatory. Upstairs are a master's bedroom and four other bedrooms, served by three lavatories and a bathroom. Over-all dimensions are 39 feet by 59 feet.

BLUE RIBBON HOMES

PRACTICAL & ARTISTIC



A PLEASING STUDY IN VERTICALS. Lines can make or break the house, as you may see plainly from Bildad's experiences on another page. You will admit this house is pleasing; why? Well, here is a square type of house which otherwise might get very monotonous to look at. But the designer was very careful to train the eye over it in easy vertical lines, so that we get an up-and-down sweep of vision which gives the house a great deal of character and genuine artistic worth. The flat roof, with overhanging cornice line, goes well with the general design,

and a good thought was that which ended the stucco above the second floor line, and finishing with shingle siding to the roof. The overall-dimensions of the house are 35 feet by 51 feet, including the built-in garage. Downstairs are reception hall, flanked by the living room and the dining room. The latter connects with the kitchen, with its window-lit sink, pantry, and rear porch, and breakfast nook looking out upon the side porch. Upstairs are three bedrooms, a sewing room, a bathroom and a lavatory.

How I Insured My Profits

A System Worked Out on the Job Where "Results" Counted—Simple Enough for the Smallest Contractor Yet Elaborate Enough for the Largest One

By FRANK R. WALKER

ABOUT 14 years ago—1910 to be exact—my employers, Wm. Miller & Sons Co., contractors, of Pittsburgh, Pa., sent me to Little Rock, Ark., to take charge of the job office during the construction of the New State Capitol Building.

It was a rush job—a job that had to be completed so that the building could be occupied at the next session of the State Legislature—and while it was a rush job it was also a "lump-sum" contract and had to be completed at the lowest possible cost. It was before the days of "bonuses" and other frills that the war brought us. The contractors wanted the work done in a hurry but they wanted to know every week just what it was costing us to do it. That was something I was responsible for because if the costs ran too high, we heard about it in a hurry.

We were working two shifts of men in some lines, such as placing concrete, setting stone, etc., and were on the job from six in the morning until midnight every week day, and then on Sunday we "rested" by having the "bull gang" clean up the rubbish from the previous week's rush so that we could wade through another week just like the last one.

We had from 500 to 600 men working on the job, and with one assistant, I was expected to keep time

all of the job reports went into the home office with regularity. I worked on that job as I have never worked before or since, but it was the best experience of my life. It was the ground work that enabled me to realize the great value of accurate cost records. It showed me that the contractor's success or failure depends upon his knowledge of costs because without accurate costs he is unable to prepare accurate estimates and a contractor who cannot estimate is like a ship without a rudder—never knows where he will be the next day.

NISSEN GARAGE, JOB 108, LABOR DISTRIBUTION												
Job		Week Ending							Sheet No.		Job No.	
Concrete Foundations		JUN 7-1923							1		108	
OCCUPATION		F	S	M	T	W	T	HOURS	RATE	AMOUNT		
Setting Carpenters		22	8	24	24	24	102	110		117.60		
Farmers Laborers		4	4	-	-	-	8	75		6.00		
Honorary Laborers		-	-	-	-	-	8	75		6.00		
Farmers		-	-	-	-	-	8	75		6.00		
Total								102	110		129.60	
Total		Quantity Work In Place	Pay Roll Costs	Labor Average Unit Cost	Average Quantity Per Hour Day	Quantity Work In Place	Pay Roll Costs	Labor Average Unit Cost	Average Quantity Per Hour Day			
Previous		578.00	176.00	0.30	270	578.00	64.70	0.11	578.00			
This Week		38.60	173.60	0.23	781.9	560.00	6.00	0.11	560.00			
Total		764.00	349.60	0.23	765.0	634.00	70.70	0.11	578.00			

Form 2. Labor Distribution. Illustrating method of distributing workmen's time each day.

WEEKLY PAY-ROLL												
JOB		Week Ending							Sheet No.		Job No.	
NISSEN GARAGE, JOB 108		JUN 7-1923							1		108	
NAME	Check No.	F	S	M	T	W	T	Total Hours	Hourly Rate	Total Amount	Amount Advanced	Balance Due
Leo Wilson	84	8	8	-	8	36	135	148.60				
Don Hughes	84	8	8	-	8	28	170	35.00				
Sam Smith	84	8	8	-	8	36	145.00					
Chas. Kressler	84	8	8	-	8	36	145.00					
Wm. Johnson	6	8	8	-	8	30	100	33.00				
Fred. Bowers	84	8	8	-	8	36	110	39.60				
R. Parozio	94	9	9	-	9	46	80	37.40				
Gas. Larson	84	8	8	-	8	36	75	27.00				
Frank Parker	84	8	8	-	8	36	78	21.00				
H. Kelley	44	8	8	-	8	32	240	10.00		11.00		
Total		75	36	73	73	81	338	850.60				

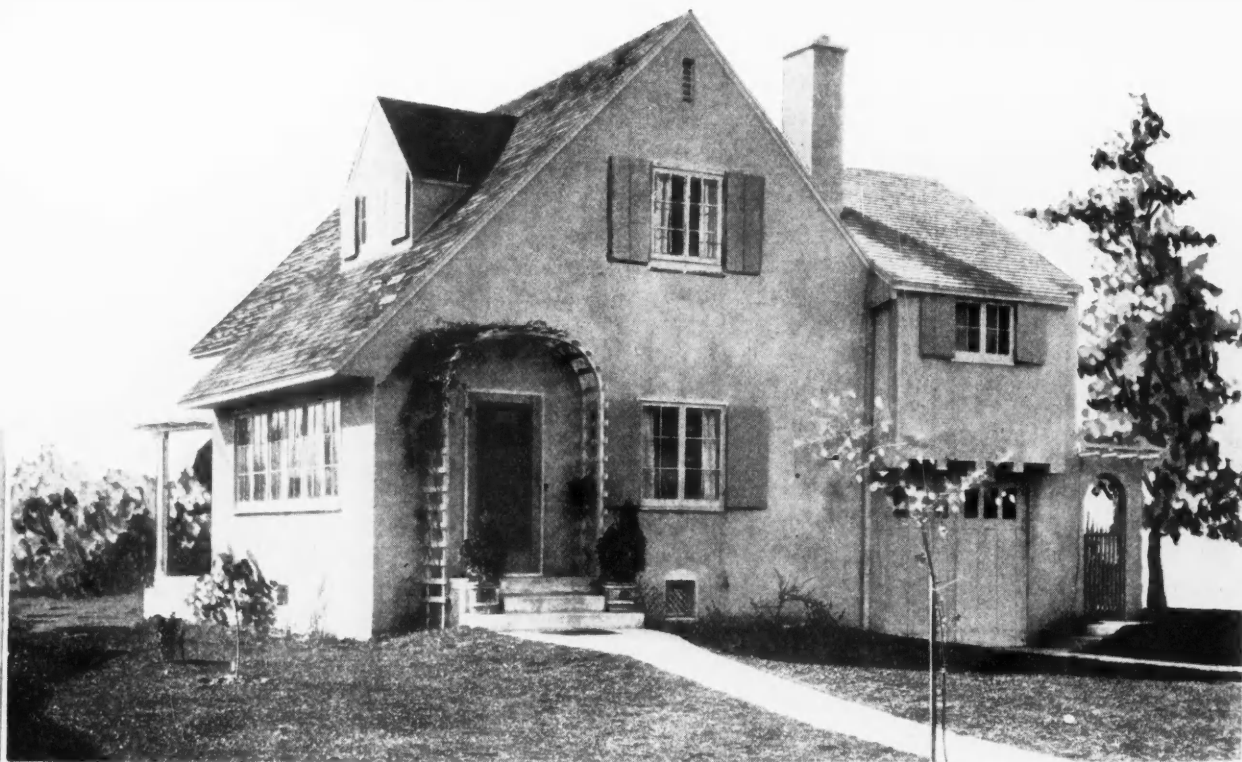
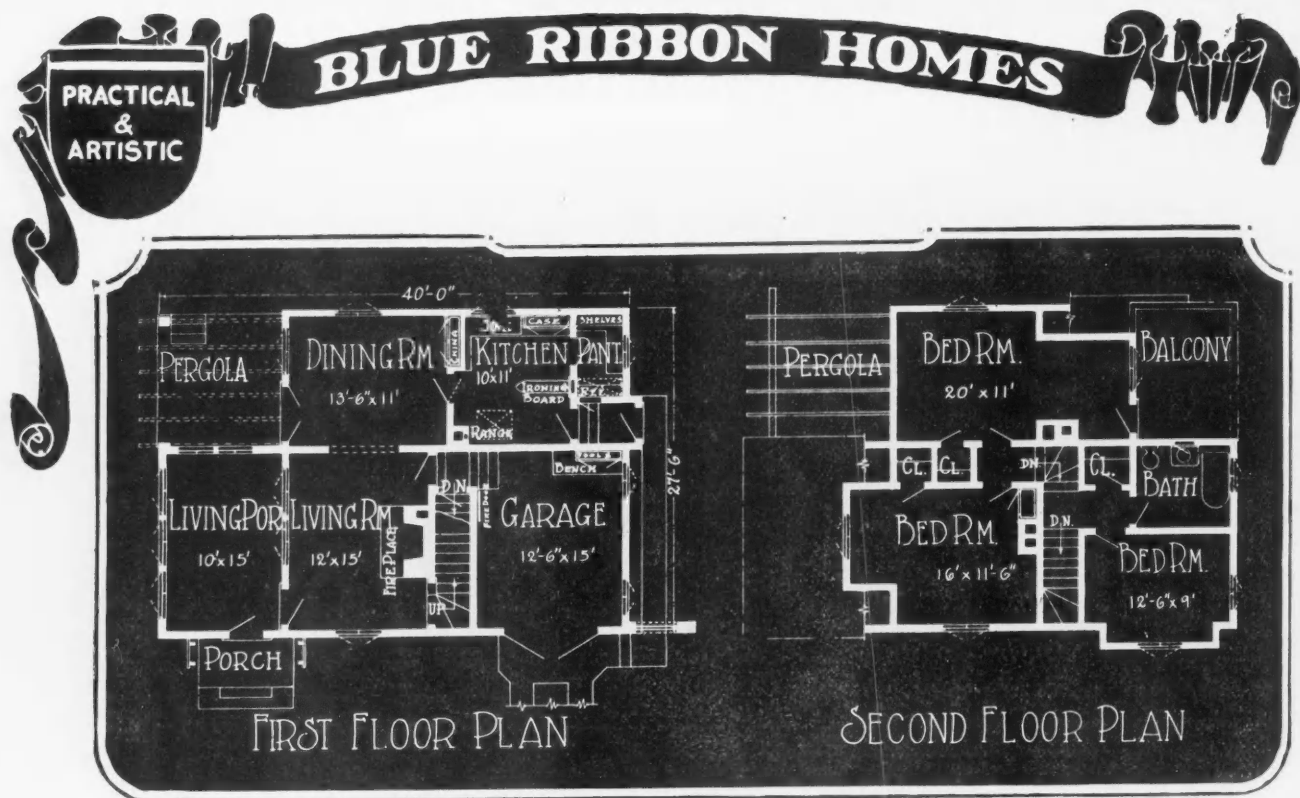
Form 1. Weekly Time Card and Pay-Roll. Showing method of keeping workmen's time on the job.

for all those men, keep record of all materials received on the job, keep accurate labor costs on all the different kinds of work being performed, and in addition the hundred and one things that require attention on a job of that size—especially when you are a thousand miles from the home office.

I think you will agree that this was a man's job even in those days when a full day's work was expected for a full day's pay. At any rate, it meant that if I was going to make good on my job I would have to step lively most of my waking hours—and step I did. The time was checked regularly, the pay-rolls made up on time, the cost records kept up-to-the-minute—in fact,

That was fourteen years ago when I first realized the value of accurate costs, and since that time I have kept them on every job that I had anything to do with, because they have always been worth a hundred times what they cost. They enabled me to prepare better estimates than I otherwise could; they enabled me to buy materials to better advantage, and they have been of untold value in letting sub-contracts because in many instances I possessed a better knowledge of the sub-contractor's labor costs than he did himself—and that alone has saved me considerable money.

Now that's what they've done for me, but my case is no different from yours because they will do the same for any contractor. And the beauty about it all is, that the method is so simple—it had to be simple or I could never have handled the amount of work that I did. I have tried it out on all kinds and sizes of jobs from bungalows employing only four or five men to the largest jobs employing 600. It can be worked equally well on any job. I use it today on my own work because I have never seen a system that was anywhere near its equal. It is easily kept because my foremen on the job keep it without any trouble—yours can do the same, or if you prefer, you can do it yourself. You'll find it the best and easiest system you ever tried—and you'll be more than pleased with the information and the money it will give you.

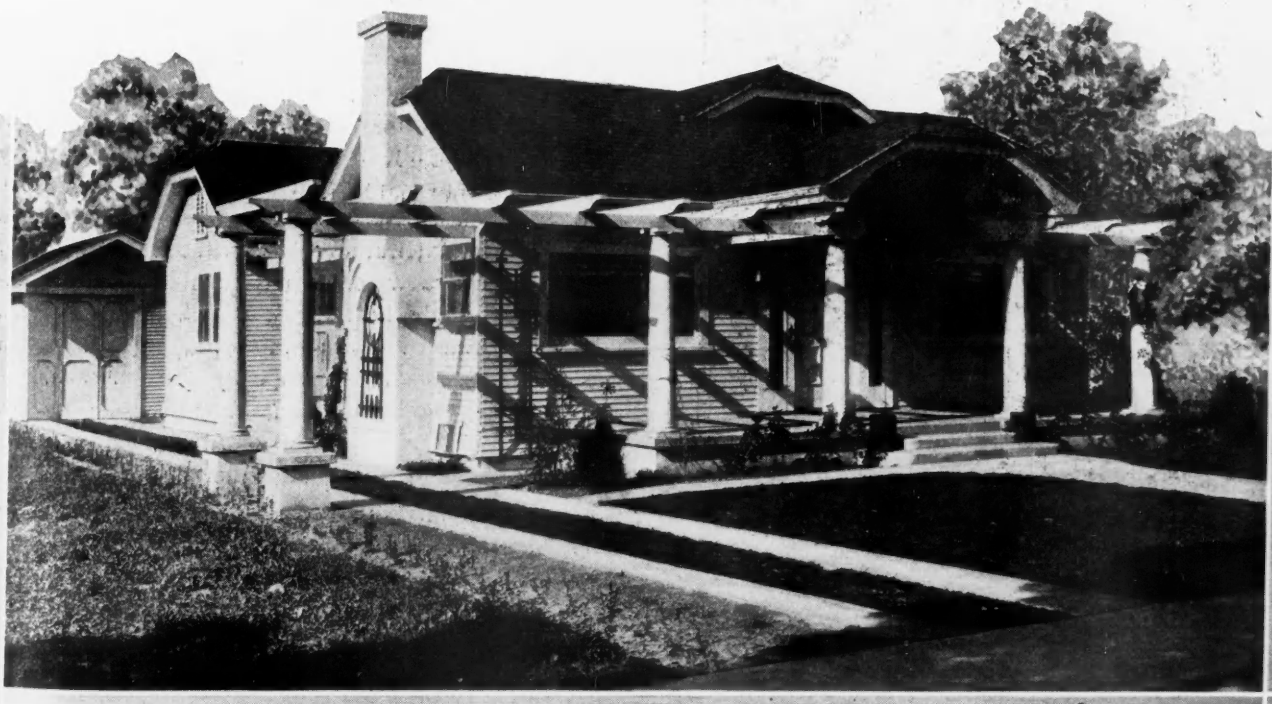
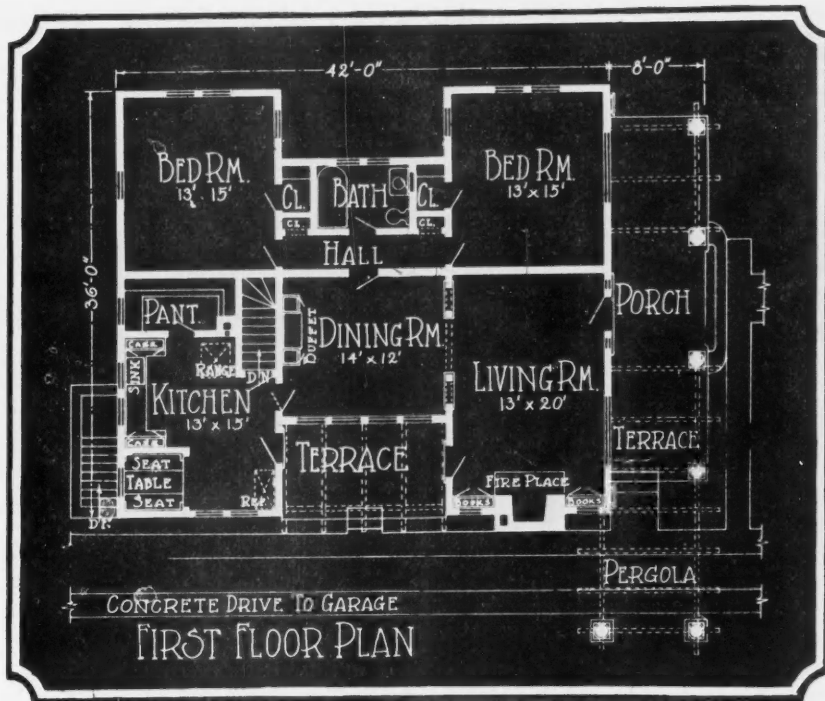


PIQUANT, FOREIGN-FLAVORED HOME. As the railroad folders ask: "Why go abroad, when you can be abroad at home?" This house is one contributing reason; many a lad who has gone across will re-live in this house memories of many pleasant billets and estaminets enjoyed in France. The stucco exterior need not be plain white; dark cream or a tint of pink, even, with contrasting colors on the shutters and window trim, will serve to make a very attractive bandbox of a house with undoubted advantages of construction and interior arrangement. Our

built-in garage does not take too much room, for we have a living room and a living porch, a dining room, kitchen, and pergola on the first floor, and three bedrooms, a bathroom, with balcony, on the second floor. Yet the overall dimensions of the house are only 27 feet 6 inches by 40 feet. The trellis over the front entrance is an easily built affair; yet notice how it dresses up the whole house. Likewise the intriguing little gateway at the right. Yes, we like this house, don't you?

BLUE RIBBON HOMES

PRACTICAL & ARTISTIC



SOUTH AND WESTERN STYLE BUNGALOW. Our friends in the warmer sections of the United States have been for sometime developing their own individual ideas of what constitutes a bungalow. Here is a very attractive one, with white painted siding, white concrete chimney, pergola and side terrace. The snubbing of the gables serves to keep the roof line low and broad, but we are hardly prepared to find the bungalow having over-all dimensions of 36 feet by 50 feet. The living room is entered from the porch, and is a well-proportioned room

13 feet by 20 feet. It has good light, and at the end is a fireplace flanked by bookcases. French doors divide from the dining room—a splendid room, 14 feet by 12 feet, with four French glass doors forming a bay that opens bodily on the pergola terrace. Then there is a nice breakfast nook in the kitchen corner, a window-lit sink, built-in cupboard and a window-lit pantry. We reach the two bedrooms through a door in the dining room. Both have good closet room, and connect with the bathroom through the hall.

Revising Building Codes (Part 6)

U. S. Government Recommends Minimum Requirements for Small Dwelling Construction with View Towards Simplifying Building Codes

EDITOR'S NOTE: This is the sixth of a series of abstracts AMERICAN BUILDER is making from the report of the Building Code Committee of the Department of Commerce, and is done to give wider publicity to the Committee's Recommended Minimum Requirements for Small Dwelling Construction. The others will follow in succeeding issues.

Wood Framing

ARTICLE VI

4. Cost Influenced by Length: It is not usually good economy to use joists over 16 feet long, since it requires additional bridging, a greater depth of joist and there is usually a considerable advance in the price per board foot.

In the manufacture of lumber, especially in the large mills that cut fir and pine, there is great advantage in having the lumber of uniform length. The most economical length to handle appears to be 16 feet. In the stacking of lumber it is very necessary to have it of uniform lengths, so that it can be properly held in place while drying. Even after the lumber is dry, ends of boards projecting from the pile will usually become checked and warped, and of little value. On account of these and other reasons, which might be mentioned, it is common to manufacture lumber in

lengths which are multiples of 2 feet; 12, 14 and 16 feet being the ordinary standards. Shorter lengths may come in on account of the limited lengths of logs which it is economical to take from the tree or as a result of cutting off defects in trimming. The shorter lengths are usually sold at the same price as the 14-foot material, and although in reality it costs the manufacturer more to produce them, many of the consumers seem to be of the impression that they should obtain the material at a greatly reduced figure.

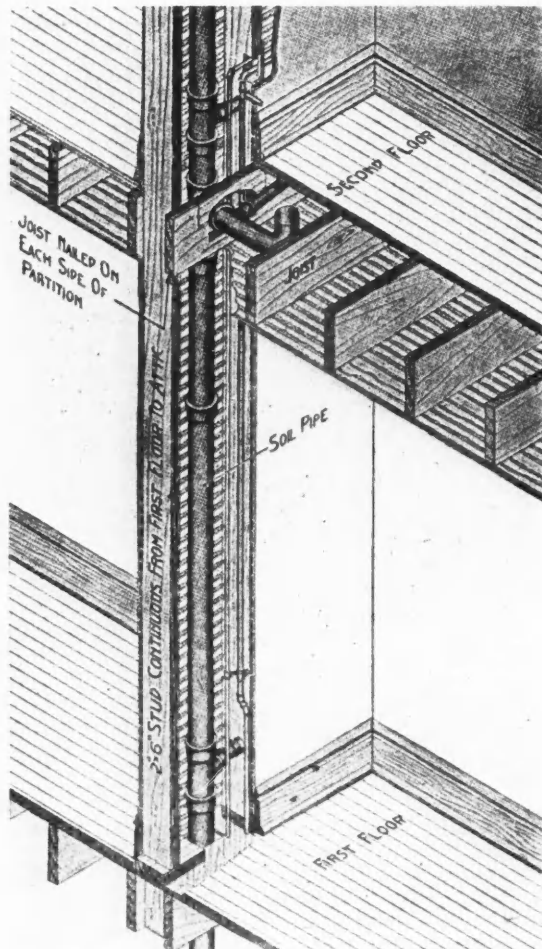
Lumber and timbers are produced in lengths greater than 14 or 16 feet, but such material usually commands a greater price. In the designing of a house not infrequently the size of a room may be changed by 6 inches without any material inconvenience and joists 2 feet shorter may result. The height of the ceiling of a room may be changed an inch or two in order to avoid extra lengths of studding or the plate may be double in place of single and many other expedients may be resorted to in order to utilize the full length of the lumber as it comes from the saw, the resulting building being just as satisfactory and just as well constructed, but at a lower cost.

5. Laminated Girders: Built-up or laminated girders should be supported under joists.

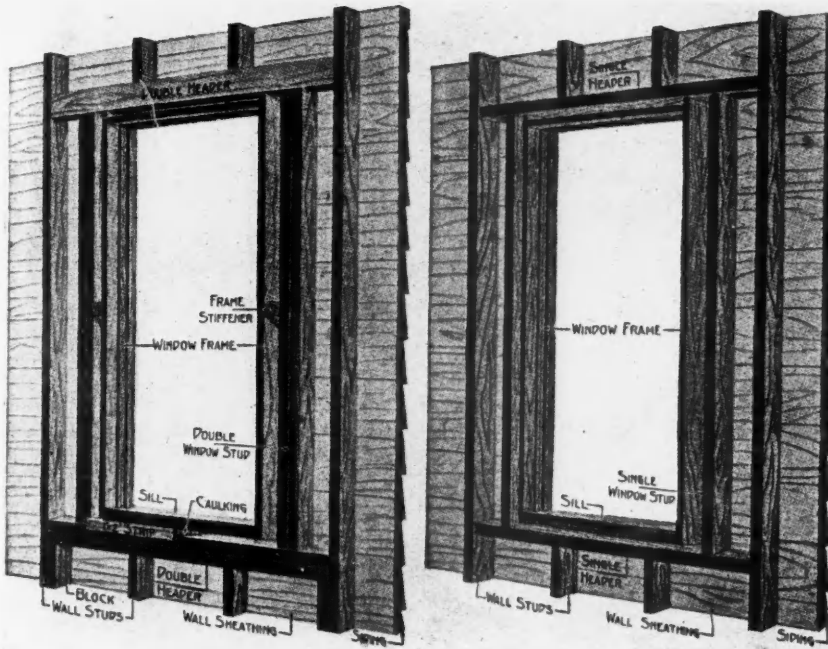
6. Importance of Thorough Bracing. Proper bracing of a frame building is of great importance. In a building with sheathing there is no better bracing for the exterior walls than to put the sheathing on diagonally and thoroughly nail it to the studs. When the sheathing is thoroughly dry it can be put on horizontally and a rigid wall obtained. As a rule, however, walls with horizontal sheathing and without other braces will ultimately skew somewhat out of shape. Not infrequently a single sheathing board run diagonally from corner to corner of a wall and thoroughly nailed to all the studdings, about two tenpenny nails in each, will make a more rigid wall than the entire side covered with partially dry horizontal sheathing, nailed in the same manner as the diagonal plank.

It is exceedingly important that the building be thoroughly tied to resist the thrust of the rafters. When it is not feasible to tie the building together at the foot of the rafters, the thrust may be transferred to the end walls by a system of diagonal bracing on the underside of the rafters. This in reality makes trusses of the two halves of the roof which are nailed together at the peak.

In small barns this system of bracing may be used to eliminate very objectionable ties across the center of the barn, or in a garage the end containing the doors will not get out of shape if a proper system of bracing is used on the roof or underneath the ties and if the other three walls are well braced.



Careless Cutting and Notching of Timbers Often Weakens Floors Unnecessarily. Horizontal pipes should be run through centers of joists.



Desirable and Undesirable Framing Around Window Openings. The double headers and window studs at left are as strong and rigid as continuous studs.

Par. 28. Thickness and Height of Party or Division Walls.

The thickness advisable for party and division walls depends on several factors not affecting exterior walls. Such separating walls also serve the purpose of fire walls. The vertical loads, while higher than on exterior walls, produce no greater stresses, owing to the equalizing effect of floor loads from both sides. More bearing area is lost by insertion of joists on both sides and the close proximity of these reduces the efficiency of thin walls as fire-stops.

It is the committee's opinion that while the lateral stability of party walls, due to double support, is normally greater than that of exterior walls, their service as fire walls is an important consideration and justifies stricter requirements than for exterior walls.

Par. 29. Saving Involved in Requirements Recommended for Party or Division Walls.

Considerable economy in brickwork also would result from adoption of the committee's recommendations for thickness of party or division walls. The average code requirements exceed these by 40, 30 and 28 per

cent, respectively, for one, two, and three-story dwellings of the average maximum story heights permissible.

Par. 30. Party and Division Walls of Hollow Building Tile, Hollow Concrete Block, or Built as Hollow Walls of Brick.

Party and division walls of above-mentioned materials and construction are required to be thicker than solid walls. Consideration was also given to the increased difficulty of inserting joists in such walls and obtaining support and protection for the ends.

When the building on one side only of a party or division wall is completed with the wall, and where subsequent constructions may require breaking into the wall for insertion of floor beams or other members, it is believed that the above types of construction should not be used.

Where the disadvantages of breaking into such hollow walls can be overcome, as for instance by solid wall construction extending at least one course above and below where the future line of joists will be inserted, the committee would approve party and division walls of the types named.

Par. 31. Party walls, Alternative Construction.

Whenever tests by responsible authorities show that other wall constructions have fire resistance equal to that of the wall described in Part II, section 28, they should be permitted as an alternative.

Par. 32. Parapet Walls.

The object of a parapet wall is to prevent a fire in a house from entering an adjoining house through the attic space, also to restrict flames from lapping over and igniting the adjoining roof. Where party or division walls do not extend through the roof the joint between the wall and the roof boards may be effectively closed by metal lath bent into the angle wall and roof and plastered with cement plaster.



PLAN and build well; but fight to hold down costs.

Poorly Built or Fitted Window Frames Admit Air and Moisture. The type of frame shown in Fig. 1 will prevent this, and that in Fig. 2, carefully installed, will be found satisfactory. Note the provision, in the first two cases, of caulking between sill and header.

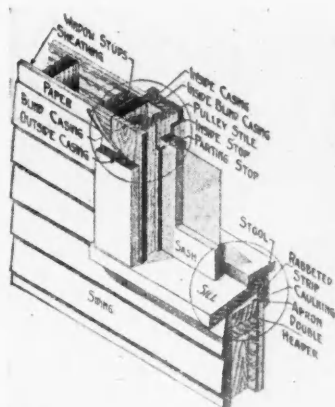


Fig. 1.

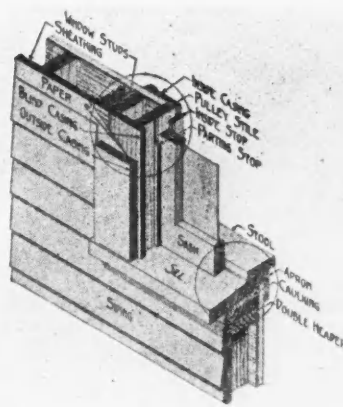


Fig. 2.

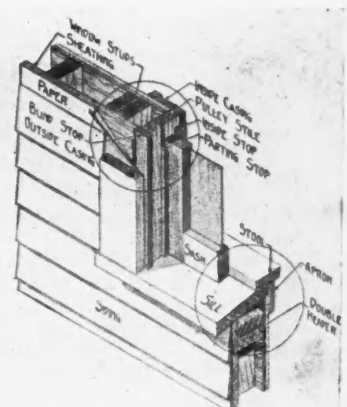
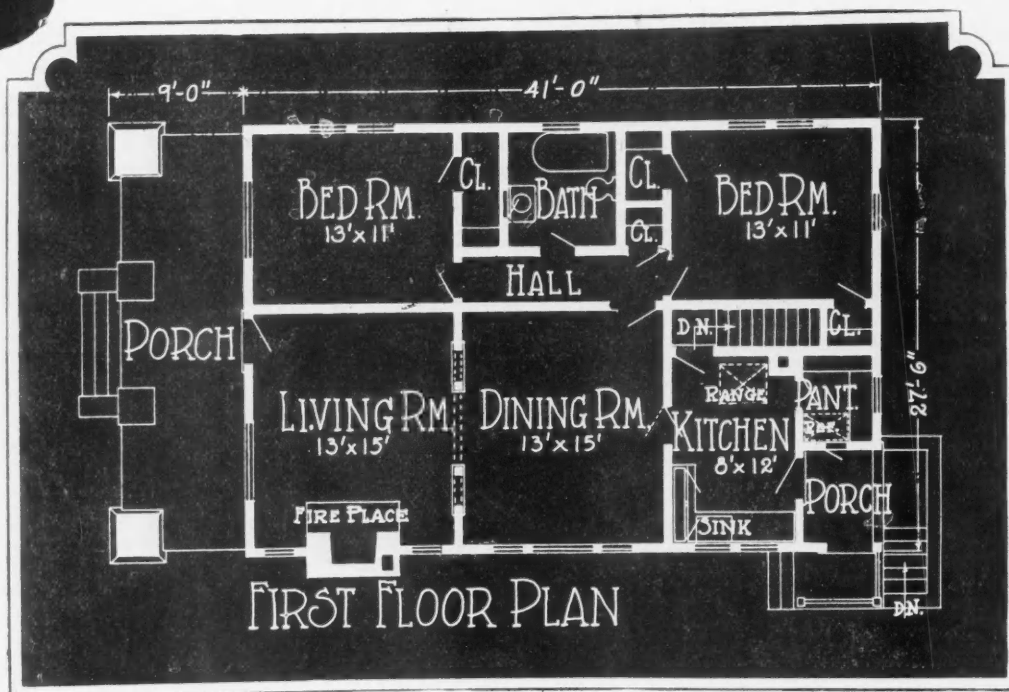


Fig. 3.

BLUE RIBBON HOMES

PRACTICAL & ARTISTIC

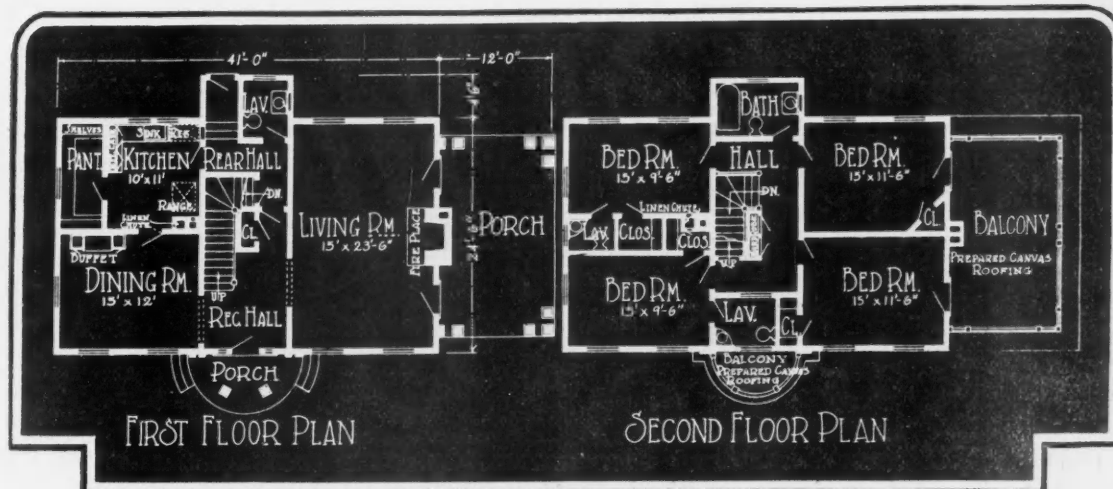


FINE, SUBSTANTIAL BUNGALOW. This attractive home is typically American as to architecture, and it knows no distinction of ownership except that kind able to appreciate its design and good structural merits. A workingman will not find this beyond him; a banker could seek farther for a better design, and fare worse. Observe we have stained shingle sidewalls, in a wide course pattern. This siding saves considerable, and besides is very popular. The fireplace and the porch supports are of brick, and this detail, together with the white cornice and window trim,

and stained roof, combine to make the general impression very attractive indeed. The wide-spreading porch invites inside, and we are in the living room, 13 feet by 15 feet, with a fireplace and a colonnaded doorway—or French doors, if you will—between it and the dining room. Off the latter is the kitchen, with good cupboarding space, window-lit sink, windowed pantry, with outside icing door for the refrigerator, and a rear porch. There are two bedrooms, with bathroom, and over-all dimensions are 27 feet 6 inches by 59 feet.

BLUE RIBBON HOMES

PRACTICAL & ARTISTIC



A MODERN COLONIAL RESIDENCE. You might imagine yourself along a New England road as you look at this, but it is a modern adaptation of one of those old homesteads. The designer and builder has used good judgment; it is well-handled, and artistically pleasing. One may question the dormers, but they can be left off, if need be: the house will look perfectly complete without them. Notice that the porch entrance to a Colonial type of home is never large. This forms a decorative unit in the center of the design, and leads through the door with sidelights

into the reception hall. This hall goes right through the house, connecting with a rear hall and lavatory at the rear. The living room is splendidly proportioned, 15 feet by 23 feet 6 inches, and has French windows opening on the side porch. It has a fireplace, naturally. On the other side of the house are the dining room and kitchen; well-arranged, with ample lighting. There are four bedrooms upstairs, one bathroom, two lavatories, and a sleeping balcony with prepared canvas roofing floor.

Attractive Plant an Asset in Selling Quality Concrete Products

Value of a Neat Stockyard Explained

By A. J. R. CURTIS

CONCRETE and its components—cement, sand, stone and water are not exactly clean materials to handle, and it is not an easy task to keep a concrete products factory neat and clean; nevertheless, neatness is an attribute from which the products manufacturer may expect fat dividends.

The manufacturer who desires to build up a reputation should keep his culls out of sight and it is better business to crush culls and use them for aggregate than to sell them for use where they may later prove detrimental by their negative advertising. In a large plant in Detroit, where there is considerable competition, the handicap of a poor location (rough cinder road for a long distance into the plant) is added to by a large pile of culls in the foreground and in the midst of the stockyard. A thrifty man-

agement is perfecting mechanical economies in the plant, but the handicap of those culls, which detract greatly from the appearance of the place and add to the labor of piling marketable stock, has not been sufficiently recognized to bring about a change.

Neatness and system in stacking products not only adds greatly to the appearance and convenience, but it conserves yard space, often cramped and limited

without prospect for enlarging. In the yard where stock piles are systematically laid out, mistakes in quantity and type called for on orders are very much less likely, whereas errors of this kind are of frequent occurrence in yards where the output is laid

down in hit or miss fashion. The writer knows a specific instance of where a trucking contractor asked half a cent a block more to load and haul them from a topsy-turvy yard than was quoted for a similar haul from a systematically arranged and well equipped yard.

Barriball Plant a Winner

George Barriball, a leading concrete products manufacturer of Cleveland, was one of the first to see the value of neatness and general attractiveness around manufacturing plant and stock yard. It has been said repeatedly that one could



Gentlemen, Meet George Barriball's Concrete Products Yard, Cleveland. Mr. Barriball is noted as the neatest manufacturer in the business.



Mr. Barriball's Neatly Made and Neatly Displayed Product Finds Ready Sale at Top Prices. What does it cost? Not much in cash outlay, but careful, painstaking attention to details.

eat off the floor of the Barriball plant; after visiting the plant you will agree that there is little exaggeration in the statement. So the story of the remarkable neatness of this establishment has traveled near and far and it has brought visitors and made sales.

Mr. Barriball is known as the neatest manufacturer in the business and his neatly made and neatly displayed product has always found ready sales at top

prices. "What does it cost you?" Mr. Barriball was asked. "Not much in cash outlay, but a great deal of careful, painstaking, attention to the details." Of course the surprising efficiency found here is not the result of personal efforts on the part of the management to clean up and slick up after the men as much as it is to train the entire force in systematic cleanliness and habitual care in the manufacturing process.

Many others have begun to see the value of a dignified and respectable—as well as cheerful and prosperous looking establishment. Modern methods demand it and those who refuse to follow the popular trend (in this case vastly for the better) are doomed to disappointment later on when building is back to normal and purchasers can afford to be "choosy" and shop around.

Points Worth Remembering

Usually several hundred possible customers pass by a concrete products factory to every one who has occasion to go in. Therefore it is good advertising to keep the exterior so that it will prove attractive and make a favorable impression on passersby. The following points are all worth remembering for they all have a vital bearing on the exterior or interior

of flashy colors and poorly drawn illustrations.

2. A good stock pile makes a fine display if carefully piled and kept free from culls. Keep at least the front of the stock piles orderly in appearance and if possible remove culls from sight.

3. Keep driveways, floors and windows clean, inside and out and take pride in removing any element which may tend to give the plant a forlorn or poverty-stricken aspect.

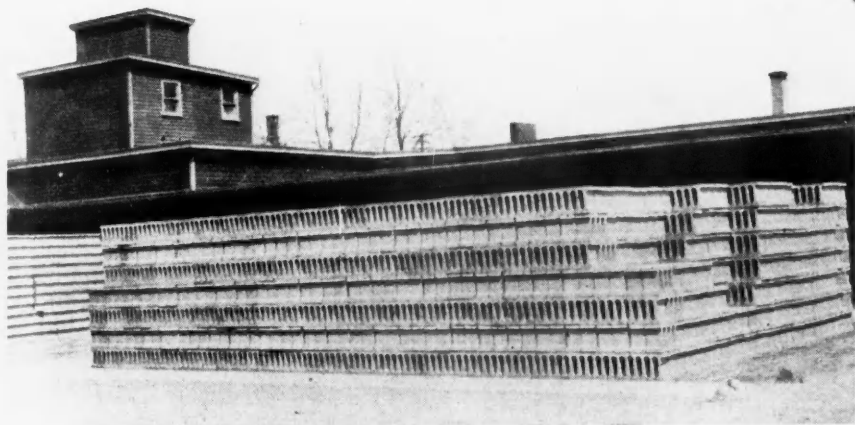
4. For the sake of economy, as well as appearance, keep all of the plant equipment clean.

5. Maintain a clean business office, if only in the corner of the factory. Don't let a customer fear he will soil his clothes if he stops in to figure a job. Many people not ordinarily considered "fussy" dislike to sit down on a dirty chair or write at a dirty table.

6. Invite customers to inspect your plant. The greatest merchandising organizations, like Sears, Roebuck & Company, have found it profitable to interest the public in their business details and local manufacturers can do the same thing. Invite local organizations to visit your yard.



The Inside of Mr. Barriball's Concrete Products Plant. Certainly elbow room here. The raw product is routed so as to be made into the finished product with a minimum of moving and handling.



A Truck Can Load Up Here at a Cost of Half-a-Cent a Block Less Than—Well, Less Than It Could at the Yard at the Lower Right, for Instance.

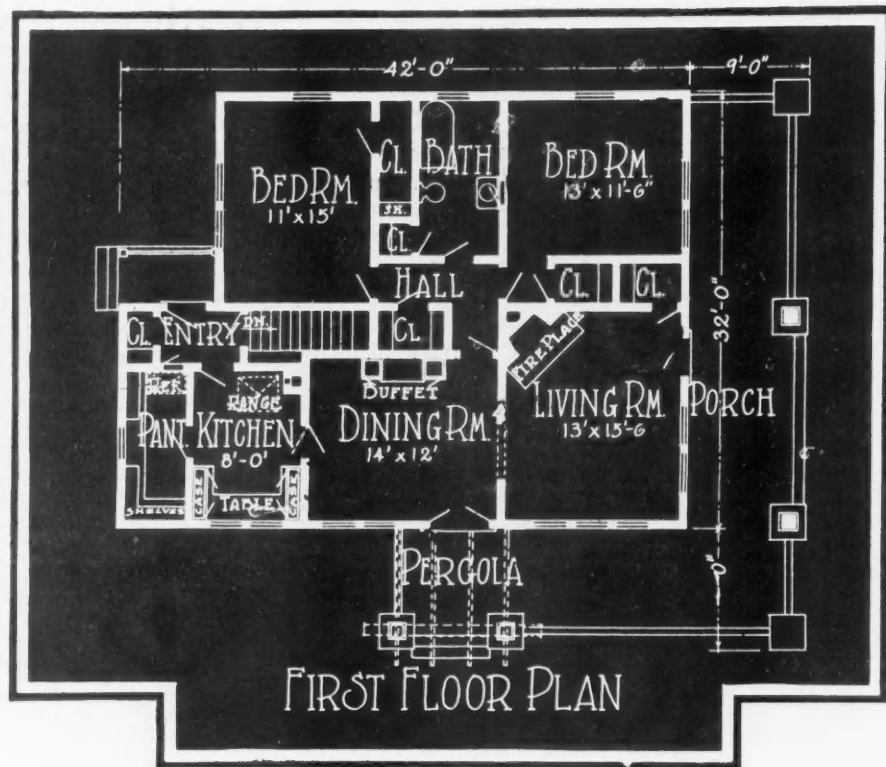
appearance of the factory.

1. Place the necessary name, direction and advertising signs carefully, insisting on plain lettering, free from embellishment, errors in grammar and abbreviations not easily understood. Signs which have a dignified and substantial appearance are far preferable to displays



BLUE RIBBON HOMES

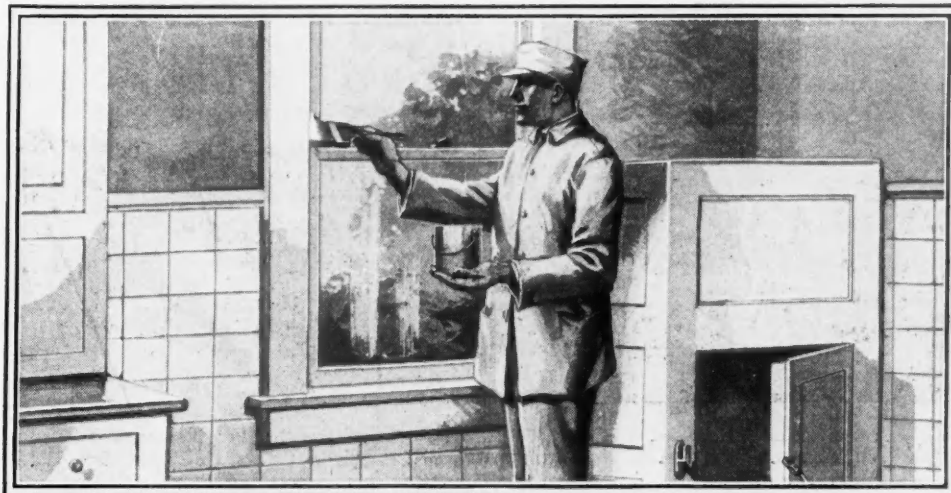
PRACTICAL & ARTISTIC



ATTRACTIVE FRAME BUNGALOW. This bungalow was built at first without any porch, terrace or pergola. The owner felt he could not add these until later. As it happened, the design lent itself very well to the plan he had in mind, and what he did contains a suggestion for others who wish to let their expenditure cover only essentials at the first. The bungalow is of frame construction, with brick porch supports. The living room opens directly off the porch, is well-lighted, and has a corner fireplace. Directly adjoining is the dining room, with French doors

opening on the side pergola for summer luncheons, and the kitchen has everything admirably arranged to save space and steps. The sink is by the window, with cupboard spacing at each side, and the windowed pantry has refrigerator space and outside icing door. There are two bedrooms, reached through a hall from the dining room, and served by a bathroom. The rear entry to this house could be enlarged to make a rear sleeping porch, with door opening from the rear bedroom. Over-all dimensions are 32 feet by 42 feet, exclusive of porch and pergola space.

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The Komensky Grade School, Berwyn, Ill., Is a Good Example of the Modern Trend of Schoolhouse Construction. It is of Romanesque architecture. The exterior is of warm colored rough texture shale brick with Bedford cut stone trimmings. It contains six classrooms and the boiler room and the coal room are on the ground floor—no basement.

A Modern Grade School

Present Day School Construction Requirements Well Exemplified in Komensky Grade School, Berwyn, Ill.

By G. W. ASHBY, Architect

THIS is a one-story building, containing six class rooms, with adjoining coat rooms; an office, and rest room with toilet; boys' and girls' toilet room; and boiler room and coal room. It was designed by the well-known school architect, G. W. Ashby of Chicago. The school is all masonry construction except the roof, which is asbestos roofing-wood joist, with a ten-year guarantee.

The interior trim for door, base, etc., is metal sanitary trim. All doors are red oak, and window frames of No. 1 Cypress. Maple flooring was used in the classrooms; mastic floors with 6-inch composition base in corridors, office, and toilet rooms; and cement floors in the boiler and coal rooms. The blackboards are of black Bangor slate, 4 feet high.

The building is well lighted. A wide corridor runs the entire length of the building, with overhead skylights. A vacuum return system of direct-indirect low pressure steam heating and ventilating and direct radiation is used. Direct-indirect radiators are equipped with adjustable air-diffusers. Vent ducts in each coat room are carried through roof, and are controlled by automatic damper. Each vent duct is equipped with aspirating coil or radiator to draw foul air from the rooms during the school period.

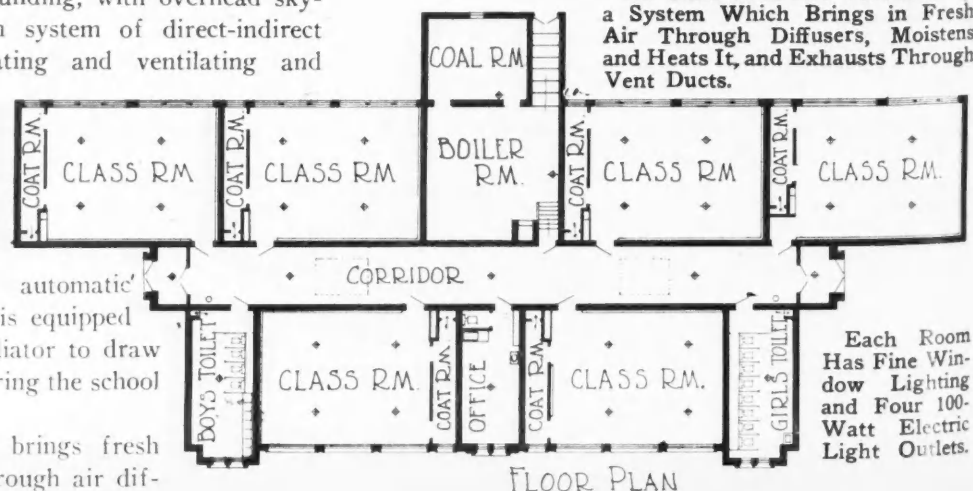
The ventilating system brings fresh air into each classroom through air dif-

fusers operating in connection with direct-indirect radiators, moistens the air and heats it to the proper temperature, and after diffusing it throughout the room carries it out through a vent duct located in each coat room.

The boys' and girls' toilet rooms have seat-operating automatic water closets with vitreous bowls and oak seats. Urinals are solid porcelain with enameled iron automatic tank. Lavatories have vitreous bowls, self-closing faucets and pop-up waste. Drinking fountains are the wall-hung vitreous bubble cup type with self-closing supply valve. All plumbing pipe is nickel-plated.

All electric wiring is in concealed metal conduits. Each class room has four outlets controlled by push button switch supported in wall in steel box.

All Classrooms Are Ventilated by a System Which Brings in Fresh Air Through Diffusers, Moistens and Heats It, and Exhausts Through Vent Ducts.



Each Room Has Fine Window Lighting and Four 100-Watt Electric Light Outlets.

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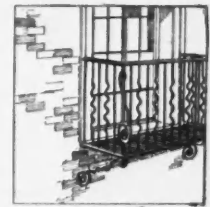


TRADE MARK

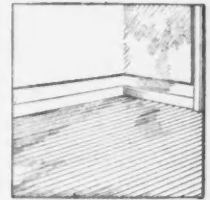


SURFACE	TO PAINT <i>Use product named below</i>	TO ENAMEL <i>Use product named below</i>	TO STAIN <i>Use product named below</i>	TO VARNISH <i>Use product named below</i>
BRICK WALLS (ext).....	S-W Concrete Wall Finish	Old Dutch Enamel		
CONCRETE WALLS ...	S-W Concrete Wall Finish	Old Dutch Enamel, Gloss		
CEMENT FLOORS	S-W Concrete Floor Paint	S-W Concrete Floor Paint		
EXTERIOR WOOD SURFACES	SWP (Sherwin Williams Prepared Paint)	Old Dutch Enamel	S-W Preservative Shingle Stain S-W Acid or Oil Stain	Rexpar Varnish
EXTERIOR METAL SURFACES	Kromik Structural Steel Primer Metalastic (for finishing coat)	Old Dutch Enamel		
FACTORY WALLS (Interior)	S-W Eg-Shel-Mill White S-W Fume Resisting White	Old Dutch Enamel or Enameloid		
FLOORS (Interior Wood) ..	S-W Inside Floor Paint (the enamel-like finish)	S-W Inside Floor Paint (the enamel-like finish)	Oil Stain or Floorlac Varnish Stain	Mar-Not Floor Varnish
GALVANIZED IRON SURFACES	S-W Galvanized Iron Primer (Finish with any Paint)	S-W Galvanized Iron Primer and Old Dutch Enamel		
INTERIOR WALLS AND CEILINGS	Flat-Tone Wall Finish S-W Semi-Gloss Wall Finish	Old Dutch Enamel or Enameloid		
INTERIOR WOOD TRIM	SWP (Sherwin-Williams Prepared Paint)	Old Dutch Enamel or Enameloid	S-W Acid Stain S-W Handcraft Stain S-W Oil Stain	Scar-Not Varnish Velvet Finish Varnish (for imitation rubbed effect)
PORCH FLOORS AND DECKS	S-W Porch and Deck Paint			
RADIATORS AND PIPES	Flat-Tone Wall Finish or S-W Gold Paint S-W Aluminum Paint	For White—S-W Snow White Enamel For colors—Enameloid		
ROOFS—Metal	SWP or Metalastic (if Galvanized, prime with S-W Galvanized Iron Primer)			
ROOFS—Wood Shingle ...	SWP or Metalastic		S-W Preservative Shingle Stain	
STACKS AND HOT SURFACES	Salamander Smoke-Stack Black	<div> <p style="text-align: center;">Recommendation</p> <p>The "Architects' Guide" is the result of very careful work in the interests of the right finish for each surface. It is published as the recommendation of the Sherwin-Williams Company.</p> <p>For details of specifications see: The Sherwin-Williams book of painting and varnishing specifications or Sweet's architectural catalogue.</p> </div>		
STRUCTURAL STEEL ..	Kromik Structural Steel Primer Metalastic (for finishing coats)			
TO DAMP-PROOF FOUNDATIONS....	S-W Antydamp			
TO DAMP-PROOF INTERIOR WALLS ABOVE GRADE....	S-W Plaster Bond			
WOOD PRESERVATIVE			S-W Carbolic-ol	

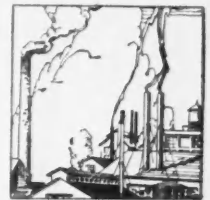
Copyright, 1923, by The Sherwin-Williams Co.



To protect architectural iron work



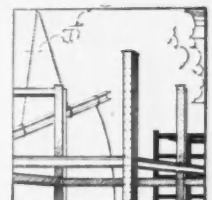
For satisfactory hardwood floors



For stacks and other hot surfaces



For any desired effect on interior woodwork



For protecting structural steel



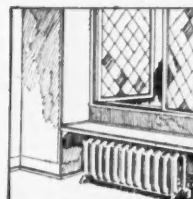
For distinctive wall finishing



For stucco



For concrete walls



To finish radiators



To keep walls damp-proof, above grade

CORRESPONDENCE

*Questions Answered—
Ideas Exchanged*



Our Readers Are Requested and Urged to Make Free Use of These Columns for the Discussion of all Questions of Interest to Architects and Builders

Designs and Builds Fine Type of Residence

To the Editor:

Kimberly, Idaho.

I am enclosing a photograph of a house built by me. The owner and myself drew the plans. It is a ranch house, size 38 feet by 28 feet, and has seven rooms. There is a bathroom



Modern Ranch House Built by Mr. Arthur H. Fay, at Kimberly, Idaho. Seven rooms, with heating and lighting system.

on the first floor and a sewing room on the second floor, and a basement under the entire structure, with modern apparatus for the furnishing of light and heat. ARTHUR H. FAY.



Unusual Moving Job

To the Editor:

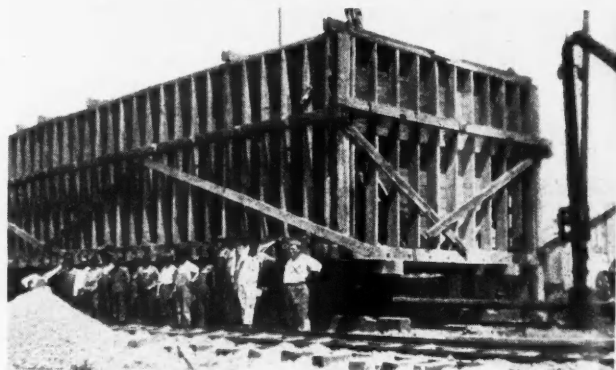
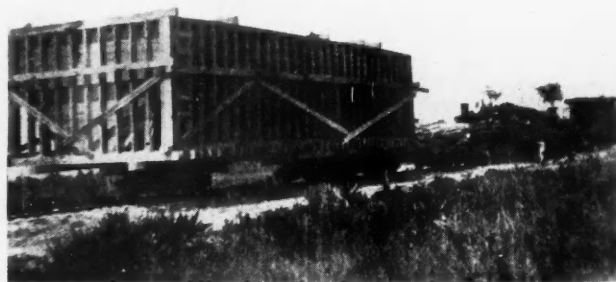
Pierce, Fla.

I have been a reader of the BUILDER for several years and thoroughly enjoy the correspondence department.

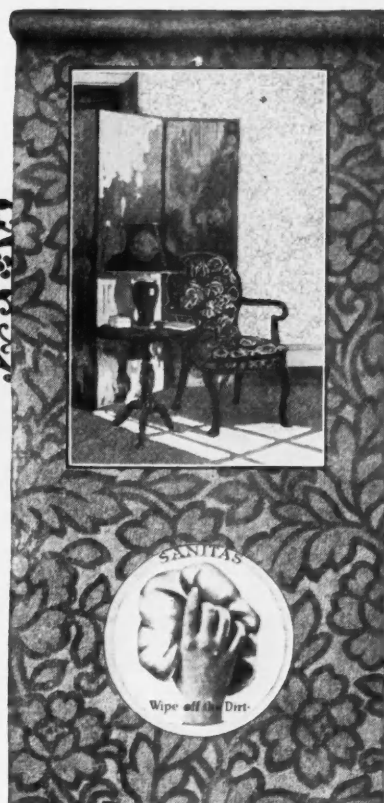
I have recently completed what I consider a very remarkable feat of moving a structure without dismantling it, and in hopes that it might be of interest to some of the fellows I am sending snapshots of the job, together with myself and crew.

The thing that I consider remarkable about the job is the

fact that we moved this structure 11 miles in four hours and fifty minutes on a standard gauge railroad; the difficult part being that the structure, which is the storage bin at a phosphate washing plant, is 24 feet wide, 14 feet high, and 55 feet long. You will realize the difficulties that had to be overcome if you stop to think that the entire load had to be carried on rails that were 4 foot 8½-inch gauge around very stiff curves, and over very bad track. This bin was lowered from a height of 12 feet above the track onto two special trucks which I built from the trucks under an



This Is the Storage Bin of a Phosphate Washing Plant, Moved 11 Miles in 4 Hours and 50 Minutes by Mr. Bradley and Crew.



SANITAS

MODERN
WALL COVERING

The importance of the surface and what's behind it

THE surface of Sanitas is really several machine-painted coats of durable oil colors. It is impervious to moisture, grease and stains, does not fade, collect dust, or show finger marks, and can be wiped clean and fresh with a damp cloth.

Sanitas is made on cloth, woven of high-grade, long-staple cotton, in our own large Southern cotton mills. We are able to, and do, control the quality of the fabric base, as well as the oil-color surface, and maintain a uniform standard.

Sanitas can be applied over any flat surface. New walls and wallboards can be covered as soon as the plaster is dry. Cracks in old walls, when properly filled, cannot show through Sanitas. It does not crack, tear, peel, or blister.

Recent experiments in finishing plaster walls have proved that the white coat can be eliminated and Sanitas applied over smooth second coat of plaster at a considerable saving in time and money. We will gladly send to any reader of American Builder complete information on this subject.

Sanitas comes in styles for every room in the house.

Enamel Finish. plain colors and tile effects.

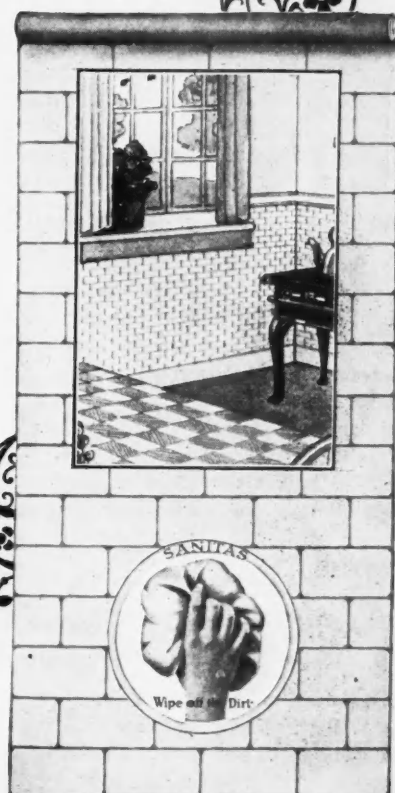
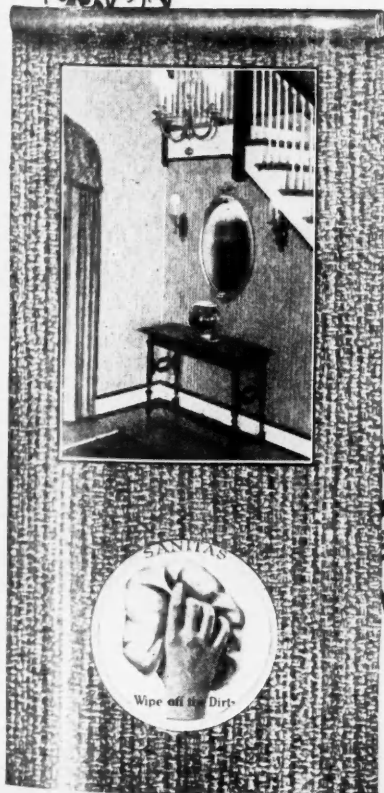
Flat Finish. plain tints that can be stenciled, frescoed, stippled, or Tiffany blended.

Decorative Patterns, floral designs, tapestry, grass cloth, leather and fabric effects.

Our Architects' Service Bureau will gladly send samples and suggestions, on request.

THE STANDARD TEXTILE PRODUCTS CO.

320 BROADWAY, NEW YORK



old abandoned steam shovel by placing 12 by 14 feet timber bunks on them in place of the regular bolsters that were on the trucks. After reaching the new location the bin had to be jacked up to a height of 12 feet above the track.

The entire job was completed without an accident of any kind either to men or equipment.

B. B. BRADLEY.

General Carpenter Foreman,
American Agricultural Chemical Company.

An Interesting Request

To the Editor: Danbury, Conn.

Would thank you to inform me just how you could carry a level and plumb line on an eight or ten-story building.

I. B. LOWRY.

Flue Lining Chimneys

To the Editor: Waukon, Ia.

I would like some advice on flue lining in chimneys. Some do not recommend it,—what is your idea? Should the space between the brick and lining be filled with mortar, or would this interfere with the expansion of the flue in any way?

J. C. JACOBSON.

Door Mouldings, Cement Mixing and Fifty Foot Spans

To the Editor: Earlville, Ia.

I disagree with Mr. Buckingham's door idea, for this reason: The solid moulded side of the door is back-puttied and water tight. The bevel is also on this side, so I hang this side out.



Builder Reed Keeps Himself and Employees Busy Erecting Substantial Dwellings of This Type in Iowa.

In regard to Mr. Edelmann's cement problem: I have had the best success mixing my grout wet and not tamping, but leaving the surface rough, and following up with top coat before grout has started to set. If the soil is of such a nature that it will not drain, I put a few inches of sand under to drain off the moisture.

Would like to know from some brother reader how to put a hall above a fifty-foot span, without posts under it. Could this be done without too much expense?

Am enclosing a photograph of one of the houses I am building.

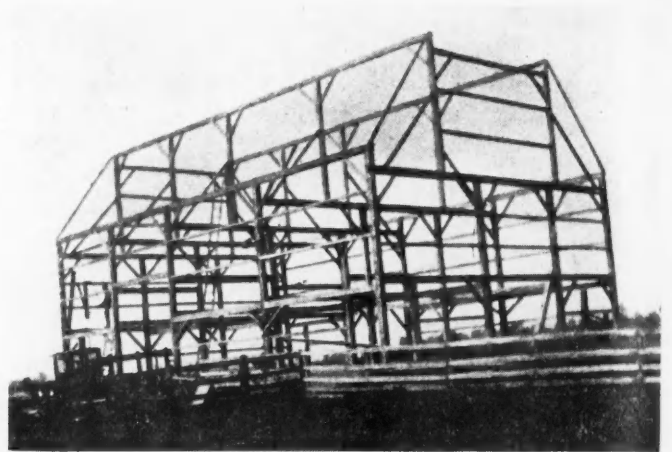
J. HOWARD REED.

A Springing Dance Floor—How Do You Build It?

To the Editor: Lawrence, Mass.

Will you kindly give me information in regard to building a springing dance floor? I would appreciate same very much.

THURMAN E. MARTIN.



Fine Large Barn Going Up at Montpelier, Ind., Under Supervision of Mr. C. B. Williams.

Framing the Barn

To the Editor: Montpelier, Ind.

I am enclosing photograph of a barn, 40 feet by 60 feet, made while it was under construction by me for Earl V. Garrett of this place.

C. B. WILLIAMS.

Hints for Builders

To the Editor: Pottersville, N. Y.

I thought it would not be amiss in explaining some of my methods of work for the benefit of fellow AMERICAN BUILDER readers. I always use herringbone bridge bracing, snap the two lines the width of the floor timbers apart, and cut the braces from the measure on these lines. I always put in top headers and short studs over all openings before raising the frame, and lower headers and studs after.

I fit my doors before making up jambs, cut in butts in both door and jamb at the bench, and set the jamb swing sideplumb. Then I hang the door on the same, and fit the rest of the jamb around the door, with suitable wedges. I find that in this way I can get a complete job in a lot less time than in the old way. I find the AMERICAN BUILDER a lot of help in my business.

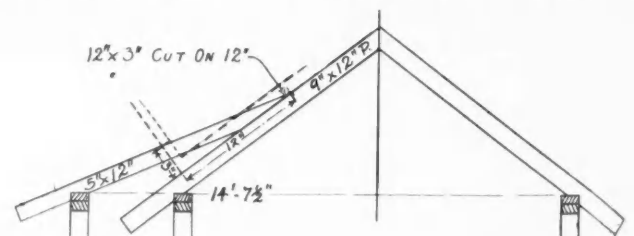
F. E. SHAW.

Ascertaining Cut of Rafter

To the Editor: Sayner, Wis.

I noticed the inquiry of Wm. Cooley, Victoria, B. C., about the cut of a rafter from the porch roof to the rafter on the main roof.

If he will make a diagram on a straight-edged board the same as the diagram he made of the roof, and then reverse his



Mr. Erdman's Suggestion for Getting Cut of Rafter from Porch Roof to Main Roof Rafter.

square, laying the blade on the main rafter, and let the tongue run up past the porch rafter, he will have the pitch. This is 3 by 12 in. The cut on the 12-in. face will also give the length from plumb cut on the porch to the intersecting point on the main rafter, which would be 14 by 7½ in.

L. M. ERDMAN.

The "American Universal Way"

Will earn for you just—

Six men's pay



NAMES	Rate per Day	AMOUNT	
		Dolls.	Cts.
<i>D. Reuter</i>	8.00	8	00
<i>C. Torak</i>	8.00	8	00
<i>A. Marsa</i>	8.00	8	00
<i>J. Malloy</i>	8.00	8	00
<i>G. Clark</i>	8.00	8	00
<i>R. Duncan</i>	8.00	8	00
		48	00



NAMES	Rate per Day	AMOUNT	
		Dolls.	Cts.
<i>J. Morris</i>	6.40	6	40
<i>Operating Expenses:</i>			
			60
			100
			800

The "American Universal" floor surfacing machine will replace six hand scrapers on your payroll! Where hand scraping costs you \$48.00 your floors can be surfaced the "American Universal Way" for \$8.00. An actual increase in your floor surfacing profits of 500%! The "American Universal Way" is not only the CHEAPEST WAY—it is the BEST WAY. Makes a beautiful, smooth surface free from chatter marks, etc. A very good job at a very low cost!

The "American Universal" floor surfacing machine is of simple design, and its full ball bearing construction assures long life and dependable service.

FREE FIVE DAY TRIAL

Clip the coupon and mail it to us today, properly filled in, and let us explain to you our offer to ship you a machine and let you try it out for five days free of charge. Don't delay. Clip the coupon NOW and mail it today.

The American Floor Surfacing Machine Co.
515 South St. Clair St. Toledo, Ohio

AMERICAN FLOOR SURFACING MACHINE CO.
515 South St. Clair Street Toledo, Ohio

Send at once, without obligation to me, full particulars and free catalogue on your "American Universal" floor surfacing machine. Don't fail to explain free five-day trial offer.

- I am a building contractor.
- I want to become a floor surfacing contractor.

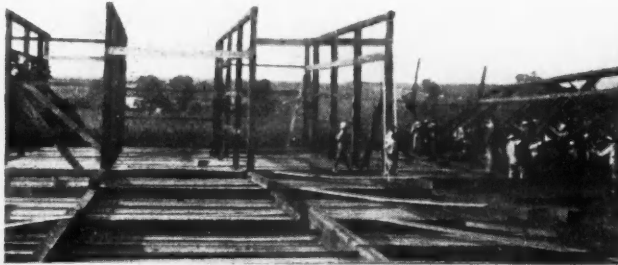
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Street Address _____
City _____ State _____

Live Builder Uses Pin Frame Construction in Big Pennsylvania Barns

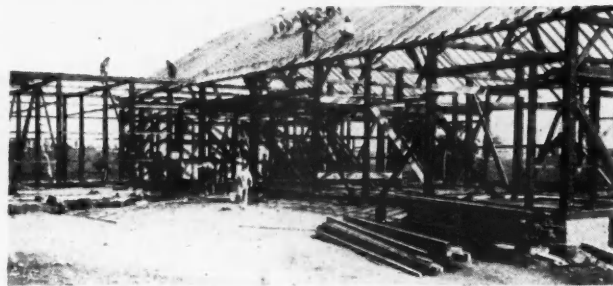
To the Editor:

Mount Joy, Pa.

I am enclosing some pictures which you may use, if you wish—they are of the old style pin frame construction. No. 1 is on the Cameron farm, in this vicinity, and is 48 feet wide and 84 feet long. No. 2 was taken at 9 o'clock in the morning, last summer, at a large raising on the Hostetter Farm, and shows the fifth of twelve walls being raised. No. 3 shows the same building at 3 o'clock that afternoon. The barn is 115 feet long on the wall and 50 feet wide, and 18 feet high



A Barn-Raising at Cameron Farm, Mount Joy, Pa.



9 A. M., and the Fifth of Twelve Walls Raised!



3 P. M., and How the Pin Frame Barn at Hostetter Farm, Mount Joy, Pa., Looked After a Live Barn-Raising Crew Under Contractor Walter, of Forin, Pa., Finished Letting Off Steam.

in the square. The L is 50 feet long and 40 feet wide and 18 feet high and has a gambrel roof. This barn is all of Douglas Fir.

These are only a few of the big barns. One is on the farm of the B. F. Heistand & Sons Lumber Co., Marietta, Pa., and one has been built for H. Rich of that place. The Heistand barn is 106 feet by 43 feet by 16 feet, and there are also two sheds 28 feet by 48 feet by 18 feet, and 28 feet by 58 feet by 18 feet. Where is the man who wrote in to AMERICAN BUILDER that pin frames are a thing of the past? He had better take a trip to old Lancaster County and see some of the work this summer.

These barns were built by A. G. Walter, carpenter, builder and contractor, of Forin, Pa. He is the man I am working for, and he can keep us 15 fellows busy winter and summer. I have a framing square and it is great; saw it advertised in AMERICAN BUILDER. One will not go wrong getting one.

I like the AMERICAN BUILDER and do not wish to miss a copy, and did not these four years I am getting it.



JOHN L. HESS.

Building a Thousand-Ton Ice House

To the Editor:

Palmyra, Wis.

I would like to get the best size for an ice house holding one thousand tons, and what would you advise for insulating?



HARRY MELSTER.

Says Shingle Nails Are Not Too Long

To the Editor:

Coleridge, Neb.

I was reading in AMERICAN BUILDER of a California carpenter who said that shingle nails were too long, and when shingling bungalow cornices they went right through the ceiling. What he wanted was a short, stubby nail.

Now, I am going to try and explain to him how I get by, using the same old nail that we have always used. In the first place, I drop my frieze the thickness of the ceiling and below the top of the rafter, and then nail the ends of the ceiling to the top of the frieze with 4d finishing nails, and the other end to top of verge board the same on the sides. Then I put on the sheeting, cutting off flush with verge board, and run a 1 by 3 all around the edge to cover up ends of ceiling and sheeting. If you follow this method you can go ahead and put on your shingles without any fear of nails showing through the cornice. This way may take a very little longer, but it makes a neat-looking job when finished.

I take great pleasure in reading AMERICAN BUILDER, especially the correspondence columns. I have missed but one year's subscription since 1915, have every copy of the other years on hand, and refer to them often.

HERBERT ROSE,



Carpenter and Builder.

Makes Handsome Inlaid Table

To the Editor:

Blanchardville, Wis.

I am sending photograph of a table made by me. This has a 25-inch by 37-inch top, mahogany, inlaid with 2,700 pieces, comprising 48 different kinds of wood. I make different kinds and styles and do this when I have spare time. I like to do



A Handsome Inlaid Table, Inlaid with 2,700 Pieces of 48 Kinds of Wood, by Mr. Knute Nesheim.

this kind of work and will gladly show it at any time to other AMERICAN BUILDER readers in this section who appreciate work of this kind.

KNUTE NESHEIM,

General Contractor and Builder.



How?

To the Editor:

Wilmington, Del.

How do you get the butt cut on a side of a hopper with the steel square?

WALTER D. CARPENTER.



A Home of "Fisklock" Brick —and Its Cost

YOU can build your home of "FISKLOCK," whether bungalow or mansion, at little more cost than wood—and the money saved in a few years from continued heating, painting, repairing, and insurance expenses will more than pay the difference in first cost. A "FISKLOCK" house costs less to build than any other type of face brick construction, because "FISKLOCK" is the two-in-one brick—easily handled, and cheaper to lay than the face brick and backing up brick which it replaces.

Let us show you how a "FISKLOCK" home spells beauty, permanence and comfort without extravagance.

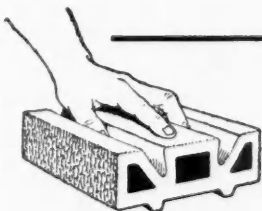
Fiske & Company

Incorporated

NEW YORK

BOSTON

WATSONTOWN, PA.



F I S K L O C K
THE TWO-IN-ONE BRICK

Oil Burning Heats Home in Clean and Effective Way

AS a home fuel it has long been felt that coal is basically unsatisfactory. It is often dirty and the manner of its delivery makes for dirt, and it is still more dirty in the coal bin. It burns and yields a fair degree of heat, but the ashes and the clinkers make the householder wonder whether, after all, he has got his money's worth. When spring comes the basement is due for a general overhauling—and everything else in it. The whole year through the householder is paying tribute to coal and the dirt it spreads over everything.

A natural process of evolution has brought the use



Once in the Dear Dead Days Beyond Recall We Seem to Have Seen a Scene Like This—Dust Everywhere, and More Dust Inside Where the Coal Went. Oil burning ends this.

of kerosene or distillate oil to the fore as an ideal fuel. The broom was succeeded by the vacuum cleaner, the tallow candle and oil lamp by the electric light. The oil burner is said to produce perfect combustion of kerosene or distillate oil, distributing all the heat generated where it will do the most good, operating in cleanly fashion, and without any waste or refuse. The one illustrated consists of an air and oil control mechanism that is mounted in front of the furnace. It supplies proper amounts of air and oil to a firepot which is inserted and sealed outside of the firebox. Here the oil is vaporized and perfect combustion effected.

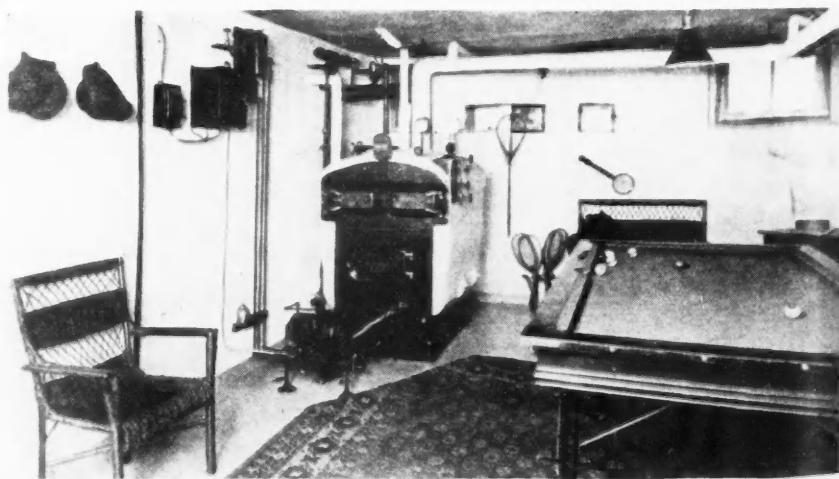
It can be installed in any home-heating plant—whether steam, vapor, hot water or hot air. When properly installed it requires no attention; is practically noiseless in its operation, and is so well made as to be practically trouble-proof. Its operation is controlled automatically through the thermostat. Any desired degree of heat is constantly maintained by simply setting the

thermostat at the temperature desired. It is as simple as switching on electric light, and when one considers the advantage on a cold morning of not having to shake down a coal bed in the basement and snuff up an irritating amount of ash dust there is small wonder that this particular make of oil burner should enjoy the popularity it does. Those who have it in successful use say it is a clean, efficient and safe heating mechanism which can be depended on at any hour.

Oil fuel can be used in any hot water, steam or vapor boiler, or in a hot-air furnace. The successful oil-burning mechanism must break up the oil properly—that is, mix the oil with oxygen in proper proportions, converting it into gas. The grade of oil best adapted to the burner requires proper consideration, so that one will not order fuel oil when they should use gas oil or distillate or kerosene. Know the grade available in your locality and act accordingly.

A modern oil burner, thermostat-controlled, will use from 125 to 135 gallons of oil per week, to heat, say, a ten-room house in midwinter. Naturally, then, oil fuel equipment must include storage tank with pump and pumping-in connection with the burner arrangement. In Chicago and in some other cities fuel oil having a flash point above 187 degrees F. may be stored in basement tanks up to 1,500 gallons without the expense of underground or walled-in construction. In any locality insurance rules allow the storage tank to be in the cellar if not larger than 275-gallon capacity, and if a larger tank is desired it must be placed underground at greater cost. Though there is said to be a saving in fuel as against hard or soft coal it is best not to expect any great reduction, but be satisfied with more cleanly service and convenience.

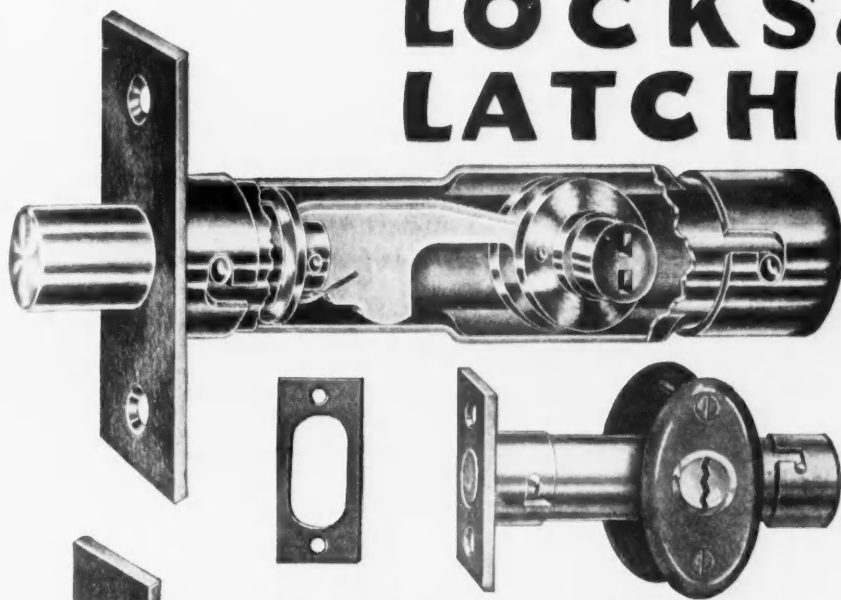
Fuel oil burners are built for very small boilers as well as for large ones; hence they provide a ready means of supplying outlying buildings, such as garages, greenhouses, chicken houses, etc., where the temperature required may be different from the home. All such can have their individual temperature control, the burner only operating as needed.



This Basement Is Both a Utility and a Joy, Since the Oil-Burning Mechanism Has Been Installed in Connection with the Boiler. With this fine game room here is a home where they don't ask: "Where is my boy tonight?"

DEXTER

LOCKS and LATCHES



The Tubular design of Dexter Locks and Latches permits easy and rapid installation, and eliminates all cutting, gouging, and mortising operations. Just bore four holes and install. Then drive home the screws. That's all. Any very ordinary mechanic can easily install four Dexter Tubular Locks per hour.

No lock ever made is so easily adjusted. Can be instantly taken apart or re-assembled. Because of its construction, tremendous savings are possible in time and labor.

Dexter Lock Bolts have a longer throw than the ordinary locks. This provides for a reasonable amount of door shrinkage.

Extreme simplicity and unusual cleverness of design marks the Dexter Tubular Lock. Cannot be opened with a skeleton key as is the case with ordinary locks. Lock can be located at the most convenient place, either above or below the door latch.

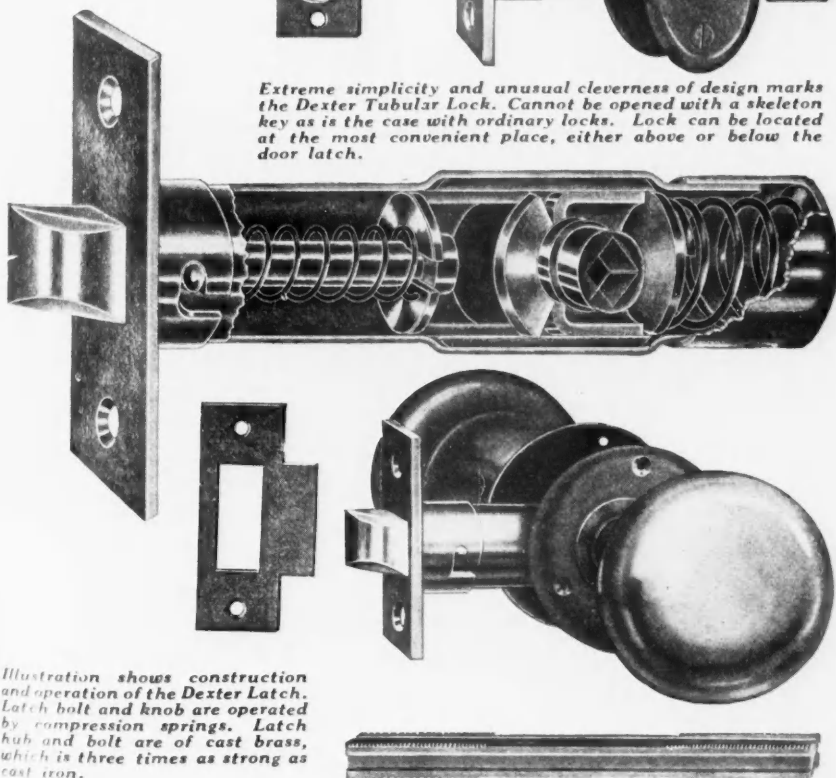


Illustration shows construction and operation of the Dexter Latch. Latch bolt and knob are operated by compression springs. Latch hub and bolt are of cast brass, which is three times as strong as cast iron.



Write for catalog giving full information



National Brass Company
Grand Rapids Michigan

Made in Canada by Dexter Lock Co., Hamilton, Ont.

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER

MOTOR TRUCKS *and* TRAILERS



Profitable Transportation

By F. L. EDMAN

IN deciding between the horse of flesh and the horse of iron, operation cost should by no means be the only basis of consideration. Though important, this factor is not all-important.

While it is true a truck of the right capacity that is accurately adapted to the work at hand will actually save in operation cost in most instances where any considerable volume of hauling is involved, yet in cases where a truck will not show a cash saving in this respect, it does not necessarily follow that the horse is the logical medium of transportation.

Getting down to actual figures, the daily cost of transportation by team is about as follows:

Driver	\$4.00
Feed .....	.85
Veterinarian .....	.17
Shoes .....	.26
Repairs .....	.83
Insurance .....	.10
Depreciation .....	.15
Barn .....	.30
Interest .....	.11
Miscellaneous .....	.20
	<hr/>
	\$6.97

The cost of operating a 2-ton motor truck, figuring 120 miles travel per day and ordinary traveling conditions, is about \$14.57, including interest on investment, depreciation, garage rent, \$5 a day for driver, in fact, every conceivable item of expense. How this figure is arrived at is explained later.

On the face of things it appears that the truck costs more than a team, but consider the following:

The average traveling distance of a team per day is 18 miles, steady going. The average hauling capacity is 1½ tons. Most any good 2-ton motor truck can reach a speed of at least 25 miles an hour, which enables it to make 120 miles in a 10-hour day with ease, this calling for an average speed of only 12 miles per hour. A 2-ton truck will, therefore, haul 2 tons

6¾ times as far as the team will haul 1½ tons. On the basis of an 18-mile run it would, by its ability to make the trip at least 4 times in 10 hours, allowing ample time for handling loads, haul 8 tons a day against the team's 1½.

Looking at it from another angle, it would require 5 teams to do the work accomplished by a single 2-ton truck, and they would still be short a half-ton in the amount of material handled. A comparison on the basis of performance would, therefore, necessitate multiplying by 5 the figures on team haulage, which would bring the cost up to \$34.85 per day, against the truck's cost of \$14.57 per day.

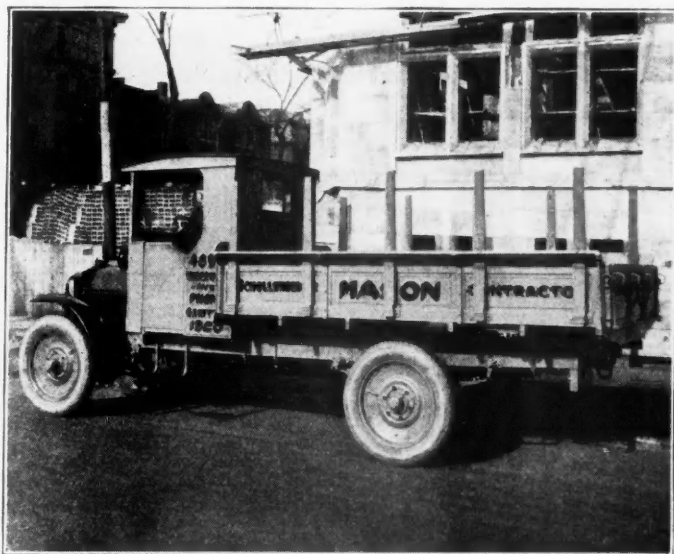
It will, therefore, be readily seen that only the building supply dealer whose hauling is very limited can afford to use horse-drawn equipment on the basis of cost alone, to say nothing of the advantage to his business gained by more prompt and dependable transportation, as well as the possibility of materially increasing trade radius which the motor truck affords.

While we are on the subject of costs it may be well to submit an outline for determining truck costs, although it must first be clearly understood that no set of figures offered can fit all conditions.

The figures given below on a medium-priced 4000-pound truck are based on travel over good roads, fairly level, and although bad roads, frequent hills and extreme climatic conditions would make some difference, they afford something definite to work from:

<i>Investment</i>	
Chassis	\$2495.00
Body equipment and cab top.....	250.00
Freight	25.01
War Tax	54.00
	<hr/>
	2824.01
Less tire value.....	214.68
	<hr/>
	\$2609.33

**Get greater economy
from your delivery
units. Federal trucks
will definitely give
you more truck miles
for less money because
of their modern design.**



In the Building Field

You need the best in motor trucks. Federals like this one owned by Schollenberger Mason Contractor, Detroit, are daily helping builders in every city in the country.

Write for Booklet S-27, "Making One Thing Better"

Federal Motor Truck Company

DETROIT, MICHIGAN



Most Modern Building Supply Dealers Know That Service Demands Prompt Service to Their Friend, the Contractor and Builder.

<i>Fixed Charges Per Day (300 days per year)</i>	
Interest on investment at 6 per cent.....	\$.5218
Insurance .....	.2000
License .....	.0510
Driver's wages	5.0000
Garage .....	.4000
	\$6.1728

<i>Variable Charges Per Day</i>	
Fuel at .25 per gal. (10 miles per gal.).....	\$.0250
Oil at \$1.00 per gal. (300 miles per gal.).....	.0033
Est. repairs and overhaul.....	.0150
Tires (20,000 mile life).....	.0107
Depreciation (150,000 mile life).....	.0176
	\$.0716

Multiplying total variable costs by the number of miles traveled per day and that amount plus total fixed charges, gives complete daily cost of truck. For instance, if the truck travels 120 miles in a day, the total variable charge is \$8.40. Add to this daily fixed charges of \$6.17, gives a total daily cost of \$14.57, the figures previously used in making comparison with team haulage.

The extent to which a motor truck can be made a profit-paying investment depends largely on the operator. A good truck does not require a great amount of attention, but it does demand some if it is to be given a chance to do for its owner what it is really capable of.

So much has been said about monthly inspection that this subject need not be gone into here. Common sense teaches us the importance of heading off trouble in every possible way, so that the monthly inspection is generally accepted as a thoroughly practical measure from every standpoint.

Much can also be done by the operator, with very little effort on his part, to make sure his truck is performing with utmost economy

and efficiency.

For instance, one of the best ways to ascertain whether or not the engine is functioning 100 per cent is to check its operation under idling conditions.

The engine that idles perfectly must be free from an excess amount of carbon, valves must be fairly clean and tight at seat—rings in good condition—and carburetor adjustment right.

If the engine will not idle properly an effort should be made, without delay, to locate the trouble, for there is somewhere a loss of power, which, if not actually causing annoyance in operation, is costing more than should be necessary for fuel, and

likely doing more or less damage to the truck mechanism.

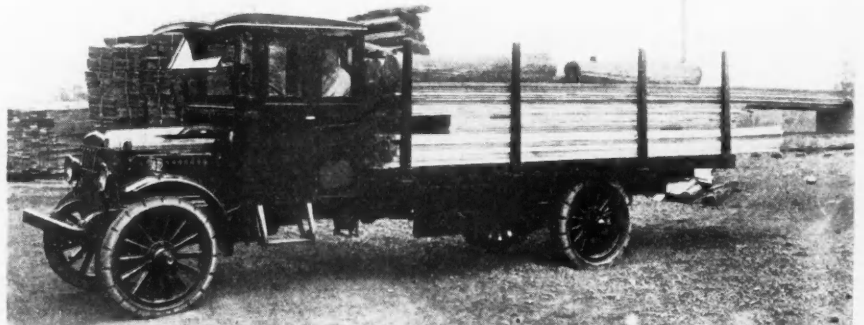
A rolling or galloping action is an indication that the carburetor is adjusted for too rich a mixture, which rapidly thins the oil, fouls spark plugs, heats up engine and causes a general loss of power.

If there is a tendency to pop back, the mixture is probably too thin, although this may be caused by dirty valves. If it dies easily after thoroughly warmed up, there is perhaps a collection of dirt or water in sediment trap. Make a practice of cleaning sediment trap every thirty days.

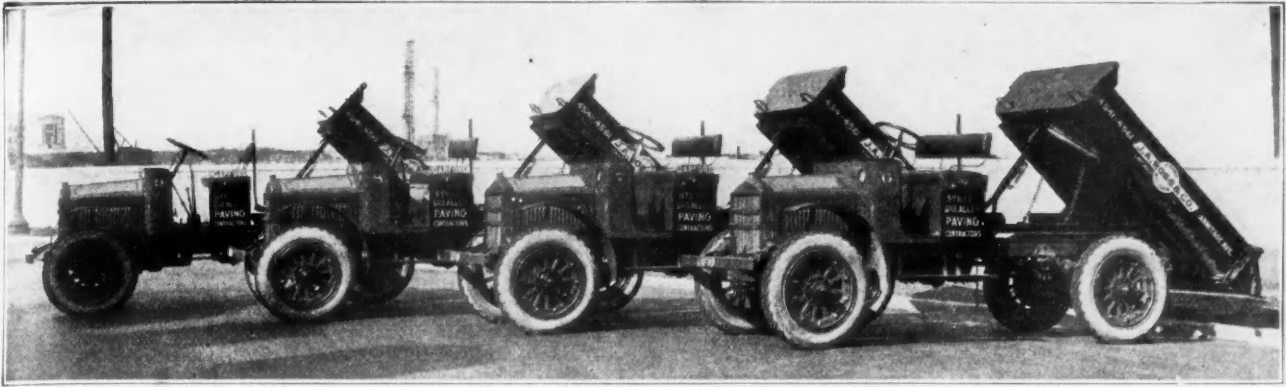
Whether the trouble is too light a mixture or one of the other irregularities mentioned, the effect is pretty much the same—light impulses, misses and uneven power, which jerk and strain entire the truck mechanism. This is naturally very hard on all moving parts.

If the engine frequently misses fire at low speeds, this may be due to spark plugs being spaced too far apart, or an excessive amount of carbon. It will pay to find out which and apply the remedy.

To check up further on power, subject the truck to a hard pull, on high, throttled down to a very low speed, and watch carefully for any inefficiency in cylinders.



A Good Truck Is an Investment in Transportation That Should Be Safeguarded. If you don't drive your own, make sure of your driver; he can make or break its value to you.



Garford Engineers Provide The Special Equipment for Specialized Work

The four 1½-ton GARFORDS above are an admirable example of GARFORD'S ability to provide the right equipment for such specialized work in the contracting field as alley paving.

The easy control of power in GARFORDS, the absolute response to the driver's handling, and the convenience of the dump body arrangement makes these trucks ideal for such work.

GARFORD Engineers have years of experience and an enviable record of success behind them in furnishing users with

equipment that exactly meets their requirements—no matter how unusual is the need, nor how difficult the haulage conditions.

Their advice and expert recommendations are available to all. Let them analyze your needs, and make suggestions. You are in no way obligated; this service is rendered without charge. And it is almost certain to result in more efficient trucking and a considerable saving in costs.

Write for information.

The Garford Motor Truck Company, Lima, Ohio

Manufacturers of Motor Trucks 1 to 7½ Tons

GARFORD

DEPENDABLE TRANSPORTATION

Special Practice Plaster

(Continued from page 114.)

pared paste used by paperhangers, working the paste thoroughly into the fibre of the fabric. Butt the edges to a straight, true, tight joint and wipe over each seam after finishing with a soft cloth wrung out in cold, clean water. This will render each seam invisible except to the very closest inspection.

Summary. The use of:

Scratch Coat,

Smooth and skimmed brown coat,

Linseed oil and standard pigment painted fabric yields in advantage over present standard practice plastering method:—

Equal thickness of plaster.

Equal insulating and soundproof qualities.

Equal or less cost, including the decorative finish.

Greater structural strength.

Greater sanitation.

Completes plastering and decoration processes in one operation. Lessens time in completion of finished walls, labor in cleaning, facilitates re-decoration.

Through the courtesy of an engineer in charge of the upkeep of the housing equipment of a large industrial plant, we have authentic figures on housing upkeep. He comments as follows:

"There are many instances where standard fabric decorations have been on the walls for twelve or fifteen years, the only upkeep cost being that of washing once in three years. Our own industrial plant with a housing equipment of 345 dwellings of employes give us comparative costs of upkeep for eight years on calcimine, spray painting, and fabric.

Calcimine. Original cost and three renewals, cost per square yard per year.....7¼c

Note—Cost of repairs to plaster not included.

Spray Paint. Original cost and two renewals, cost per square yard per year.....7⅞c

Note—Cost of repairs to plaster not included.

Standard Fabric Decoration. Original cost, no renewals, two washings, no plaster repairs, cost per square yard per year.....6⅔c



Report of Conference on Simplification of Hollow Building Tile

AT a meeting held June 19, 1923, at the Department of Commerce, the Standards Committee of the Hollow Building Tile Association reported to the Department's Division of Simplified Practice the results of a survey which the association had made of existing varieties in types, sizes, and weights of hollow building tile.

The survey showed 36 different sizes—each made in a wide variety of weights. The committee recommended the elimination of 23 of the 36 sizes, and the retention of 13 as "standards" for the industry. A standard weight, with a permissible variation of 5 per cent over or under the standard weight, was also recommended for each of the 13 sizes retained.

The committee requested the Department of Commerce, through its Division of Simplified Practice, to call a general conference next October of manufacturers, architects, engineers, contractors, and builders to discuss the general adoption and use of the recommended standard sizes and weights.

"Re-pair—Re-build—Re-roof—Now" Campaign Goes with Bang

THE "Re-pair—Re-build—Re-roof Now" campaign is going over with a bang. Over fifteen hundred dealers in building material have lent their best efforts to the success of the movement and throughout the country generally long-delayed repairing is being done by far-sighted owners.

Not the least of the "Re-pair—Re-build—Re-roof Now" effort is being done by farmers. They are now



The Garage Should Be Weather-Proofed Outside and Wall-Boarded Inside.

convinced that it was profitable for them to do needed repairing before their crops were housed. Householders, too, have seen the advisability of adding long-deferred extensions to their houses—rearranging the home interior for more comfort, re-roofing to keep out fall rain and winter snow leaks. One firm co-operated with its many dealers to the extent of supplying them free of charge with a complete advertising



The Campaign Encourages the Farmer to Have His Machinery Housed Before Winter Forces Rust and Depreciation.

outfit for use during the "Re-pair—Re-build—Re-roof Now" campaign.

The Labor Day parades in most of the cities carried the "Re-pair—Re-build—Re-roof Now" idea to the public by means of attractive floats. Representatives of various trades co-operated with building material dealers generally to bring home the necessity of repairing by having the different floats show actual applications of the idea. The result was that the Re-pair—Re-build—Re-roof Now" campaign was given a momentum which carried it along with a snap and go.

Trinidad Lake Asphalt Cement
 Tough long-fibred Asphalt felt
 Trinidad Lake Asphalt Cement

Look Under the Surface of a Roll Roofing

All roll roofings are pretty much alike—in appearance. And the builder who buys on looks alone will rue the bargain—ninety-nine times out of a hundred.

You must know what's under the surface of a roll roofing—the kind of stuff used for waterproofing and reinforcement—to determine *how long it will keep out the weather.*

There is nothing secret about Genasco Roll Roofing. It has a back-bone of tough, long-fibred, asphalt felt, heavily buttressed on each side with thick layers of Trinidad Lake Asphalt Cement—a *product sun-cured and weather-seasoned for centuries.*

And that's why Genasco Roll Roofing is practically immune to damage by weather—why it doesn't blister under heat, crack under cold nor rot under dampness.

When laid with Kant-Leak Kleets, Genasco Roll Roofing provides an absolutely waterproof, storm-tight covering that will last for years.

The Kant Leak Kleet—supplied only with Genasco prevents bulging by providing a firm even pressure on the laps. And they give an attractive finish to the completed roof.

For buildings where roofings less ornamental than shingles are desired—*put on Genasco Roll Roofing.* It is long-lasting, economical and easy to lay. Write for illustrated folders.

**THE BARBER ASPHALT
 COMPANY**
 PHILADELPHIA

New York, Chicago, Pittsburgh, St. Louis, Kansas City



Genasco
 ROLL ROOFING

NEWS of the FIELD



July Construction Dropped

JULY was the second consecutive month of declining construction volume, according to F. W. Dodge Corporation. Total contracts awarded during the month in the 36 Eastern States (including about seven-eighths of the total construction volume of the country) amounted to \$315,024,000. The drop from June was 15 per cent; from July of last year, 22 per cent. However, the July total was about equal to the average July figure for the past four years.

Last month's total included: \$124,171,000, or 39 per cent, for residential buildings; \$65,159,000, or 21 per cent, for public works and utilities; \$40,875,000, or 13 per cent, for business buildings; \$31,445,000, or 10 per cent, for educational buildings, and \$26,019,000, or 8 per cent, for industrial buildings.

Contemplated new work reported during the month amounted to \$634,670,000, an increase of 11 per cent over the amount reported in June.

Construction started in the 36 States during the first seven months of this year has amounted to \$2,425,343,100. The lead over the corresponding period of last year is 4 per cent. At the end of June the lead was 9 per cent.

Lehon Company's Jumbo Display Roofing Roll Proves Winner

THE Lehon Company, manufacturers of "Mule-Hide" Roofing, are furnishing dealers with a unique outfit display sign in the shape of a gigantic roll of "Mule-Hide" Roofing. Over five hundred yard offices are using it for outside display, on their walls and atop their buildings, and it is expected that over a thousand dealers will have it on display before long.



Gigantic Replica of "Mule-Hide" Roofing for Dealer Display.

It is one of the best displays ever gotten out for the benefit of the lumber dealer, and the way it has rolled into popular favor and produced profitable inquiries and business proves its inherent worth as a genuine roofing advertising novelty.

The Lehon Company works very close with its dealers, and finds this advertising co-operation pays.

Southern Pine Association and Local Lumber Dealers Co-operate on Fair Exhibitions

WITH the idea of stimulating building on the farms and in the towns and cities of the various states, and assisting the public in solving their construction problems, the Southern Pine Association has arranged to have comprehensive exhibits at the state fairs of Missouri, Ohio and Illinois this fall.

The exhibits will include miniatures of model cottages, bungalows and larger dwellings, several of which are especially adapted for farm homes; miniatures of four model rooms—dining room, living room, bedroom and kitchen—showing modern built-in features; panels of Southern Pine flooring, ceiling and siding; also others showing popular finishes in Southern Pine interior trim.



Manufacturers of Concrete Block Machinery Standardize on Size of Block, Brick and Tile

AT a meeting held in Chicago, July 30-31, representatives of firms making machinery for the production of concrete building units adopted standard sizes for concrete brick and block. The determining of standards for concrete building tile was placed in the hands of a committee, to be reported on at their next meeting which is to be held in February, 1924. J. W. Freiberg, of the Ideal Concrete Machinery Co., Cincinnati, presided.

Standardization of size in building materials has been advocated by Herbert Hoover, Secretary of Commerce.

The standard size determined for concrete brick was $2\frac{1}{4}$ by $3\frac{3}{4}$ by 8 inches. The standard size for concrete block was established as $7\frac{3}{4}$ inches high by $15\frac{3}{4}$ inches long, while widths may be 6, 8, 10 and 12 inches, according to the wall thickness that has been designed or is required by local building codes. Sizes other than those indicated will be designated as "specials."

In opening the meeting A. J. R. Curtis, manager, Cement Products Bureau, Portland Cement Association, outlined the progress of the industry through the past years.



Standard Brick Size 8 Inches, by $3\frac{3}{4}$ Inches by $2\frac{1}{4}$ Inches

THROUGH the good offices of Herbert L. Hoover and the Simplified Practice Division of the Department of Commerce, the brick industry has at one stroke been enabled to sweep away an infinite variety of odd sizes of brick and establish one standard size for the seven billion building brick produced every year in the United States. This size is approximately 8 by $3\frac{3}{4}$ by $2\frac{1}{4}$ inches. The only exception now to be allowed is in the case of smooth faced brick for special exterior use, in which a very slight variation in one dimension only is permissible.



Plate Glass Manufacturers Keep Step With Demand

MANUFACTURERS of plate glass were handicapped during the first quarter of this year. There were "cold repairs" to make in the rebuilding of badly worn furnaces. Other items of equipment interrupted production with their demands for attention. Yet figures compiled by P. A. Hughes, secretary of the Plate Glass Manufacturers of America, show that during that period 19,952,154 square feet were supplied by the country's factories.

CON-SER-TEX Canvas Roofing

For Roofs and Porch Floors

A TOUGH, specially weatherproofed, carefully prepared cotton fabric used in fine buildings for outside porch floors and roofs. It is unequalled for the floors and roofs of sleeping porches and for large exposed surfaces such as club-house, hospital and sanitarium verandas and for roof-gardens.

CON-SER-TEX will not crack, stretch, peel, leak or rot. The very thorough and careful scientific treatment prevents these defects.

It is a new delight to home owners to know that now it is possible to have a very durable, attractive porch covering at a reasonable cost.

The ease of handling and laying CON-SER-TEX has won high favor for it with every builder of better homes and buildings.

See page 124 of this issue.

Write to Department B for the booklet

"ROOFING FACTS AND FIGURES"

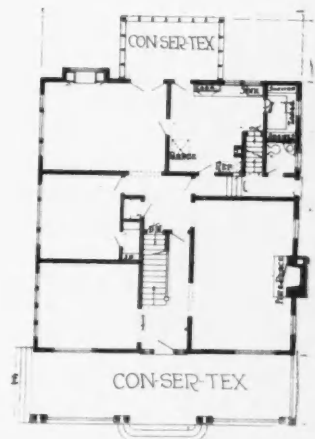
Wm. L. Barrell Co., of New York, Inc.
50 LEONARD STREET, NEW YORK CITY

Chicago Distributors:
Geo. B. Carpenter & Co.
430-440 N. Wells Street

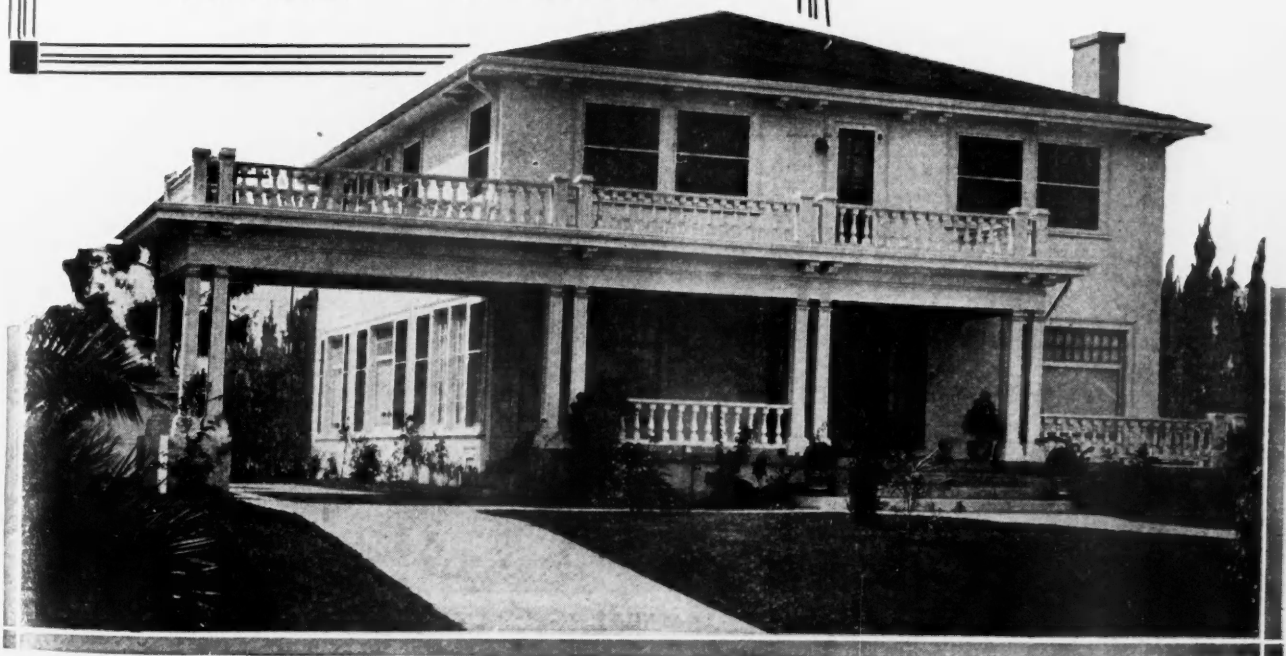
California Distributors:
Waterhouse-Wilcox Co.
San Francisco & Los Angeles



SECOND FLOOR PLAN



FIRST FLOOR PLAN



(Continued from page 122.)

similar products.

Boxes and crates consume a large percentage, estimated as high as 30 per cent, of the cheaper grades of gum, cigar boxes some of the finer. The part of the gum tree known as sapwood, amounting to 60 per cent of the whole, finds extensive use in boxes, competing with poplar, pine cottonwood and sycamore. Gum is free from odor or taste, a peculiarity likewise of poplar and cottonwood.

All sapwood that can be cut into wagon box boards is so used because, for this purpose, sapwood dried and painted is as good as heartwood. Owing to the size, the straightness of grain and freedom from excessive knots, a larger percent of such boards is used than of any other wood.

A detailed statement of other miscellaneous uses would cover a wide category, but mention can be made of pianos, gun stocks, agricultural implements, wooden ware, trunks, clocks, toys, coffins, packing boxes, doors, mouldings, cupboards, structural parts of organs, refrigerators, barrels, handles, paving blocks, porch columns, pattern stock, pulleys, siding and woodenware generally. As an instance of durability, gum has been used as shims between rail and wooden tie, on eastern railroads.

Why is gum a coming wood? Because it is cheaper than other hardwoods suitable for the same purposes; because it may be had in any width, length or thickness;

because the supply is plentiful, from virgin stock; and because of its widespread use.

Prior to 1900 gum was used in only a limited way. It was not graded by any association, and not until 1906 did the Government Forest Service recognize its existence as a wood of great interest to users of lumber. Today this interest may be gauged from the fact that official grading rules covering gum now classify it under 31 grades.

Finishing Red Gum

Red gum is especially adaptable to a dull, wax or oil finish, and a beautiful effect is brought out in the natural finish, as all red gum, whether plain or figured, is peculiarly pleasing and attractive. Figured red gum especially, with its ornate richness of stripes and variable color tones, yet with a character as soft and delicate as the sheen of fine satin, shows with unusual effectiveness that subtle, artistic quality which attracts but never tires the eye, and lends quality, dignity and grace to its environment. Red gum finished "natural" is rapidly growing in favor among people of taste and refinement who prefer to exercise their own individuality and judgment, rather than follow the dictates of historic bias.

Quartered red gum, plain wood, on account of its peculiar grain is most adaptable for use with various stains which bring out the changeable color tones. The stain is not applied sufficiently heavy to obliterate, but just enough to leave plainly visible the beautiful grain.



The Natural Color of Red Gum Is a Soft, Rich, Reddish Brown. It is especially adapted to a dull, wax or oil finish, and while it lends itself to staining, there is a growing tendency to leave it in its natural finish. In this handsome library its warm, natural finish makes a sumptuous, luxurious effect, far out of proportion to its reasonable installation cost.

WHITE MAGIC

The Electrical Section of the
AMERICAN BUILDER MAGAZINE, CHICAGO

September, 1923



THE Face Across the Breakfast Table Is Worth a Thought, Mr. Architect and Builder, When Planning That Home for Your Client. He will face his better half every morning across just such a table as this in that house

you build for him. You can help insure him always seeing it cheerful and pleasant if you make proper provision for ample electrical outlets in the dining room—in every room.

ELECTRIFY ALL BUILDINGS

A Department of Up-to-date Information
for all who Plan and Build

WE, of the electrical industry, are very gratified to have the privilege through this department of talking to the men who plan and build the homes of America. We have a message of great importance to all. Follow it carefully, and you will make your homes and other buildings more modern, more attractive, more salable and more livable. Electrify all buildings. Plan from the beginning on adequate wiring, adequate outlets and a proper investment in lighting equipment. Look ahead and see the ever-growing use future occupants will want to make of electrical appliances and labor-saving electrical conveniences of all kinds. You will find this a policy and a line of approach that will instantly appeal to your clients and prospective clients.

Make full use of the Electrical Section of the AMERICAN BUILDER, feeling free to call upon us of the electrical industry for information or suggestions. We are organized to help.

E. W. Lloyd

General Chairman, Joint Committee for Business Development of the Electrical Industry.

The Home Electrical No. 6

A Good Example of the New England Colonial, Well Suited
to Any Quarter of the Country

EDITOR'S NOTE: The Joint Committee for Business Development comprises representatives of contractors, dealers, jobbers, manufacturers and central station organizations including:

1. Association of Electragists, International, New York City.
2. Canadian Electrical Association, Montreal.
3. Electrical Manufacturers' Council (Associated Manufacturers of Electrical Supplies, Electrical Manufacturers' Club and Electric Power Club), New York City.
4. Electrical Supply Jobbers' Association, Chicago.
5. Lighting Fixture Dealers' Society of America, Cleveland.
6. Illuminating Glassware Guild, New York.
7. National Council Lighting Fixture Manufacturers, Cleveland.
8. National Electric Light Association, New York.
9. The Society for Electrical Development, New York.

The Joint Committee for Business Development is organized with an Executive Committee and a Headquarters Staff, office 29 West Thirty-ninth street, New York, H. A. Lane, Director.

AS we approach our Home Electrical No. 6, we are greeted by a light in the porch. This is a most attractive ceiling fixture, especially made for this purpose and built so as to stand ravages of the weather. It is controlled by a switch just inside the door, enabling occupants of the house to flood the entrance with light before opening the door at night, and at the same time it makes it possible to light the way of the departing guest.

The switch controls in all parts of this house are installed with a view to the utmost convenience. In some cases they are designed to operate more than one unit and thus afford distant control, which is a great advantage in saving the steps of the householder.

The fixture in the hall, which should be of the attractive units designed for such purposes, is controlled by means of a three-way switch which operates, in addition to the unit, the one in the upper hall. The utility of such an arrangement as this will be readily appreciated since it affords means of lighting the unit both from the upper hall and from the first floor. In this way it is possible to leave the light burning when ascending or flood the lower hall with light before going down.

The dining room is to the right of the entrance hall and is provided with two convenience outlets, one of them being of the duplex variety. They afford means for using the various labor-saving electrical devices which are designed for the preparation of food. A three-way switch controls the central ceiling lighting unit in this room, being operated from the entrance to the dining room through the hall and from the swinging door which connects it with the kitchen. Such an arrangement eliminates the necessity of going across the room to turn off the light, it being controlled from both points.

The kitchen unit is also controlled by a three-way switch, this one being operated from both entrances to the room. From the kitchen the convenience outlet is located near the workboard of the sink, and it should be placed just above the board in





In This Living Room Illumination Is Furnished Entirely from Side-Wall Brackets and Portable Lamps. There Is No Central Ceiling Fixture Used.

order to enable the user to plug in the attachments with the least possible effort. This is a duplex outlet and affords means for the operation of a ventilating fan which should be in every model kitchen.

A switch control is also provided for the light in the pantry entry and rear porch. Note in the kitchen the indication for the use of a heavy-duty range outlet. In the entry there is an outlet indicated for use with an electric refrigerator. Anybody familiar with the great convenience and satisfaction attendant upon the use of such a device appreciates what satisfaction comes from its use.

The switch control in the living room is from two switches, one placed in the main hall and the other just inside the living room door. The former operates the three side wall brackets and the latter controls the

central ceiling unit. There have been indicated five convenience outlets in this room, two to be duplex. The one near the mantel should be high up, preferably a few inches above the mantel itself, to enable the house-

holder to use a pair of the attractive candlesticks designed for mantel decoration. The remaining baseboard receptacles afford ample means for the use of appliances of various kinds and portable lamps. The central ceiling fixture on the sun porch is controlled from a switch just inside the door of the living room, and three convenience outlets have been indicated, one being a duplex device. The chances are that portable lamps will be

used more frequently than the ceiling fixture, and the arrangement of outlets makes this possible.

The lighting unit in the second floor hall is con-

Making Coffee by Electricity

For illustration refer to page 159

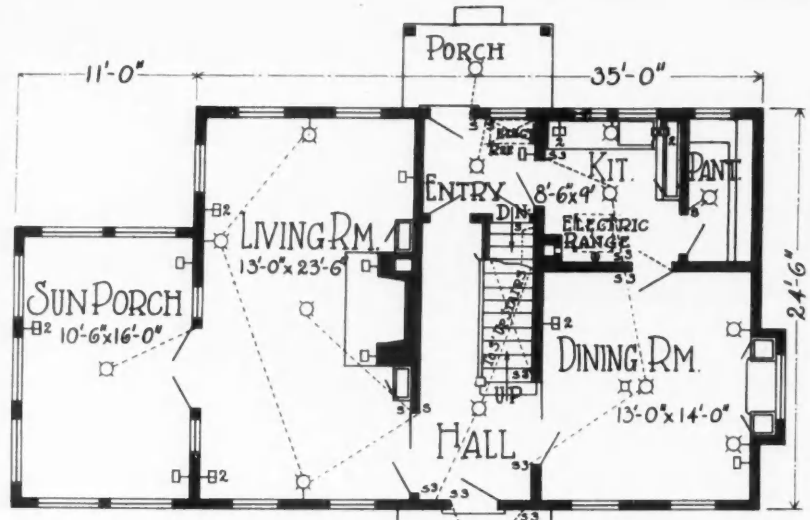
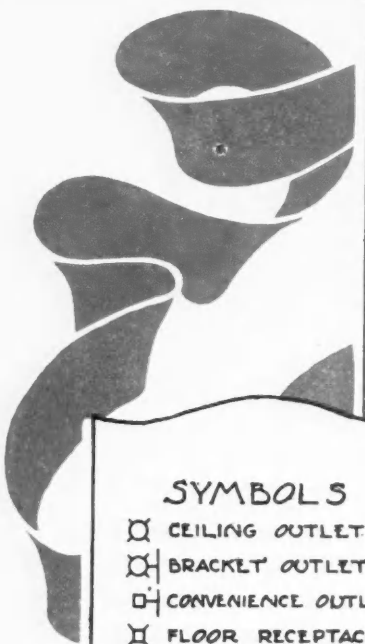
BREWING coffee by electricity is one of the most convenient uses to which this force can be put. It is the most satisfactory method and the coffee made in an electric percolator has an excellent flavor.

Manufacturers of electrical appliances are now placing on the market coffee percolators of most attractive designs; they come in various styles and sizes and their ornamental quality does much to enhance the looks of the dining room.

Of course, the most satisfactory way of operating one of these percolators is by means of an electric outlet placed in the floor under the dining room table, or by having a table wired for electricity. It is a simple matter to plug in the wire, and by the use of a push-through switch it is especially easy to control.

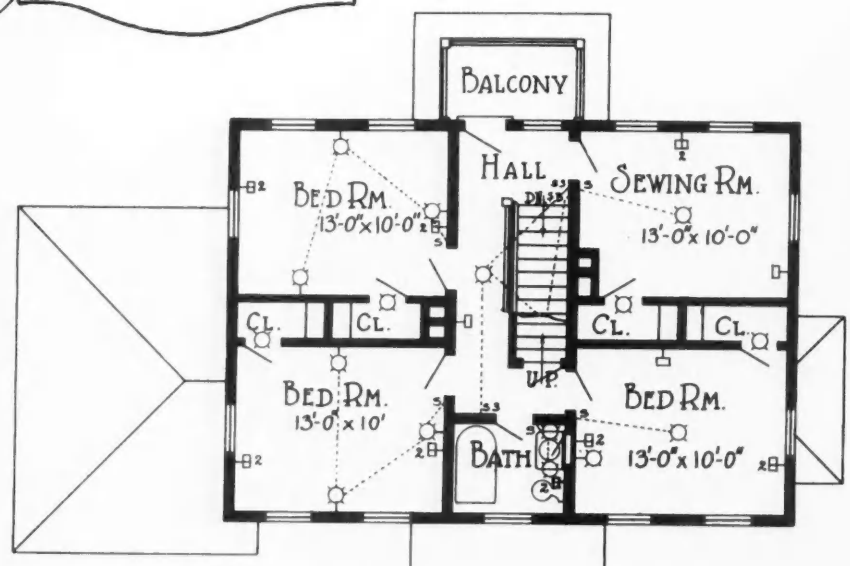
Our Home Electrical

The Sixth



FIRST FLOOR PLAN

- SYMBOLS**
- ⊗ CEILING OUTLET
 - ⊗ BRACKET OUTLET
 - ⊗ CONVENIENCE OUTLET
 - ⊗ FLOOR RECEPTACLE
 - ⊙ SPECIAL OUTLET
 - S- SWITCH



SECOND FLOOR PLAN



The Floor Plans of Our Home Electrical The Sixth are worthy of especial note. Observe the ample provision of lighting units in every room, and how the kitchen, especially, is arranged for electrical outlets in way which makes house-keeping a joy.

Electrify All Buildings

trolled by a three-way switch from the entrance to the bathroom and from the top of the stairs. This gives the person coming up opportunity to turn on the light before extinguishing the one below, thus doing away with the necessity of any walking around in the dark.

In bedroom No. 1 no ceiling lighting unit has been specified, illumination being given from three side wall brackets controlled by a switch near the door. Two duplex convenience outlets have been indicated for this room, thus making possible the use of electrical appliances adapted for use in the bedroom. The same type of control and the same number of outlets are indicated for bedroom No. 2.

Bedroom No. 3 is lighted mainly from the central ceiling fixture, which is controlled from a switch located near the door. There also has been indicated a single wall bracket. Two duplex convenience outlets and a single one have also been arranged for.

The sewing room is lighted from a central ceiling fixture only, but two duplex convenience outlets make it possible to use an electric sewing machine and a portable lamp to throw sufficient illumination on the work being done.

The bathroom is lighted by two fixtures on either side of the mirror above the basin, and they are controlled by a switch located near the door.

Lighting Installation

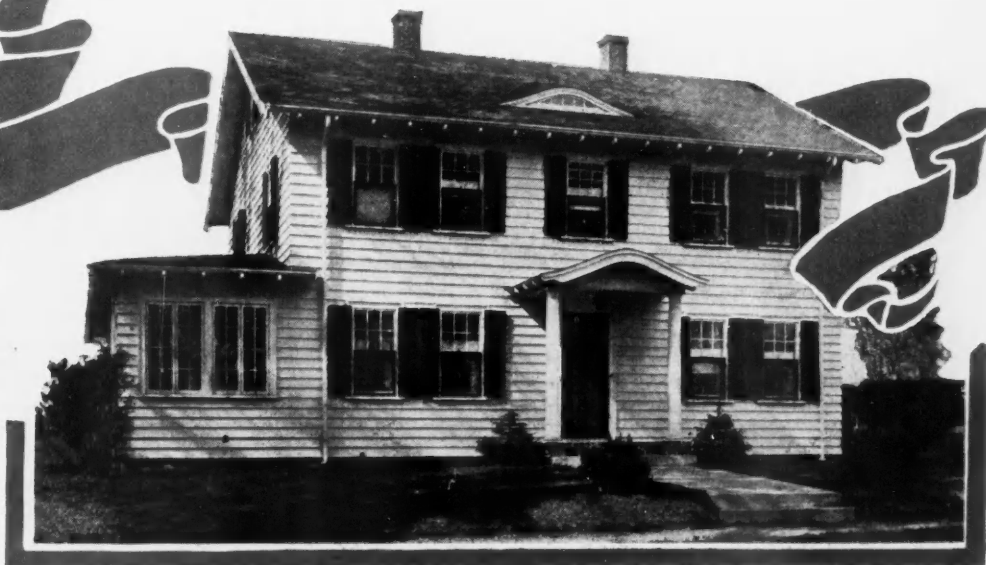
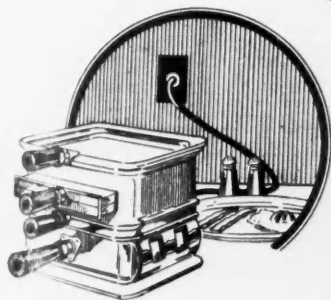
Emphasis cannot be placed too strongly on the selection of the proper fixtures for the house. Care should be taken to use only those which shield the lamp in such a manner that its filament is not visible to the eye. If this is not done, objectionable glare and eyestrain will result. A great variety of shades made of

glass, parchment, mica or silk provide excellent means of eliminating this glare.

In the dining room of this house there has been specified a dome fixture. Such a unit concentrates the light on the table, which, after all, is the center of interest and reduces the intensity in other parts of the room where the interest is secondary. Care should be taken in the installation of a dining room fixture of this type. The dome should be so set that the lower edge is about 54 inches from the floor. This will bring it approximately 24 inches above the table and will eliminate the direct glare from the eyes of the diners. The wall brackets indicated to be placed on either side of the sideboard should be made to harmonize with the main ceiling unit.

For the kitchen fixture the use is specified of one of the very efficient units now being made for such use. Elsewhere in this electrical section will be found a picture of a model kitchen in which has been placed one of these units. They are most efficient for such purposes and provide, when used with a lamp of correct wattage, ample light for "the workshop of the home." Over the sink, in the kitchen, there has been indicated a side wall bracket to provide ample illumination for the culinary activities, which must of necessity be performed in that locality. There is a pull chain unit finished in a white enamel similar to the ceiling fixtures. No matter how efficient the latter is, it will not eliminate the shadow which is cast by a person working at the sink, and the wall bracket allows her to have a great flow of light on her work.

For the illumination of the living room it is possible to purchase attractive ceiling fixtures which are at the same time both well appearing and efficient from the standpoint of illumination. Wall brackets of the shaded-candle type made to harmonize with the cen-



Our Home Electrical The Sixth Commends Itself Architecturally as Well as Electrically. A useful house ought to be artistically pleasing. This is New England Colonial, and suited to any locality, as well as to a widely-varying class of owners.



The Sun Porch Is Used a Great Deal and Should Be Made Most Comfortable and Attractive. The Electric Heater Will Take the Chill Off on These Cool Autumn Days, Before the Heating Plant Is Started.

tral ceiling unit make for attractiveness in this room. The floor or table lamp of the direct-indirect type used in conjunction with the wall and ceiling fixtures, a variety of pleasing effects can be produced. For use with the convenience outlets placed above the mantel the market offers attractive electric candlesticks or torchettes. These, of course, are intended only for decorative purposes and should not be considered as part of the main illumination of the room.

For the sun porch a decorative glass globe tinted a light yellow has been recommended. The metal part

of this fixture should be finished in polychrome.

In the clothes closets a wall outlet above the door provided with a 15 or 25-watt all-frosted lamp will be found to be very convenient. This light may be controlled by an automatic door switch or by a pull chain of sufficient length that is within easy reach when the door is open. Even where door switches are installed it is advisable to have the light controlled by a pull chain so that the lamp can be turned out when the closet is being aired or the door left open for other purposes.

For the illumination of the bedrooms different schemes of lighting are indicated. Where the ceiling type of fixture is used it should be of the semi-indirect type and the wall brackets in all cases should be shaded or shielded.

All convenience outlets on the second floor should be placed about one foot above the floor with the exception of the one in the bathroom which should be about three feet high. Such an arrangement as this will make it easier for the attaching of the various appliances.

The location of the switch governing the various convenience outlets in a room is important. It should never be placed behind an opening door, since this is very unhandy, unnecessary, too, and besides most switches are artistically inconspicuous.

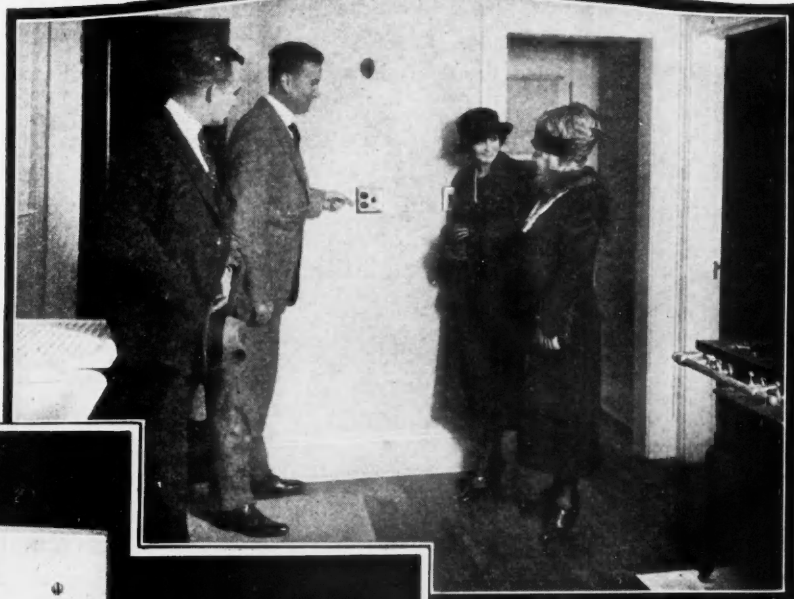


Convenience Outlets Make It Possible to Have the Reading Lamp at the Head of the Bed, and to Use the Various Appliances Shown. Note the outlet beside the bureau; its height makes it easy to use. And in the illustration at the right observe that the location of the switch is important; this one is behind the door, and therefore most unhandy.

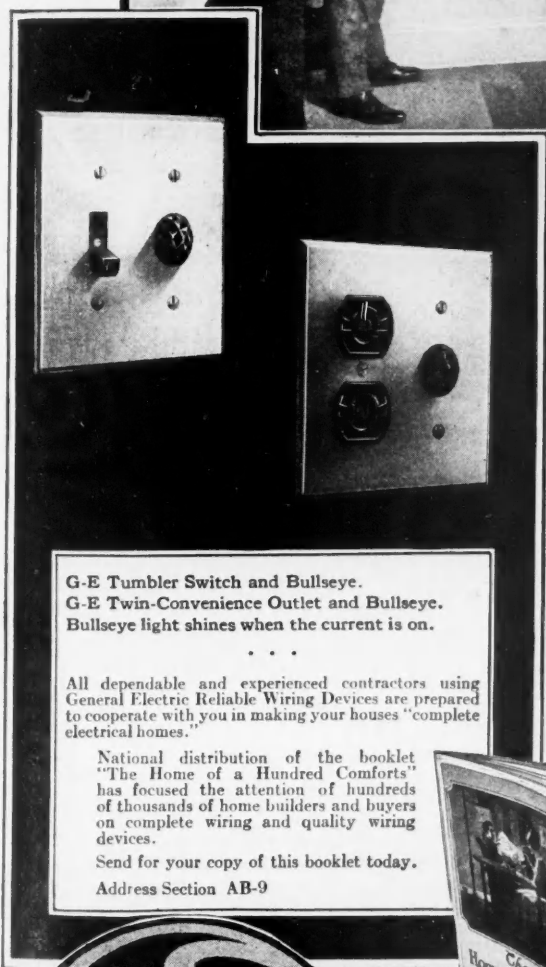
Electrify All Buildings

165

When they stop and ask



"How about an outlet for the electric iron?"—you show them this twin convenience outlet (for using iron and another device at the same time) at the right height and with tell-tale lamp that shines when the current is on.



G-E Tumbler Switch and Bullseye.
G-E Twin-Convenience Outlet and Bullseye.
Bullseye light shines when the current is on.

All dependable and experienced contractors using General Electric Reliable Wiring Devices are prepared to cooperate with you in making your houses "complete electrical homes."

National distribution of the booklet "The Home of a Hundred Comforts" has focused the attention of hundreds of thousands of home builders and buyers on complete wiring and quality wiring devices.

Send for your copy of this booklet today.
Address Section AB-9

Builders cash in on the universal interest in Electricity—the servant

All housekeepers are today keenly interested in the many things Electricity will do for them.

They plan ahead for adding one electrical convenience after another.

Every woman wants her home to be electrical—either now or sometime later on.

Builders who recognize this and are installing complete convenience wiring with G-E Reliable Wiring Devices are cutting down selling costs, and making quicker sales and better profits.

They find that their best returns come from the small additional investment needed to complete the wiring for the use of all electrical comforts and conveniences.

G-E Reliable Wiring Devices, nationally known as the standard of excellence, are the home buyer's assurance of dependable electrical service.

Merchandise Department
General Electric Company
Bridgeport, Connecticut



Wiring Devices

41-228

A GENERAL ELECTRIC PRODUCT

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER

Toasting Bread by Electricity

ANYONE who has hung over a coal stove trying to make toast, or who has tried it on a gas range will appreciate the comfort and convenience afforded by the use of an electric toaster. In addition to comfort and convenience, the appliance is designed for the making of toast and turns it out in a rich golden brown hue, which is so much desired.

The convenience of the toaster as a means of making toast at the table is another point in its favor. Simply put in a slice or two of bread, snap the switch and in a few minutes it will be ready piping hot waiting for a slab of butter.



Electric Toast Is the Best Because the Quick Heating Seals the Natural Moisture of the Bread Within the Fragrant, Even Browning of the Sides. Much easier to butter and nicer to eat.

For making toast at the table it is important to have at hand a convenience outlet to which the appliance may be attached—preferably in the floor under the dining-room table. The practice of plugging in on the overhead lighting fixture should be avoided.

The toasters now on the market are obtainable in a variety of sizes and styles. They are equipped with heating elements which will stand up for a long period and will afford excellent service.

Eat toast. It makes good bread better.

Electricity Emancipated Woman

ALL the things which woman has rightly attained as rights have been made possible because electricity relieved her of a burden of drudgery. Although the world claimed to have advanced, woman still found herself more or less in a state of servitude. The task of home-making and family-raising still was almost as primitive and laborious as though modern improvements had no effect at all. Electricity almost immediately became an invisible helper which freed her from the necessity of constant supervision of household work, and lessened the time required for all the tasks so much that she was at last free to develop her thwarted ambitions in congenial fields.

It is not claiming too much to state that electricity made full woman suffrage possible. It has enabled woman to spend considerable time in the commercial and industrial world and her natural talent for many lines of business has made everyone the gainer.

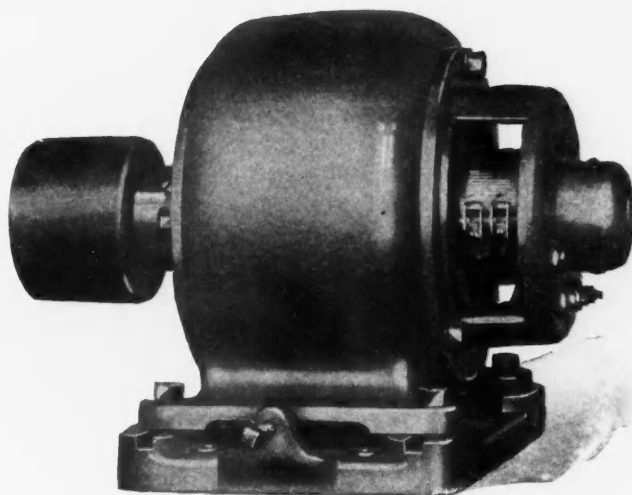


Electric Lamps Bring Wrought Iron Again in Vogue

ONE of the pleasant notes in modern home decoration is given by the revival of the use of wrought iron, and never have utility and beauty gone hand in hand so well. There are wrought iron sconces like the old-fashioned candle ones, for side wall illumination, and some are very much dressed up, and ornamented to a degree which our forefathers would think impossible with wrought iron. The intelligent use of color and proper designing makes them things of beauty.

Then there is the hall lantern. We always like to have the hall agreeably low-lighted; it is so much easier on the eyes arriving in from the dark outside. Wrought iron lanterns in quaint patterns, and fitted with tinted glass or parchment, give us the right effect. The "torchier" or pedestal lamp is also useful for hall illumination, and can be had in a range of patterns, the genuine craftsman can produce from forged iron.

The housewife is offered a choice of wrought iron patterns in electric lamp standards which are bewilderingly beautiful and enticing.



Crocker-Wheeler

Form L Direct Current Motors

115, 230 and 550 Volts

Motors 1/16 to 7½ H.P. Generators 0.35 to 5 K.W.

Time Tested

THE C-W Form L is a small motor used in hundreds of ways and known widely for its remarkable durability and trouble proof characteristics. Often subjected to rough treatment and neglect by laymen, this motor has been remarkably successful, not because of any one special feature, but because of the careful design and construction of every detail.

And this applies to all C-W machinery. It is the chief reason why Crocker-Wheeler equipment possesses its enviable reputation for reliability.

In small motor generator sets, as belted or direct connected exciters or wherever small amounts of direct current power are required, C-W Form L Generators should be specified.

CROCKER-WHEELER CO., Ampere, N. J.

New York
Boston
Philadelphia

Baltimore
Pittsburg
Buffalo

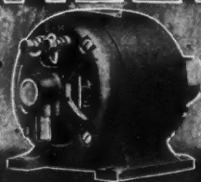
Chicago
Cleveland

Detroit
Birmingham
New Haven

Foreign Distributors: International Western Electric Co.

CROCKER-WHEELER MOTORS

"Niagara's Rival for Dependable Power"



What's New Electrically

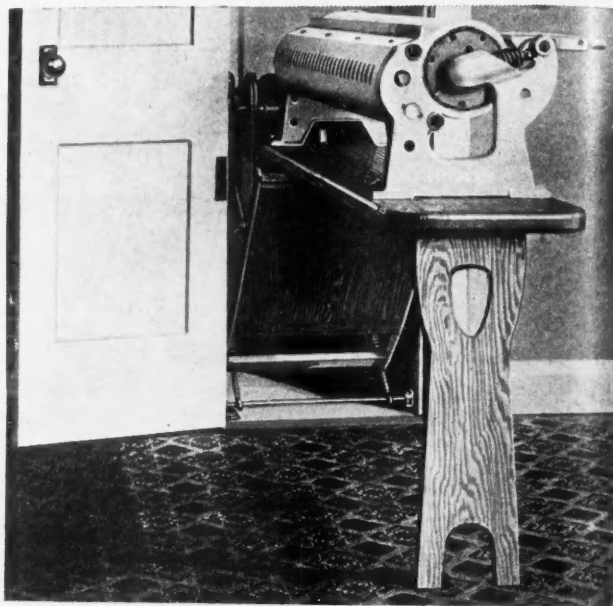
EDITOR'S NOTE: *The AMERICAN BUILDER does not accept payment in any form for what appears in our reading pages. In order to avoid any appearance of doing so, we omit the name of the maker or seller of any article we describe. This information is, however, kept on file and will be mailed to anyone interested; address AMERICAN BUILDER Information Exchange, 1827 Prairie Ave., Chicago.*

Every Housewife Welcomes a Built-In Ironing Machine

IT had to come. First there was the unwieldy ironing board, which a foresighted manufacturer finally made easy to handle, by building it into the wall. And now comes the same wall ironing board but so grown up you would never know it—and all because it is no longer an ironing board only, but an ironing machine, too.

This built-in ironing machine is a full-size machine, make no mistake about that. It gives all the superior ironing results of the home laundry type ironer. Yet it fits snugly into the put-away space. It is compact and instantly ready at the touch of the hand to iron the week's wash or for husband or son to press their trousers.

On washday the ironing is finished so quickly. An hour or



When the Electric Ironer Is Out Like This, You Can Have the Current on or Off. But When It Goes Back Into the Wall, Current and Gas Shut Off Absolutely.

so suffices for the ironing of the clothes. The board is not left to put away or trip over; the built-in ironer goes back into the wall closet arranged for it. Fire? Not at all. You see, the current and gas are shut off automatically when the ironer folds back into the wall.

This is one of the really appealing things electricity has made possible for the ease and comfort of the housewife.



Using Water as a Force to Wash Clothes

AFTER all, it is the obvious thing which is apt to be overlooked in this intricate and mechanical day and age. There are many ways of washing clothes, thought one inventor; all use water. Now, why not make the water furnish the energy that washed the clothes?

Well, this is the machine, and it uses a gyroscopic motion to create and maintain a washing speed which with almost human thoroughness and care washes small or large quantities of clothes with equal facility and with a minimum of frictional effort. The operation is carried on in a cast aluminum tub, guarding against warping, leaking, corrosion or rust, and the all-metal divided wringer enables the housewife or her laundress to finish the day's washing in double-quick time to get it dried and most of the ironing finished by the afternoon.

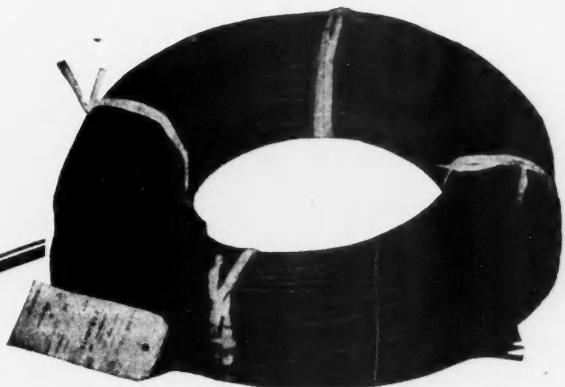
Electricity operates it, of course, but the water itself does the washing work.



This Electric Washer Uses a Gyroscopic Motion, Washing the Most Delicate Fabrics with Superhuman Care.



This Built-in Electric Ironing Machine Is a Full-Size Machine, Yet It Requires a Built-in Wall Space of Small Size—19 Inches Deep, with a 20-Inch Door Opening.



If It's **PARANITE** *It's Right*

Suppose the electric iron refused to work—with just a minute more of pressing needed to finish a waist for a party. Can anything more untimely be imagined—the last waist fit to wear, and not a minute to be lost anyway!

But suppose that the iron and the cord prove O. K. when the electrician comes, and that the trouble lies in the wires back of the walls.

There will be many days when the iron will be useless—days during which electricians bore holes into the walls and fish blindly for hidden wires. And the expense will mount rapidly day by day.

Too many people regard wire as an unimportant detail of building. Of course architects and builders who know, recommend only wire approved by the Fire Underwriters.

For thirty-two years PARANITE rubber-covered wire has been known as a better than standard product. When PARANITE is specified no chances are taken on the wire part of the job.

Dreadnaught Portable Cord, also rubber-covered, is "more than the code required."

INDIANA RUBBER AND INSULATED WIRE CO.

Jonesboro, Indiana

Chicago Office:
210 So. Des Plaines St.

New York Office:
THE THOMAS & BETTS CO.
63 Vesey Street

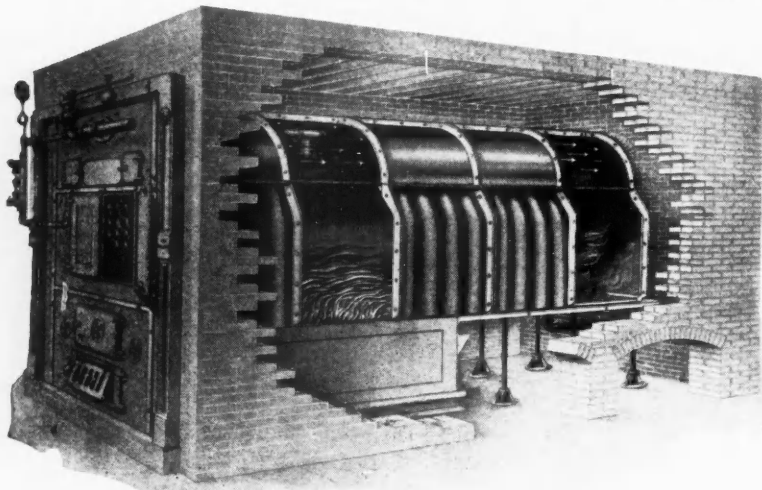




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Modern Heating and Ventilating for Churches and Schools

THE illustration shows the most modern development for providing both heat and ventilation for public schools and churches. The apparatus consists of a specially designed horizontal return tubular boiler encased in a heavy cast iron setting, the entire apparatus being enclosed by nine inch walls of common brick in place of the expensive brick setting ordinarily required for boilers of this type. Steam generated in the boiler may be used for supplying direct or indirect radiation or any desired combination of these, or for driving a



Specially Designed Horizontal Return Tubular Boiler Supplying Not Only Heat but Warmed Air for Ventilation from Cast Iron Casings Around Boiler.

steam engine, utilizing its exhaust in direct and indirect radiation of the required capacities.

The ventilating plant is the most indispensable part of a school or church, but where ordinary apparatus is used ventilation is very expensive, consuming more fuel than direct heating. With this boiler the warmed air for ventilation comes from the cast iron casings around the boiler. The elimination of the indirect radiation through the use of this apparatus is worthy of attention, for there is a saving in installation, through the absence of expensive and complicated piping and valves found necessary otherwise. The danger from freezing and bursting is also avoided. Decreased floor space requirements are also worthy of note.

The boiler is supported at four points on the heavy shelf of cast iron casing, slightly below the water line of the boiler,

forming a horizontal division in the combustion chamber, causing smoke and gases to travel rearwardly under the boiler. These return forward through return tubes to front of boiler and thence to rear through superheating chamber over top of boiler. A large grate area gives perfect combustion with minimum attention, and uses either stationary or shaking grates.

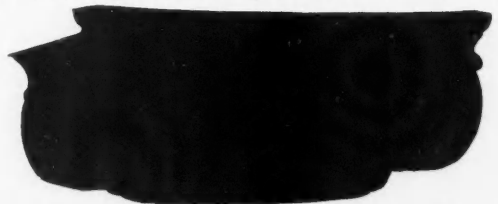


Beauty of Genuine Wood Carving Obtainable in Composition Ornament

ILLUSTRATED are ornaments in a composition which simulates wood, even to possessing the full depth of the grain of oak, mahogany or walnut. They are but examples of a wide range of ornaments available in this material, which simulates perfectly wood carving and which can be used to add a touch of the beautiful to the home. They include capitals, pilaster capitals, shields, scrolls, heads and wreaths and hundreds of authentic designs of the various classical periods, such as were made the vogue by Adam, Heppelwhite, Chippendale, and during the reigns of Queen Anne, Louis XV and Louis XVI. The English and Italian Renaissance are well represented.

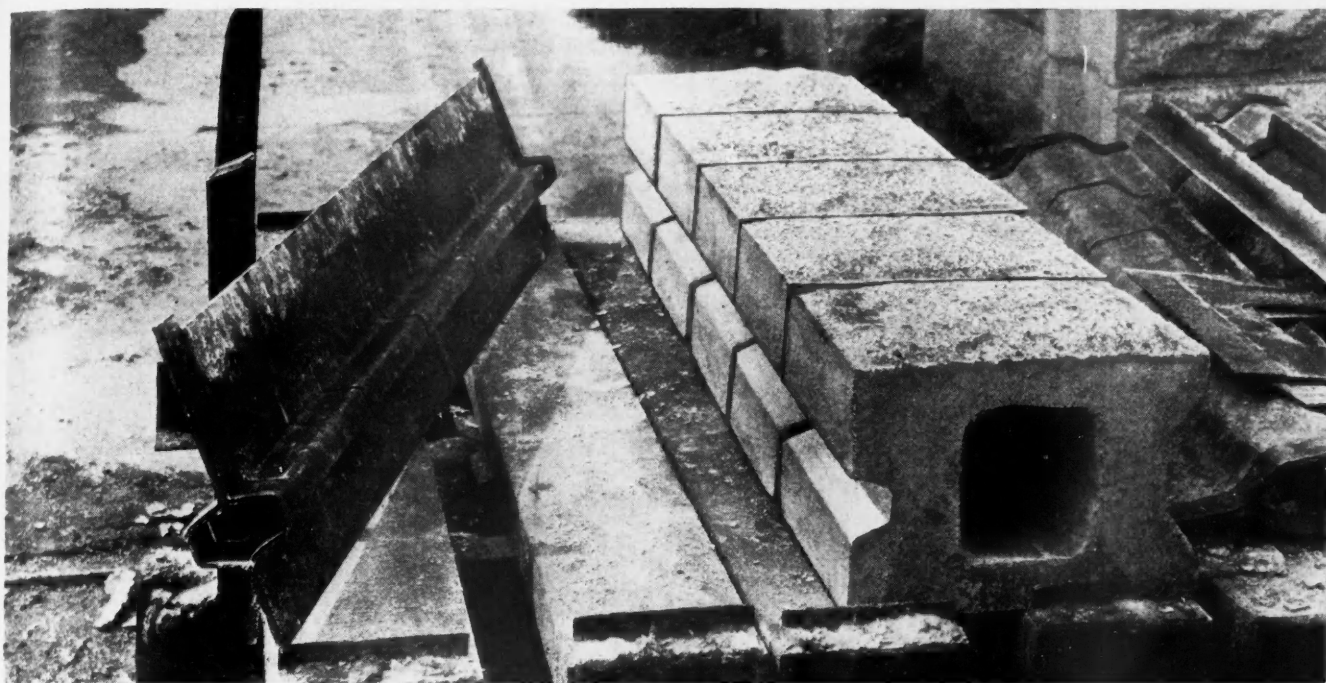
These composition ornaments will not chip, check, crack or shrink. There is no loss attached to handling them or attaching them. As they do not deteriorate with age various models may be carried in stock to be used this year or the next, whenever needed. To all intents and purposes these can be handled as wood—they will not break under a hammer blow; nails can be driven into the material as though it were wood; and it can be cut with the bandsaw as easily as any scrollwork can.

It is undeniable that ornamentation of this nature relieves the monotony of plain surfaces, such as is common with interior trim. Used judiciously in such a case, and on the plain surfaces of furniture, very attractive and pleasing effects can be obtained, and quite as substantial as though the carving were actually done on the wood. The cost,



A Capital Made in a Composition Material Imitating Wood Even to the Grain.

however, is so much below that of wood carving that the expense might be termed negligible. The manufacturer of this particular ornamental material gladly sends samples for test.

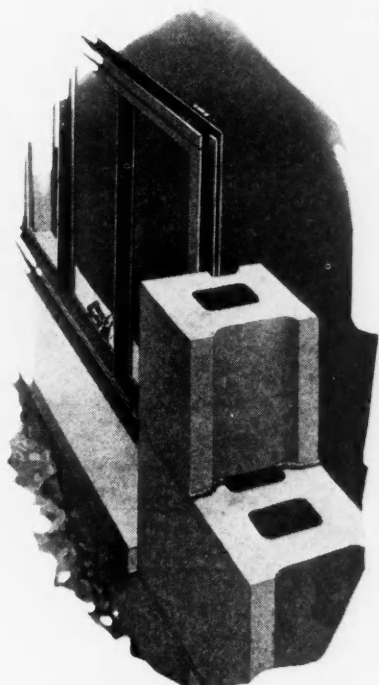


Use These Slotted-End Blocks With Fenestra Basement Windows

Slotted-end concrete blocks like those shown above are ideal for use with Fenestra Basement Windows, and any block maker can now supply you with them. The special Fenestra fin exactly fits the channel in the blocks, and this saves your time and helps you make 100% solid, wind-tight installation.

This special slotted-end block is now part of the regular line of many block makers. Others can easily get standard end gates, for single or multiple blocks, from makers of concrete block machinery.

The fact that block machinery makers have standardized on size and location of this slot to fit the Fenestra fin, is proof of the tremendous and growing popularity of Fenestra Basement Windows. Write us for further details and for proof that these windows can be installed with *one-third the labor* required for wood windows.

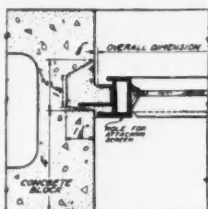


The Fenestra fin, fitting into the slot in the blocks, makes the Fenestra Basement Window an integral part of the wall.

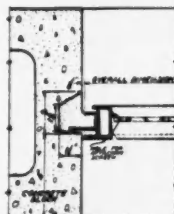
DETROIT STEEL PRODUCTS COMPANY

2802 East Grand Boulevard

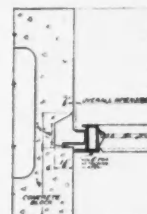
Detroit, Mich.



Cross section of Fenestra Basement Window in 8" concrete block.



Cross section of Fenestra Basement Window in 10" concrete block.



Cross section of Fenestra Basement Window in 12" concrete block.

Fenestra

BASEMENT WINDOWS

Fenestra

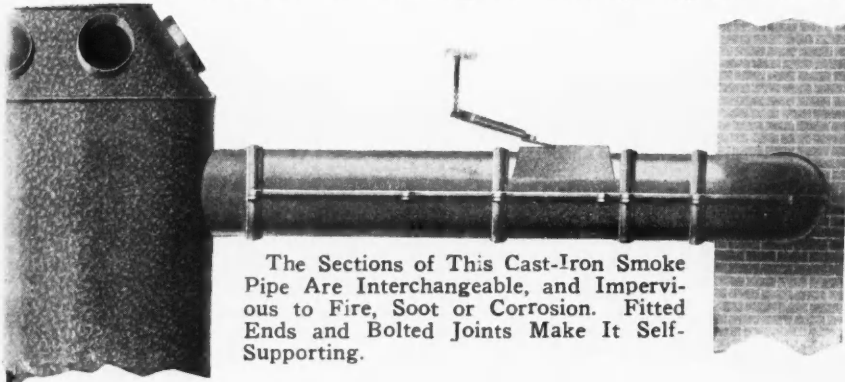
The name of the ORIGINAL steel Window.

The symbol of superior QUALITY in material, patented design, workmanship and service.

Smoke Pipe Troubles Ended with Cast Iron Smoke Pipe

THERE is no doubt that the installation of the ordinary steel or galvanized smoke pipe means the extension to Demon Soot to begin his corroding deprecations. Why not make cast iron pipe to do away with replacements every year or so? thought one manufacturer.

So he set about designing a cast iron smoke pipe that would be impervious to fire, soot or corrosion, and would not wear out or become overheated. He wanted it to be also holeproof, so that danger of fire from sparks dropping out through holes burned in the pipe would be eliminated. It cost a little more when he came to sell it to prospective users, but they soon found out that the little added cost was more than offset by



The Sections of This Cast-Iron Smoke Pipe Are Interchangeable, and Impervious to Fire, Soot or Corrosion. Fitted Ends and Bolted Joints Make It Self-Supporting.

the economy of using it—it lasts indefinitely. It is made in sections, to be bolted together as shown in the illustration. It is cast in half sections so that it can be tightened to fit openings. The sections are interchangeable to fit each other, and nest closely for shipping. It comes in two-foot, one-foot and six-inch lengths to enable fitting to any distance, and the fitted ends and bolted joints make it self-supporting under ordinary conditions. The convenience, safety and utility of this cast iron smoke pipe ought to appeal to every furnace man and furnace user.

The Day of the Stucco Wall

DURING the first year of the war a great number of magnesite deposits were discovered in the United States, and though the value of magnesite as a building material had been appreciated for more than a decade it was not until it had been found to be so easy of access that it really came into its own as a bonding ingredient for stucco. Because of its extraordinary strength and elasticity and remarkable adhesiveness it has been developed by one manufacturer to a point where it will withstand the contraction and expansion of wood lath, patent lath, brick or tile, and it will not check if specifications are followed. Neither does it creep, bag or draw away



House Finished with Magnesite Stucco. Magnesite Is a Nonconductor of Heat and Cold; Keeps House Warm in Winter, Cool in Summer.

from the casings or corner boards.

It does not merely set on a surface. It sets into it, and bonds so closely to the surface to which it is applied that it really becomes part of that surface.

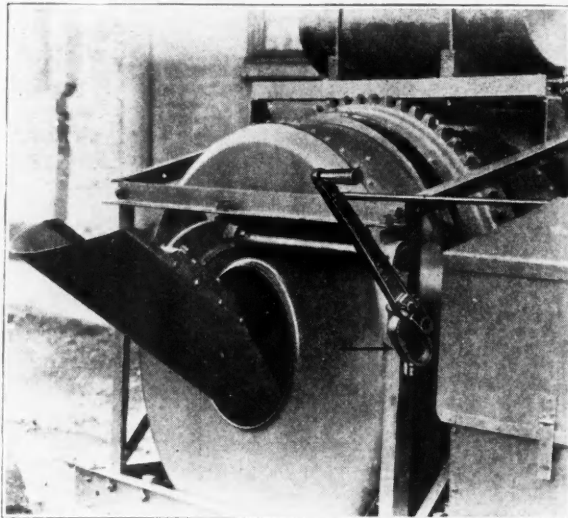
It makes stucco walls of a quality which appeals both to the person wishing inexpensive construction and the home builder who appreciates the genuine attractiveness of a properly stuccoed wall. Being a nonconductor of heat and cold, when used in stucco it practically seals the house air-tight around the doors and windows. Less coal is required for the winter months; and, by the same token, the house is kept cooler in the summer months.

The building material of which magnesite is the bonding ingredient is sold by the ton and shipped in bags. With each ton is enough mixing compound with instructions to properly mix and apply in order to maintain uniform quality and get best results.



A 1923 Improvement in Mixer Construction

ONE of the interesting improvements noticed in the construction of concrete mixers this year is a new device used for operating the discharge chute. The simplicity of this mechanism is shown in the accompanying illustration.



Lever Shown in Forward Position, Locking Chute in Position for Mixing. Pushing Lever Back Moves Chute Into Discharging Position.

The operating lever is pivoted to a short arm that is keyed to the shaft to which the chute is attached. When the operating lever is moved, a small roller, attached to the end of the lever, follows the outline of a cam that is bolted to the mixer frame. Except for the rod which extends across the mixer to enable the chute to be operated from the other side these few simple parts constitute the complete discharge operating mechanism.

In the illustration the lever is shown in its extreme forward position. The chute is locked securely in the position for mixing and where it in no way interferes with the mixing action. Pushing the lever back moves the chute into the discharging position. In the full discharge position the chute is locked and does not have to be held. The peculiar shape of the cam provides



One of the Most Valuable Services the Builder Can Render the Owner

A well-built home — a house of good design, good construction, good workmanship throughout — that, of course, is the first and most important thing the owner demands of the builder.

But, today, the able and progressive builder makes his client's satisfaction doubly sure. He sees to it that every home he builds is not only well built, but also well equipped in such vital matters as plumbing, heating, etc.

In fact, one of the most valuable services the builder can render the owner is to recommend the most suitable kind of heating plant for his home. And to render this service is good business for the builder, too, for there is no single thing that has more to do with the owner's complete and lasting satisfaction with his house than the good performance of its heating system.

That's why leading builders all over the country are advising the installation of Sunbeam Warm-Air Heating Systems in the homes they build. They know that where a Sunbeam Warm-Air Heating System is installed they can assure the owner not only a well-heated home, but a home in which the air is constantly and healthfully *circulated* and *moistened* all winter long, for the Sunbeam Furnace — either Pipe or Pipeless — is a heating system, a ventilating system and an air-moistening system all in one.

Every builder should be thoroughly familiar with these and the many other advantages of the Sunbeam System. We shall be glad to send you complete descriptive literature on Sunbeam Warm-Air Heating. Just write for it.

THE FOX FURNACE COMPANY, ELYRIA, OHIO
 Boston Atlanta Cleveland Chicago Denver San Francisco

SUNBEAM

WARM-AIR HEATING

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER

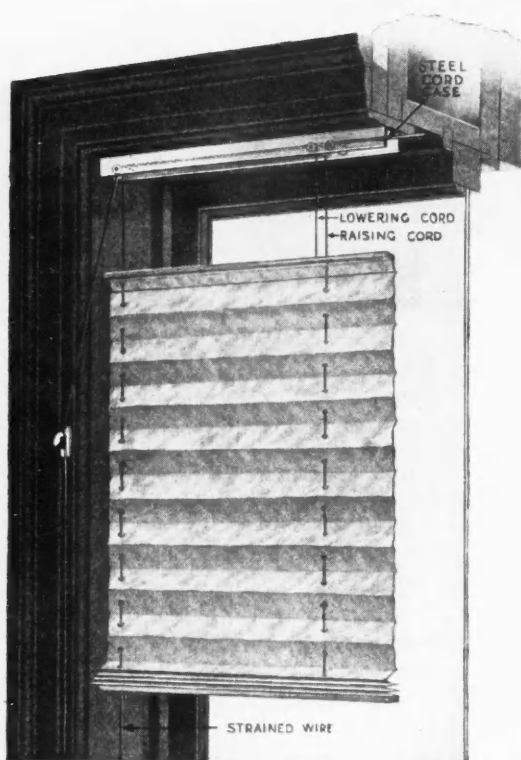
Copyright 1923 by
 The Fox Furnace Company

the locking feature in each position, no other arrangement being necessary. Releasing the chute from either position is merely a part of the operation of moving the chute from one position to the other. The operator simply takes hold of the handle and moves the handle forward or backward, according to the position of the chute. By this method the chute operates easily and quickly.



Gravity Operated, Long-Lived, Accordion-Plaited Window Shade

ILLUSTRATED is a distinctive type of shade which offers genuine window-shading for schools, hospitals, office buildings, banks, hotels, shop windows, factories, residences, etc. It is made of thoroughly pre-shrunk herring-bone weave coutil, well calendered to give a smooth and dust-resisting surface. This cloth is stitched to give $1\frac{5}{8}$ -inch accordion plaits, which are stitched on each side so that the shade is held and the

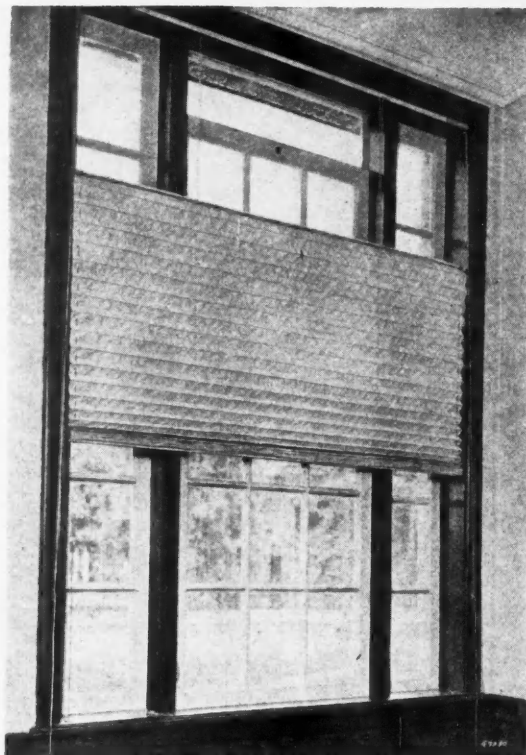


Made of Pre-Shrunk Herringbone Weave Coutil, This Accordion-Plaited Window Shade Is Gravity Operated and Suited to Any Type of Window.

shade always folds evenly. The shade comes in any width up to 16 feet, and in any height, is operatable up from the bottom or down from the top by the use of hollow braided cords. The cord at the right operates the bottom of the shade, and the left cord controls the top. The cord case at the head, in which are the full length brass rollers, is of 16 gauge steel, rust proofed and very rigid.

Since this shade is gravity operated, without spring roller, pawl or notch, it is adjustable from either top or bottom, giving absolute light control. Brass guide wires prevent the blowing of the shade when the windows are open for ventilation, a feature of special importance on casement, counter-balanced or other windows of unusual design. The material is translucent, and eliminates all glare, while permitting the entrance of a soft diffused working light, preventing eye strain. Awnings are usually unnecessary when this shade is used.

The unique construction of this shade permits many decorative effects which make it a welcome window covering. The accordion structure lends itself to attractive sun-burst arrange-



The Accordion-Plaited Shade Can Be Used for Center-Opening Windows as Well as Up-and-Down Sash, and Casements.

ment in connection with arched windows, particularly in banks, offices and store windows, and in combination with draperies and valances produces strikingly individual results. As the shade is never handled, and operates up and down so easily, it wears well and gives long service.

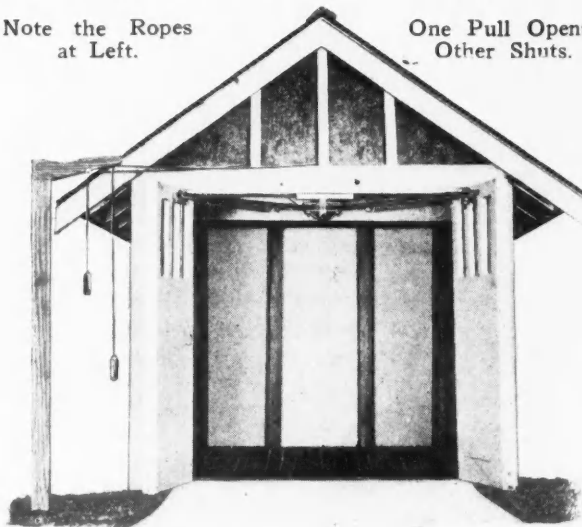


Most Auto Owners Will Like This Garage Door Control

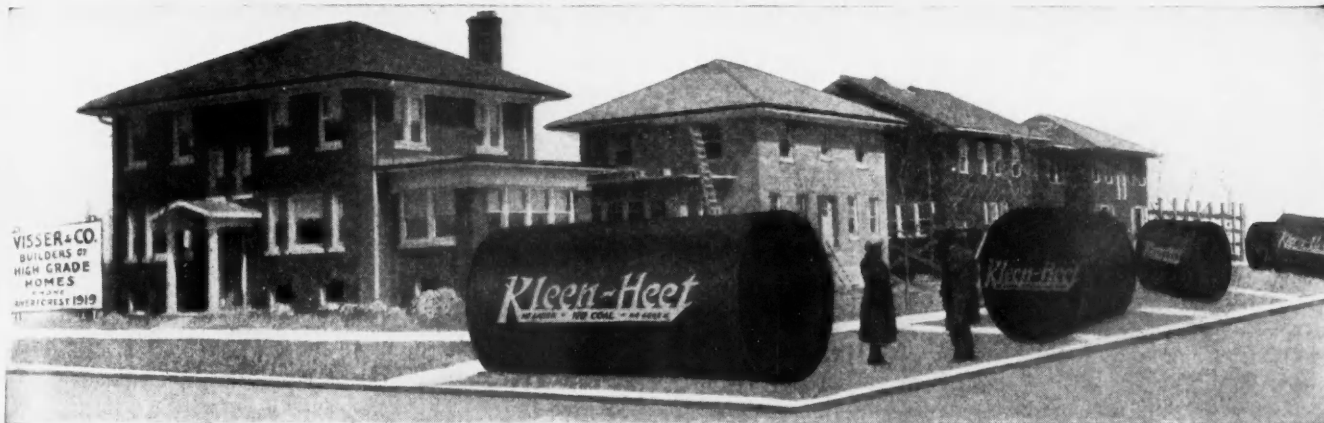
A GARAGE door control which permits the driver of the car to open and close his garage doors without leaving his seat in the car is now obtainable at a reasonable figure. It is simple in construction—one rope is pulled to open, the other to close the doors, it prevents door slamming, protects fenders or light from damage due to swinging doors, and

Note the Ropes at Left.

One Pull Opens. Other Shuts.



the doors are held rigid when open or closed. This door control would, we should think, save time, trouble and annoyance in any weather, especially at night and in stormy weather.



Every Contractor *and* Builder Should Read This Now

—because Kleen-Heet represents a real saving in home construction cost—it enables the builder to utilize all of the basement and to save on upper structure. A billiard room, den, playroom can be built in place of coal bins, etc. Kleen-Heet the automatic oil burning system—is being installed by live contractors and builders all over the country—it is successfully serving thousands of home owners.

Kleen-Heet NO LABOR · NO COAL · NO ASHES AUTOMATIC OIL BURNING SYSTEMS

render instant, unvarying, clean heat without the burden of coal-shoveling, dirty ashes and troublesome attention. Burn low-priced oil, always obtainable. Controlled automatically

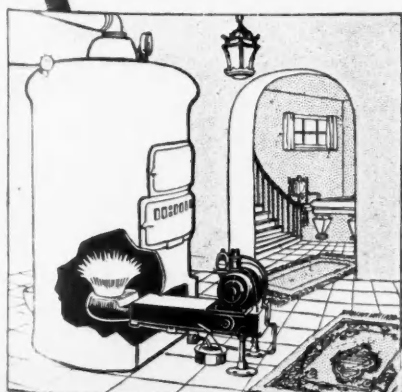
by a thermostat from any upstairs room desired. Operate with any type of heating plant. Furnished with either gas pilot or electric ignition.

IT IS A SUCCESS

because it is simple and sturdy in construction—the product of a corps of expert oil heating engineers. Kleen-Heet is listed as Standard by the Underwriters' Laboratories. It is

built and guaranteed by a company of strong financial responsibility and permanence. Kleen-Heet saves home owners' money, time, labor and space. Dirt, work and uncertain heat are

banished forever. Whole rows of houses are being built with Kleen-Heet installations. It is the modern method of home heating.



(Licensed under Doble Laboratories and Good Inventions Co., Patents)

The Facts Are Yours for the Asking

The coupon here will bring all of the inside facts. Get them now. We have distributors and display rooms in all the principal cities. Write to us today. Address

Kleen-Heet
Division of

WINSLOW BOILER & ENG. CO.
General Offices
Continental and Commercial Bank Bldg.
CHICAGO

This Brings The Facts Get It In The Mail Today

Winslow Boiler & Eng. Co.
Continental & Commercial Bank Bldg., Chicago

Gentlemen:—Please send me full information about Kleen-Heet.

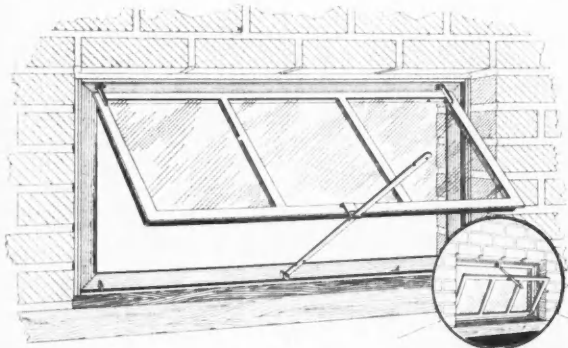
Name.....

Address.....

My Business is.....

Steel Sash—Economical, Imperishable, Indestructible

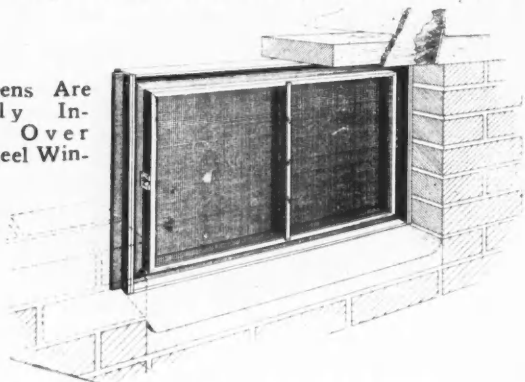
TIMES have changed. The metal or steel era in which we live has created a demand, more and more insistent, for steel window construction, and of a nature that will make them adaptable for any and all the buildings in which win-



The Steel Sash Basement Window Is Easily Installed and Always Looks Well and Is Easily Opened—from the Inside.

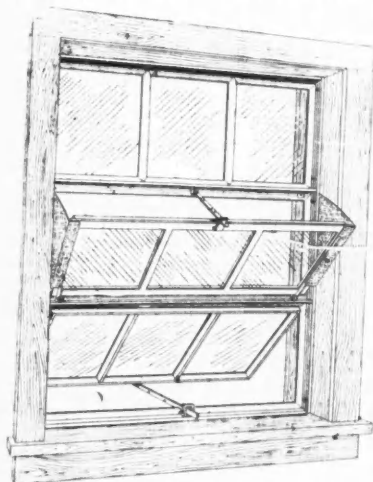
dows are used. Made to permit the use of screens and storm sash, fitting the frame tightly, with the automatic gravity catch making their removal or fitting a matter of only a few

Screens Are Easily Installed Over Any Steel Window.



minutes, these steel windows are rigid and strong, are easily stored and need no repair.

The heavy steel outside frame sets into the wall. The ends have projections or tabs that fit through the holes in the end sections, and when installed are flattened down. A strong,



Any Particular Window Requirement Can Be Satisfactorily and Economically Met with a Steel Window Sash.

direct drafts on the occupants.

Since these steel windows are obtainable in a style and size to meet any requirement, and at a reasonable price, it is not

substantial installation follows, enough to support the weight the window will be subjected to, without resorting to the use of lintels. The inside frame is 1 by 1 by 1/8 T-steel, and the corners are joined together the same as on the outside frame. Both inside and outside frames are galvanized, or coated with a heavy coating of aluminum or bronze, creating a rust-proof surface. A worth-while feature is the windshield which fits sidewall windows, insuring proper ventilation, but avoiding

strange that they have become so popular with the progressive architect and builder.

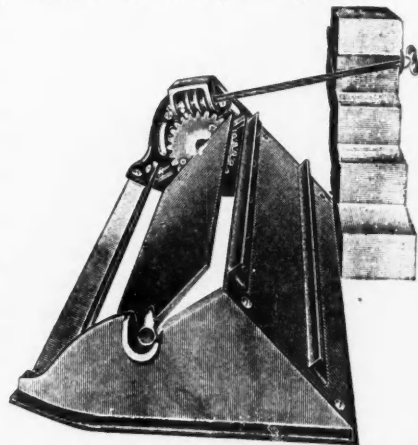


The Proper Damper for Fireplaces

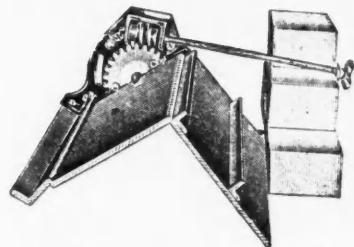
HERE is a damper designed to provide a smooth passage of ample capacity for the perfect escapement of the fireplace smoke and gases into the chimney flue. Its use saves much of the mason's time in erecting the fireplace, and insures an ample and smooth throat to the chimney—a very vital point.

An advantage is that it can be used for shallow or deep fireplaces and can be operated from the front or the side. Its dome does not have to sit an exact distance from the face, as the worm or pinion is adjustable on the key rod. It can be set as close to the front as it is practical to make the facing cover the edge. It has no wide flanges to interfere with setting it and its setting does not have to be level—the back can be tilted up or down to fit the top of the back wall.

One pleasant feature about it which commends itself to the architect and builder and the intending user of the fireplace is that the fireplace does not have to be built to fit the damper. The fireplace can be built to suit individual requirements, and this damper will fit in easily and efficiently. The fact that it can be installed in very little time, and at a low setting cost makes it appeal to those who, while appreciating fully the luxurious comfort of an open fire in their fireplaces, still wish to indulge themselves in such a luxury without going beyond the bounds of reasonable cost.



A Key Rod Operates Worm and Pinion, Making Damper Set Precisely at Opening Conducive to Best Fireplace Combustion.

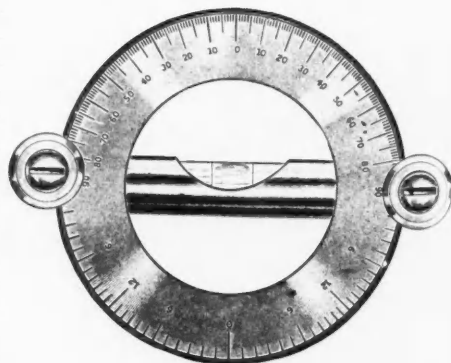


The Damper Can Be Shut Tight, and Stays Shut. On the Other Hand, It Never Becomes Mean, or Forces Smoke Out Into the Room.

Grade or Surface Incline Obtained by Adjustable Graduated Level Ring

A MANUFACTURER has perfected a graduated ring for use with levels which gives the grade or incline of any surface at a glance, without mathematical computation.

The graduated ring encircles the spirit



A Graduated Level Ring Which Is Adjustable and Insures Accurate Trueing-Up.

Elastica Stucco

Over a Period of Years Costs No More Than Paint—



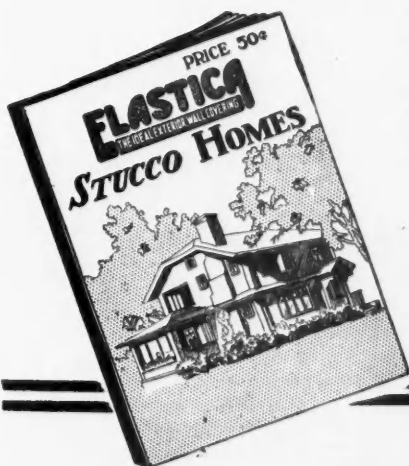
and is a permanent, beautiful exterior. You are naturally interested in the building of attractive homes—permanent buildings that reflect credit upon you.

You can get permanence and beauty at a low cost by using Elastica—the Ideal Exterior Wall Covering.

The old frame building can be made as good as new through the use of Elastica. And the value of the property will be increased from three to four times the cost of the material's application.



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ELASTICA

THE IDEAL EXTERIOR WALL COVERING

vial. It is inserted in the wood stock, and the level or plumb adjusted, a fine line being marked across the elevated edges of the casing at both 0's and at both 90's. To get the grade or incline of any surface, or to establish such an incline, the user loosens the set screws and revolves the ring to which the vial is attached. If it is desired to have a surface that will rise one inch for every foot of its length, the ring is turned to the right until the lower right hand guide mark on the casing is exactly opposite the first mark to the left of the zero line. If a 6-inch rise per foot is desired, the ring is turned until the figure "6" is opposite the guide mark on the casing. By this simple method any angle, any incline or decline, may be found or established easily and quickly. It is possible to insert this ring in straight edges or long levels, and even possible to insert three of them in a straight edge, thus providing a level, plumb and inclinometer, all in one. Tracing-up can be done to as accurate a point as the most critical worker would require.



Gasoline Hammer Drill

A GASOLINE impact drill of the air hammer type is now in practical use, being a self-contained, portable, gasoline hammer, so powerful and compact that one man operates and transports it from place to place. Like the self-contained gasoline engine, this gasoline hammer makes its own power, therefore no other power equipment has to be transported with it.

When first seen in operation, the lack of connection to another agency of power causes wonder and forcibly brings a realization of the terrific power of



Upper Right Illustration Shows Gasoline Hammer Drill Used for Ramming Back Fill. Lower Left Shows Complete Drilling Unit Operating.

gasoline when applied directly to the hammer piston of this drill.

This gasoline hammer drill was first developed for drilling rock, but, because of its portability and simplicity, the advantages of its application to other work are recognized in many other lines of business, such as breaking concrete, picking hard earth, ramming back fill-

in trenches, removing granite block, removing wood block, drilling foundations, drilling through walls.

Prior to this invention, all types of power drills were limited in their application to work by the length of an air hose or by electric wires. Power for either of these methods must be supplied to them by an auxiliary equipment which, on account of the size and weight, cannot be cheaply transported, nor can it be located near enough to do probably more than 60% of the work to which a power drill could profitably be applied. Then there is an extraordinary saving in weight—the gas drill weighing but 70 lbs., as against other drills weight of a ton or ton and a half—and the price and labor saving advantages which also commend it to the builder and contractor.

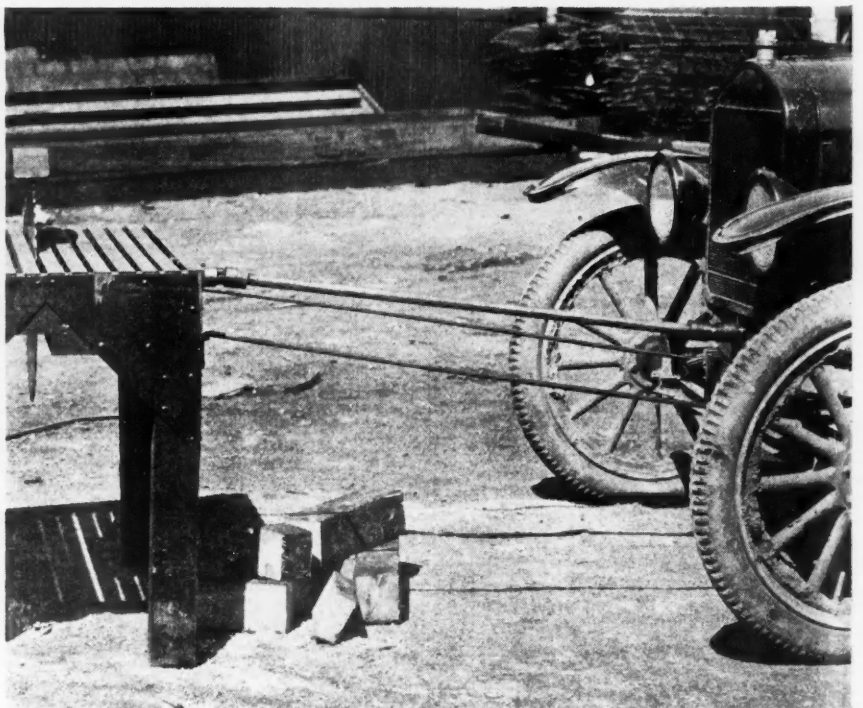


A Novel Portable Circular Saw

A N ingenious Detroit contractor recently perfected a portable circular saw that utilizes his Ford engine as motive power. In fact, he gets double use out of his Ford inasmuch as it both operates and carries the saw!

The illustrations show very clearly how the power is applied. A direct connection to the driving shaft is accomplished by means of two universal joints. A special attachment is fixed onto the Ford driving shaft. This is permanent. The shaft connecting to the saw couples on to this attachment. The saw can be unloaded, connected, and put in operation in three minutes.

There is no lost power, no belts to break—no gears to strip. The idea is simplicity itself and obviously fool-proof.

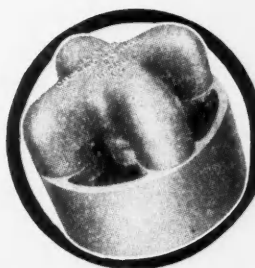
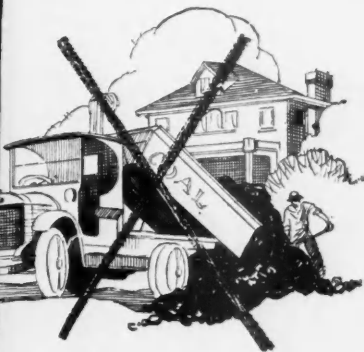
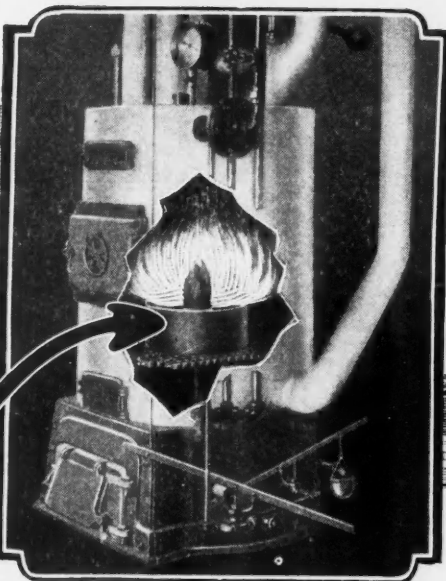


Though Saw Is Light It Is Remarkably Rigid and Stable, Helped by the Two Braces Connecting to Front Axle of Ford Car, Which Furnishes the Power for This Saw.

DON'T BURN COAL!

FITS ANY FURNACE or STOVE

The Oliver burner fits all hot water, hot air or steam furnaces as well as all types of coal or wood ranges and heating stoves. Quickly and easily installed without change. No noisy motors, no electrical connections, no moving parts. This invention equips any furnace to burn a new cheap fuel called Oil-Gas. Three times the heat of coal without any of the drudgery. And so low in price, that any family can afford its convenience and cleanliness and comfort.



Fits all types of Hot Air, Hot Water or Steam Furnaces without change to any plant

New Kind of Fuel Replaces Coal In Any Furnace or Stove!

A Splendid Sales Help for the Home Builder

COAL—ashes—dirt—dust—soot—smoke—building fires—cleaning furnaces—carrying ashes—uneven heat—cold rooms—frozen pipes—coal shortages—poor quality—exorbitant prices? NO! All banished!

INSTEAD: Quick heat—cheap heat—plentiful heat—clean heat—even heat—warm rooms—smokeless heat—sootless heat—ashless heat—odorless heat—and all this controlled by the turn of valve, or, **AUTOMATICALLY** by a thermostat, with an installation every family can afford. No wonder contractors find it such a splendid sales aid!

Three Times the Heat of Coal

Mr. B. M. Oliver, well known heating expert, discoverer of this new method, calls his invention the Oliver Oil-Gas Burner because it uses 95% air and only 5% oil, the cheapest fuel there is. The result is a perfect fuel gas that burns with an intense, clean flame giving three times the heat of coal.

No Expensive Equipment

This simple device, without noisy motors, without electrical connections, without any

moving parts—converts any type or size of steam, hot water, or hot air furnace into an automatic heating plant. Maintains a steady, even temperature in coldest winter weather. Quickly, easily installed without any change whatever to any furnace. Absolutely safe. Lasts a lifetime.

Perfect Heating Guaranteed

The performance of the new Oliver Burner has been so thoroughly tested and proved in over 150,000 homes that Mr. Oliver gives anyone the opportunity of using his invention under an extraordinary guarantee of complete satisfaction.

Low Introductory Offer

Find out now how this amazing invention will add to the value of the homes you are now building—how the owners will be freed forever from dirt, drudgery and expense of coal fires. Tear out, fill in and mail the coupon below for full description and low price. By mailing coupon at once you will be entitled to the low introductory price offer to contractors and architects whether you buy now or later.

150,000 In Use

Satisfaction Guaranteed for Safety and Perfect Heating. With or without Automatic Thermostatic Control. So Low in Price You Can Afford to Specify it for Any Home. Will Outlive the Furnace Itself. Cheap, Clean, Odorless.

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..... Furnace
(Specify steam, hot air, or hot water)

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OLIVER OIL-GAS BURNER

OLIVER OIL-GAS BURNER CO.

2474-I Oliver Building

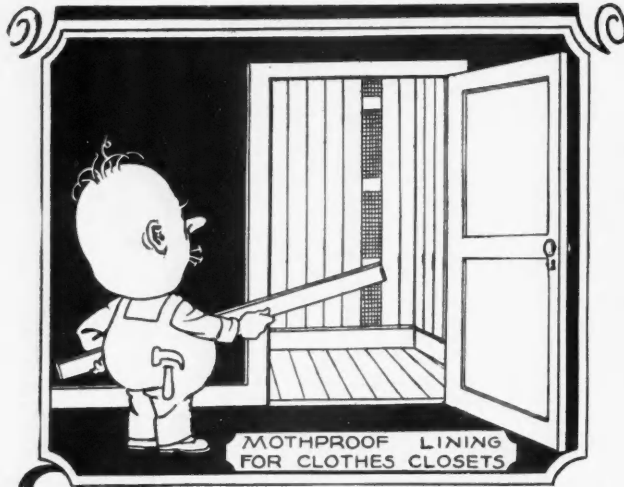
ST. LOUIS, MO.

"Oldest and Largest Manufacturers of Oil-Gas Burners in the World"

Canadian Distributor,

2474-I Oliver Bldg.,

TORONTO, ONT.

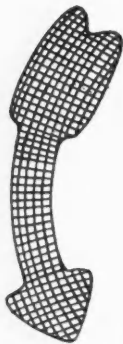


Wood you pass this by?

A CERTAIN architect was asked why he thought people were demanding Kilmoth clothes closets instead of using a liquid moth killer. "Because," he replied, "Kilmoth is the NATURAL way."

In this he has voiced the opinion of many of the more progressive carpenters, builders and contractors who have installed Kilmoth closets throughout homes, apartments and hotels. The NATURAL way is the dependable way, and the permanent way. No attention is needed after Kilmoth installation, which is a big feature in appealing to the housewife.

Sign this



The ease with which it is handled, the liberal discounts realized from its sale, and the growing demand for this coming household necessity makes a great opportunity for all handlers of lumber to do an increased and profitable business.

Exclusive territorial rights given to responsible distributors.

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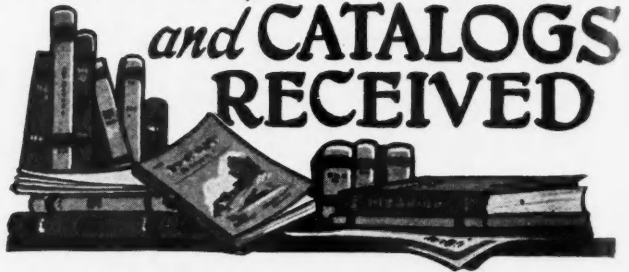
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Check opposite your business Builder or Contractor
 Sash Door, Mill and Supply Lumber and Supply

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RED CEDAR

BOOKS, BOOKLETS and CATALOGS RECEIVED



THE literature and publications listed below are now being distributed and the concerns mentioned will be glad to send copies to any of our readers who will write and ask for them.

"Ware's Georgian Period." This is a new edition of a standard work on colonial or eighteenth century architecture in the United States, and consists of six art portfolios, size 1 inch by 14 inches, with 454 full-page plates and measured drawings. There are 272 pages of text with 500 illustrations in addition to the full-page plates. The whole is completely indexed and the publisher is the U. P. C. Company, Inc., 239 West 39th St., New York, N. Y. The price of the portfolio edition is \$60. The edition bound in library buckram is \$75 a set. Partial payment plans are obtainable on request from the publishers.

A careful perusal of this monumental work leaves the reviewer with a feeling of profound admiration for the careful presentation of a period which has affected American architecture for all time. That in our Colonial heritage we have a typical American legacy which can always be adapted and invested with profit has long been apparent in the creditable modern buildings in the Colonial style which have been erected on every hand. A set of volumes like "Ware's Georgian Period" is valuable historically, not only because it saves the pictures and architectural features of notable Colonial buildings to posterity, but because its measured drawings make it a most valuable source book for all architects, builders and students eager to be known as producers of artistically perfect work. Any worker with tools would also find in these volumes an incentive to become a more perfect craftsman, for the notable thing about most of the buildings shown and described is that they grew to perfection in each detail under the combined talent and workmanly pride of all the craftsmen concerned in their erection. Sixty or seventy dollars is a good investment for "Ware's Georgian Period."

"Sanitas Modern Wall Coverings" are illustrated in color and described in a handsome book issued by the makers, the Standard Textile Products Co., 320 Broadway, New York, N. Y. This oil color cloth wall covering, artistic and sanitary, commends itself in this booklet to the thinking architect, builder and home owner.

"Hints to Decorators" is a book issued by the manufacturers of Sanitas Modern Wall Coverings, 320 Broadway, New York, N. Y., to be of practical service to the decorator. It is the decorative idea that lands the contract these days, and this book indicates how good taste and health may be served at the same time, at reasonable outlay.

"Keeping Down the Cost of Your Woodwork" is a handsome booklet issued by the Curtis Companies Service Bureau, Clinton, Ia., and shows how the various rooms of the house can be made artistically perfect at ordinary expense through the use of Curtis Standardized Woodwork. It is fully illustrated, with rooms shown in colors.

"Practical Business Methods for Architects and Contractors" illustrates and describes the various bookkeeping sys-

"NOT A KICK IN A MILLION FEET"



The Early Fall

THE best time to erect new buildings, make repairs and re-roof old buildings is now—*early fall*—it is best for the owner, builder and buildings.

The best roofing to use when Repairing, Rebuilding or Re-roofing is *Mule-Hide*. It stands the test.

**Re-pair
 Re-build
 Re-roof**
Now!

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tems that the Frank R. Walker Co., 536 Lake Shore Drive, Chicago, Ill., furnishes. The systems shown have all been worked out on actual work and are thoroughly practical for contractors.

"Knox Cast Iron Smoke Pipe" for furnace, boilers, hot water heaters and chimney extensions is described in an attractive folder at hand from the manufacturers, the Waterloo Register Co., Waterloo, Iowa. "It costs a little more, but ends smoke pipe troubles," they say.

"Hawkeye Lightning Protection" in the shape of rods, terminals and connections and the proper installation of these parts are interestingly and convincingly treated in an attractive illustrated catalog at hand from the manufacturers, the Hawkeye Lightning Rod Co., Cedar Rapids, Ia.

"Smith Concrete Mixers." The T. L. Smith Co., of Milwaukee, has just published a new 48-page catalog, No. 405-C, describing and illustrating the Smith line of non-tilting concrete mixers, 4-S to 28-S sizes. Attention is directed to the efficiency of the end-to-center mixing action and to the speedy discharge obtained by extending the discharge chute two-thirds of the way into the drum.

"Ornamental Products Co. Catalog No. 9" is an attractive catalog at hand from the Ornamental Products Co., Detroit, Mich. It illustrates and gives prices of their Lignine composition ornaments which simulate hand carving on wood. All the different classical periods are shown in their extensive line of capitals, pilaster capitals, shields, scrolls, heads and wreaths. A suggestive book for every architect, builder, and the manufacturer of furniture or interior trim.

"Building with Assurance" is a prospectus of the real "Building with Assurance," issued by the Morgan Sash & Door Co., Dept. T, Blue Island Ave., Chicago, Ill. It is brimful of suggestions for the homebuilder, gives house designs and plans, and is \$2.50 and worth it. Canada,

states west of the Rockies, and foreign countries, \$3.50.

"Chief Structural Steel Windows," manufactured by Shrauger & Johnson, Atlantic, Iowa, are illustrated in a broadside which does full justice to the structural merits of these well-known windows. No feature or improvement which might make them more practical, convenient or durable has been overlooked.

"John Deere Grain Elevators," manufactured by Deere & Company, Moline, Ill., are informatively handled in the company's very comprehensive catalog. Described are its steel portable elevators, tubular steel elevators and inside cup elevators, designed to save time on the farm at a time when it is most valuable—at threshing and husking.

"Farm Homes" is a pamphlet at hand from the Agricultural Experiment Station, University of Wisconsin, Madison, Wis., pointing out that the farm home can be just as comfortable, convenient and attractive as the city home; it goes on to show how it should be planned and adapted to the needs of the family. It is well worth sending for.

"Convenient Kitchens" is a pamphlet issued by the Extension Service of the College of Agriculture, University of Wisconsin. Whether one is building a new house or remodeling an old one we feel they would like this book, since it gives a plan based on a careful study of the steps which can be saved by the housewife doing her work.

"Kewanee-Hart Farm Elevators" is a folder issued by the Kewanee Implement Company, Kewanee, Ill., and illustrates and describes its bucket elevators for crib and granary. It also shows the portable types manufactured by the company; popular, as are the stationary types, because of the roller bearings which save power. "Kewanee-Hart Truck Lifts" are other equipment manufactured by this company.

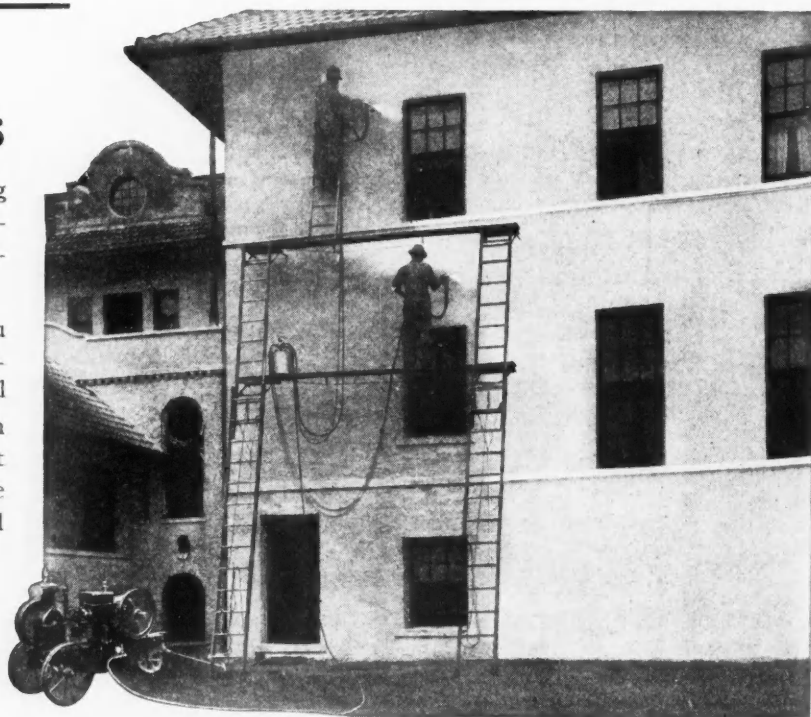
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Painting with DeVilbiss spray-painting equipment will speed-up the work without extra effort and bring correspondingly bigger profits to you.

Spray painters will do more jobs for you in your present working time by spending less time on each job. Your men will like to operate the DeVilbiss spray gun because the work is cleaner and will not wear them out: this has a favorable bearing on amount of work done and profits for you.

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gives you all that is practical, complete and reliable in spray-painting equipment. The DeVilbiss spray gun operates on as low air pressure as good spraying permits; its fluid and spray adjustment is accurate and instantaneous; it paints 4 to 5 times faster than is possible with hand brush. DeVilbiss painting insures a more thorough and uniform coating with any kind of paint, on any inside and outside surface.



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ASBESTONE EVERLASTING STUCCO

How Many Pounds of Stucco Plaster Do You Get to a Ton?

The average buyer receives 2000 lbs., but when you order 1 ton of ASBESTONE Everlasting Stucco you receive delivery of 2375 lbs. of material, twenty 100 lb. sacks ASBESTONE Everlasting Stucco plaster plus 375 lbs. flake magnesium chloride.

Full weight combined with a quality product

ASBESTONE Everlasting Stucco is unsurpassed in covering power, unequalled in tensile strength, resiliency and elasticity.

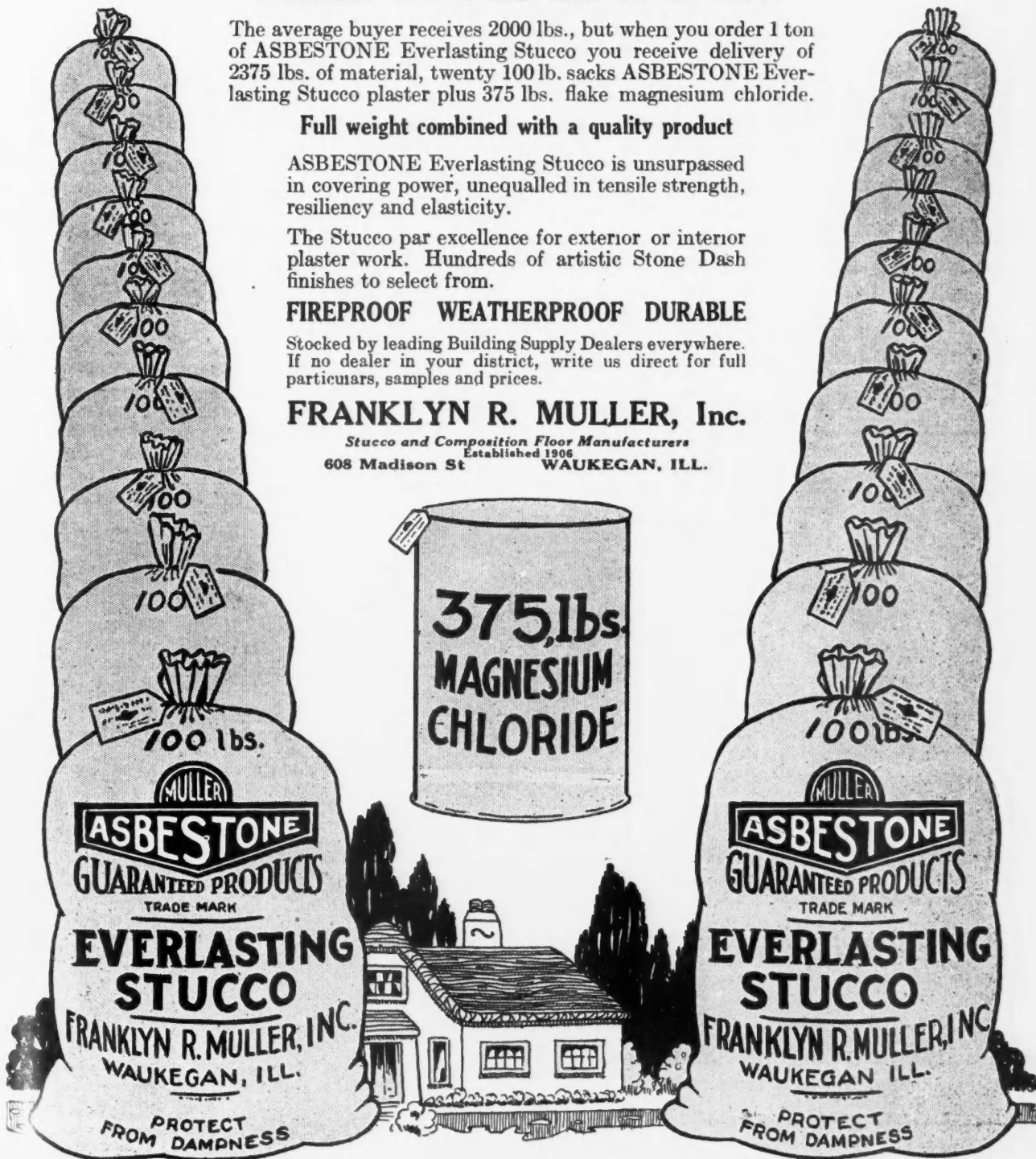
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Stucco and Composition Floor Manufacturers
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"The Donley Book of Fireplaces" issued by the Donley Brothers Company, Cleveland, O., emphasizes good, practical, standardized interior fireplace construction. Interest is greatly enhanced by a resume of the history of fireplace traditions, and the series of suggestive sketches and photographs of actual fireplaces in brick, stone, stucco, tile and wooden mantel fronts.

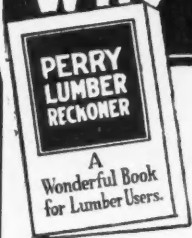
"Hoffman Water Heaters" of the Thermostatic and Pressure Valve types are graphically illustrated and described in a punch-ful broadside at hand from the manufacturers, the Hoffman Heater Company, Lorain, Ohio. The twin qualities of simplicity and efficiency which have always characterized these heaters are evident in the advertising story also.

"Load Tests" is issued by the Truscon Steel Company, Youngstown, O., and gives the results of the tests conducted by the Massachusetts Institute of Technology, University of Nebraska and Purdue University, in conjunction with the Truscon Steel Company, to determine the strength, deflection, and internal stresses of practical examples of Truscon-I Construction.

"Ruud Automatic Storage Systems" is issued by the Ruud Manufacturing Company, Pittsburgh, Pa., to show its automatic hot water storage systems for home, industrial and commercial use. The first automatic storage system ever made was a Ruud product, and these systems, adaptable to water or gas, represent a still further advance in storage system construction.

"How to Build a Better Home" is a book of suggestions to home builders, published by the Copper and Brass Research Association, 25 Broadway, New York. Throughout the book runs a supply of sound fact on the subject outlined in the title, and there are numerous drawings in which the different parts of a house are detailed and named. It is a book primarily for the home-builder.

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Get the Correct Answer at a Glance
No Figuring, No Mistakes

It gives the exact number of board feet in any number of pieces of lumber, any size.

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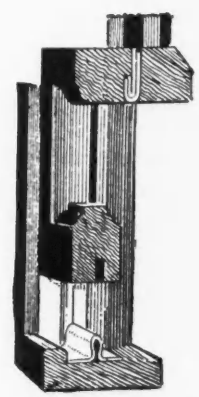
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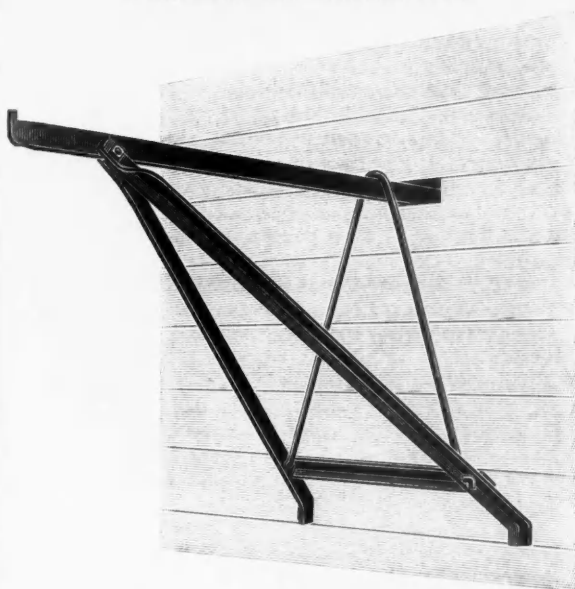
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Allmetal Single Rib Strip

"Trouble-Saver" Scaffold Brackets are SAFETY-FIRST Brackets

CARPENTER BRACKETS



Hook directly around Studding

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Attach to wall with Four 10, 16 or 20d Nails

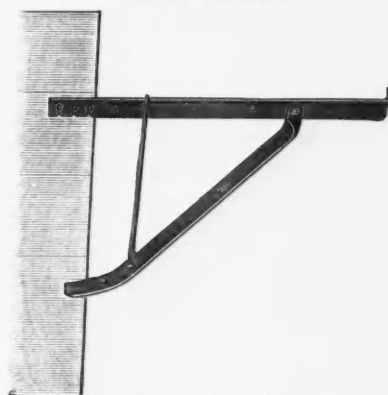
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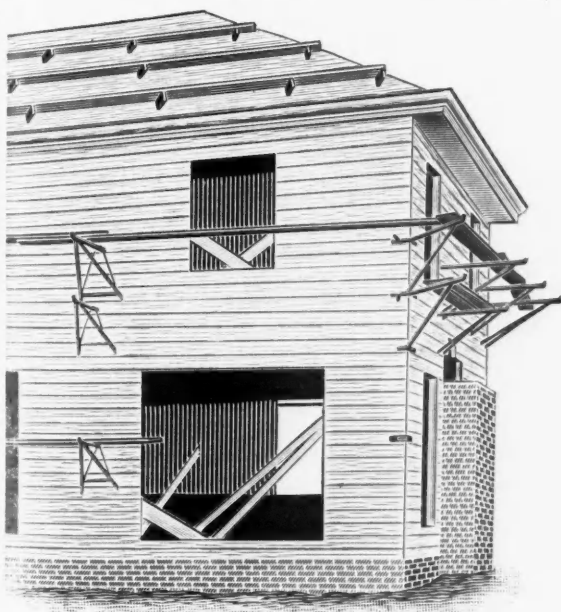


Attach to wall with 10, 16 or 20d Nails

Scaffold Safety and Economy are guaranteed when "Trouble-Saver" Brackets are used. The absolute rigidity obtained, gives the men that scaffold assurance, that tends for more and better work. They feel as safe as though working on the ground.

Your scaffold expenses, troubles and worries are over as they should last a life-time, thus changing an every job expense into a permanent investment.

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Scaffold Brackets, Adjustable Trestles,
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"Specifications for Metal Lath Construction" as agreed upon by the principal manufacturers of Metal Lath, are given in a book at hand from the Associated Metal Lath Manufacturers, 123 West Madison Street, Chicago, Ill. Architects and builders will find these a guide to safe and permanent construction.

"Detailed Directions for Laying and Caring for Linoleum" is a handbook issued by the Armstrong Cork Company, Linoleum Division, Lancaster, Penna. Sooner or later every architect or builder will be asking the questions answered in this book.

"Linoleum-Flooring" is a folder of detailed specifications and complete description of this modern flooring, issued by the manufacturer, the Armstrong Cork Company, Linoleum Division, Lancaster, Pa. It is arranged to fit standard A. I. A. requirements.

"Electrical Devices with Luminous Indicators" is a folder specially arranged for the architect's and builder's files by the United States Radium Corporation, 58 Pine Street, New York, and includes the names of luminous products and their manufacturers from whom these luminous devices may be obtained.

"Delco-Light Water Systems" are handled thoroughly by the manufacturer, the Delco-Light Company, Dayton, O., in a catalog at hand. The point is made that the Delco country-wide service organization insures a first class installation and full satisfaction for the user.

"Simplex Removable Sash" is a folder describing the removable regular style double hung sash made by the Simplex Removable Sash Co., 369 Fifteenth Ave., Newark, N. J. The benefits and advantages of this removable sash will appeal to the architect and builder and their clients.

"Koehring Heavy Duty Pavers" are described and illustrated in a handsome catalog at hand from the manufac-

turers, the Koehring Company, Milwaukee, Wis. The function of the Koehring Heavy Duty Paver is the production of uniform concrete and its proper placing.

"Giltedge Warm Air Furnace," manufactured by R. J. Schwab & Sons Co., Milwaukee, Wis., is graphically illustrated and described in an attractive folder received from the manufacturers.

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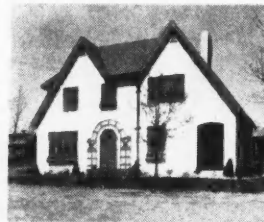
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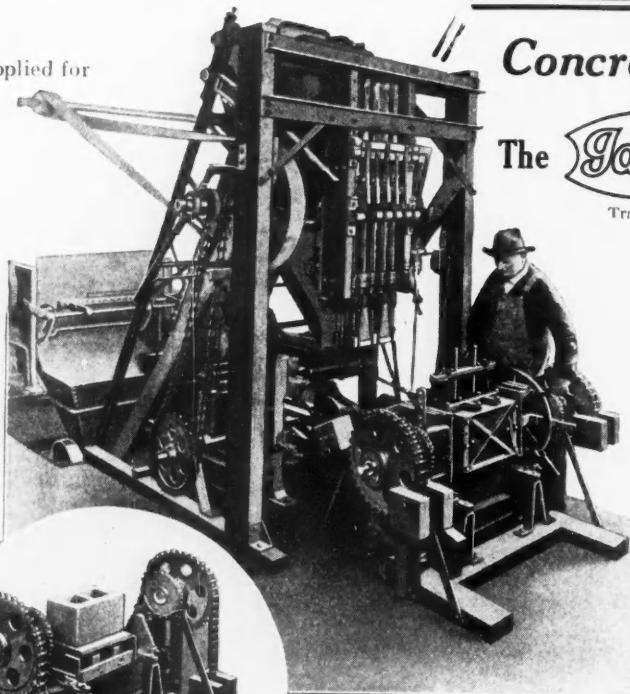
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"Daylighting Schools" is the latest Truscon publication issued by the Truscon Steel Company, Detroit, Mich., and is crammed full of vital information about steel windows adaptable for school construction.

"Practical Perspective" by Richards and Colvin, is published by the Norman Henley Co., 2 West 45th St., New York. Price 75 cents. It is a treatise showing how to make all kinds of mechanical drawings in isometric perspective.

"Homes and Citizenship." This comprehensive and well justified title is on the book which contains the official report of the Eighth Annual Meeting of the Subscribers to the Southern Pine Association, New Orleans, La., and which was held at the Grunewald Hotel, in that city, in May last.

"Foundations, Abutments and Footings" by George A. Hool and W. S. Kinne, Professors of Structural Engineering at the University of Wisconsin, is a book available now from the McGraw-Hill Book Company, 370 Seventh Ave., New York City. The price is \$4. It is the first of a series of six volumes designed to cover thoroughly the design and construction of the principal kinds and types of modern civil engineering structures. It is ideal for home study, and should be on every architect and builder's bookshelf.

"Concrete in Home Sanitation" is issued by the Portland Cement Association, 111 West Washington St., Chicago. It contains information which the home builder, particularly in rural communities, can hardly afford to be without.

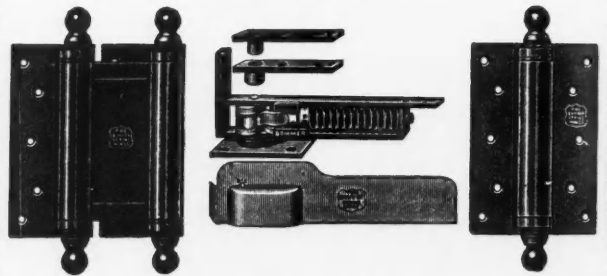
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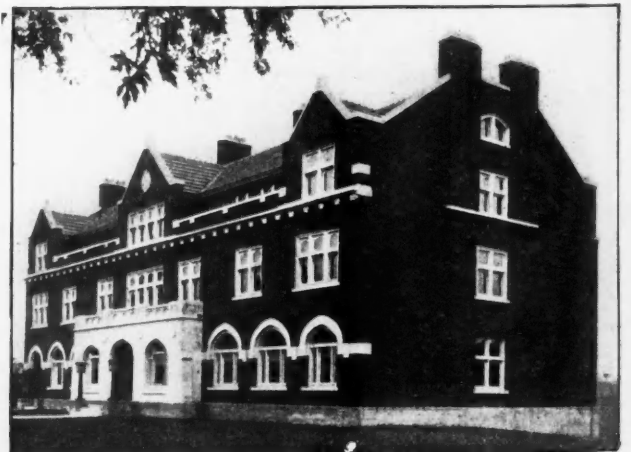
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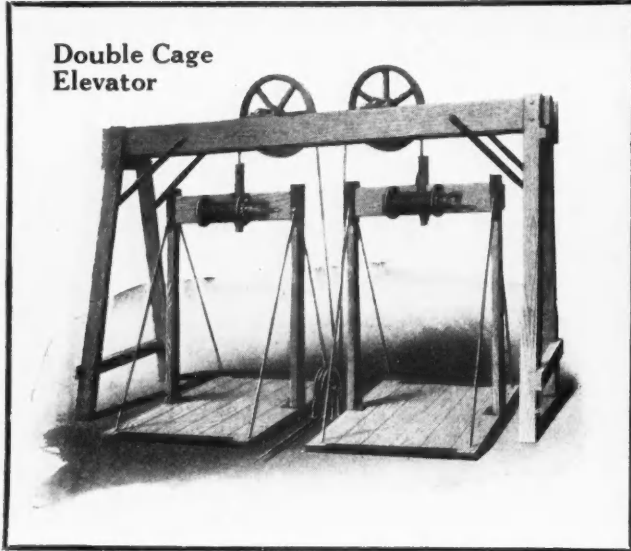
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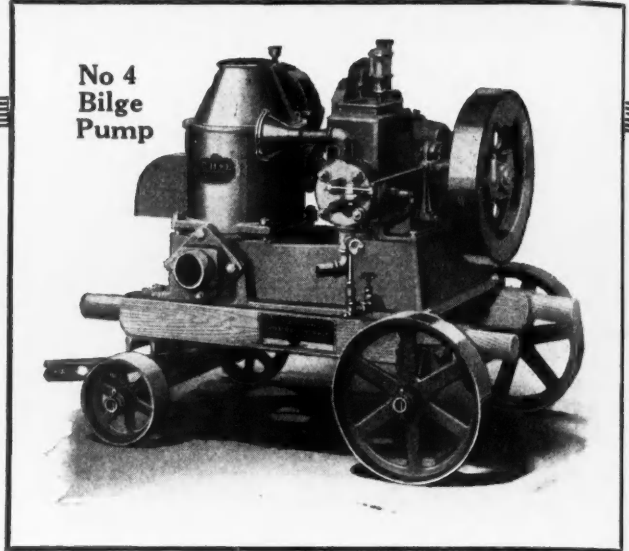
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The American Builder is published monthly at 1827 Prairie Ave., Chicago, Illinois, U. S. A., by the American Carpenter & Builder. Entered as second class matter, July 1st, 1905, at the Post Office, at Chicago, Illinois, under the act of Congress on March 3, 1879. Subscription price, \$2.00 a year. Volume 35, No. 6.

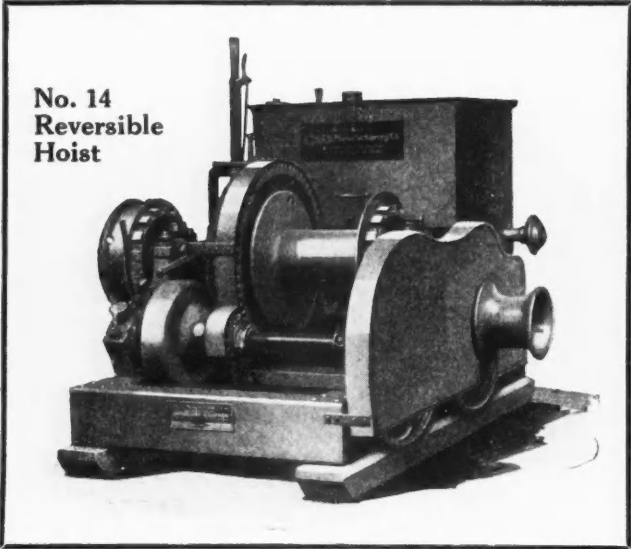
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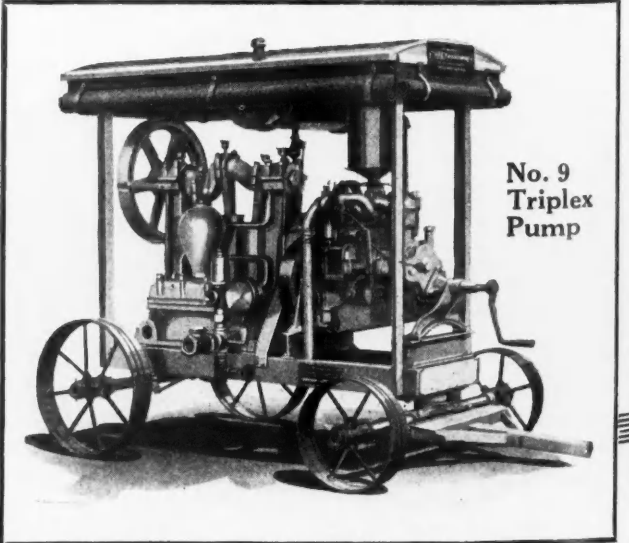
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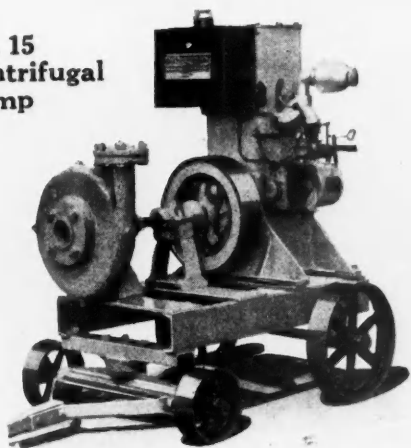
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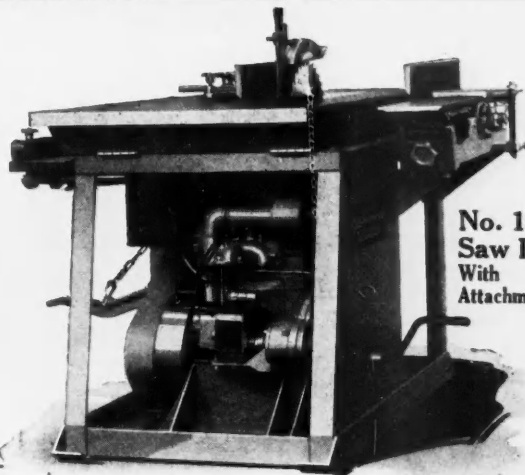
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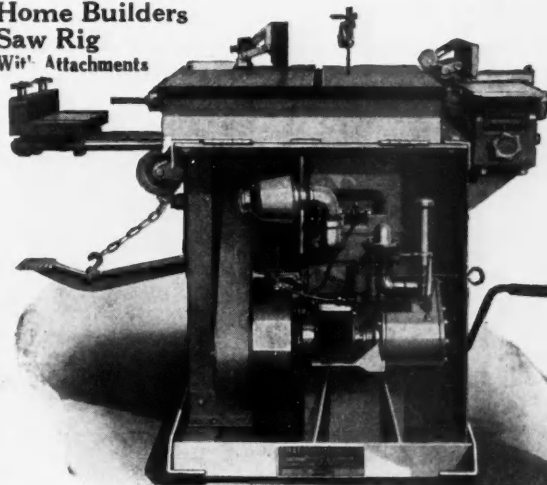


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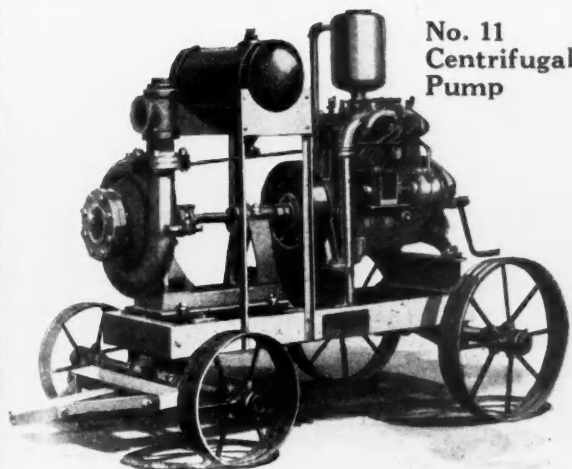
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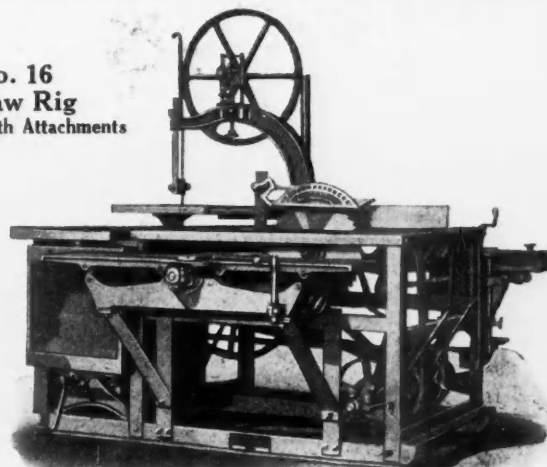
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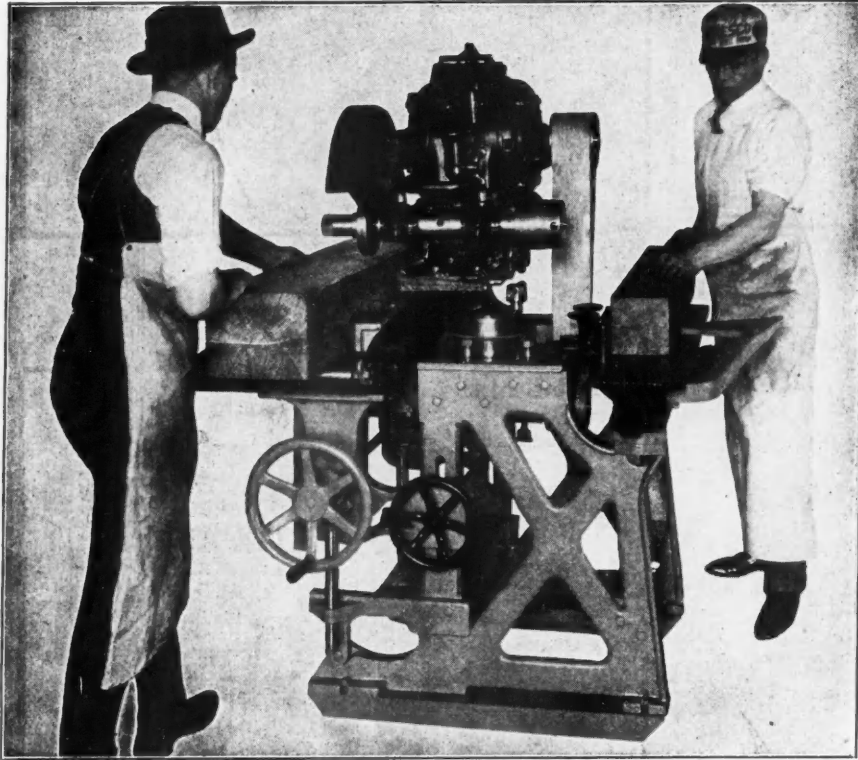


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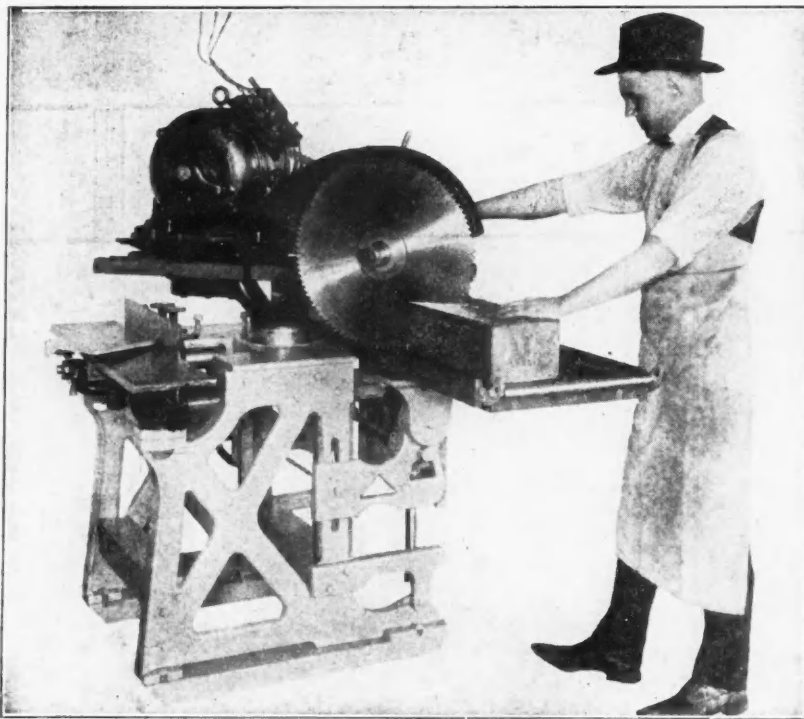


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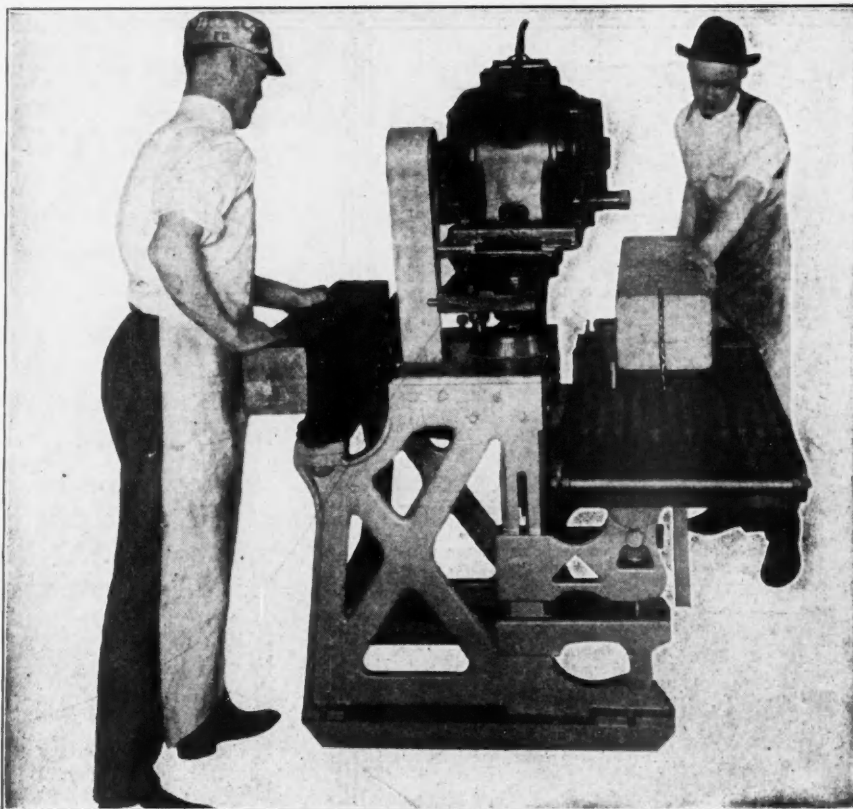
Manufacture

The Master Woodworker

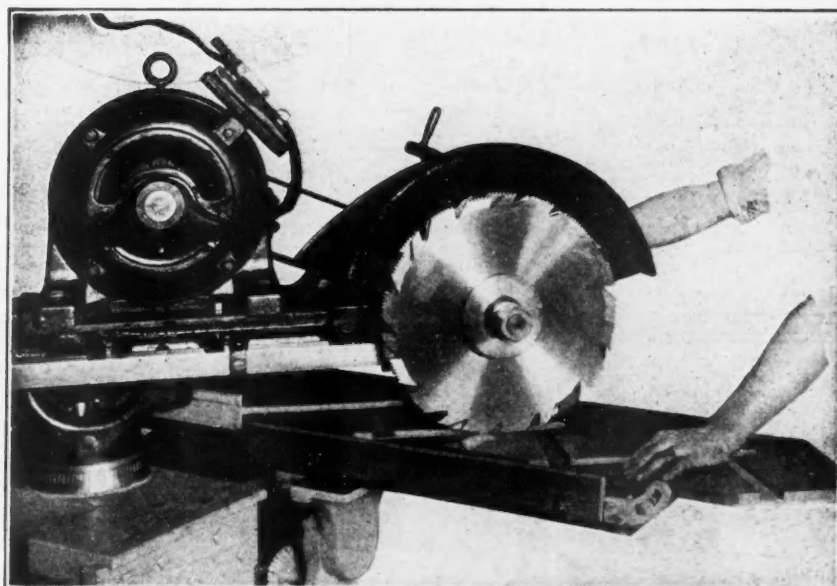
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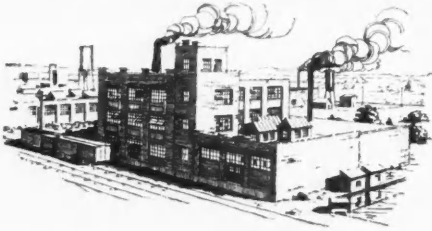
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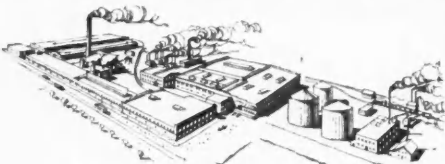
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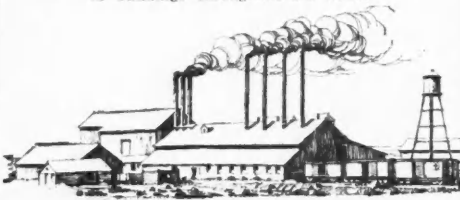
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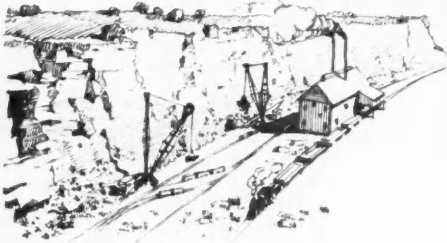
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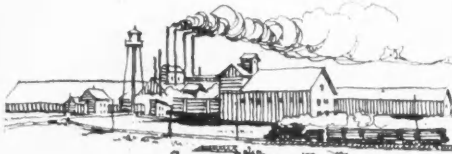
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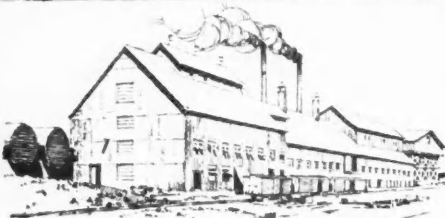
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Another Certain-teed Acme plant producing gypsum cement plaster and gypsum blocks. The lightness, fire-proof qualities and speed with which walls can be constructed with gypsum blocks are causing them rapidly to displace other methods.

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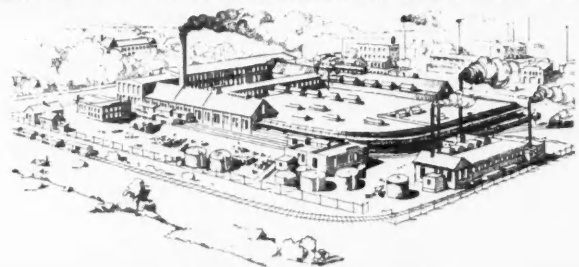
Waste was inevitable; quality uncertain; price a matter of barter—so that buyers of the previous generation might well heed the old Latin warning *caveat emptor*—"let the buyer beware."

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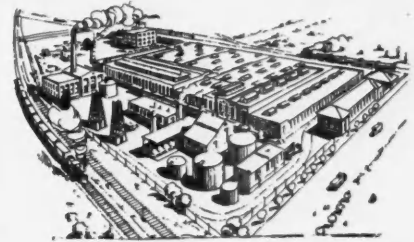


Plant No. 5—Niagara Falls, N. Y.
Powered by the mighty Niagara there is yearly output here to roof over a hundred thousand homes.



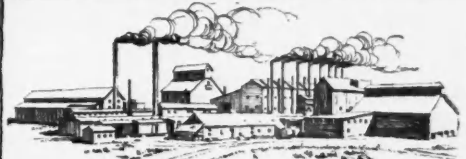
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Formerly Cooks Linoleum, now one of the Certain-teed units. One of the greatest linoleum plants in the world, turning out this year enough linoleum products to cover a path one yard wide from London to San Francisco. This is sufficient to meet the average needs of half-a-million homes.



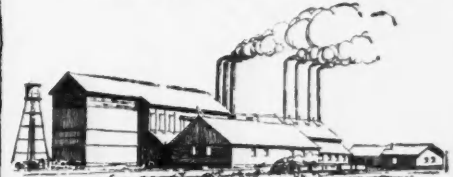
Plant No. 4—Richmond, Cal.

Turris rags into roofing for the Pacific Coast, Australasia and the Orient.



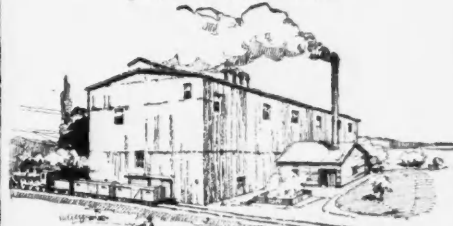
Plant No. 10—Acme, Texas

A complete Certain-teed community is dependent upon this plant, surrounded by 8000 acres of gypsum deposits from which are made Certain-teed Acme cement plaster and gypsum blocks.



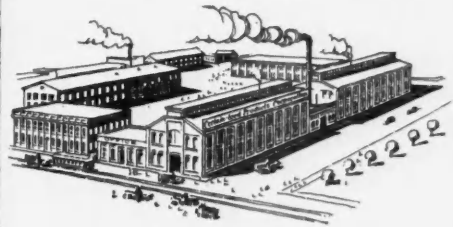
Plant No. 8—Acme, New Mexico

A modern gypsum plaster products plant located upon one of the finest natural deposits known. Makes the well-known Certain-teed Acme cement plaster and gypsum blocks.



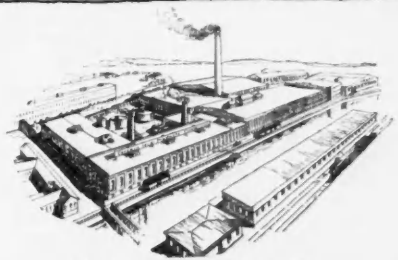
Plant No. 12—Acme, Oklahoma

One of the numerous Certain-teed Acme plants producing gypsum hard wall plaster, now being used so generally in the better type of buildings.



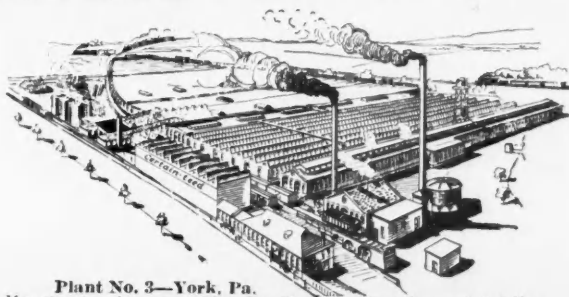
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A complete plant making house paints and varnishes, and paint specialties.



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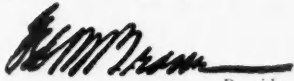
A year's output would roof the homes of a city of 600,000 people, or would provide shelter for all purposes on thousands upon thousands of farms.



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That's the way Jaeger Mixer materials are purchased—in large quantities. This organization is the largest of its kind. We buy for big-scale production—and our resources enable us to buy when prices are most favorable. We get the benefit of lowest possible prices on everything we purchase. *And we get absolutely the best quality.*

In purchasing special parts, big-volume buying gives us a distinct advantage. Take Clutch Lining, for example. We use such large quantities that manufacturers can afford to build special machines to make this material exactly to meet our special requirements.

Big production in the Jaeger Plant means that *you get MORE for every dollar invested* when you buy a Jaeger.

Since this stock was purchased for 1923 production, steel has advanced 50%. All Jaeger materials are bought months in advance—at lowest possible prices.

Jaeger
A MIX A MINUTE

...s-at Lower Cost!

ig Reasons Why

LOWER manufacturing costs combine with lower costs of materials to give you bigger value in the Jaeger Mixer. We manufacture Jaeger Mixers strictly on a Production Basis. Every workman has his specialized work to do. All parts are built in volume—with systematic, high-speed efficiency. All parts of each model are built to fit accurately and are interchangeable. This method of production saves time on every operation. It lowers the manufacturing cost of the Jaeger and results in a higher grade product. Because we are the world's largest mixer manufacturers we are able to place our plant on a Production basis. Jaeger Mixers are better-built—and better-liked. Sales prove it. We build 18 different models—and every one Tilts and Pours. You get More Speed—a Better Mix—Longer Life.

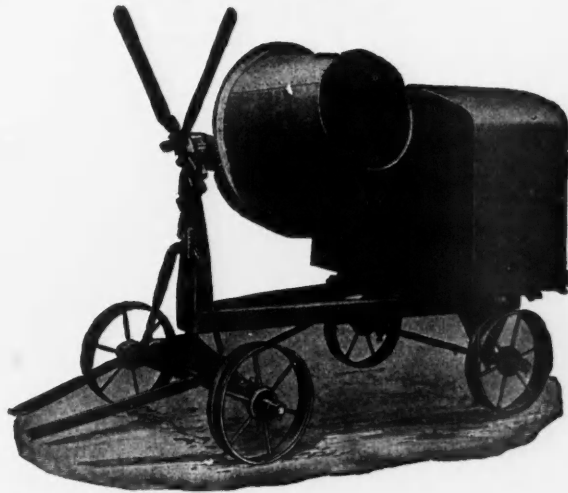
Write today for the new Jaeger Catalog

THE JAEGER MACHINE CO.
318 Dublin Ave. Columbus, Ohio

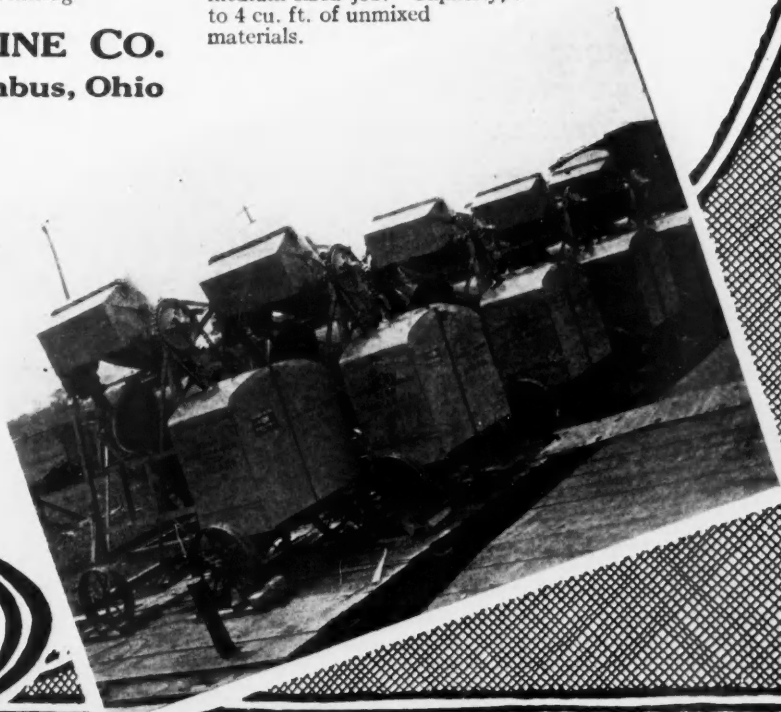
More Jaeger Tilting Mixers are sold than all non-tilting mixers combined. Jaeger Mixers are shipped to all parts of the world.

It is infringement to make, use or sell a patented invention without authority under the patent. Our patents have been sustained by the United States Courts in six different instances. Purchasers of our Mixers are protected.

Quantity Building



Jaeger 3-E
One of the most popular Jaeger models. Built for the small or medium-sized job. Capacity, 3 to 4 cu. ft. of unmixed materials.





COPPER—properly proportioned, puts into sheet steel a new measure of endurance and *resistance to rust*. It makes a new metal of steel.



Maximum Service at Minimum Cost

Keystone is the *original copper steel*, and is better because it has been carefully developed over years of time. Its every improvement has been the result of extended study and research. Copper Steel *lasts longer!* Read the 1922 report of actual time and weather tests of the American Society for Testing Materials—or send for our booklet "*The Testimony of a Decade*," which will give you the facts in condensed form. Every builder should read this booklet.

American Sheet and Tin Plate Company

General Offices: Frick Building, Pittsburgh, Pa.

MANUFACTURERS OF

Sheet and Tin Mill Products for all purposes—Black Sheets, Galvanized Sheets, Tin and Terne Plates, Special Sheets for Stamping
Corrugated and Formed Roofing and Siding Materials, Electrical Sheets
Wellsville Polished Steel Sheets, Automobile Sheets in all grades, Deep Drawing Sheets, Stove and Range Sheets, Black Plate, Etc.



The color of the APOLLO trade-mark hereafter will be *Black* instead of red

The color of the brand on Apollo Best Bloom and Apollo-Keystone Galvanized Sheets has been changed from *red* to *Black* in order to secure a more lasting identifi-



cation of these products. The design of brand and the high quality of Apollo Sheets are retained as heretofore, the only change being the color of brand to *Black* to insure greater permanence.

Apollo-Keystone

Copper Steel Galvanized Sheets
Apollo Best Bloom Galvanized Sheets
Formed Roofing and Siding Products
Black Sheets for all Purposes
Tin and Terne Plates, Etc.

Keystone quality assures better roofing, siding, gutters and spouting—and more lasting and satisfactory sheet metal work. Our experienced organization is bending every effort to serve consumers with products which have excellence well wrought in, and conscientiously maintained. Sold by leading metal merchants. This Company is pleased to extend to the trade the benefit of its experience in the solution of sheet metal problems.

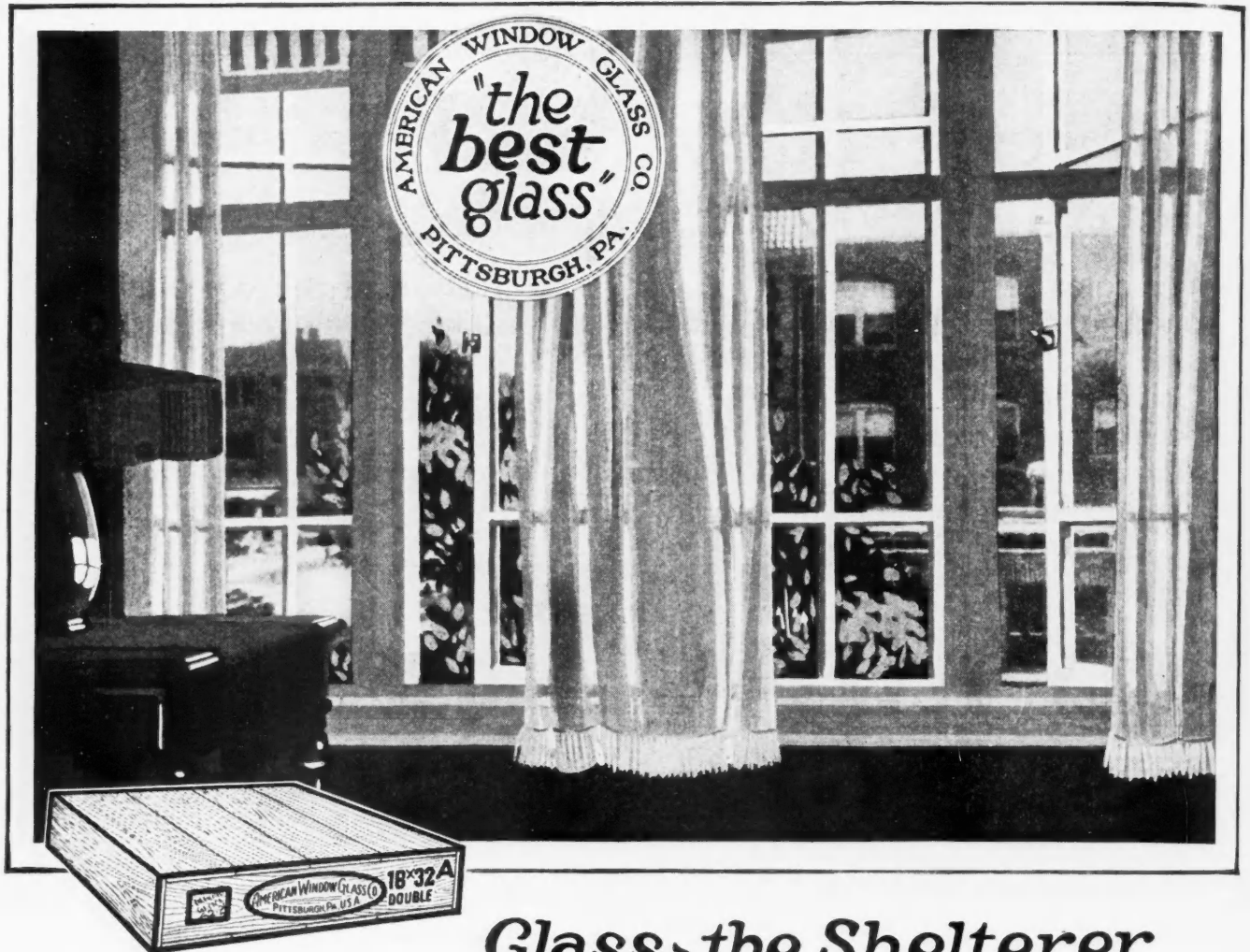
American Sheet and Tin Plate Company

General Offices: Frick Building, Pittsburgh, Pa.

DISTRICT SALES OFFICES:

Chicago Cincinnati Denver Detroit New Orleans New York Philadelphia Pittsburgh St. Louis

Export Representatives: UNITED STATES STEEL PRODUCTS COMPANY, New York City
Pacific Coast Representatives: UNITED STATES STEEL PRODUCTS COMPANY, San Francisco, Los Angeles, Portland, Seattle



Glass - the Shelterer

For your protection every box of "the Best glass" is branded with the mark of The American Window Glass Company.

Breakage is minimized by the well made boxes and the great care used in packing.

Our improved process gives "the Best glass" greater tensile strength and higher modulus of rupture than any other window glass, plate glass, or rolled glass. Our new method of flattening gives "the Best glass" a perfectly smooth surface and a brilliant polish unequalled by any other window glass.

*"Let in the
Sunlight"*

WINDOWS which have been wide-flung to catch every cooling breeze will be closed again with the passing of Summer.

The sheltering transparency of glass will give welcome protection against the sudden chill gusts and storm flurries that herald the coming of Autumn.

"The Best glass" is tough, perfectly flat and has no wave lines to distort the vision. Make your home snug through the inclement Fall weather with windows of "the Best glass".

AMERICAN WINDOW GLASS CO.

GENERAL OFFICES: PITTSBURGH, PA.

BRANCHES IN PRINCIPAL CITIES

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER

Does
Five
Different *Jobs*
at the same
time—

—and gets them out
On Time
not on
Over Time!

Do these facts mean anything to you?—are you interested in getting a real profit from “On Time” jobs instead of taking a loss on “Over Time” jobs?

That is one—and only one—of the many advantages realized with a

Famous Universal Woodworker

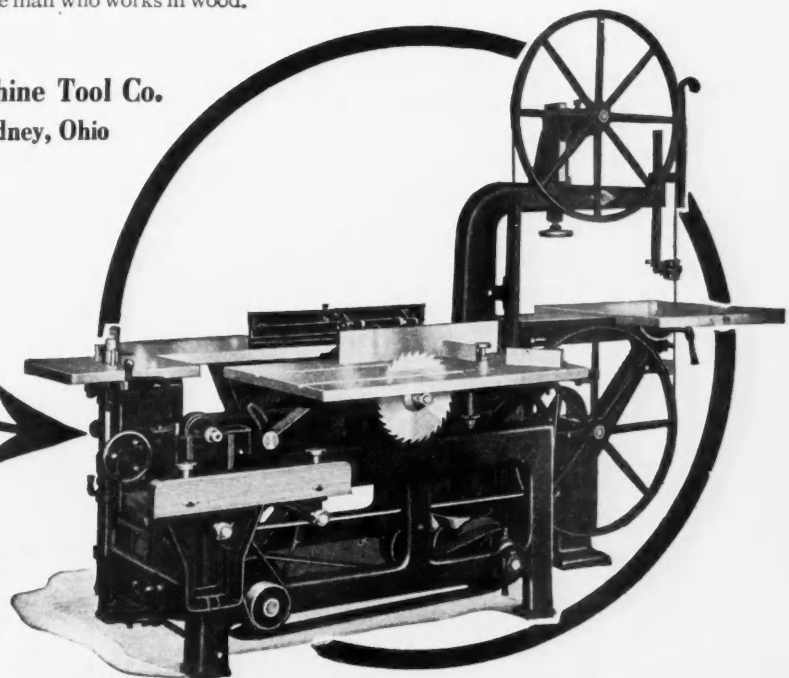
It is the one completely equipped wood-working machine—designed and built to meet the needs of the average woodworking shop. Each standard model of Famous Woodworker includes these five units: band saw, saw table, jointer, shaper, and boring machine, and all of these units can be operated at the same time without interfering with each other.

Also, any one unit can be operated separately without affecting the other units, and all of them are operated right handed.

It is because of these and other distinctive features found only in FAMOUS UNIVERSAL WOODWORKERS that FAMOUS owners are able to make a profit where losses ordinarily occur.

If you are interested in turning out better work at a lower cost—and getting it out On Time—send for interesting story “Answering a Knotty Problem,” filled with facts for the man who works in wood.

The Sidney Machine Tool Co.
Dept. 109, Sidney, Ohio



This view shows the saw table side of the Famous “30” with the new improved type of saw table which raises, lowers and tilts to any angle up to 45 degrees. This means that the user of a Famous “30” practically enjoys the benefit of a variety saw bench.



Hotel Alamac, Broadway and Seventy-first Street, New York City.
Maynicke & Franke, Architects. Equipped throughout
with Russwin Hardware.

Since 1839

RUSSWIN

DISTINCTIVE
HARDWARE

FORCING effects with materials is always distasteful to an Architect. He realizes that only by assembling the right kinds of brick, stone, interior trim and Builders' Hardware can he secure the artistic design and correct proportions which satisfy him—and gratify his client.

We are trying to help the Architect by pointing the way to better standards of good taste in Building Hardware. We are trying to teach the layman that if he desires dignified, harmonious interiors he must select his Builders' Hardware with discrimination, relying upon his Architect to advise him how best to meet his requirements.

Architects know that Russwin Hardware has long stood for the utmost in good taste, durability, comfort, and security in the home—and freedom from repair worries as well. We are trying to impress these facts on the minds of every man or woman who contemplates the erection of a home.

"To Russwin-ize is to Economize"

Russell & Erwin Manufacturing Co.

The American Hardware Corporation, Successor

New York
San Francisco

New Britain, Conn.

Chicago
London

The Chicago Trust Co. Building; the Brooklyn State Hospital; the R. H. Macy Building in New York; the Hotel Traymore at Atlantic City; and the William Penn Hotel in Pittsburgh, Pa., are only a few of the well-known edifices equipped throughout with Russwin Hardware.

The Most Perfect House

Want to see it?

Want it demonstrated right
in your own town?

Very well! No expense to you.

You men of the Building Industry know conditions in your own city and town—you know the need for a vigorous Own-a-Home Campaign, featuring a model demonstration home—you know how very profitable to Builders such campaigns have been in other cities.

We are ready to demonstrate The Most Perfect House in America right in your town for the benefit of all your local building interests—yet ab-

solutely without a penny of expense to you.

See the Pages Following

Note the high standing of the manufacturers—your good friends—who are co-operating with us in this work. Note the strong human interest home-building appeal. Note the unique method of presenting the demonstration of this, The Most Perfect House in America.

The Atlas Educational Film Company,

Oak Park, Illinois, in producing this marvelous feature-film, "The Great Idea," and in organizing the entire country for the showing of this film, deserves the hearty indorsement of the men of the Building Industry.

(See next page
and
write today)



Makes All Want to Build

YOU can easily secure—

An Own-a-Home week in your town—

Centered around a demonstration of

The Most Perfect House in America—

and organized and backed by your enterprising local newspaper.

No Expense to You

We ask the good will and assistance of the active men of the Building Industry, first, in arranging for a demonstration in your locality of The Most Perfect House in America; second, in following up the home-building interest created by the demonstration, and turning this home-building sentiment into actual new homes built and improved. This is an opportunity for business you will be quick to grasp.

Thousands of New Homes

Millions of home seekers will be inspired to building that home now, as they sit entranced at the demonstration of The Most Perfect House in America, as they follow with breathless interest the unfolding of the gripping human story, which runs through this home-building situation.

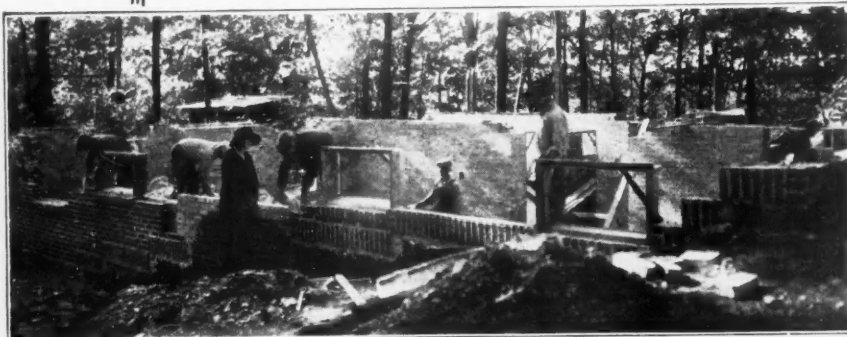
Great Value of Educational Films

The moving picture is the great educator of today. We all turn to it for diversion and entertainment. Films of real educational value serve doubly well in that they both entertain and instruct.

"The Great Idea," our Own-a-Home film, sets a new record for genuine worth. It is a home-building demonstration in five reels. It cost over \$100,000 to produce.

Nation-Wide Home-Building Campaign

The great educational force of moving pictures is now turned to the service of home-building. From coast to coast the enterprising newspapers are arranging for the showing of this big feature-film in connection with a local Own-a-Home week campaign.



Builders are interested. Architects, realtors and dealers are cooperating.

If you want to see this film in your town, write us today outlining your local home building situation, and recommending to us your best local newspaper.

Remember, there is no expense involved in this for you, men of the local building industry.

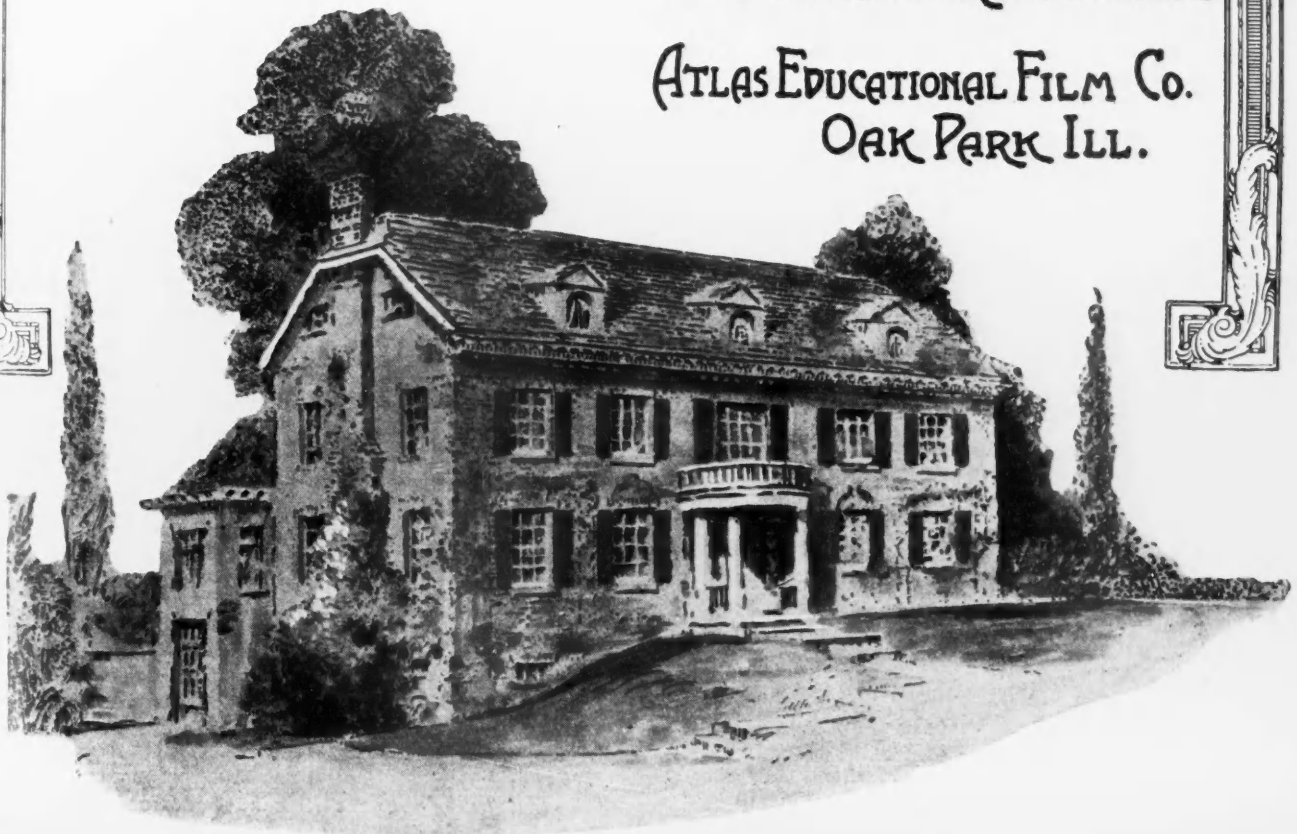
ATLAS EDUCATIONAL FILM CO.

1111 SOUTH BLVD., OAK PARK, ILL.



HOME BUILDERS MANUAL
AND
ARCHITECT'S SPECIFICATIONS
FOR
THE MOST PERFECT HOUSE
IN AMERICA

AS FEATURED IN
"THE GREAT IDEA"
THE OWN YOUR HOME FILM
ATLAS EDUCATIONAL FILM CO.
OAK PARK ILL.





The Growth of "The Great Idea"

How a Small Germ Grew Into a Great Idea in the Brain of a Man, Who Has Concentrated on One Thought for Many Years

SEVERAL years ago Mr. C. A. Rehm, Secretary of the Atlas Educational Film Company, put the question to himself, "What can be done to give an Own Your Home Exposition to every town in the United States?" Mr. Rehm had been in the habit of following all the Own Your Home shows, and has always been a great believer in the Own Your Home Movement.

He realized at the outset that as it has been handled, the Own Your Home Exposition has been, of necessity, limited almost entirely to the larger cities.

Even there, the method of putting on the exposition was anything but satisfactory. With these thoughts uppermost, and being a film producer, his mind naturally turned to a solution of the problem by means of motion pictures. Out of his vision evolved a plan, which a little later was proposed to the many civic organizations and real estate boards of the country. Their endorsement was immediate.

The long and short of his proposal was that through the medium of motion pictures the Own Your Home Idea could be impressed on all the people of the United States within a comparatively short time, and at a comparatively nominal expense.

Thus, the germ of "The Great Idea," grew and grew until it became a well-rounded out plan, which possesses all of the requirements so necessary to encourage home ownership. On the prin-

ciple that seeing is believing, the various promoters of home building in the past have encouraged the erection of model homes as the best known method at that

in mind but goes several steps farther, not only eliminating the heavy expense and detail incident to the erection and equipping of model homes, but, in addition, furnishing the dramatic element so necessary in presenting anything of the magnitude of this proposition. This plan entirely does away with the necessity for vesting in any one individual the heavy responsibility of putting on a successful Own Your Home Exposition. The dealers of the country, who heretofore, have been taxed to the utmost to support such campaigns, will find, in this plan of Mr. Rehm's, a means of co-operating to their own profit. Not only that but the plan is of such completeness that it secures the backing of the newspapers and manufacturers of the country.

Seated in his favorite theatre, the prospective home builder can secure all the home building information (and more than was possible by the old method), while at the same time being entertained by a picture, which is nothing short of a regular feature. The best movie talent obtainable was used in this film. An actual house was built for the purpose of producing the film, and it was furnished and equipped in accordance with the latest and best counsel obtainable. The best brains in the country were brought to a focus on this one house, so that each and every feature might be perfect.

Long before the film was finished, the house had been termed by the press "the Most Perfect House in America."



C. A. REHM
Secretary of the Atlas Educational Film Company, Creator of "The Great Idea" Own a Home Film.

time for inspiring the desire to own a home.

Mr. Rehm's plan has the same thought

The Story of "The Great Idea"

Directed by Arthur Berthelet and Palmer Bowman, Both Late of Hollywood Studios

THIS story depicts the experience of a typical American family. During the first epoch of the film we are acquainted with the trials and tribulations known to those who must rent. Billy and Betty, the children, find it very hard to live in accordance with the regulations of apartment life. Just as they are about to smuggle a stray dog into the apartment, they are stopped by the janitor's caustic remark, "Children are bad enough—dogs are forbidden." With child-like perseverance, they succeeded in getting their pet into the apartment only to be discovered by the neighbor below—a childless detester of chil-

dren—probably the originator of the expression "Children not permitted in these apartments."

CAST OF CHARACTERS

Robert Lyons, *et al.*, Palmer Bowman
Agnes Lyons, *et al.*, Mary Wheeler
Billy Lyons, *et al.*, Billy Readmund
Betty Lyons, *et al.*, Lillian Perbohner
Grandpa Lyons, *et al.*, Allstair McKenzie
Grandma Lyons, *et al.*, Mrs. McKenzie
George Lyons, *et al.*, Mabelou McKenzie
Frances Lyons, *et al.*, Dorothy Silhaneck
Paul Armstrong, *et al.*, Kenneth McKenzie
Mrs. Armstrong, *et al.*, Jean McKenzie
The Cross Old Lady, Neighbor, *et al.*
The Janitor, *et al.*, Mrs. Ramsdell
The Contractor, *et al.*, Frank Hamilton
The Architect, *et al.*, Wilbur Graham
The Realtor, *et al.*, A. B. Maiwuru
The Carpenters, steamfitters, plumbers, masons, painters, paperhangers, etc., etc., etc.

Father Lyons has his turn the next day, when, upon awakening from a restless night, made hideous by incessant noise in the apartment adjoining theirs, he finds awaiting him a letter from the landlord with leases enclosed, for renewal at a higher rate. He is in no frame of mind to overlook shortcomings of the landlord and flies into a rage when informed by the janitor that they will receive heat on October 1st and not a minute sooner, even though Betty has come down with a very bad sore throat by exposure in a chilly flat.

At this point we introduce our audience to the fact that Agnes and Robert hold

THE MOST PERFECT HOUSE IN AMERICA

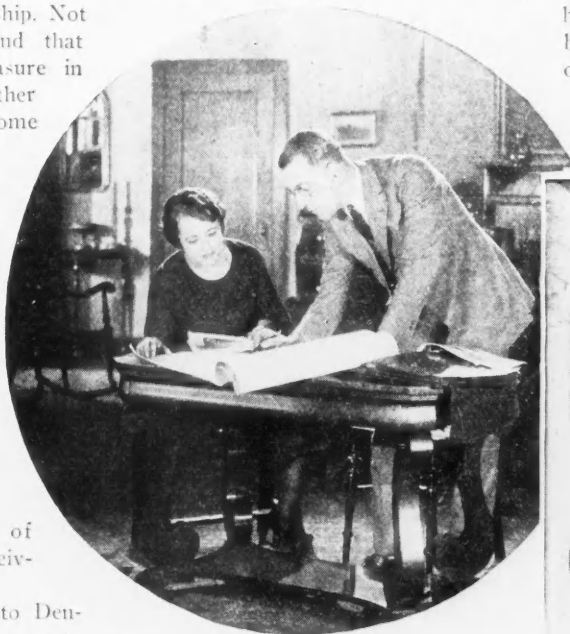


diametrically opposed viewpoints regarding home ownership. One might think—considering that Robert is more or less the butt of these aggravations, and that it is he who flies into the most violent rages—that he would welcome the proposition of home ownership. Not so. His is the type of mind that fails utterly to find any pleasure in tending the furnace or the other homely duties incident to home ownership, preferring a collection of rent receipts instead. On the one hand we have the strongest possible opposition to home ownership and on the other an absolute ignorance of the details of building one's home. Robert typifies the one—Agnes the other. Therefore to bring our story to a happy conclusion, we are forced, inasmuch as Agnes does the building and Robert the opposing, to successfully overcome the physical obstacles in the way of building as well as every conceivable opposing argument.

Our story now takes Robert to Denver and leaves him there for a protracted period in the little home of his brother-in-law, where separation from his family and the unconscious comparison of home life and apartment life will do their work. Our space is too limited to permit of a complete account of how Agnes finally arrives at the decision of building, but suffice to say, she does build. Her ignorance of the building problem forces her to go to the very rudiments of the proposition. From her experience we accumulate a store of useful knowledge—knowledge that we could not have secured had she been better posted. It is her overcoming of the problems that she encounters that makes this film so valuable to prospective home builders. The story not only permits the home builder to study the mechanical phases of home ownership, but quite as well the moral aspects.

How many homes have been delayed in the building because of the indifference or opposition of one member of the family? The member of the family who wishes to build more for sentimental reasons perhaps than otherwise,

ing of a broken family—a family at cross purposes to itself—by the strongest of all appeals—the owning of a home. Before the curtain goes down on our drama, we realize that Robert is a changed man and you and I, like Robert, have learned a lesson, not alone of bricks, studs, mortar and plumbing, but one in which the instinct for home ownership is pictured as having aspects of an even higher nature.



Arthur B. Maiworm, Architect of the Most Perfect House as He Is Shown in the Film, Consulting with the Client.

finds discouraging opposition in those who only look at the home building proposition from a dollars and cents standpoint. Therefore, part of the function of the film is to champion the cause of those so unfortunately placed. The story is so powerful that it has been known to completely change the viewpoint of hard-boiled opposers to home ownership.

Again referring to our story—Robert returns at Christmas time and finds a new home awaiting him. We will now leave the movie camera to record in its own way the re-unit-



Detail Photograph of Colonial Entrance of the House Designed by Architect Maiworm and Built by Mr. Rehm for the Purpose of Demonstrating Through Motion Pictures in a Nation-Wide Way the Construction, Equipment and Furnishings of a Perfect Modern Home.



An Important Incident in the Own a Home Play—Agnes Is Shown by Friend Realtor How It Is Possible to Finance the Building of the New Home.



Ground Is Broken for the New House and Much Interesting Building Activity Is Recorded as a Guide to Other Home Seekers.



ARCHITECTS SPECIFICATIONS FOR

The Most Perfect House in America

How It Was Built, Equipped and Furnished—An Authentic
Guide for All Home Builders

THOSE who have seen "The Great Idea" and thereby have had the privilege of watching unfold the screen story of the building of this delightfully complete and modern home have carried away an inspiration for making their own houses just as perfect.

They have received suggestions from this screen demonstration that they would like to follow in detail in their own home building plans—suggestions for labor-saving appliances, for attractive furnishings, for satisfactory heating, plumbing, hardware and electrical goods, for substantial building materials and proper building methods.

The modern building project is complex; and success comes from having each and every detail handled right. Definite plans must be made and definite instructions (or what are known as *specifications*) must be worked out if all is to come out right at the end.

We are therefore presenting here in

detail the architect's specifications for this Most Perfect House, believing that thousands of new home builders will want to follow closely the pattern set by this model house. The ideas embodied in it are good for the small home quite as much as for the large. In fact, it is quite the style today to build smaller and with fewer rooms, but to make the house *very well built* and *very complete* in all its details of equipment and appointments.

A study of these specifications will prove very well worth while; you will be rewarded by information in concise, usable form which you can transfer bodily right over into your own building program.

Architects and builders and the whole building fraternity may well take note of how this house was constructed, equipped and furnished; and adopt the ideas herein presented—so far as possible—in their own work. For by so doing they will align themselves with

this great nation-wide movement for better home building.

Demonstration houses aplenty have been built and their influence has been good—but limited strictly to their local community. This demonstration house, however, will be viewed from coast to coast; its influence is nation-wide; more interested home-seekers will visit it and study its construction and be inspired by its perfection than perhaps all other demonstration houses combined—so great is the appeal and the coverage of the modern motion picture.

In this feature film, "The Great Idea," has been created not only a dramatic story of action and gripping human interest but also an instructive home building demonstration, a lesson in home ownership and home financing, besides its urge to good design, construction, finishing and furnishing.

Too much credit can not be given the architect, Mr. Arthur B. Maiwurm, of Oak Park and Chicago, for the perfec-



A Dramatic Incident in the Play with the Apartment House Janitor Staged in a Most Life-Like Way as the Villain. "Children are Bad enough—dogs are forbidden," voices his customary attitude. Compare this familiar apartment house situation, which every renter knows, with the real home spirit as illustrated in photograph on the opposite page.

THE MOST PERFECT HOUSE IN AMERICA



tion that he put into the design of this house. He is modest toward this achievement, and protests the name, "Most Perfect House in America," which the Chicago Daily News and other Chicago newspapers have insisted on bestowing on this creation of his drafting board.

Much credit is also due the manufacturers who co-operated with the architect and Mr. Rehm in the working out of this enterprise. Their experts personally supervised each detail so that this would indeed be a *most perfect* house; and in the specifications which follow the best practice as recommended by these leading manufacturers is set forth for the guidance of all other home builders.

SPECIFICATIONS

For labor and material required in the erection and completion of a Colonial House to be erected on Crescent Boulevard, Glen Ellyn, Ill., for C. A. Rehm.

ARTHUR B. MAIWURM, Architect.



Entrance Detail "The Great Idea" Home.

Brick

All footings, walls, piers, chimneys, and all other masonry not otherwise spe-

cified, shall be built of solid brickwork.

All porch, terrace, and basement floors, unless otherwise indicated on the drawings, or agreed upon, shall be paved with brick recommended by the manufacturer to be used for that purpose.

Basement floor, if paved with brick, shall be laid of brick on edge without pattern. Porches and terraces, if paved with brick, shall be laid of pattern indicated.

All bricks used on this building shall be the product of a member of The Common Brick Manufacturers' Association of America. (This assures a product of the highest grade of manufacture. A list of members will be sent on request by the secretary, Discount Building, Cleveland, Ohio.)

Bricklaying

All brickwork shall be built level, plumb, square, and true to dimensions shown and to approximate thickness indicated on the plans. Leave openings,



The Home Fireside. The security, peace and satisfaction of living in your own home, no matter how large or how small it may be. To be able to draw up to your own fireside and enjoy the true comforts of home, as compared with being boxed by a tyrannical janitor, is one of the big incentives to home building.



ARCHITECTS SPECIFICATIONS FOR

chases and build corbels, offsets, pilaster and relieving arches shown or required. Solidly bed all sills or plates resting on masonry. All floor joists shall rest directly on the brick and no bond timbers or wood plates shall be inserted in the brick wall for leveling the joists. Corbel out brick walls and do all necessary beam filling to form firestops at each floor level as shown on drawings. Build in any and all nailing blocks required.

Build in plasterers lath laid with broken joints for the purpose of attaching furring strips.

All brick shall be laid wet, except in freezing weather.

All brick shall be laid on a full bed of mortar. Outside 4" thickness of exterior walls, entire thickness of any parapet walls or other brickwork exposed to the weather on more than one side of the wall or pier, and walls of flues 4" thick shall be laid with full joints. All other brick shall be laid with dry vertical joints with bricks touching end to end.

All header courses and all arches and heads of openings, all footings, sills, chimney and parapet caps or copings

shall be laid with full mortar joints.

All projections of footings shall be formed of headers.

Porch and terrace floors where shown to be paved with brick shall be laid on a 1:8 concrete bed 3" thick composed of one part portland cement to eight parts sand, gravel, crushed stone or cinders, graded to proper size. Brick shall be laid on a setting bed 1/2" thick of cement mortar. Vertical joints shall be thoroughly filled and struck flush.

If basement floors are paved with brick, these shall be laid on edge on a well tamped bed of sand 2" thick. Joints shall be completely filled with grout swept in with a broom.

Footings, sills, chimneys and parapet caps, brick steps, cheek walls to steps, brick porch and terrace floors, shall be laid in cement mortar.

Furnish and set any steel angles over openings indicated or noted on drawings, also any steel beams indicated on drawings. All steel angles and steel beams shall be at least 8" longer than the clear span.

Chimneys and Fireplaces

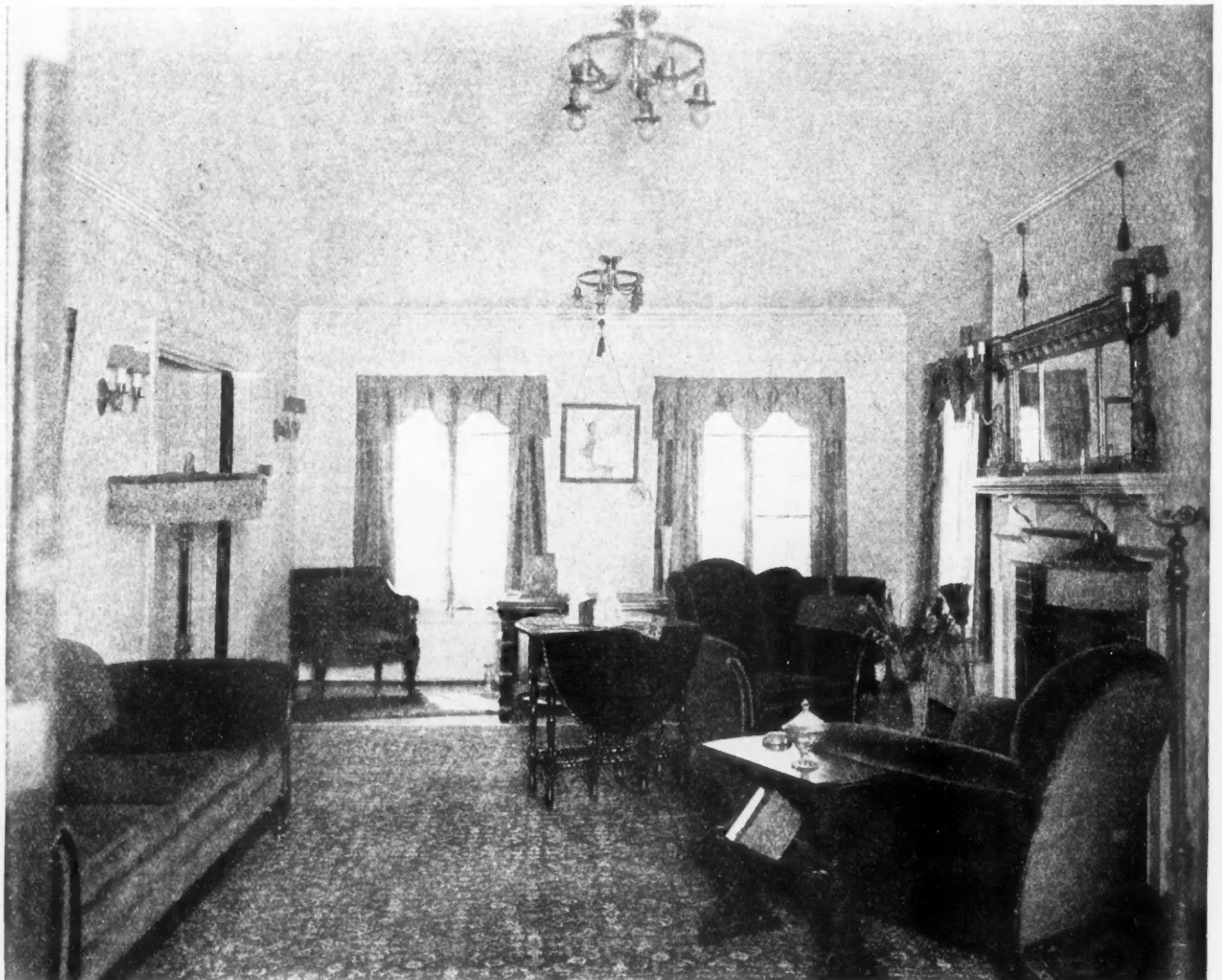
Build ashpit where shown; fireplace where shown; fireplace shall have proper throat, trimmer arch and hearth with concrete fill between, brick facing and mantel where shown. Build all flues as required on drawings and any exposed brickwork if shown back of kitchen range. Brickwork in chimneys shall consist of a minimum thickness of four inches of solid brickwork laid with full mortar joints. All flues shall be lined with fire-clay flue lining from below smoke entrance to 4" above chimney top, with joints filled and pointed tight with mortar.

Fireplace Dampers

Furnish with each Fireplace a Colonial Head, Throat and Damper, expansion and contraction type. (Style as specified.)

Style A—Operated by key projecting through the face of the Fireplace—Brass Key marked Open and Close with arrows indicating direction.

Style B—Operated with Brass Key coming out just under the span of arch, marked with arrows indicating direction



Study This Photograph of the Living Room in "The Most Perfect House in America" for Trustworthy Guidance in Planning the Furniture, Draperies, Lighting, Etc., of Your Own Home.

THE MOST PERFECT HOUSE IN AMERICA



to Open and Close. Provide iron key-wrench for operating.

Style C—Operated by Brass Key coming through the right end or "return" of Fireplace as you face it. Key marked to indicate direction to Open and Close.

Style E—Operated with lever arm which has a large ring at the end. Lever arm to come down in the middle just below opening.

The Colonial Head Throat or Damper shall be set in strict accordance with the working drawings and instructions furnished with each Damper by the Colonial Fireplace Co.

The Contractor shall clean out any accumulation of mortar droppings that may interfere with the proper working of the Damper.

In fireplace back hearth(s) furnish and install 7x9 or 9x14 Colonial Dustless Ash Trap(s).

Furnish Colonial Fireplace Co. grates, andirons and fireplace furnishings. Complete catalog on request from Colonial Fireplace Company, 4604 Roosevelt Road, Chicago, Illinois.

Face Brick

All exterior walls shall be of face brick; of color and texture as selected by the owner.

Contractor to estimate these brick at —per M delivered on the job, or F.O.B. at—. If the price of the brick selected exceeds the estimate, the contractor will be entitled to an extra; if the price is less, the owner will be entitled to a credit.

(NOTE—For helpful booklets on Face Brick write American Face Brick Assn., 1700 People's Life Bldg., Chicago.)

Copings

All copings to be of face brick, set as per drawings, in 1-2 cement mortar, with a smooth finished joint.

Mortar Color

Face brick will be laid with a $\frac{3}{8}$ " V joint; contractor to confer with owner as to color, and shall lay up a sample panel for owner's approval.

Laying

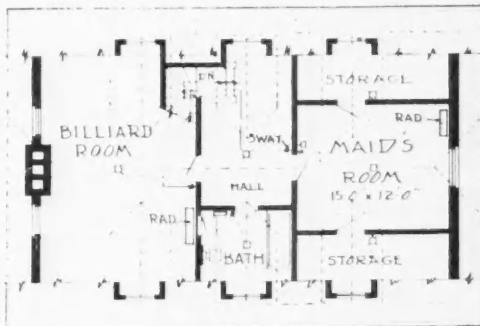
All brick to be laid on a full bed of mortar (for joints over $\frac{1}{8}$ ").

All brick (except with buttered joints) to be shoved into place and all vertical joints thoroughly filled.

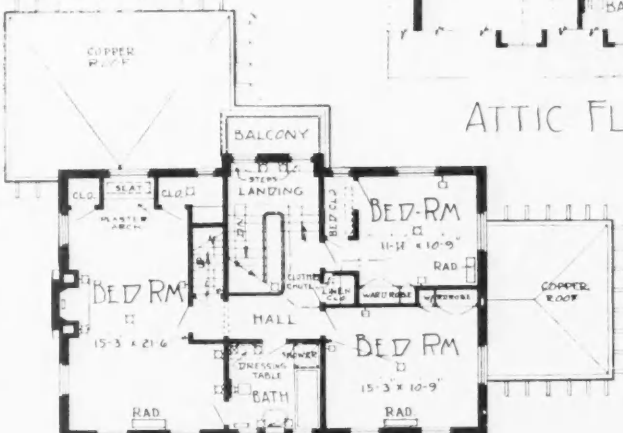
Vertical joints, up and down the wall (in all bonds except running and common) to be plumbed.

When temperature is below

At no time shall the face brick be carried more than approximately six courses above the backing, and both are to be brought to a level every night and well covered with building paper, planks, or the like to protect against damage by the elements.



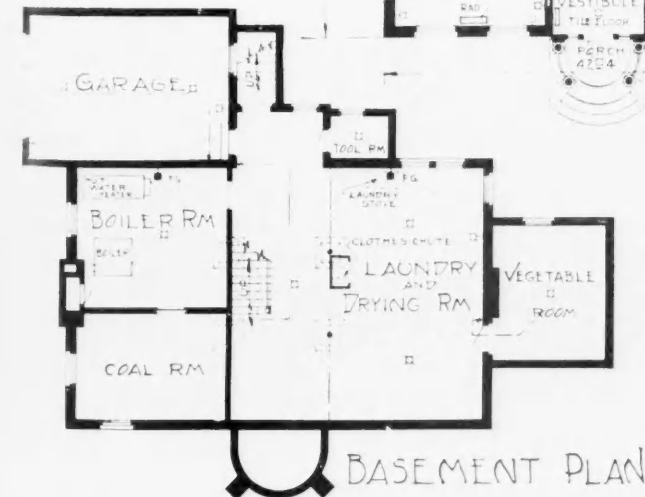
ATTIC FLOOR PLAN



SECOND FLOOR PLAN



FIRST FLOOR PLAN



BASEMENT PLAN

Joints

All brick to be laid with $\frac{3}{8}$ " V joints.

Bond

All face brick to be laid in common bond except for ornamental panels shown.

(a) Face brick to be bonded to backing every sixth course with

full headers, or (b) Face brick to be bonded to backing with heavy galvanized iron wall ties.

Sheet Metal and Roofing

All sheet metal work shall be of 16 oz. copper, unless otherwise specified.

Copper Roofs

All pitched roofs and the sides of dormers shall be covered with Anaconda Standard Copper Shingles, manufactured by the Anaconda Copper Mining Co., 25 Broadway, New York, and applied in accordance with the approved methods of that company.

Roofs of dormers shall be covered with copper laid with standing seams and secured to boarding with copper cleats locked into seams.

Roofing paper shall be rosin sized paper or equal, weighing not less than 6 lbs. to 100 sq. ft.

All nails shall be of copper, 1" long, No. 12 gauge wire with large heads.

Flashings, Eave Trough, Etc.

All flashings, valleys, hip and ridge coverings, gutters, leaders and leader heads shall be of standard design as furnished by the Anaconda Copper Mining Co.

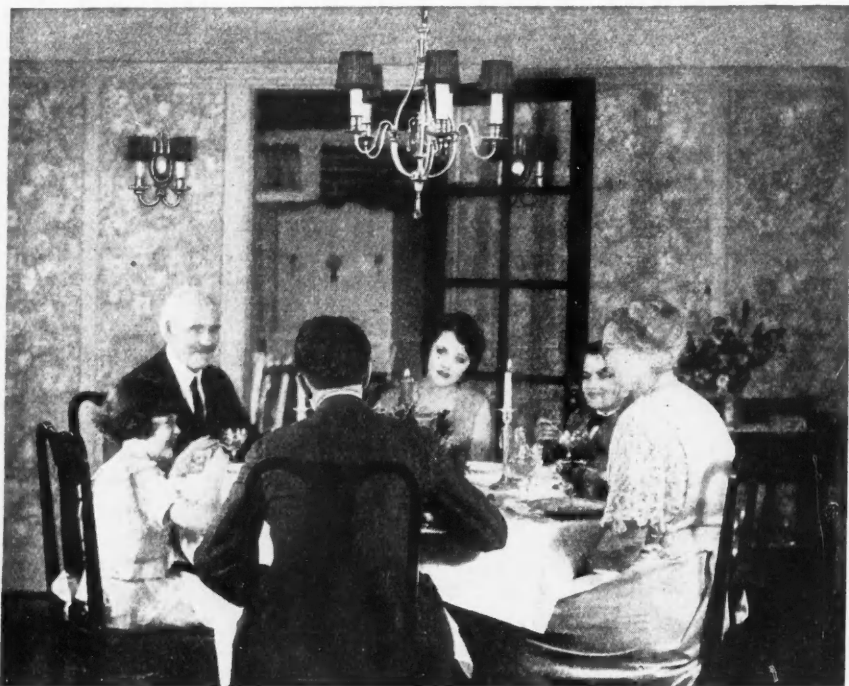
freezing or likely to fall below during the night, all materials, including water, are to be heated before using.

No brick with ice or snow on them and no frozen mortar are to be used. The mixing of salt in the mortar to check freezing is absolutely prohibited.

Floor Plans of "Most Perfect House" as Planned by the Architect and Built by Mr. Rehm in Connection with the Production of This Great Own a Home Educational Film.



ARCHITECTS SPECIFICATIONS FOR



One of the Concluding Scenes from "The Great Idea." Here the happy family is having Christmas dinner in the Most Perfect House in America.

Interior Millwork

NOTE: Because of differences in taste, and availability of the several species of lumber in different localities, these suggestions on Millwork are presented here in the form of general advice rather than as definite specification for this particular house.

All interior millwork and woodwork should be made from thoroughly air and kiln dried lumber, properly machined.

This interior millwork and woodwork can be made from any wood, but those most popular today are plain sawn oak, gumwood, birch and yellow pine.

Oak can be finished in the natural color or stained in many different shades to suit the taste.

Gumwood is medium priced, takes paint and enamel splendidly, or can be stained light, medium or dark walnut, or stained light, medium or dark mahogany.

This gumwood, because it can be so very satisfactorily treated and finished, is much in demand.

Birch is about as costly as oak and can be finished in natural color or stained in the various shades, or enameled.

Yellow pine is not an expensive wood and can be finished natural color, or a

stain to give several different shades.

Trim

All exterior mouldings should be of soft wood of standard designs, suitable for painting.

All mouldings, such as casings, base mouldings, picture mouldings, chair rail, etc., should be carefully manufactured as stated above, and when treated in that manner will give entire satisfaction.

Doors

All doors of whatever wood selected should be carefully manufactured, using the patented "Wedge Dowel" construction shown in Diagram No. 1.

The designs, sizes and kinds of wood should be selected from the catalog of a reputable manufacturer. When hardwood (veneered) doors are selected, care should be exercised as to the construction.

In the first place, the core (which is really the foundation of the door) should be made of white pine and nothing else (See Diagram No. 2).

In constructing this all white pine core the manufacturers should be careful in the selection of the white pine to see that it is straight grained and properly kiln dried. Then the "V" joint must be carefully machined and nothing but the very best grade of glue used. The edge strips should be carefully kiln dried and then properly manufactured so that when the surface

veneer is applied under great hydraulic pressure, the entire veneered door will really be a piece of "permanent furniture."

All interior doors should be made with solid white pine frames and either solid white pine panels or laminated (3 ply) panels, where the soft wood frame is selected in place of the hardwood.

All exterior doors should be made from solid white pine, but where the outside is protected by a porch, veneered doors can be used. If veneered doors are used for exterior, they should be of "Wedge Dowel" construction, with "all white pine cores" and the face veneer one-fourth of an inch thick.

Interior veneered doors should have the face veneer one-eighth of an inch thick.

Cabinet Work

All cases, cabinets, etc., should be made from the same kind of lumber as the trim in the rooms in which they are to be used. Properly kiln dried lumber should be used, of course, and care exercised in the manufacturing.

Stair Work

The main stairs should be made from wood to match the room in which it is located. All treads one and one-eighth inch thick.

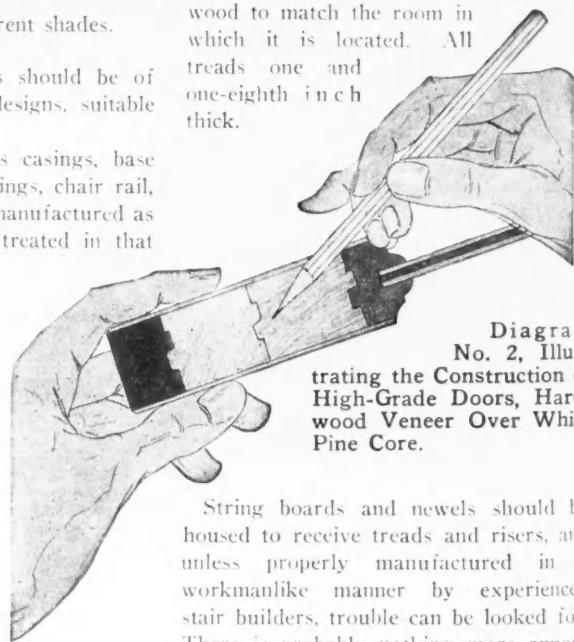


Diagram No. 2, Illustrating the Construction of High-Grade Doors, Hardwood Veneer Over White Pine Core.

String boards and newels should be housed to receive treads and risers, and unless properly manufactured in a workmanlike manner by experienced stair builders, trouble can be looked for. There is probably nothing more annoying than creaky stairs or open joints in the paneling or elsewhere.

Good Advice

No woodwork for interior use should be delivered to the building until the plastering is thoroughly dry and all windows are fitted and in place. Properly kiln dried woodwork will absorb moisture when exposed to same. Immediately upon delivery of the interior woodwork, it should receive a coat of paint, if it is to be painted, or enameled, or a coat of stain, if finished in any one of the various shades as described above.

The edges of the top and bottom rails of the doors should have at least two coats of paint to close the pores and to prevent the absorption of such mois-

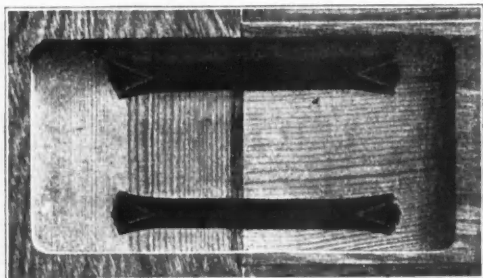


Diagram No. 1, Illustrating the Patented Wedge Dowel Construction of the Doors Used in "The Great Idea" House.

THE MOST PERFECT HOUSE IN AMERICA



ture as might still be in the building, even though it is thought that the plastering is thoroughly dry.

All of the above may sound more or less intricate, but such will not be the case when care is taken in the placing of your millwork order.

For further building information and up-to-date designs of standardized doors, windows, casings, base, cabinet work, stair work, etc., we refer you to a 440-page book issued by the Morgan Woodwork Organization.

See page XV for handy coupon for further information.

Finished Floors

Hardwood floors, where so shown or noted on the drawings, shall be of (red or white oak, plain or quarter sawed) 13/16" thickness and 1 1/2", or 2" or 2 1/4" wide or 3/8" thickness and 1 1/2" or 2" wide.

Cement coated nails shall be used and shall be so placed as to insure against a squeaky floor.

Lay the sub-floor diagonally.

Before laying the oak flooring cover the sub-floor with a layer of waterproof building paper. Lay the paper with close butt joints, and no laps. Oak flooring, as soon as laid, shall be covered with heavy building paper to protect from damage.

All oak flooring shall be cleaned and scraped and turned over to the painting contractor for finishing.

Finish Flooring. No finish flooring shall be laid until all other workmen have left the building.

Finish flooring shall be laid at an angle to the sub-floor.

Note—The Oak Flooring Manufacturers' Association, of Chicago, will send to architects, on request, copy of technical book, "Oak Flooring, How and Where to Use It."

Ceda'Line-Tennessee Aromatic Red Cedar

All (closets, clothes presses, etc.) shall be lined with Tennessee Aromatic Red Cedar Ceda'line, side and end matched, as produced by the E. L. Bruce Company, Memphis, Tenn., in (3/8" x 1 1/2", 5/8" x 2", 3/8" x 3 1/4", 13/16" x 2 1/4") with quarter round as required for (all) corners or intersections of walls, floor and ceiling.

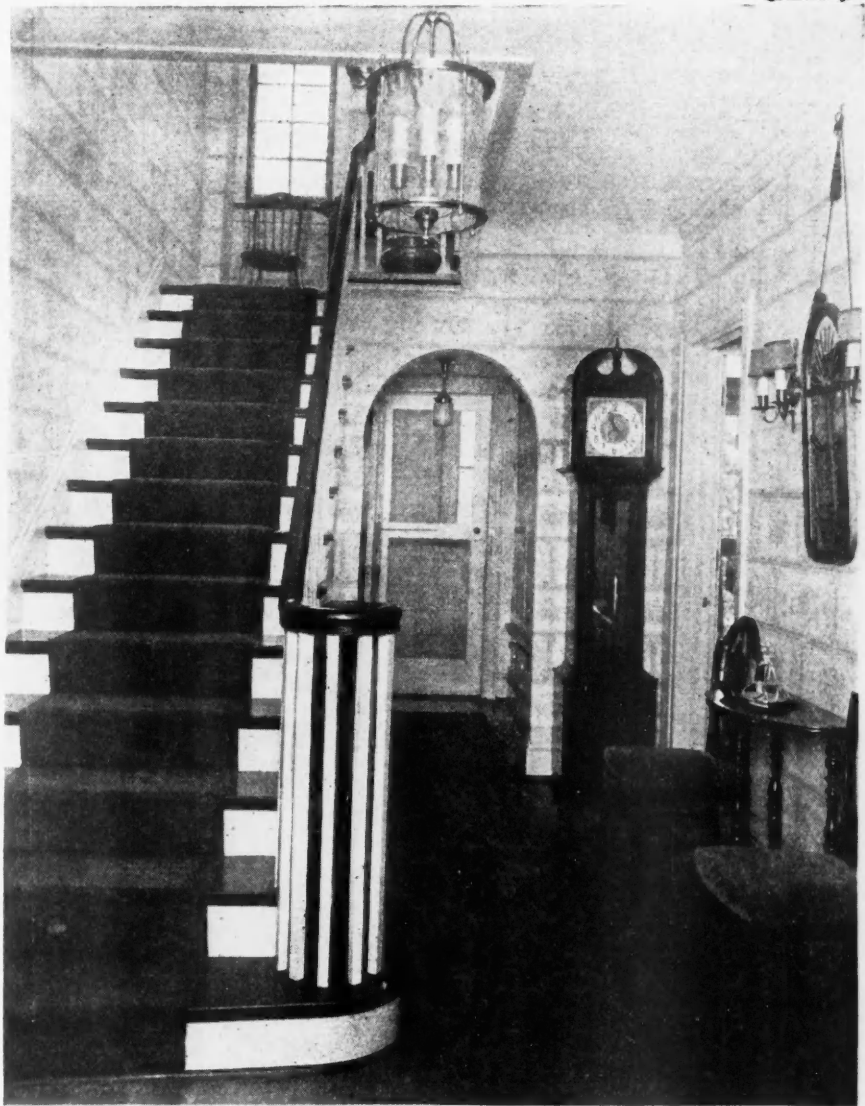
Note—The 13/16"x2 1/4" size should be used for floors.

All Ceda'line shall be applied horizontally on studding over one layer of building paper (or an inexpensive ceiling material may be installed first with Ceda'line applied vertically over it).

All spaces that are plastered shall be furred with (1" x 2") strips and the Ceda'line applied over them (vertically or horizontally).

All Ceda'line shall be laid with tight joints, blind-nailed (and scraped to a smooth even surface as desired).

NOTE—Ceda'line is furnished in one



The Stairway and Hall in the Most Perfect House Is a Model of Pure Colonial. The Wall Paper Reproduces an Old Historic Pattern.

grade only, permitting any number of knots or other sound defects.

Cornell-Wood-Board

Sidewalls and ceilings in Dining Room, Bed Rooms and Billiard Room are to be of Cornell-Wood-Board (manufactured by the Cornell Wood Products Co., 190 S. State St., Chicago).

Headers—All studs and joists are to be lined up. Headers are to be inserted between joists and studs so as to give nailing surface for each edge and end of every panel. Headers are to be used at top of baseboard and at the junction of ceiling and sidewall; behind plate rails, chair rails, and picture moulds. All headers are to be firm, even and straight, presenting perfectly true nailing surface for the board.

Moisture Conditions—Board is not to be used over green or wet lumber. All brick or cement walls must be perfectly dry and coated with dampproof paint, tar or asphaltum and then furred.

Nailing—All boards are to have at least 3/16" in. between all edges and ends

of boards. No boards to be butted. Either 2d casing nails or 1 in. No. 15 gauge brads, spaced 9 in. apart, beginning at the top are to be used in nailing to all joists or headers completely covered by the board. Edges and ends of board are to be nailed on 3 in. spacing with 3d common wire nails. Care must be exercised in nailing so that no hammer marks are shown.

Paneling—Decorative strips not less than 2 in. wide and 3/8 in. thick are to be used to cover all joints between boards. Where ceiling strips are used, they are to be the same color as the finished board; where strips are varnished all nailholes are to be filled with putty, tinted with varnish; where cornice moulds, picture moulds, plate rails or chair rails are shown in detail, paneling strips are to meet them in a workman-like manner. Decorative strips are to be applied only after wall board has been painted or calcimined.

Finishing Hardware

Contractor shall allow the sum of...



ARCHITECTS SPECIFICATIONS FOR

for the cost of the finishing hardware, which will be selected by the architect and set by the contractor. The sum specified shall cover all the finishing hardware, (including or excepting) the "R-W" equipment listed below and the difference between the cost and the specified sum shall be added to or deducted from the amount of the contract, as the case may require.

Garage Doors shall be equipped with "R-W" hardware, made by Richards-Wilcox Mfg. Co., Aurora, Ill., using equipment No. 1035 Slidetite for sliding folding doors. Three to ten doors per opening. (Note: See R-W catalog for other types of doors.)

Vanishing House Doors. Interior doors where so shown on drawings and where called for in these specifications shall be equipped with Richards-Wilcox Mfg. Co.'s Vanishing Door Hardware.

Air-Way Multifold Window Hardware. All multifold folding windows in sun parlors, sleeping porches and other locations shall be equipped with R-W

held in place with a metal spline which can be easily removed and replaced for renewal of wire cloth and without removal of screens or rivets.

Screens for double hung windows shall cover the lower half of the window only and shall slide in metal channels extending the full height of the window frame.

Screens for casements opening in shall cover the entire opening and be hinged or stationary as conditions demand.

Screens for casements opening out shall be hinged at top or side or preferably shall be made in two parts to slide by each other. For group or multiple windows screens shall slide horizontally, an extruded brass channel being placed on the sill and deep channel guides at the head of the window.

Weather Strips

All outside windows and doors shall be equipped with Higgin All Metal Weather Strips, made by The Higgin Mfg. Co., Newport, Ky.

Equipment for double hung windows

principal cities, having a rated capacity of sq. ft.

Radiators

Radiators shall be of sizes shown below and shall be of screw nipple construction.

Schedule of Radiation in Rooms to Be Warmed

Room	No. of Radiators	Style and No. of Cols.	Size (No. of Sects.)	Height	Square Feet of Radiation
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Valves

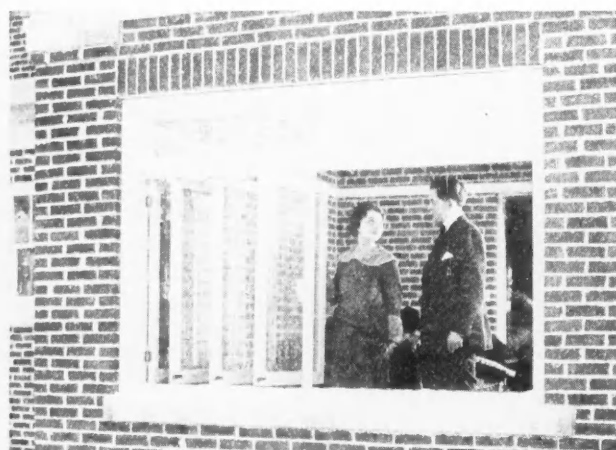
Radiators shall be provided with Ideal Packless Valves.

Air Valves

Each steam radiator shall be provided with a No. 500 Ideal Airid Siphon Air Valve.

Quick Vent

The return of each steam main shall be equipped with a No. 815 Ideal Quick Vent, installed at far end of main by means of a 3/4" nipple of sufficient length to raise the valve well above the water. The above valves shall not be



Agnes Demonstrates the Special Sliding Casement Windows in the Sun Room.

Air-Way Multifold Window Hardware. Sash shall not exceed 24" in width and 6' in height. Sash shall be 1 1/4" thick. Sash and frame details shall be made exactly in accordance with Richards-Wilcox Mfg. Co.'s standard specifications and details. Sash shall be hung to fold as shown in the plans, not more than four sash being connected together to be folded in the same direction.

Window and Door Screens

All windows that open shall be screened with Higgin All Metal Screens, manufactured by The Higgin Mfg. Co., Newport, Ky., made with frames of galvanized steel finished both inside and outside with hard baked enamel (or solid rolled bronze statuary finish). Screens shall be of hollow or tubular construction and shall be strongly reinforced at corners with concealed angles, all exposed surfaces being flush. Wire cloth shall be tautly stretched and shall be

shall consist of the zinc track and spring bronze insert for sides, heads and sills and interlocking zinc strip at the meeting rail. Casements opening out shall be equipped with zinc track on the hinge side and interlocking zinc strip at heads, sill and lock sides. Casement sash opening in shall be equipped with zinc track on the hinge side, interlocking strip at heads and lock sides and special extruded brass casement bar and interlocking hook at the bottom.

Doors shall be equipped with spring bronze contact strip at heads and sides and extruded brass threshold and interlocking hook at bottom.

Boiler, Radiators and Regulation

Boiler. The heating contractor shall furnish and set up in basement where shown, an Ideal Type "A" Heat Machine, made by American Radiator Company, Buffalo, N. Y. (branch offices in



This Group of Furniture in the Living Room Registers Real Hominess. On occasion this davenport by day becomes a very comfortable full size bed by night.

installed until the system has been cleaned thoroughly.

Temperature Regulator

An "Arco" Temperature Regulator, No., shall be installed in living room located where it will meet the average temperature conditions and properly connected to the dampers of the Ideal Boiler. A No. 801 Arco Junior Water Regulator shall be installed on Ideal Hot Water Supply Boiler and proper connections made to the dampers.

NOTE—Send to American Radiator Co. for free typewritten specification forms, for Steam, Water or Vacuum Heating.

Plumbing—Fixtures

All fixtures shall be of Crane Co. (Chicago) make, as hereinafter described and specified.

The plumbing contractor shall furnish and set complete, ready for use, including all supply, soil, waste, air chambers, valves, traps, supports, fasteners, etc., the following fixtures:

THE MOST PERFECT HOUSE IN AMERICA



Bath Tubs

Crane C-3302 "Modus" One-Piece Porcelain Enameled Iron Recess Bath.

Lavatories

Crane C-260 "Nova" Vitroware Pedestal Lavatory with integral spout, overflow, and splash lip; nickel plated brass wall brackets, fitted with nicked plated brass Securo quick-draining direct lift waste with china knob.

Crane C-680 "Clifton" vitroware corner lavatory with 6-inch integral back, overflow and splash lip.

Water Closets

Crane C-10400 "Corsyn" Vitroware Noiseless Syphon Jet Closet fitted with vitroware low tank with supports, and all-white Sanitoure finish seat and cover.

Crane C-11010 "Mauretania" Vitroware reverse trap syphon action wash-down closet with vitroware low tank.

Kitchen Sinks

Crane C-19180 One-Piece Porcelain Enameled Iron Double Drainboard Apron Sink with 12-inch integral back; supported on porcelain enameled iron adjustable legs and concealed hangers; fitted with nickel plated brass "Agilis" Combination Quick Compression Double Sink Faucet with swinging spout and indexed all-china handle.

Showers

Crane C-4360 Shower with Crane Concealed Mixing Valve; with china wall plate and china lever handle; 4-inch nickel plated cast brass needle shower head with removable face.

Laundry Trays

Crane C-21276 Alberene Stone Laundry Tray on painted iron legs.

Valves, Pipe and Fittings

Plumbing contractor to furnish and install Crane Co. goods throughout.

Tile Wainscoting

Tile wainscoting is to run from top of tubs to ceiling on three sides of bath tub recess, metal lath for same to be furnished by the plastering contractor.

Biltin and Projecting China Accessories

Note—Fairfacts Accessories are sold by tile contractors and set by them and for this reason should appear in tile specifications.

All bathroom accessories shall be those manufactured by The Fairfacts Co., Inc., 234-236 W. Fourteenth Street, New York, N. Y., as follows:

Send for Catalog, Dept. 2-C, and for Roughing Sheet.

For Lavatory:

- 01 Fairfacts Soap Holder.....—F 115
- 02 Fairfacts Tumbler Holder.....—F 100
- 03 Fairfacts Tooth Brush Holder.....—F 330
- 04 Fairfacts Glass Shelf, 21 inches.....—F 321
- 05 Fairfacts Non-Slip Towel Bar, 21 inches.....—F 301
- 06 Fairfacts Towel Hook.....—F 340
- 07 Fairfacts Recess Medicine Cabinet.....—F1051

For Bath Tub:

- 01 Fairfacts Soap Holder.....—F 115
- 02 Fairfacts Safety Wall Grip.....—F 140
- 03 Fairfacts Sponge Holder.....—F 170
- 04 Fairfacts China Bathroom Seat.....—F 080
- 05 Fairfacts Brush Holder.....—F 135
- 06 Fairfacts Non-Slip Towel Bar, 48 inches.....—F 305
- 07 Fairfacts Towel Hook.....—F 340
- 08 For Shower Bath:
- 09 Fairfacts Combination Soap and Grip.....—F 152
- 10 For W. C.:
- 11 Fairfacts Roll Paper Holder.....—F 1
- 12 Fairfacts Douché Hook.....—F 342
- 13 General:
- 14 Fairfacts China Electric Radiator.....—F 180

ELECTRICAL

Distributing Center

Where located on second floor plan, and about five feet to center, place one F-A* Triumph standardized type "R" safety type panelboard, having a sufficient number of branches to take care of all circuits to outlets for lighting fixture, universal duplex receptacles and hanger outlets, no circuit capacity to exceed 660 watts and for a separate branch circuit for each of the heat and power outlets in each bath room, one in kitchen, laundry, and also spare branch for additional circuit.

Outlets

All outlets for ceiling fixtures and brackets must be equipped with outlet box and finished with standardized fixture stud.

All switch outlets must be fitted with standard switch box and equipped with single pole flush tumbler switch with plate finished to match surrounding hardware. Wherever more than one switch is located at the same place, they must be located in gang boxes and plates.

There will be separate three-way switches as follows:

For the furnace light in basement with switch on first floor and basement;

Rear stair lights on second and third floor with three-way switches on first, second and third floors;

Second floor ceiling lights with three-way switches on the first and second floors;

Light on newel post in reception hall with three-way switch on first and second floors.

Hanger Outlets

At all outlets marked hanger outlets furnish seven feet from floor, F-A* cata-

log No. 45 hanger outlets. These outlets must be complete and securely fastened to studs of partition or into brick walls, so as to support either fan, heater, or a picture with lights.

*Frank Adam Electric Co., St. Louis, Mo. Ironer

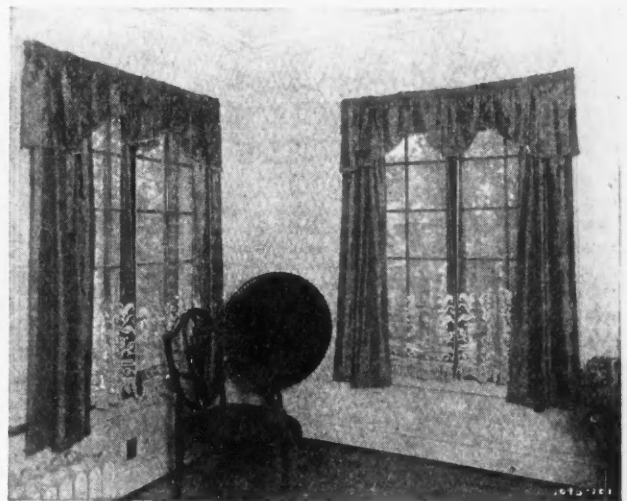
Equip modern home laundry with 46" standard open end type, gas or electrically heated, motor operated *Simplex*.

For gas heat 1/8" gas supply. For electric heat wires sufficient for 3700 watts, two or three wire service.

Motor, A.C. or D.C. 1/6 H.P. 200 watts, may be attached to a light socket or standard wall receptacle.

In the event that the housewife prefers to do ironing in the kitchen, the "In-the-Wall" *Simplex* Ironer can be built into the wall of the kitchen. When folded back it occupies a closet space of 20 inches between the door jams and 19 inches deep and a minimum of 6 ft. 6 in. high or standard height opening.

This is furnished complete with swinging joints and fittings for mounting in this opening. (Plans are furnished free on request. Address American Ironing Machine Co., 844 Adams St., West, Chi-



A Popular Idea in Window Draperies as Illustrated in the Most Perfect House.

cago.) When lowered into operating position the Ironer needs a space of 5 ft. from the wall.

The shut-off of the heat, whether gas or electric, is automatic.

Washing Machine

Equip modern home laundry with *Simplex* washer, oscillator type, 9-sheet capacity with air tight 20 oz. copper tub and safety swinging wringer. Motor A.C. or D.C. 1/4 H.P. 240 watts, plug connection to ordinary socket or receptacle.

Lighting Equipment

LIGHTING equipment, like furniture, rugs, drapes and other decorations



ARCHITECTS SPECIFICATIONS FOR

should be selected not merely for utility but for beauty as well.

As one steps into the entrance porch of this charming home a hexagonal shaped bronze lantern (Sheraton Design M-143), with panels of antique glass, casts a welcome glow. In the reception hall beyond is another lantern (Sheraton Design M-70) having four candle lights within a clear cut glass cylinder, and beside the wall mirror are two one-light candle brackets (Sheraton Design M-9).

For general illumination in the living room there are two dignified ceiling pieces known as Sheraton Design M-48, while localized lighting subdued by silk shades is provided by six two-light brackets which match the ceiling lights in detail and finish. The brackets are Sheraton Design M-6.

Candle chandeliers equipped with small shades are much preferred for dining rooms. These throw a strong light on the linen and silver and shield the eyes of those seated at the table. In the Most Perfect House a five-light Sheraton Design M-14, having delicately curved reeded tubing and tinted crystal pendants, is installed. There are also four two-light candle brackets (Sheraton Design M-15) in the dining room.

The kitchen is excellently lighted with a Baby Denzar at the ceiling and several conveniently located brackets. There are other appropriate Sheraton and Minuet designs in the solarium, breakfast porch, alcove, second floor hall, bath, closets and basement.

A complete description of all of them cannot be given here, but all of the lighting fixtures for this perfect house were furnished by the Beardslee Chandelier Mfg. Co., 216-220 South Jefferson Street, Chicago, Ill., which will gladly furnish any information desired on the lighting of this house, as well as specific recommendations for the lighting of any home, whether old or new. Ask the Beardslee Chandelier Mfg. Co. to send you a copy of the brochure entitled "Distinctive Designs for Home Lighting."

Kitchen Utensils

Although not ordinarily a part of the building contract, the architect recommends that all kitchen utensils should be Lisk Enameled Ware as made by the Lisk Manufacturing Co., Ltd., Canandaigua, N. Y. The kitchen is the business end of the modern home and should be planned first. The contractor will do his work so that the finished kitchen will be in keeping with the Lisk Enameled Ware that will be used.

One of the most important of the practical essentials in the furnishing of the Perfect Home are the cooking utensils.



The Breakfast Room in the Most Perfect House.

The sanitary features of such utensils should be your first thought. A sanitary cooking utensil must have a hard, non-porous surface so that it will not absorb moisture and food odors. Should have no seams and all handles, ears, etc., should be welded to the body. Dirt accumulates around rivets and in seams.

Lisk Enameled Ware is absolutely sanitary because of the hard, vitreous enamel that completely covers the steel body, making a cooking utensil that will not absorb moisture and food odors as will other cooking utensils that do not have a covering of Lisk quality enamel.

These Co-operated to Build the "Most Perfect House in America" as Featured in "The Great Idea" Own Your Home Film

A. Theo. Abbott Co., Philadelphia, Pa., Window Drapes.
Frank Adam Electric Co., St. Louis, Mo., Panel Board.
American Builder, Chicago, Ill., Publicity Service.
American Face Brick Assn., Chicago, Ill., Face Brick.
American Chair Co., Sheboygan, Wis., Sun Parlor Furniture.
America Ironing Machine Co., Chicago, Ill., Simplex Ironer and Electric Washer.
American Radiator Co., Buffalo, N. Y., Hot Water Heating Plant.
Anaconda Sales Co., New York, N. Y., Copper Shingles, Downspout and Gutter.
Arrow Electric Co., Hartford, Conn., Toggle Switches.
Atlas Educational Film Co., Oak Park, Ill., Authors and Producers of "The Great Idea," and other Noteworthy Films.
Beardslee Chandelier Mfg. Co., Chicago, Ill., Lighting Fixtures.
Benjamin Electric Mfg. Co., Chicago, Ill., Electric Plug and Elexits.
Bookstoge Furniture Co., Evansville, Ind., Breakfast Porch Furniture.
Bruce, E. L., Memphis, Tenn., Cedar Lined Closets.
Brunswick Balke Collender Co., Chicago, Ill., Tudor Phonograph and Billiard Table.
Colonial Fireplace Co., Chicago, Ill., Dome Dampers and Fireplace Fittings.
Common Brick Mfrs. Assn., Cleveland, Ohio, Common Brick.
P. & F. Corbin Co., New Britain, Conn., Lock Sets.
Cornell Wood Products Co., Chicago, Ill., Cornell Wood Board.
Crane Co., Chicago, Ill., Plumbing Fixtures.
Davey Tree Surgeons, Kent, Ohio, Tree Inspection and Repair.
Edison Electric Appliance Co., Chicago, Ill., Hughes Super Automatic Elec. Range, Percolator, Toaster, Curler.
Fairfacts Co., New York, N. Y., Built in Bath Room Accessories.
Federal Telephone & Telegraph Co., Buffalo, N. Y., Radio Outfit.

Higgin Mfg. Co., Newport, Ky., Metal Weatherstrip & Metal Frame Screens.
Hoover Co., Chicago, Ill., Vacuum Cleaner.
Hig Ventilating Co., Chicago, Ill., Ventilating Fan.
International Silver Co., Meriden, Conn., Silverware.
Jewett Refrigerating Co., Buffalo, N. Y., Refrigerators.
Kelvinator Sales Corp., Detroit, Mich., Electric Refrigeration.
Kirsch Mfg. Co., Sturgis, Mich., Flat Curtain Rods.
Lisk Mfg. Co., Canandaigua, N. Y., Enameled Kitchen Ware.
Long Bell Lumber Co., Kansas City, Mo., Trade Marked Lumber.
Morgan Sash & Door Co., Chicago, Ill., Millwork.
National Lamp Works, Cleveland, Ohio, Lamps.
Oak Flooring Mfrs. Assn., Chicago, Ill., Oak Floors.
Permutit Co., New York, N. Y., Water Softener.
Pullman Couch Co., Chicago, Ill., Davenport Bed.
Pyrene Mfg. Co., Newark, N. J., Fire Extinguishers.
Quaker Lace Co., New York, N. Y., Lace Curtains.
Richards-Wileox Mfg. Co., Aurora, Ill., Air-Way Window, Vanishing Door and Garage Door Hardware.
Royle & Co., Philadelphia, Pa., Dolly Madison Bedspreads.
Security Burglar Alarm Lock Co., Chicago, Ill., Burglar Locks.
Sellers, S. G. & Sons Co., Elwood, Ind., Kitchen Cabinets.
Stanley Works, New Britain, Conn., Hinges and Butts.
U. S. Radium Corp., New York, N. Y., Radium Products.
Walker Dishwasher Corp., Syracuse, N. Y., Electric Dishwasher.
Wall Paper Mfrs. Assn., New York, N. Y., Wall Paper.
Wileox & Gibbs Sewing Machine Co., Chicago, Ill., Electric Sewing Machines.



By Invitation

The following concerns, co-operating in the production of this Manual, were invited to furnish materials and equipment for

The Most Perfect House in America

and a detailed description of their goods is presented on these pages for the benefit of all home seekers who would build with equal satisfaction:

Frank Adam Electric Co.
American Face Brick Assn.
American Ironing Machine Co.
American Radiator Co.
Anaconda Sales Co.
Beardslee Chandelier Mfg. Co.
E. L. Bruce Co.
Colonial Fireplace Co.
Common Brick Mfgs. Assn.
Cornell Wood Products Co.
Crane Co.
The Fairfacts Co.
The Higgin Mfg. Co.
Lisk Mfg. Co.
Morgan Sash & Door Co.
Oak Flooring Bureau
Richards-Wilcox Mfg. Co.





ARCHITECTS SPECIFICATIONS FOR



The Simplex Ironer In-The-Wall unfolds gently at the pressure of a finger, and is returned as easily to a closed position.

The Simplex Ironer IN-THE-WALL Sells Homes Quickly

THE housewife today looks for convenience in the home she hopes to own. She is especially favorable to the house or apartment where her housekeeping equipment is out of the way, yet instantly available as if by magic.

That is why the Simplex Ironer In-the-Wall delights the woman. No longer is she bothered dragging out her ironing board and spending hours at a tiring job. Instead she opens the door of a small handy closet, a touch of her hands and the

In-the-Wall SIMPLEX IRONER

The Best Ironer

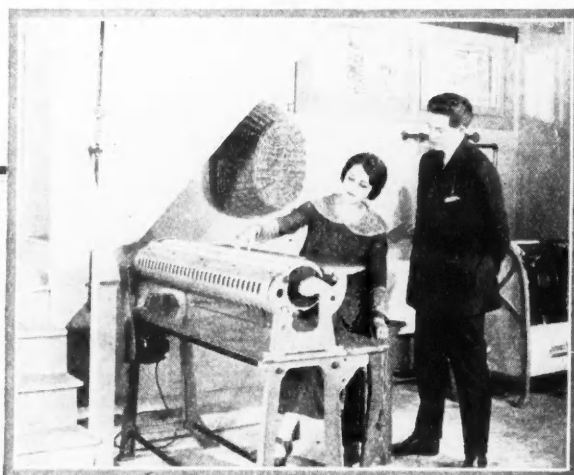
glides noiselessly into place to do the ironing in hurry up time better than by hand and at a big saving of labor. Cater to the wishes of the progressive housewife. Remember that she has the last word in choosing a home. Put a Simplex Ironer In-the-Wall in every house or apartment you build. You'll not only increase the sale or rental value but dispose of your property more quickly.

*If you build to rent or sell quickly
— write for plans, diagrams
and complete information today.*

The *Simplex Ironer In-The-Wall* is the most up-to-the-minute built-in feature of the complete home. It solves for the woman one of her greatest problems, the speedy, convenient handling of her family ironing, and enables her to maintain the systematic, orderly kitchen which is the pride of every housewife.

AMERICAN
IRONING MACHINE
COMPANY

844 WEST ADAMS STREET
CHICAGO, ILLINOIS

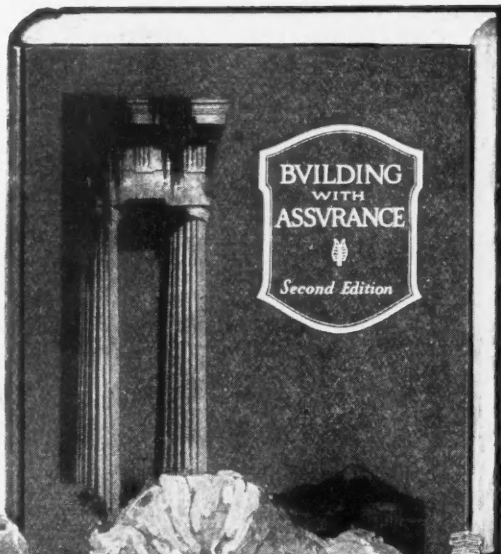


In the homes you build, plan a complete Simplex Laundry. Make the Simplex Ironer and the Simplex Washing Machine a part of the house.

THE MOST PERFECT HOUSE IN AMERICA



MORGAN MILLWORK
was installed throughout in
The Most Perfect House
in America
as shown in
"The Great Idea"



Get this MASTER BOOK of HOME BUILDING

Its 440 pages are literally a gold mine of home building ideas and suggestions.

WHAT a vast difference in homes! Some seem to have been merely built; others plainly show that they have been carefully *planned*. Don't take chances with the homes you build. Get this big, fine 440-page Master Book—"Building with Assurance"—and know the hows and the whys of every step. This great book was written expressly for home builders—is literally filled with practical building help—with ideas, plans and methods that you can actually USE to help you plan ahead wisely, reduce waste, guard against loss and save money.

"Building with Assurance" contains a wealth of beautiful homes

There are homes of every type, to fit every pocketbook from \$3,000 to \$50,000. There are French, Spanish, Modern, Western and other bungalows; Georgian, Victorian, Tudor, American, Colonial and other houses. All are shown in beau-

tiful colors, with floor plans. You get the help of authorities in arranging living room, dining room, bedroom, hall, etc. The Master Book, together with the price supplement, give you full information when choosing doors, sashes, stairways, built-in furniture, etc. You have stabilized, standardized prices for making estimates. You can show your client exactly what you plan to use.

Thousands of home builders praise the Master Book

Letters have been received from all over the world, praising "Building with Assurance". They say, for example:

There is no added cost for "Morgan-Quality"

- "It is truly a master building book"
- "Just what home builders need"
- "Certainly a remarkable book"
- "Surpasses any book of its kind"
- "The book is a revelation"
- "Makes home planning much easier"
- "The homes shown are wonderful"

Over 15,000 architects, contractors and dealers endorse and use it for daily reference. It is a veritable encyclopedia of home building facts and ideas.

Mail the coupon today for prospectus

"Building with Assurance" is not for general distribution. It is for earnest home lovers. Our prospectus tells all about it—shows beautiful homes with floor plans, reproduces actual pages, letters from readers, etc. The prospectus is gladly sent to those who mail the coupon.

MORGAN WOODWORK ORGANIZATION

"MORGAN-QUALITY"
STANDARDIZE WOODWORK

ADDRESS NEAREST OFFICE, DEPT. T.9

Morgan Sash & Door Company, Chicago, Ill.
 Morgan Millwork Co., Baltimore, Maryland
 Morgan Company, Oshkosh, Wisconsin

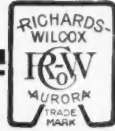
Gentlemen: I am a home lover, so please send me at once copy of your beautiful prospectus, which describes "Building With Assurance."

Name.....
 Address.....
 Town..... State.....

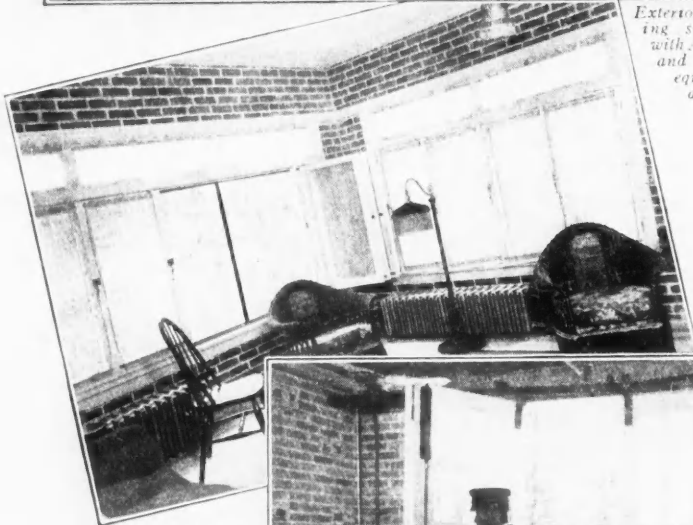
A.M. B.—823



ARCHITECTS SPECIFICATIONS FOR



Meeting the Requirements of the M



Sun parlor interior. AiR-Way windows closed on right; one half fully opened on left.

Exterior view showing sun parlor with AiR-Way, and Slidetite equipped doors.



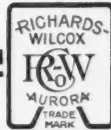
R-W Vanishing Doors connecting living room and stair hall—doors to dining room visible in distance.



Garage interior, showing perfect operation of Slidetite equipped doors.



THE MOST PERFECT HOUSE IN AMERICA



the Most Perfect House in America

When it was decided to build *the most perfect house in America*—and record its building and equipment in the motion picture film, "The Great Idea"—careful investigations were undertaken to select only the best and most suitable material and equipment. The completed house stands as an unique and permanent guide for every architect, contractor and home-builder. It is significant, therefore, that among the outstanding features of this *perfect* house are found



Multifold Window Hardware Slidetite, Garage Door Hardware R-W Vanishing Doors

AiR-Way Multifold Window Hardware is the distinctly modern window equipment. In addition to the artistic appearance of **AiR-Way**, which lends itself to more attractive house designs, are its many exclusive advantages. **AiR-Way** equipped windows slide and fold inside, completely out of the way, or they may be only partially opened for ventilation at any point. When closed, **AiR-Way** windows are absolutely weather-tight and rattle-proof. They are easy to operate, and do not interfere with screens and drapes. **AiR-Way** lets in a flood of healthful sunshine and fresh air. It is ideal for enclosing sun rooms and sleeping porches, as well as for bedrooms, living rooms, dining rooms and kitchens. Old-fashioned double-hung windows may easily be replaced with modern **AiR-Way**.

Slidetite Garage Door Hardware is the most suitable and satisfactory for any garage. In many instances, **Slidetite** offers the only practical way of properly hanging garage doors. **Slidetite** equipped doors slide and fold inside—flat against the wall—leaving a wide, unobstructed opening. The doors open and close with the least effort in any weather, and cannot blow shut when open. They fit snug and weather-tight when closed. Scientific support of entire door prevents sagging and sticking. **Slidetite** is adapted to any garage doorway, from the small type accommodating one car to large garages with doorways up to 30 feet in width. Old-fashioned doors on garages already erected may easily be replaced with **Slidetite**.

R-W Vanishing Doors are being selected by an increasing number of architects and builders. Their use in the most perfect house in America is a sure indication of this tendency in modern home planning. **R-W Vanishing Doors** permit a more satisfactory arrangement of doorways, save considerable space, and add materially to the harmonious effect of the home. This type of door also prevents painful door accidents, insures greater privacy, and allows doors to be opened for any amount of ventilation desired without blowing shut. Hung on **R-W Vanishing Door Hardware**, the door to any room, closet or pantry disappears easily and silently into the wall. *Adjustable* ball-bearing hangers eliminate sticking and after-expense for repairs.

New York
Boston
Philadelphia
Cleveland
Indianapolis
St. Louis

Richards-Wilcox Mfg. Co.
"A Hanger for any Door that Slides."

AURORA, ILLINOIS, U.S.A.

RICHARDS-WILCOX CANADIAN CO., LTD.
Winnipeg LONDON, ONT. Montreal

Chicago
Minneapolis
Omaha
Kansas City
Los Angeles
San Francisco

Write for Catalogs and Full Information Today

AiR-Way is fully described in Catalog G-4. Catalog G-29 contains complete information on *Slidetite*. *R-W Vanishing Door Hardware* is illustrated and described in Catalog G-28. Any one or all of these free catalogs will be sent on request. Write at once, and be sure to inquire how our Engineering Department is prepared to assist architects and builders with plans and advice.



Quality leaves its imprint



ARCHITECTS SPECIFICATIONS FOR



A view of the sun parlor in "The Most Perfect Home in America," showing Peerless Window Radiators, made by American Radiator Company

The most perfect method of heating "The Most Perfect Home in America"

OF INTEREST to builders throughout the country is "The Most Perfect Home in America," featured in "The Great Idea," the own-your-own-home film. (See pages I to XIII of this issue.)

It is a perfect home in every respect—equipped with the best of everything, down to the smallest detail.

Among the most important features is the heating system, for it

is an adequate heating system that plays a big part in turning a "house" into a "home."

The IDEAL Boiler for the Ideal Home

In the cellar of "The Most Perfect Home in America" you will find the IDEAL TYPE "A" HEAT MACHINE—the most perfect heating unit for medium-sized and larger-sized residences.

AMERICAN RADIATOR COMPANY

IDEAL Boilers and AMERICAN Radiators for every heating need

104 W. 42nd Street, Dept. T-144
NEW YORK

AMERICAN IDEAL
RADIATORS BOILERS

816 So. Michigan Ave., Dept. T-144
CHICAGO

THE MOST PERFECT HOUSE IN AMERICA



Builders find that the IDEAL TYPE "A" never fails to give complete satisfaction to the home-owner. Besides its efficiency as a heat machine, it is a boiler that quickly pays for itself in the fuel it saves.

And from the builder's viewpoint, installing TYPE "A" is an investment rather than an expense, for such a heating system adds several times its cost to the value of the house. Prospective owners

will gladly pay a higher price for a building that is reliably heated.

Send for the free TYPE "A" book

Every builder will be interested in reading about the IDEAL TYPE "A" HEAT MACHINE. We have prepared this instructive and attractive book describing the TYPE "A" in detail. It will be mailed to you upon receipt of your letterhead at either address below. Write for your copy today.



A scene from "The Great Idea," the own-your-own-home film, showing the IDEAL TYPE "A" HEAT MACHINE in the basement of "The Most Perfect Home in America"

AMERICAN RADIATOR COMPANY

IDEAL Boilers and AMERICAN Radiators for every heating need

104 W. 42nd Street, Dept. T-144
NEW YORK

AMERICAN IDEAL
RADIATORS BOILERS

816 So. Michigan Ave., Dept. T-144
CHICAGO



ARCHITECTS SPECIFICATIONS FOR

WHY FACE BRICK

Was Selected For

"The Most Perfect House In America"



Helpful Booklets for Home-Builders

"*The Story of Brick*" is an attractive booklet with beautiful illustrations of modern homes, and discusses such matters as Comparative Costs, Basic Requirements in Building, The Extravagance of Cheapness, and kindred subjects. Sent free.

"*Face Brick Bungalow and Small House Plans*" embrace 96 designs of Face Brick bungalows and small houses. These houses are unusual and distinctive in design, economical to build, and convenient in floor plan. "Face Brick Bungalow and Small House Plans" are issued in four booklets, showing 3 to 4-room houses, 5-room houses, 6-room houses, and 7 to 8-room houses. The entire set for one dollar; any one of the books, twenty-five cents. We can supply complete working drawings at nominal prices.

"*The Home of Beauty*" contains fifty designs of Face Brick houses, mostly two stories, representing a wide variety of architectural styles and interior arrangements. The houses were selected from 350 designs submitted in a nation-wide Architectural Competition. Sent for fifty cents. We also distribute complete working drawings for these houses at nominal cost.

"*The Home Fires*" is a new book containing twenty attractive original fireplace designs, for which complete plans may be purchased for one dollar, and twenty-five pictures of fireplaces designed by well-known architects. Also an article on fireplace construction. Sent for 25 cents.

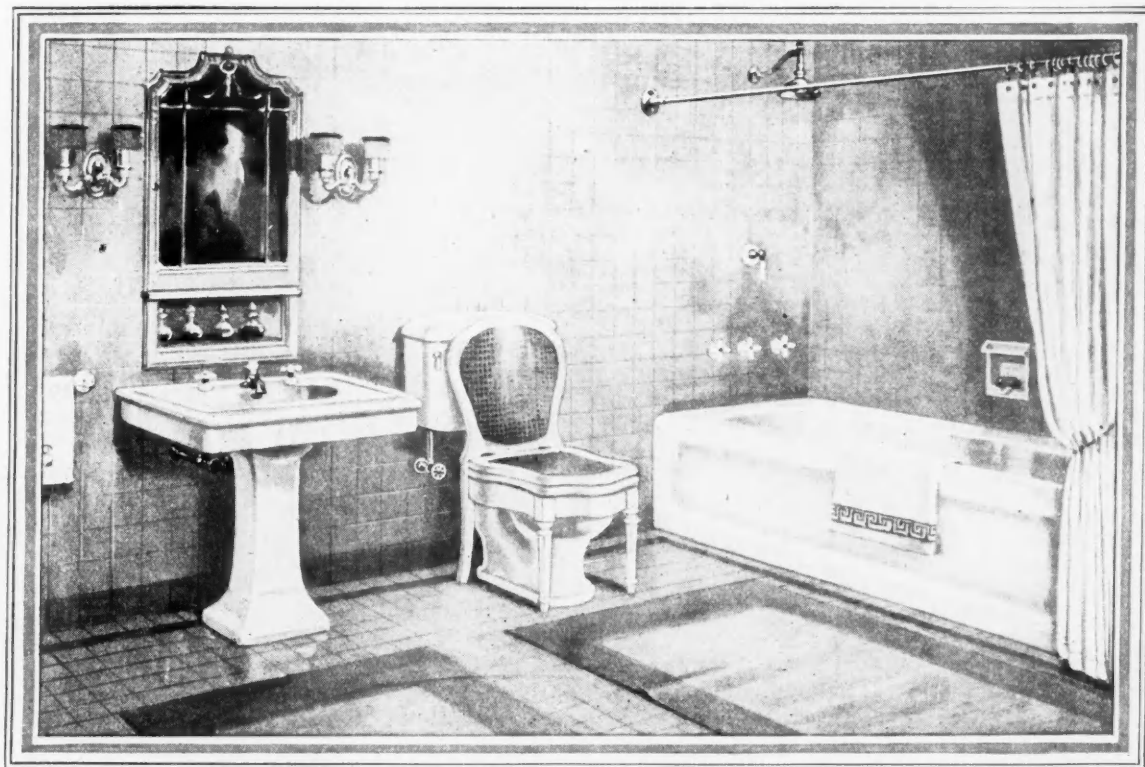
THE builders of "The Most Perfect House in America" realized that "perfection" in the exterior of a home means beauty and durability; and so their choice, naturally, was Face Brick. It is interesting, too, to note that their choice coincides with the present day trend in home-building.

Every year a greater and greater percentage of the home-builders in America build with Face Brick, for they have come to know that Face Brick is not only the most beautiful and durable, but also in the long run the most economical material for the exterior of a home.

The Face Brick house lasts for generations; its repairs and upkeep charges are negligible; it requires painting only around doors and windows; it saves insurance costs; and lowers fuel bills. Every home-builder will be interested in the facts about the Face Brick house, as told in "The Story of Brick". For your copy, address American Face Brick Association, 1799 People's Life Building, Chicago, Illinois.



THE MOST PERFECT HOUSE IN AMERICA



Whether your desire is to reproduce a bathroom that you have seen or to carry out an arrangement of your own creation, the exact types of fixtures you want can be found in the Crane line. In the bathroom pictured above, the architect has placed the fixtures used in the "Great Idea" home—the Crane

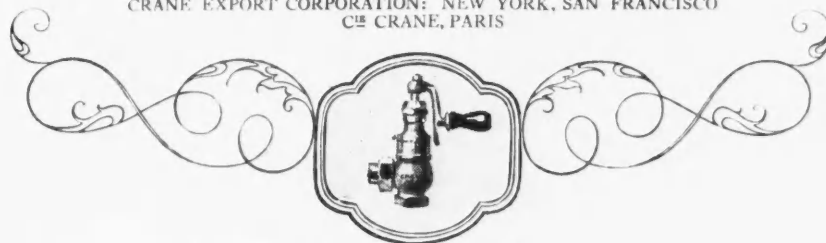
"Nova" lavatory, "Corsyn" closet and "Modus" bath—with careful consideration for both convenience and beauty. Countless other charming combinations of fixtures selected from the wide variety provided by Crane can be arranged to meet and satisfy every individual requirement.

CRANE

GENERAL OFFICES: CRANE BUILDING, 836 S. MICHIGAN AVE., CHICAGO

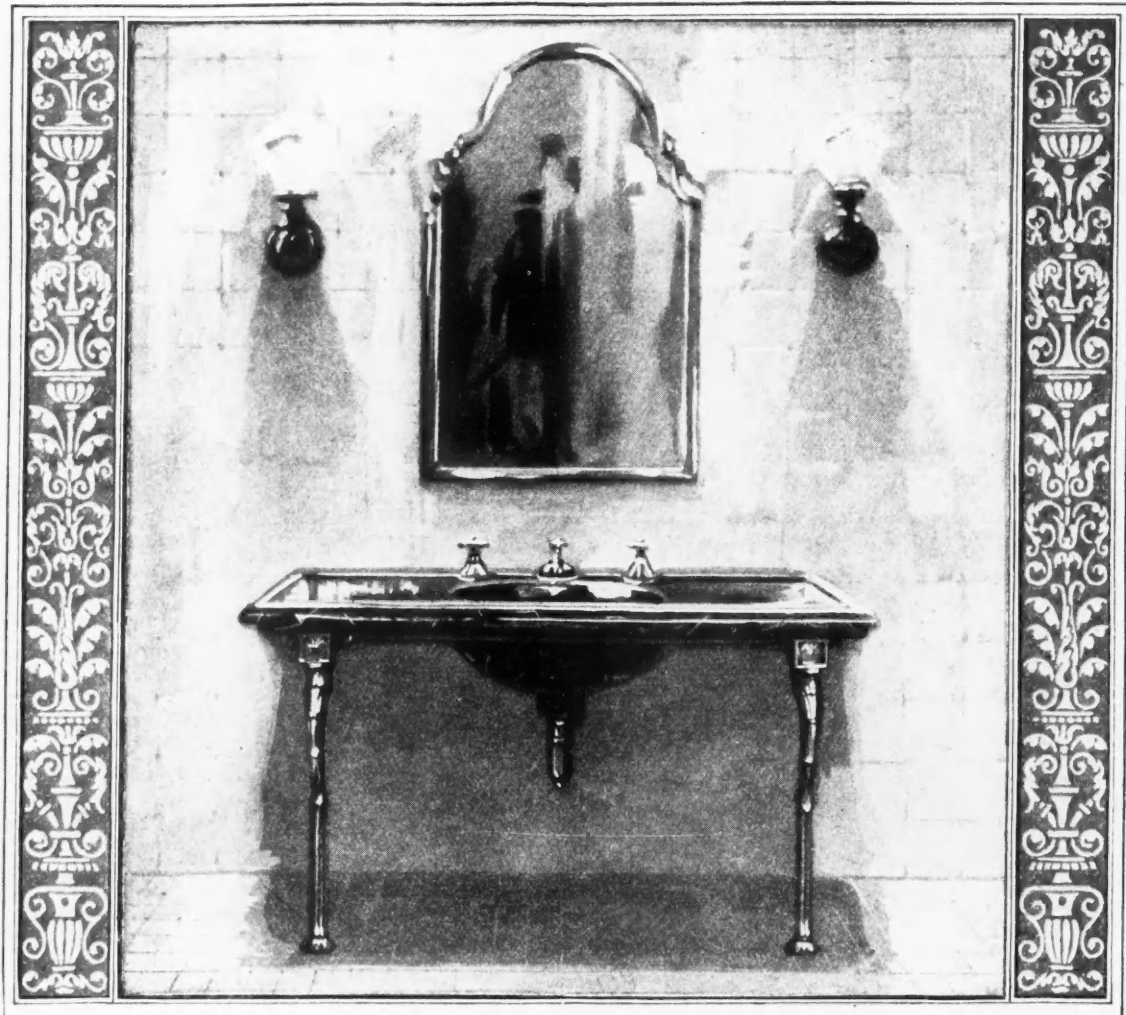
*Branches and Sales Offices in One Hundred and Forty Cities
National Exhibit Rooms: Chicago, New York, Atlantic City
Works: Chicago, Bridgeport, Birmingham, Chattanooga and Trenton*

CRANE, LIMITED, MONTREAL. CRANE-BENNETT, LTD., LONDON
CRANE EXPORT CORPORATION: NEW YORK, SAN FRANCISCO
C^{IE} CRANE, PARIS



Crane Radiator Valve No. 231

ARCHITECTS SPECIFICATIONS FOR



"NEUMAR" LAVATORY OF ITALIAN BLACK AND GOLD MARBLE, VITROWARE BASIN, METAL SUPPORTS. FRAME IS GOLD PLATED

Simple fixtures of porcelain enamel for small homes or distinctive appointments of imported stones for the finest residences—both classes are designed and manufactured by Crane with equal attention to the assurance of lasting durability. Broad experience in the mak-

ing of plumbing ware to meet unusual demands for beauty and convenience enables Crane artisans and craftsmen to create many extra refinements in the regular Crane fixtures that provide economical sanitation for every type of American dwelling.

CRANE

GENERAL OFFICES: CRANE BUILDING, 836 S. MICHIGAN AVE., CHICAGO

Branches and Sales Offices in One Hundred and Forty Cities

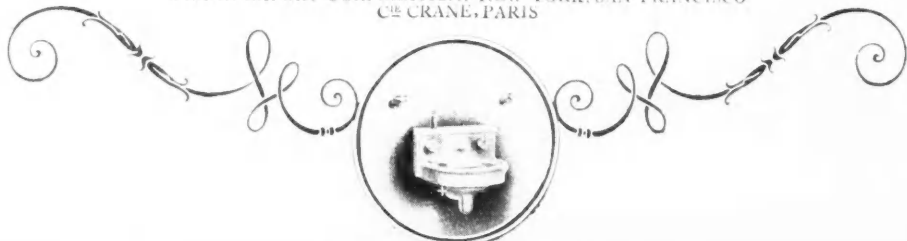
National Exhibit Rooms: Chicago, New York, Atlantic City

Works: Chicago, Bridgeport, Birmingham, Chattanooga and Trenton

CRANE, LIMITED, MONTREAL. CRANE-BENNETT, LTD., LONDON

CRANE EXPORT CORPORATION, NEW YORK, SAN FRANCISCO

CRANE, PARIS



Crane Dental Lavatory—"Lites"

THE MOST PERFECT HOUSE IN AMERICA



HIGGIN

ALL METAL
WINDOW SCREENS



The solarium of the Ideal Home, Glen Ellyn, Illinois. Higgin equipped throughout.

The Logical Choice for the Ideal Home

HIGGIN Screens and Weather Strips contribute comfort, beauty and permanence to every room of the Ideal Home.

The solarium, for example, with its many casement windows unobtrusively screened and weatherstripped, is airy and cool in summer; yet every window is snug and weathertight in winter.

Storm doors, storm windows, and vestibules have no place in the Ideal Home. Higgin Weather Strips—with the patented Insert—more effectively shut out cold, and save heating costs.

Every inch of Higgin equipment is *all-metal*, therefore permanent. It will last as long as the home itself and always retain its fine appearance and easy operation.

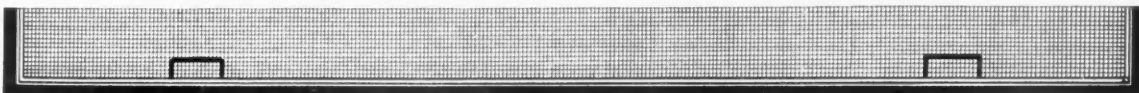
The Higgin line includes All-Metal Screens, All-Metal Pivot Sash Screens, and wood Frame Screens and Doors. A Higgin Service man—a specialist in screening and weatherstripping—will call on you to advise you if you wish. Write.

The HIGGIN Mfg. Co.
Newport, Ky.
Toronto, Canada.

Complete specifications on Higgin equipment will be found on page X.

Service Offices in all principal cities in the United States and Canada.

Look in your telephone or city directory for the address of your local Higgin service office





ARCHITECTS SPECIFICATIONS FOR



The World's Most Perfect Home is being built in Glen Ellyn, Ill., a suburb of Chicago. Brick solid foundation and walls.

10¢



Photographs and floor plans of 60 unusual brick homes—selected from thousands for beauty and interior arrangement. Every one has been actually built and lived in. A house for every taste and purse.

Over 5000 Builders Have Bought these Books

If you haven't copies of these two books you're missing something that has proved unusually popular with builders. "Your Next Home" is particularly useful. It shows sixty excellent homes in picture and plan. Gives you ideas, helps your prospects decide what they want, and illustrates the Beauty of Common Brick construction. Send 35 cents for both books. Why not do it today.



Valuable tables of material and labor costs. Illustrations and data on modern, money-saving uses of common brick—including the Ideal Hollow Wall. Thousands of these books are in use by architects, builders and dealers.

"Brick Throughout" in world's most perfect home

THE world's most perfect home, being built in connection with the \$100,000 film play, "The Great Idea," is brick throughout.

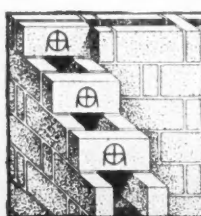
The world's leading architects and engineers were consulted in the selection of all materials to be used in this perfect home. They agreed unanimously that BRICK should be used for the foundation. The walls, too, are solid brick.

First Choice of the World

Brick is the world's first choice for building beauty and strength into the home.

Common Brick is coming back as a foundation material. It is better and costs less.

This wonderful \$100,000 film, "The Great Idea" is a popular story for general distribution. It will create even greater demand for homes of Brick. Be sure to see it yourself. If it hasn't been shown in your locality, don't fail to let us know.



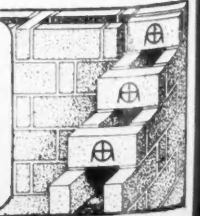
The Common Brick Industry of America

2131 CLEVELAND DISCOUNT BUILDING

Cleveland, Ohio

The Ideal Brick Hollow Wall

Made of standard brick—cuts the cost one-third



THE MOST PERFECT HOUSE IN AMERICA

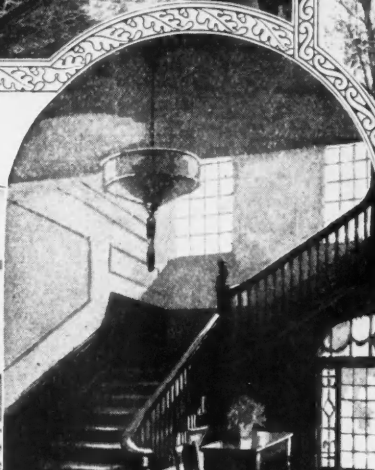


AMERICA
IS STILL
SHORT
OVER ONE
MILLION
HOMES.

—Literary
Digest



Oak floors are laid throughout "The Perfect House," Glen Ellyn, Ill., shown below, with the living room at the left, now being featured in motion picture houses throughout the United States, under the title, "The Great Idea."



If your home has the old-fashioned carpeted softwood floors, it can be modernized by $\frac{3}{8}$ inch oak flooring, laid right over the old floor. The work may be done one room at a time, if convenient, at a cost less than the old floor, plus carpet. Your floors will then be sanitary, with no carpets or cracks to collect dirt and disease germs. Housework will be reduced, as endless sweeping is no longer necessary to keep an oak floor bright and clean.

Oak floors
for beauty, durability
and economy



Put your flooring problems
up to our experts. We will
gladly serve you

**OAK
FLOORS**

NATURE'S GIFT OF EVERLASTING BEAUTY
XXV

Oak Floors throughout

—for permanence, character, charm

As guests enter your home, they are welcomed by oak flooring in the hallway, reflecting in its bright polished surface the beauty and variety of figure that characterize oak. Hospitality extends into the living room, comfortable and "home-like" in its appointments, enhanced also by Nature's permanent floors of oak.

In the dining room, too, oak floors finished to harmonize with the coloring of walls and hangings, convey a sense of well-being and enjoyment; in the bed rooms they possess that quiet dignity and charm that invite rest.

All these advantages are lasting, for oak floors improve in mellowness and beauty with the years, and are always modern.

Wouldn't you like to know more about oak floors? The booklet pictured below tells the story, with colored illustrations of the new finishes. Mail coupon for your copy.

OAK FLOORING BUREAU
1038 Ashland Block, Chicago

Please send me your free book
"The Story of Oak Floors."

Name _____

Address _____





ARCHITECTS SPECIFICATIONS FOR

Beardslee Lighting Equipment

Used in The Most Perfect House

Did you notice the lighting equipment used in The Most Perfect House as shown in the picture play "The Great Idea"? All of the charming chandeliers and brackets are Beardslee Sheraton and Minuet designs.

These dainty pieces have that air of distinction one expects to find only in the costliest chandeliers and brackets, yet they are very moderately priced.



Do You Want to Know More About Them?

There are Sheraton and Minuet designs suitable for each room in the home—charming chandeliers and brackets for the living room, dining room and library and dainty pieces for bedrooms and halls. A little brochure that illustrates and describes some of the Sheraton and Minuet designs suitable for the moderately priced home will be sent you on request, together with the name of your local dealer who is privileged to show you these designs.



BEARDSLEE CHANDELIER MANUFACTURING CO.

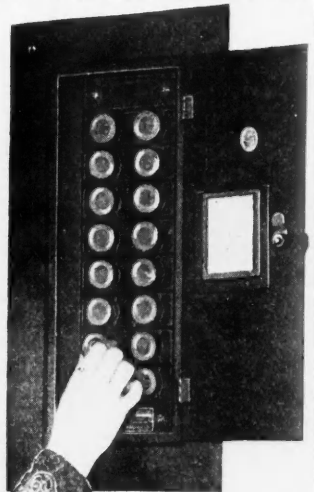
217 So. Jefferson Street
Chicago, Ill.

Manufacturers of a complete line of chandeliers and bronzes for every lighting requirement, including the famous Baby Denzar for lighting the home kitchen.



Sheraton Designs Lighting the Living Room of The Most Perfect House

The Type R is the panel board used in "The Great Idea"



Safe!

When the Fuse Blows—

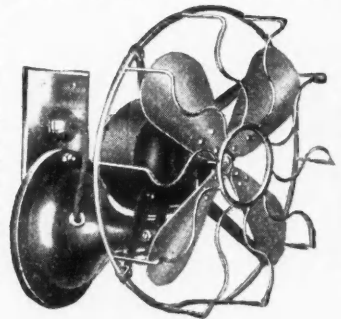
When the Lights Go Out—

You may be heating the baby's milk or ironing, or serving coffee, via your electric percolator, to your guests—when the fuse blows.

If you have a Triumph "R" Residence Safety Type Panel Board in your home you safely and quickly take out the blown or dead fuse and screw in a new one, exactly as you would replace a burned out lamp globe. Fuses are protective safety catches and should blow out in time of trouble. The Triumph "R" simply makes it safe for a woman or child to replace them.

Because it is absolutely safe, the Triumph "R" is not put in the hardest-to-get-at place in the cellar, but is located conveniently on either the first or second floor.

The F-A Hanger Outlet—for the support and current supply of fans, heaters or lighted pictures—is an integral part of the original wiring job, not a makeshift arrangement. It does away with unsafe and unsightly brackets and shelves. The hanger is flush with the wall, and out of the way when not in use.



Do not decide definitely on your wiring plans until you have the Bulletin of Better Home Wiring. A copy will be gladly sent free—write Department P.



Frank Adam

ELECTRIC COMPANY
ST. LOUIS

District Offices:

Detroit, New York, Dallas,
Minneapolis, Kansas City,
Cincinnati, Cleveland,
New Orleans, Chicago,
San Francisco, Los Angeles,
Seattle, Boston, Pittsburgh,
Philadelphia

THE MOST PERFECT HOUSE IN AMERICA



OVER THE PLASTER IN THE OLD HOME, OVER THE STUDDING IN THE NEW

"Ceda'line" is made from small, live, The Perfect House, "The Perfect House," (The Perfect House) has been featured in many picture books throughout the United States, and is the only "The Perfect House."



Line your closets with cedar!

Make every clothes and linen closet better than a cedar chest—at nominal cost

THE thing that every woman has been looking for! Your garments hung up in order, ready for use at any time, no creasing, no musing, and with the protection against moths that only cedar wood can give!

Just turn your closets over to a carpenter for a day or two, and the job is done. Bruce "Ceda'line" strips, $\frac{3}{8}$ of an inch thick, in various widths, can be easily and quickly nailed over the non-protective plaster, and to the back of the door, if desired. The strips are so manufactured as to provide a tight fit, making installation easy, with little waste of material and at low cost.

And there you are; fragrant

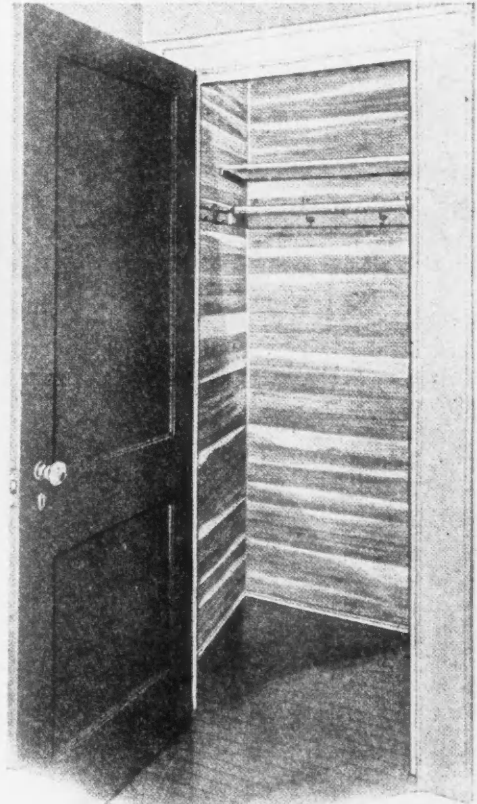


The small species of cedar tree from which "Ceda'line" is made.

Tennessee cedar lined closets, a delightful surprise in the guest room, comfort for yourself all the year round! No more digging down into a crowded chest to find what you want crammed at the bottom. Everything easily found and removed! No closet space taken up by awkward chests. No camphor-ball nuisance, or inconvenient outside storage.

Mail the coupon today. It will bring you a sample piece of Bruce Tennessee aromatic "Ceda'line" and a folder explaining its use. Then get in touch with the nearest carpenter or lumber dealer.

E. L. BRUCE COMPANY
Manufacturers
Memphis, Tennessee



Look for this mark

**BRUCE
CEDA'LINE**

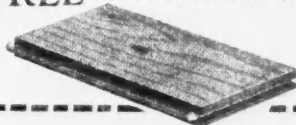
REG. U. S. PAT. OFF.

There is only one "Ceda'line"



Cedar shelves and special compartments for linens and finery are very convenient.

FREE



E. L. Bruce Company
Memphis, Tennessee

GENTLEMEN:

Please send me a free sample piece of "Ceda'line", the fragrant Tennessee red cedar lining for clothes closets, with descriptive booklet in colors.

Name

Address

BRUCE

MAIL THIS
COUPON

Ceda'line

Made by the makers of BRUCE OAK FLOORING

ARCHITECTS SPECIFICATIONS FOR

Plan Your Kitchen FIRST



Lisk Enameled Ware

Because of quality and appearance is used as standard kitchen equipment in the Perfect House. Every piece of Lisk Pure White Enameled Ware is so attractive in appearance, so practical to use and so easy to clean that it adds greatly to the atmosphere of joy and happiness that permeates that bright—sunny new home.

Run No Risk—Be Sure It's Lisk

When outfitting Kitchen and Household, look for the LISK trade-mark, the sign of "Better Quality" in Enameled Ware, in Heavily Coated Tin Ware, Nickel Plated Copper Pots and Kettles, Japanned and Galvanized Ware. You will find it on every Lisk article.



LISK MANUFACTURING CO., Ltd.

CANANDAIGUA, N. Y.

Makers of the Famous Lisk Self Basting Roaster and the New Lisk Enameled Coffee Percolator



ALL THE FIREPLACES IN "THE MOST PERFECT HOME IN AMERICA" ARE COLONIAL EQUIPPED

The Colonial Head-Throat and Damper makes your fireplace genuine. Insures correct construction of the fireplace throat—the most vital part. Prevents smoking. The Colonial Head-Throat and Damper, Colonial Grates, and our line of complete Fireplace Equipment are the products of a quarter century's experience.

THE CONVENIENT KEY CONTROL of the COLONIAL HEAD-THROAT AND DAMPER—

comes through the fireplace facing or at the end return or out just under the opening. Permits close adjustment and affords perfect draft control. Style "E" Colonial Head operates with a lever arm which comes down in the center of fireplace opening.

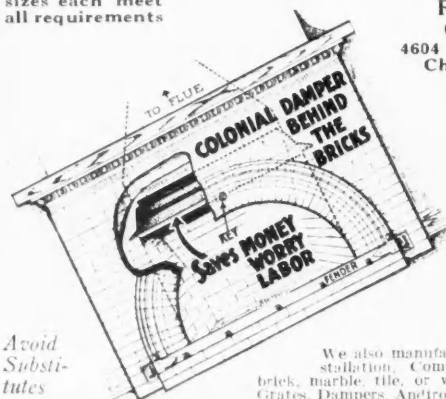
The only Damper made which provides for expansion and contraction within itself.

No danger of cracking fireplace front. Damper is built in sections and reinforced with steel angle bar. Construction is rigid and able to stand great weight, yet so designed as to allow for expansion and contraction without disturbing the outer work.

At your dealer or write us for complete catalog and blue print details of correct fireplace construction.

Five styles of 12 sizes each meet all requirements

THE COLONIAL FIREPLACE COMPANY
4604 Roosevelt Road
Chicago, Illinois



Avoid Substitutes

We also manufacture, ready for installation, Complete Fireplaces in brick, marble tile, or wood; also Fireplaces, Grates, Dampers, Andirons, Screens, Fenders, Hoods, Firesets and Fireplace Equipment.

THE MOST PERFECT HOUSE IN AMERICA



The dining room shows an interesting panel treatment with Cornell Wood-Board. Wall paper has been applied to the wall-panels.

Here's what can be done with an attic. Cornell makes an attractive billiard room.



The home you've always wanted

MAYBE you have it, now; or you hope to have it. Just because you are a builder of homes makes no difference.

Your home may differ in certain details from the perfect home pictured in "The Great Idea." But "your" home is exactly like the perfect home in this: that you want it built to have lasting quality, economy of upkeep, good market value; all these in addition to its expressing your own ideas.

That's exactly what everybody else wants—the people you are building

homes for. We're all agreed on the subject of "home."

Several rooms of the home in "The Great Idea" are finished in Cornell-Wood-Board. Two of them are shown here; mighty attractive rooms.

You'll find Cornell-Wood-Board a help in building satisfaction into homes. It's a pure wood product; triple-sized to resist moisture. Properly applied it will look well and last indefinitely. It's mill-primed for paint or paper; and its oatmeal finish is an aid to attractive decorative treatment.

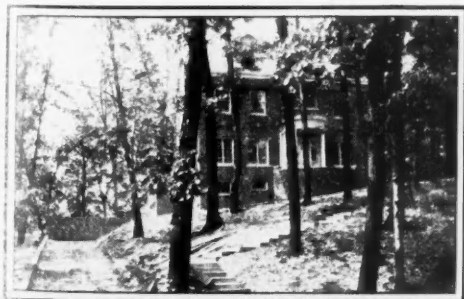
CORNELL WOOD PRODUCTS COMPANY

190 North State Street, Chicago, Illinois

Mills: Cornell, Wisconsin

Cornell
Wood Board

FOR WALLS, CEILINGS AND PARTITIONS





ARCHITECTS SPECIFICATIONS FOR

"THE MOST PERFECT HOUSE IN AMERICA"

Is of Course Equipped With Fairfacts Accessories



They have the qualities that you yourself will consider needed and desirable.

Send for our booklet "The Perfect Bathroom"

THE FAIRFACTS CO., Inc. Dept. 2-C 234-236 W. 14th St., New York, U.S.A.

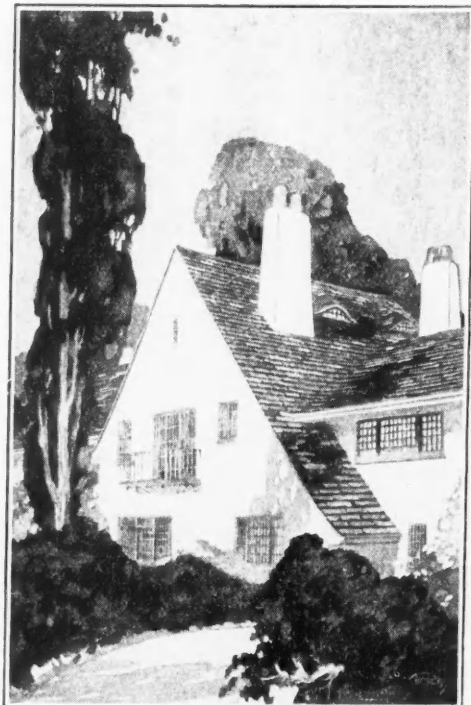
ANACONDA COPPER SHINGLES

were selected for The Most Perfect House in America which is illustrated in the film "The Great Idea."

Anaconda Copper Shingles were chosen because they combine that ideal so long sought in a roofing material—beauty, economy and durability. They will last the life of the structure and not one cent need be spent for upkeep.

Copper, because of its beauty and lasting qualities was used for all flashings, gutters and leaders.

Fill out the coupon and let us send you our illustrated booklet.



A typical installation of Anaconda Copper Shingles

ANACONDA SALES COMPANY, 25 Broadway, N. Y.
Please send literature describing Anaconda Copper Shingles

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THE MOST PERFECT HOUSE IN AMERICA



Blue Ribbon Homes

presented every month in the American Builder, give a wide range of good ideas for

YOUR "Most Perfect House"



Before You Build or Plan Your Home Get the Assistance of the "World's Greatest Building Paper" — Study Its Pages — Learn About the Different Kinds of Building Materials, Heating Systems, Electrical Appliances, Finishes, Furnishings, etc.

The American Builder is the handbook and the idea source of architects and professional home builders. It exerts the greatest influence in determining the kind of homes that are being built today. More than half a million homes each year are planned and built by American Builder subscribers.

Over 200 Home Plans a Year

Each number of the American Builder contains from 15 to 20 perspective views and floor plans of modern, moderate-cost homes. There are also many illustrations of tastefully furnished interiors. Special articles by practical authorities give the latest ideas on decorating, heating, lighting, water supply and other questions that will help the home builders.

The American Builder is the big illustrated magazine going monthly to 60,000 men whose business it is to plan and build homes. It covers the entire building field with helpful departments on all branches of complete home building.

The subscription price of the American Builder is \$2.00 per year; size, 250 pages or more each issue; covers beautifully lithographed in four colors; more than 200 original and popular Blue Ribbon Home Designs presented each year. Specimen copy mailed free on request.

AMERICAN BUILDER

1827 Prairie Ave., CHICAGO

Eastern Office:
261 Broadway, New York

AB.—9-23

AMERICAN BUILDER

1827 Prairie Ave.
Chicago, Ill.

Gentlemen: I am interested in building a home and will appreciate it if you will send me a specimen copy of the American Builder *absolutely free* to the address below.

Name

Street

Post Office

State

Send This Coupon for Specimen Copy FREE

The "Most Perfect House" is of Course A Model Home Electrical



1. Demonstrating the electrically equipped laundry in the "Most Perfect House in America," around the building of which the Own-a-Home Feature Film, "The Great Idea" is woven. The husband having been away on a long business trip returns to find the new home completely built and furnished. The well lighted basement laundry with its electric washing machine, electric washer and snow-white enamel laundry tubs is an inspiration to all who see this great moving picture.

2. The suction sweeper quickly cleans the rug after the children have decorated the Christmas Tree.

3. The proud and happy home manager points out her clock thermostat in the living room, which electrically controls the efficient heating plant in the basement.

4. Breakfast prepared electrically in the new home, which of course being a "Perfect House" is very well equipped with electric outlets conveniently placed.

5. Radio is not neglected in this new home. The radio en-

thusiasts say the great idea is to hear all concerts from Maine to California without leaving your own snug fireside.

6. A well lighted corner upstairs in the most perfect house is dedicated to sewing activities. This electric sewing machine does the work easily and when not in use becomes a very attractive little table.

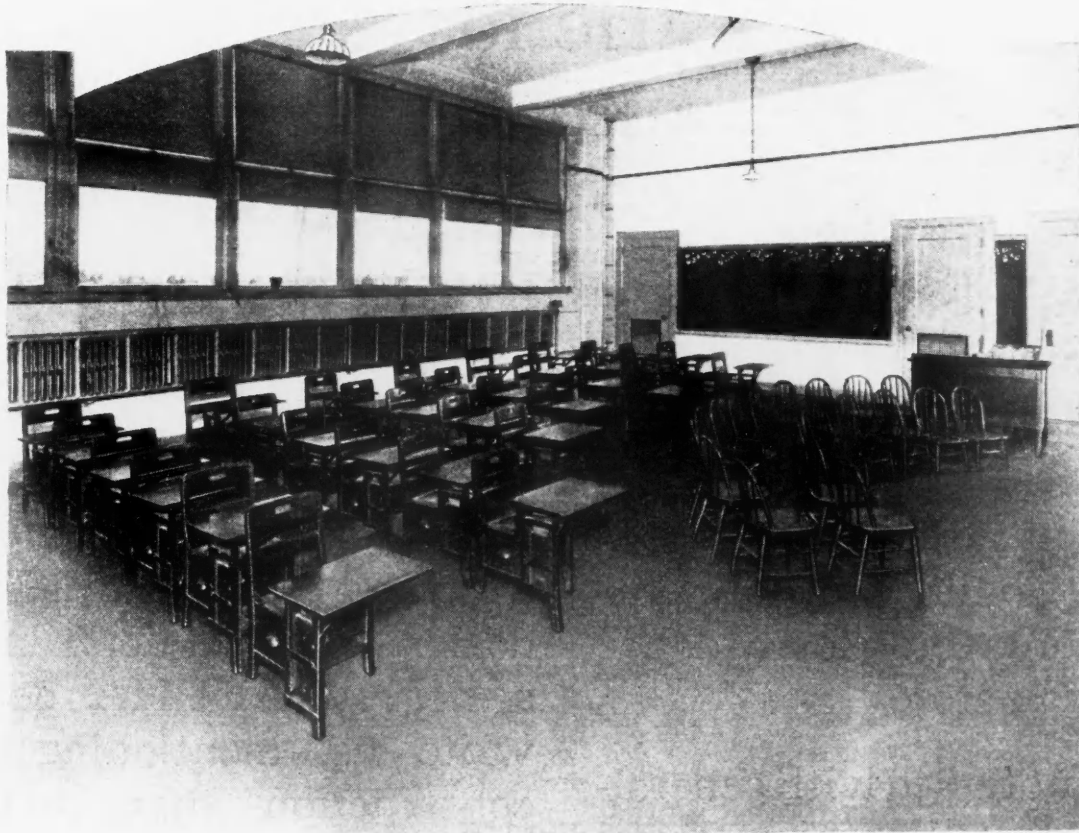
7. The electric range occupies one corner of the kitchen and cooks to a turn the big Christmas dinner which marks the happy ending of "The Great Idea," Own-a-Home Film.

In producing this great picture and in organizing around it such a well planned Own-a-Home campaign, nation-wide in its extent, the Atlas Educational Film Company, Oak Park, Ill., deserves the gratitude of all home seekers and those interested in better homes.

If you would like to see this most perfect house demonstrated in your own town, write Mr. C. A. Rehm, secretary, the Atlas Educational Film Company.

Armstrong's Linoleum

for Every Floor in the House



Look for the
CIRCLE 'A'
trademark on
the leading back



See the School in Detroit, Mich., in which 2,000 sq. ft. of Armstrong's 1/4-inch BattleShip Linoleum were laid in January, 1921.

New Reference Book Now Ready

To know where to use linoleum, how to select proper thicknesses, colorings, and designs, how to lay linoleum, and how to care for it, you need the handbook "Armstrong's Linoleum Floors." This book is written solely for architects and building contractors, and is 8 1/2 x 11 inches in size, most convenient for the reference files. The completely revised edition of February, 1923, is available. Ask for your copy on your letterhead.

Floors That Lower Insurance Rates

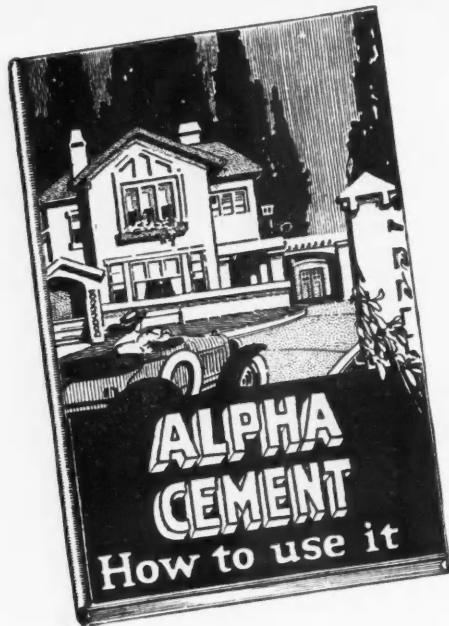
UNDER the fire insurance rates of the Western Actuarial Bureau, linoleum cemented to fireproof floors is given the same classification as concrete, terrazzo, and ceramic tile floor surface.

Mr. J. V. Parker, manager of the Bureau, states, "Our present schedule for fireproof structure contemplates wood floor surfacing, and when floors are surfaced with linoleum, terrazzo, or ceramic tile a credit of 7% from the occupied (but unexposed) rate of the building is allowed.

That linoleum reduces the fire hazard is simply one more point in its favor as the practical school floor. At a cost laid, of 35c to 50c a square foot, depending upon locality, Armstrong's Linoleum in a battleship thickness affords a maximum of resilience, comfort, and quietness. Add to that a term of service seldom less than the life of the building, and a smooth, handsome floor surface that is ideally easy and inexpensive to keep clean and sanitary.

To install, simply cement Armstrong's Linoleum to the concrete floor slab. Waxing and polishing keep it spick-and-span.

Armstrong Cork Company Linoleum Division Lancaster, Pa.



The book that makes friends and cement construction business

It's as instructive and helpful as any book that a contractor, builder or cement-user could buy for a dollar at a book store

It is not filled with generalities. More than nine-tenths of its 104 illustrated pages are devoted to details of a great variety of attractive, permanent cement improvements.

Having this book handy in talking with property-owners about permanent

cement improvements will be a real help. Get a copy from any ALPHA CEMENT dealer, or if you don't know a nearby ALPHA dealer, write us, mentioning any construction that particularly interests you.

Maybe among our Special Bulletins and Service Sheets there is something that will give you a first-class idea. A complete list of these special publications will be found in "ALPHA CEMENT—How to Use it."

Alpha Portland Cement Company EASTON, PA.

140 S. Dearborn St., CHICAGO

Boston New York Philadelphia Pittsburgh St. Louis
Baltimore Battle Creek, Mich. Ironton, Ohio

Plants at Cementon, N. Y., Jamesville, N. Y., Alpha, N. J., Manheim, W. Va., Martins Creek, Pa.,
St. Louis, Mo., La Salle, Ill., Ironton, Ohio, Bellevue, Mich.

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Ambler Asbestos

Saves in Labor and Replacement

Fire can't burn it. Heat does not warp or otherwise affect it. Nor does cold. Fumes do not deteriorate it. There is nothing in it to rust.

Just selected asbestos fibers and the best hydraulic cement, compressed into compact sheets.

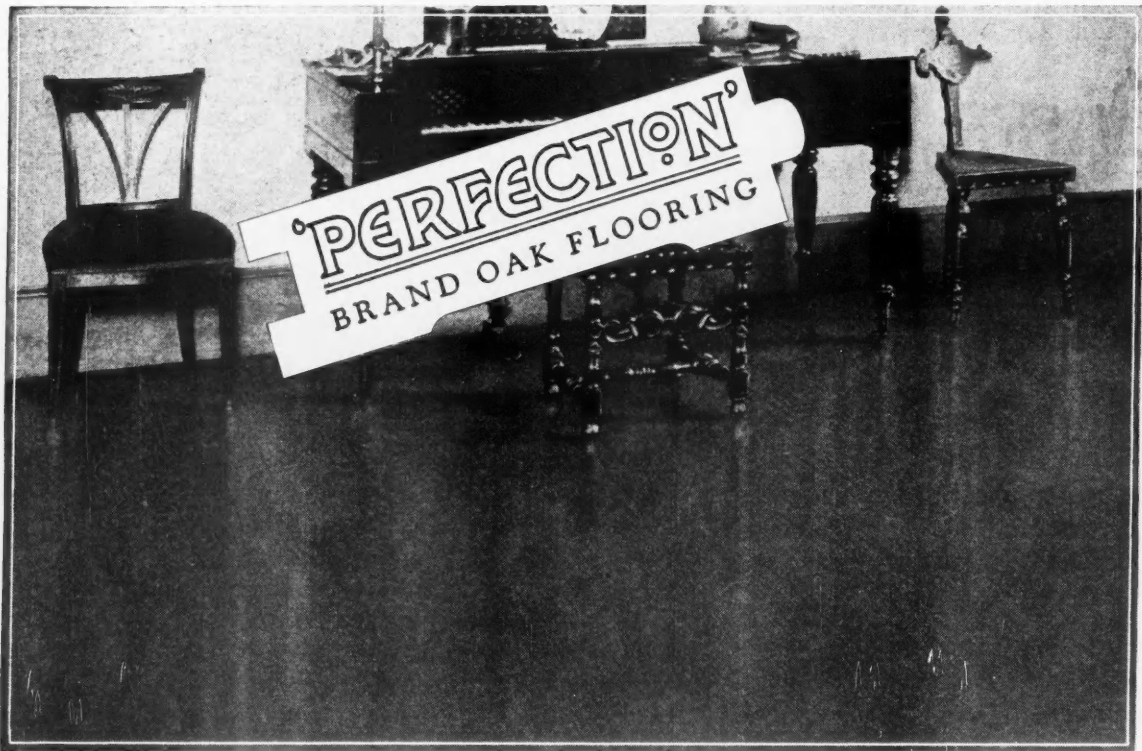
Ideal for both roofing and siding. Made into sheets 27½ inches wide with eleven complete corrugations and in lengths of 4, 5, 6, 7, 8, 9 and 10 feet. Can be applied speedily right on purlins with lead washers and either bolts or aluminum ties that we furnish.

Send for specimen and service sheet showing interesting applications.

Asbestos Shingle, Slate & Sheathing Company
AMBLER, PENNA.

Branch Offices: — Baltimore, Boston, Buffalo, Chicago, Cincinnati, Detroit, Cleveland, Minneapolis, New York, Omaha, Philadelphia, Pittsburgh, Washington, Wilkes-Barre, Toronto, Canada
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“PERFECTION” BRAND OAK FOR FLOORING

It is easier to sell a well known brand of anything. Your customers have greater confidence in its value. Stock “Perfection” Brand Oak Flooring—the flooring with a long established reputation.

We have two large plants manufacturing “Perfection” brand, plain and quarter sawed. This insures dependable service. Write today for full details. Watch for our national advertisements.



ARKANSAS OAK FLOORING COMPANY
PINE BLUFF, ARKANSAS



The Shingle that never curls

Carey

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Get this booklet for your customers

Send your name and address on coupon below and we'll send you a copy. *Read it.* If you want additional copies for your prospects, let us know. We'll arrange it without any cost to you for the booklets.

Shingles that never curl

- are not attacked by the weather from the under side.
- do not become an eyesore and depreciate property values.
- give lasting satisfaction.

Carey Asfaltslate Shingles come in several weights and sizes and in a complete variety of natural fadeless slate colors; Indian Red, Sage Green and the "aristocrat of colors"—blue black. Clip coupon, get samples and booklet.

The Philip Carey Company, 510-530 Wayne Ave., Lockland, Cincinnati, Ohio

CLIP THIS AND MAIL TODAY



**The Philip Carey Company,
Lockland, Cincinnati, Ohio**

Gentlemen: Please send copy of "Before You Build" to

Also send booklets to list of names **inclosed** without obligation to me.



*Alden Park Manor, Detroit—four separate residential buildings
Living rooms are furnished with Davenport Beds*

SHOW THE OWNER HOW TO GET INCREASED INCOME

Owners of apartment houses, residential and transient hotels, are in business. They sell service and—floor space. The more floor space they have, the greater their incomes.

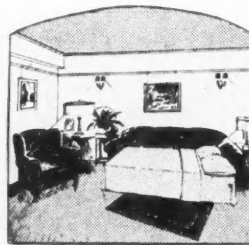
In your plans, provide for floor space—maximum floor space. That means potential income for the owner. Point that out to him.

Davenport Beds provide twenty-four hour use of floor space, and eliminate waste floor space. That is more than can be said of any piece of furniture the apartment or hotel owner must buy. Point that out to him.

Write us for further facts. Ask us for co-operation in specific cases. No obligation whatever.

DAVENPORT BED MAKERS OF AMERICA
928 South Michigan Avenue Chicago

*Living room
Alden Park Manor
by day*



*Same room
Alden Park Manor
by night*

The DAVENPORT BED

SERVES BY DAY AND BY NIGHT

Copyright 1923, Davenport Bed Makers of America.

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER

Fall's the time

to get busy on

BEAVER WALL BOARD

How much Beaver Money will *you* make this season?

There will be a lot of good Beaver Money spent this fall. The approach of cold winter days starts people to thinking of indoor comforts. Many a shabby wall and ceiling will be done over in Beaver Wall Board. Many an idle attic will be transformed into a comfortable den, playroom or bedroom. Many a garage will be lined with Beaver to keep out the cold. Many a factory, office, store, in anticipation of brisk, winter business, will make needed repairs, and remodeling. These, as well as many kinds of NEW CONSTRUCTION, are BEAVER WALL BOARD jobs.

Our National Advertising continues to tell people the advantages offered by the board with "The Red Beaver Border." More and more of them are going to the dealer who carries it. Let us help you get your share.

Mail coupon for these free books

The new "Beaver Plan Book" has been called the most complete and interesting book ever produced on the subject of wall board. It is being sent to thousands of prospects secured through national advertising and other sources. "Application and Decoration" is another important book. Mail the coupon. Let us send you free copies with our compliments.

The Beaver Products Co., Inc.
Buffalo, N. Y., Thorold, Can., London, Eng.

BEAVER WALL BOARD

"The all virgin spruce fibre wall board"



Our national advertising is educating the public to demand the

"RED BEAVER BORDER"
because it insures these

6 Vital Advantages

- 1—All VIRGIN Spruce Fibre.
- 2—26-Layer Construction.
- 3—Patented Sealtite Moisture-proofing Formula.
- 4—Art Mat Surface.
- 5—Superior "dead air" Insulation.
- 6—Kiln Dried and Seasoned.

Let the public know that
you carry it



C O U P O N

The Beaver Products Co., Inc.

Buffalo, New York

Gentlemen:

Please send at once copies of your new "Beaver Plan Book" and "Application and Decoration."

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Address

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Cannon Ball Beats 'em all



It Stays New Longer

CANNON BALL hanger wheels are round like a ball. They run inside of a round track. That gives the hanger wheels an even bearing on both sides of the track no matter how the building warps or settles. The wear is distributed evenly — they never wear lopsided or cut out on one side and run hard.

Thousands and thousands of No. 384 Cannon Ball Hangers, like the one shown here, have been in use a dozen years or more on all kinds of buildings in all parts of the country and are still handling doors easily without trouble or friction.

Other Cannon Ball hangers provide adjustments to raise or lower the door and to set it in or out. Special hangers for running doors around the corner and complete sets of fittings for 2 to 6 folding sliding doors are also included in the Cannon Ball line.

Booklets giving complete information should be in the hands of every builder. Send for them.

No. 384
Cannon Ball
Door Hanger

Steel
Ball
Wheels

Always Bear
Evenly on
Both Sides of
the Track

They Wear
Evenly and
Always Run
Smoothly



STAR Equipment



HUNT, HELM, FERRIS & Co., Harvard, Ill.
Albany, N. Y. Minneapolis Los Angeles San Francisco

The
STAR
LINE

*"Something to Sell
the Year Around"*

Stalls, Stanchions
and Pens
Litter Carriers
Water Bowls
Feed Trucks
"Harvester" Hay Tools
Door Hangers
Garage Equipment
Coaster Wagons
Fence Posts
and Other Farm Specialties

Kawneer

SOLID COPPER

STORE FRONTS

Resilient grip on glass gives permanent service

Kawneer Solid Copper Store Front Construction holds plate glass between two spring shaped members. This Kawneer resiliency allows all vibration waves, such as are caused by the jolting of street cars or trucks, or from sudden wind pressure to pass out thru the edges of the plate without fracture.

This sturdy but resilient grip on plate glass has proven reliable and efficient in more than 260,000 Kawneer Store Front installations.

Contractors are building prestige by installing Kawneer Construction. Kawneer's superior quality and satisfactory service soon brings a reputation that is valuable. Why not investigate Kawneer Store Front work as an added line of construction and write today for details. Books of Designs and full information.

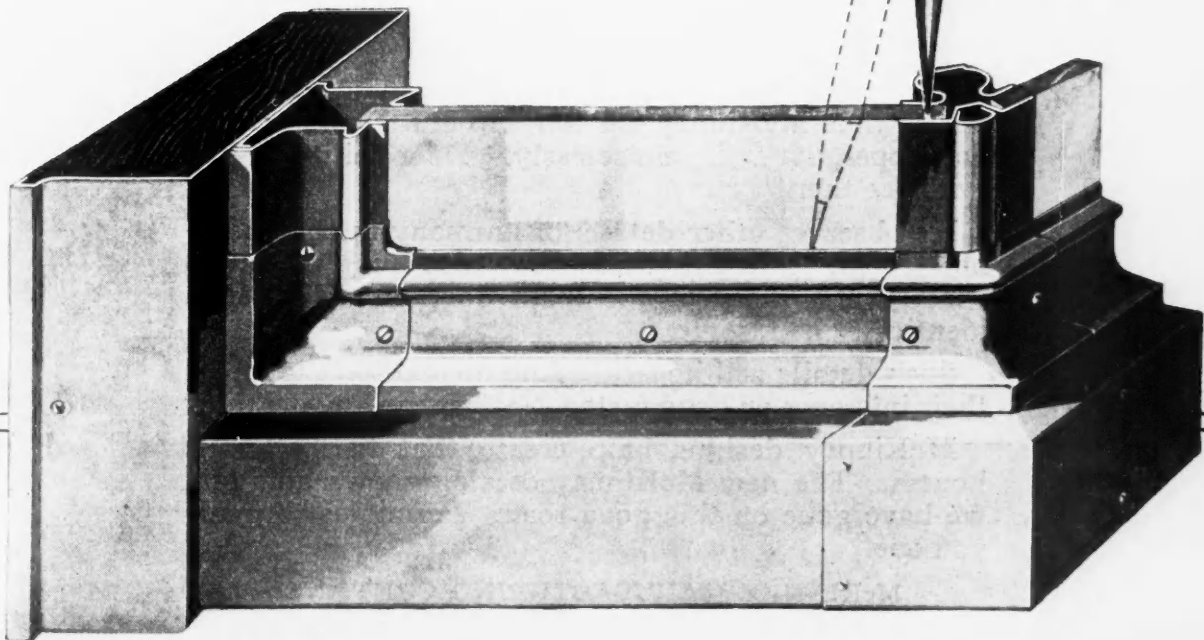
THE
Kawneer
COMPANY

2726 Front Street

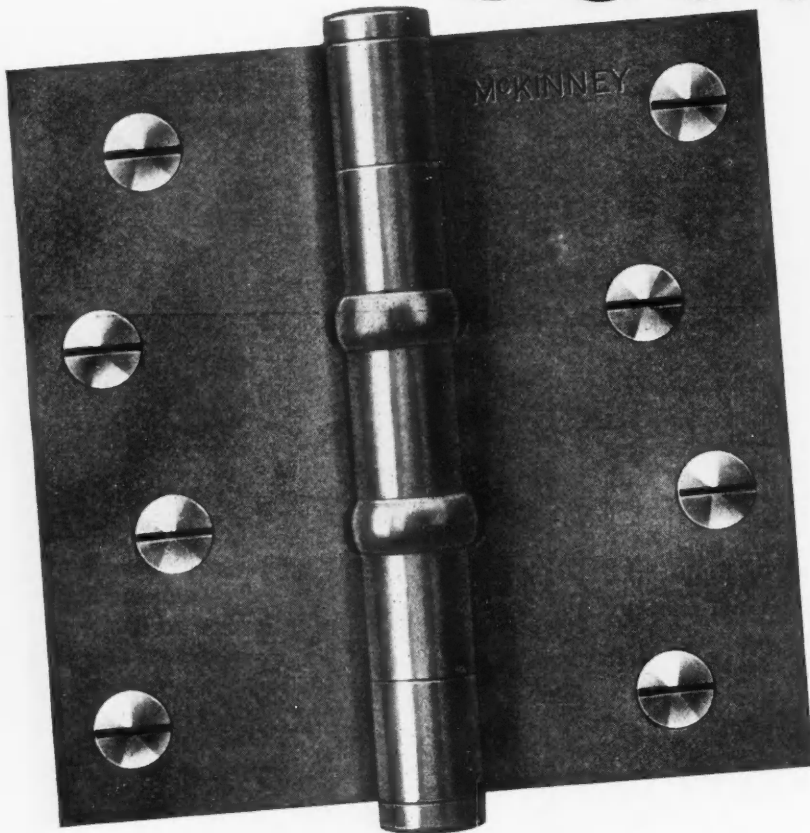
Niles, Michigan



The picture below shows the resilient spring grip of Kawneer sash and bars on plate glass.



The selling value of Good Taste



McKINNEY Button Tip Butts

All McKinney door butts are made regularly with button tips as well as ball tips. The smaller, lighter weight cupboard or cabinet butts can be supplied with these button tips to correspond with the butts on the passage doors.

THERE is usually some one room in a house which chiefly sells it. As the possible buyer opens its door, the moment is crucial.

Here is charming proportion; a pleasing vista; a delightful outlook; masterly planning; . . . and, noting these vital values, the critical mind also observes that McKinney Button Tip Butts swung the door open . . . noiselessly. Door-ability is in evidence then!

He observes other details of harmony in that keynote room. The closet doors are also hung on butts exactly like those of the main door. Smaller, but identically handsome.

Such details sell houses! And no architect ignores their influence on good taste. Neither can any builder.

McKinney designs help create that harmony in houses. The new McKinney catalog shows how far we have gone on this good road. Permit us to mail you one.

McKINNEY MANUFACTURING COMPANY
Pittsburgh Chicago



Residence at Longview, Wash.—A. N. Torbit, Architect.

A home of your own—
what more lasting invest-
ment, what more genuine
satisfaction!

Safeguard the home investment

Make sure of the *permanence* of your home investment. No matter how modest the home must be, make it substantial.

Long-Bell lumber products aid careful builders in making certain that the family savings will not be jeopardized.

Among the points of dependability in Long-Bell trade-marked lumber are:

This lumber comes full length, uniform in width and thickness.

It goes into construction with the minimum of labor cost.

It shows uniformity of grading.

It has uniform seasoning in both kiln and air-dried stock.

Don't risk using inferior materials.

Long-Bell trade-marked lumber is obtainable through many established lumber dealers. Ask YOUR lumberman.

The Long-Bell Lumber Company
602 R. A. LONG BLDG. KANSAS CITY, MO.

LONG-BELL

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER



If you are building, or planning to build, you will find the Long-Bell booklet, "Saving Home Construction Costs," a valuable aid. Send for your copy.



C. O. Jones, owner

Apartment in Kansas City, Mo.

Chas. Callahan architect

A 3-room apartment for 3 or 4 people

An efficiently arranged floor plan gives the tenants of this building the comfort and convenience of a 5-room apartment at the cost and household care of one that is 2 rooms smaller.

The bedroom with its construction, furnishing and other costs has been eliminated. However, adequate facilities for clothes storage and dressing have been maintained as has the privacy and accessibility of the bathroom.

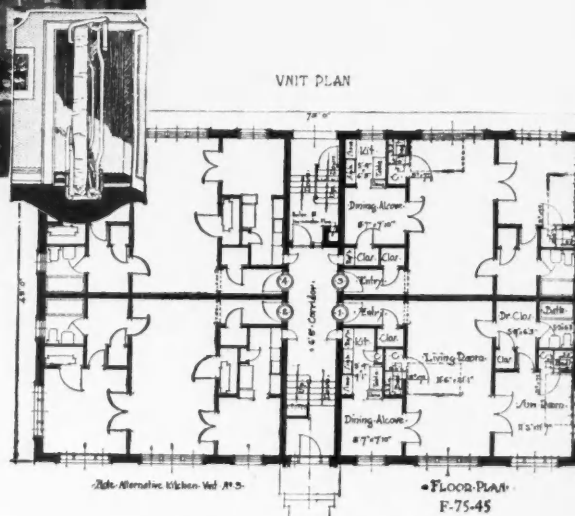
By use of Murphy In-A-Dor Beds the living and sun-rooms make ideal sleeping rooms.

The Murphy is not a folding bed, but a safe, sanitary, sleep-inviting bed. *It swings through an ordinary 3-ft. door.*

Notice the compact and efficient kitchen arrangements, the small corridor, the location of the service-door with reference to the service-stairs and that there are two bathrooms on one stack.

There is only one In-A-Dor Bed—"The Murphy"

The Murphy Cabinet Ironing Board is meeting with enthusiastic approval. Ask about it.



Four 3-room apartments to the floor

Our Technical Department is at the disposal of architects and builders to assist in your layout problems. Service gratis. Write for full information and examples of Murphy installations.

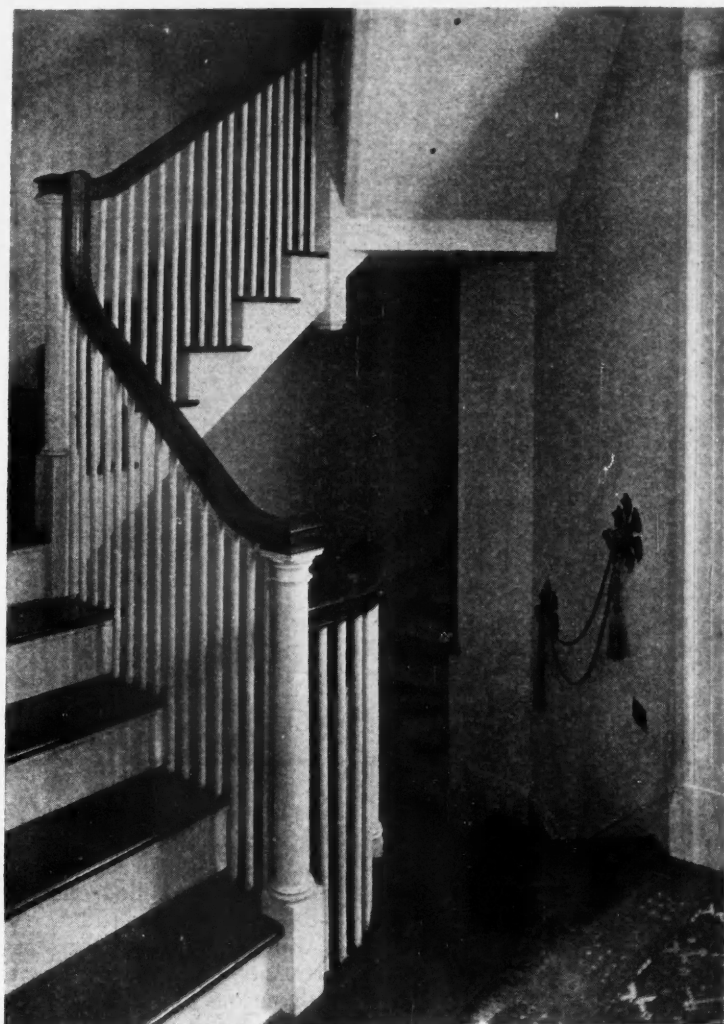
THE MURPHY DOOR BED COMPANY

Offices and Display Rooms in All Principal Cities

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22 West Monroe Street, Chicago
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The MURPHY
 IN-A-DOR BED



RICHNESS AND REFINEMENT

The Winding staircase with its Genuine Mahogany hand rail and stair treads speaks of richness and refinement. The cost of using this Mahogany was very little more than that of other less beautiful cabinet woods, painted or stained.

In the small home where the doors and door-casings, window-trim and all other interior woodwork are made of Genuine Mahogany, you will find that a money value is added to the house which can be secured in no other way.

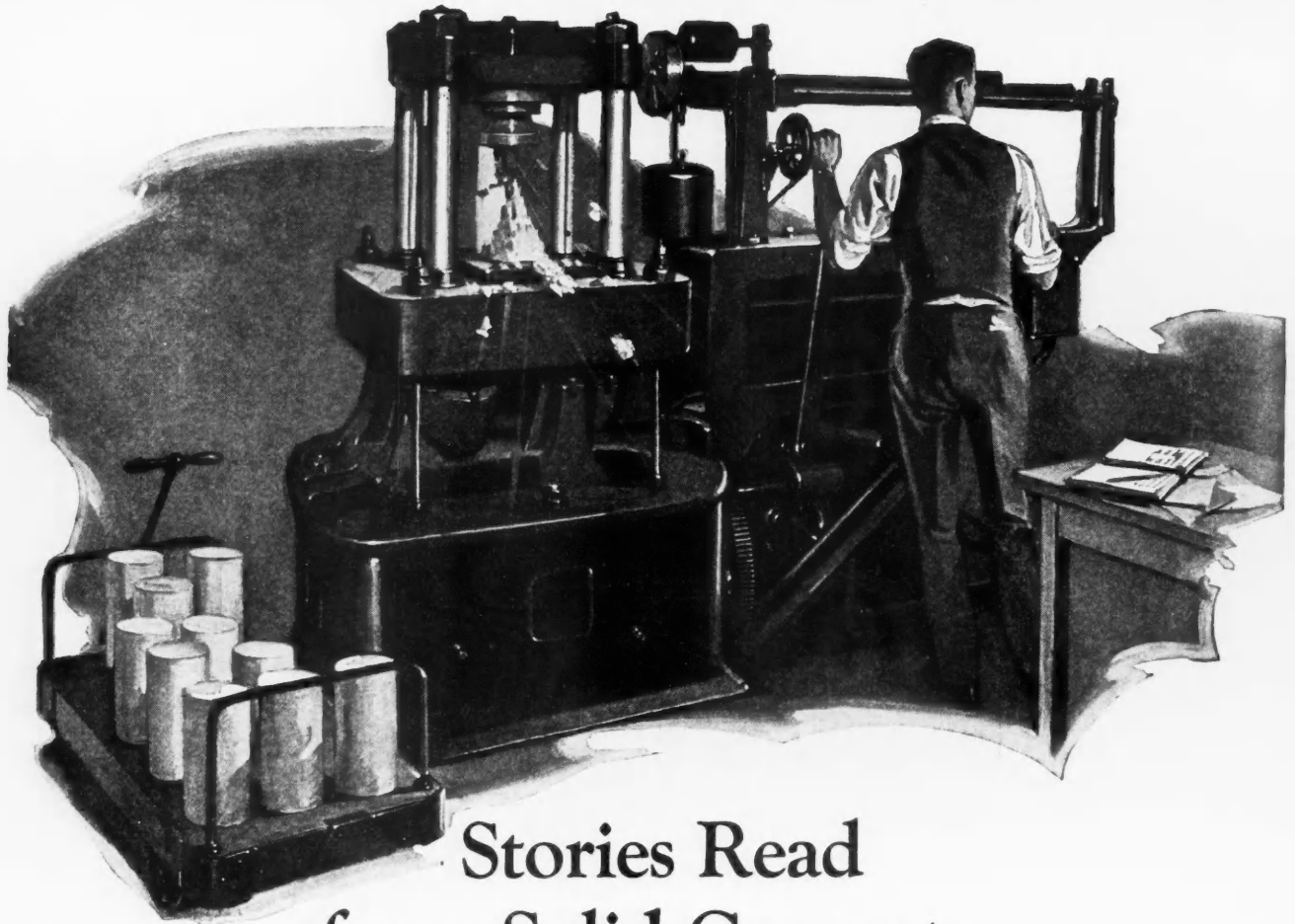
There is no better selling argument than — "This house is trimmed throughout in Genuine Mahogany."

MAHOGANY ASSOCIATION, INC. 1133 BROADWAY, NEW YORK

FURNITURE

MAHOGANY

WOODWORK



Stories Read from Solid Concrete

From characters graven on tablets picked up in dusty Egyptian and Babylonian ruins scientists read the stories of ancient civilizations.

Every day in a Chicago laboratory other scientists translate from concrete cylinders stories of infinitely greater importance to men and women of today.

A research engineer sets a 6-inch cylinder of concrete on a heavy press. Hidden machinery starts. The huge apparatus commences to register pressure — 100,000 pounds, 150,000 pounds, perhaps 200,000 pounds. The cylinder fractures with a report like a one-pound gun. The engineer jots down some figures, clears the press and prepares to test another cylinder.

For such testing machines are only a small part of the equipment of the Structural Materials Research Laboratory, which has been maintained by the Portland Cement Association in cooperation with the Lewis Institute, Chicago, since 1916.

Patiently and with scientific exactness the engineers carry on their constant research. Per-

haps five years have elapsed since these cylinders of concrete were made at the laboratory. Thousands of them are kept on hand, aging under carefully controlled conditions. Testing them to destruction helps to prove one of the scores of things which the laboratory is studying — the relative strength of concrete when made with various proportions of water; with aggregates of various size and grading; when mixed for various lengths of time.

Over 240,000 experiments and 150,000 test pieces have been made in this laboratory during the past five years.

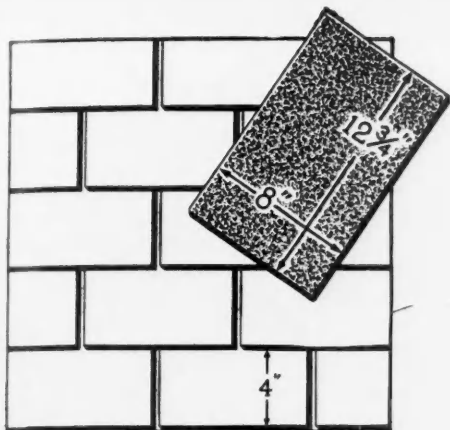
Those who build great structures, roads, and homes, are daily profiting from the economies which this laboratory's research work has made possible, for everything it learns is made available to everyone who wants the information, without charge.

By saving money for you and other cement users — by helping you to get better concrete — the cement industry through its laboratory aims to serve.

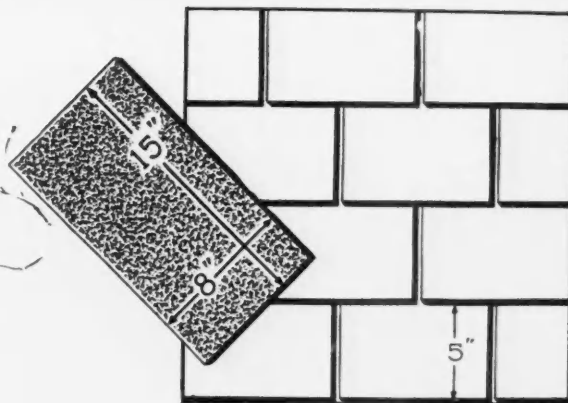
PORTLAND CEMENT ASSOCIATION

*A National Organization
to Improve and Extend the Uses of Concrete*

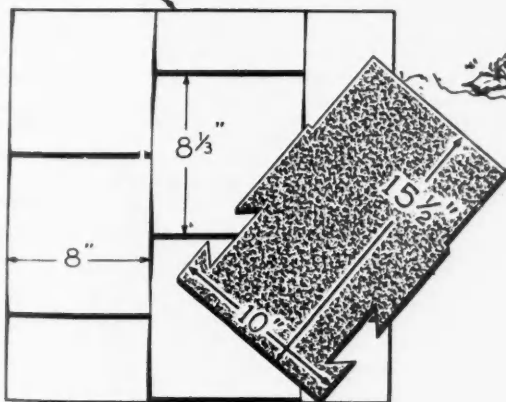
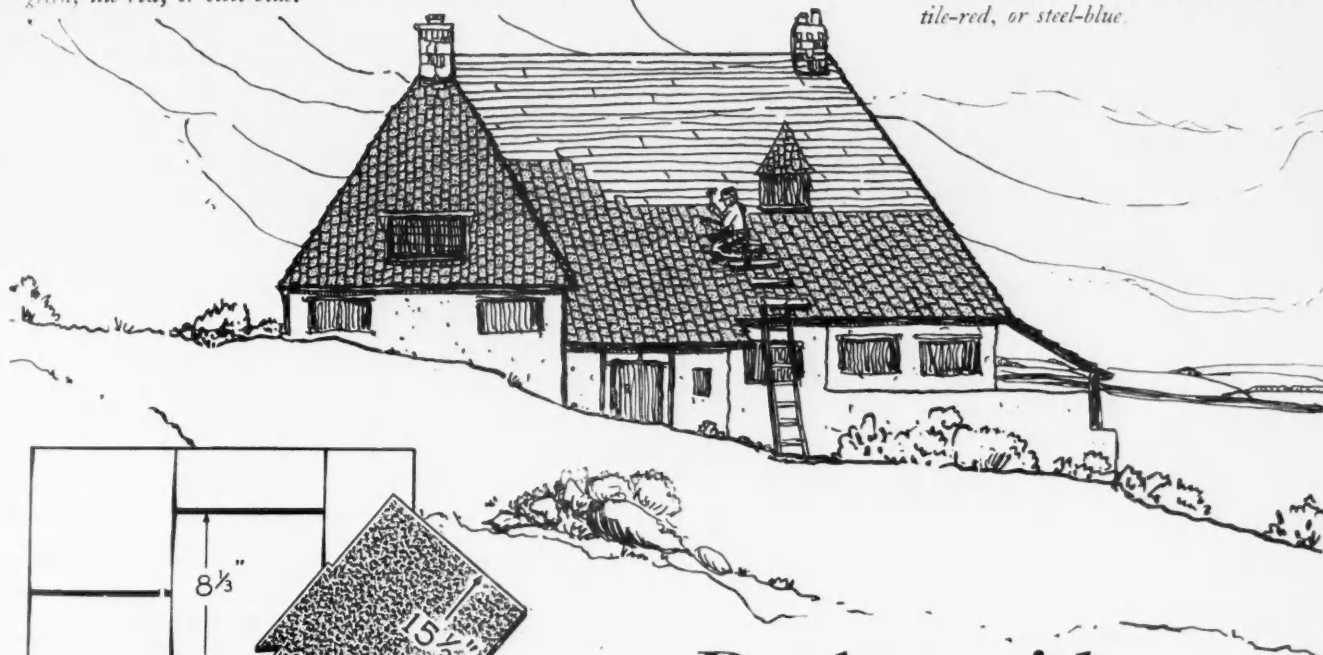
Atlanta	Des Moines	Los Angeles	New York	Salt Lake City
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Denver	Kansas City		Raleigh, N. C.	Washington, D. C.



Ruberoid Standard-size Unit-shingles. Made in the standard weight, measuring 8-in. x 12³/₄-in. and intended to be exposed 4-in. to the weather. Sage-green, tile-red, or steel-blue.



Ruberoid Extra-size Unit-shingles. Made in extra-heavy weight, measuring 8-in. by 15-in. and intended to be exposed 5-in. to the weather. Sage-green, tile-red, or steel-blue.



Ruberoid Extra-size Units (Interlocking). Made extra heavy, measuring 10-in. by 15¹/₂-in., to be laid two ways. The customary shingle effect is obtained when the square butts are laid downward, exposed 5-in. to the weather. When fastened with hooked butts downward, the exposed butt of each shingle interlocks with adjacent shingles, producing thatched effect. Sage-green, tile-red, or steel-blue.

Ru-ber-oid Quality Satisfies

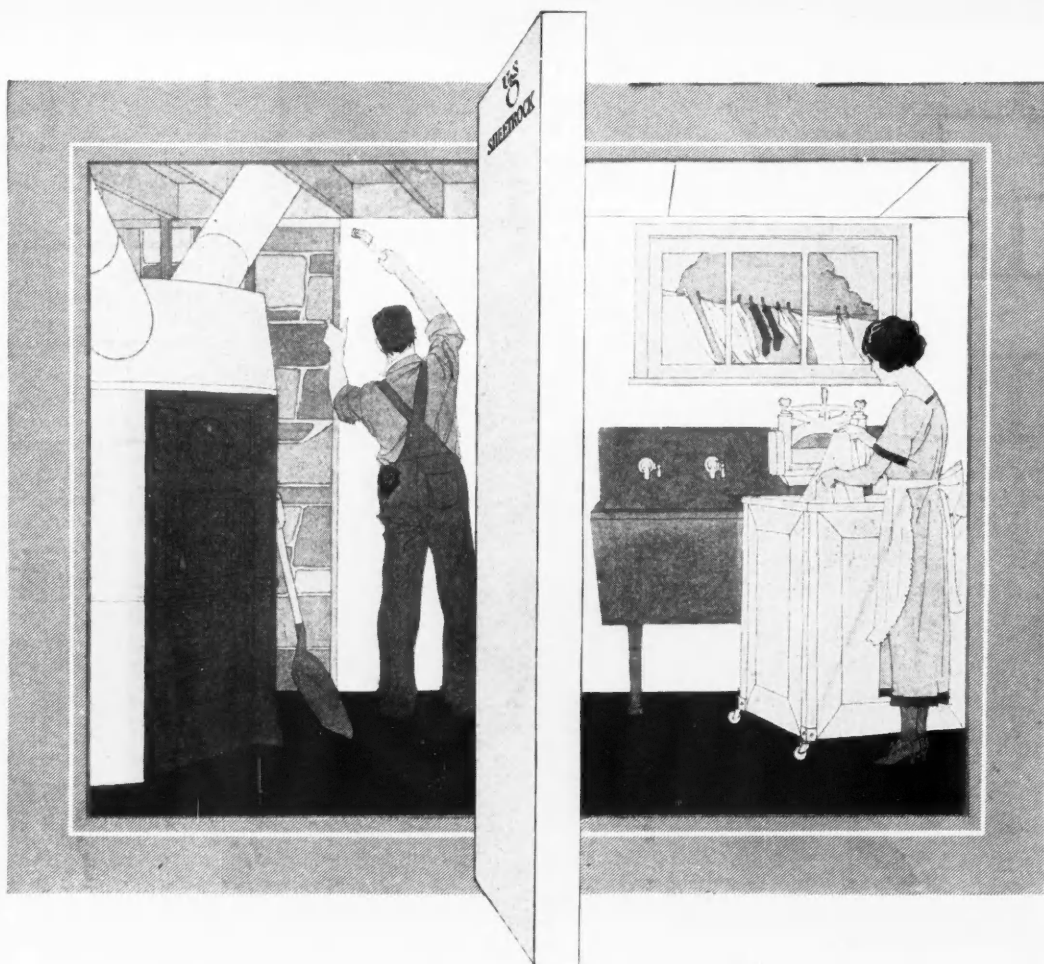
To keep satisfied customers, recommend roofs of the highest quality—Ruberoid quality. Your clients have a choice of three forms of Ruberoid Unit-shingles—any of which will safeguard your reputation as a good builder.

The RUBEROID Co.
95 Madison Avenue, New York

Chicago

Boston

RU-BER-OID
SHINGLES AND ROOFING



Go after the remodeling work—it's *profitable*

Now—while people are thinking about ways of making their houses more comfortable next winter and cutting down fuel bills—line up Sheetrock remodeling jobs and *make more money*.

Point out to building owners in your locality how basements can be made draught-proof, dust-tight and fire-safe with Sheetrock. Tell them how it protects attics, garages, stores and offices against moisture and cold.

You know Sheetrock is a great insulator. It is gypsum, cast in thick, rigid, non-warping sheets. It is fireproof. Saws like lumber. Just nail it to the joists or studding and the job is done, at very moderate cost.

Your dealer in lumber or builders' supplies sells Sheetrock. Mail the coupon today for a sample and a free copy of the Sheetrock Time Book.

Sheetrock is inspected and approved by The Underwriters' Laboratories, Inc.

SHEETROCK

Reg. U. S. Pat. Off.

The FIREPROOF WALLBOARD

UNITED STATES GYPSUM COMPANY, General Offices: Dept. A, 205 W. Monroe St., Chicago, Ill.
World's Largest Producers of Gypsum Products

Clip and mail this coupon today!

UNITED STATES GYPSUM COMPANY, Department A, 205 W. Monroe St., Chicago, Ill.
 Please send me the Sheetrock sample and the free Time Book.

Name.....

Address.....

Sheetrock comes in standard sizes: $\frac{3}{8}$ inch thick, 32 or 48 inches wide and 6 to 10 feet long

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER

ORIGINAL
The PAINE Miracle Door
TRADE MARK REGISTERED
PATENTED JULY 10, 1923



Color—Walnut and Old Ivory

Costs only one dollar more than an ordinary door

Paine Lumber Company, Ltd.

Oshkosh, Wisconsin, U. S. A.

ORIGINAL
The PAINE Miracle Door

TRADE MARK REGISTERED
 PATENTED JULY 10, 1923

PANAMA PACIFIC
 INTERNATIONAL EXPOSITION



1915

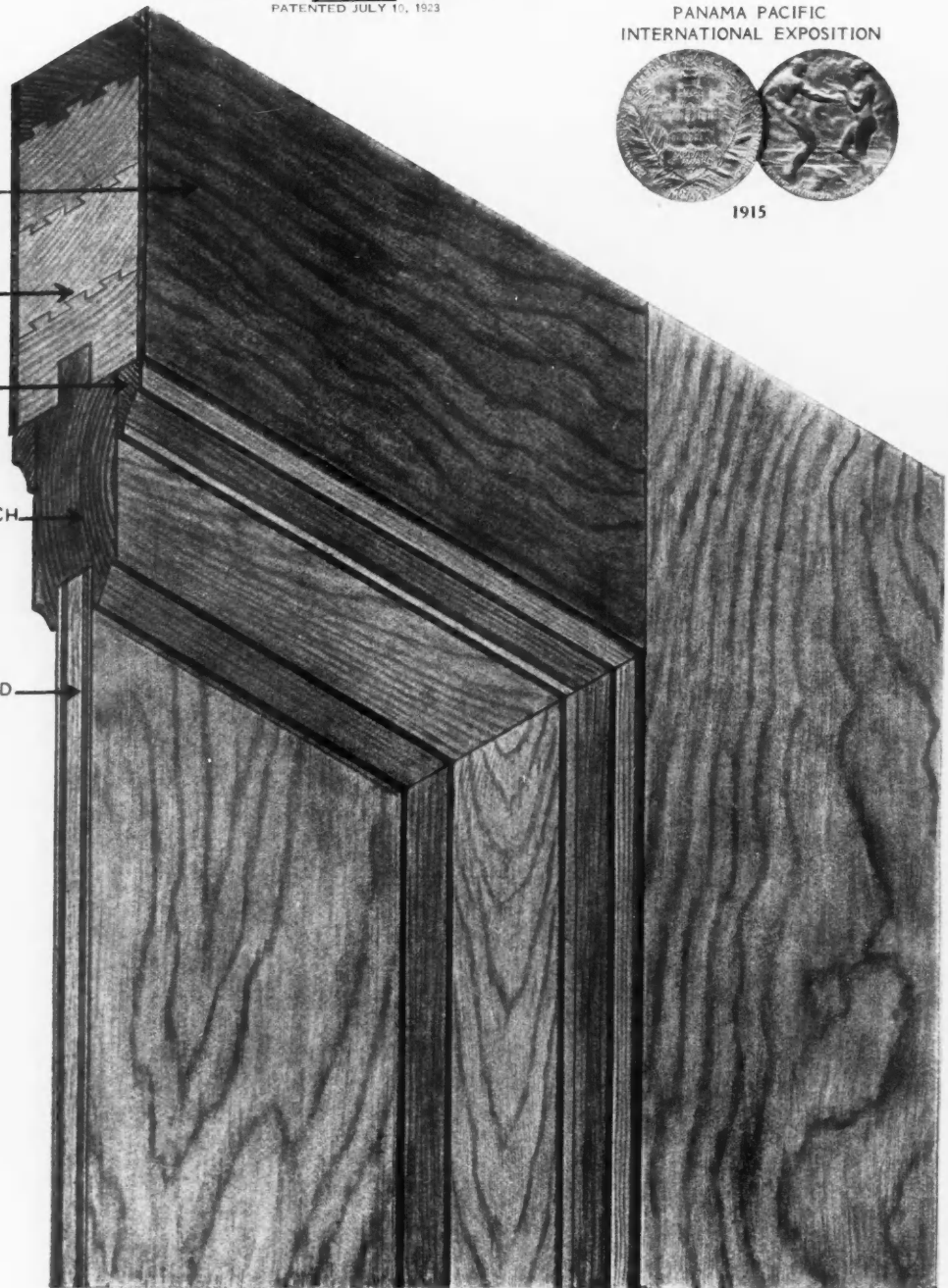
VENEERED BIRCH

KORELOCK CORE

MOULDING

INSERT FRAME BIRCH

FIVE PLY VENEERED
 BIRCH PANEL



Construction of Paine's Miracle Door

The Miracle Door costs only one dollar more than an ordinary door

The Miracle Door is everything its name implies in quality, construction and price. It combines the simplicity of a one panel door with the richness of a moulded door. It is a cabinet shop product at the price of a stock door. It harmonizes with all styles of trim and all colors of finish. Like all Paine products it is fully guaranteed.

Wholesale stocks of Miracle Doors carried in over eighty cities. For sale by all dealers or write us direct. Catalogs are ready for distribution.

Paine Lumber Company, Ltd.

Oshkosh, Wisconsin, U. S. A.

ORIGINAL
The Paine Miracle Door
TRADE MARK REGISTERED
PATENTED JULY 10, 1923



Color—Brown Mahogany and Old Ivory

Costs only one dollar more than an ordinary door

Paine Lumber Company, Ltd.

Oshkosh, Wisconsin, U. S. A.

ORIGINAL
The PAINE Miracle Door

TRADE MARK REGISTERED
PATENTED JULY 10, 1923

PANAMA PACIFIC
INTERNATIONAL EXPOSITION



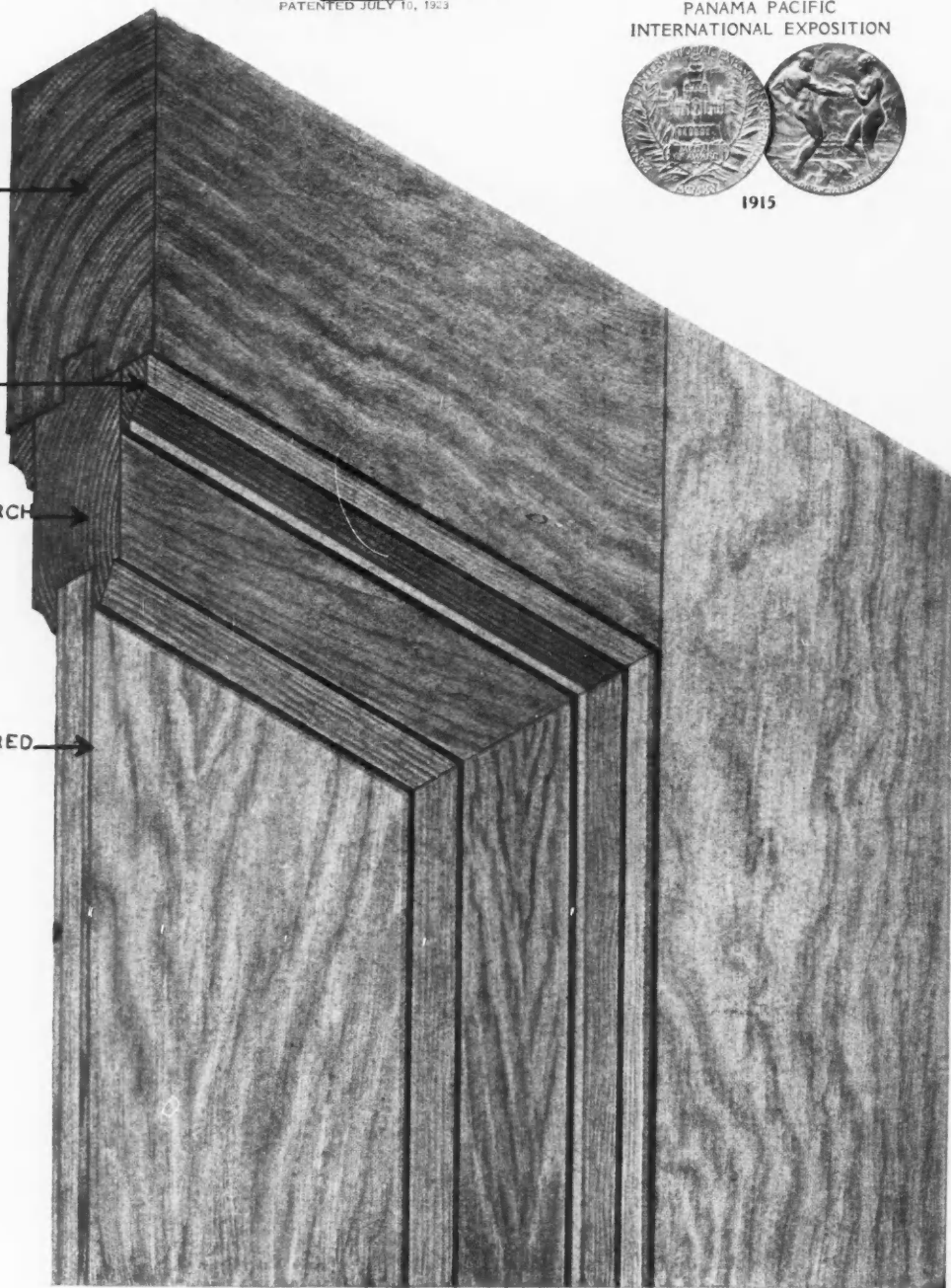
1915

SOLID SOFT WOOD
RAIL

MOULDING

INSERT FRAME BIRCH

THREE PLY VENEERED
BIRCH PANEL



Construction of Miracle Softwood Frame Door

The Miracle Door costs only one dollar more than an ordinary door

The Miracle Door marks an epoch in the door industry and is the greatest value ever offered in doors. It is built and guaranteed by an Organization that holds all the gold medals ever awarded the door industry. In producing the Miracle Door, we start in the forest and operate from tree to finished product with the largest woodworking plants in the world.

Wholesale stocks of Miracle Doors carried in over eighty cities. For sale by all dealers or write us direct. Catalogs are ready for distribution.

Paine Lumber Company, Ltd.

Oshkosh, Wisconsin, U. S. A.

ADOPTION OF ACME BLOCKS BY NEW JERSEY STATE PRISON DEPARTMENT

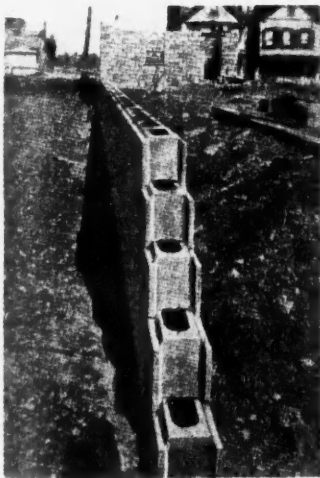
More Than Justifies Our Claim for ACME INTERLOCKING TILE

The letter below is an exact copy of one we received from State of New Jersey, Alan B. Mills, Director, Division of Architecture and Construction.

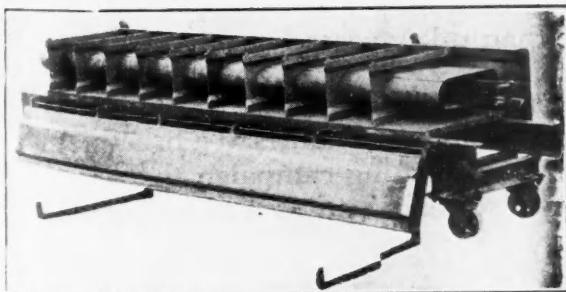
READ IT



View showing ACME INTERLOCKING TILE being used by New Jersey State Prison Department in Construction of this building.



Retaining wall in course of construction built of ACME INTERLOCKING TILE, showing continuation of air spaces and interlocking features.



The new Acme All Steel Mold with one piece collapsible Core, equipped with Roller bearing casters. The manufacture of this Perfect Tile brings enormous profits to you. Get the exclusive manufacturing rights in your locality..

Write at once for full information.

STATE OF NEW JERSEY
DEPARTMENT INSTITUTIONS AND AGENCIES
DIVISION OF ARCHITECTURE AND CONSTRUCTION

Trenton, April 19, 1923
SUBJECT: Acme Tile Company's Blocks
ADDRESS REPLY TO Alan B. Mills, Director
FROM Alan B. Mills, Director
TO Acme Tile Company,
No. 125 Prospect Street,
Passaic, New Jersey.
Gentlemen:--

I acknowledge receipt of your letter of April 17th with reference to the Acme blocks.

I made a thorough investigation of the concrete blocks on the market, endeavoring to locate a block which would be satisfactory for use in our State buildings, and which could be manufactured under what is known as our State Use System. Experience with dry mixed blocks have proven unsatisfactory, and in order to create a cement products industry in our penal institutions, we made a careful survey of products as well as types of blocks, as suggested above, with the result that the block made by the Acme Tile Company of Passaic, proved to be best that I had seen. Their strength and density after manufacturing and the adaptability of blocking in construction seemed to me to be particularly good qualifications.

With this in mind, we bought equipment and installed the industry in our State Prison, and have just completed an erection of a building from blocks made by our own Prison labor, which you can appreciate is non-skilled. The results were more than we anticipated, and we have confirmed our belief that we will get remarkable results from this block.

I cannot too highly recommend the use of these moulds in making blocks and believe that it would be a success to any one who is interested in a commercial product of this character.

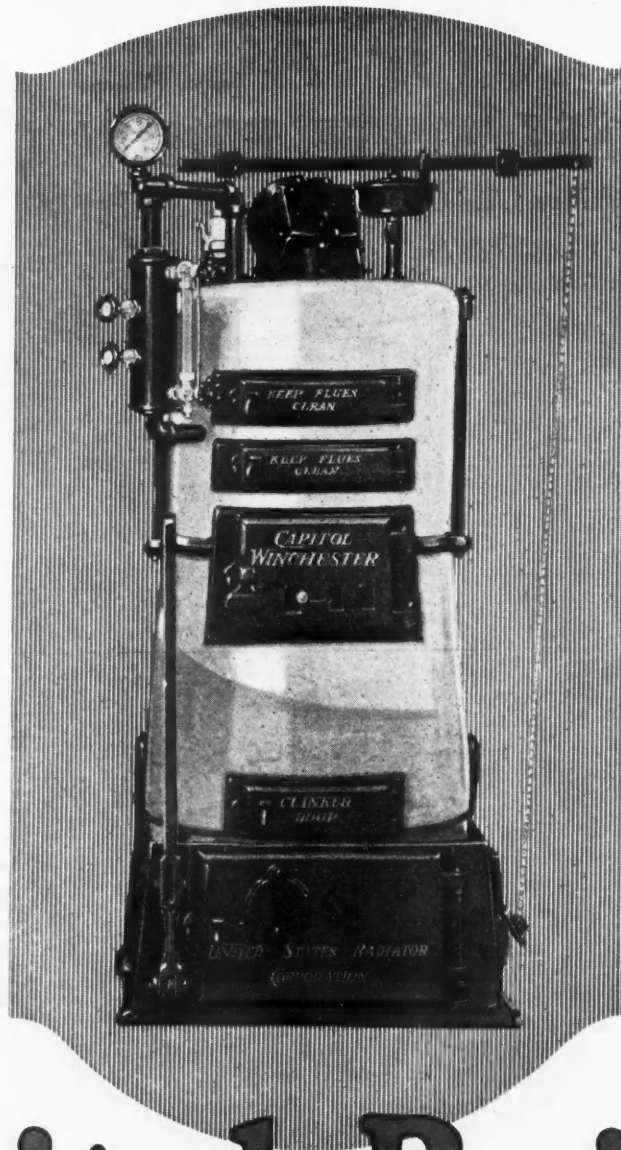
Should you desire any further information, I will be pleased to forward it. I am enclosing photographs of building, erected from this block, during the course of construction.

Yours very truly,
DEPARTMENT INSTITUTIONS AND AGENCIES,
ALAN B. MILLS, Director,
Division of Architecture & Construction.

ABM-P - Enc

THE ACME TILE COMPANY

125 PROSPECT STREET PASSAIC, NEW JERSEY



Capitol Boilers

In every field of manufacturing there are products which occupy a position of leadership and enjoy the whole hearted respect and confidence of the nation.

Such products are easy to sell because they represent definite standards of quality and a well developed sense of obligation on the part of the manufacturer.

In the foremost rank of this preferred group you will find Capitol Boilers—fixed, dependable standards of the heating field with a service record of more than thirty years.

Such is the message that is being conveyed to millions of homes in a broad, national advertising campaign that is designed to serve you as well as ourselves.

UNITED STATES RADIATOR CORPORATION

General Offices, Detroit, Michigan
Branch and Sales Offices

*Boston
*Springfield, Mass.
*Portland, Me.
New York

*Brooklyn
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*Philadelphia
*Baltimore

Buffalo
Pittsburgh
*Cleveland

*Columbus
*Cincinnati
*Detroit

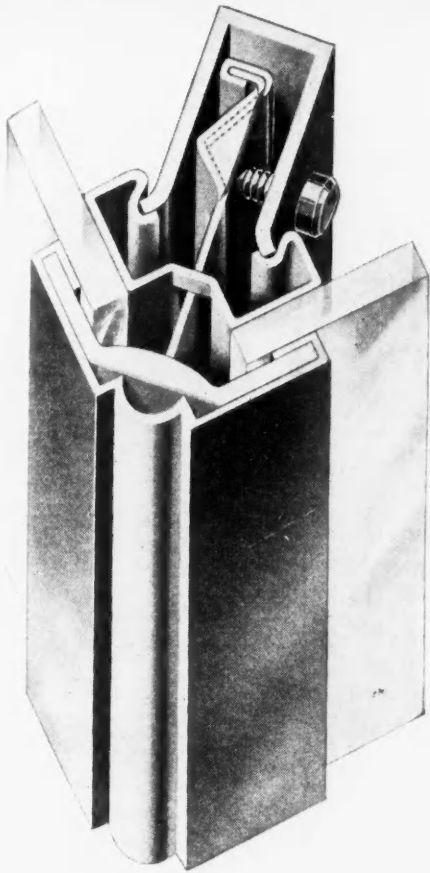
*Chicago
*Indianapolis
*Milwaukee

*Minneapolis
*Des Moines
*Omaha
*St. Louis

*Kansas City
*Seattle
*Portland, Ore.
*Louisville

*Warehouse stocks carried at points indicated by star

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER



This **KEY** is Insurance
Against Plate Glass Breakage

Zouri

SAFETY METAL

STORE FRONTS

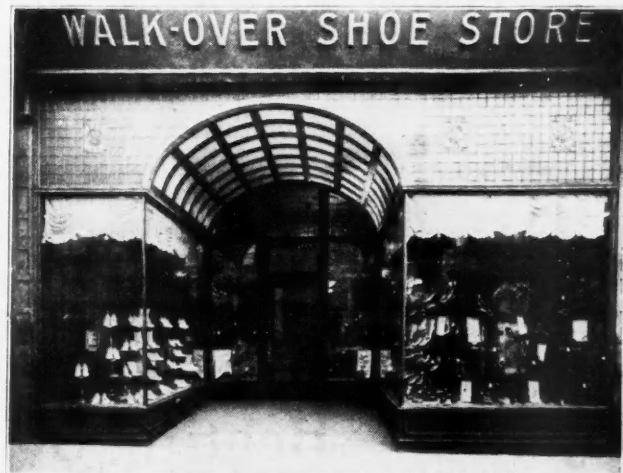


The famous Zouri Key-set type of construction positively prevents glass breakage due to faulty construction because it brings the glass into firm and even contact with the full face of the rigid rabbet. An exclusive feature of the Zouri fronts, the Murnane Self-adjusting Setting Blocks, makes it unnecessary to pry the glass into position.

Zouri Fronts are strong, economical and attractive in design. Detailed specifications, scale drawings and the benefit of our years of experience in store front design and installation are yours to command.

Nation-Wide Service

There is a distributor near you who carries a complete stock of Zouri and International Store front construction. Ask us for his name. There is no obligation.



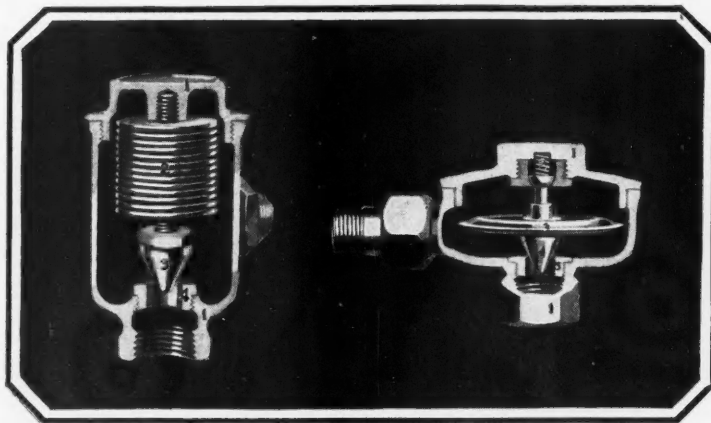
WALK-OVER
has the benefit
of **CONTINUOUS**
Display when
the Store Fronts
are **ZOURI**

Zouri Drawn Metals Company

General Office and Factory: 1803 East End Ave.

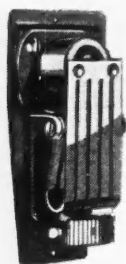
CHICAGO HEIGHTS, ILLINOIS

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER

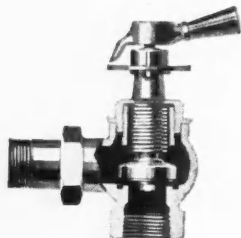


Bishop-Babcock
Multiflex Trap

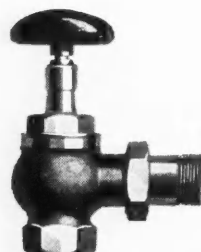
Bishop-Babcock
Vacu-Trap



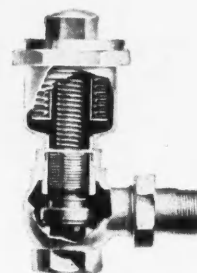
Bishop-Babcock
All-Metal Thermostat



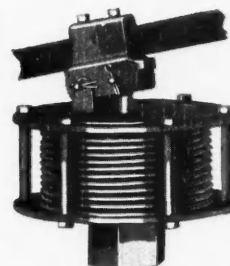
Bishop-Babcock
Modulation Valve



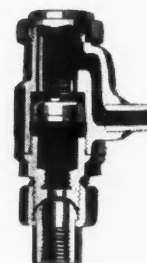
Bishop-Babcock
Full Open Valve



Bishop-Babcock
Pneumatic Valve



Bishop-Babcock
Steam Damper Regulator



Bishop-Babcock
Vacu-Stat

THE General Motors Building in Detroit, St. Joseph's Hospital in South Bend, the Union Trust Building in Cleveland, the R. H. Macy Company warehouse in New York, the Windermere Hotel addition in Chicago—these are but a few of the thousands of heating systems which are equipped with Bishop-Babcock Traps.

Both designs, the Multiflex Trap and the Vacu-Trap, are operated on the thermostatic principle, and are automatic and unfailing in their operation. Both are noiseless, trouble-proof, long lasting.

Send for illustrated folder containing detailed description, diagrams, sizes, capacities and roughing-in dimensions. Write to any of the offices listed below or to The Bishop & Babcock Company, Cleveland, Ohio.

New edition of Bishop-Babcock Engineering Data Book just off press, pocket size. Copy sent upon request.

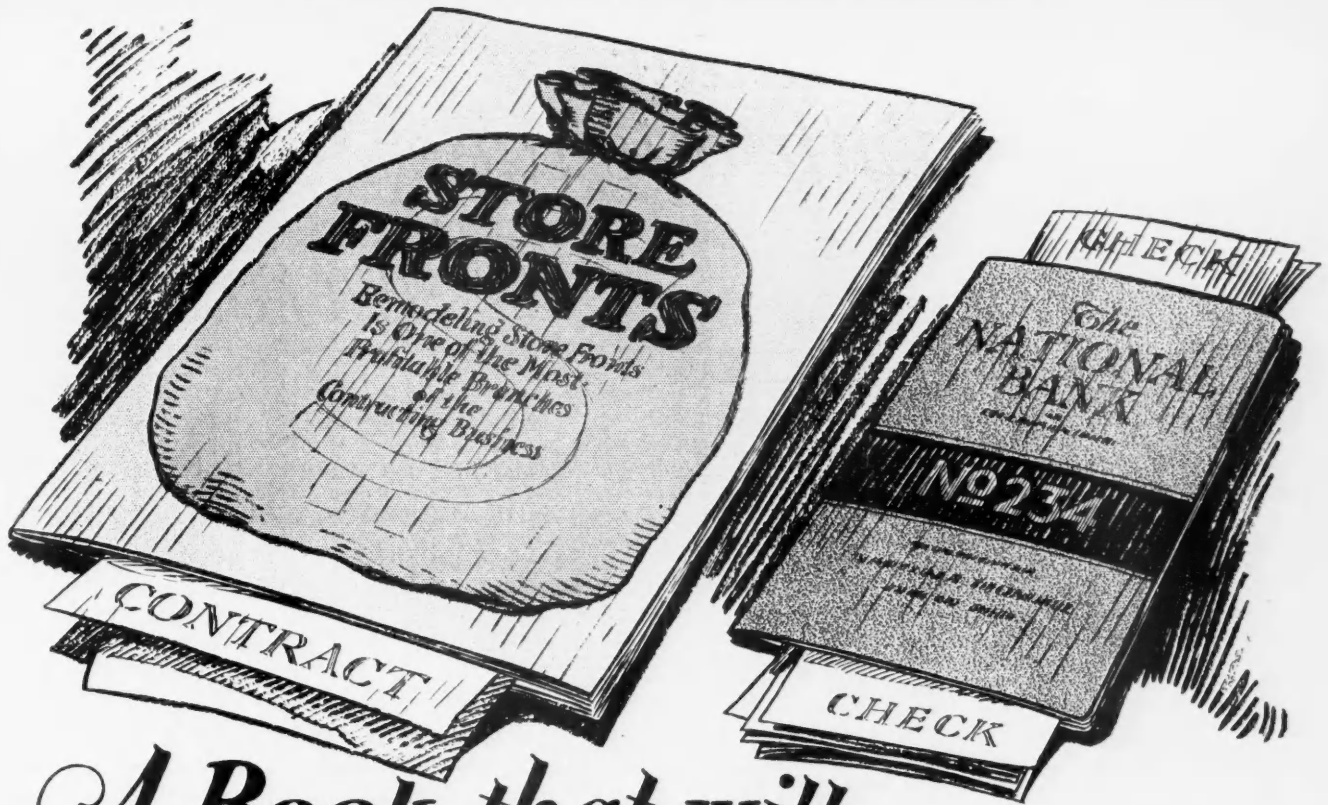
Bishop-Babcock Heating Systems

—for all standard installations
—for temperature control installations

World's Most Complete Line of Heating Specialties

Sales and Service Offices of The Bishop & Babcock Company

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DALLAS, TEX.—Fred Colbert, 1106 Commerce Street		



A Book that will add to your bank account

All merchants who expect to prosper are being forced by competition into the use of attractive modern Store Fronts. Are you getting your share of these new installations?

This Store Front book tells the contractor how to locate prospects and secure profitable contracts. It tells how to handle such contracts quickly, efficiently and profitably. It tells how to get business regardless of competition by offering the proper style of Front and correct materials.

Desco Store Front installation can be handled by any contractor with his regular employees because of the simplicity of the construction. The construction reaches the job ready for immediate installation. All parts fit accurately. Drainage, ventilation and protection of the glass from vibration are provided for in the construction.

One or two attractive Desco Fronts will establish you as the Store Front specialist in your city. This book tells how to secure the first prospects and how to make them sell others. Write for it.

Desco

METAL

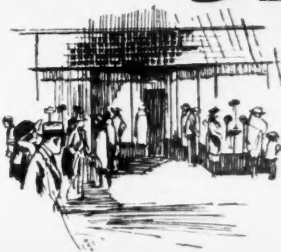
DETROIT SHOW CASE COMPANY

1654 Fort St. West

Detroit, Michigan

(132)

STORE FRONTS



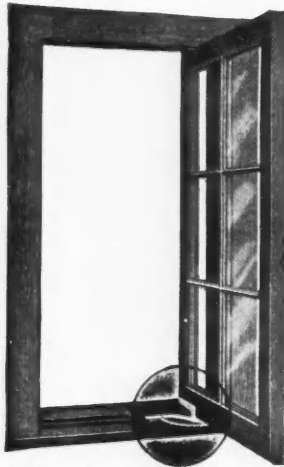
In many cities Desco is stocked by distributors who can fill orders immediately. Ask for the name of the distributor nearest you. See Sweet's catalog for Desco details.

Detroit Show Case Co.
1654 Fort St. W., Detroit Mich.

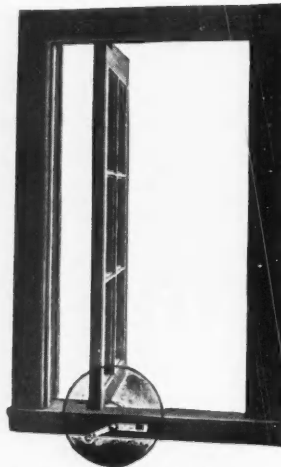
Without obligation on my part send me a copy of your book on Desco Store Fronts.

Name _____
 Business _____
 Street _____
 City & State _____

Are you familiar with this type of window



Looking in—Easily installed on any stock casement sash—Simple in design. Made of rust proof bronze.



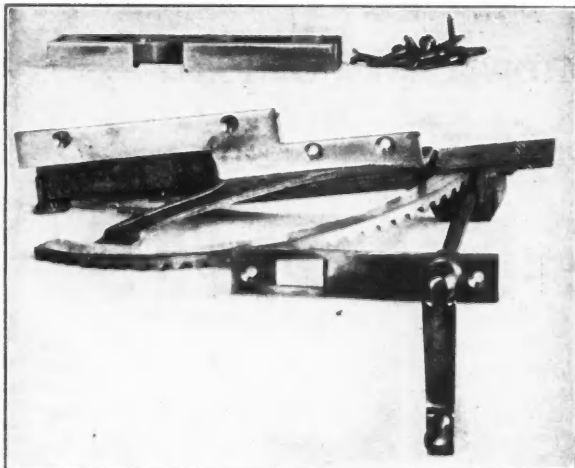
Looking out—Operated by worm gear, turned by a small control lever. Cannot stick.

Made possible by Carrier's Quadrant Adjuster. For use in public buildings, schools, hospitals, or residences where maximum ventilation, convenience and artistic effect are desirable.

Advantageous features of this type of window are—

- 1—Not necessary to move screens to open or close window.
- 2—Window is automatically locked in any position.
- 3—There are no fasteners or hinges required.
- 4—Eliminates any possibility of rattling or sagging.
- 5—Both sides of window easily cleaned from within the room.
- 6—Quickly and easily installed at a low cost.

Write for our Architectural Leaflet which contains detailed drawings and specifications.

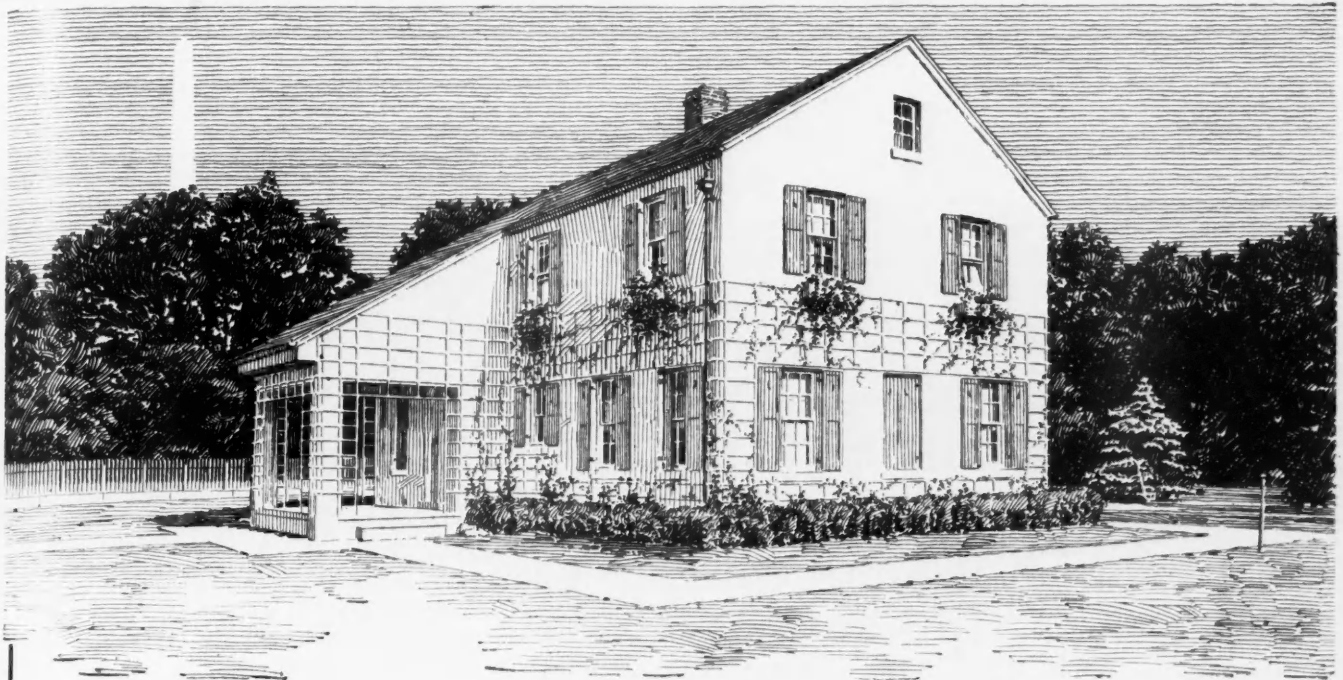


Carrier Quadrant Adjuster—in itself complete window hardware

Sweets and Architects'
Samples Corporations
New York



CARRIER ADJUSTER COMPANY
Casement Window Hardware
Asheville, North Carolina



The Most Remarkable House In America

HERE is the most remarkable house in America because in it resides, not a family, but a great idea—the idea of so building that rust has no opportunity to enter and levy its heavy toll of destruction and consequent replacement of rust-consumed metals.

This modern replica of "Home Sweet Home" was recently erected in Washington, on a lawn adjacent to the White House. In and on "Home Sweet Home" Copper, Brass and Bronze have been used not lavishly, but in such a way as to afford protection against rust-ruin at a very small initial cost.

Brass pipe and fittings in the plumbing, Solid Brass and Bronze hardware, Copper flashings, Copper leaders and gutters—the reasonable investment against rust which the Copper and Brass industries recommend in order to avoid the wastage by

rust of other metals in services for which they are utterly unfitted.

Hundreds of thousands of people have already visited "Home Sweet Home." These people, and the millions more who see our advertising, have firmly fixed in their minds the idea that Copper and Brass are the certain means of avoiding rust. That is why the building equipped with Copper and Brass is invariably easier to sell at a better price, and worth it.

We have told all about the rust-proofing of "Home Sweet Home" in the newest piece of literature, printed for distribution by you, with your name on it, to send to your list of customers and friends. Use the coupon below and tell us how many copies you want. No charge whatever.

COPPER & BRASS RESEARCH ASSOCIATION

25 Broadway - New York

Copper & Brass Research Association
25 Broadway, New York

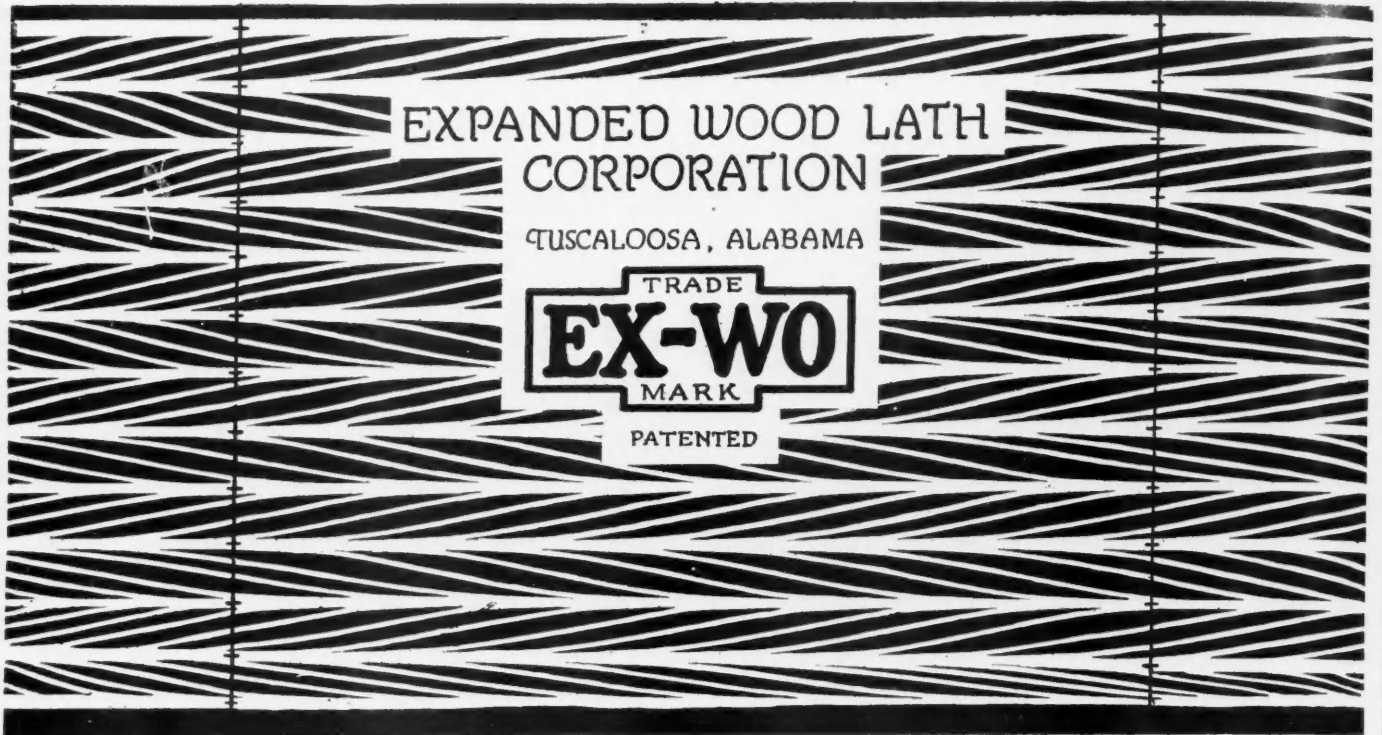
AB

Please send, free of cost, copies of the folder "Rust-Proofing Home Sweet Home," with my name as a building contractor imprinted as follows:

Name _____

Street No. _____

City _____



Expanded Wood Lath PROVED STIFFER THAN STANDARD CONSTRUCTION

Comparative tests made by Robert W. Hunt & Co., Engineers

Results of Test		
Actual Movement of Upper Sill		
Load Applied in Pounds	A—Lath and Sheathing	B—Expanded Wood Lath
200	0.06 inches	0.06 inches
400	0.15	0.13
600	0.26	0.20
800	0.59	0.29
1000	1.07	0.37
1200	1.93	0.51
1400	3.65	0.67
1500	5.13	0.92

IDENTICAL panels with frames four feet high and eight feet long constructed with sills and studs $1\frac{1}{4} \times 3\frac{3}{4}$ in. and studs placed 16 in. or centers, were prepared.

Frame A had one side covered with $\frac{3}{4} \times 6$ in. dressed sheathing nailed at each stud with 8D nails, and the other side covered with common lath spaced 2 in. on centers and staggered in the usual way.

Frame B was covered on both sides with Expanded Wood Lath sheets 8 ft. long and 16 in. wide, fastened at the juncture of each rib and stud with 5D nails.

In testing these panels the bottom sill was clamped to the base of testing machine and the pull applied to the top sill in the direction of its length.

Expanded Wood Lath, by this test, has been proven much stiffer than the old standard construction. But added to this advantage are its high insulating qualities and the much lower construction cost when used for either exterior stucco or interior plaster.

Automatically Backplasters

between the lath and asphalt felt. Not an ounce of material wasted. You get the intrinsic value and strength of every ounce used.

Complete Report of This Test and Descriptive Literature Will be Sent on Request

USE THIS COUPON

<p>Please mark X opposite your profession.</p> <p><input type="checkbox"/> Architect</p> <p><input type="checkbox"/> Contractor</p> <p><input type="checkbox"/> Builder</p> <p><input type="checkbox"/> Material Dealer</p> <p><input type="checkbox"/> Plasterer</p> <p><input type="checkbox"/> I am interested in your special dealers proposition.</p>	<p>Expanded Wood Lath Corporation, Conway Building, Chicago, Ill.</p> <p>Gentlemen: Please send me free samples and descriptive literature on Ex-Wo-Lath.</p> <p>Name of Firm.....</p> <p>Individual.....</p> <p>Address.....</p> <p>City..... State.....</p> <p>Date.....</p>
--	---

Answering the Question of

Even Heat Distribution

H EAT distributed evenly to every nook and corner of the home is obviously desirable. The attainment of this result, together with perfect ventilation and a uniform temperature day and night, is just one of many benefits realized with the FARQUAR HEATING and VENTILATING SYSTEM.

Some idea of the meaning of the above can be gained from reading the following unsolicited letter:

"The FarQuar Heating and Ventilating System has kept my house (7 rooms and bath) at a temperature of 70 to 75 degrees this winter. The self regulator has maintained an even temperature and the vent and return system has kept the air pure and sweet at all times—no smoke, dust, or gases, but just like fresh summer air.

"It regulates itself; requires firing only once every 24 hours, and is most economical in fuel consumption for I have only used five tons of soft coal to date (March 20, 1923)."

(C. D. Gloves—Missouri)

There are many reasons for the distinctive results achieved only by the FarQuar. What they are and what they mean are fully explained in an interesting booklet which will be sent free to Architects, Contractors, Builders and Home Owners on request.

The Farquhar Furnace Co.
309 FarQuar Building
Wilmington, Ohio

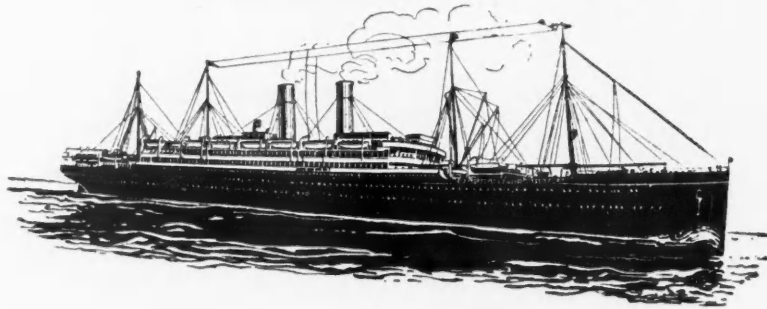
The FarQuar accomplishes results impossible with any other heating system

**Here's An
Opportunity
For Someone**

We can use the services of a few more men who can qualify as distributors. This is an unusual opportunity for the right man. If you are interested and are financially responsible, or if you happen to know of a good man who you think might be interested, write us for full particulars.



ANNOUNCEMENT
THE
GREAT NORTHERN
STEAMSHIP COMPANY
 (INCORPORATED)
BOSTON, MASS.



Announces that Arrangements are Now Being Made for Monthly

\$110 Round Trips to Europe

Boston — Southampton

\$110

ONE WAY \$65

Connecting for

London, Liverpool, LeHavre

Boston — Gothenburg

\$138

ONE WAY \$75

Connecting for

Christiana, Stockholm, Helsingfors,
Danzig, Riga, Copenhagen

THE ABOVE PRICES INCLUDE RAILROAD FARES TO POINTS AS FAR NORTH AS STOCKHOLM

The Company plans to carry approximately two thousand passengers monthly. Make your plans now for a trip during the coming season.

Lives of passengers will be protected by **EVER-WARM SAFETY-SUITS**
which prevent drowning and protect from exposure

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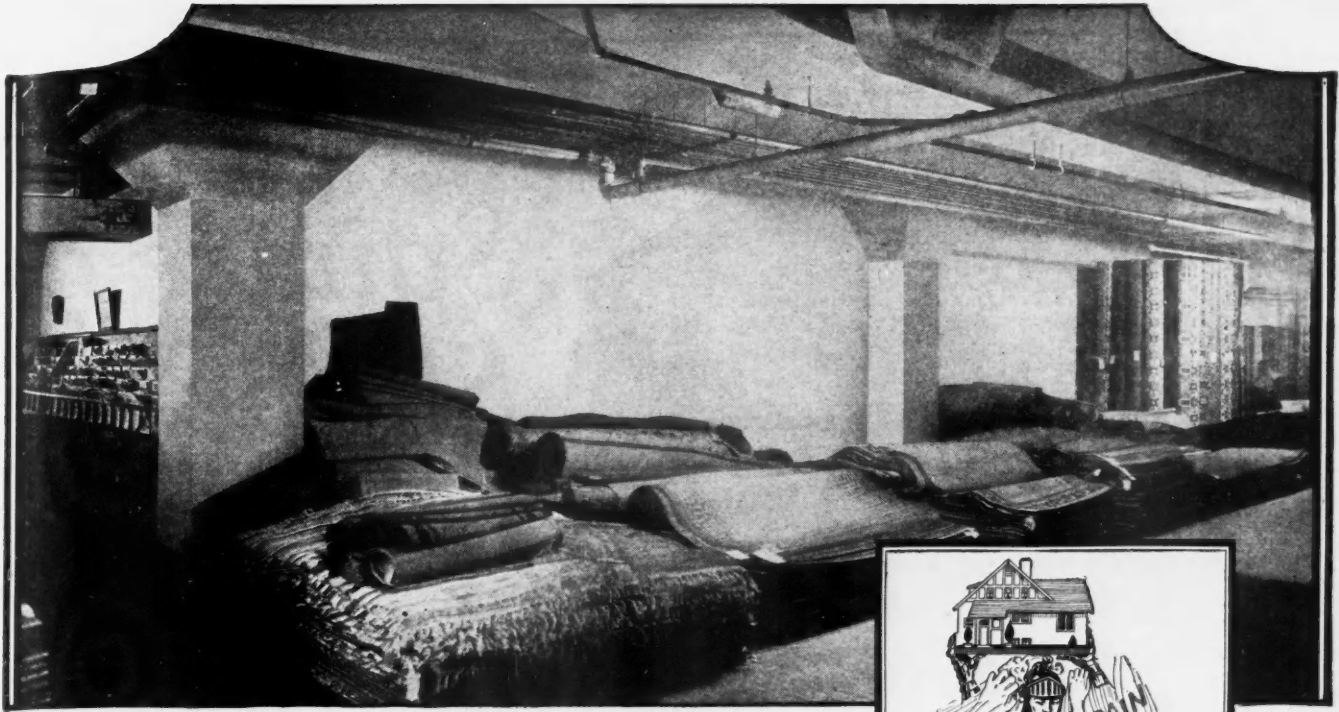
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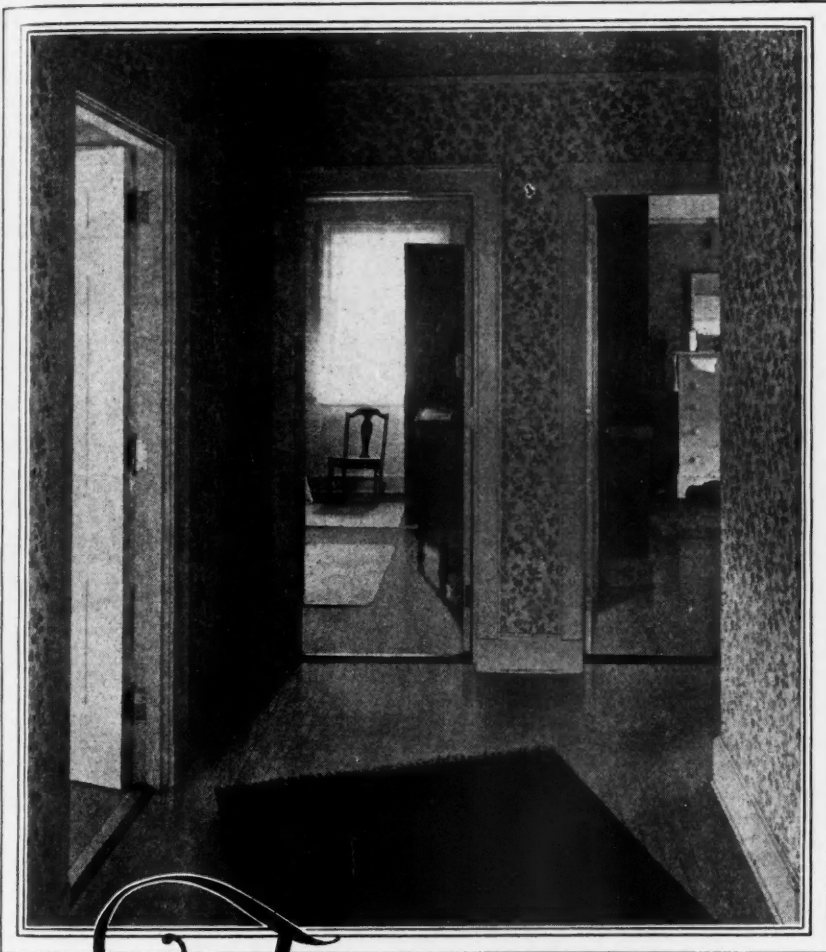
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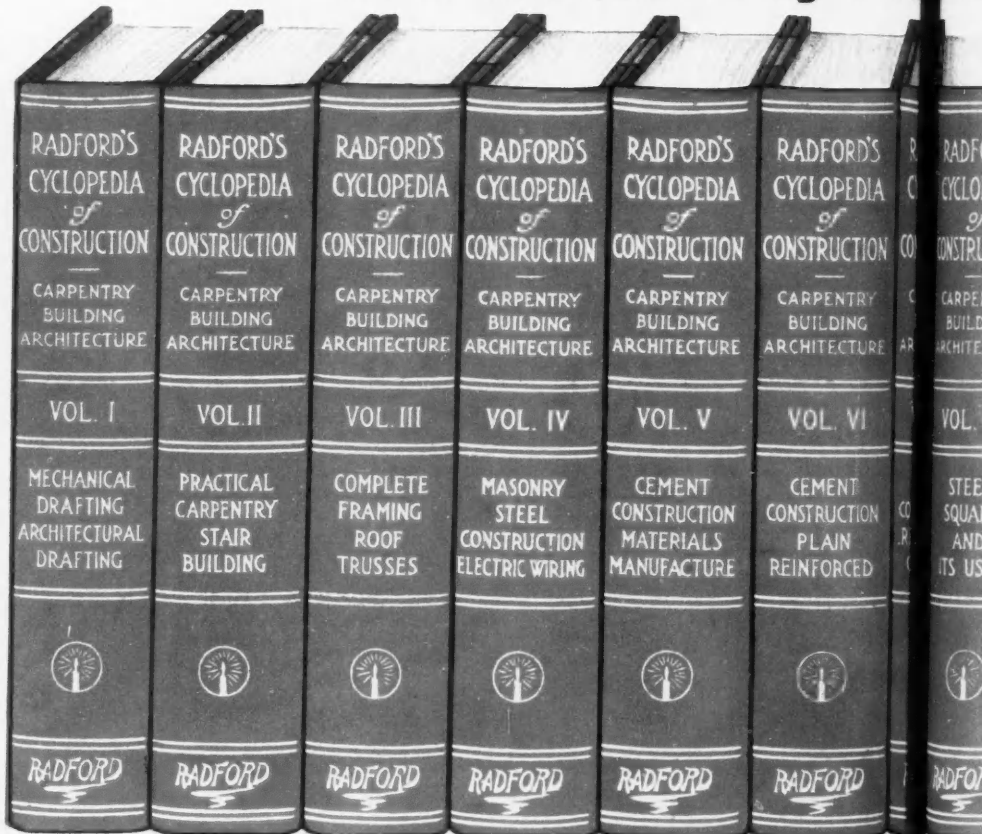
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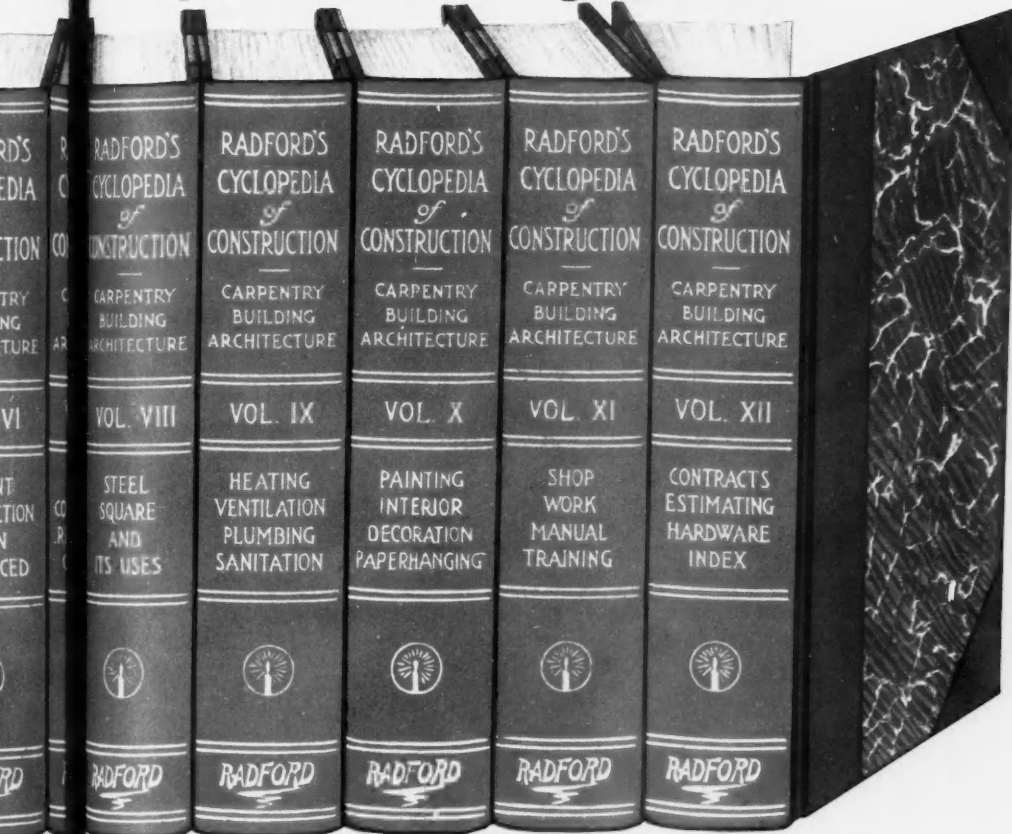
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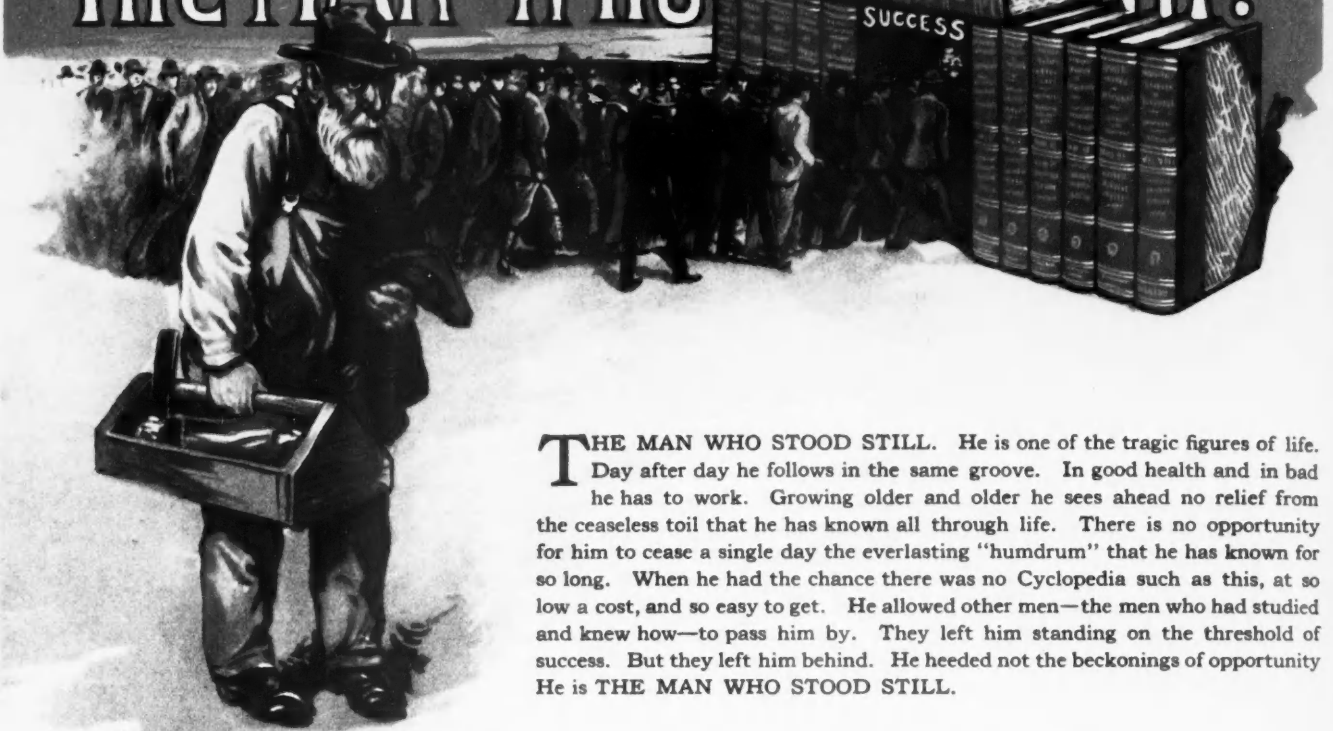
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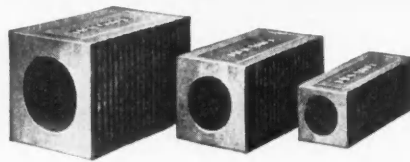
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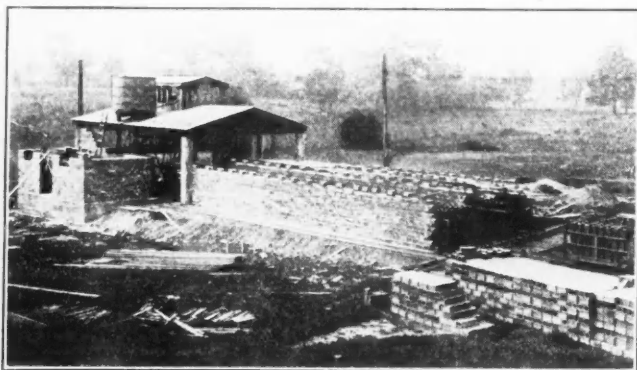
DUNTILE



ARE you looking for a chance to take advantage in a big way of the great future of the building industry? Do you want to establish for yourself a business that is beyond the reach of competition?—a business that has practically unlimited possibilities for growth?—a business that is paying others from Maine to California remarkably handsome returns on their moderate investments? If you say "yes" to each of these questions, you certainly owe it to yourself to fully investigate the possibilities of manufacturing DUNTILE for your community.

A Superior Product and An Endless Market

The secret of the immediate success of DUNTILE wherever it is introduced is the fact that it **Builds Better Buildings Cheaper**—buildings of every type. In fact it brings the cost of permanent construction down to the level of frame construction. And it is the



A Standardized DUNTILE plant recently completed and now producing DUNTILE in a large eastern city. Plants like this are making unusual profits for their owners in towns of all sizes the country over.

one unit of any kind that is used successfully for **complete** construction from foundation to roof.

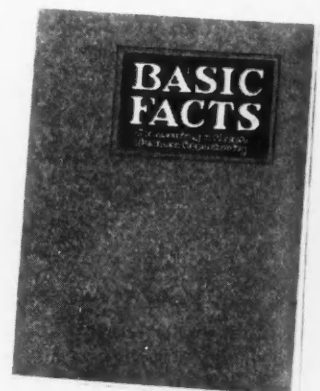
Consider for a moment what this means: Every contractor, every architect and every builder in your locality will welcome, of course, a building unit of such outstanding advantages.

Economically Made In Your Own Plant

DUNTILE is an absolutely standardized product. It is made in eight convenient sizes to meet every building requirement. Most important, it is made by highly developed automatic equipment in a plant that is standardized to the last detail. From the very beginning you secure quantity production on a cost basis that leaves a wide margin of profit.

This Valuable Book FREE

In a single page like this it is impossible to more touch on the reasons why the manufacture of DUNTILE offers such a tremendous opportunity to one man or one firm in each community. The complete story is yours, however, in "BASIC FACTS," a book of actual figures and facts that has proven a guide to prosperity for many others. Send for it today; it is Free.



W. E. DUNN MANUFACTURING Co.

415 WEST 24TH STREET

HOLLAND, MICHIGAN



DUNN STANDARDIZED TILE PLANTS
COMPLETELY EQUIPPED FOR MANUFACTURING
BUILDING, DRAIN AND SILO TILE.

DUNN TILE MACHINES
DUNN SHOVEL MIXERS FOR PRODUCTS PLANTS
DUNN CONCRETE, MORTAR AND PLASTER MIXERS.



WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER

WONDER Mixers

*Have the Lowest Upkeep and the
Lowest Depreciation of Any
Mixer In the World*

The Proof Twelve years of usage in the hands of thousands of contractors.

The Reason Simplicity of design, consisting of a direct economical chain drive to a mixing drum with a Single Bearing, so frictionless that we guarantee it for the life of the Mixer.

And Now We add the most dependable power plant available—a Fuller & Johnson engine, with built-in rotary magneto, on all sizes and models.

WONDER was the original single opening Mixer and into it quality was built that laid the foundation for the present popularity and predomination of this type of Mixer. It is logical then that for all time WONDER should lead in quality and satisfaction.

Now, there are imitations of WONDER design, but there can be no imitation of WONDER satisfaction.

Ask for our Honor Roll of users. It is interesting and impressive.

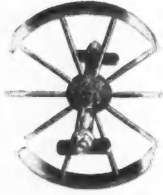
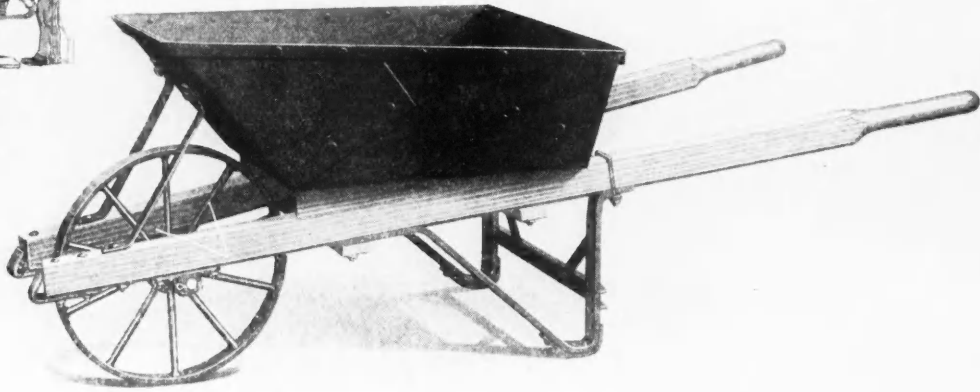
**Construction Machinery
Company**

(Formerly Waterloo Cement Machinery Corp.)

103 Vinton Street
WATERLOO, IOWA



Capacities Guaranteed to be Accurate



Every Sterling barrow is equipped with a 10 spoke wheel. This wheel has a steel hub and is equipped with self-lubricating bearings. Your men like "Sterlings"—ask them.

IF you want a wheelbarrow which will accurately measure materials—We make it. The No. 80 measuring barrow is made in three sizes—2 cu. ft. 2½' and 3' capacities and with either steel or wood handles.

There are over sixty different types of wheelbarrows in the Sterling line, each built for a special service. If you need wheelbarrows for any service order Sterling wheelbarrows—you will like them for what they can do and for the way they last.

Sterling Wheelbarrow Company

NEW YORK
BOSTON
CLEVELAND
BUFFALO

MILWAUKEE, WIS.

CANADIAN AGENTS—MUSSENS LIMITED, MONTREAL, TORONTO, WINNIPEG, VANCOUVER

DETROIT
CHICAGO
ST. LOUIS
SPOKANE

A Small Tilter with Speed and Power



Here is the latest Smith Mixer—the Half Bag Tilter. Although but a few months on the market, the demand for it grows greater every day.

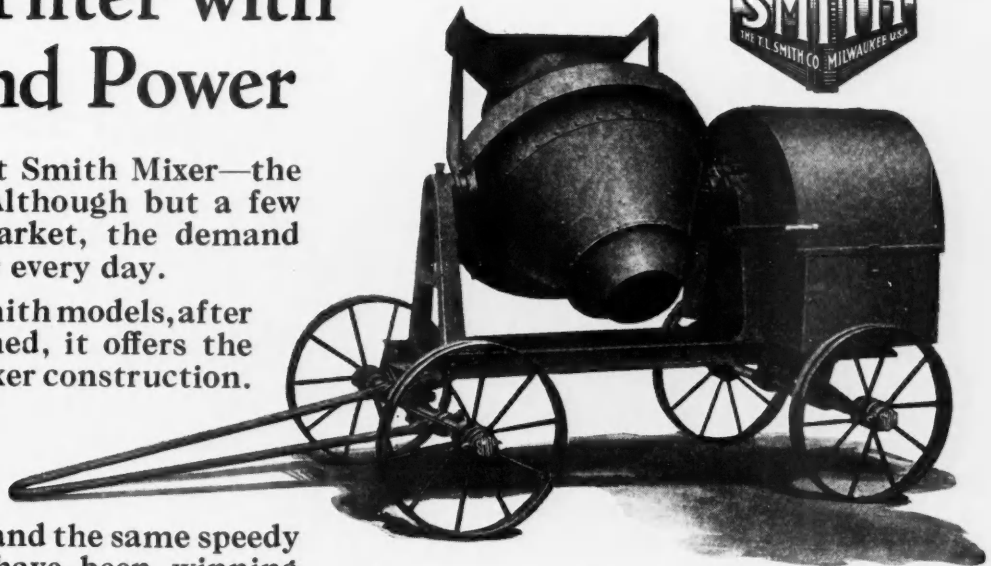
Like the larger Smith models, after which it is patterned, it offers the last word in fine mixer construction. Durable and mechanically perfect, it guarantees its owner the same fast, thorough mix and the same speedy discharge which have been winning fame for previous Smith models during the last quarter of a century.

The aggregate is chuted into one side of the double-ended cone drum and discharged out of the other end—making orderly handling of charging and discharging possible. A single movement throws it back to mixing position. An automatic catch holds the drum in either position.

The better construction of the Smith Half Bag Tilter means longer life and lower maintenance. The speedy discharge and ease of tilting mean faster production.

A Mixer of Multi-Purposes

It is built for mixing and pouring concrete



Smith Half Bag Tilter—Discharge side. Model SW-1 (Four Wheel)

cribs, fence posts, tile, brick, blocks, sidewalks, curbs, gutters, foundations, silos—in fact, for any job not absolutely requiring the use of the larger sizes of Smith Mixers.

Send for New Circular

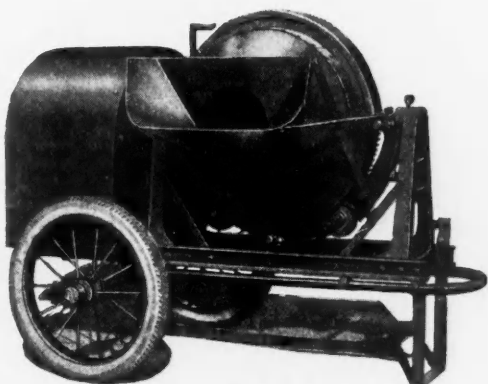
Just off the press, our new circular fully illustrates and describes this new Half Bag Tilter. We will gladly send you a copy if you will fill out and mail the coupon printed below.

The T. L. SMITH COMPANY

1193 32nd Street, Milwaukee, Wis.

Agencies and Stock in All Principal Cities

SMITH MIXERS



Smith Half Bag Tilter—charging side. Model RW-1 (Two Wheel).

The T. L. SMITH COMPANY
Milwaukee, Wisconsin

Gentlemen:

Please send me new circular about Smith Half Bag Tilter

I am also interested in the larger size Smith Mixers.

TILTING TYPE

NON-TILTING TYPE

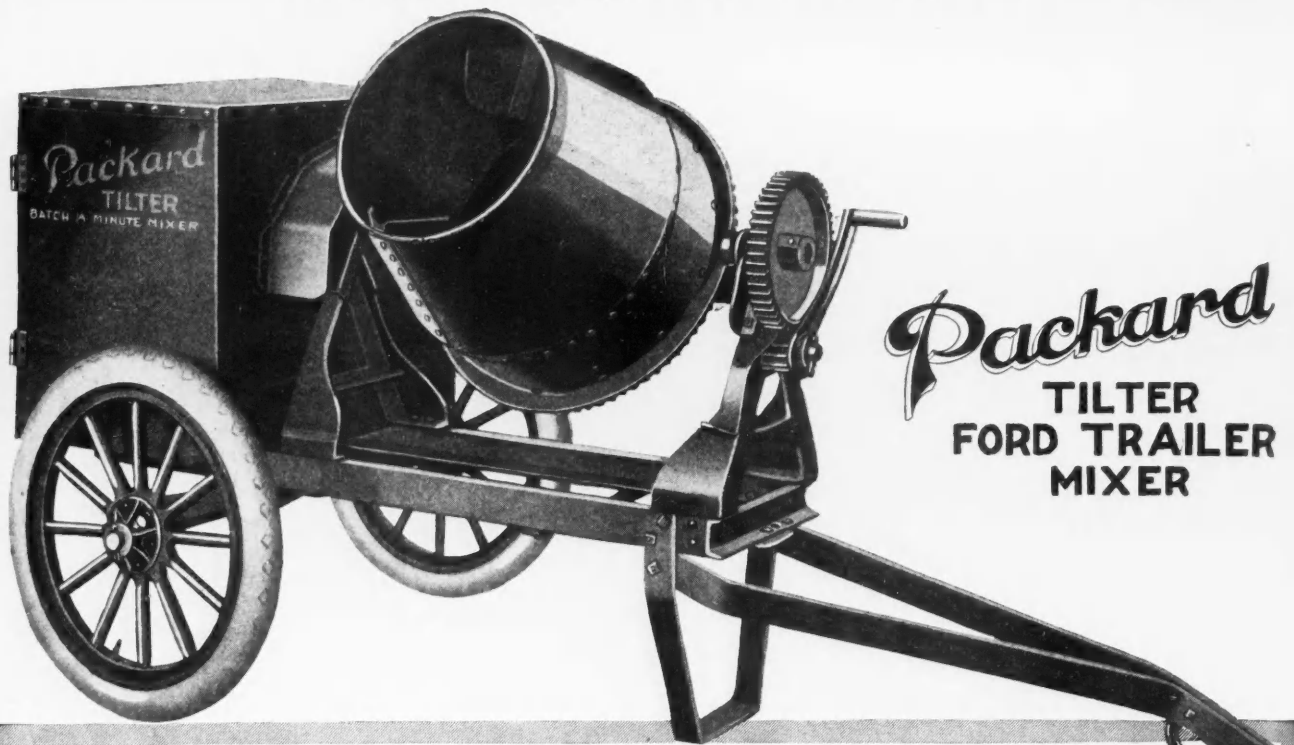
(Check one of the above or both, if interested.)

NAME

ADDRESS

CITY

STATE



Packard
TILTER
FORD TRAILER
MIXER

MOST REASONABLY PRICED
MIXER IN AMERICA

Built In All Sizes And Types

Get New Prices—Terms. Just Off Press

The American Cement Machine Co., Inc.

Branch Offices and Warehouses
 Chicago
 Los Angeles
 Seattle
 Kansas City

Minneapolis
 San Francisco
 Dallas
 Cambridge, Mass.

Buffalo
 Montreal
 Pittsburgh
 Milwaukee

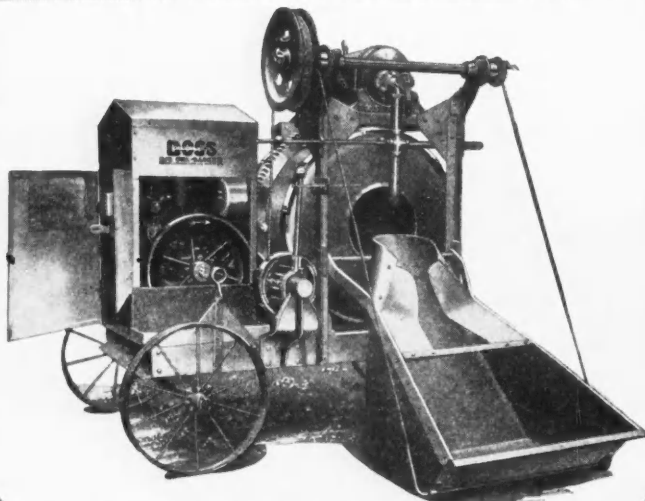
Keokuk Iowa
 THE 300,000 H.P. ELECTRIC CITY

Branch Offices and Warehouses
 St. Louis
 Louisville
 Knoxville
 Tulsa

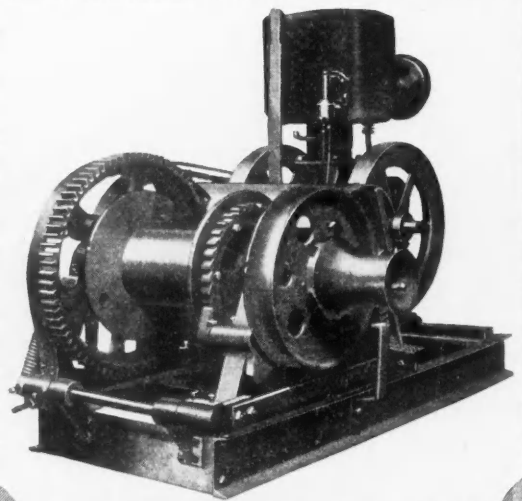
New York
 Detroit
 Philadelphia
 Salt Lake City

Atlanta
 Indianapolis
 New Orleans
 Washington, D. C.

BOSS MIXERS 1/2 to 5 BAG SIZES



BOSS HOISTS - \$125⁰⁰ UP

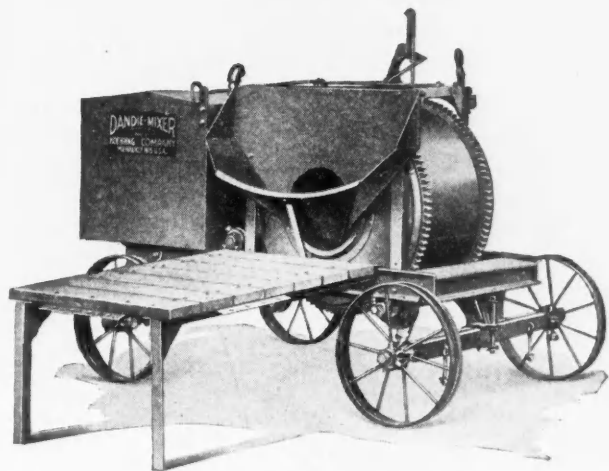


DANDIE

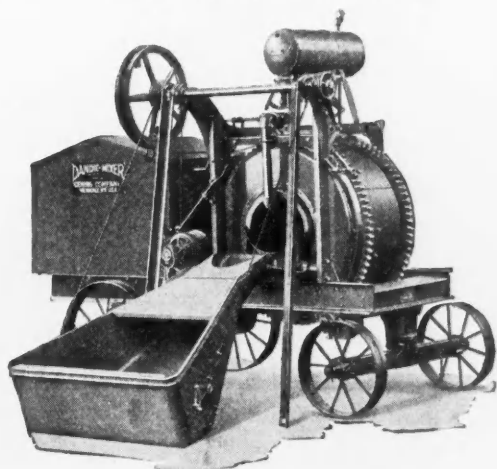


The KOEHRING Light Mixer

Get the Price — Get the Specifications



104 S-4 Cubic Feet Mixed Concrete



107 S-7 Cubic Feet Mixed Concrete

NO, it's not the cheapest mixer in price—but it is the greatest *value* in the light mixer class and it is within the light mixer price range. It will outwork, outwear and outlast ordinary light mixer construction. It will still have a long profitable future ahead of it, when the ordinary light mixer is costing you big money to keep it out of the junk pile!

Send back the coupon. Get the Dandie catalog that informs you how to judge mixer values. You'll find it a practical, helpful, money-saving booklet.

Dandie Capacities

4 and 7 cu. ft. mixed concrete, steam and gasoline. May be equipped with power charging skip, low charging platform, light duty hoist, automatic water measuring tank. Mixes mortar as well as concrete. Send back the coupon today.

KOEHRING COMPANY

Manufacturers of Concrete Mixers, Cranes, Draglines, Shovels
MILWAUKEE, WISCONSIN

Sales offices and service warehouses in all principal cities.

Foreign Department, Office 1370, 50 Church St., New York City;
Canada, Koehring Company of Canada, Ltd.,
105 Front Street, East, Toronto, Ontario;
Mexico, F. S. Lapum, Cinco De Mayo 21, Mexico, D. F.

KOEHRING COMPANY
MILWAUKEE, WIS.

Please send me Koehring Dandie Mixer Catalog
No. 1, and give full information on interchange-
ability for mixing concrete and mortar.

Name

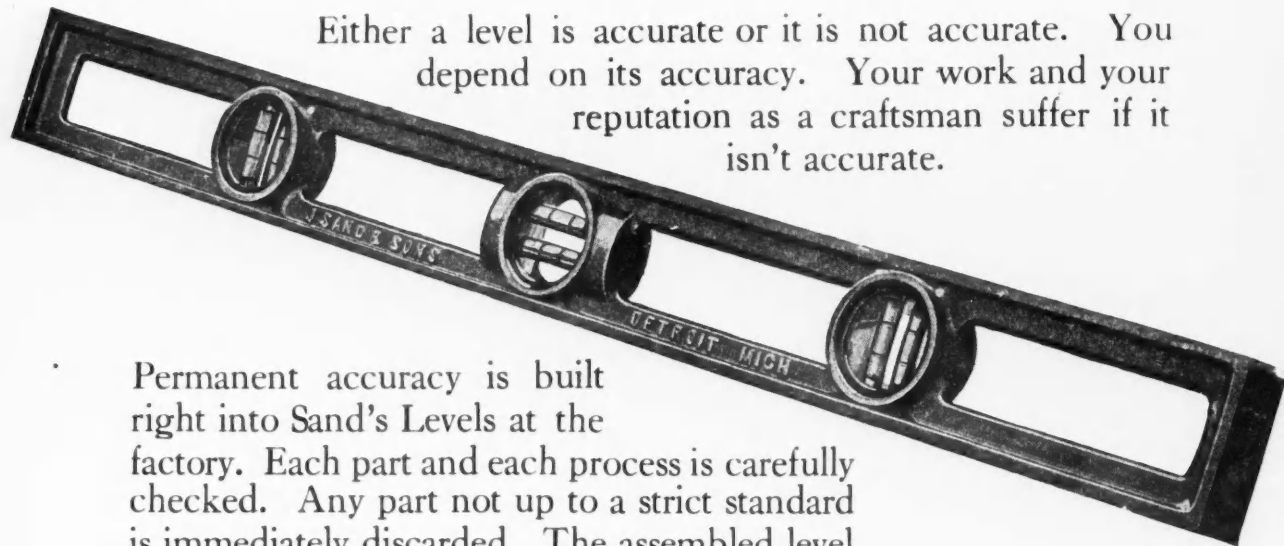
Address

SANDS LEVELS

What Is Level Accuracy Worth to You?

If "rule-of-thumb" guessing were close enough, you wouldn't have a level at all. Use of a level presupposes a need for true accuracy.

Either a level is accurate or it is not accurate. You depend on its accuracy. Your work and your reputation as a craftsman suffer if it isn't accurate.



Permanent accuracy is built right into Sand's Levels at the factory. Each part and each process is carefully checked. Any part not up to a strict standard is immediately discarded. The assembled level must pass a rigid inspection and accuracy test—then lenses, either side of the spirit tubes double-seal the accuracy, protect the spirit tubes from breakage and keep them clean.

When you use a Sand's Level there's no question about its accuracy. There can't be.

Buy a level with a reputation. Sand has been making levels for over a quarter of a century—accurate levels that stay accurate. They're sold by the better hardware stores everywhere.

SANDS LEVEL & TOOL CO.

SUCCESSORS TO J. SAND & SONS

8631 Gratiot Avenue

Detroit, Michigan

Same Ownership—Same Management—Change in Name Only

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER

Make More Money—Be a Bigger Builder

The Good Things—the Big Things—of Life are for those who will reach out for them. You can have them for the grasping—just an energetic thought—saying "I Will" and they are yours. Are you content to make a small profit slowly on hand labor or—will you make a large profit quickly by means of a modern machine? Which?



Let The Magic Mixer— & Mix Your Concrete



Does it faster—better—cheaper

This Mixer will put you in position to do all kinds and classes of concrete work. It will enable you to work faster, do more work, do bigger work, do better work—and will help you build up a permanent and substantial business.

\$25

BRINGS IT TO YOU

Balance on Aloe's Easy Rental Purchase Plan—you have **TEN MONTHS TO PAY**—and the mixer will be making money for you faster than the easy payments come due. Certainly this is a rare opportunity for you to get away from the old shovel method and get into the class of the big men who are doing the big jobs in the modern way.

Your Big Opportunity For Greater Prosperity

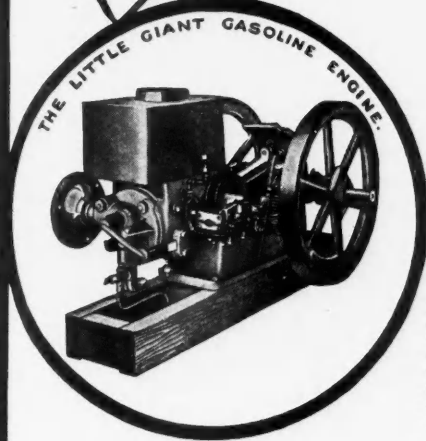
With this wonderful machine and two men you can do as much work as you formerly did with six men. And you can do it easier, quicker and better, producing an absolutely uniform batch every time. It will mix $4\frac{1}{2}$ to $5\frac{1}{2}$ cubic feet per batch—can be speeded up to a batch every minute—over 2,000 cubic feet per day. It is the most practical and efficient mixer made—scientifically constructed of the best materials—light in weight, portable, simple and durable. Backed by the Aloe iron-clad guarantee to give the utmost service and satisfaction.

The Engine

Fitted with $2\frac{1}{2}$ horse-power four cycle, horizontal gasoline engine with high-grade Webster magnet. Simple, powerful, reliable, economical—requires only two gallons gasoline a day. Protected by all-steel housing. Two doors at rear make it easy to get at.

Anyone Can Run It

Nothing complicated—nothing to get out of order. Can be operated by anyone who will read and follow the simple directions which are furnished with each mixer. It comes complete—ready for work the day you get it.



Free Trial Offer

So confident are we the Magic Mixer will please you in every way we will gladly send it to you for **10 DAYS FREE TRIAL** on payment of only \$25.00. Take it out on your job—put it to the most severe tests. Then, if you can be induced to part with it again ship it back at our expense—and we will promptly return your money without a word.

Mail The Coupon Today—NOW

The road to success is open to you. The opportunity to make yourself a big man is before you. The simple act of signing and mailing this coupon may be the turning point of your career. Don't sit idly by while other men are forging to the front. Start the coupon on its way. Get the facts. The time to act is NOW.

A. S. ALOE CO.
621 Olive St., St. Louis, Mo.

Get This Free Book "The Concrete Road to Success"

You ought to have this booklet of invaluable facts about the wonderful opportunities the Magic Mixer offers you. Sent **FREE** together with full particulars of our Easy Rental Purchase Plan by which the Magic Mixer will pay for itself and put you on the road to greater success at the same time. Get this remarkable offer.



MAIL COUPON TODAY

A. S. ALOE CO.
621 Olive St., St. Louis, Mo.

Send me **FREE** booklet, "The Concrete Road to Success", full description of the Magic Concrete Mixer and particulars of your Easy Rental Purchase Plan.

Name.....

Address.....

How YOU Can Get More Business



Brasco Manufacturing Co.
5029 S. Wabash Ave., Chicago, Ill.

Gentlemen:

Brasco Profits Interest Me!

Send me your catalog and tell me how I can make more money installing Brasco Copper Store Fronts.

Name

Street and No.

City

State

(A1923)

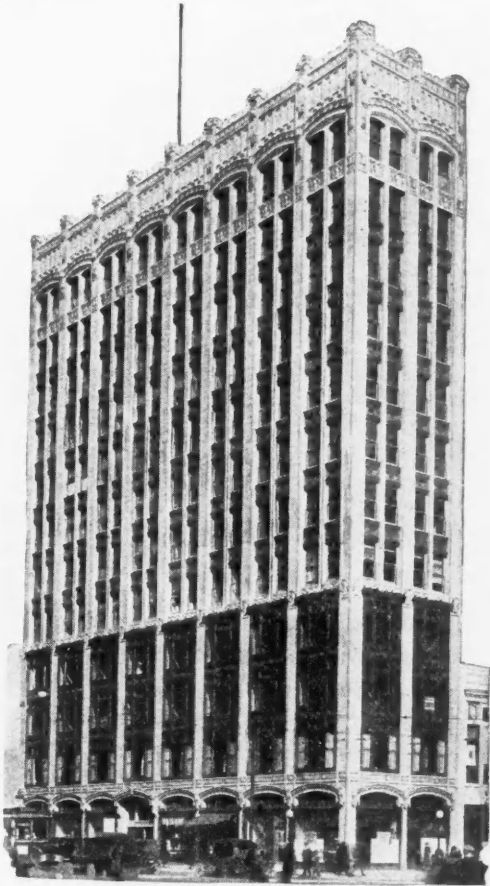
A REPUTABLE contractor in an Ohio city of 10,000 went through the classified section of his directory to ascertain how many store front jobs needed attention. Much to his surprise, there were over 100.

Just to make sure that that they were good prospects, he telephoned five of them. Three said submit plans. Two of the three gave him contracts. The Brasco copper store fronts which he installed attracted the interest of other retailers and he has since been kept so busy that he has not had time to follow up the balance of the list.

This contractor's experience is typical of many who become known locally as the Brasco man and cash in on the business our advertising is developing. Why not see what there is in this for you. Write us today.

BRASCO MANUFACTURING CO.
5029 South Wabash Ave. CHICAGO

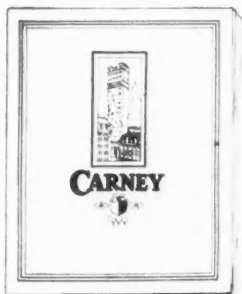
Brasco
COPPER STORE FRONTS



Carney was used in the walls of the Roosevelt Store and Office Building at Indianapolis, Indiana, because it always gives best results.

Architects: Vonnegut, Bohn & Mueller, Indianapolis, Indiana.

Contractors: Bedford Stone & Construction Co., Indianapolis, Indiana.



This book tells the complete story of Carney. It will be sent free to anyone interested in building.

Carney Company Building Larger Mills

THE new Carney mills, when completed, will triple our production. Carney sales are steadily and rapidly increasing from month to month, which necessitates increased capacity. This increase in sales is due to the fact that more and more contractors are becoming familiar with the exclusive advantages of Carney. Contractors who use Carney know there is no substitute and demand it in ever increasing volume.

Carney Has These Exclusive Merits

It can be used directly after mixing or left in the box over night. There is no waste to Carney. It requires no lime, which saves time and labor in mixing. It prevents loss and waste through carelessness. Being more plastic and smoother working, the mason can work faster and easier on the wall. It lays the maximum number of brick to the barrel. It is ideal for wall bearing buildings. It becomes harder than the brick and tile it binds, continuing to harden indefinitely as time goes on. It sets a creamy white, contrasting beautifully with brick and tile. The final cost of a Carney wall is always lower. Contractors bid lower, do better work and make more profit with Carney.

The Carney Company

Cement Makers Since 1883

Mankato, Minn.

District Sales Offices:

Leader-News Bldg., Cleveland; Chamber of Commerce Bldg., Chicago; Omaha National Bank Bldg., Omaha; Syndicate Trust Bldg., St. Louis; Book Bldg., Detroit; Builders' Exchange, Minneapolis.

CARNEY

for Brick and Tile Mortar

Specifications: 1 part Carney to 4 parts sand.
(due to refined process of manufacture.)

Mantel C-617



Price Is a Poor Thing to Judge by When You Buy Woodwork

What you buy is simply a tree cut up into lumber and assembled to make a design.

The tree itself could be had quite cheaply.

Price is not what you are looking for. No, you buy ready-made woodwork to avoid doing the work of assembling it. The more nearly finished it is, the more it is worth to you.

This has been the sane way Curtis always looked at the matter.

Accordingly, Curtis Woodwork is always sold as complete as possible—never skimped and left unfinished to meet a price.

The designs are by famous architects. Elaborate machinery turns out Curtis Woodwork in wholesale quantities. The wood is selected according to the task it has to perform. Finishing touches are given by machinery that would be prohibitive if done by hand.

As a result, the price of Curtis Standardized Woodwork is low. It is hard to equal the quality at any cost.

Satisfied customers result from the use of Curtis Woodwork. The job goes up more smoothly. The sale of the house is made easier by the use of this nationally known woodwork. Each piece is stamped with the trademark—"1866 Curtis."

The makers of Curtis Woodwork guarantee complete satisfaction to its users. "We're not satisfied unless you are." Every month in the year the Curtis story is told to millions of readers in such magazines as: The Saturday Evening Post, Ladies Home Journal, American, House and Garden, House Beautiful, and Country Gentleman. Also in Sweet's Catalog.

We invite you to write for our free booklet, showing the Curtis line of permanent furniture.

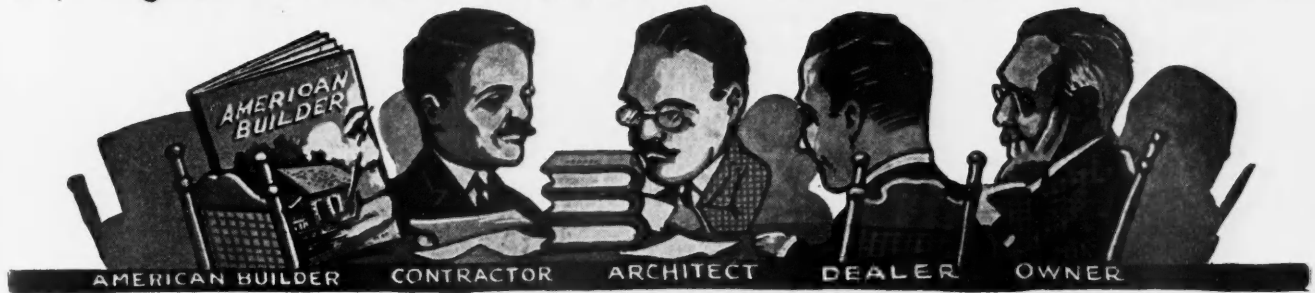
The Curtis Companies Service Bureau, 69 Curtis Building, Clinton, Iowa

Maintained by the Curtis Manufacturing and Distributing Plants at

CLINTON, IOWA LINCOLN, NEBRASKA SIOUX CITY, IOWA WAUSAU, WISCONSIN
MINNEAPOLIS, MINN. CHICAGO, ILLINOIS DETROIT, MICHIGAN TOPEKA, KANSAS
SALES OFFICES IN PITTSBURGH, NEW YORK AND BALTIMORE

CURTIS WOODWORK

AROUND THE FAMILY TABLE



A Day with the Editor

SITTING at our desk we sometimes feel like sharing our daily happenings with AMERICAN BUILDER readers, if only to give them a few contacts with a business day's activity here in the office.

Here is a letter from the librarian of a great city's public library. We had an editorial in our August number entitled "Modernize Our Municipal Libraries" and his letter finds him in complete accord. He makes a point worth noting, and that is: It is the business men in most of our cities who are largely responsible for the fact that we have library buildings for show rather than use. We don't know why a business man, who has succeeded because he has brought good wares close to his public, should reverse himself when he is put on the building committee for the municipal library, and isolate the building where it will be beautiful to look at but hard to reach. So, as this topic of well-placed and modernized public libraries seems a live one and the librarian mentioned above one of the best known in his field, we have decided we must follow up our original editorial by using his contributed article in a forthcoming issue.

A Letter from South Africa

Here is a letter from Durban, Natal, South Africa. A carpenter wishes to know about building prospects here in the United States and whether conditions would justify emigrating. We learn they have had quite a drought down there, complicated still more by a bug which spun a web over certain shrubs the livestock would ordinarily browse on, and which thereafter they would not touch. We learn from him, incidentally, that he is familiar with American tools and machinery; quite a few firms down there using these; so he thinks he would feel at home here.

From the Land of the Kangaroo

Another subscriber in Australia sends in some photographs of houses his company is building down there, along the lines of AMERICAN BUILDER Blue Ribbon Homes, but with extra provision for ventilation. Seems it gets hot down there in a way that makes our summer seem winter. We hear there is an extraordinary increase in all branches of the building trade in Australia, and the demand for dressed and rough lumber

is strong, with the United States getting an encouraging share of the importation.

From a Canada Builder

Out on a farm in Saskatchewan a man knocks off work on a hip roof barn long enough to write us a letter telling about some problem of construction he is encountering, and we get the letter with the desired information back as soon as possible, so as not to delay the building.

An advertising agency wishes to ascertain the possible market for a certain kind of tile a client is thinking of placing on the market; we are able to give some first-hand information on the subject.

A letter comes in with news of a house design competition in which a promising young architect is reported winner; we write him a letter, requesting the privilege of showing his work in AMERICAN BUILDER.

The Small or Large Work, Equally Important

News comes in of a great apartment building erected in Detroit, utilizing an epochal type of reinforced concrete construction, and one of AMERICAN BUILDER's editorial staff is detailed to present it in interesting shape to our readers. A man writes into our Correspondence Department, requesting information from readers on a certain building problem of general interest; a dozen of his fellow-readers come to the rescue, and more trail along until there is a good-sized number by the time this particular issue gets to press. Obviously, we cannot print all the replies; we print one of them, and write letters to the senders of the others thanking them on behalf of the inquirer, to whom we relay the information in advance.

And the Go-Getter

Here is a letter from a superintendent of construction who feels he is at the end of his usefulness in his present location. He has an ambition to specialize in fireproof construction, and besides he wishes to make up by personal study certain deficiencies of education caused by having to leave school too early. We first outline a course of study which will give him a broad acquaintance with the theory behind all architecture; its history; its ancient and modern manifestations. Then we give him other sources of information calculated to be of immediate practical advantage. We like to give service of this sort; that sort of a man goes far.

These are but a few contacts in the day's work, typical of many. Architects, builders, contractors, owners of businesses, building managers, far-seeing producers of building material, machinery and equipment—these all pass through the mail of a typical AMERICAN BUILDER day.

• THE EDITOR.



The CONTRACTOR Did a Wonderful Job Because He Used BISHOPRIC STUCCO

The Coal Shortage and Bishopric

Last November during freezing weather Bishopric Stucco was put on the Tatlow home pictured here and today there is not a crack or defect in it after six months of freezing and thawing.

The house contains twelve rooms and inclosed sleeping porch. It was heated with a hot-air furnace and consumed eighteen tons of bituminous coal, **EIGHT TONS OF WHICH WERE USED IN SEVEN WEEKS PRIOR TO THE PUTTING ON OF THE STUCCO. The other ten tons heated the house comfortably during six months of winter.**

This is the first winter this sturdy house, formerly weather boarded, has used **less than twenty-five tons of coal.**

The above comes from the owner's home; the photograph is sent by him; and the autograph letter accompanying concludes: "that it is for our information regarding BISHOPRIC STUCCO as a fuel saver."

We pass the information to interested **Contractors and Builders** and have further details for those who write us.



Back of BISHOPRIC STUCCO is BISHOPRIC BASE: first a fiber board, heavy, tough, and waterproof. A thick coating of asphalt mastic is by a special process spread over this.

It is now pliable, and is proof against moisture, heat, cold, sound and vermin. It is fire-resistant.

Into this thick layer of base material are embedded under great pressure carefully selected wood-strips. Here are three materials made one unit—a base to receive the plaster and stucco—BISHOPRIC BASE.

There is one-half inch space between the wood strips. In between and around goes the Bishopric Plaster for inside walls, Bishopric Stucco on outside walls of this same BASE, locking and interlocking plaster and stucco—an inverted wedge clasp—an one-rock unit, intact today, tomorrow; more rigid year by year.

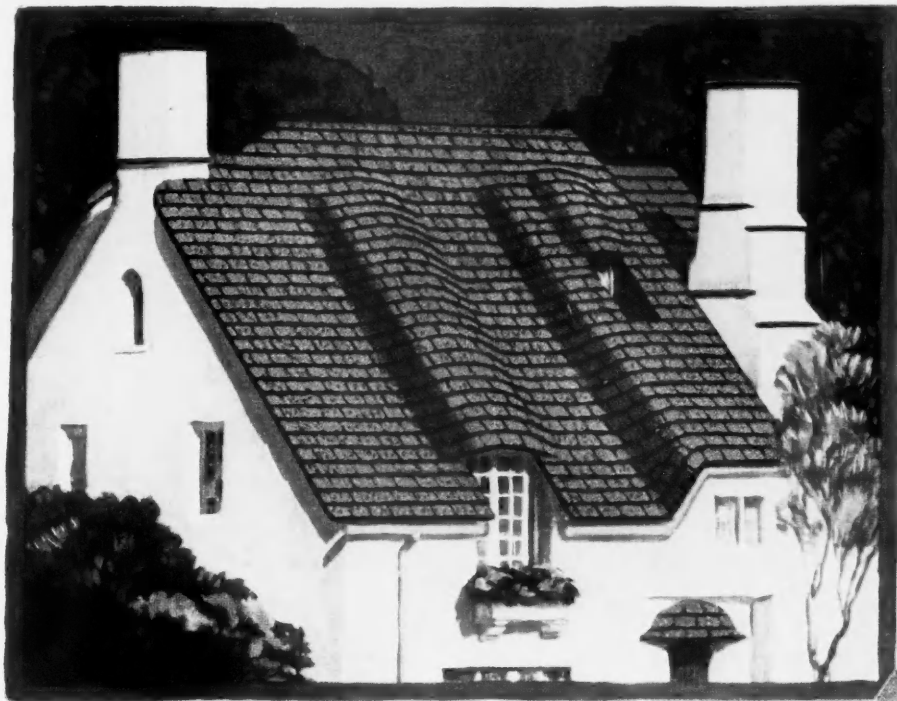
THE BISHOPRIC MANUFACTURING COMPANY

New York City Office:
2848 Grand Central Terminal

5 Este Ave., Cincinnati, Ohio

Factories:
Cincinnati, O., Ottawa, Can.

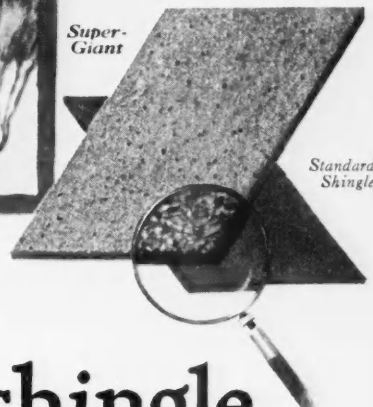
The Bishopric Mfg. Co. of California, Los Angeles, Calif.



RICHARDSON
Product

The Super-Giant Shingle—
50% thicker, 100% more
rigid, and 35% more econom-
ical in cost of laying

From the makers of Flex-a-tile
Housetops, Viskalt Mem-
brane Roofs, Viskote, Wall
Board, and similar products



Wholly new roofing standards set by *this* shingle

50% thicker—100% stiffer—with absolutely exclusive color effects

If you can prove to your customers that you have a shingle that will give them the utmost in beauty and serviceability combined, your business is bound to increase.

In both these qualities the Richardson Super-Giant Shingle excels—to a degree, in fact, that sets wholly new standards in roofing. And you can back up the statement with definite facts. Compare, for example, its serviceability.

Its greater size (10" x 14"), saves 35% in cost of laying. Its 50% greater thickness makes it last much longer and casts a deeper shadow line on the roof. And its 100% greater stiffness keeps it rigid in all kinds of weather and makes the whole roof twice as firm.

Moreover, its inner materials, felt and asphalt, give conclusive evidence of its endurance. Richardson felt, as

you know, has for the last fifty years been recognized as the best. And the asphalt which goes into it is of the highest grade raw materials refined exclusively by the Richardson process.

Beauty hitherto unknown

On this super-shingle alone is used a color in slate hitherto unknown—a rich *weathered brown* found only in the Richardson quarries of Georgia.

It is as beautiful as the russet of November fields, and with use, it mellows and deepens to a shade like the thatch of an English cottage.

Architects are enthusiastic over its rare color effects, especially when it is blended with other Richardson shingles of jade green, tile red, or black pearl.

These facts will sell it

A super-shingle, indeed, when you

weigh its points one by one! First—unusual dimensions which give added life to the roof at $\frac{1}{3}$ less in cost of laying. Second—exceptionally high test standards in its materials. And finally—absolutely exclusive color effects.

These definite talking points will clinch sales. Especially appealing to your customers will be the exclusive color effects. And, of course, Richardson Super-Giants are equally good for new or "over the old roof" jobs.

Send for our beautiful new color chart, together with samples of Richardson Super-Giant Shingles in *weathered brown* and other colors. For every roofing use there is a Richardson product—from Lok-Top Asphalt Shingles to Rubbertex Roll Roofing with Pyramid Kaps. Just use the coupon below.

The RICHARDSON COMPANY
Lockland (Cincinnati) Ohio

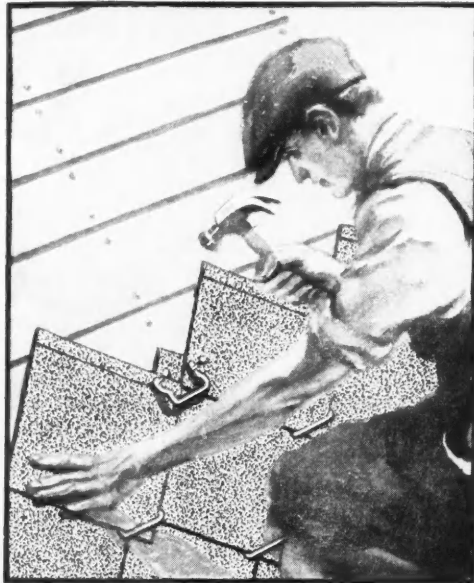
Melrose Park (Chicago) Ill. New Orleans, La.

RICHARDSON ROOFING

Clip and mail this coupon

The Richardson Company
Lockland, Ohio
Gentlemen:
Please send me samples of Richardson Super-Giant Shingles, your new color chart and further facts about Richardson Roofing.
Name.....
Address.....

LOK-TOP
ASPHALT SHINGLES
(Patented)



Economy for your customers means profits for you

There are few things a customer likes better than to save money—without sacrificing quality in what he buys. Here's a product with exactly these talking points—one upon which you can build good business.

Lok-Top Asphalt Shingles combine sturdy endurance, good appearance, and the lowest possible cost. By patented reinforced zinc Loks they are held fast to the roof on all four corners, and are thus bound into a solid armor that seals in the warmth and locks out the cold.

The artistic pattern and rich colors of Lok-Tops give a neat, trim appearance, whether laid over old shingles or new sheathing. As for economy, nearly 70% fewer shingles and nails are needed to cover a given roofing area of Lok-Tops than with ordinary shingles. Thus they save your customer from 30% to 40% in the cost of the completed job.

It will pay you to learn more of this unique product. Its economy for your customers means profit for you.

You can always sell a **RICHARDSON**  **Product** for every roofing use

Richardson Roofing will give permanent satisfaction on every roofing job you sell. For in every product, exceptional materials and workmanship are combined. Here are a few of the Richardson products:

Flex-a-tile Standard Individual Shingles are stiff, strong, and uniformly made for a variety of uses. Surfaced in jade green, tile red, or black pearl slate.

Flex-a-tile Shingle Roll Roofing with a permanent shingle design embossed right on the roll gives at very low cost the effect of individual shingles.

Rubbertext Roll Roofing is a flexible, durable, all-purpose product especially adapted to factories, warehouses, barns, and garages. Use Zinc Pyramid Kaps when applying.

Viskote, a sanitary sound deadening and insulating

material, is especially suitable for laying under linoleum. It is one of several protective products—Viskalt Membrane Roofs, Wall Board, Paints, etc.—which it will pay you to follow up.

Other Richardson shingles include the **Flex-a-tile Style 4 Slabs** which combine 4 shingles in one, and the **Flex-a-tile Wide Space Shingles**.

Flex-a-tile Slate Surfaced Roll Roofing, enameled with jade green slate, combines the quality of Flex-a-tile Housetops with the economy of roll roofing. You can apply it best with Pyramid Kaps.

As you see, these principal Richardson products fit every type of customer, every kind of roofing problem. And remember—one Richardson Roofing job sells another. For complete details and for our latest price list, write us today.

Melrose Park (Chicago) Ill.

The **RICHARDSON COMPANY**
Lockland (Cincinnati) Ohio

New Orleans, La.

RICHARDSON ROOFING

HUBBELL

Convenience Outlets

provide the builder with a complete line of standard flush receptacles designed and made for dependable service wherever installed.

Firm, even electrical contact is insured by double contact springs concealed back of double T slots. Bodies of porcelain or composition are 1" deep and fit standard 1-1/2" outlet boxes. Terminals are large and easily wired.

Hubbell Duplex Convenience Outlets furnish two sets of independent double T slot connections in the space normally occupied by one.

Let Hubbell Wiring Devices build good will for you. Write for full information about this complete line.

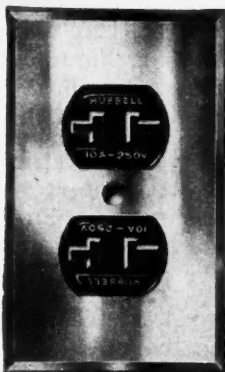
HARVEY HUBBELL INC
ELECTRICAL WIRING DEVICES

BRIDGEPORT  CONN. U. S. A.



Single Convenience Outlet No. 5547

Duplex Convenience Outlet No. 6257 with plate No. 6258, assembled



Profile view composition duplex convenience outlet No. 5890; also offered in porcelain, No. 6257



Any standard parallel-bladed or tandem-bladed plug cap will fit any Hubbell outlet

Single round plate convenience outlet with 2 3/4" plate assembled, No. 6282; with 3" plate assembled, No. 6283.

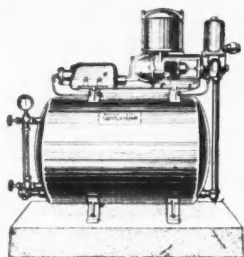


ELECTRICAL WIRING DEVICES

For Cistern or Shallow Well



Delco-Light Cistern or
Shallow Well Pump



DELCO-LIGHT PUMPS

AN abundance of soft water at the turn of a tap—plenty of it in the laundry on wash day—wonderful fresh running water in the kitchen and the bathroom! All without having to pump a stroke.

Simply hitch a Delco-Light Pump to the cistern or shallow well and you will have fresh water under pressure anywhere you want it at all times. Delco-Light Pumps are automatic in action and require a

minimum of attention—merely oiling once in six months.

Delco-Light shallow-well pumps do not require a large storage tank. They pump the water direct from the supply to the tap and it is under pressure sufficient to force it to all levels.

You can now get a Delco-Light Pump to satisfy your customers' needs at a moderate price and on easy terms. We will be glad to give you full information.



DELCO-LIGHT COMPANY

Subsidiary of General Motors Corporation

DAYTON, OHIO

The Man who *Plans* the Building is the Man who must be "Sold"

THE AMERICAN BUILDER, reaching monthly more than 60,000 men who plan and build homes, is conducting this special department for the Electrical Industry, in which the educational and sales work on adequate wiring and adequate outlets can be done.

The slogan, ELECTRIFY ALL BUILDINGS, which appears at the top of both editorial and advertising pages in this section of the magazine, is the keynote of this campaign.

Prominent men in the Electrical Industry are working in close co-operation with the editors and publishers of THE AMERICAN BUILDER to prepare electrical features along a very comprehensive plan.

Each month are presented illustrated articles demonstrating the uses of electricity in the modern homes.

Twelve complete floor plans are being illustrated, showing wiring layout and outlets for lighting fixtures and various electrical conveniences.

Decorative possibilities of lighting are being developed, and the use which the future occupants of the home will want to make of electrical appliances is being carefully and thoroughly explained to the men who plan and build.

The importance of providing, at the time the buildings are planned, for all of these modern electrical appointments is being effectively sold to the building public through this work.

The representative manufacturers in the electrical industry are urged to co-operate.

Write us your ideas and desires.

AMERICAN BUILDER

1827 Prairie Ave., Chicago
261 Broadway, New York



**AMERICAN
BUILDER**

AMERICAN BUILDER

THE WORLD'S GREATEST BUILDING PAPER

MEMBER OF AUDIT BUREAU OF CIRCULATIONS

1827-31 Prairie Avenue
CHICAGO, ILL.

It's What the Advertisers Say That Counts

THE real proof of the value of any publication to its advertisers is found in the advertisers' returns. That the American Builder gives full measure and more has been shown through the letters from its advertisers that were published in our July and August issues. Here are a number of others and there are still more to come:

"Sales Traced Directly"

Milwaukee, Wis., June 25, 1923.

American Builder:

"Your paper is without question one of the best advertising mediums for our type of equipment in the building field today.

"This year we have traced quite a few sales directly through the American Builder. Of course this is only a repetition of the results obtained in 1922, as last year our advertising in your paper also brought us some nice business.

"Yesterday the writer received an order for a 45 mixer which came in through an ad in your paper.

"Again wishing you all kinds of success, we remain,

ATLAS ENGINEERING COMPANY,
C. W. Zimmerman, Vice President.

"Preeminently the Best Building Paper"

Dowagiac, Mich., May 28, 1923.

American Builder:

"We believe that the American Builder is preeminently the best trade paper of its character in the building field.

"We believe that it is being used with increasing appreciation as a sales text book by the contractors, builders, speculative builders and architects.

"We believe that you have a preferred circulation.

"We believe that the editorial matter and text are preeminently superior.

"We know that you are carrying a high type of advertising.

"The physical appearance of your book is exceedingly high class for a trade paper.

"You have the best representative in the trade paper and magazine field that travels the State of Michigan."

THE BECKWITH COMPANY,
Edward G. Weir.

"Past Results Justify Future Business"

Cincinnati, Ohio, June 29, 1923.

American Builder:

"For inquiries and orders received, we consider the American Builder the best medium that we advertise in. We have been with your paper a great many years and if results obtained are as good as in the past we will continue indefinitely.

"With best wishes for your Magazine, we are,"

THE EDWARDS MANUFACTURING
COMPANY,

N. D. Jones, Manager Advertising Dept.

"Always Proven Very Profitable"

St. Louis, Mo., May 29, 1923.

American Builder:

"That we consider the American Builder one of our most reliable mediums is emphasized by the fact that we have advertised in it without a single omission for a number of years. It has always proven very profitable, both in obtaining inquiries and in making sales for us.

"Any firm that is interested in selling the builder should most certainly investigate the possibilities offered in the American Builder."

A. S. ALOE COMPANY,
(Signed) R. Oberhouser, Adv. Mgr.

"Has Not Fallen Short of Anticipations"

Detroit, U. S. A., July 2, 1923.

American Builder:

"The American Builder has not fallen short of the results which we anticipated receiving from our advertising unit, and our use of your publication in 1923 substantiates this fact."

DETROIT STEEL PRODUCTS CO.,
L. Horowitz, Adv. Dept.

"Glad to Recommend It"

Toledo, Ohio, June 30, 1923.

American Builder:

"We are very glad indeed to recommend to advertisers the use of the AMERICAN BUILDER as an advertising medium.

"We have been advertising in the AMERICAN BUILDER for a period of seven or eight years and owe to this publication a good measure of our success in marketing our floor surfacing machinery thru the mails."

THE AMERICAN FLOOR SURFACING
MACHINE CO.,
W. Hoskins, Sales Department.

"From Small Space to Full Pages"

Detroit, Mich., June 2, 1923.

American Builder:

"We feel about the same today as we did back in 1907 regarding the 'American Builder.'

"The fact that we have never missed an issue of your publication, should be sufficient.

"We started in with quarter pages with the first issue of your paper, which was then the 'American Carpenter & Builder' and now we are running full pages.

"What is the answer?"

DETROIT SHOW CASE COMPANY,
(Signed) H. Malott, Sec'y.

"The First in the Field"

Columbus, May 31, 1923.

American Builder:

"We have used the American Builder ever since we started to sell Contractor supplies. Our records show that your Journal produces by far the best results in sales and inquiries, as we receive practically double inquiries from the American Builder than from similar Journals, and I intend to use it as long as we are selling in the field we are now working.

"During the time we have used your paper it has greatly improved in appearance and subject matter which it carries.

"We have kept a record over the several years of the inquiries and sales produced and I know the results we have obtained. We are always glad to recommend it as the first building paper for advertising in the field."

COLGAN MACHINERY & SUPPLY CO.,
(Signed) F. J. Colgan.

"Excels in Quantity and Quality"

Chicago, Ill., July 10, 1923.

American Builder:

"We have advertised our Floor Surfacing Machines in your magazine for quite a number of years and will say that as a producer of direct inquiries and sales it is superior to many other advertising mediums we use.

"Both in quantity and quality of inquiries received the American Builder excels.

"Trusting our business relations will be as pleasant in the future as they have been in the past, we are,"

M. L. SCHLUETER,
Per F. E. Wadhams.

"Best Publication on the List"

Chicago, Ill., July 6, 1923.

American Builder:

"In the several years that we have been using space in your columns for the American 3 Way-LUXFER Prism Co., there never has been a question of renewal of contract.

"The paper has produced so many profitable and satisfactory inquiries that it is considered, probably, the best publication on our clients' lists.

"We are glad to add, for ourselves, the statement that whenever we have a building material account—the first publication we consider is invariably the American Builder."

R. B. NEWELL COMPANY,
R. B. Newell.



The OPEN DOOR to a GREAT MARKET



THE AMERICAN BUILDER is the one big publication in the building field. Its great circulation of 60,000 copies a month (several thousands larger than the combined circulation of *any three* other building publications) brings more inquiries and orders at a much lower cost to its advertisers than they can obtain from any other source.

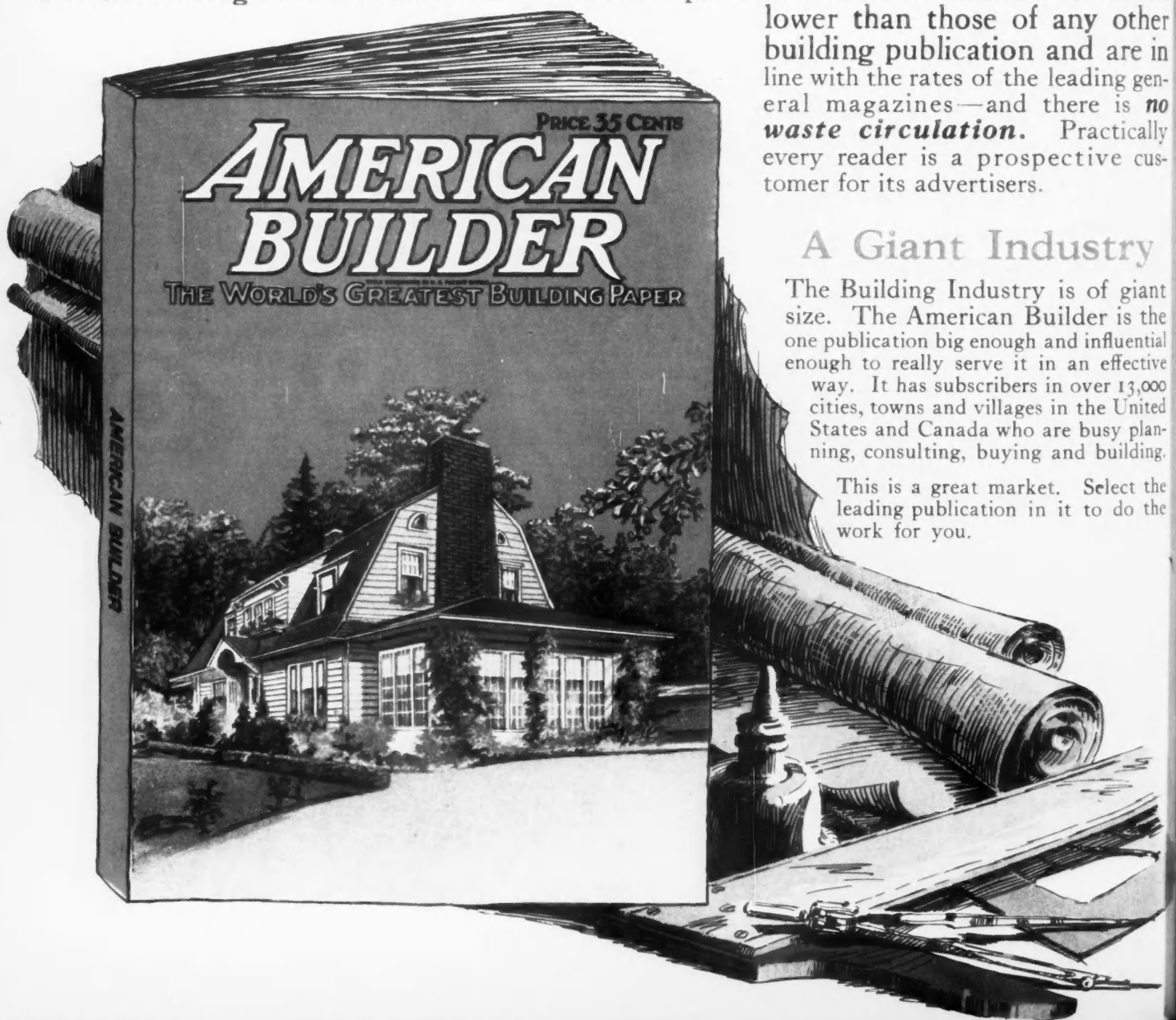
No Waste Circulation

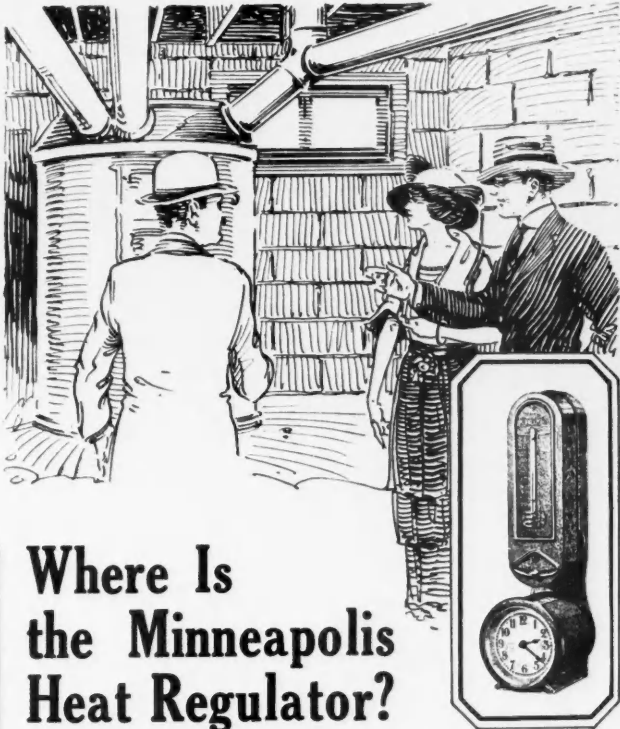
The advertising rates of the American Builder per thousand of circulation are much lower than those of any other building publication and are in line with the rates of the leading general magazines—and there is **no waste circulation**. Practically every reader is a prospective customer for its advertisers.

A Giant Industry

The Building Industry is of giant size. The American Builder is the one publication big enough and influential enough to really serve it in an effective way. It has subscribers in over 13,000 cities, towns and villages in the United States and Canada who are busy planning, consulting, buying and building.

This is a great market. Select the leading publication in it to do the work for you.





Where Is the Minneapolis Heat Regulator?

The question is asked more and more frequently of the man who has a house to sell or rent. Reading about the "Minneapolis" in the magazine people take for granted that it will be in every strictly modern home. They know its story of comfort, convenience, health and fuel economy. Any device which saves $\frac{1}{8}$ to $\frac{1}{2}$ on fuel as the "Minneapolis" does is bound to win public approval. So it is one of the first things prospects look for. Other things being equal the house with a modern heating plant equipped with a "Minneapolis" sells or rents first. A house without it, is like a car without a self-starter.

The "Minneapolis" Room Thermostat, illustrated above, automatically maintains any desired room temperature indefinitely, by checking or advancing fires to meet changes in temperature. Or, by setting the clock and indicator, you can have the room temperature change at any desired hour.

This time, labor and fuel saving device is easily and quickly installed on any type of heating plant, new or old, using any kind of fuel. It operates the heating plant for years without being touched. And this super-refinement of comfortable living seldom adds as much as 1% to the cost, even for homes under \$10,000. There is also the "Minneapolis" No. 65 Thermostat for maintaining a uniform temperature in hot water supply systems. And the "Minneapolis" No. 70 Pressurestat for maintaining uniform steam pressure. Either the No. 65 Water Thermostat or the No. 70 Pressurestat can be operated in "dual control" with the Minneapolis Room Thermostat, giving a double check, that is, on steam pressure or water temperature and room temperature—the ideal scientific way.

When you include "Minneapolis" Heat Control equipment you know that you are offering the last word in modern heating comfort.

Free literature mailed upon request

Minneapolis Heat Regulator Co.



402 E. 28th St.
Minneapolis, Minn.

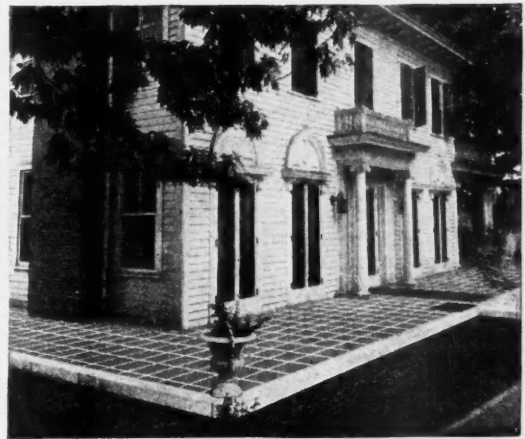


No. 65 Water Thermostat



No. 70 Pressurestat

The "MINNEAPOLIS" HEAT REGULATOR
"The Heart of the Heating Plant"



COLORMIX FLOORS

The Charm of Colored Concrete

PORCHES, Sun Rooms and Terraces present opportunities for added beauty, durable and unfading, when tile-like Colormix Concrete Floors are used.

Colormix employs a new principle in coloring concrete. Dissolved in the mixing water of the floor topping, it dyes every particle of sand and cement a deep, rich color. At the same time Colormix increases the tensile and compressive strength of the concrete, producing in one operation at moderate cost a hardened non-fading, colored floor.

Seven Colors: Tile Red, Nile Green, Linoleum Brown, White, Black and Battleship Gray. Colormix gives you the practical equivalent of a tile, terrazo or linoleum floor at a decidedly lower cost.

The MASTER BUILDERS COMPANY

1836 Euclid Avenue :: CLEVELAND, OHIO

Plants: Cleveland and Irvington, N. J.
Sales Offices in Eighty Cities



Send for Illustrated Handbook—
In Colors

THIS book describes and illustrates Colormix Floors in the various colors. It also contains complete technical data about them together with suggestions and specifications covering their use and installation. Send the coupon below:

The Master Builders Co., Cleveland, Ohio

Please send me your handbook on Colormix Floors:

Name _____

Firm _____

City and State _____

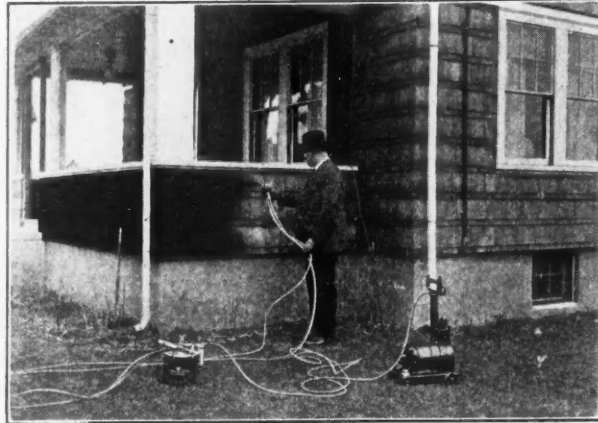
Paint with Electricity!

SPRACO "Extralite" Portable Painting Equipment

The speediest, lightest, most practical one-man portable painting outfit ever placed on the market.

The painting outfit with a thousand uses:

- Apartments
- Hotels
- Hospitals
- Dwellings
- Garages
- Automobiles
- Screens
- Blinds
- Radiators
- Paint shops
- Etc., etc.



Cuts down painting costs. Improves quality. Saves time, labor, money. Saves this on first good size job. Inquire today.

For data in detail send TODAY for "EXTRALITE" Bulletin P-81.

Manufacturers of
AIR WASHING EQUIPMENT
SPRAY COOLING EQUIPMENT
PAINT SPRAYING EQUIPMENT
FLOW METERS
PARK SPRINKLERS

Spray Engineering Company

60 High St.

Boston, Mass.

Engineers for
SPRAY COOLING SYSTEMS
IRRIGATION SYSTEMS
AERATING RESERVOIRS
AIR CONDITIONING
GAS WASHING

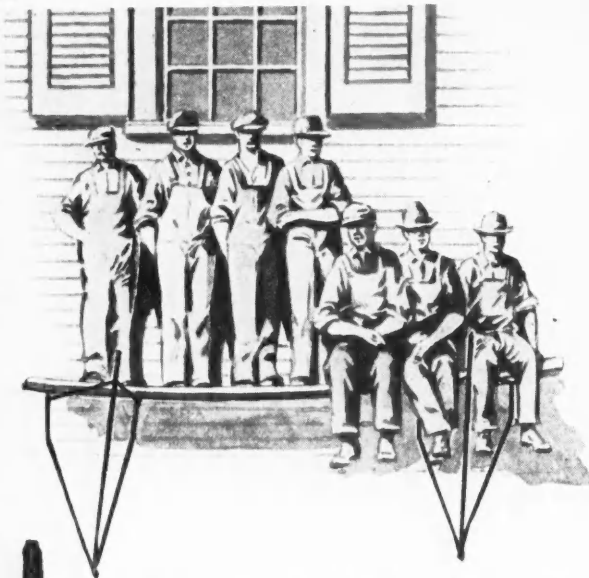
"EXTRALITE"

Total net weight 112 lbs.



"EXTRALITE"

Attaches to any regular light socket

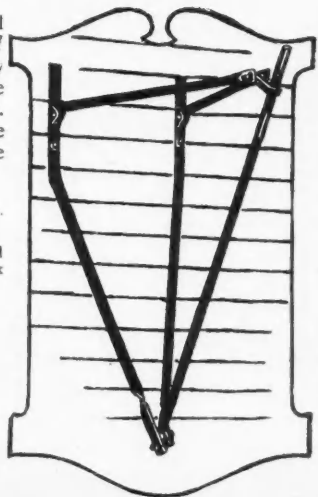


1150 Lbs. Supported by Two Reliable Brackets in Use for Seven Years

Read what Ollermann and Yelden, contractors and builders of Yanktown, South Dakota, have to say about Reliable Scaffold Brackets.

We tried out a dozen Reliable Scaffold Brackets and are convinced that there is nothing like them for convenience. They are very easy to put up, saving a great deal of time, and are thoroughly reliable. We are enclosing a picture showing two Reliable Brackets put up with 8d nails supporting 7 men (about 1150 lbs.) on a 16 foot plank. We would have put on more men but that was all that were available. When the season opens up we shall have to have another dozen brackets.

Reliable Scaffold Brackets will save you enough time and lumber on your first job to pay for themselves. After that the repeated savings are clear profit. The two brackets shown in the picture have been in constant use for 7 years.



Just think what a saving you can make in one year by using the same brackets over and over again. Hundreds of builders are making these savings—why not you?

You can see for yourself how easily Reliable Scaffold Brackets are installed. We ship on approval C. O. D. See them before you pay a penny. Reliable Brackets can be used on frame, brick or stucco buildings. Write for our catalog and price list.

Elite Manufacturing Company

Dept. A-9

Ashland, Ohio

Reliable Scaffold Brackets

Patented Oct. 4, 1910

No holes to plug after they are removed

Reliable Scaffold Bracket Folded

Sell your product to 100,000 good farmers

FARM MECHANICS magazine, sister publication of the AMERICAN BUILDER, is read by more than 100,000 farmers and country estate owners each month. These readers are big buyers—they represent a tremendous market for many AMERICAN BUILDER advertisers.

An investigation just started shows that 392 readers who have reported so far own 2454 buildings, or an average of more than six buildings to every reader. (Statistics open for inspection.) If this percentage were to hold for the entire list, our 100,000 subscribers actually would own 600,000 buildings!

Advertise your product to FARM MECHANICS' readers. Cultivate them—they are worth while—

They Own a Big City of Buildings!



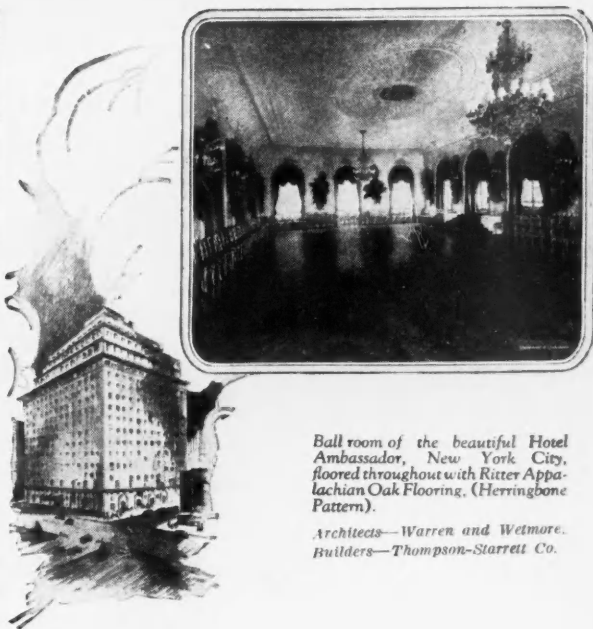
FARM MECHANICS is the only agricultural magazine stimulating farm building activities. Each issue contains from four to ten pages on farm buildings, farm building equipment and farm building improvements.

FARM MECHANICS is the logical medium for you to use. Its 100,000 readers are your best prospects in the farm field and you can reach them most economically through FARM MECHANICS.

Market surveys, advertising rates and other information gladly furnished.

FARM MECHANICS

Member of the Audit Bureau of Circulations
1827 Prairie Avenue Chicago, Illinois



Ball room of the beautiful Hotel Ambassador, New York City, floored throughout with Ritter Appalachian Oak Flooring. (Herringbone Pattern).

Architects—Warren and Wetmore.
Builders—Thompson-Starrett Co.

There's Economy Here, Too

OVER a period of time, economy usually results where better materials are used. But the use of Ritter Appalachian Oak Flooring is economy from the very beginning.

Although the aristocrat in its field, it costs less to lay, nail and finish than ordinary oak flooring. Facts bear out this statement.

This is due to the high quality of the Appalachian Oak timber from which it is made, and to the positive accuracy and scientific handling which follows its course through our mills. Every piece of Ritter Flooring must be as nearly perfect as nature, science and skill can make it. This is an ironclad policy of the W. M. Ritter Lumber Company, America's largest producer of hardwoods.

Ritter Appalachian Oak Flooring, because of its fine grain, uniform color and accuracy of manufacture, assures smooth, perfectly matched floors of enduring charm and unsurpassed elegance. Yet, considering its quality and the economy realized in laying it, there is no added cost.

Ritter Appalachian Oak Flooring will give better results with increased profits. It is branded for identification and your protection.

We shall be glad to co-operate fully with builders and contractors by furnishing technical information on the proper methods of laying and finishing flooring.

W. M. RITTER LUMBER COMPANY

America's Largest Producer of Hardwoods

GENERAL OFFICES — COLUMBUS, OHIO

Branch Offices—Philadelphia, New York, London and Liverpool

RITTER

APPALACHIAN OAK

FLOORING

USE
FULLER & JOHNSON
EASY TO START
ENGINES

You Can Depend on This Engine

Fuller & Johnson Model "N" Engines can be depended on at all times—even for the toughest power jobs. They start easily, run at uniform speed, develop surplus power above rating and will stand up under hard, continuous use month after month and year after year.

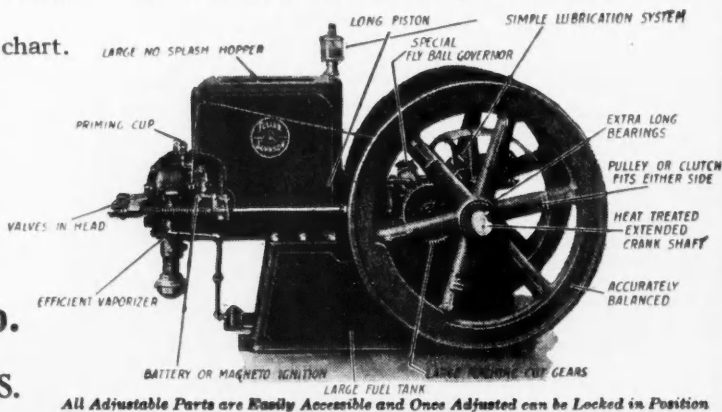
Study the special features as shown on the chart.

You can then see for yourself why the Model "N" is so popular among contractors and engineers for operating construction machinery.

Built in sizes, 1½, 2½, 3, 5, 7, 9, 12 H. P. Other models up to 25 H. P. Stationary or Portable.

Write for New Catalog
Our new catalog 21A gives full information on our Model "N" Engines. We will gladly send it to you on request. Just tear out this page, attach it to your letterhead and mail to

Fuller & Johnson Mfg. Co.
Established 1840
90 Alma Street MADISON, WIS.

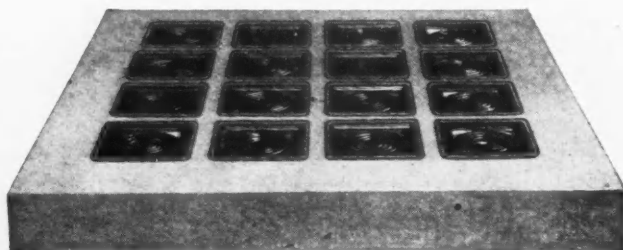


EASY TO START

ARMORED 3-WAY GLASS

The Perfected Construction for SIDEWALK LIGHTS

Every lens, either round or square, is caulked into a cast iron ring, and this is embedded in the cement. Square Fresnel Lenses give over 54% glass area.



**Absolute Protection to Glass
Against Expansion Pressure
Instant and Easy Replacement
of Broken Lenses
Great Glass Area and Great
Strength**

Supplied in Ready-to-Set Slabs or built on the job. Write for Bulletin A.G., giving details of this New and Better Construction

AMERICAN 3 WAY-LUXFER PRISM COMPANY

1307 S. 55th St.
CICERO, ILLINOIS

Daylight Engineers

358-368 Webster Ave.
LONG ISLAND CITY, N. Y.

"It was not thus in the olden days"

The builder didn't always need to figure in decimals. And he didn't always have to hire anything that could walk and call itself a laborer.

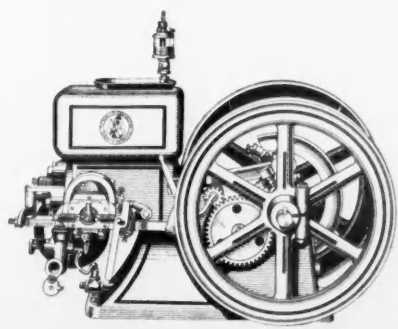
Once upon a time, maybe, a HERCULES Engine wasn't so indispensable for getting muscle — jobs swung in jig-time and without coddling Tony and Jan tenderly along.

But even a day counts big now!

The HERCULES makes every minute count where common labor don't. For hoisting, concrete mixing, job-sawing, or any of fifty other everyday needs of the working builder, it does a dozen men's work better than two dozen men ever did.

And it needs neither coaxing nor skilled attention. It runs itself. There's a place on your job today where a HERCULES could cut down your payroll and speed up your progress.

THE HERCULES CORPORATION
Engine Division, Dept. G.
EVANSVILLE, INDIANA



HERCULES ENGINES

Made in seven types 1 1/2 to 12 horsepower, for heavy duty industrial service of every sort. Burn crude oil, gasoline or kerosene, according to the need.



MAGNESTONE

The same reliable Magnestone Stucco in a new package which is more convenient for the contractor to handle on the job.

The binder salts are in separate containers as shown in the illustration. This feature assures fresh, strong material for all jobs because there can be no sack setting or deterioration.

Magnestone Red-E-All gives the contractor greater profits, greater satisfaction and lessened labor expense on every job. It is sold by leading building material dealers everywhere.

Write us for samples and particulars today.

AMERICAN MAGNESTONE CORP.

Executive Offices:

Springfield, Illinois.

PLANTS AND SALES OFFICES:

Ottawa, Ill. Springfield, Ill. Kansas City, Mo. Minneapolis, Minn.
New York, N. Y. Detroit, Mich. Chicago, Ill.

MANUFACTURERS OF—Magnestone Composition Flooring—the most practical and artistic floor for the home and public or commercial buildings [furnished in eleven colors]—also Smith's Colonial Mortar Colors, Magnestone Interior Plaster and Water Proofing Materials.

The All-Mineral REDE-ALL STUCCO



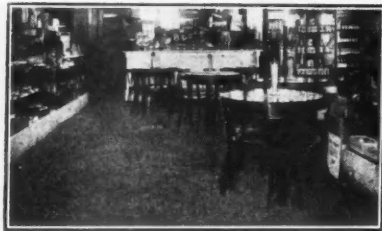
Binder in
Separate
Containers

Mix With
Water
Only

Largest Manufacturers of Magnesite Products in the World

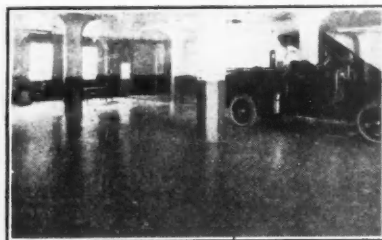
This Floor Makes Money for You

You can make good profits laying Everlasbestos Floors and there is a wide field of business in this superior composition.



A Drug Store Floor of Everlasbestos

Every new home, every new tenant, every worn-out board or linoleum floor in kitchen or bathroom is an opportunity. Your customers are sure to recommend Everlasbestos Floors, and the work of laying them is steady the year 'round.



A Firehouse Floor of Everlasbestos

No other floor is so satisfactory. The floor spaces are large—every job is a good one, and they are easy to get.

You can lay Everlasbestos over old floors or new foundation. Its superior ingredients and exact, easy-to-follow directions insure a satisfactory job of laying.

Write for sample, and illustrated catalog full of suggestions on getting business

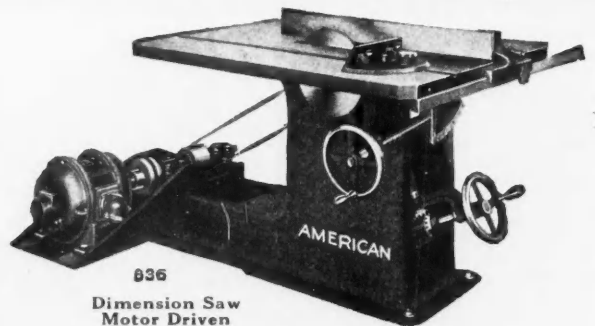


Everlasbestos Flooring Co.

Dept. B

95 North Street Rochester, N. Y.

Everlasbestos Flooring



836
Dimension Saw
Motor Driven

Modern Production says "Motor Drive"

HERE'S the latest model "American" motor-driven Dimension Saw. Strong and rigid, with solid casting base firmly gripping the floor, all ready to "hum" with production the minute you throw in the power switch. **Profitable** production, too, because it is designed for ripping, cross-cutting and mitering with attachments for boring, mortising, routing, dadoing, grooving, matching and tenoning. The mortise-boring attachment is a distinct machine, in no way interfering with the saw.

The "American" Contractors' Variety Woodworker with "motor drive" is another multiple producer, turning out 14 different kinds of cut on the one machine. Three men can work on it at the same time without interference.

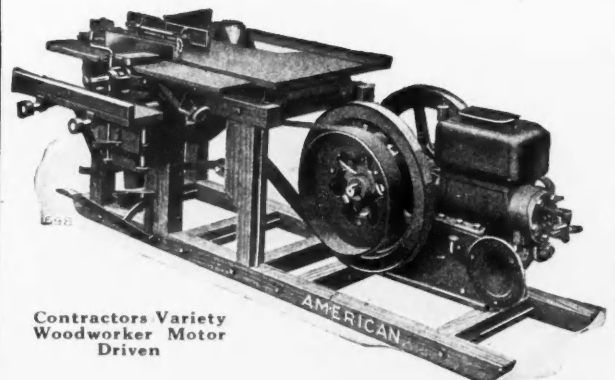
Two machines to increase your production and two big facts to remember about them: Fact 1—they're motor driven. Fact 2—they carry the name "American."

Bulletin No. 79 gives a lot of profit-bearing facts about American Woodworkers and Saw Mills. Write for it today.

American Saw Mill Machinery Company

60 Main Street, Hackettstown, N. J.

1360 Hudson Terminal Bldg.



832
Contractors Variety
Woodworker Motor
Driven

AMERICAN

Saw Mills and Woodworkers

FEDERAL TRUCK TIRES

TWO TESTIMONIALS
Carry the Whole Story

From Virginia and Minnesota — two extremes of climate, from a laundry and a bus company—two extremes of service. These two letters show the range of Federal Truck Cord availability—and convincingly prove the economy of standardizing on Federals, for two reasons: First, because Federal delivers such high tire mileage, and second, because they keep delivery wagons, trucks, and busses moving—saving **earning time**.

Three Years Without an Adjustment

S. Dorsey Sydnor,
Richmond, Va. 926-28 West Broad Street,
Richmond, Va., Jan. 1, 1923

Dear Sir:—In the last three years we have used Federal Tires exclusively, and haven't required an adjustment. Can we say more?

Yours truly,
T. & F. LAUNDRY COMPANY, INC.
R. L. Branner, Pres.

Busses Average 23,000 Miles on Federals

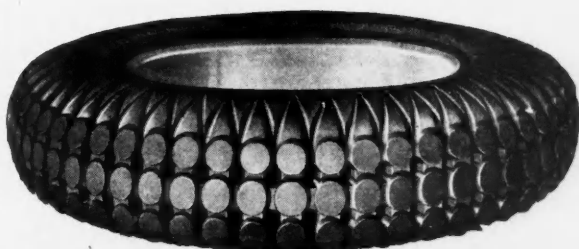
Glenwood, Minn., June 11, 1923
We equipped our five busses with Federal Truck Cord Tires about one year ago after using about every standard make, and wish to state that the first two Federal Tires applied on a 6600 pound White Bus ran 27,000 miles. We have averaged 23,000 miles on all Federal Tires used. This far exceeds any mileage obtained from other makes. Our busses are on the road both summer and winter and the tires are subjected to the hardest kind of service.

We recommend Federal Tires to operators of fleets who are looking for low tire costs.

P. D. Q. TRANSPORTATION CO.
Per W. D. Cretzler.

Near you there is a Federal Authorized Service Station, whose proprietor will gladly prove to you how Federal Truck Cords will cut down your truck-operating costs.

The Federal Rubber Company
CHICOPEE FALLS, MASS.



For Service and Satisfaction



Be sure it's a

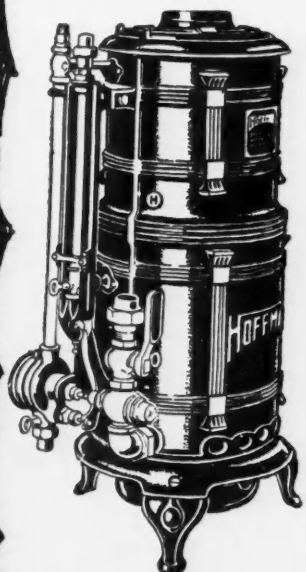
HOFFMAN Instantaneous

Automatic Water Heater

NOW one need not occupy a large and expensive home to enjoy the convenience of instantaneous hot water. Hoffman has perfected an entirely new series of Instantaneous Automatic Water Heaters for Small Homes—two models in two sizes each. All are high efficiency, low expense models, and the first cost is moderate.

These models carry the same guarantee as the larger, higher priced Hoffman Automatic Water Heaters and are made

of the same high quality materials. Equipped with all latest Hoffman improvements and exclusive inventions. They're easily installed on standard gas and water connections and operate on a ten-light meter.



Send for detailed information, including prices, etc.

The Hoffman Heater Co.
193 Oberlin Avenue
Lorain, Ohio



As warm as a plaster wall *a foot thick*

Work with Compo-Board and you work for an increasing business. This sturdy, wood-core board withstands rough handling, the hard knocks of furniture and the kicks of children.

And it's climate-proof! It keeps out moisture, frost, summer heat and winter cold. It is so superior in these qualities that it is used in refrigerators, and ocean steamships. From damp cellar to exposed attic the safe, durable, sanitary wall lining is



The Wood-Core Wall Board

Unlimited decorative possibilities. Compo-Board takes wallpaper, burlap, cloth, paint or kalsomine. Panel strips may be used, **but are not required.** Compo-Board Filler is especially prepared to fill the joints and nail heads and leave a smooth, flat wall.

Write today for interesting, illustrated booklet on the many uses of Compo-Board. Ask also for sample to test and compare.

Compo-Board Co.
5777 Lyndale Ave. N., Minneapolis, Minn.

Better Work



WHEN you buy a saw, tool, or file, what you are really paying your money for is Better Work. In other words, you want a perfect tool, which will make it easy for you to do a good, workmanlike job. Then, specify Disston. From the casting of the steel ingot to the final polishing and inspection, Disston Saws, Tools, and Files are designed and made with one end in view,—to insure you a lifetime's service, and better work.

The Disston D-8 cross-cut or rip saw, made in all standard points and lengths, is recommended for all-purpose carpenter work. Disston squares, bevels, levels, screw-drivers, and files are other Disston products that assure Disston satisfaction for the carpenter. Send 4c postage for 48-page "Disston Saw, Tool, and File Book."

"Write Desk 2"

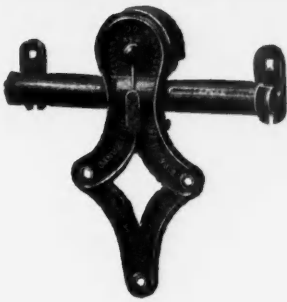
Henry Disston & Sons, Inc.

Makers of "The Saw Most Carpenters Use"

Philadelphia, U. S. A.

DISSTON

SAWS TOOLS FILES



Play Safe

Insist on door hangers with a good reputation and save yourself the complaints that invariably follow the installation of "just as good" equipment.

A product with a good reputation may cost a trifle more to buy. The material in it and the way it is made are responsible for that.

But every shrewd buyer knows that what counts more than anything else in door hangers is **how long they last in service** — not how little their first cost.

"Reliable" Round Track

door hangers are unequalled in design, manufacture, economy of installation—and in service.

Our own "Certified Malleable Castings" enter into their construction.

ALLITH-PROUTY Company

DANVILLE, ILLINOIS

Manufacturers of

- Door Hangers
- Overhead Carriers
- Garage Door Hardware
- Rolling Ladders
- Fire Door Hardware
- Spring Hinges

Representative Jobbers Distribute A-P Hardware Throughout the United States



"I'm as Good a Man as Jim!"

"They made him manager to-day, at a fine increase in salary. He's the fourth man in the office to be promoted since January. And all were picked for the same reason—they had studied in spare time with the International Correspondence Schools and learned to do some one thing better than the rest of us.

"I've thought it all out, Grace. I'm as good a man as any one of them. All I need is special training—and I'm going to get it. If the I. C. S. can raise other men's salaries it can raise mine. If it can bring a better home with more comforts to Jim and his family it can do it for us. See this coupon? It means my start toward a better job and I'm going to mail it to Scranton to-night!"

Thousands of men now know the joy of happy, prosperous homes because they let the International Correspondence Schools prepare them in spare hours for bigger work and better pay. You will find them in offices, shops, stores, mills, mines, factories, on railroads—everywhere.

Why don't you study some one thing and get ready for a real job, at a salary that will give your wife and children the things you would like them to have?

You can do it! Pick the position you want in the work you like best and the I. C. S. will prepare you for it right in your own home, in your spare time—you need not lose a day or a dollar from your present occupation.

Yes, you can do it! More than 180,000 men are doing it right now. Join them without another day's delay, and get in line for promotion. Mark and mail this coupon!

INTERNATIONAL CORRESPONDENCE SCHOOLS

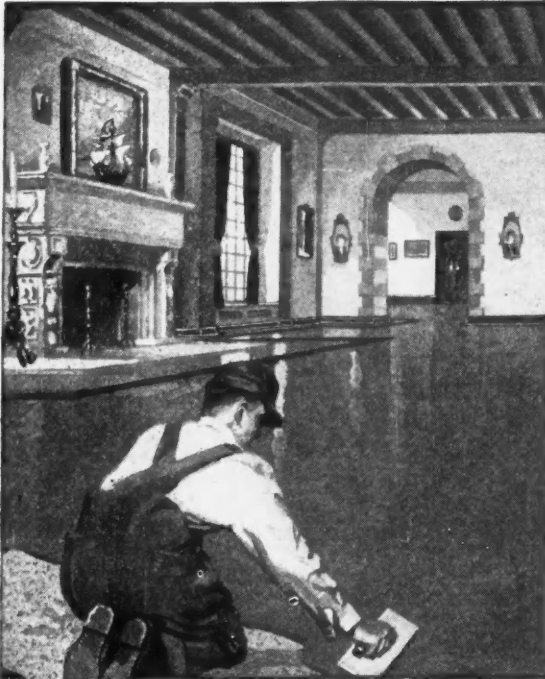
BOX 8162-B SCRANTON, PA.

Explain, without obligating me, how I can qualify for the position, or in the subject, before which I mark X:

- | | |
|--|--|
| <input type="checkbox"/> ELECTRICAL ENGINEER | <input type="checkbox"/> CHEMICAL ENGINEER |
| <input type="checkbox"/> Electrician | <input type="checkbox"/> Pharmacy |
| <input type="checkbox"/> Electric Wiring | <input type="checkbox"/> SALESMANSHIP |
| <input type="checkbox"/> Electric Lighting | <input type="checkbox"/> ADVERTISING MAN |
| <input type="checkbox"/> Electric Car Running | <input type="checkbox"/> Show Card and Sign Painting |
| <input type="checkbox"/> Heavy Electric Traction | <input type="checkbox"/> RAILROAD POSITIONS |
| <input type="checkbox"/> Electrical Draftsman | <input type="checkbox"/> ILLUSTRATOR |
| <input type="checkbox"/> Electric Machine Designer | <input type="checkbox"/> Automobiles |
| <input type="checkbox"/> Telegraph Expert | <input type="checkbox"/> BUSINESS MANAGEMENT |
| <input type="checkbox"/> Practical Telephony | <input type="checkbox"/> Private Secretary |
| <input type="checkbox"/> MECHANICAL ENGINEER | <input type="checkbox"/> Business Correspondent |
| <input type="checkbox"/> Mechanical Draftsman | <input type="checkbox"/> BOOKKEEPER |
| <input type="checkbox"/> Toolmaker | <input type="checkbox"/> Stenographer and Typist |
| <input type="checkbox"/> Machine Shop Practice | <input type="checkbox"/> Cert. Pub. Accountant |
| <input type="checkbox"/> Gas Engineer | <input type="checkbox"/> Traffic Management |
| <input type="checkbox"/> CIVIL ENGINEER | <input type="checkbox"/> Commercial Law |
| <input type="checkbox"/> Surveying and Mapping | <input type="checkbox"/> GOOD ENGLISH |
| <input type="checkbox"/> MINING ENGINEER | <input type="checkbox"/> Common School Subjects |
| <input type="checkbox"/> ARCHITECT | <input type="checkbox"/> Railway Mail Clerk |
| <input type="checkbox"/> Architectural Draftsman | <input type="checkbox"/> STATIONARY ENGINEER |
| <input type="checkbox"/> Blue Print Reading | <input type="checkbox"/> Textile Overseer or Supt. |
| <input type="checkbox"/> PLUMBING AND HEATING | <input type="checkbox"/> AGRICULTURE |
| <input type="checkbox"/> Sheet Metal Worker | <input type="checkbox"/> Poultry Raising |
| <input type="checkbox"/> Navigator | <input type="checkbox"/> CIVIL SERVICE |
| | <input type="checkbox"/> Spanish |
| | <input type="checkbox"/> RADIO |
| | <input type="checkbox"/> BANKING |

Name _____ Business _____ 6-26-22
 Present _____ Address _____
 Occupation _____
 Street _____
 and No. _____
 City _____ State _____

Canadians may send this coupon to International Correspondence Schools Canadian, Limited, Montreal, Canada.



Make More Money Laying a Magnestone Floor

There is a greater profit for you in laying Magnestone Flooring than there is in laying cement or any other type of floor. And you not only make a greater money profit, but your client gets a better floor.

In fact, Magnestone has been used on thousands of jobs all over the country and in every instance, whether it was laid over an old floor or put down as a new floor, the job has proved more than satisfactory.

Magnestone Is Easy to Lay

over any foundation. You can lay it without any trouble in kitchens, bathrooms and sun parlors, or in schools, stores, factories, hospitals, anywhere—the larger the job, the greater your profits.

Magnestone is sanitary, comfortable to stand on, noiseless, easy to clean, non-slippery and warm. It is laid one-half inch thick over new or old wood or concrete foundation. Trowel finish, like cement. Your choice of eleven attractive colors.

Write now for our Magnestone Flooring Proposition and Samples—no obligation.

AMERICAN MAGNESTONE CORPORATION DIVISION OF FLOORS

Also Manufacturers of Magnestone Quality Stucco, Mortar Colors and Plaster

GENERAL OFFICES: SPRINGFIELD, ILLINOIS

Plants and Sales Offices:

Ottawa, Ill.; Springfield, Ill.; Kansas, City, Mo.; New York City; Detroit, Mich.;
Minneapolis, Minn.; Chicago, Ill.

MAGNESTONE

COMPOSITION FLOORING

Widen your scope of profits

You'll admit that just ahead—just a little out of reach, there is some nice business you are missing.

It is also true that the only reason why you are missing this business is your lack of mobile equipment.

The Archer-Ford End Discharge Mixer brings all of these opportunities within easy reach and very materially increases your profits, however good.

Full Ford Power is quickly engaged or disengaged to the Archer Mixer by simply moving one lever.

The price is right. The Archer is a proven unit—and the Ford you know is good—it's a strong combination and worthy of your consideration.

Write us today.

ARCHER IRON WORKS

2438 34th Place

CHICAGO





At Work on the World's Busiest Street

Here is a Rex 237 Mixer helping repave Fifth Avenue, New York, for handling its record-breaking traffic. This machine is one of several Rex Mixers owned by Chas. D. Beckwith, Inc., the contractor putting through this improvement. In all corners of the globe and on all types of construction Rex Mixers are being used increasingly because they turn out consistently large yardages at low cost. Have you received your copy of the new Rex Mixer catalog? Write today for it!

CHAIN BELT COMPANY, MILWAUKEE

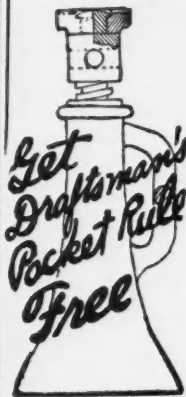
Branch Offices and Representatives in Principal Cities in the United States and Abroad

REX MIXERS

Rex Chain, Rex Sprockets, Rex Conveyors, Rex Traveling Water Screens



Copy this Sketch!



I AM anxious to find men with a desire to become draftsmen. With business picking up everywhere many thousands of draftsmen will be needed at salaries up to \$3000 and \$3600 per year.

In asking you to copy this sketch I believe I will be able to tell from the sketch you send in what kind of an opportunity you will have in this great profession.

There are no conditions requiring you to buy anything. You are under no obligations in sending in your sketch.

FREE! \$90 Drafting Course

To every student enrolling now I give an opportunity of getting an \$90 drafting course absolutely without cost to him. So send in your sketch today and learn all about this offer.

For Sending Copy of Drawing



Draftsman Pocket Rule FREE!

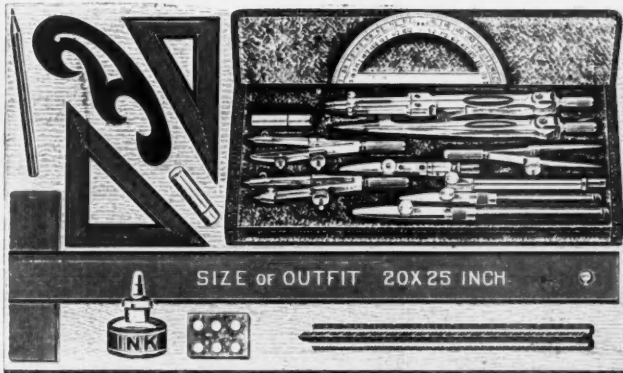
To every person of 16 years or older sending a sketch I am going to mail free and prepaid the Draftsman's Ivory Pocket Rule shown here. This will come to you entirely with my compliments. With it I will send you a 6 x 9 book on "Successful Draftsmanship."

Salaries up to

\$250 and \$300 a Month

Position paying up to \$250 and \$300 per month, which ought to be filled by skilled draftsmen, are vacant everywhere. There are in every part of this country ambitious men who, with practical training and personal assistance, will be qualified to fill these positions. Mr. Dobe guarantees to train you UNTIL placed in a permanent position at a salary up to \$250 and \$300 per month.

FREE \$25 Drafting Outfit



Mr. Dobe will give you this entire outfit free if you enroll at once. Don't delay. **Send for full information TODAY!**

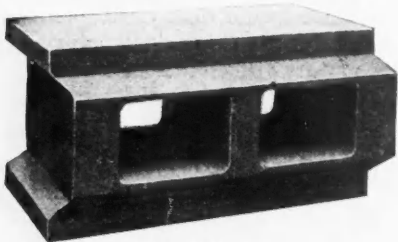
Mail Your Drawing At Once and Get Ivory Pocket Ruler Absolutely FREE!

Ambitious men, interested in drafting, hurry! Don't wait! Send in your sketch or request for FREE Book and Ivory Pocket Rule. Address:

Chief Draftsman Engineers Equipment Co.
1951 Lawrence Ave., Div. 16-56, Chicago, Ill.

Successful Builders Everywhere Are Using This Type of Block

Made Possible by the Lock Block Machine (Dry Tamped)



LOCK BLOCK
Every block interlocks with each adjacent block.

Preferred by builders because they lay up a stronger wall easier, faster and with a better appearance than plain block.

Require less than half the mortar needed for plain block.

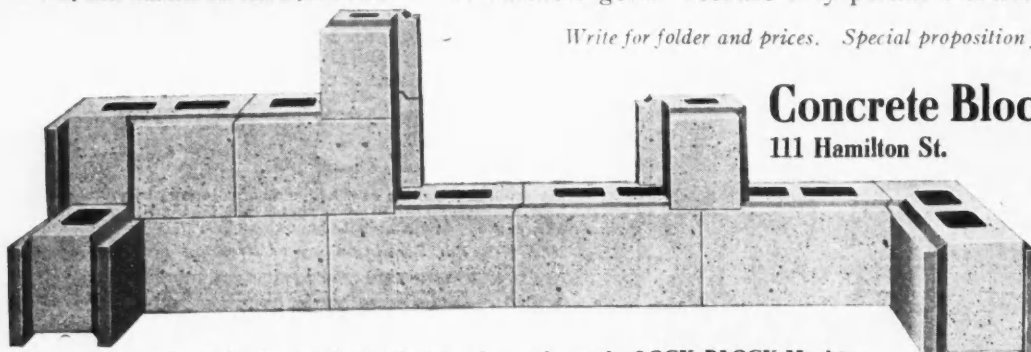
Can be made with rock, plain and other faces.

Can be made accurately in all shapes necessary for proper masonry construction on the same machine with all the interlocking features.

Can be made cheaper than plain block of same quality.

A business getter because they permit a lower construction cost.

Write for folder and prices. Special proposition for new agencies.



Some of the differently shaped blocks that can be made on the LOCK BLOCK Machine.

Concrete Block Machine Co.

111 Hamilton St.

Newark, N. J.

Pacific Coast Representative:

**Roger J. Adams
& Company**

1040 So. Broadway
Los Angeles, Cal.

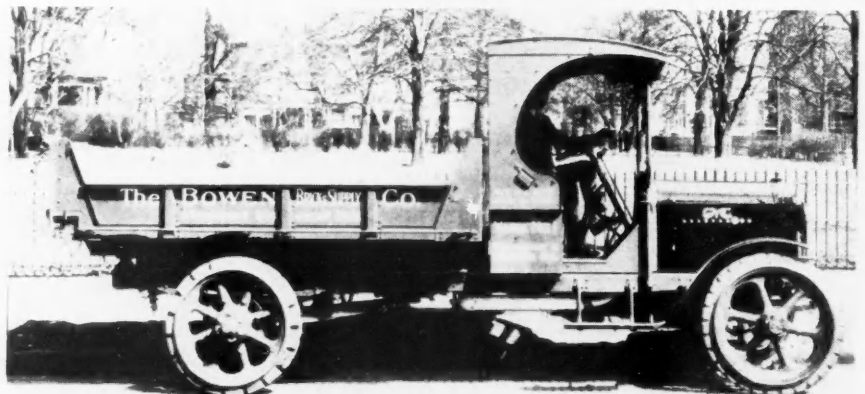
General Motors Truck



WHERE heavy loads and sometimes overloads, must be transported over rough roads throughout the year, GMC trucks do these tasks with remarkable ease and at a cost per mile that will surprise you. No matter how far away from the mill-yard your customers may be, you can serve them with complete satisfaction in the matter of quick, dependable deliveries—when GMC'S do the hauling.

GMC chassis list at the factory as follows:

1-ton, \$1,295;
2-ton, \$2,375;
3½-ton, \$3,600;
5-ton, \$3,950;
tax to be added.



A GMC Truck in the Service of the Bowen Brick & Supply Co., Cleveland, Ohio

GENERAL MOTORS TRUCK COMPANY
Division of General Motors Corporation
PONTIAC, MICHIGAN



For New Plaster Walls

HOUSES with decorated walls are easier to sell than those with plain, white plaster.

The builder, however, keeping in mind the danger of setting plaster usually omits wall decorations from new dwellings.

Waiting is not necessary. Walls may be decorated with Muralite just as soon as they are dry—and for very little cost.

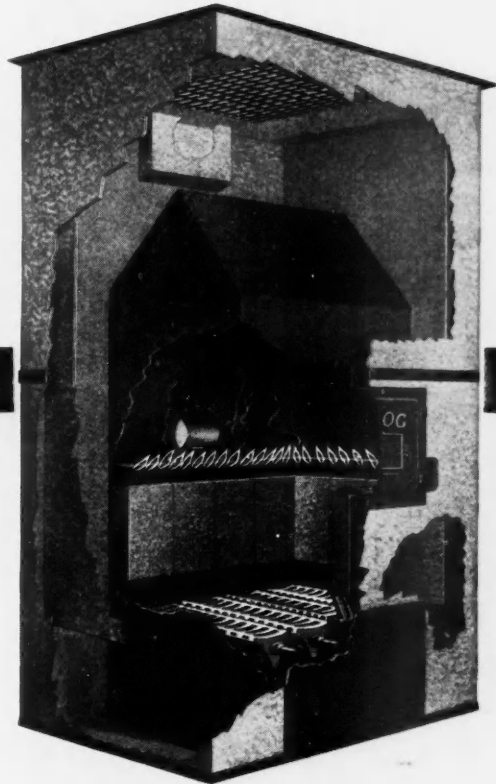
Muralited surfaces are soft, rich and artistic. They do not chip, peel or rub off.

Building contractors and home builders now use Muralite for new work. May also be applied over plain paper, wall board, burlap, etc. It is used by master painters from Maine to California and sold by paint stores everywhere. If your dealer does not sell Muralite, send for color card, giving us his name and address.

M. Ewing Fox Company
New York Chicago

A PAIL · A BRUSH · HOT WATER · AND
MURALITE
MAKES A PERFECT WALL FINISH

BULLDOG Pipeless Furnace



Only **\$10** Puts the **BULLDOG**
Pipeless
Furnace
in Your Home!

Then Only \$10 a Month!

IF you are even thinking of a furnace, write for our free catalog. The Bulldog is one furnace you **must** investigate. Heats without pipes! **Comes completely erected.** An extraordinary development in heating. Factory connections in both East and West. We ship from nearest point. Write for catalog before you forget.

Two Hours to Install

You do it yourself with nothing but a hammer and a saw. Rectangular shape (one of the common sense principles) allows passing through any door. Don't consider buying any furnace until you learn about the Bulldog!

Fits Any Floor Height

No matter what the depth of your basement or cellar may be—the Bulldog fits it. The adjustable casing (another common sense feature) takes care of this. When you read our catalog we think you will agree that this alone should be sufficient to influence you to choose the Bulldog. Mail this coupon TODAY!

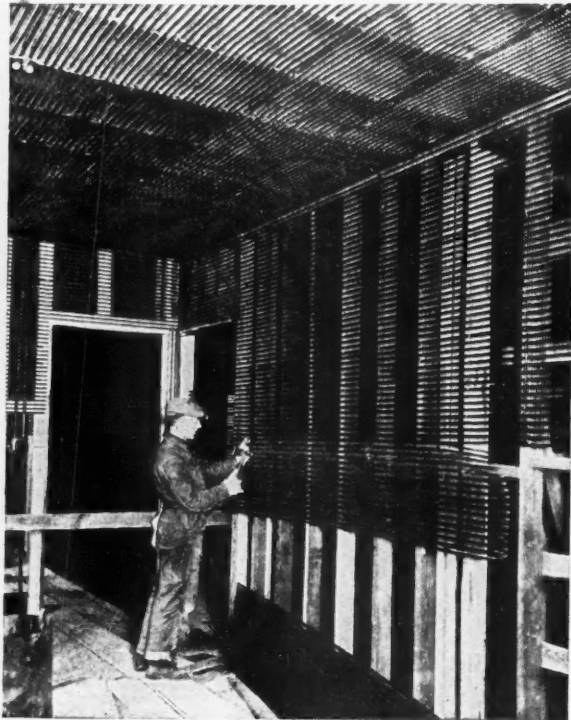
Babson Bros.

19th and California Sts., Dept. 16-56, Chicago

Without obligating me in any way, please send me your free catalog and \$10 down offer on the Bulldog Pipeless Furnace.

Name.....

Address.....

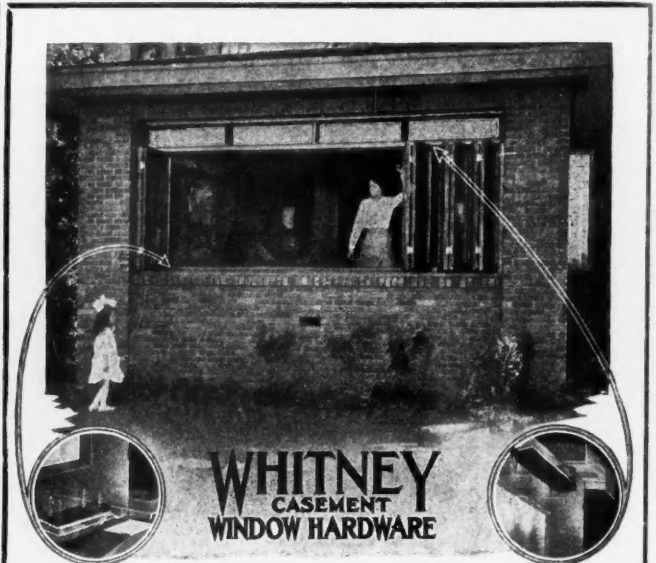


The Logical Plaster Base

Truscon 1-A Lath is the logical plaster base for homes and other buildings in which wood stud and joist construction is used. 1-A Lath is designed to provide a rigid plaster base of unusual strength with a minimum amount of plaster. The wide steel ribs which run the full length of the sheets of lath give great rigidity to the working surface, while the keys literally lock the plaster to the lath. The result is a rigid reinforced plaster, fire-proof, vermin-proof and crack-proof.

There is a complete line of Truscon Hy-Rib and Diamond Laths in various weights and sizes. They fill the requirements of every kind of building construction. Dealers should ask about our selling plan.

TRUSCON STEEL COMPANY, YOUNGSTOWN, OHIO... U.S.A.
Sales and Engineering Offices in Principal Cities.



Build up your Reputation

—for high grade workmanship in the homes and buildings you construct; make satisfied customers—do away with complaints about sticking, rattling, slamming, leaking window sash—make your houses more beautiful and easier to sell—by installing

WHITNEY CASEMENT WINDOWS

- They are weather-tight when closed; yet operate easily;
- Permit perfect control of ventilation and wide, unobstructed openings;
- don't interfere with screens;
- don't stick, rattle or slam;
- are easily screened and draped.

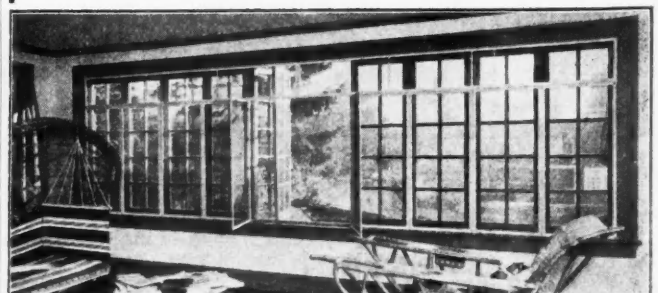
Write for full information

WHITNEY WINDOW CORPORATION

Warner Hardware Co., Successors

15 South Sixth St.,

Minneapolis, Minn.



*"The Best Wood for the Owner to Use
Is the Best Wood for You to Recommend"*

For All of Its Proper Uses

CYPRESS



"The Wood Eternal"

is "the lumber buyers' real insurance" and "the



SAFE RELIANCE

of those who specify for owners who rely on them."

Cypress quality of *Rot-resistance*—under the hardest climatic or soil conditions—easily, by itself, justifies the particularly devoted faith of those who know it best. Add to that trait its easy-working qualities—its "affection for good paint and stain" (and consequently good behavior under them)—and then add the fact of its singular beauty of grain for Interior Trim—its "eternal" quality under wetness even when unprotected by paint, as in greenhouses, all sorts of kitchen equipment, washing machines, etc., and it is not hard to understand the reason

Why the Most Up-to-date Carpenters and Builders

are not only "chiming in" with their most intelligent customers who have learned about Cypress, but also are *educating* all of their customers about the many (*but not universal*) merits of Cypress, "the Wood Eternal." We recommend it only where best.

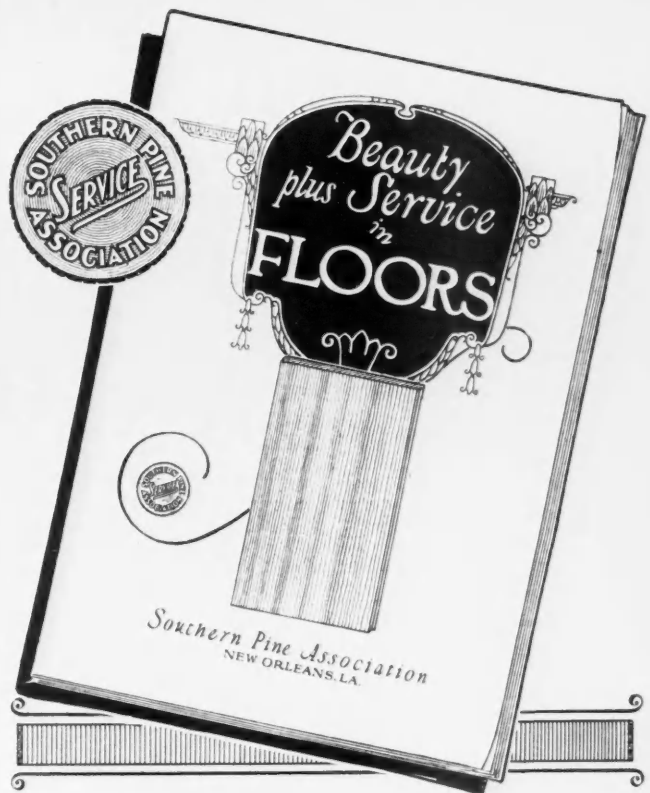
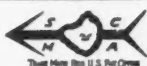
*"The Best Wood for the Owner to Use
Is the Best Wood for You to Recommend"*

Southern Cypress Manufacturers' Association

1216 Poydras Building
New Orleans, La.

1216 Graham Building
Jacksonville, Fla.

INSIST ON **TRADE MARKED CYPRESS** AT YOUR LOCAL DEALERS. IF HE HASN'T IT, LET US KNOW IMMEDIATELY.



A New Specification Booklet ~ on ~ FLOORS

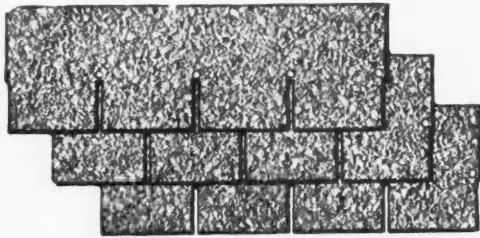
"BEAUTY PLUS SERVICE IN FLOORS" contains detailed directions for the laying, finishing and care of Southern Pine floors. To follow the directions contained in this booklet means a good flooring job and a satisfied customer. No contractor should be without it.

This booklet will be mailed free on request to any point in the United States and Canada east of the Rocky Mountains. Write for your copy today.

Southern Pine Association
NEW ORLEANS, LA.

Strips make a tighter roof

- no open spaces to
the roof boards
- a solid wall of material
at top of each cut-out



—less handling—less nailing with

REX FLINTKOTE STRIP SHINGLES

Strips are laid in just about half the time required to lay individuals. And when the job is done the roof is better spaced, better looking and is *protected better.*



FLINTKOTE ROOFINGS

"Better Roofings for Less Money"

THE FLINTKOTE COMPANY

NEW YORK
342 Madison Ave.

BOSTON
58 Pearl St.

CHICAGO
Peoples Gas Bldg.



UNION

METAL PORCH COLUMNS

Protect Your Work

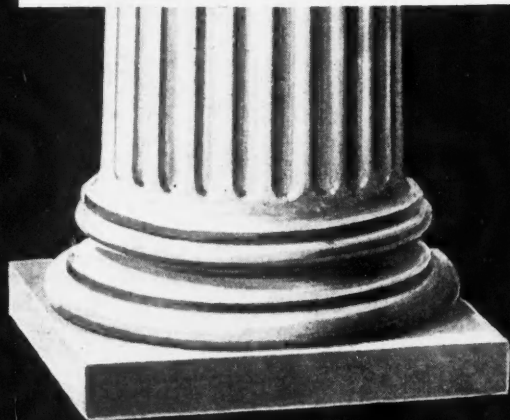
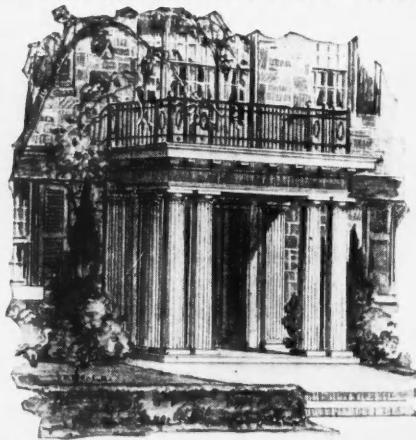
An owner considers his home the safest investment in the world, and he looks to his contractor to supply materials that will give him lifetime service.

Hundreds of contractors are now using Union Metal Columns because their use is an investment in beauty, strength, durability and life-time satisfaction.

Write for our handsome Book "Colonial Entrances" and try a job of Union Metal Columns this year. Diameters 8" to 42". Heights 5' to 35'.

The Union Metal Mfg. Co.
Canton, Ohio

Union Metal Columns on this home will last a lifetime and add hundreds of dollars to its value.



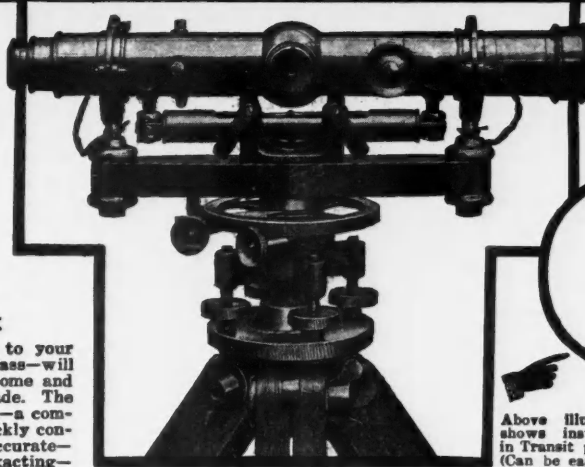
Level and Plumb With Your Own Instrument

\$5⁰⁰

BRINGS IT TO YOU

Better, Quicker Work

This instrument will add immeasurably to your efficiency and put you in the big builder class—will do more to increase your business, income and prestige than any investment you ever made. The Aloe Convertible Level is the world's best—a combination of both level and transit and quickly converted to the use of either. Absolutely accurate—satisfies the requirements of the most exacting—yet so simple that anyone can use it.



FREE TRIAL



Above illustration shows instrument in Transit position. (Can be easily and quickly converted.)

FREE Write for this Book



Aloe Convertible Level and Transit Combined

You Learn to Use It In An Hour

No technical knowledge necessary. No previous experience needed. With our simple and complete instruction book, included free with every level, you can immediately put the instrument to work. It is a level and transit combined—takes sights either above or below the horizontal. You can use it for leveling foundations, walls, piers, streets, walks or curbs—run straight lines for ditches or drains—boundary lines for fences or trees—surveying lots and fields—plumbing walls, shafts, trestles, posts and pillars.

Easy Monthly Payments

Just \$5.00 brings it to you—for a free trial. If perfectly satisfied, pay the balance in small monthly payments. The instrument will be sent at once and from the first day it will be working for you—paying for itself by saving you the cost of borrowing an instrument or the fees you have been paying other men for this work.

Write for Free Book

Our free book—"Be A Bigger Builder"—tells you how to increase your income—how to get the profitable jobs and become a bigger man in your community. Write for this book today.

A. S. ALOE CO., 621 Olive St., St. Louis, Mo.

MAIL COUPON TODAY

A. S. ALOE CO., 621 Olive St., St. Louis, Mo.

Without obligation, send me your FREE book, "Be A Bigger Builder". Also full particulars about the Aloe Convertible Level and details of your easy payment plan.

Name.....

Address.....

The Choice of Discriminating Builders

THE HERRICK OUTSIDE ICING REFRIGERATOR

The HERRICK is selected by the most exclusive home and apartment builders.

Play safe for future satisfaction in the home or apartment you plan or build. When the Herrick outside icing is used you need not wait for the iceman.

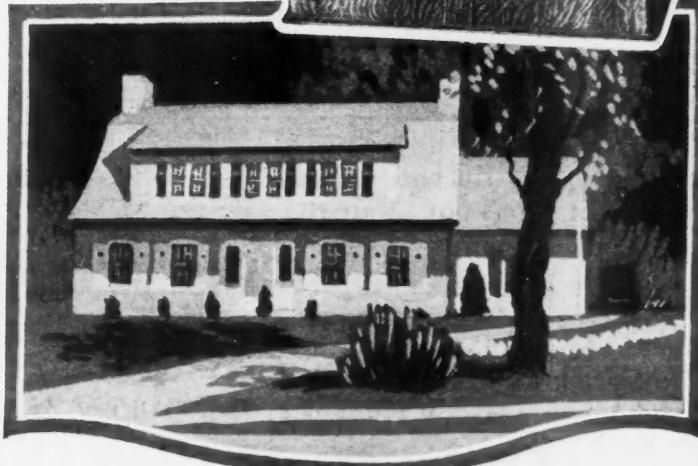
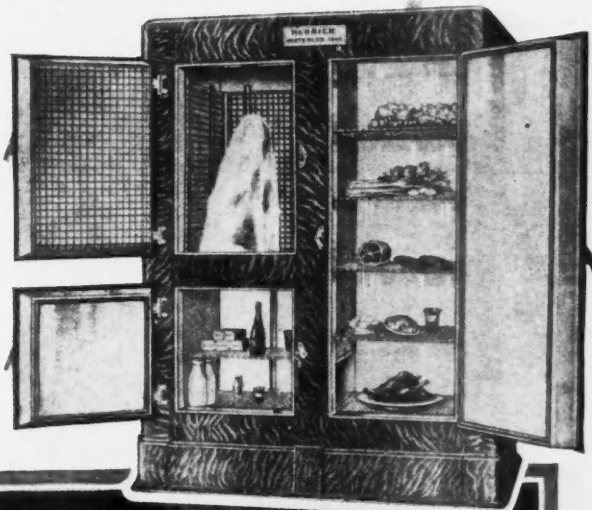
The Herrick outside icing refrigerator has become one of the most popular refrigerators for modern residence use.

The Herrick will help you sell or lease, as it is nationally known as a high grade sanitary equipment.

Mail coupon for our FREE BLUEPRINTS of Herrick Outside Icing.

Herrick Refrigerator Co.

105 River Street, Waterloo, Iowa



REQUEST FOR BLUEPRINTS

Herrick Refrigerator Co.,
105 River Street, Waterloo, Iowa

Please send me free set of Blue Prints in the handy vest pocket size, showing dimensions and various openings necessary for Herrick Outside Icing.

Architect Contractor Carpenter Owner Building Co.

Please check above.

Name.....

Street and No.....

City..... State.....



Composite Radiator Furnace

Bovee's Old Reliable Furnaces

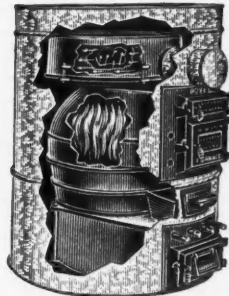
28 YEARS ON THE MARKET

Absolutely Reliable, Durable and Economical

Manufactured in all sizes having 20-inch to 36-inch Fire Pots. Combustion chamber more than double the size of the average furnace

SAVES 40% OF FUEL

SPECIAL TO CONTRACTORS



Bovee's Cast Iron Furnace



1 For regular piping



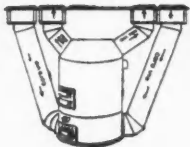
2 Pipeless



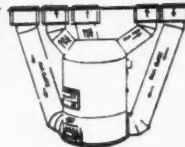
3 Central Heating



4 Central Heating with run to bath



5 Central Heating two outlets



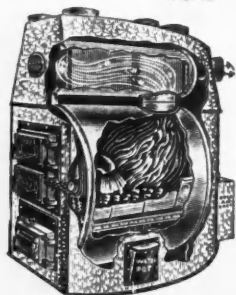
6 Three runs floor or wall registers

STOCK STYLES FITTINGS

We carry in stock for all sizes and styles of Bovee Furnaces, all of the above styles of fittings. With our illustrated Price List a contractor can tell in two minutes the exact cost of the entire Heating Plant for any ordinary house or bungalow, and order simply by number.

VERY EASY TO INSTALL. NO TINNER REQUIRED

Write for full information and prices that a man can afford to pay



Bovee's Horizontal Wood and Coal Furnace

BOVEE FURNACE WORKS

50 West 8th Street

WATERLOO, IOWA



Bovee's Pipeless Furnace

CONTRACTORS AND BUILDERS — INSTALL A HARDIN-LAVIN PIPELESS FURNACE IN YOUR NEXT BUILDING

Our Pipeless Furnaces Are Superior Because —

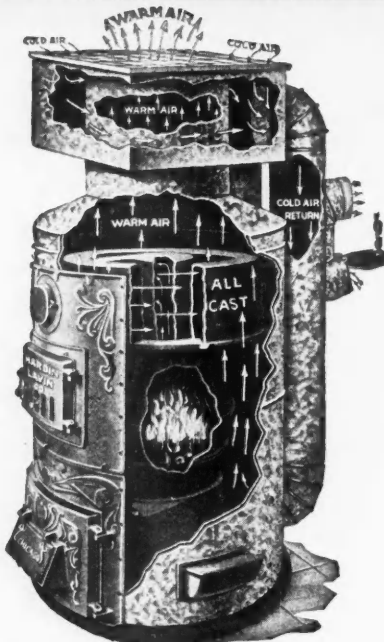
The interior and large front are all heavy cast.

Long circular fire travel saves fuel.

Improved air cleaning humidifier eliminates dust.

Reinforced dumping grates, burns hard coal, soft coal or wood economically.

Has adjustable throat to fit any basement.



Our Improved Pipeless Furnaces "Beat Them All"

Other furnaces take the cold air down inside an outer casing. Notice we take the cold air down through two large separate cold air ducts outside of casing at rear of furnace. This distinctly better method of cold air circulation prevents back draft, warped casings, dust in your home, etc.

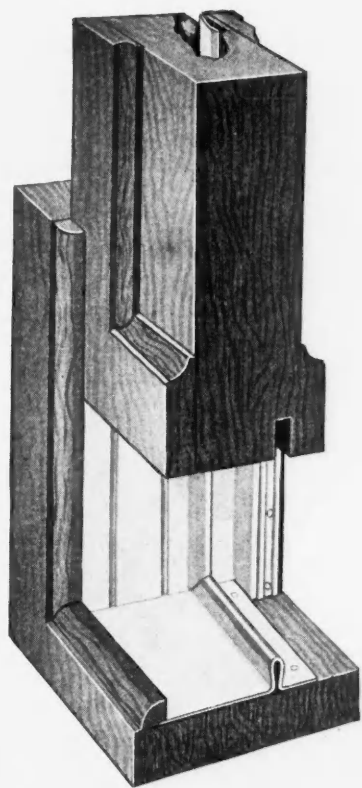
SPECIAL ATTRACTIVE PRICES TO BUILDERS

Send today for our pipe and Pipeless Furnace Catalog

\$500,000 PLANTS BEHIND OUR GUARANTEE

HARDIN-LAVIN CO. 50 Years at 4522-34 F Cottage Grove Ave., CHICAGO

SEE OUR ADV. ON PAGES 213-256



Agents Wanted

Weatherstrip men! If you are looking for a real weatherstrip—one which you can sell in the face of stiff competition—and which will give you a highly satisfactory profit write for exclusive territorial selling rights on

BURROWES Metal Weatherstrips

We manufacture the finest weatherstrips human skill can devise. Our financial stability and manufacturing facilities enable us to give our licensed dealers the kind of support that makes big incomes possible.

*Write for full particulars at once,
Stating Territory Desired*

BURROWES WEATHERSTRIP CO.
1930 South 52nd Ave. CHICAGO, ILLINOIS

Builders!

A Hardin-Lavin Hot Water Heating Plant Adds Five Times Its Cost to the Sales Price of Your Building. Buy Direct. Save Half.

Builders in every state in the Union are now buying our heating plants because they find them built better, more economical in fuel consumption, more satisfactory to home buyers or tenants, and much easier to install. Hardin-Lavin Systems cost less because of our great Volume and direct selling methods. Every plant guaranteed.

Factory Fitted — Free Installing Plans

Send us a rough sketch or floor-plan blue-print or just tell us your needs and our practical service department will show you the simplest, most economical, and most up-to-date installing method. This service is FREE. When you deal with us you save the high cost of unnecessary material, expensive labor, waste, work, and time. You can add much to your profit and prestige by installing Hardin-Lavin Heating Plants in houses that you build.

Write for Free Book on Heating Plants

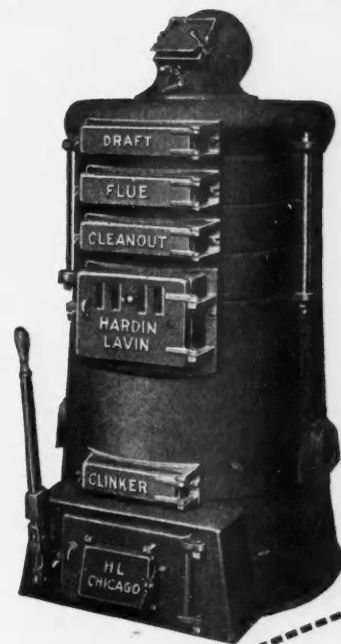
Our new book, "HEALTHFUL HEATING" just off the press, illustrates and describes our latest systems. Copy sent FREE on request. Write for yours TODAY.

50 Years and Million Dollar Plants Back Up Our Guarantee

We are headquarters for Hot Water Heating Plants, Plumbing Outfits, and Labor Saving and Money Saving materials and supplies of all description. Our complete Catalog, The Handyman Book Encyclopedia of Plumbing and Heating Plans gives trade secrets, etc. Sent upon receipt of 25 cents. See our ad on pages 212-256

HARDIN-LAVIN COMPANY

4522-34 S. Cottage Grove Avenue CHICAGO, ILLINOIS



Hardin-Lavin Co.
4522-34 S. Cottage Grove
Ave., Chicago, Illinois

Gentlemen: Please send me FREE your new book of Heating Plans and Outfits entitled, "Healthful Heating."

(Please check here and enclose stamps for Handy Man Book if it is also desired.)

Name.....
Address.....

**STEWART
CONCRETE
MIXERS**



**BUILT
ON THE
SQUARE**

**SOLD
ON THE
SQUARE**

WRITE!

**NEW
1923
MODELS**

For Your Copy of the
New 1923 Stewart
Concrete Mixer Catalog.

**NEW
1923
PRICES**

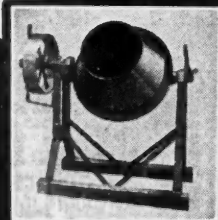
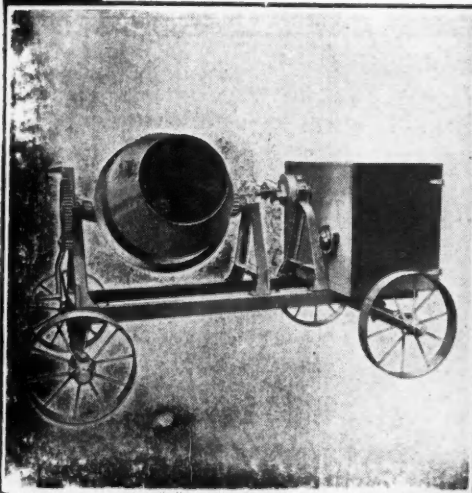
It's Ready

STEWART MANUFACTURING CO.

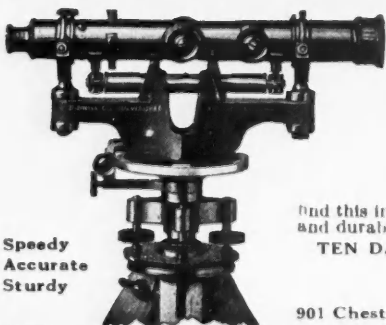
157 Rath Street

:::

WATERLOO, IOWA



White's Improved Convertible Level



Speedy
Accurate
Sturdy

Combination Level and Transit

Acknowledged by Authorities to be the Most Perfect

The only patented, Combination Level and Transit having level bar and transit standards cast in one. Spirit level underneath telescope—in both positions therefore always protected. Does not have to be inverted when change is made. Simple in operation. No previous training required.

Contractors, Architects, Builders

And this improved, convertible level-transit an indispensable help. Simple, dependable and durable—no loose parts—nothing to get out of order or adjustment.

TEN DAYS FREE TRIAL. Send for Catalog Showing Our Complete Line.

DAVID WHITE CO., Inc.

901 Chestnut Street

MILWAUKEE, WIS.



Make the Change
in 10 Seconds

AMERICAN SASH PULLEYS

For all kinds of double-hung windows

WHETHER for steel or wooden sash, for buildings of moderate cost or for those to be equipped with the finest accessories, there are American Sash Pulleys that will fill requirements.

They are made with plain, roller or ball bearings, of pressed steel, brass, bronze or combinations of these, electrically welded, with combination groove to take either sash cord or chain.

The use of American Sash Pulleys is assurance of satisfaction at a cost in keeping with the requirements of the building specifications. To the natural benefit of high quality is added the American Pulley guarantee.

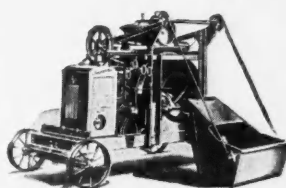
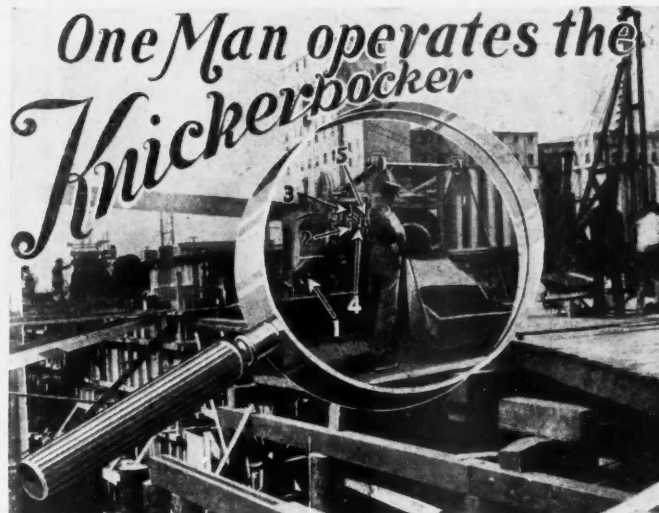
It will be well worth while for any builder to write for catalog, special folders or samples.

The American Pulley Company

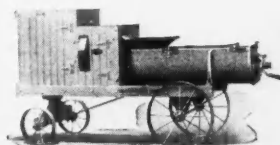
Manufacturers of Steel Split Transmission Pulleys, Pressed Steel Shaft Hangers, Steel Sash Pulleys, and Pressed Steel Shapes

4200 Wissahickon Avenue Philadelphia

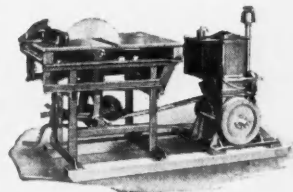
See our catalogue in Sweet's



Knickerbocker Concrete Mixers 4-7-10-14 and 21 cu. ft. mixed material capacities, equipped as you need them, used by well known contractors, who always recommend them.



One man and a Knickerbocker Mortar Mixer will mix mortar for twenty-five masons, and will also mix plaster.



Portable Combination Swing Cut-Off and Ripping Machine, equipped with two cylinder 8-hp. engines, 16-in. rig and 20-in. cross-cut saws—built for every sawing operation.

Five principal operations all on loading side—

[Notice numbers in illustration above]

1. Crank engine on charging side.
Le Roi 8-hp. Two Cylinder Engine with high tension magneto — Termo-Syphon Water Cooling System—more power, with 600 pounds less weight.
2. Regulation of mixing drum on charging side.
You do not have to go around to discharge side to start the drum.
3. Regulation of power loader on charging side.
Notice design of loader—last wheel-barrow load does not have to be shoveled in—material does not choke up at discharge end—no cable back-lash when operator lets loader down fast.
4. Regulation of discharge on both sides of mixer.
A fast discharge because of pitch of discharge chute and number of discharging buckets inside of drum.
5. Regulation of water on both sides of mixer.
Notice large capacity automatic pressure tank.

The Knickerbocker Line Is Complete

There are the Knickerbocker "Wolverine" Mixers, built in half-bag and full-bag capacities, for light work, and the Knickerbocker 7-S, 10-S, 14-S and 21-S Mixers for heavy duty, constant, fast work, equipped as you need them, with low charging hoppers, batch hoppers, power loaders, electric motors, truck-type gasoline engines or steam engines and boilers.

These Mixers are distributed by well known distributors in most of the principal cities.

The Knickerbocker Company
Jackson, Mich.

To THE KNICKERBOCKER COMPANY
525 Liberty Street, Jackson, Mich.

Please send Concrete Mixer catalog Saw Rig catalog
Mortar and Plaster Mixer catalog

Name

Street Address

Town

State



(*"Oakland's First Frame House"*
—shown on signboard of illustration)

Seventy four years young --built of Redwood

THE first house built in Oakland by an American citizen was erected in 1849—during the "gold rush"—by Moses Clapp. It is sheathed with Redwood shakes which are sound and unrotted after almost three-quarters of a century of service—convincing proof of Redwood's permanence.

The natural, odorless preservative, which permeates Redwood during growth, protects it against all forms of fungus rot and insect activity.

Properly seasoned Redwood does not warp, swell or twist. For the exterior of frame structures, Redwood excels in everything that makes for permanence and low up-keep cost.

To acquaint Builders and Architects with Redwood's special fitness for many architectural and building construction purposes, we have compiled a "Construction Digest" which will be gladly sent on request.

CHICAGO NEW YORK CITY
3066 McCormick Bldg. 933 Pershing Square Bldg.
THE PACIFIC LUMBER CO., of Illinois

SAN FRANCISCO LOS ANGELES
311 California St. Central Bldg.
THE PACIFIC LUMBER CO.

The Pacific Lumber Co.
Redwood

*The Largest Manufacturers and Distributors of
California Redwood*

SYKES

EXPANDED CUP METAL LATH for Permanent Stucco

A metal lath that binds and holds the stucco safely intact forever. The steel strands are woven through the plaster to right and left, up and down, from front to back. No mixture that has cohesive qualities can get loose. The stucco coat on the whole house is an integral unit.

Easier, quicker and cheaper to apply; self-furring on any surface; easily worked in the irregular spaces and curved surfaces; equally satisfactory for sheathed construction, back-plastering on studs, or remodeling on weather-boards or shingles.

A lath that makes more work and more profitable work for contractors; more sales for dealers; greater satisfaction to owners.

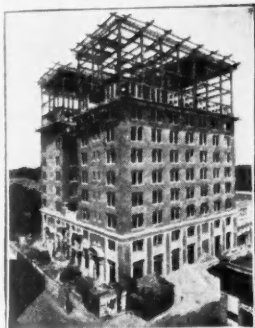
Write for samples

Sykes Metal Lath Company
504 Walnut St. NILES, OHIO



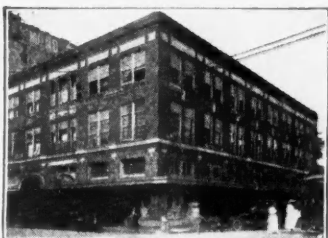
Any worth-while building can afford this fireproof Steel Joist Construction

Small and medium-sized buildings can now be constructed with fireproof floors at low cost. Truscon Steel



Augebilt Hotel
Murray S. King, Architect

Joist construction is simple to install—merely place the joists and apply metal lath above for concrete and below for plastered ceilings. No fittings, no forms, no false work, no special equipment. Weighing only half as much as other fireproof floors and saving in supporting members and foundations, it is ideal for all light-occupancy buildings.



Reymound Building
Toledano, Wogan and Bernard, Architects



Practical Arts High School
C. R. Whitcher, Architect



Wade Park Manor
Geo. B. Post and Sons, Engineers and Architects

Hotels

In hotels, clubs and other semi-public buildings, firesafe floors are an essential. Truscon Steel Joists meet every requirement besides eliminating superfluous weight.

Offices—Stores

In stores and small commercial buildings the grave dangers of fire loss and of interruption of business are minimized through Truscon Steel Joist construction. Its low cost reduces initial investment and its permanence cuts upkeep expense.

Schools

Protection against fire, sound-proofness, permanence and low cost are qualities of Truscon Steel Joist construction which adapt it especially to use in schools, hospitals, etc.

Apartments

Largest net returns on the investment are assured by Truscon Steel Joist construction. Its prevention of cracked plaster saves expensive repairs and redecorations. Its fireproofness reduces insurance cost and increases rentals. It is equally economical in large or small apartments.

Write for Truscon Steel Joist Data Book
TRUSCON STEEL COMPANY

YOUNGSTOWN, OHIO

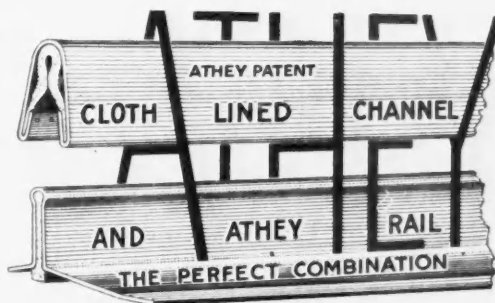
Warehouses and Offices from Pacific to Atlantic. For Address see 'Phone Books of Principal Cities.
Canada: Walkerville, Ont. Export Div.: New York

TRUSCON
AND NATIONAL
STEEL JOISTS

Athey

Cloth-Lined Metal Weather Strips

THE one weather strip which really keeps out the cold and damp and dust and noise—and keeps the heat in. It “seals” the windows without making them hard to lower or raise. Prevents windows rattling even in high winds.



The cloth-lined metal channel and Athey rail does the trick. No dust, or drafts or noise can get through it. It is the only weather strip successfully used in the Southwest where dust storms occur frequently.

The metal channel and rail are of imperishable zinc—they will not rust. The cloth used is guaranteed by us to be rot-proof, damp-proof, and moth-proof. Water or ice will not affect it. It won't pull out.

In one big Chicago building, Athey Weather Strips saved nearly one-fifth of the coal previously used.

May we prove to you that these are facts—not merely statements? Athey Cloth-Lined Metal Weather Strips have been used for years in many of the finest buildings all over the country. Drop us a post card. The proof will follow.

CONTRACTORS: There's money for you in selling them. Some good territory open for exclusive representation. Write for details.

Athey Company

6094 W. 65th Street - Chicago, Ill.

Kwik-Mix

CONCRETE MIXER



Saved Two Tenders' Pay a Day

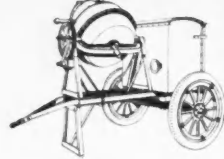
Every contractor is anxious to do better work for *less money*. And it is actually being done daily by Kwik-Mix Mixer owners. For example George Pratt & Sons, Worcester, Mass., contractors recently wrote:

"We are more than pleased with our Kwik-Mix Mixer.

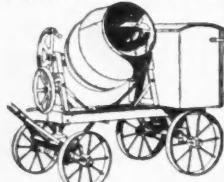
We made our mortar at the rate of one hod a minute and then the machine was not working to capacity, as we had not sufficient tenders to carry the mortar away. This was lime and hair mortar which we were rather doubtful about being able to make with the machine on account of mixing the hair. We have, however, been pleasantly surprised as it mixes better and more uniform mortar than by hand.

We consider the machine is saving us at least two tenders' wages a day, so that you will readily see that in a very short time it will pay for itself."

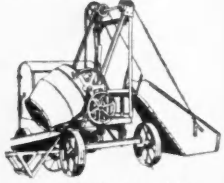
Its performances such as this that is making the Kwik-Mix line of mixers more popular every day. Kwik-Mix Mixers are made in sizes ranging in capacity from 2 cu. ft. to 7 cu. ft. You can get them with or without engine, loader, or hoist—rubber-tired wheels as optional equipment.



Kwik-Mix Trailer
Capacity 3 and 4 cu. ft. mixed. Comes equipped with pneumatic tired wheels and power.



Kwik-Mix No. 4E
Capacity 4 cu. ft. mixed. Comes also in 3 and 3 1/2 cu. ft. sizes. Can be had on trucks, without engine.



Kwik-Mix No. 4LH
Capacity 4 cu. ft. mixed. Also furnished in 4 1/2 cu. ft. size. Shipped complete with Engine and Housing on Trucks with Loader and Builders' Hoist, all ready to run.



KWIK-MIX CONCRETE MIXER CO.

1005 Cleveland Avenue
Milwaukee, Wis.

Kwik-Mix Concrete Mixer Co.
1005 Cleveland Avenue
Milwaukee, Wisconsin

GARAGE and Store Front PLANS *Free of Charge*

Here is our proposition

If you are a contractor or an owner that has serious intentions of building a garage, store building, store front, warehouse, or a factory building, write us giving as much information as possible about your idea. We will then prepare free of charge a plan showing the arrangement we suggest and submit a quotation upon the material required in our line. All we ask is that you give our quotation fair consideration.

We Ship Into All States

International Steel & Iron Co.

Address Dept. 18

Evansville, Ind.

Without obligation to me, please mail me your valuable New Kwik-Mix Catalog.

Name.....
Address.....
City.....

FEBRISCO W E L D E D



Solid Steel Sash

THE basement laundry can be just as bright and cheery as the kitchen if you build with FEBRISCO Welded Sash. Windows framed with this solid steel sash admit 80% more light to washing machine or ironing board, to work bench or store room. And it costs no more to install than wood sash.

Febrisco is made of solid rolled structural steel sections—all joints are carefully welded—hinges, catches and locks form a part of the sash itself. Built ruggedly enough to withstand years of bad weather and abuse. Will not stick, warp, rust or leak. Unlike most other steel sash it will not rack out of square even in transit.



There are three styles of FEBRISCO Welded Solid Steel Sash—Industrial, Store-Front and Basement Window. For further information concerning any of them write to

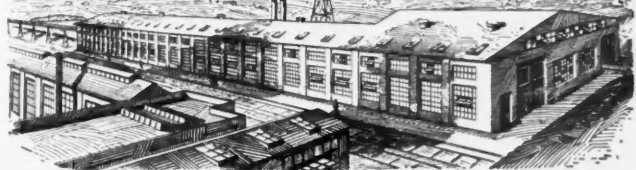
**NORTH WESTERN
EXPANDED METAL CO.**

CHICAGO, ILL.

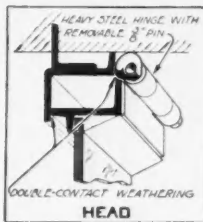
Exclusive Sales Representative

MADE BY

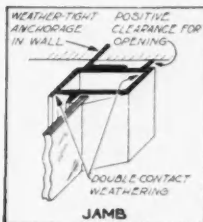
Federal Steel Sash Co.
Waukesha Wisconsin



This Window Made the Basement Popular



Now the modern basement has earned its place in the sun, and is sharing the popularity of the upstairs rooms. Its spacious corners, no longer wasted, become practical, livable rooms of new-found usefulness.

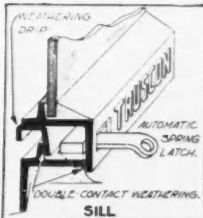


This big step forward in home building is largely due to Truscon Copper Steel Basement Windows, which give double daylight at no extra cost.

The advent of the cheery, well-lighted basement has created nationwide acceptance of Truscon Copper Steel Basement Windows.

These windows always open and close easily, and lock automatically. They never stick, leak or need repairs.

For sale by dealers everywhere. If your dealer does not have them, write us.



Prices in U. S. A. without glass, small size \$4.70, large size \$4.95.

Distinctive Features of Truscon Copper Steel Basement Windows

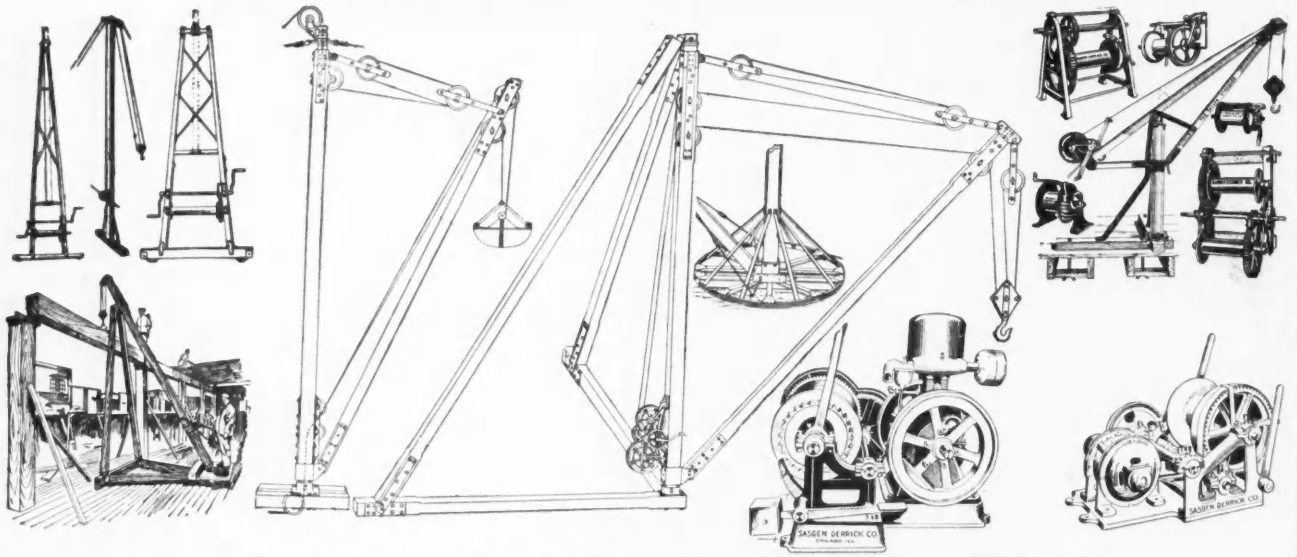
A limited number of copies of our Helps for Dealers in Selling Truscon Basement Windows are available. Write for your copy today.

TRUSCON STEEL COMPANY, YOUNGSTOWN, OHIO... U.S.A.
Sold by Progressive Dealers Everywhere

TRUSCON

TRUSCON STEEL CO.
COPPER STEEL
BASEMENT WINDOWS

SASGEN DERRICKS



LIGHT—STRONG—DURABLE

Manufacturers of Portable and Stationary Hand, Gasoline or Electric Power Driven Derricks and Winches, made of the best Crucible Steel and Malleable Iron Fittings
SATISFACTION GUARANTEED OR MONEY REFUNDED

CIRCULAR No. 2 with description, illustration and prices. SENT FREE ON REQUEST

SASGEN DERRICK CO.
 3101-25 W. Grand Ave. - Chicago

GREAT SOUTHERN'S HISTORY-MAKING REFORESTATION OPERATIONS ASSURE OUR TRADE A SUPPLY IN PERPETUITY

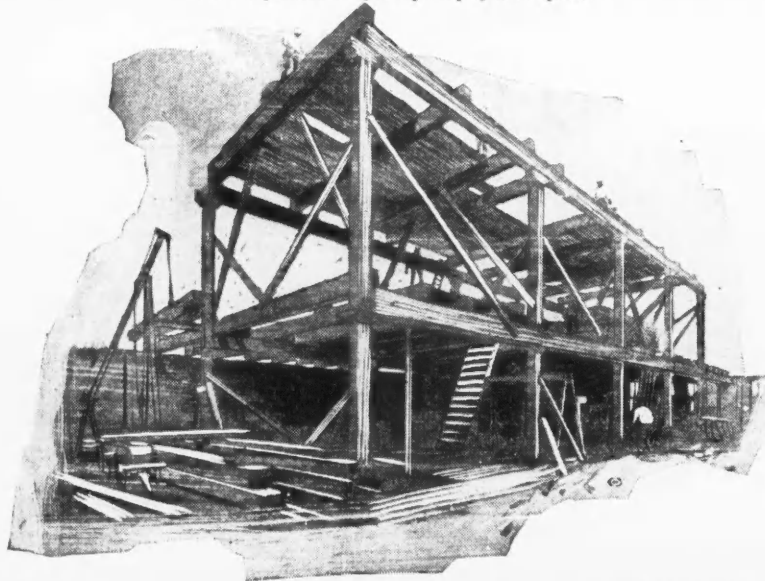


Trade-mark Reg. U. S. Pat. Off.

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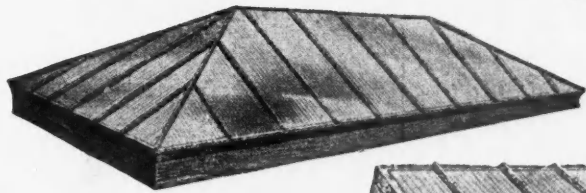
Capacity 1,000,000 feet daily

Great Southern Lumber Co.

Bogalusa, Louisiana

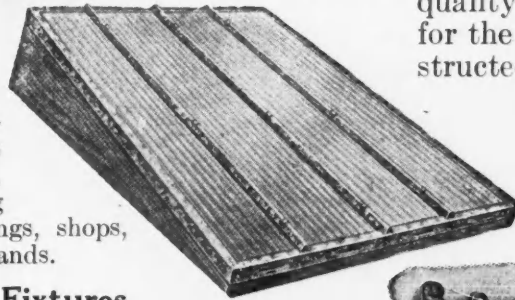
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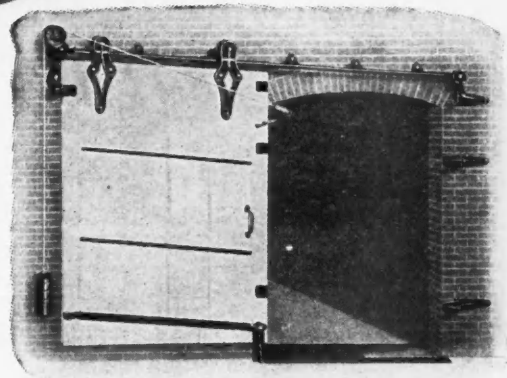


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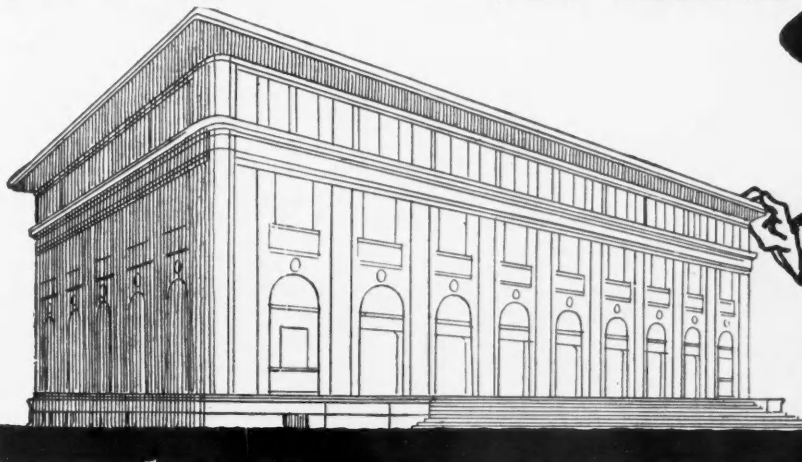
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*Man—
here's a real tape*

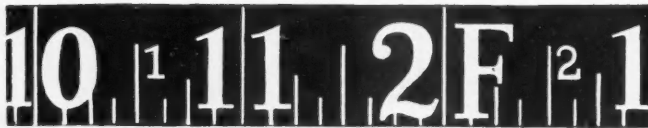
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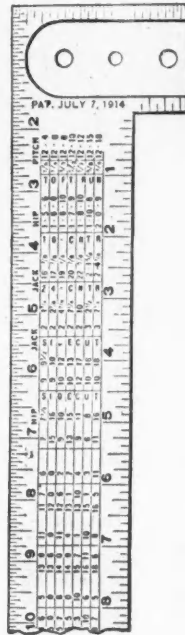
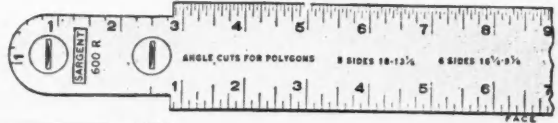
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PLANES**
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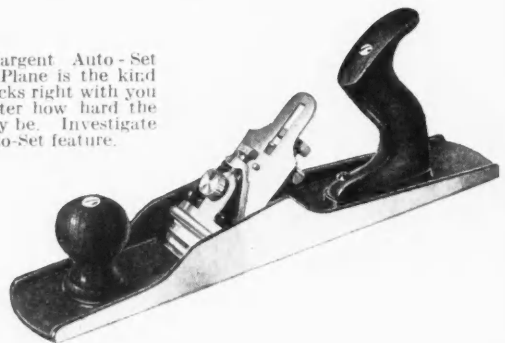
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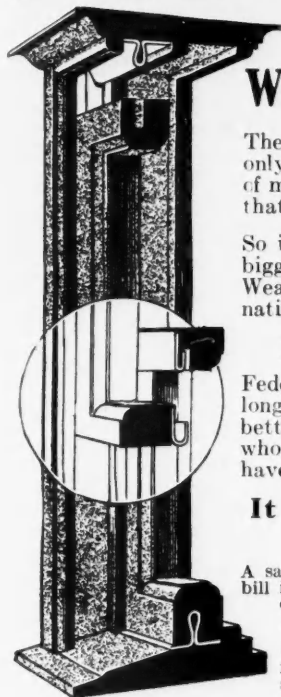
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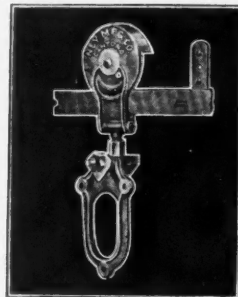
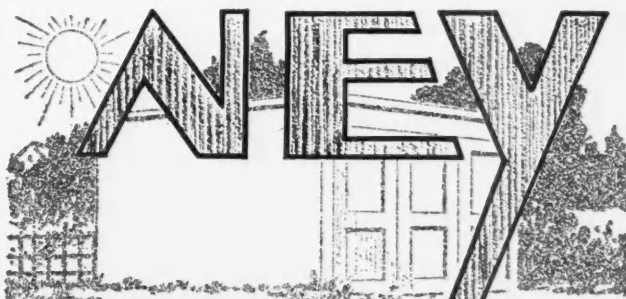
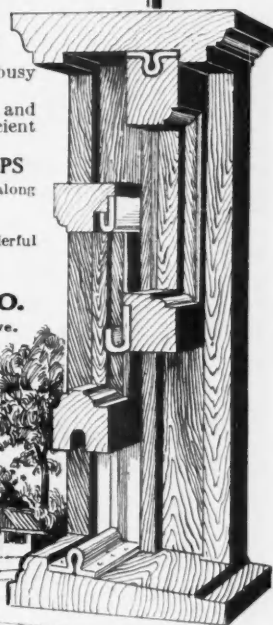
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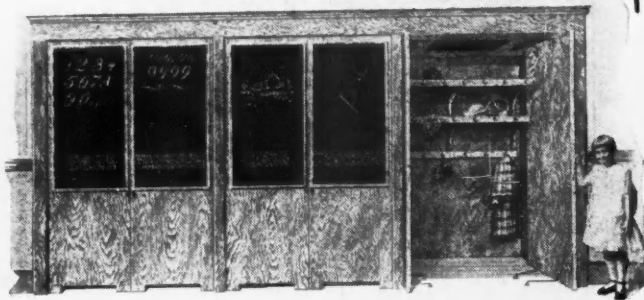
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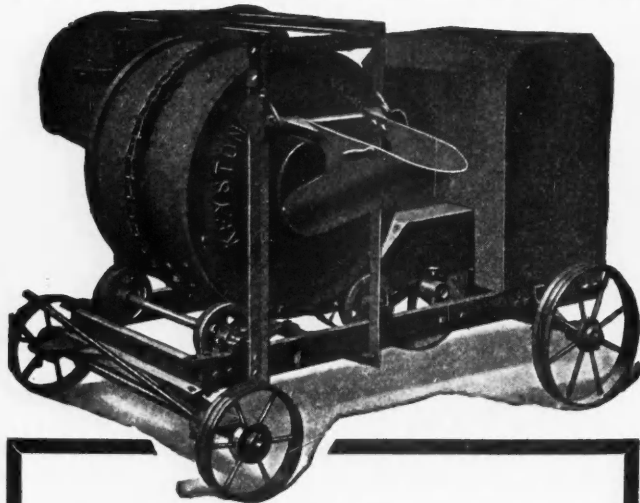


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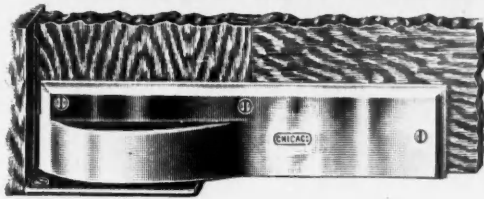
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A COMBINATION WOODWORKER

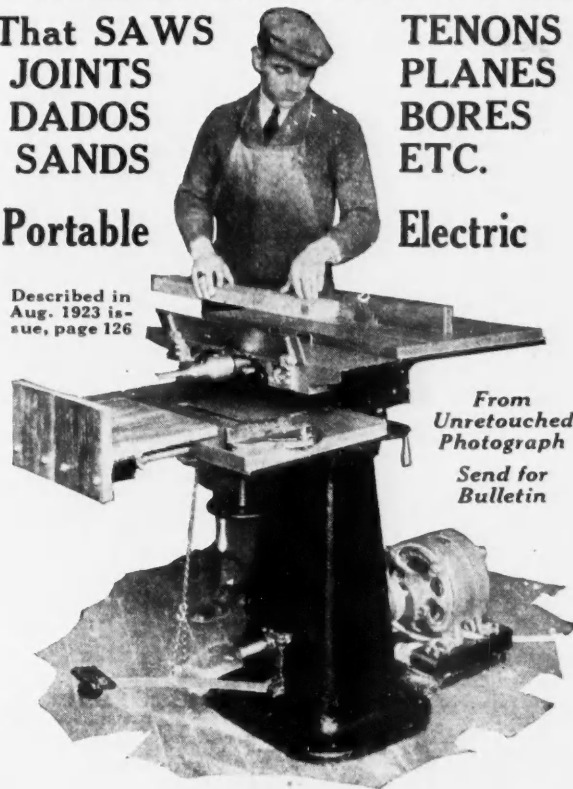
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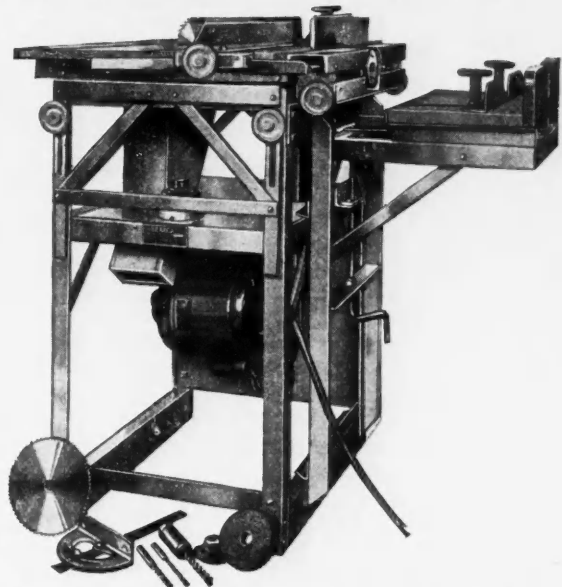
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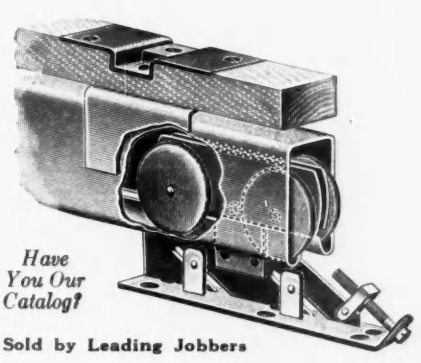
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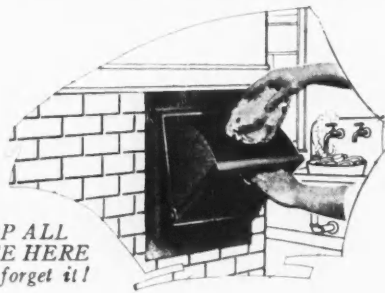
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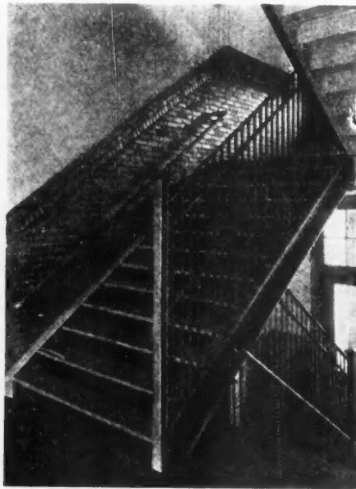
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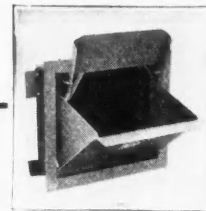
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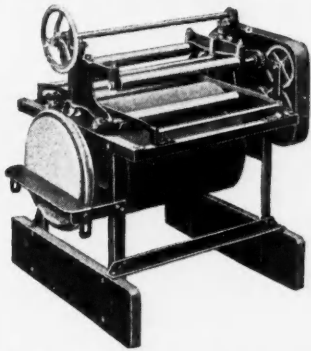
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COAL CHUTE



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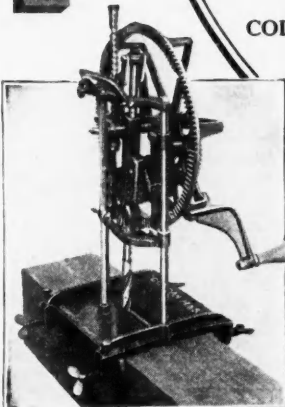
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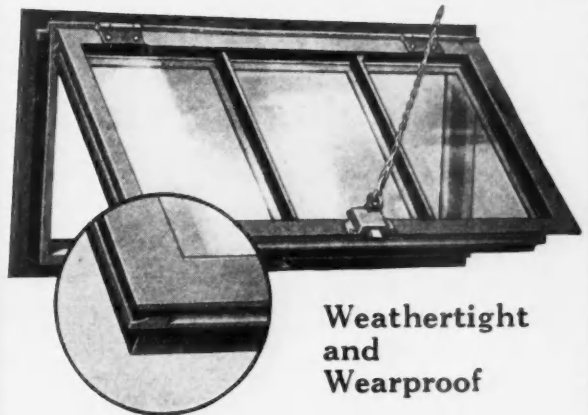
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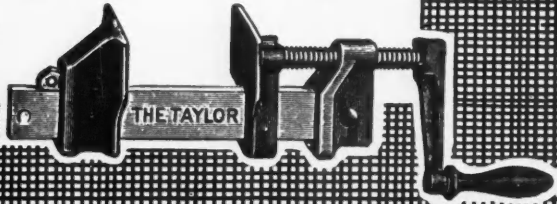
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Every unit is built to measurement. Creosoted wood encased in 18 gauge copper and reinforced with Steel Tees as used. Every part ready to set in place. Attractive, Durable and the most Economical.

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CLOTH**

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We can say a whole lot about our *Bayonne Roof and Deck Cloth* and it will all be true, but we can't prove it to you unless you allow us to send you a sample-book.

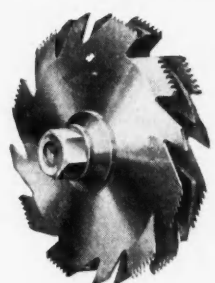
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NO OTHER STONE SO USEFUL

For everyone interested in building

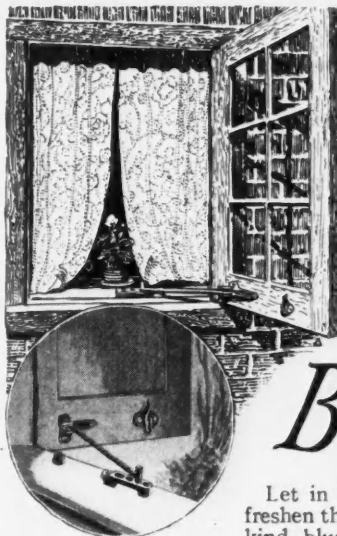
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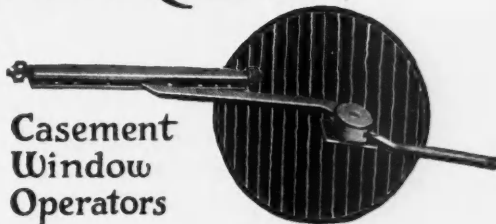
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Put on the touches a woman likes and your house is sold quickly and for more money.

Equip the windows with Win-Dor Operators.

Made in 3 styles and 3 prices.

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"Win-Dor" Cottage Operator Handle detachable

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Rapid—Automatic—Ball
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Floor Surfacing Machines



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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 also Contracts on account of unsatisfactory work, when you can purchase an IMPROVED SCHLUETER SURFACER—the machine with all troubles left out.

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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.

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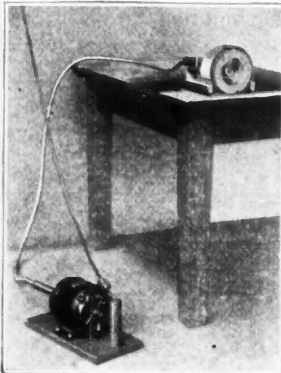
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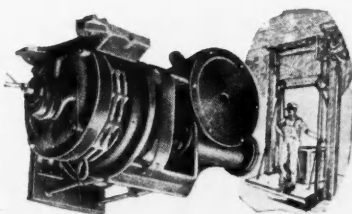
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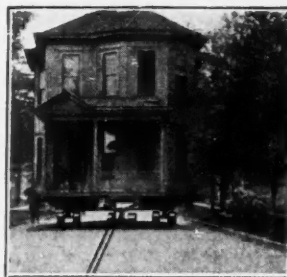
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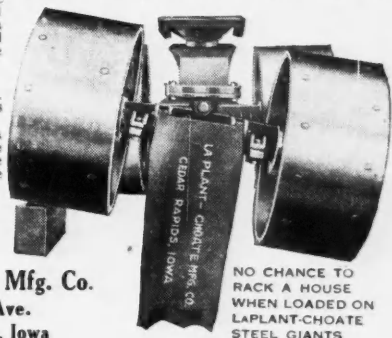
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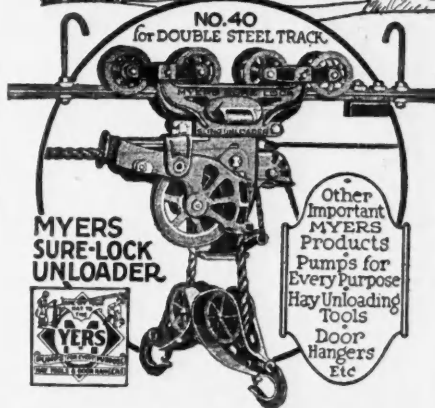
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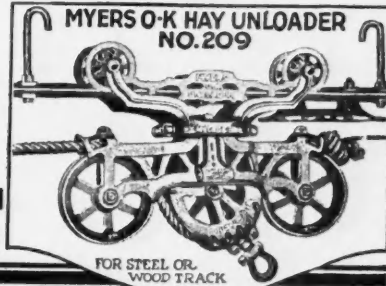
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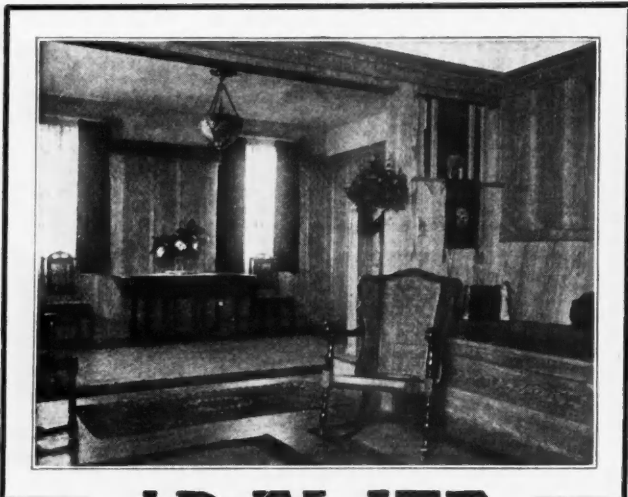
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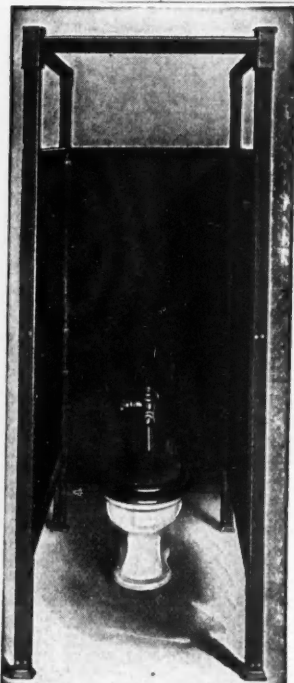
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They are more enduring than wood.

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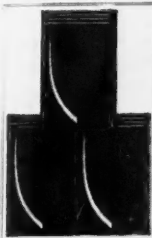


Fig. 157
Note the construction of patent interlocking device used on Edwards Metal Shingles and Spanish Tile.



Fig. 367
Metal Spanish Tile for main part of roof.

Edwards "Queen Anne" Metal Shingles



RESIDENCE SENATOR GEO. S. NIXON, RENO, NEVADA. EDWARDS METAL SPANISH TILE USED ON THIS BUILDING

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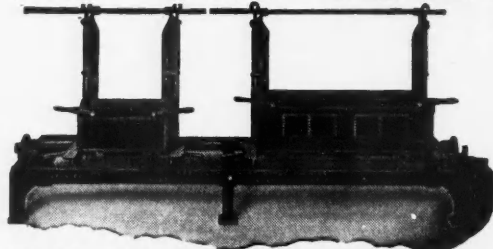
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Two sixteen inch blocks in one operation makes profits roll in for the builder.



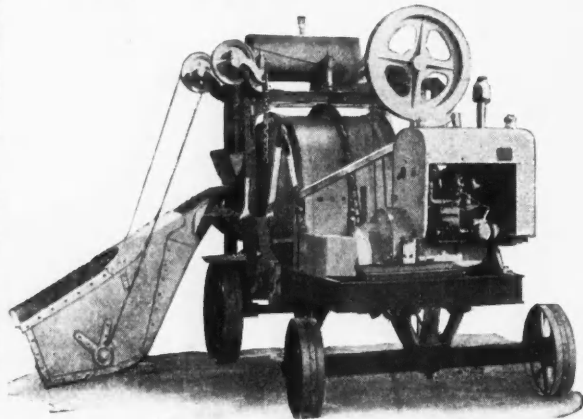
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Makes

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The 100% Window Device
 With No Increase in Price

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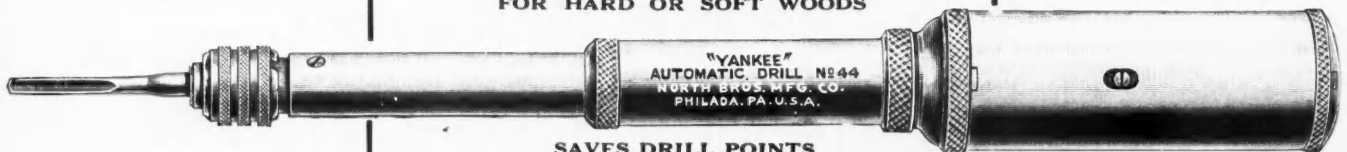
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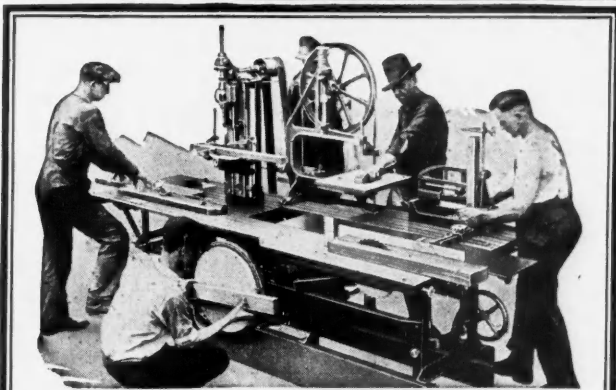
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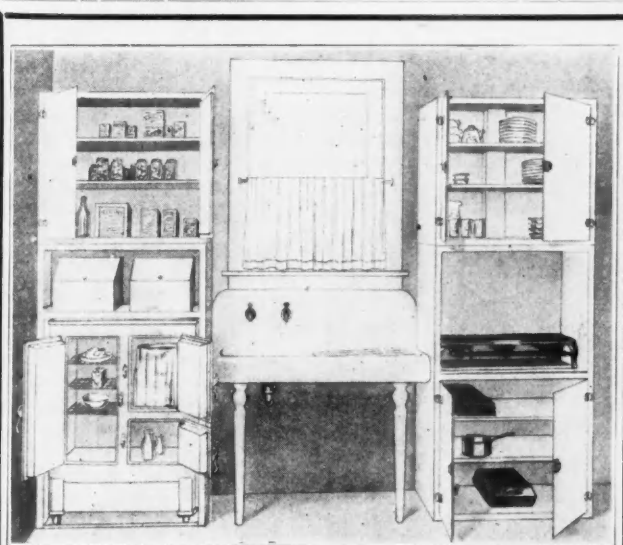


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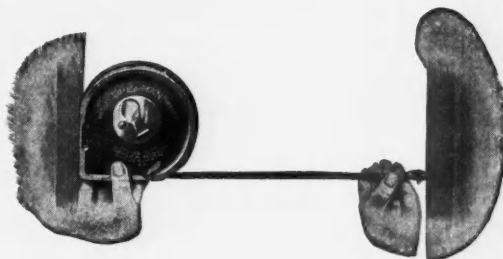
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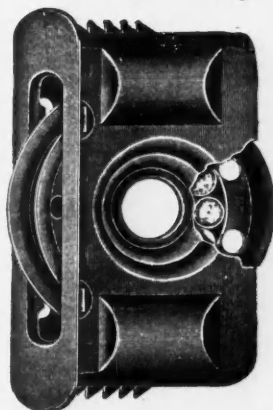
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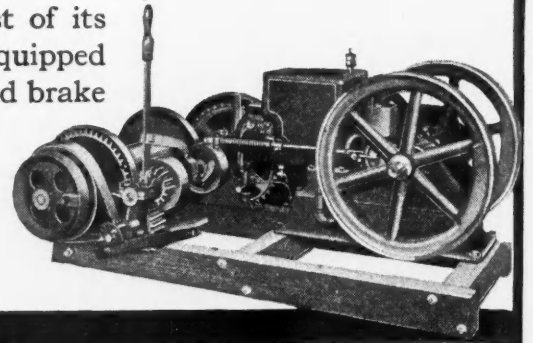
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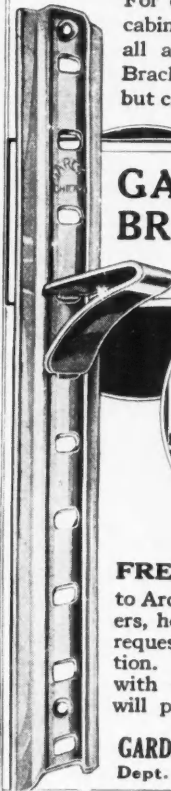
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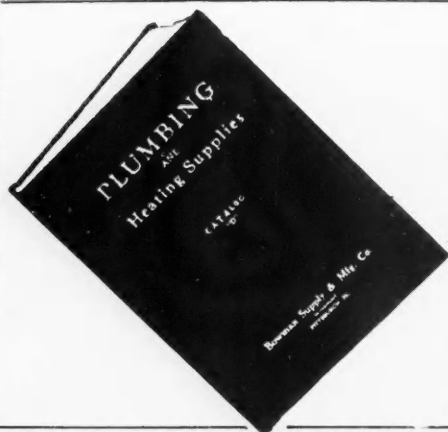


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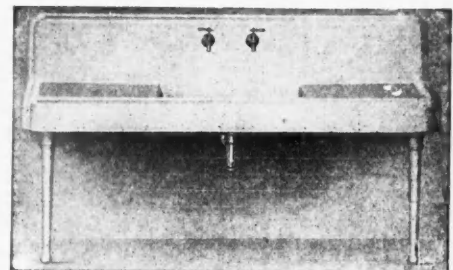
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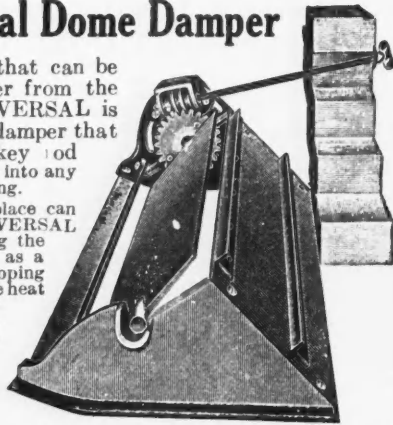
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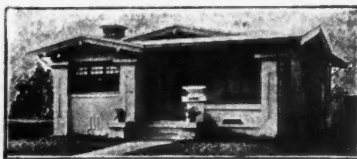
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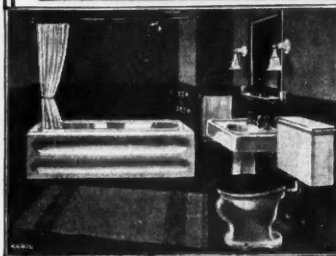
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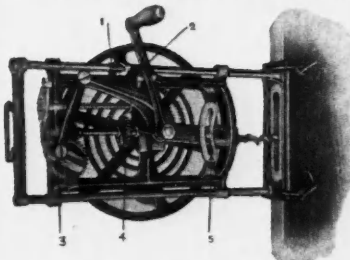
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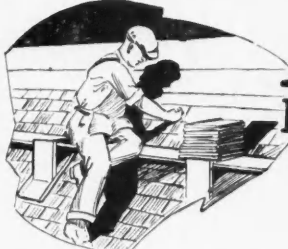
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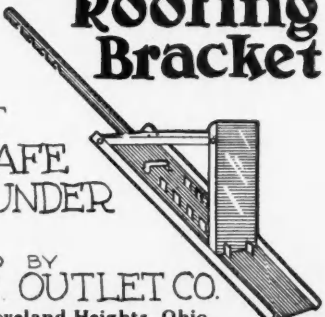

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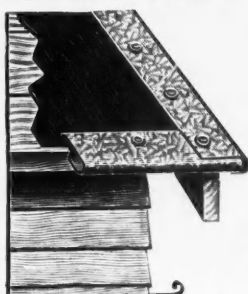


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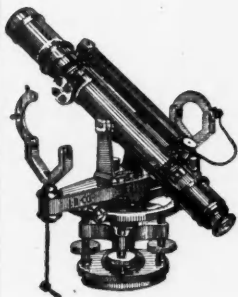
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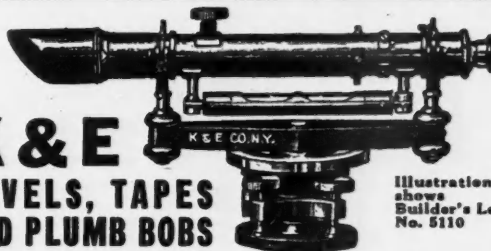
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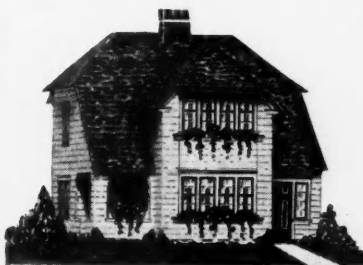
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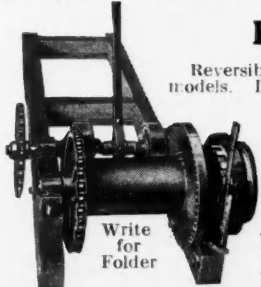
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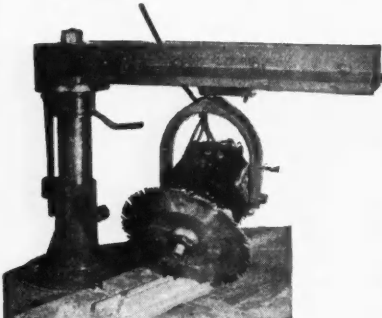
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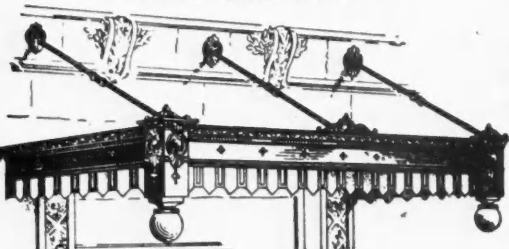


FIG. 408

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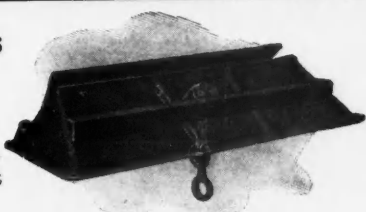
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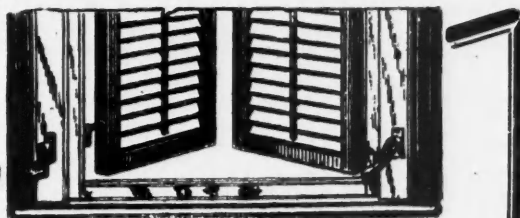
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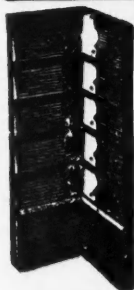
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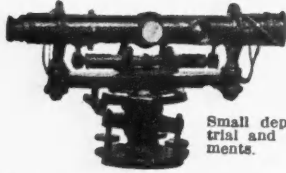
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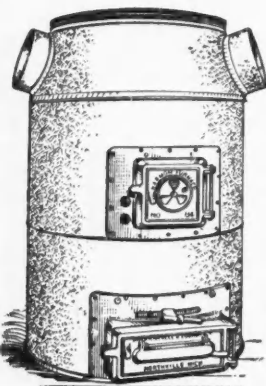
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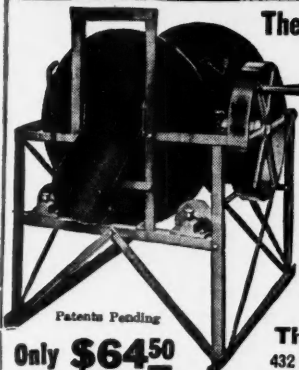
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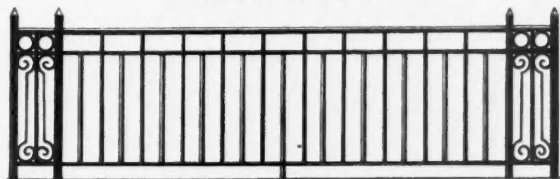
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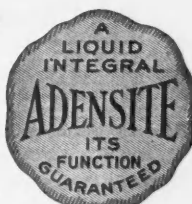


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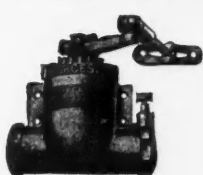


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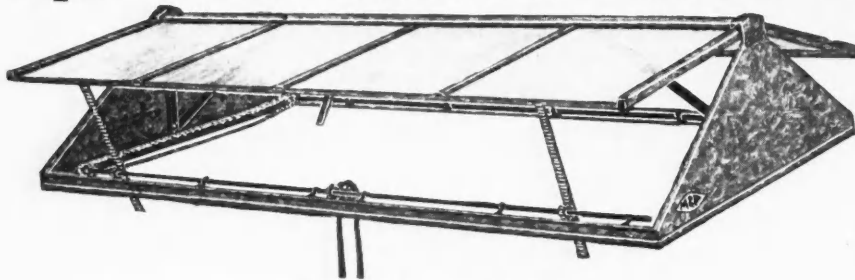
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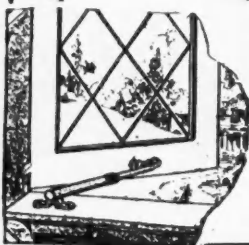
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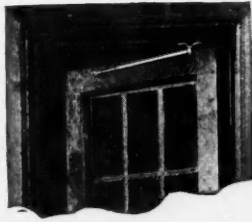
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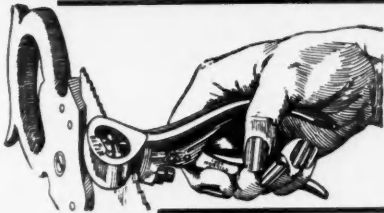
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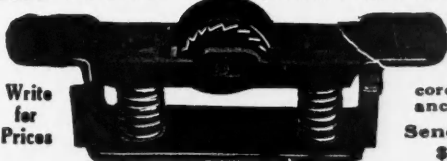


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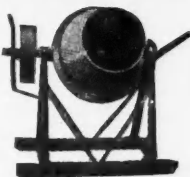


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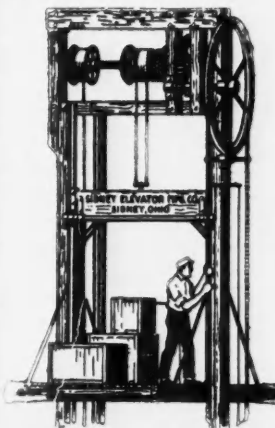
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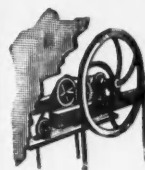
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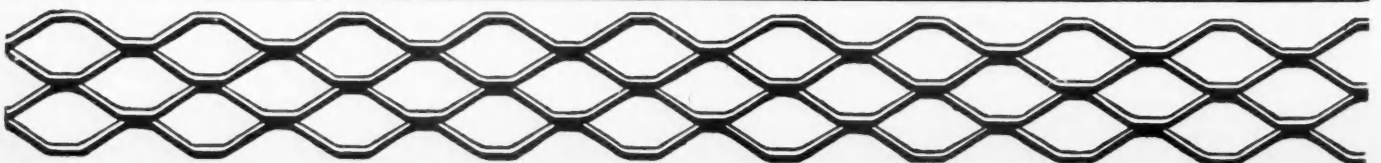
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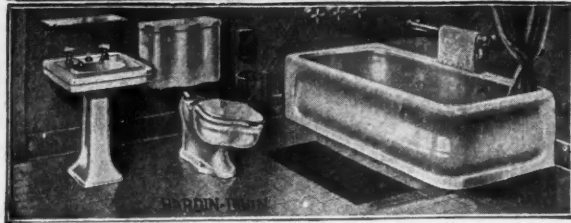


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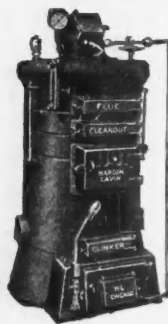


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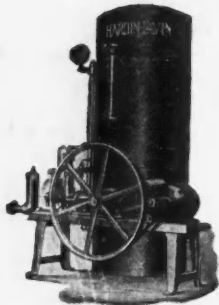
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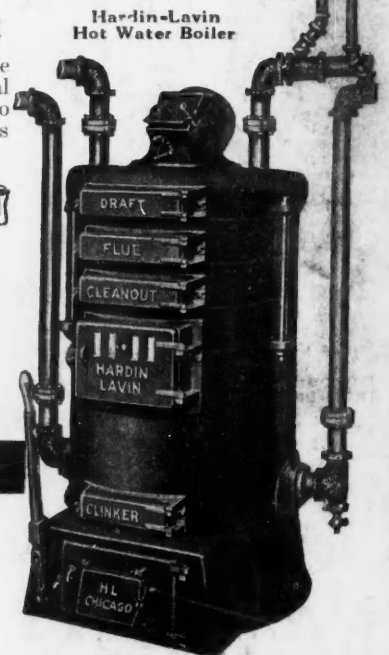
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